
Economic Study of Puerto Rico

Volume I

United States Department of Commerce



UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Policy
Washington, D.C. 20230

Dear Mr. President:

Following your meeting on March 2, 1977, with Governor Romero Barcelo of the Commonwealth of Puerto Rico, you directed former Secretary Juanita Kreps to coordinate an Executive Branch study of the Puerto Rican economy. An interagency group, organized at Secretary Kreps' invitation, took up this task. At Secretary Kreps' request, I provided overall policy guidance for the work of the interagency group. Many Federal agencies worked together to complete the study. I now take pleasure in submitting it to you.

The study that we have produced is broad in scope, covering the Puerto Rican economy as a whole, the major sectors of the economy, social conditions that relate to development, and the role of Federal programs. Options are presented to deal with the problems and issues raised in the study. The major options involve alternatives to aid Puerto Rico in its consideration of the economic priorities and goals it may set and its approach to continued development. The study is the most comprehensive review and analysis of the Puerto Rican economy ever attempted. I am confident that it will serve effectively its essential purpose as a basic source of information and perspective for policy development by Puerto Rico for several years.

Participating agencies carried out thoroughly the investigations and analyses for which they were responsible. The study represents the sustained efforts of many persons in the Federal Government. Policy officials in all the agencies took a direct interest. These officials were in close touch with Puerto Rican Government Departments throughout the study, and it owes much to their fine cooperation in furnishing needed information and data. Puerto Ricans both within and outside the Government offered many helpful suggestions.

One of the valuable benefits of the work in the study has been a significant increase in contacts between Federal and Puerto Rican Government officials at all levels. This has established a strong, personally invested base of understanding and cooperation that should continue. Not only the study findings

themselves but the experience gained in the project should prove of great value to all the Federal agencies administering programs and policies affecting Puerto Rico.

Respectively,


Jerry J. Jasinowski

The President
The White House
Washington, D.C. 20500

Economic Study of Puerto Rico

Volume I

Report to the President
prepared by the Interagency Task Force
coordinated by the United States
Department of Commerce.

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Preface

The Economic Study of Puerto Rico originated in a meeting on March 2, 1977, between President Jimmy Carter and Governor Carlos Romero-Barcelo of the Commonwealth of Puerto Rico. In considering the economic situation of Puerto Rico, President Carter suggested in the meeting, and Governor Romero agreed, that a group of executive branch officials from appropriate departments be formed to carry out a Federal study of the economic problems facing Puerto Rico.

President Carter subsequently asked Secretary of Commerce Juanita M. Kreps to oversee the Federal Study Group and coordinate its work. While retaining the responsibility for overall guidance of the Study, the Secretary assigned policy management to Jerry J. Jasinowski, the Assistant Secretary of Commerce for Policy. Mr. Jasinowski convened Assistant Secretary-level representatives of the departments to be involved on March 24, 1977, to take up the beginning work of the project, and the representatives formed the Interagency Study Group (ISG). A Federal Study Director was named to prepare the design of the Study, set out a schedule of work, and manage the operations of an interagency working group. The ISG met on several occasions in the spring of 1977 to decide on the focus and bounds of the Study, its approach and topic coverage, and the responsibilities of individual agencies.

From the outset, the ISG felt that it was most important for the Study to avoid political questions. In accordance with this decision, the Study does not examine the economic implications of a change in Puerto Rico's political status. Nor does it reach any issues or contain any analysis which concerns a change in Puerto Rico's political status directly.

The ISG agreed that the effort should be confined to economic problems, with an emphasis on the impact of Federal programs on these problems. Furthermore, the primary view of the ISG was that the Study should be thoroughly comprehensive in its review and analysis of the Puerto Rican economy. These decisions were taken in the spirit that the prevailing analysis should recognize fully the broad spectrum of interests of residents of Puerto Rico. The ISG also felt that the setting of priorities and policies for continued economic progress is the prerogative of Puerto Rican residents. This view logically precluded the development from the problems analysis of a set of recommendations or priorities which would constitute, in some sense, an economic plan or projection for the future of the island. The purpose intended for the Study by the ISG is that it serve as a basic source of information and perspective for policy development by Puerto Rico over the next several years.

In place of recommendations, the ISG considered it appropriate that the Study propose a series of economic policy options and approaches which Puerto Rican policymakers could draw upon in line with priorities established for the economy. The options introduced throughout the Study involve broad choices with respect to basic policy thrust, as well as detailed programmatic changes. Federal Government options are also included, but these are necessarily confined to possibilities permitted under prevailing Federal legislation. With respect, however, to some programs of the Department of Health, Education, and Welfare, there are mentioned legislative proposals which have been under consideration in the executive or legislative branches in recent years.

To maintain effective coverage and manageability, the ISG preferred to organize the Study principally on a sectoral basis. In this way participating executive branch agencies could bring to bear their expertise on areas that generally corresponded to their formal responsibilities and at the same time cover major problem areas delineated for the Study.

After setting this course of action, the ISG arranged a meeting with Puerto Rican Government officials to go over the general lines of the approach to be used in the Study and the Study's limits and content. The meeting was held in Washington on May 17, 1977. The Puerto Rican Government group was headed by Mr. Miguel Rivera-Rios, President of the Puerto Rico Planning Board. The group agreed to the ISG general plans and offered to prepare background materials to help get the Study underway. Under the coordination of Mr. Rivera-Rios, a Puerto Rican counterpart committee to the ISG soon thereafter completed a detailed agenda of Puerto Rico's problems. The agenda provided a valuable basis of departure for the Federal agencies involved in the Study. On June 24, 1977, following agreement within the ISG as to the final design and content of the Study, work was begun. In the remainder of 1977 extensive field work and research were undertaken by the ISG agencies.

After the initial phases of the project were underway, Deputy Assistant Secretary of Commerce S. Stanley Katz and the Study Director met with Cabinet-level officials of the Puerto Rican Government in San Juan on November 18, 1977. A review of the Study's approach, limits, content, and organization was made for the Puerto Rican officials and a progress report on work to date was presented. Detailed outlines of all parts of the Study were tabled and requests were made to the Puerto Rican Government for special data that were needed for the planned analysis.

Preliminary drafts of the sections of the Study were finished by the ISG agencies in early 1978. The Department of Commerce reviewed them and made appropriate suggestions for changes to produce a complete and well coordinated final product. In order to facilitate the process of coordination, a series of ISG meetings was held in the spring of 1978. The ISG examined Study results, including the findings of the overall economic assessment produced by the Office of the Chief Economist for the Department of Commerce. The ISG agreed on the major problems and issues revealed in the analysis of the aggregate economy and on the options set out in the Study. Following this series of meetings, steps were taken among ISG agencies to assure the final interagency coordination of all aspects of the Study.

Drafts of the assigned Study sections were completed by the agencies in the fall of 1978 and a draft of the complete Study was provided to the Puerto Rican Government for review on October 30, 1978. The Puerto Rican Government conducted an examination of the Study and made the final results of its review available on March 20, 1979. The review produced suggestions, clarifications, and data refinements which the ISG felt contributed materially to the accuracy, soundness, and clarity of the Study.

Deputy Assistant Secretary of Commerce Frederick T. Knickerbocker and the Study Director led a delegation of ISG representatives to San Juan and held meetings in the Puerto Rico Planning Board during the first week of May 1979, with Mr. Rivera-Rios and other Puerto Rican policy officials to discuss the review findings and lay the ground for the final revisions of the Study. In accordance with the mutual understandings reached in the meetings, the ISG agencies undertook the last alterations and additions necessary to ready the Study for publication. While the Study was carefully coordinated with the Puerto Rican Government throughout its preparation, all views in the Study are ultimately those of the ISG.

During preparation of the Study the Puerto Rico Planning Board and other agencies of the Puerto Rican Government extended invaluable assistance to representatives of the Federal Government. ISG teams visited Puerto Rico for their fieldwork and all their efforts were supported by provision of access to key

Puerto Rican Government officials and to the extensive data resources of the Government. Puerto Rican technical level personnel were very helpful in furnishing statistical material and numbers of essential data compilations were specially produced by them for the Study.

Much of the analysis was also facilitated by the views and interpretations offered by Puerto Rican observers throughout the private sector. Many businessmen, consultants, university teachers, and former Puerto Rican Government officials freely gave their time.

The Puerto Rican economy has been subject to a great deal of examination and analysis over the years, and the large, valuable body of literature available has been widely consulted by ISG agencies. Previous inquiries, however, were generally concerned with particular aspects of the economy and none appear to have been produced with the dimensions of this Study. The extensive Federal resources employed and the approach taken in this effort have made possible a study of the most comprehensive scope yet undertaken.

William B. Pounds
Study Director

Acknowledgements

A great many individuals contributed to this Study. Policy officials in the cooperating Departments of the Federal Government gave generous amounts of time. Numerous staff economists and program officers were continually engaged in the research and writing. In a project of this size, it is not possible to name all those who participated. Mention must be limited to principal contributors and managers. Acknowledgements preceding each separate Study section indicate those who had prominent responsibility in its preparation.

Under the general direction of the Secretary of Commerce, Juanita M. Kreps; Assistant Secretary of Commerce Policy, Jerry J. Jasinowski, provided overall guidance for the Study. Frederick T. Knickerbocker, Deputy Assistant Secretary of Commerce for International Policy Coordination, provided policy support.

William B. Pounds directed the interagency work on the Study and the operations of the Puerto Rico Study Staff. Staff members assisting with direction of the Study were: Carlos F. Montoulieu, with special responsibility for Part Two, Federal Program and Policies; Randolph Mye, with special responsibility for the Industry Sector Study; Randall Upton; and David McMeans. Mr. George D. Hanrahan of the Office of the Chief Economist of the Department of Commerce contributed advice to much of the staff work. Diann H. Painter of the Office of the Deputy Assistant Secretary of Commerce for International Policy Coordination assessed preliminary findings. Patricia D. Beander served as staff secretary.

The Puerto Rican Government gave extremely valuable assistance throughout the Study. Mr. Miguel Rivera-Rios, President of the Puerto Rico Planning Board, provided for responses to numerous requests made by Federal Study teams and coordinated Puerto Rican Government suggestions on the Study. Boris Oxman and Suriel Sanchez of the Planning Board extended helpful support. Manuel Dubon, Administrator of the Puerto Rico Economic Development Administration (Fomento), Bertram Finn, Director of Economic Research for Fomento, and Walter Davila, Director of the Office of Federal Affairs in the Office of the Governor, offered valuable suggestions.

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Introduction

The Economic Study of Puerto Rico is made up of three parts.

Part One of the study is the General Economic Assessment. It provides a macroeconomic overview of Puerto Rico containing a description and analysis of production, income, employment, external trade, inflation, investment, and the role of government. The assessment draws on information in the various sector reports of the Study and brings together separate material in an overall context. The assessment sets out the major issues confronting the Puerto Rican economy; these subsume all the other issues that are treated in the body of the Study. In addition, Part One provides a conceptual framework for the development of major alternatives for Puerto Rico in planning its future economic direction.

Federal Programs and Policies, Part Two, is designed to bring together in one place an analysis of the characteristics and effects of Federal programs and policies in Puerto Rico. It includes, within a systematic and summary treatment, those programs dealt with separately in the Part Three sector reports plus all additional programs that are significant in Puerto Rico. Aspects covered include the relationship of Federal assistance to Puerto Rican needs, the results of expenditures on identified problems, and the differing program treatment that Puerto Rico receives under its relationship to the United States. Part Two contains approximately 85 program profiles in a final section covering over 100 Federal programs accounting for over 90 percent of the total Federal assistance going to Puerto Rico. The profiles provide on a comparable basis a statement of program purpose, Puerto Rican eligibility and treatment, actual outlays, administrative requirements for funding, and identification of problems which prevent optimal participation by Puerto Rico.

Nine sector studies, constituting the bulk of the Study, make up Part Three. The Study is essentially sectoral in its approach and the sector analyses collectively account for the main body of the Puerto Rican economy. The sector studies cover:

- Industry
- Agriculture, Food, and Rural Living
- Tourism
- Housing and Construction
- Transportation
- Energy
- Commercial Banking
- Employment, Wage Structure, and Migration
- Social Conditions and Human Services

No provision is made for a separate sectoral treatment of services, but the Banking and Tourism Sectors together are important components of private services activity in Puerto Rico, and most public enterprises services are covered in the Energy and Transportation Sectors. Particular attention is given to the goods sectors and, within this framework, Industry receives an emphasis consistent with its major contribution to output. Construction is accorded special sectoral treatment since it also is an important economic activity in Puerto Rico. A separate sector study is included on employment, unemployment, and wages because these labor aspects are of vital concern, and likewise, a separate report is provided for social conditions and human services in consideration of the linkage to economic

progress. Each sector study provides a view of the structure and operation of the sector, an examination of relevant Federal programs and policies, an analysis of the significant problems, and a presentation of policy and program options.

An Executive Summary is provided in the forepart of the Study.

Executive Summary

PART ONE: GENERAL ECONOMIC ASSESSMENT

The General Economic Assessment (GEA) of the Interagency Study provides a comprehensive analysis of the Puerto Rican economy. Macro trends for the period 1947 to 1977 are presented and discussed within a broad analytical framework.¹ They cover production, income, employment, trade, inflation, investment, and the role of government. Essential material included elsewhere in the various sectoral reports underlines the analysis but considerable additional material is also provided. For example, the report introduces new estimates of the capital stock and measurements of the rate of return on capital and approximations of the marginal and average productivity of the capital. The latter measures are based on capital stock series not previously available for Puerto Rico. These and other estimates included in the section should prove valuable in future research and planning activities.

The GEA is important from a policy standpoint because the major issues confronting the economy are specified and addressed. The report further discusses policymaking under specified economic criteria or objectives. As is the case throughout the Study, policy recommendations are not expressed in the GEA; however, policy options are discussed at various points in the analysis.

CONSTRAINTS IN THE ECONOMY

The GEA cites five factors that might impose barriers on the economy. These result from the island's limited natural resources, the unskilled labor, the legislated rise in the minimum wage rate, the lack of power to set monetary and trade policy and the island's high shipping costs.

MAJOR ISSUES

The discussion identifies four major issues. These major issues subsume numerous yet important sub-

issues. The four basic issues are interdependent, and policy decisions concerning any one of them can involve important "tradeoffs" relating to the others.

The basic issues are identified as follows:

- (1) Can the economy resume and sustain a high rate of real growth?
- (2) Can the high rate of unemployment be reduced?
- (3) Does the economy rely too heavily on the United States for finance and trade?
- (4) Is the distribution of income too unequal?

FINDINGS RELATED TO THE MAJOR ISSUES

Major findings related to the four basic issues are reviewed here. Other significant findings are found in subsequent sections which provide more detail.

Economic Growth

The Puerto Rican economy, which had grown very rapidly in the 1950's and 1960's under Operation Bootstrap, displayed very slow growth in the years between 1973 and 1977. The earlier growth pace has been partially regained in the acceleration of growth in 1978 and 1979. The decelerated growth experienced between 1973 and 1977 resulted from the oil crisis and the ensuing U.S. and worldwide recession, a compound situation which brought a near doubling of unemployment and declining investment in Puerto Rico. These severe reactions of the economy raised serious questions about Puerto Rico's future economic strength. Puerto Rico's strong economic advance over the years was paralleled by a rapid transformation from an agricultural economy to an industrial export economy with increasing emphasis on production from capital-intensive industries. Whether that transformed economy could survive became the major question.

The analysis finds no fundamental change in

¹ All dates refer to Puerto Rico's official fiscal year which runs from July 1 through June 30, the year's designation being that of the latter date.

Puerto Rican circumstances that would preclude the resumption of satisfactory economic growth after full recovery from the recession conditions of the mid-1970's. That real growth in 1978 and 1979 has already resumed a pace in excess of 5 percent is immediate evidence supporting the foregoing conclusion. Real growth in the future, however, is expected to be more moderate than in the three post-World War II decades that are reviewed—probably in the 5- to 6-percent range. The moderated future growth would be consonant with the slower growth rates anticipated for forthcoming years in the world at large and especially the United States, with whom Puerto Rico will continue to be closely linked economically.

Growth rates somewhat faster than those suggested might result if more intensive development of Puerto Rico's agriculture and rural infrastructure were attempted, allowing that industrial support programs are not depressed in an offsetting manner. Such a shift would require a new policy orientation of the Government with greater attention being devoted to problems of land use and natural resources. An increased concern for the development of private service industries, which are only partially covered in this overall study, would appear also to offer some opportunities for contributing to economic progress. Nevertheless, manufacturing concentrated in the industries whose competitiveness will assure their viability will seemingly continue to be the mainstay of future growth.

Employment

A high rate of unemployment persists as a long-term problem in Puerto Rico. Minimum rates of unemployment even in years of good economic conditions have fluctuated in the 10- to 12-percent range. In the years of the recent recession the unemployment rate soared to over 20 percent. Several serious questions can be raised about the accuracy of the unemployment estimates and their relationship to the estimation of the labor force and household survey techniques and responses. Nonetheless, if the data are assumed to be reasonably accurate, the unemployment problem is serious. Structural unemployment appears to be as significant an element of the total unemployment as is the demand-responsive component. In April 1979 the level of unemployment still remained slightly above 16 percent.

It must be stressed that the unemployment rate in Puerto Rico did not improve commensurately with the surge in the real rate of growth in the economy. On first glance this lack of parallel performance between unemployment and real growth may appear somewhat paradoxical. The answer lies largely in

the great influx of capital to the economic system. Clearly the capital intensification of the economy in the industrialization process did not sufficiently absorb the labor force growth. Neither, however, had the monocrop agricultural economy in the pre-Bootstrap period. It was the emigration to the mainland that served as the "safety valve" for the growing labor force.

The success of increased employment growth and the reduction of Puerto Rico's unemployment will depend on whether future investment can be properly geared to make the most productive use of the island's surplus of labor. Also involved in the improvement of the unemployment rate is the effectiveness of special measures that might be designed to help youths particularly to become employable and productive. However, before any appropriate policy-making to suppress unemployment can take place, accurate knowledge of the dimension and nature of the unemployment problem would be very helpful. Efforts to validate and improve labor market data should probably receive high priority in planning.

One of the constraints the Puerto Rican economy faces in the near future is the legislated increase in the minimum wage rate bringing it up to parity with the mainland by 1981. The more labor-intensive industries, such as services, would be expected to be hardest hit by the increases, particularly if profit margins are also low in these industries. But due to the inadequacy of data, little that is conclusive can be said about the shifts in the competitiveness of industries in Puerto Rico that could arise from the anticipated minimum wage rate increases.

Reliance on the United States

Although the United States served as a "safety valve" for Puerto Rican labor force growth in the past and to some degree still does, Puerto Rico's economic reliance on the mainland is essentially threefold in nature—(1) as a source of capital, (2) as a dominant export market and source of imports, and (3) as a source of income support by way of transfer payments for a sizable portion of the population. The heavy reliance on U.S. capital leads to important economic consequences in that the direction of the Puerto Rican economy is guided in many respects by the decisions of mainland firms. The close trade ties with the United States, particularly on the export side, tend to make the island's economy subject to U.S. production shifts, although in several U.S. recessions prior to 1974 the impact on Puerto Rico was minimal. The magnitude and growth of transfer payments coming from the Federal Government in recent years have tended to shift certain social and economic responsibilities, and the necessity of transferring income to meet them, away from

the Commonwealth Government and toward the Federal Government. Federal transfer payments increased from 7 percent of Puerto Rican personal income in 1970 to 20 percent in 1977. This inflow constitutes a significant source of saving counterbalancing Puerto Rico's net internal dissaving.

In view of Puerto Rico's net internal dissaving and its limited tax base, there is no apparent alternative to reliance on external capital sources. Although the attraction of outside capital will continue by all appearances as an essential ingredient for future growth, efforts can be made to retain more of the profits from investment within the Puerto Rican economy.

How the configuration of Federal transfers will and should be changed in the future is an issue closely intertwined with the issues of increasing future economic growth and of employment and with the major issue regarding the equality of the distribution of income. Policy implications pertaining to transfer payments must be considered within the context of all four major issues.

Besides finance, trade has been an extremely important external factor for Puerto Rico. Being a small island economy, external trade is both necessary and helpful. Export markets have gradually been widened and further diversification of export destinations can occur if Puerto Rico remains a competitive producer. Import substitution, whenever it is more efficient than importation, may have some potential in decreasing dependence on U.S. imports. Future trade growth, however, will be closely linked to offisland conditions.

Income Distribution

The distribution of personal and family income shows a high concentration at the top, with the majority of Puerto Rican families receiving only a small part of total income, as reported by the U.S. Census. In 1969 the poorer half of the economy received only 15 percent of gross domestic income while the upper 20 percent obtained 55 percent of the income. The period of rapid economic growth brought some overall moderation in the inequality of income; but in recent years, as unemployment intensified, a sizable percentage of the population has relied on increased Federal transfer payments to bolster family expenditure.

Desirable as a more equitable distribution of income might appear to Puerto Ricans, emphasis on this objective must be weighed against its impact on saving and investment. If economic growth is to be reestablished and sustained—albeit at a lower level than in the 1950's and 1960's—the Commonwealth's tax and spending policies, properly guided, could

possibly bring about a more equal distribution of income.

Background Analysis

The previous discussion dealt with the major findings of the study. The following sections provide background detail supporting the findings.

Product and Income Trends

Puerto Rico's exceptional economic growth is well documented. The island's gross domestic product (GDP)—which measures the value of production occurring on the island—and its gross national product (GNP)—which measures the total product or income available to Commonwealth residents—show a strong uptrend from 1947 to 1973. The GDP growth rate from 1947 to 1973, with adjustment for price level changes, averaged almost 7 percent a year, with the rate higher in the 1963-73 period than in the 1947-63 period. The real GNP trend rate is similarly impressive—averaging 6.1 percent a year in the years 1947-63 and 6.6 percent in the 1963-73 period. Both product measures show a marked drop, however, in the recession and recovery years of 1973-77 when the growth of real GDP and GNP averaged 1.7 and 1.0 percent a year, respectively.

Per capita GDP and GNP, when viewed over the entire industrialization period, provide an even more meaningful picture of Puerto Rico's economic progress. From 1947 to 1963 per capita GNP accelerated significantly—a reflection of both economic growth as well as substantial migration. In the period from 1963 to 1973 per capita GNP decelerated, however, as migration slowed; and between 1973 and 1977 per capita GNP declined by more than 2 percent in response to the pressures of the oil crisis and subsequent recession.

GDP/GNP Gap

In many economies, such as the United States, the GDP and GNP are nearly identical in magnitude. Their discrepancy in such instances is of little importance; but when a substantial divergence develops, as is the case in Puerto Rico, the ratio of the two measures is significant. Puerto Rico's GDP exceeds its GNP. The gap, with GDP greater than GNP, started to develop about 1963, inverting the previous trend. The divergence increased notably in the 1970's. The recent widening of the gap is perhaps the clearest evidence of Puerto Rico's close and growing dependence on external resources. This is because the gap consists almost entirely of profits and interest income remitted to firms and creditors on the mainland.

Cyclical Behavior of Puerto Rico's Output

As already mentioned in the discussion of growth rate averages, Puerto Rico's GDP and GNP dropped sharply in the recent recession. The pattern of the response, however, is of interest. In 1975 real GNP declined \$69 million in constant 1954 dollars or about 2.5 percent while real GDP, which had started to decline in the preceding year, dropped 2 percent. This response is often cited as evidence of the extreme sensitivity of the Puerto Rican economy to production shifts in the United States. The synergistic response of actual decline in product was somewhat atypical, however. In several previous U.S. recessions that occurred between 1950 and 1970, Puerto Rico either sustained its real growth rate or showed only very slight deceleration in it. The fact that prior to 1973 the strong upward trend in Puerto Rico's growth was interrupted only mildly by mainland recessions was due in part to extensive development of the economy's infrastructure going on at the time. The expansion of the infrastructure, in essence, tended to submerge unfavorable impacts resulting from shifts in U.S. demand for Puerto Rican exports.

Whether the degree of responsiveness of the Puerto Rican economy to U.S. production shifts will be similar in the future is a question that has important implications. Unless Puerto Rico launches into a second phase of infrastructure development, or concentrates on fairly income-inelastic exports, or greatly diversifies its exports markets, it may be expected to track U.S. conditions more closely in the future than in the past.

Income and Its Distribution

Puerto Rico's sectoral income measures tend to closely corroborate the trends and shifts in GDP and GNP. Significant changes revealed in the distribution of GDP which reflect the restructuring of the economy that went on over the years between 1947 and 1977 also emerge in the aggregate income data. Agricultural income, for example, was cut back fivefold as a percentage of total domestic income while manufacturing's share doubled. Similarly, the income share generated in the government sector registered extensive gains over the years; and further, the share of income derived from construction rose quickly in the 1960's, although it subsided after 1970.

Of particular interest is the income distribution considered on a population basis. Scarcity of data and complications of analysis have limited study in this field, but a private investigation shows a high concentration of income in Puerto Rico.² According to the study, in 1969 the poorer half of Puerto Rican

families received only 15 percent of the income while the top fifth received 55 percent.

Progressive taxation and transfer payments—primarily from the Federal Government—have been used as policy measures directed toward lessening the concentration of the income distribution. Whether the recent high level of transfer payments is sustainable and desirable over the long run is questionable. Promoting employment in the higher productivity and wage rate sectors, areas which might continue, as in the recent past, to absorb large numbers of low-income persons, can favorably impact the income distribution.

Employment and Labor

As stated in the discussion of findings, high unemployment has been a chronic problem in Puerto Rico. In the 1950's and 1960's when industrialization was rapid, new job creation was significant. Notwithstanding the substantial increase in employment opportunities and the relief of population pressure, particularly in the 1950's and early 1960's through migration to the U.S. mainland, unemployment remained at a level between 10 and 12 percent of the work force. Even at its peak, manufacturing growth was not strong enough to offset declines of employment in other sectors, particularly agriculture. In the recession years of 1974-75 unemployment roughly doubled and it remains high at the present—just over 16 percent in April 1979—even though substantially faster real product growth has resumed.

Unemployment and Employment Patterns

The demographic unemployment and employment patterns in Puerto Rico are significant. Unemployment among youthful workers is particularly high. In 1977, when the overall unemployment rate hovered around 20 percent, 48 percent of the 16- to 19-year olds in the labor force were without jobs. Moreover, the lack of job prospects for this age group is partially reflected in low labor force participation rates—27 percent for males and 12 percent for females. In contrast to the mainland, unemployment rates for men are higher than for women. This is partly due to the higher unemployment among predominantly male, blue-collar workers in the construction industry and agriculture and partly due to the lower participation rate for women than men.

Sectoral trends in employment reflect basic changes in the economy. Agricultural employment has consistently declined—from 23 percent of Puerto Rico's total employment in 1960 to 6 percent in 1977. Manufacturing employment, on the other hand, grew markedly during the 1960's and the early 1970's. A similar rapid growth occurred in the service and trade sectors and in government. Construction em-

² Maldonado, R. M., "The Economic Costs and Benefits of Puerto Rico's Political Alternatives," *The Southern Economic Journal*, vol. 41, No. 2, October 1974.

ployment showed sizable gains until 1972. It then turned down and continued to decline until 1977, when it recovered somewhat. In the 1970's employment grew the fastest in the government sector in response to the expanding scope of government activities and Federal Comprehensive Employment Training Act (CETA) programs which directly subsidized government employment.

Structural Unemployment

Puerto Rico's employment environment and its outlook are unclear. The persistent drop in agricultural employment is due in part to the inability of Puerto Rican farmers to keep up with the technological progress found elsewhere and in part to the shift in the factor cost ratio between the agricultural and the industrial sectors. Furthermore, labor-intensive manufacturing could be adversely affected by labor-cost inflation which might be exacerbated by further minimum wage rate increases scheduled for the next several years. The competitive position of some energy-intensive industries has been damaged by world oil price.

The recent rapid employment increase in the Government and several other service areas has reduced the pressure on the production sectors to absorb unemployed workers. The recent pace of rising government employment, however, cannot be maintained. Although CETA funds helped significantly, Commonwealth taxing and borrowing which also supported such increases in the recession years have been severely stretched. Employment in agriculture, manufacturing, and nongovernment service industries—such as tourism—must grow if Puerto Rico's unemployment is to be materially reduced and new labor force entrants are to find employment.

Because of doubt about the accuracy of immigration data, there is some question as to whether the present unemployment estimates are overstated. Nevertheless, unemployment is high and needs to be addressed with vigorous new policies. The 10- to 12-percent unemployment rate cited earlier, which appears to have been a baseline level, may serve essentially to measure the economy's structural unemployment. Insofar as unemployment is a structural problem, its elimination will call for selective rather than macro policies.

Education and training are pertinent to the employment outlook, especially in view of the high percentage of jobless youths and the high rate of population growth. The average schooling period in Puerto Rico is less than on the U.S. mainland. A scarcity of technically trained persons continues to be a problem. Sustained growth in employment and labor productivity will require greater investment in Puerto Rico's human assets.

External Trade

Characteristics of Puerto Rican Trade.—Sizable external trade—primarily with the United States—has long been an essential feature of the Puerto Rican economy. Production for export is the impetus for much of the economy and, on the import side, Puerto Rico increasingly relies on external sources for raw materials, intermediate goods, and final consumption.

Imports have consistently exceeded exports, with the trade account deficit rising in recent years. In 1977 the trade deficit amounted to \$1.6 billion, with imports at \$6.1 billion and exports at \$4.5 billion.

The heavy orientation of trade toward the mainland is clearly evident. In 1977 the United States received 86 percent of Puerto Rico's shipments; in earlier years, the U.S. share reached as high as 97 percent. Imports are largely from the mainland, although the dominance here has been reduced. Whereas in 1950 Puerto Rico received 90 percent of its imports from the United States, in the first half of 1978 about 60 percent came from this source. Some of this shift in import origin developed gradually prior to the early 1970's. The major change, however, came abruptly in 1974 with the sharp rise in crude oil prices.

The composition of Puerto Rico's trade has changed significantly since 1950. In the early 1950's sugar accounted for more than 50 percent of exports, but by 1960 its share had declined to 24 percent and by 1977 to 2 percent. Shares of other traditional export items, such as apparel and tobacco, also declined over the years. Exports of manufactured goods, on the other hand, increased markedly both in absolute value and in share as Puerto Rican industrial development continued. In 1950 manufactured goods, aside from apparel, amounted to 12 percent of total exports; however, by 1960 they made up 30 percent and by 1977 about 50 percent. Chemicals (including drugs and pharmaceuticals), refined petroleum, and machinery (especially electrical machinery and parts) are items of immense export importance today.

Import trends also reflect Puerto Rico's increased industrialization. Consumer goods, which accounted for about half of the imports in the early years of the industrial effort, gradually declined as a proportion of total imports. Conversely, the share of raw materials and intermediate goods, which had risen gradually over many years, surged in 1974 with the violent price increase in crude oil.

Trade Problems.—The close trade relationship with the mainland has probably enabled Puerto Rico to achieve much faster rates of growth than it would have experienced if it had relied exclusively on internal demand. Although the building of infrastructure kept the Puerto Rican economy from being

completely reflective of mainland economic conditions, the heavy dependence on the U.S. market, nonetheless, has made a significant portion of the economy quite sensitive to fluctuations in the mainland economy. Greater diversification of export destinations could help insulate Puerto Rico from the concentration of influences coming from mainland economic forces.

In recent years Puerto Rico's competitive export position has been hurt by several elements. Among them, cost-push factors contributed significantly to the loss of competitiveness, particularly in some labor-intensive industries where increases in real wages may have exceeded productivity gains. Also, since Puerto Rico relies entirely on imported crude oil, the abrupt rise in oil prices has affected competitiveness to some extent and has raised the question of the viability of the refining industry and downstream petrochemical operations. If future OPEC price hikes are modest, further disruptions from energy costs will be avoided; but, as long as Puerto Rico remains dependent on imported oil for essentially all its energy needs, its economic stability will depend significantly on the pricing policies of the oil supplying nations.

Despite several decades of emphasis on industrial development and rapid growth of the manufacturing sector, Puerto Rico still imports nearly 40 percent of its durable and nondurable consumer goods. This heavy dependence on imported goods suggests that import substitution policies might be worthy of careful consideration.

Inflation

The rate of inflation in Puerto Rico in the three decades between 1947 and 1977 was approximately the same as in the United States, averaging a little less than 3.5 percent annually. Since 1973, however, the Puerto Rican inflation rate has been somewhat under the mainland rate.

Nature of Inflation.—In order to determine the nature of the Puerto Rican inflation, demand-pull and cost-push inflation indicators were calculated and superimposed on a profile of Puerto Rico's inflation rate for the period 1947-77. The exercise shows the cost-push inflation component, which trended upward strongly throughout the period, to be the dominant factor. Nonetheless, sharp increases in the demand-pull component (lagged 1 year) coincided with steep accelerations in the rate of inflation at several points (e.g., in 1951 when the Korean War started). Although evident in several years cost-push inflation jumped up rapidly in 1969 and surged several times in the 1970's, subsiding only in 1977. Further analysis shows that labor cost inflation close-

ly parallels total cost-push inflation, which includes interest, rent, and profits as well as labor cost.

Inflation by Sectors.—The study also explores the sectoral sources of Puerto Rican inflation by comparing the inflation rates measured by the price deflators for the various GNP components. The data show a marked growth of all of the component prices throughout the 1950-77 period with particularly strong acceleration in the 1970's. In this recent period, prices of imports and exports registered the largest advances among the GNP components, import prices bordering on double-digit increases and export prices rising only slightly less. Consumer prices increased moderately in the 1950's and early 1960's, accelerated in the late 1960's, and swung up swiftly following the 1973 oil crisis as the U.S. inflation reached double-digit levels. The main internal inflationary impact came from intensive construction demand which lasted for more than a decade. The significant inflationary impact which was transmitted from the trade sector is not surprising in view of the openness of Puerto Rico's economy and its heavy reliance on external trade.

Government Sector

The role of government, both Puerto Rican and Federal, in the economy is extensive, having expanded considerably in the past 10 years. In terms of aggregate employment, the government sector has been the fastest growing sector in recent years. Government expenditures have undergone manifold increases—in real terms as well as nominal. Federal and Commonwealth tax policies have been extremely important in stimulating industrial growth throughout the post-World War II period.

Trend of Commonwealth Expenditures.—The combined expenditures of the Puerto Rican Commonwealth and municipalities climbed steadily after 1950 and then accelerated in the mid-1970's. The growth was due in part to expanded health, education, and other social services but much of it resulted from striking increases in the number and scope of public enterprises. These enterprises are primarily capital-intensive and add significantly to the large stock of fixed assets held by the government sector itself. In 1976 and 1977—years when private investment declined—government (including the public enterprises) provided about 40 percent of total investment and more than 60 percent of the investment in industrial and commercial buildings.

The rapid growth of government operating expenditures raised some criticism in Puerto Rico, especially since large pay increases which averaged about 10 percent a year in the early 1970's were viewed as highly inflationary. The criticism was directed against

the unfavorable budgetary impact and the encouragement of demands for increased wages in the private sector. In 1977 and 1978 raises in government salaries slowed to about 2 percent.

Public Debt.—With the growing role of government came rapid increases in public debt issuance, particularly in the 1970's. As public works and capital expenditures of public enterprises expanded, Puerto Rico's public debt grew from 49 percent of GNP in 1973 to 80 percent in 1977.

The exceptional growth of the public debt is a trend with serious implications for the future. The recent rate of growth of Federal Government support for Puerto Rican programs which are described below cannot be expected to continue. Puerto Rican personal income taxes, temporarily increased in 1975, may not be able to provide the sizable additional revenues needed. Decisions regarding the level of public investment and individual projects involve weighing benefits against repayment costs. Constraints may be placed on future borrowings by mainland investors since they are the chief purchasers of Puerto Rican bonds. Assuming, however, that mainland investors continue their willingness to purchase Puerto Rican issues, it is up to the Puerto Rican Government to decide how large a share of its GNP should be allocated to government functions.

Federal Government Role.—The Federal Government contributes significantly to the Puerto Rican economy by giving grants to the Puerto Rican Commonwealth and municipalities, by income-support funds transferred directly to Puerto Rican residents, and by providing services through Federal Government agencies operating on the island, particularly the Department of Defense and the Veterans' Administration.

Historically, funds for operating expenditures have been the largest part of government budgets. In the past decade Puerto Rican governments received 20 to 28 percent of their receipts from the Federal Government. Only in recent years have the Federal transfer payments to residents increased rapidly. By 1977 such payments constituted about 20 percent of Puerto Rico's personal income—up from 7 percent in 1970.

Another important role of the Federal Government is that of a stimulator of Puerto Rican industrial growth through tax policies. The U.S. tax exemptions granted to firms investing in Puerto Rico go back many years. But the Internal Revenue Code revisions of 1976 and the changed economic environment which ultimately diminished the importance of low labor costs and tariff-free entry of products into the United States—two particularly advantageous features of Puerto Rico in the earlier development—

have made the tax concessions of greater value in recent years.

Investment

Sources of Capital.—Puerto Rico has relied heavily on external capital throughout its industrial development. The growth of the capital inflow in the 1960's and 1970's was particularly remarkable; in 1963 the net inflow (errors and omissions included) totaled \$250 million, grew to \$882 million in 1970, and reached \$1,510 million in 1977. As the external capital source swelled, its importance relative to the total use of funds likewise increased. Whereas between 1947 and 1963 outside capital financed 44 percent of the economy's total uses of funds, from 1963 to 1973 it covered 61 percent. As the income counterpart of this growth, the share of total property income in Puerto Rico distributed to nonresidents grew much faster than the funds they supplied.

There is no apparent short-run alternative to an extensive reliance on outside savings for financing Puerto Rico's investment. Alternative sources of investment funds consist of the private saving of Puerto Rican residents and businesses and the government surplus, i.e., excess of revenues over current expenditures of the Commonwealth, municipalities, and public corporations. However, neither of these sources offers adequate promise in the near future.

A first reason lies in the fact that Puerto Rican personal saving has been consistently low or negative, making virtually no contribution to capital accumulation. The extraordinarily "high-consumption" attitude shown in Puerto Rico is frequently cited by Puerto Ricans as unique. However, saving when taken in respect to personal income does not appear to be unique judging from the information available for other economies. The persistence of significant levels of dissaving in relation to personal *disposable* income, on the other hand, does raise questions concerning the underlying influences which in their net effect heavily favor current consumption over future consumption. In order to reduce the island's reliance on outside capital, saving can be "forced" internally (within limits) by taxation. But, in view of substantial postwar increases in consumer taxes relative to incomes, this approach appears to offer only limited possibilities.

The possibility of increasing business saving in Puerto Rico appears likewise limited. Business saving by Puerto Rican companies is already relatively high and is being converted into investment in the economy, although some increase of saving effort might be feasible.³ As for the third possibility—that of

³ The tollgate tax on repatriated profits assists in retaining profits of external investors on the island.

government surpluses providing investment finance—the rapid growth of government expenditures in recent years which has been described earlier would have to be confined to revenue limits, a situation that would demand austerity and could be depressing to growth and employment. Given these inadequate alternatives, clearly only the long-term redirection and management of saving relationships can reduce the reliance on external financing. This process would have to be accomplished within an economy in which unemployment has been reduced to an acceptable level. The chronic unemployment in Puerto Rico obviously confronts the reduction of the dependence on outside saving.

Gross Fixed Investment and Capital Stock.—The availability of ample external funds, enticed largely by the benefits of the U.S. Tax Code Provision 931 (now 936) coupled with the exemptions and subsidies provided by the Puerto Rican Investment Incentives Act, underwrote much of Puerto Rico's rapid real growth. In the growth process, gross domestic fixed investment (GDFI) advanced in real terms at an average rate of almost 11 percent a year between 1947 and 1963. In this time span the private sector contributed nearly 60 percent of the fixed capital formation while public enterprises accounted for 26 percent and the Government 15 percent. Although GDFI growth decelerated in the 1964–73 period, the average annual level in real terms was more than three times that of the earlier years, with the share of private enterprise capital rising to 70 percent. By 1973 the investment boom had run its course and with the impacts of U.S. inflation and recession, the oil crisis and worldwide slowdowns, fixed capital accumulation in Puerto Rico was severely reduced. Between 1973 and 1977, GDFI in constant 1954 dollars declined 36 percent—from \$565 million to \$360 million. The major contraction was in the private sector.

The accelerated accumulation of fixed capital in the 1960's and early 1970's augmented Puerto Rico's capital stock substantially. Estimates made for this study show that despite the serious decline in investment between 1973 and 1977, the average total gross fixed capital stock in these years was 60 percent greater than the average in the 1964–73 decade. A comparison of the annual average stock level in the 1973–77 period, even with its depressed investment, against that for the 1947–63 period shows an impressive 10-percentage point increase in the share of private capital. This change no doubt reflects the strong trend toward more capital-intensive production techniques which paralleled Puerto Rico's industrialization.

Capital Efficiency and Profitability.—Puerto Rican and U.S. mainland rates of return on capital and the

productivity of capital were compared in several ways.⁴ Although the average productivity of capital in Puerto Rico in recent years seems to be substantially less than on the mainland, lower wage costs and an apparently greater concentration of capital-intensive production have resulted in higher average rate of profit from investments in Puerto Rico.

The investigation of capital efficiency in Puerto Rico in terms of the marginal productivity and the rate of return indicates that there may have been some decline in efficiency in the long term as capital was deepened. Moreover, a clear deterioration in capital efficiency resulted from the production cutbacks in the years between 1973 and 1977.

Future Growth and Investment.—In attempting to answer the question whether Puerto Rico's economic growth could resume former paces, the analysis presents several test combinations of investment shares of the GDP and future growth rates of real GDP. The approach provides a means of delineating possible future growth rates for the Puerto Rican economy that seems realistic. The GDFI/GDP shares in the analysis are compatible with historical ICOR (Incremental Capital-Output Ratio) values and real GDP growth rates.

The test combinations indicate that real annual growth rates of GDP in the range of 5 to 6 percent would not be an unreasonable expectation for Puerto Rico in coming years. Such a rate is more moderate than the rates experienced during Puerto Rico's industrialization, but nevertheless represents a significant future real growth in the economy if the pace can be maintained while avoiding undesirable inflation rates. With significant innovation accompanying future capital input, even faster growth rates could be achieved. If Puerto Rico is to attain maximum real growth with limited inflation, innovative changes would seem to be particularly beneficial. The innovations would ultimately allow smaller investment shares to be maintained for given growth rates of real output, reduce production costs, and increase employment demand.

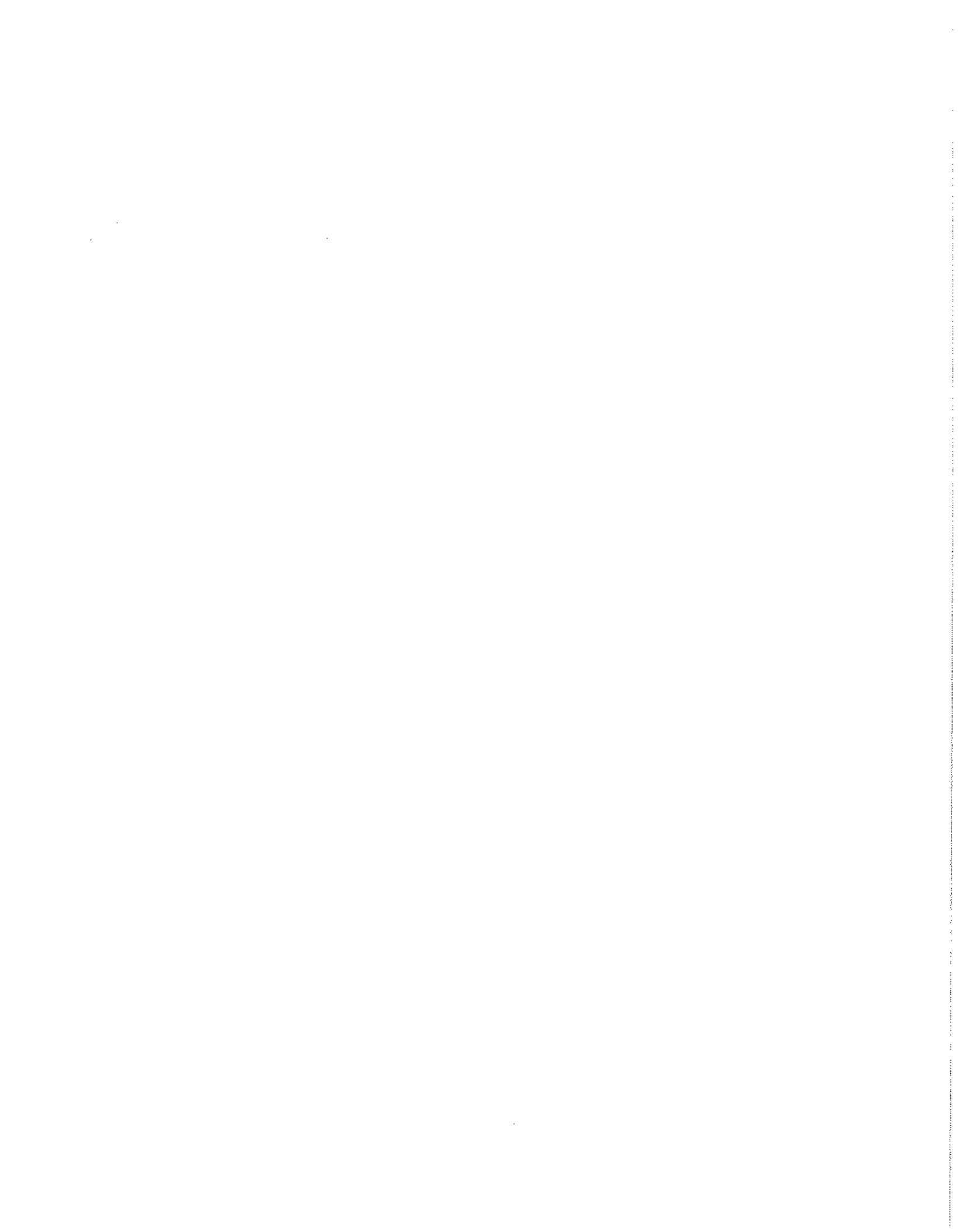
Macroeconomic Policy Formulation.—The Study discusses the relationship between macroeconomic policy and the criteria or objectives set out to guide and assess policy outcomes. Several frequently used criteria of economic progress are mentioned in the discussion. Among these are: (1) the level of unemployment, (2) the growth rate of real output or product in the economy, (3) the rate of income growth and the degree of equality of the income distribution, (4) the rate of inflation, (5) the stability of the GNP and GDP, and (6) the rate of capital forma-

⁴ The average productivity of capital, and the marginal productivity referred to later on, are in the strictest sense approximations of these concepts.

tion. The study makes no suggestions as to the ranking of these or similar criteria of policy, but merely points out the necessity of such rankings in order to provide proper sense of direction to policy. The criteria are generally not independent. This implies that "trade-offs" or weighings of the importance of one outcome with other results are necessarily prescribed and understood. The devices available to policymakers to implement their decisions in directing the economy are called policy instruments within the systematic framework formulated in the discussion.

Policymaking within this framework is suggested by the report for Puerto Rico. It is pointed out that

policy recommendations are not provided in the analysis in the Study since it is the prerogative of the Puerto Rican Government to set whatever ranking of policy criteria it desires. Various policy options are to be found in the GEA, however, as well as in the Study at large. In Puerto Rico's case policy implementation is confined largely to the use of the Industrial Incentives Act (IIA) in providing differential tax privileges as selective stimuli to industry. Front-end loadings of subsidies also allow variations of policy. Furthermore, the Government can use its budgetary powers to help create economic conditions that are conducive to real growth of the economy and progress of the Puerto Rican society.



PART TWO:

FEDERAL PROGRAMS AND POLICIES

A separate report on Federal policies and programs is included in the Study to bring together in one place the main features and the economic impacts of the Federal-Commonwealth relationship. The aspects covered are: (1) the effects of Federal expenditures on Puerto Rico; (2) the differential treatment of Puerto Rico in Federal programs; (3) the relationship of Federal assistance to Puerto Rico's economic needs; and (4) several important Federal administrative and regulatory issues. The full report also contains profiles which review 103 "key" Federal assistance programs applicable to Puerto Rico.

THE FEDERAL RELATIONSHIP BETWEEN PUERTO RICO AND THE UNITED STATES OF AMERICA

The relationship between Puerto Rico and the United States of America has experienced various changes since Puerto Rico became an American possession in 1898. This relationship has ranged from an initial status as a militarily occupied possession, through several stages as a territory, to the present status as Commonwealth, or Free Associated State (*Estado Libre Asociado*). In each of the periods in which these statuses have existed the relationship has been somewhat different, as has the concomitant influence of Federal laws, Federal regulatory programs, and Federal funds on the Puerto Rican economy.

Puerto Rico's acquisition of Commonwealth status in 1952, which resulted in considerable local governmental autonomy, was followed by several congressionally mandated investigations designed to clarify or modify particulars of the Commonwealth relationship. What the present Commonwealth status means is not always exactly clear because Puerto Rico's status is unique in American law. In general, the present relationship between Puerto Rico and the Federal Government has been altered and affected by the numerous decisions taken by the Federal Government toward the Commonwealth. Acting generally within the limits of the compact relationship

established by Public Law 600 in 1950, every decision by the Congress or the Executive Branch in policy application or program implementation has altered the relationship. The general nature of the present relationship is one of great Federal influence in the social and economic structure of the Commonwealth.

EFFECTS OF FEDERAL EXPENDITURES IN PUERTO RICO

Types and Magnitudes of Federal Expenditures

The disbursement of Federal funds to Puerto Rico has extremely important impacts on the island's economy. The actual quantities of Federal funds, as well as their relative importance to the Puerto Rican economy, have increased substantially since 1970.

For the period 1970-77, gross Federal disbursements to Puerto Rico grew by 270 percent—from \$839 million to \$3,108 million. Net Federal disbursements (i.e., gross disbursements less Puerto Rican payments to the Federal Government) increased almost fourfold—from \$608 million in FY 1970 to \$2,381 million in FY 1977. In the 3-year period of FY 1974-77 net Federal disbursements rose from \$1,017 million to \$2,381 million. Net Federal disbursements, which represented only 13 percent of the Puerto Rican GNP in FY 1970, accounted for 30 percent of GNP in 1977.

The very large increases registered in FY 1975 and 1976 were primarily due to the inclusion of the Commonwealth in the Food Stamp program, and the enactment of several major Federal assistance programs, for which Puerto Rico was made eligible, e.g., Comprehensive Employment and Training Act (CETA).

Transfer payments, i.e., expenditures for which no goods or services are exchanged, accounted for the largest share of Federal disbursements to Puerto Rico, most of these payments being made to individuals. Gross Federal transfer payments increased sixfold—from \$303 million to \$1,835 million (in current dollars) in the 1970-77 period. *Net transfer*

payments increased more than fifteenfold—from \$72 million to \$1,107 million in the same period. The introduction of the Food Stamp program in Puerto Rico was primarily responsible for the sharp increases registered in net payments. Although transfer payments per capita have been lower in Puerto Rico (\$534 for FY 76) than on the mainland (\$715 for FY 76), their percentage of per capita personal income is greater—22 percent in Puerto Rico vs. 9 percent in the United States.

The second largest category of Federal disbursements in Puerto Rico is *grants-in-aid*. In nature and purpose, these are similar to transfer payments, but are normally handled differently, i.e., through public agencies which provide services rather than through receipt directly by individuals. In the 1970-77 period grants-in-aid increased 230 percent—from \$256 million to \$845 million.

Net operating expenditures of Federal agencies in Puerto Rico, which include such items as salaries, rent, equipment and supplies, amounted to \$160 million in FY 1970 and rose to \$230 million by FY 1977. Although such expenditures may have less of a direct impact than those of transfer payments and grants, they have significant local employment and consumption effects.

Approximately \$1,000 million in *Federal excise taxes and customs duties* were rebated to the Puerto Rican Treasury by the Federal Government in the 1970-77 period. In 1976, the revenue derived from these two sources represented about 9 percent of the Commonwealth's budget.

Loans and loan guarantees, although not aggregated with other Federal disbursements in determining Federal payments since they are of a different nature, must be considered in any analysis of the effects of Federal funds. In total, the various Federal credit agencies have contributed significantly to the net flow of capital into Puerto Rico over the years. New long-term loans increased fivefold in the 1970-77 period—from \$43 million to \$206 million; loan guarantees amounted to \$165 million in FY 1976.

Effects of Federal Outlays on Puerto Rican Income

Federal funds are critically important to Puerto Rican income. Directly and indirectly these funds supply such a large share of Puerto Rican personal income that on occasion the personal income exceeds GNP. That is, personal receipts of Federal funds make possible a level of personal income which has exceeded the value of final goods and services produced on the island by local residents. The growth of Puerto Rican personal income in recent years parallels the growth of Federal assistance to the island.

Transfer payments to individuals have the most direct and significant impact on Puerto Rican income. In 1976, Federal transfer payments to individuals—\$1,213 million—accounted for 19 percent of Puerto Rican personal income. This was an increase from 1974 and 1975 when Federal transfer payments accounted for 10 and 15 percent, respectively.

A comparison of Federal transfer payments to Puerto Rico and to several selected States (e.g., Arkansas and Mississippi) over a period of several recent years indicates that, although Puerto Rico received lower absolute amounts, the ratio of payments to total personal income was consistently higher in Puerto Rico.

It is difficult to trace the flow of other Federal funds into Puerto Rican incomes or to determine the income-generating effects. However, using an overall income multiplier of 1.4—considered reasonable for Puerto Rico—the increase in total net income in the 1970-76 period resulting from direct Federal expenditures is estimated to have been about \$1,080 million, or 37 percent of the total increase in Puerto Rican net income. On this basis, personal income generated from Federal expenditures would have been \$2,325 million, or 54 percent of the total increase in personal income in Puerto Rico.

Impact of Federal Outlays on Puerto Rican Government Services

Federal funds add substantially to the Commonwealth's total revenues and consequently to the provision of government services to residents of Puerto Rico. Although some Federal funds go to municipal units, the Commonwealth Government is the predominant recipient.

In 1975, the percentage of Federal contributions to total Puerto Rican revenues (Commonwealth and municipal governments) was 26 percent. The comparable input to the total revenues of States and local governments in the United States was 18 percent.

Functional Distribution of Federal Disbursements

As indicated, Federal disbursements have a critical effect on Puerto Rican incomes and government services. They are important in meeting social needs and they spur consumption and demand. However, only relatively limited amounts of Federal funds are available and allocated as "direct aid" for the island's economic development.

An analysis of the direct contribution of Federal assistance for the economic development of State and local governments indicates that about 30 percent went for this purpose in 1976. In the case of Puerto Rico (including that assistance which goes to municipi-

palities), however, the receipt of "economic development assistance" is estimated to be approximately 24 percent.

Two features are noted in connection with the distribution of Federal funds from the standpoint of the economic development of Puerto Rico. First, most of the grants and loans that are directed at specific targets primarily reflect Federal priorities which in some cases are not fully consonant with Commonwealth priorities. Second, the matching requirements stipulated by many Federal programs in noneconomic development categories tend to divert available Commonwealth funds that might be directed to economic development purposes.

The report suggests several ways in which Federal outlays might possibly be redirected to help spur economic development. These include program modifications so as to provide a greater flow of direct economic development funds; increases in the overall magnitude of Federal funds to the Commonwealth, within prevailing Federal budget limitations; and the possible establishment of the "Antillean Economic Development Region" for Puerto Rico and the Virgin Islands under Title V of the Regional Development Act of 1975, which could direct attention to and provide assistance for comprehensive long-range development planning.

DIFFERENTIAL FEDERAL PROGRAM TREATMENT IN PUERTO RICO

Puerto Rico currently receives "State-like" treatment in the vast majority of Federal assistance programs in which it participates. In several large and important Federal programs, however, the treatment is different, i.e., less than that provided to the States. Consequently, the total amount of Federal funds Puerto Rico receives is less than it would receive if it were accorded State-like treatment. The disparate distribution of Federal funds results from outright exclusion of the Commonwealth from a few Federal programs, statutory limitations on some Federal allocations, and differing matching requirements for some of the programs that are based on cost sharing.

Eight Federal social welfare programs are identified which accord differential treatment to Puerto Rico. In the case of three, Puerto Rico is excluded: (1) General Revenue Sharing, (2) Supplementary Security Income (SSI), and (3) the Prouty program. In the case of the other five, the extent of Puerto Rico's participation is limited: (1) Aid to Families with Dependent Children (AFDC), (2) Social Services, (3) Medicaid, (4) Educationally Deprived Children, and (5) Anti-Recessional Financial Assistance (ARFA). Puerto Rico is also treated differently in a few Federal programs more directly related to

economic development, e.g., the Interstate Highway Construction Program¹ and Vocational Education Basic Grants.

RELATIONSHIP OF FEDERAL ASSISTANCE PROGRAMS TO PUERTO RICO'S ECONOMIC NEEDS

Three of Puerto Rico's basic economic development concerns affected by Federal programs are considered: (1) reducing unemployment, (2) increasing productivity, and (3) increasing capital investment.

Reducing Unemployment

Large amounts of Federal program funds have gone to help reduce unemployment in Puerto Rico. In the years 1970-77, approximately \$722 million was allocated under several programs, of which the Comprehensive Employment and Training (CETA) program was most important.

Results from these programs have been modest in Puerto Rico. The limited accomplishments reflect in part the severity of the unemployment problem on the island—almost at the 20-percent rate in 1977—and the fact that many of the programs are designed to combat cyclical unemployment whereas Puerto Rico suffers from a combination of cyclical and long-term structural unemployment. In the case of the CETA program, funds were used predominantly for creating public service jobs, with only very limited amounts used for training purposes. It seems doubtful that these Federal programs, including those of the Public Works Impact Program (PWIP) and the Local Public Works Program (LPW), will contribute significantly to Puerto Rico's economic development or have a long-lasting effect in reducing the chronically high unemployment level.

Increasing Labor Productivity

Increased labor productivity is considered a precondition to Puerto Rico's further economic development. Since there is an important connection between basic education, subsequent occupational proficiency, and general labor productivity, the effects of educational programs in providing better trained and trainable workers are particularly relevant.

By supplementing scarce Puerto Rican financial resources, Federal funds help alleviate many deficiencies in the Commonwealth's education system. Nevertheless, although total Federal funds to the Commonwealth for educational purposes amounted to about \$244 million in 1977 and the Federal Government

¹ Alaska and Hawaii, noncontiguous States, receive interstate highway funds.

provided a larger percentage of per capita public education funds than on the U.S. mainland, the present expenditures are considered inadequate in terms of the island's needs and in view of the limited availability of Puerto Rico's own financial resources. Moreover, some of the Federal assistance seems mis-targeted; while Puerto Rico is still struggling to supply basic education many of the Federal programs are aimed at providing extras. Also, vocational and technical education programs are inadequate in providing trained graduates for the island's increasingly technical industries.

Increasing Capital Investments

An inadequate level of capital investment is a major impediment to Puerto Rico's current economic development. Real gross fixed investment has been declining since 1972 and in 1977 was below the 1970 level. There is also some evidence that Puerto Rico has been suffering from decreased capital productivity; the changing composition of investment, with the public sector taking a larger share of the total, may be a cause for this decline.

Internal savings in Puerto Rico have been inadequate to cover needed capital investment. Consequently, the island has had to rely on external sources, predominantly the United States. Although most of the investment funds have been provided by private capital, the Federal Government also provides some. Federal investment, primarily in the form of long-term loans from Federal credit agencies, has become increasingly important. In 1977 Federal source investment amounted to 11 percent of total gross investment in Puerto Rico, compared to 7 percent in 1970.

Only a limited portion of Federal funds for investment, however, are used for what might be called "directly productive" purposes, i.e., to expand productive capacity. Most of the loans and grants generally considered to be of an economic development nature (e.g., those of the Department of Commerce's Economic Development Administration) are directed toward infrastructure investments which do not result directly in production increases. Thus Puerto Rico's scarce matching funds (for grants) and its borrowing capacity (for loans) may be diverted from more immediately productive alternative uses.

The nature and levels of recent Federal investments in Puerto Rico are such that their mere continuation will not alleviate the Commonwealth's investment problems. At the same time, however, any sudden or large reduction in the flow of Federal investment funds could result in severe economic dislocations, especially in the construction industry.

FEDERAL ADMINISTRATIVE AND REGULATORY ISSUES

The impact of the Federal Government on Puerto Rico is not confined to that from the flow of funds, but also results from: (1) administrative requirements imposed as conditions for the receipt of some Federal funds; (2) policies of the Executive Branch relating to program delivery and the exercise of statutory discretionary authority; and (3) regulations applied pursuant to Congressional mandates. Although these types of administrative regulations and policies also affect States, Puerto Rico may be more strongly influenced because of its island location, its unique relationship to the United States, and the stage and nature of its economic development. There are some indications that Federal policies do not adequately respond to Puerto Rico's needs.

From among the many Federal regulations and policies applicable to Puerto Rico, five aspects are analyzed as being of major importance to economic development: (1) the placement of Puerto Rico in the Federal Regional system; (2) the incomplete coverage of Puerto Rico in Federal data collection activities; (3) maritime regulations which limit the U.S. mainland-Puerto Rican trade to U.S.-owned, U.S.-built and U.S.-operated ships; (4) the 1977 Amendments to the Fair Labor Standards Act, designed to achieve mainland-Puerto Rican minimum wage parity; and (5) Federal environmental regulations.

Coordination of Federal Programs and Policies Through the Federal Regional System

In view of the substantial Federal impacts on Puerto Rico and their pervasiveness, it would seem highly desirable that there be considerable uniformity in the Federal mechanism for program delivery. Yet there is no such uniformity.

Under the present Federal Regional system, Puerto Rico is included for most program purposes in Region II, together with the U.S. Virgin Islands and the States of New York and New Jersey. However, some of the more than 100 key programs which disburse funds to Puerto Rico do not operate on the island through Region II.

Three alternative proposals regarding Puerto Rico's future program placement in the Federal region setup are discussed: (1) retention of program jurisdiction over Puerto Rico in Federal Region II, with efforts to ensure that administration is fully consolidated in New York City; (2) transfer of Puerto Rico from Region II to Region IV, which is based in Atlanta and includes the Southern States; and (3) creation of a separate Federal Region for Puerto Rico and the U.S. Virgin Islands.

Incomplete Coverage in Federal Data Collection

Since the 1960's, Puerto Rican officials have expressed concern that their statistical information system has not been able to provide complete, reliable, and timely data on the economic and social conditions of the Commonwealth. This situation has been aggravated by the rapid economic changes which have occurred since 1973.

Deficiencies in the present system are primarily due to lack of Puerto Rican resources for all the necessary data collection and compilation activities and the fact that Puerto Rico is generally accorded different treatment by, or is not fully covered in, Federal data collection activities. As a result, the Puerto Rican Government and the various Federal agencies that administer programs under which funds are disbursed are hampered by inadequate data when formulating policy and planning objectives.

Currently Puerto Rico is fully covered in some of the major data collection activities of the U.S. Bureau of the Census, but is completely excluded from or incompletely covered in others. Moreover, some of the data on Puerto Rico are published later than those for the United States and, in some instances, so late as to be considered outdated.

There is clearly a need for an improved and reliable data collection and information system covering Puerto Rico. The options for obtaining this—at least for some important data series—are: (1) extension of full coverage of Federal statistical programs to Puerto Rico, or (2) modification of existing Puerto Rican programs to comply with Federal standards and methodology. It must be recognized that budget is a restraint in considering significantly revised coverage. Regardless of what is done with respect to various current data series, it seems imperative that Puerto Rico be given adequate consideration in current Federal efforts to improve, standardize, and design future statistical methods and programs. One suggestion is for an interagency committee (chaired by the Office of Federal Statistical Policy and Standards in the U.S. Department of Commerce) to deal with Puerto Rico's special statistical problems and needs.

Maritime Regulations

Puerto Rico is almost completely dependent on maritime transportation for its external trade, of which about 80-85 percent is between the island and the U.S. mainland. Since U.S. coastwise shipping (cabotage) laws require service between U.S. ports, including those of Puerto Rico, to be carried on U.S.-built and U.S.-manned vessels operating under the U.S. flag (generally more expensive than ship-

ping in foreign vessels), Commonwealth officials claim that the island's shipping costs are unduly high. U.S. vessel operators engaged in international trade, on the other hand, receive shipbuilding and operating subsidies to offset their higher costs in order to compete with foreign-flag vessels. The issue of whether some offsetting subsidies should be provided for trade between the U.S. mainland and noncontiguous States and territories is of major concern to Puerto Rico. In the past, legislation has been introduced before the Congress (H.R. 8836) to propose an operating subsidy for the noncontiguous States and territories, but no action has been taken by Congress. From the Puerto Rican viewpoint, however, shipbuilding subsidies are also considered essential since the present ships engaged in the U.S.-Puerto Rican trade are old and inefficient.

Minimum Wage Regulations

Puerto Rico was made fully subject to the Fair Labor Standards Act (FLSA) at the time of enactment in 1938. However, with significant job losses following the introduction of the federally mandated minimum wages on the island, the Congress passed an amendment in 1940 to allow Puerto Rican minimum wages to be set for individual industries below the U.S. minimum. Periodic reviews were called for by tripartite committees—consisting of members from labor, management, and the public sector—with the objective of gradually raising rates to the statutory U.S. levels. The FLSA (with several amendments in 1961, 1966, and 1974) has been an important wage-increasing factor in Puerto Rico, although other factors have contributed to the notable wage increases which have occurred. The latest amendment to the FLSA (May 1977) calls for further increases which will bring all but a small percentage of Puerto Rican workers to the U.S. minimum level by January 1981. The FLSA also may have tended to equalize the distribution of Puerto Rican workers' income.

Environmental Regulations

Since the enactment of the National Environmental Policy Act (NEPA) in 1969, the Congress has passed numerous Federal environmental laws. In each instance, Puerto Rico has been deemed a "State," making it fully subject to these regulations.

There is considerable concern over the adverse impacts that the water and air quality laws may have on economic development particularly since many physical characteristics, social priorities, and economic factors in Puerto Rico differ from those of the U.S. mainland. These environmental regulations, of course, produce benefits as well as costs. For example, the health and well-being of the Puerto Rican

people and the attractiveness of the island's tourist industry are enhanced by some of the new safeguards.

In balancing costs and benefits, however, the Federal Government would seem to have some options that could limit costs and still adequately meet the needs of Puerto Rico. The options could be carried out within the discretionary limits and under the procedures allowed for by current environmental regulations. The options include: (1) giving consider-

ation, within available program constraints, to assisting Puerto Rico with environmental control costs; (2) taking into account Puerto Rico's high energy costs and necessary reliance on petroleum when applying environmental standards; (3) making allowances for adequate study of alleged environmental degradation by Puerto Rican industries (e.g., the rum industry) and providing implementation timetables which do not unduly upset the island's economy.

PART THREE: SECTOR STUDIES

This part of the Study¹ summarizes nine sector reports which were primarily prepared by "teams" of U.S. Government specialists from a number of agencies. In the case of Industry and Banking, however, outside consultants prepared the basic reports, which were then reviewed and revised by the Department of Commerce. The nine complete sector reports constitute Part Three of the overall Study.

Included in each of the summaries provided here are: (1) an overview of the sector; (2) a statement indicating the impact of Federal programs and policies; (3) identification of the major problems; and (4) a brief discussion of policy and program options for Federal and Commonwealth Government consideration. Each summary, based directly on a full sector report, reflects the basic analysis and the views expressed in the corresponding sector report. The sectors reports summarized are:

- Industry
- Agriculture, Food, and Rural Living
- Tourism
- Housing and Construction
- Transportation
- Energy
- Commercial Banking
- Employment, Wage Structure, and Migration
- Social Conditions and Human Services

INDUSTRY

Overview

The industrial² sector is the leading contributor of income and employment in Puerto Rico. In 1977 Puerto Rico had more than 2,500 manufacturing plants which employed 154,000 workers. Net income from manufacturing that year was \$2.8 billion, accounting for over one-third of the island's income. Net profits in the same years amounted to about \$1.7 billion or about 80 percent of total private profits.

The emergence of manufacturing as a major contributor to the Puerto Rican economy resulted from the Puerto Rican Government's strategy of economic development launched in the 1940's. Before 1940

"manufacturing" largely meant sugar production, cigar-wrapping, or home operations where housewives sewed gloves or some other articles of apparel (frequently precut on the mainland) on a piecework basis. In encouraging industrial development the Puerto Rican Government first undertook the building and operation of publicly owned plants, mainly utilizing local raw materials. By the late 1940's, however, the Government's strategy focused on attracting outside investors to establish plants to produce for the mainland market. The advantages of Puerto Rico's position within the U.S. customs union and its significant favorable wage rate differential in respect to the U.S. mainland—two encouraging factors for attracting mainland capital—were augmented by a comprehensive tax exemption program coordinated with the advantage of special U.S. tax status. A new agency—the Economic Development Administration (Fomento)—was created in Puerto Rico to coordinate and promote industry. An influx of U.S.-owned subsidiary plants brought in raw materials and technology to produce textiles, apparel, and some electronic parts. In the 1960's there was a growing emphasis on the use of heavier equipment and development of capital-intensive industries, especially petroleum refining and the processing of petroleum byproducts and petrochemicals that serve as raw materials for other products. Petrochemicals and later pharmaceuticals and scientific/professional instruments became the high growth core of the manufacturing sector.

In attaining its prominence in the Puerto Rican economy, the manufacturing sector underwent extensive changes and growth after the 1940's when the Government took up the industrialization strategy. The expansion of the sector is impressive—whether measured in terms of net income, employment, or profit. Income from manufacturing grew at an annual rate of almost 14 percent, compared with a 10-percent growth rate for the economy as a whole. Whereas in 1977 manufacturing accounted for more than one-third of net domestic income, in 1950 it provided only 15 percent. Employment in manufacturing increased more than two and one-half times between 1950 and 1977—from 56,000 to about 145,000.

The 1974-75 recession adversely affected Puerto Rico's manufacturing sector as it did the entire

¹ "Study" refers to the whole *Economic Study of Puerto Rico*.

² The terms "industrial" and "manufacturing" are used interchangeably in this sector study.

economy. However, data for 1977 and preliminary data for 1978 indicate a substantial recovery in manufacturing. The sector's output for 1977, for example, exceeded that of 1976 by 16 percent. Income rose even more—about 19 percent—and employment increased by 11,000 in 1977 and 12,000 in 1978.

Although the Puerto Rican administration which took office in January 1977 has not fully articulated its economic policies and programs, major changes have been effected in the manufacturing sector, particularly in the Industrial Incentives Act (IIA). More emphasis will be given to certain other sectors such as agriculture and services than in the past; this shift will tend to detract somewhat from the focus on manufacturing. Although significant tax exemption is to remain a feature of the Commonwealth development policy, complete exemption for new investment is eliminated under the 1978 incentives legislation.

MAJOR FINDINGS

The 11 chapters and several appendices comprising the full report on the industrial sector provide comprehensive analyses of the growth and changes in Puerto Rico's manufacturing, its competitiveness, import substitution, and industrial linkages. Also discussed are Puerto Rico's industrial incentives programs, the effect of U.S. tax and foreign trade policies, and the impact of Federal assistance programs on the Commonwealth's industrial development. Analytical profiles of 17 separate industry groups and a number of subgroups are presented in appendix B. The most important findings of the detailed analyses are summarized below.

General Characteristics of the Manufacturing Sector

- By the 1970's Puerto Rico's manufacturing had become fairly diversified compared to earlier years. The sharpest gains in income and employment within the sector in recent years occurred in the more capital-intensive industries such as chemicals, electrical machinery and equipment, and scientific and professional instruments. However, the more traditional labor-intensive industries continued to be an important element of the sector. Labor-intensive manufacturing accounted for more than half of the sector employment as of 1976 but generated lesser shares of sectoral income and Gross Domestic Product. Table 1 arrays the various manufacturing industries by their contributions to income, employment, and output in 1977.

- Income from manufacturing in Puerto Rico is less than commensurate with the sector's output. This is mainly due to the heavy reliance on outside sources

Table 1.—Industry Group Contributions to Income, Employment, and Output in 1977

(Percentage of manufacturing sector total)

Industry group	Income (labor income)	Employ- ment	Output (GDP)
Apparel	16.4	25.1	8.3
Electrical machinery	11.1	9.4	12.9
Food products	11.0	9.2	9.1
Pharmaceuticals	8.6	6.5	26.5
Instruments	6.3	8.3	4.9
Stone, clay, glass	4.3	3.6	2.6
Petrochemicals	4.1	3.0	7.4
Nonelectrical machinery	3.9	3.4	3.9
Petroleum	3.9	2.6	3.2
Fabricated metals	3.2	2.6	2.2
Printing and publishing	2.7	1.8	1.1
Tobacco	2.4	2.1	3.8
Textiles	2.3	3.2	1.4
Rubber and plastics	2.3	1.6	1.4
Sugar	2.3	1.9	0.2
Leather products	2.1	3.8	1.0
Soft drinks	2.0	1.6	1.8
Wood and furniture	1.8	2.6	0.9
Alcoholic beverages	1.7	1.4	6.1
Other chemicals	1.7	1.3	0.9
Beer	1.3	1.1	0.9
Paper and paper products	1.0	1.2	0.6
Primary metals	1.0	0.8	0.4
Transportation equipment	0.4	0.1	0.2

Note: Listing is in order of rank in contribution to income.

of capital since domestic saving is insufficient to support investment and government expenditures.

- Puerto Rico's manufacturing sector appears vulnerable to cyclical changes in business conditions in the United States. Despite the fact that in the late 1950's and 1960's attempts were made to attract industries thought to be less subject to cyclical changes, the cyclical vulnerability of the sector remains. Moreover, the new core industries which arose in the 1960's—petroleum refining and related petrochemical manufacturing—have proved sensitive to other unanticipated outside forces as well, the most extraordinary of which is the rapid rise in crude oil prices resulting from the OPEC price changes starting in 1973.

Competitive Position

- Puerto Rico's earlier competitive advantage of lower wages than on the mainland declined somewhat through 1970 because of accelerated wage rate increases. Since 1970, wages in Puerto Rico have not moved significantly relative to the mainland average. However, energy and transportation cost increases have greater impact on industrial location in Puerto Rico than on the mainland. The differential in the overall rates of cost increases allowed Puerto Rico to remain cost-competitive with mainland operations in many types of manufacturing.

- In some labor-intensive industries Puerto Rico appears to suffer from a wage-cost disadvantage compared to developing countries, including Latin Amer-

ican economies. But other factors favor U.S. investment in Puerto Rico relative to such countries; these factors include Puerto Rico's tradition of political stability; the duty-free entry of its products into the U.S. market; and the relatively well-trained and stable workforce.

Industrial Linkages

- The subsidiaries of U.S. companies largely responsible for the impressive growth of Puerto Rico have primarily used the island as a production point, bringing in raw materials and intermediate goods while shipping the output directly to their mainland parent companies for distribution. This routing has resulted in limiting to a great extent the growth of linkages between manufacturing industries in Puerto Rico.

- Puerto Rico's relatively poor distribution system probably encourages U.S. firms to rely heavily on their parent companies, adding to the difficulties of maximizing the number of industrial linkages.

- Increased income generation, primarily a function of such factors as the nature of specific manufacturing industries and increased linkage and multiplier effects, can be important in providing greater potential for Puerto Rican revenue.

Import Substitution

- Given appropriate policies, carefully selected import substitution products can be promoted to increase the value-added on the island and to reduce leakage of potential savings to other areas.

- Puerto Rican imports, especially those from the U.S. mainland, appear to contain a number of items which can be efficiently produced in Puerto Rico. Among the manufactured products holding promise for import substitution are beer, bakery products, manufactured milk products and rubber tires and tubes.

Investment Incentives

- Puerto Rico's Industrial Incentives Act (IIA) and the related U.S. tax concessions provided under the Internal Revenue Code have been powerful inducements for U.S. firms to locate in the Commonwealth. The nature of the industries recently locating there suggests that tax concessions may be a significant factor in the decision to locate in Puerto Rico.

- The 1976 change in the Federal tax code allowing possessions' corporations to repatriate dividends free of U.S. income tax on a current basis should indirectly benefit Puerto Rico by permitting it to

capture through taxation some portion of the repatriated earnings. The tax on repatriated earnings is the "tollgate tax."

- Other Puerto Rican Government incentives, although less important, have aided industrial development. These include worker training and other technical assistance, the construction and subsidized rental of industrial buildings, capital grants for some new plants, and loans from the Government Development Bank and the Puerto Rican Industrial Development Company (PRIDCO).

Sources of Investment

- Investment sources have been largely external. About 90 percent of Puerto Rico's industry has been financed by U.S. mainland firms.

- It appears in view of the lack of Puerto Rican capital formation that future manufacturing development will continue to depend very heavily on capital inflows. Such inflows rest heavily on continued facilitation by Federal tax policies.

IMPACT OF FEDERAL PROGRAMS AND POLICIES

The Federal relationship is important in many respects to the development and future of the manufacturing sector. When Puerto Rico's development strategy was adopted in the 1940's the free trade relationship was the most important aspect. Over the years, however, other policies and programs have become increasingly significant.

Tax Policies

Prior to 1976 section 931 of the U.S. Internal Revenue Code provided that a subsidiary of a U.S. firm investing in Puerto Rico could qualify as a "possessions corporation" and thus exclude from Federal taxation the income from its Puerto Rican operations. Moreover, the possessions status allowed a "Section 931 corporation" based in Puerto Rico to enjoy tax exemption on income from possessions sources other than Puerto Rico. Coupled with Puerto Rico's incentive program that provided exemption from Commonwealth taxes, the possessions corporation treatment provided by the U.S. Internal Revenue Code was an important factor in the location of industry in Puerto Rico. The 1976 U.S. Tax Reform Law under section 936 made a number of changes relating to "possessions corporations," including the elimination of the tax exemption from sources outside Puerto Rico. It also provided a tax-free status for dividend repatriations made at any time during the life of section 936 corporations. This provision

gave the Puerto Rican Government the opportunity of gaining revenue by imposing a "tollgate" tax of 10 percent on earnings in Puerto Rico that were repatriated to the mainland by the parent companies.

Wage Policies

Special Federal provisions in the Fair Labor Standards Act allowing minimum wages for Puerto Rico at levels lower than on the mainland constituted an important factor in the establishment of new manufacturing plants, especially in the more labor-intensive types of production. Recent amendments of the Fair Labor Standards Act, which will bring almost all industries in Puerto Rico up to the U.S. minimum wage level by January 1981, may have adverse effects on some manufacturing enterprises where labor productivity growth relative to competing producers cannot offset to some extent the increase in wage rates. The gradual displacement of these industries by more competitive industries is taking place, but the process will take time.

Foreign Trade Policies

U.S. foreign trade policies are significant for Puerto Rico in several ways. Particularly important are those policies that reduce U.S. barriers to the importation of goods from developing countries when the same or similar goods are produced in Puerto Rico. In such instances, if Puerto Rico's competitive edge is small, Puerto Rican production may be severely reduced or completely eliminated. On the other hand, U.S. success in obtaining reduction of foreign trade barriers to goods which are being or could be competitively produced in Puerto Rico opens new opportunities for Puerto Rican manufacturing and export. A reduction in U.S. import restrictions also may reduce costs of goods imported into Puerto Rico, which in the case of raw materials or capital equipment may reinforce the competitiveness of particular products produced in Puerto Rico.

Federal Assistance Programs

In addition to the major influences resulting from Federal tax, wage, and foreign trade policies, a number of Federal assistance programs affect Puerto Rican industry directly and indirectly.

The programs which have direct assistance available to Puerto Rican industry include grants and loans provided by the Department of Commerce through the Economic Development Administration, the Farmer's Home Loan Bank business and industrial loans, HUD's Housing subsidies, and various loans provided by the Small Business Administration. While the total direct effect of these and other programs on Puerto Rican industry is modest, the in-

direct effects are pervasive. Transportation, communications, power, and other facilities used by the manufacturing sector have received support under a number of Federal programs. Federal assistance in the education area, particularly through the financing of special training programs, has been a helpful but indirect support to industry.

MAJOR PROBLEM AND SURROUNDING QUESTIONS

The basic problem regarding Puerto Rico's manufacturing centers on the choice of an overall strategy which will allow this key sector to continue growth in such a way as to provide maximum benefit to Puerto Rico.

Several significant questions must be answered in choosing the correct policy strategy. These include:

- (1) How can the recent uptrend in manufacturing output, income, and employment be continued or possibly accelerated?
- (2) How can an adequate flow of external investment—critical for industrial development—be maintained?
- (3) How can the income generation of investment for the island in manufacturing be increased?
- (4) How can the competitive position of Puerto Rican manufacturing industries be maintained or improved?
- (5) How can the risk of vulnerability to changes in external circumstances and Federal Government policies be reduced?
- (6) What kinds of industries should be promoted by the Puerto Rican Economic Development Administration?

Puerto Rican Government Options

Puerto Rico is confronted with the need to compete for markets on the mainland and elsewhere with producers able to offer lower costs and better access to technology. This means governmental policies must be sensitive to the types of industries drawn to the island and the benefits the economy will derive from the industry's island location. The Study outlines various criteria that the Government can utilize to evaluate the industry's importance to the island. Among the criteria are: long-term competitiveness, technology, employment, revenue potential to the island, upgrading of labor force skill levels, linkage to other island industries, and efficient import substitution potential. Any growth strategy envisioned by government officials should involve these criteria.

Industries attracted to the island embody different degrees of factor combinations. To some extent, the factor combination determines the level of benefits obtained by island factors. In evaluating the benefit

levels of each industry, government officials can establish policies that reflect the technology and factor combinations that are important to the island. Policies could be constructed to maximize the perceived benefits of target industries.

Industries, for example, with relatively high capital/labor (K/L) ratios may bring with them a competitive technology, better labor training and local management opportunities, the ability to pay higher wages, and a long-term competitive advantage. The industries may, however, not utilize fully the island's abundant factor input. Clearly, the industrial composition will alter the benefit level available to the island in the short term, but given appropriate policies the long-term benefit to the island could be manifested in a modern, high technology, more competitive industrial structure.

On the other hand, industries with relatively low K/L ratios may, in the short term, use the island's more abundant factor input and, thus, alleviate immediately certain economic pressures. To remain important island industries over the medium term the competitiveness of these industries will depend on improved technology and upgrading output to meet changing consumer tastes.

The first emphasis—on attracting industries with relatively high K/L ratios—which essentially follows Puerto Rico's current policies, has several advantages. Mainland investors are aware of it and new industries are taking an interest in Puerto Rico. The policy provides a means of upgrading present employee skill levels. Also, it would in time enhance opportunities for increased linkage effects with other Puerto Rican industries. If successful, it would provide a strong base for expanding Puerto Rican revenues through the taxation of corporate profits.

While providing these beneficial aspects, at the same time this policy has some distinct disadvantages. These include: (1) relatively limited initial employment impact; (2) a possible long-run tendency of concentrating Puerto Rican income in the hands of a relatively small but skilled labor group; (3) a heavy dependence on tax exemption measures in attracting inflows of investment capital; (4) considerable vulnerability to any change that might occur in the nature of the Puerto Rican-U.S. Government fiscal relationships; and (5) the corollary to foreign capital—increased foreign ownership—would cause a widening of the gap between gross domestic product and gross national product.

In contrast, industries with relatively low K/L ratios can bring greater immediate employment impacts. An emphasis on them is more directly responsive to the problem of high unemployment and would tend to build a manufacturing sector consistent with Puerto Rico's abundant labor which is relatively inexpensive compared to the U.S. mainland. Labor

income would be increased. Also, Puerto Rican investors would be provided a greater scope of investment opportunities since the smaller capital requirements would allow more local participation in ownership. Under such a strategy the gap between GDP and GNP would tend to narrow. The economy would become somewhat less vulnerable to changes in Puerto Rican-U.S. Government relationships.

Among the disadvantages of this policy orientation are: (1) labor-intensive industries tend to offer less promising prospects for market growth than other industries; (2) necessary supporting actions, which would be required in the form of subsidies and possibly changes in the minimum wage legislation, may be difficult to achieve or even undesirable; (3) the shift in emphasis might cause business reluctance regarding or even discouragement of some planned capital-intensive investment; (4) skill upgrading of workers would tend to be more limited as would overall real wage increase; and (5) prospects for the development of linkages with other local industries would probably be more limited.

Several programmatic approaches are discussed in the sector report as worthy of consideration by the Puerto Rican Government:

(1) *Adoption of a minimum profits tax for manufacturing companies.*—This option suggests an approach to retain "promoted" firms on the Island once their original tax exemptions have expired. Under this approach, rather than extending exemptions to new product lines—or facing plant closures—the Puerto Rican Government could apply a minimum corporate tax on profits.

(2) *Adoption of a differentiated incentives system.*—In place of the present incentive policy, which makes few distinctions among the various types of manufacturing, Puerto Rico may wish to introduce a subsidy policy with varying incentives depending on the types of industries that are considered desirable. Such a system is outlined in the report and the additional data needs for its planning and operation are discussed. The choice of particular industries to receive specially favorable treatment would reflect the basic industry strategy option chosen.

(3) *Adoption of a limited import substitution program for manufacturing industries.*—Although the main emphasis under policy formulation would be on export-oriented industries, there may be opportunities for Puerto Rico to increase local production of selected items which would be intended for local consumption.

Federal Government Options

Aside from the "Possessions Corporation System of Taxation" under the Internal Revenue Code, the only Federal programs of a direct support character

devoted to industrial development are several loan funds whose limited resources are drawn upon for projects in States and territories alike. Continuation of the present exemption from Federal income tax of repatriated dividends from Puerto Rican enterprises, however, is virtually a *sine qua non* for attracting more U.S. investment capital to Puerto Rican industry.

Other Federal programs affect the manufacturing sector indirectly. They are primarily related to other sectors. For example, there are programs assisting in the construction of infrastructure, improvement in housing, health, and education, and providing training. The Federal Government's use of these programs is covered in other sector reports.

Several general Federal actions considered to be particularly helpful to Puerto Rico's future industrial development, however, are considered by the Manufacturing Sector Study. These include:

1. The close coordination of Federal programs with Puerto Rican industrial priorities.
2. Full recognition of the impacts on Puerto Rican industry in the making of U.S. trade policy decisions.
3. To the degree possible under statutory limits, the making of allowances for differences between Puerto Rico and the U.S. mainland in applying regulatory requirements.
4. Provision of assistance to Puerto Rico in reviewing its economic data gathering, research, analysis, and reporting systems. Also, increased efforts to include Puerto Rico in U.S. statistical series where it is not now fully included.

AGRICULTURE, FOOD, AND RURAL LIVING³

Overview

From being the predominant sector in the 1940's and 1950's, agriculture has declined to become the smallest of Puerto Rico's major economic sectors. Even as late as 1960 employment in agriculture accounted for 24 percent of total employment. By 1977, however, it employed only 6.5 percent of the work force and contributed only 6.5 percent to the formation of GNP.

In the 1940's and 1950's Puerto Rico's agriculture had a dual structure—the production of sugar, coffee, tobacco, and pineapples as commercial crops and the subsistence production of various vegetables and fruits by large numbers of small-scale farmers who generally eked out a poor living. Sugar, grown on

plantations on the more fertile coastal plains, not only dominated commercial agriculture but also the Commonwealth's economy. Tobacco, grown mostly in the mountain valley of the wetter north slopes, and coffee grown on the mountain slopes constituted secondary profitable commercial crops.

Over the years sugar production has declined and in several recent years, despite subsidies, this high cost industry has registered heavy losses. Coffee now occupies about the same acreage as sugar, but its production is considered inefficient. Tobacco production, despite subsidies and incentives, has not been profitable and the Commonwealth Government plans to phase out production. Pineapple production and processing under the Puerto Rican Land Authority has also had large losses in recent years.

Since the mid-1960's, the agriculture sector has shifted toward greater diversification and commercialization in the production of milk, poultry, eggs, beef, and pork and away from "traditional" crops. By 1976, this "livestock products" category accounted for 53 percent of the total agricultural product value while the "traditional crops" accounted for only 16 percent.

Reliance on imported foods has increased greatly over the years as the growth in population has been faster than that of food production and as farmers have moved to urban centers. By FY 1976 imports of food products, valued at \$1 billion, amounted to more than 60 percent of the Commonwealth's expenditures for food. Local production in 1976 accounted for only 65 percent of the island's consumption of starchy vegetables (plantains, yams, cassava), 40 percent of the garden vegetables, 10 percent of the legumes, and 25-30 percent of pork, beef, and poultry.

Since 1974 Puerto Rico has relied heavily on the Food Stamp Program, with about half of the families on the island using food stamps in 1976. Together with other food programs (e.g., school lunches), Puerto Rico received aid amounting to about \$630 million in 1976.

In the past several years the Puerto Rican Department of Agriculture's annual operating budget of about \$50 million has provided subsidies (to farmers producing traditional crops), development incentives, and agricultural services. Despite these expenditures the overall agricultural situation has shown no marked improvement. Nevertheless, agriculture has been sustained, the sugar industry is still operating, and significant strides have been made in livestock and poultry output.

Puerto Rico's agricultural marketing structure—both in serving the domestic and export trade—has serious inefficiencies which complicate efforts to accelerate commercial agricultural production.

Puerto Rico lags far behind the mainland in intro-

³ The report on the agricultural sector analyzes not only agricultural production, but also food consumption and rural living conditions. The emphasis in this summary is on production and distribution, but includes these other aspects, some of which are also touched upon in other sector reports.

ducing and spreading modern agricultural technology. In part, this appears to be due to lack of energetic government efforts in experimental and extension work, but it also reflects the lower educational levels and older age levels of Puerto Rican agricultural workers when compared to mainland agricultural workers.

Rural living conditions, although improved over the last several decades, are considered deficient in several respects. In particular, much of the housing is "inadequate," i.e., not up to minimum U.S. standards. Waste treatment is deficient and the limited telephone facilities of the rural areas, combined with the lack of islandwide communications, are a constraint on the development of rural businesses. Also, in many of the mountainous areas of the island, where agriculture is most difficult, opportunities for other employment are extremely limited.

Impact of Federal Programs

Federal programs provide a limited amount of program assistance in the field of agricultural production, large sums in the form of food stamps and other food programs, and some funds—mostly in the form of home ownership loans and "water and waste" loans and grants—aimed at assisting the improvement of rural living conditions.

In the field of agricultural production and general agricultural development, the U.S. Government provides: Financial aid for research at the Agricultural Experiment Stations at Mayaguez and Rio Piedras and the Mayaguez Institute of Tropical Agriculture; more than 60 percent of the funding of the Commonwealth's Agricultural Extension Service; funds and personnel for food inspection; funds for insect and disease control; and funds for price supports for sugar.

The major U.S. funding is in the various food programs which amounted to about \$630 million in 1976. Although it is basically a welfare program rather than an agricultural program, the impact of the food stamp program has been felt in all sectors. The large infusion of spending made possible by food stamps after 1974 increased consumption of food products in the rural areas as well as in the cities. Although most of the increases came from accelerated imports, some were from local sources, especially in the case of milk and, to a lesser extent, meat and poultry.

Federal programs for agriculture and the rural sector provide funds designed to assist in rural housing, community facilities, business and industry, electric and telephone facilities, and technical assistance. In Puerto Rico, the most significant are those of the Farmers Home Administration which increased its obligations in Puerto Rico almost tenfold between

FY 1970 and 1976; its projects more than doubled between 1976 and 1978 to reach \$224 million in the latter year. This agency's largest expenditures are in providing housing loans; but loans and grants for such community services as "water and waste" and "community facilities" (e.g., health service, parks) are also of importance.

Major Problems

The agriculture sector has many problems, some of them indicated in the preceding "Overview." Two basic issues stand out, with many lesser problems and issues subsumed under these:

(1) What is the best agricultural strategy for Puerto Rico to efficiently use its resources—land, water, labor, and capital—so as to raise the current production level of food products, primarily to decrease heavy reliance on imports but also to provide revenue from exports?

(2) What sort of rural development program might Puerto Rico consider, under present general budget constraints, to improve living conditions for the rural population and to provide a better base for locating businesses in rural areas?

Important lesser issues—related to the above—include the following:

(1) What steps can be taken to increase the productivity and improve the output of small farmers?

(2) What steps can be taken to better deal with land and water shortages being experienced in some agricultural areas?

(3) What can be done to develop a more effective agricultural marketing structure?

(4) What steps can be taken to increase the effectiveness of the food assistance programs?

Program and Policy Options

The Basic Strategy Options.—The Agricultural Task Force which prepared this sector report analyzed three agricultural production strategies for the 10 years 1979–88. Each strategy would require the coordinated effort of the Commonwealth and Federal Governments to achieve the production, employment, and land use goals. Each calls for a different mix of governmental programs and a different level of funding.

The main features and problems of the three strategies—called "continuation," "free-market," and "action"—are described briefly in the accompanying table. The table also provides estimated costs and expected levels of farm employment and income by 1988 compared with 1976.

Summary of Three Alternative Agricultural Strategies

Item	1976	Alternative strategies to 1988 ¹		Action ²
		Continuation	Free Market	
Farm employment (thousands)	46.0	42.0	34.0	45.0
Farm income (millions of dollars):				
Gross	410.7	549.3	461.4	625.5
Net	82.1	92.6	44.7	64.3
Net after deducting subsidies, wage supplements, and losses from government operations	40.4	25.6	25.7	50.3
Government costs (millions of dollars):				
Commonwealth Government	146.6	91.9 (1,154)	42.0 (927)	44.2 (1,102)
Federal Government	17.0	14.0 (140)	19.3 (176)	22.5 (228)
FmHA farm production loans	7.0	7.0 (70)	50.0 (500)	50.0 (500)
Ratio of value added by island agriculture to Commonwealth and Federal program costs	1.85	4.07	5.55	6.83
Credit needs (millions of dollars)	200.0	200.0	240.0	300.0
Main features of strategy		Stresses social objectives, continuing subsidies to low-income farmers producing traditional crops, and wage supplements to agricultural laborers. Slow decline in agricultural employment. Continues government agricultural processing operations, but attempts to reduce losses, especially in sugar operations.	Reduction of subsidies to low-income farmers producing traditional crops, wage supplements to agricultural laborers, and incentives for production services. Emphasis on increased government assistance in research, extension, and marketing assistance programs. Sugar operation would go into bankruptcy. Production of livestock would decline. Provides for development of rice production on 25,000 acres.	Aggressive acceleration of commercial production by small-scale family farms and phase-down of the various income-support programs. Sugar industry to be brought to a no-loss position. Development of rice production on 50,000 acres, expansion of coffee production and of fruit and vegetable outputs. Greater emphasis on forest improvement and protection. Provides for increased government assistance in research, extension, and marketing assistance program.
Major problems associated with strategy		<ul style="list-style-type: none"> • Very costly to Commonwealth Government. By 1988 Commonwealth costs would be reduced, but still high (more than double those of other two alternatives). 	<ul style="list-style-type: none"> • Would call for 15 percent increase in Federal program costs plus a sevenfold increase in Farmers Home Administration production loans (in order to finance certain agricultural re-development and to avoid further collapse). • Net income to farmers would be markedly reduced. 	<ul style="list-style-type: none"> • Plan should systematically assess marketing needs for the proposed production strategy. • Federal Government costs would be substantially increased including sevenfold increase in Farmers Home Administration production loans and large rice production costs. • Production shortfall and cost overruns are a distinct possibility.

¹ The figures without parentheses are 1988 budget estimates; those in parentheses are cumulative amount for the 10 years 1978-88.

² Program reflects adjustments to a study developed by Puerto Rican Secretary of Agriculture.

Note: All dollar figures are in 1976 dollars.

Regardless of which basic strategy is decided upon—one of these three or some other possible modification—Puerto Rico has some secondary options which will help increase agriculture productivity. These relate to the better use of research funds and improvements in agricultural extension. In particular, it is noted that administrative costs in both the Experiment Stations and the Extension Service are unusually high and that farmers have not kept pace with technological advances such as the use of fertilizers and the treatment of animal and plant diseases.

Food Programs.—There are several options which

offer promise in making the present Federal food programs more effective. These include: (1) improving the management of the programs at the local level; (2) authorizing the use of food stamps in farmers markets (which could assist in getting locally grown food in commercial channels and encourage increased production); and (3) expanding the use of the WIC program (supplemental food program for women, infants, and children) which is not reaching many who are eligible.

Rural Living Conditions.—Improvement of rural living conditions is constrained by the severe limita-

tions of economic opportunities in the countryside. Families without jobholders and with very low incomes find the loan and guarantee programs for housing, for example, of little help. However, some options are identified. Among the more promising are: (1) an increased use of the Farmers Home Administration's section 504 and section 502 housing loan funds; (2) possible alteration of U.S. minimum property standards for housing to reflect "local acceptable standards" (which would permit better targeting of the available funds to meet the greatest needs and also make the funds go farther than under the present standards).

Rural Business Development.—Options aimed at improving business development in rural areas include increased use of the Farmers Home Administration's "Business and Industry" loans and possibly Small Business Administration loans. In particular, use of these for establishing agricultural marketing businesses such as storage and processing operations would be helpful since the present agricultural marketing is deficient.

Other rural development options concern the improvement of water supplies, electrification, and telephone services. These include: (1) revising the accounting records of the Puerto Rico Aqueduct and Sewer Authority, which should lead to more effective use of Farmers Home Administration's loans for sewer and water facilities in rural areas; (2) increasing Commonwealth expenditures for telephone facilities; and (3) stepping up of planning and feasibility analyses so as to take advantage of Federal grant programs coming available for public works (EDA) and rural roads (DOT).

TOURISM

Overview

The tourism industry in Puerto Rico is a major income earner—second only to the manufacturing sector in 1977, if government is omitted as a sector. Tourist expenditures currently represent over 5 percent of the total Puerto Rican GNP.

During the 1950's and 1960's the industry's growth was rapid, with the number of tourists increasing from 65,000 in 1950 to 1.1 million in 1970. The flourishing tourism industry by 1970 had numerous modern hotels along the beach front of metropolitan San Juan and more than 7,100 rooms available in all of Puerto Rico, in contrast to fewer than 800 rooms in 1950. During the 1970's further increases were achieved but at a slower pace and interrupted by setbacks, particularly in 1975 and 1976. In these 2 years a decline was registered in the number of visitors and in their level of expenditures, if adjusted for inflation. In 1977 and 1978, however, the industry strongly rebounded and currently it is strong.

In 1977 some 1,376,000 persons visited Puerto Rico. They stayed an average of 4 days and spent a total of \$424 million. Since each tourist dollar has a multiplier effect the actual income generated was several times larger than the expenditure figure. Moreover, the industry is labor intensive providing a larger proportion of employment than the expenditure figures suggest. In 1977 employment generated by visitor spending was estimated at more than 80,000 or about 11 percent of total employment.

IMPACT OF FEDERAL PROGRAMS AND POLICIES

As in the case of other sectors, numerous Federal programs and policies affect Puerto Rico's tourism industry, directly or indirectly. Five of these, considered as having direct and important impacts on the tourism situation, are summarized here.

Air Transportation Policies

Previous U.S. air transportation policy had limited the number of centers in the United States with direct flights to San Juan, and restricted the certification of airlines on existing routes. The Commonwealth Government has sought to add additional cities for direct service to Puerto Rico and more airlines to operate on the existing routes. Such changes, in the view of Puerto Rico, would increase tourism.

Within the past year, there have been awards of additional service routes to Puerto Rico and new airlines have entered the marketplace. Also, scheduled service has begun to Borinquen Airport, in the western part of Puerto Rico, which should aid tourism development in that area.

There are other proceedings pending concerning air service in the Caribbean area, including Puerto Rico, which could expand air service and give an impetus to tourism in that area.

The Commonwealth has also been concerned about the rise in air fares to Puerto Rico over recent years, feeling that the island's stature as a low-cost destination in terms of air fares has been eroded.

The recent and potential influx of broader and more competitive air service should provide a marketplace incentive for innovative and economical fare policies in accordance with current U.S. aviation policy, and also an additional incentive to promote travel to Puerto Rico.

Tax Policies Related to Conventions

Present U.S. tax policy on deductions for foreign conventions is beneficial to Puerto Rico tourism.

Section 602 of the Tax Reform Act of 1976 restricts the number of foreign conventions which are tax deductible to two per year. This policy has

had the impact of substituting domestic conventions for foreign conventions. Since Puerto Rico is treated as a domestic area for this purpose, the San Juan-Puerto Rico Convention Bureau believes this policy to have a beneficial impact on Puerto Rico tourism.

However, legislation pending in the 96th Congress proposes modification or abolition of the existing tax treatment, with potential implications for the competitive position of Puerto Rico as a convention venue.

Another tax policy may affect the development of hotels in Puerto Rico by U.S.-based multinational companies. This is the provision, under section 936 of the Tax Code, which permits the transfer back to the U.S. mainland of excess funds without full taxation. (See the Industrial Sector Study for details of tax matters.)

Policy Related to Use of Military Facilities

The U.S. Air Force has transferred the former Ramey Air Force Base to Puerto Rico. The Air Force, however, retains rights to use some of the former base in time of emergency and negotiations have not been completed for the transfer of dependent housing. There is disagreement as to whether the delay in transferring to Puerto Rico full and permanent rights to Ramey has retarded development of the nearby district (Punta Borinquen) as a tourism area. The Commonwealth has prepared plans for the development of this area in western Puerto Rico and is promoting it.

MAJOR PROBLEMS

Despite noticeable recent improvements and its present strength, the tourism industry in Puerto Rico faces a number of problems. Some of these problems emerged as the flow of incoming tourists slowed in 1975 and 1976 although they trace back to earlier years. Currently, attention is being given to these problems, but more needs to be done if tourism is to achieve its full potential as an income contributor in the Island's economy of the 1980's. The focus here is on four of the problems having important impacts on the current situation; other problems are covered in the full sector report.

Demand—Insufficient, Cyclical, and Seasonal

A major problem is that of insufficient and irregular demand which relates to the heavy dependence on visitors from the United States, particularly from the Middle Atlantic States. About three-fourths of the tourists are from mainland United States and

cyclical swings in the U.S. economy strongly affect the numbers who come, stay in hotels, and spend money in Puerto Rico.

Not only do cyclical changes affect tourism, but the industry is characterized by seasonal demand. The major peak in Puerto Rico is during the winter season when large numbers of visitors are attracted from the colder U.S. mainland—particularly New York and adjacent States—by Puerto Rico's attractive climate. A minor summer peak is developing among nonresident visitors and many local residents use San Juan hotel facilities in the summer. Greater stabilization of income and employment—both cyclically and seasonally—is desirable.

Area Concentration

The heavy concentration of Puerto Rico's tourism industry in the San Juan metropolitan area has caused or heightened several problems. This concentration has resulted in tourist facilities, developed with only a minimum of urban planning, lying in close proximity to sprawling urban development and some polluted beaches. At the same time, other areas of the island considered to have tourist potential remain largely undeveloped or underdeveloped. The prior presence of only one air gateway—the San Juan airport—and the prior level of air service contributed to this situation.

Increased development of outisland tourist facilities would seem to offer opportunities to attract additional tourist business, including that of local residents of Puerto Rico.

Air Transportation Problems

Competition with other tourist areas—especially within the Caribbean region—is strongly affected by air transportation service and fares.

Puerto Rican officials believe that increased air service from more U.S. centers to San Juan and increased competition on existing air routes will increase tourist traffic.

Some new air service has already begun, and pending proceedings are considering additional routes and competition.

Present U.S. policy also authorizes only San Juan's airport as an internationally scheduled airport. The Puerto Rican Government believes that Borinquen Airport (former Ramey Air Force Base) in the western part of the island should also be authorized as an international airport, looking to this change to help with plans to develop tourism in that area.

As indicated above in the section "Impact of Federal Programs and Policies," increased air fares between the United States and Puerto Rico are of continuing concern to Island officials. They view

such increases as converting Puerto Rico from a low-fare destination to one relatively expensive to reach from U.S. points, thus placing it in a less advantageous position in attracting tourists.

Developing Outisland Tourism

Federal Government policy could aid outisland tourism development—thus reducing tourism concentration in the San Juan metropolitan area—in two ways. The first is to expedite the final signing over of the former Ramey Air Force Base to Puerto Rico. Development of Punta Borinquen, especially by private developers, as a tourism destination is reportedly being limited in part by the Air Force's retention of the right to use the base in time of emergency, and final negotiations have not been completed on the transfer of former dependent housing. Private developers are reluctant to commit resources to build tourism facilities under the present arrangements. This must, of course, be weighed in terms of U.S. need for future use of the base, and the terms of a mutually satisfactory negotiated transfer.

A second Federal action that could aid the development of outisland tourism would be to provide assistance to Puerto Rico for planning and developing new tourism areas. Development might take place, for example, in Punta Borinquen or a historic city such as Ponce. Funds for such purposes might be available from Commerce's Economic Development Administration.

Puerto Rico should also institute a marketing plan including an evaluation process as a focal point for long-term development. The basis for this is already in existence through a 5-year tourism master plan project being conducted under the auspices of the Organization of American States with support from the United States Travel Service.

Higher Prices and Wages

Puerto Rico has the problem of high prices for tourism, particularly with respect to hotel prices. Major causes of the high hotel costs—as compared to some competing areas—are: (1) high cost of hotel construction; (2) high wage and employment levels; and (3) union activity. This problem has been partially ameliorated during the 1970's when reduced business prompted management to take steps to increase productivity. The ratio of employees to hotel rooms has generally been reduced—from more than 1 in the 1960's to less than 1 in most of the 1970's. Unions tended to agree to this reduction in employment and also reduced their wage and fringe benefit demands in the face of hotel closings.

Puerto Rico is likely to remain a relatively expensive tourism destination, compared to other

Caribbean destinations, because of the impact of Puerto Rican and Federal Government labor legislation setting minimum wage levels and other standards. It is important, therefore, for the industry to make every possible effort to reduce unnecessary costs through efficient management.

PROGRAM AND POLICY OPTIONS

Federal Government Options

A few major options, related to some of the major problems indicated above, are summarized here.

Broadening the Tourist Base.—Federal programs could assist the Commonwealth Government in encouraging the development of new sources of tourists to Puerto Rico. Such assistance has already been given by the United States Travel Service (USTS) both through its field offices abroad (in Canada, Mexico, Japan, the United Kingdom, Germany, and France) and through its special markets program which operates in a number of other countries, and through familiarization tours, matching grants, and assistance with commercial offices overseas.

The USTS will continue to work with Puerto Rico, pending resource availability. The USTS has already supported the 5-year tourism master plan for Puerto Rico through the Organization of American States.

Federal technical assistance might be provided to the Puerto Rican Government to help in its efforts to reduce the seasonability of the present industry. Potential sources of such assistance are Federal grants in conjunction with the master plan.

Improving Air Transportation.—Federal Government policies with respect to air transportation could expand tourism to Puerto Rico. Increased points with direct routes to San Juan from the U.S. mainland, as well as increased frequencies on present routes, are under consideration. Such a policy change appears to be consistent with CAB's (Civil Aeronautics Board) increased commitment to permissive rather than mandatory designation of routes as a means of increasing air transport competition. Such improvements in the scheduled airline service to Puerto Rico—should CAB find them viable—are likely to have some limited favorable effect on tourism.

Also important are policies which further encourage the development of innovative types of flights providing reduced fares for travel. Tourism officials in Puerto Rico have noted the recent increased travel from the West Coast which they attribute to new reduced package fares.

Authority could be granted by CAB to make Borinquen Airport an internationally scheduled airport. This presumably would lead to additional tour-

ism as well as assist in better regional development of the industry.

Some of these options are under consideration in current CAB investigations. (Further discussion of air transportation problems and options are covered in the Transportation Sector Study.)

Puerto Rican Government Options

Broadening the Tourist Base.—The Government of Puerto Rico could increase the present resources of the Tourism Development Company which promotes tourism with the objective of developing new markets, especially outside the Middle Atlantic States. Such an increase has been proposed for the next fiscal year. Promotion could also be aimed at decreasing tourism seasonality by promoting tourism outside the peak winter season.

Whether Puerto Rico should devote additional financial support to such efforts depends on their effectiveness in increasing the number of visitors and tourist expenditures. Even within the present constraints of funds some reorientation of the promotion program could assist, however, in broadening the present tourist base.

The master plan project can serve as a comprehensive approach to tourism development and priorities as well as an evaluation and coordination mechanism.

As indicated previously, the Federal Government may be helpful in these efforts.

Developing Outisland Tourism.—In the long run, tourism growth in Puerto Rico is likely to require a greater degree of outisland development. The Government is promoting such development by constructing a number of small guest hotels or *paradores* at selected locations throughout the island. It is also encouraging tourism development in the Punta Borinquen area. Its options include continuing the present level of effort or increasing such efforts. Outisland development, which has the advantage of being attractive to local tourists as well as U.S. and foreign tourists, will aid the geographical spread of tourism on the island.

The effectiveness of the Puerto Rican Government's efforts will depend on successful planning and program implementation, with the assistance of Federal funds, to enlist the support of the private sector.

Improving San Juan Tourist Facilities.—One option available to the Government in its overall program to strengthen tourism, is to increase its efforts aimed at improving the main San Juan tourist district, i.e., the Condado and Isla Verde coastal strips. Several studies have been completed indicating possible improvements and making specific recommen-

dations. These include: (1) architectural improvements; (2) elimination of zoning nonconformities; (3) construction of pedestrian arcades; and (4) improvement of traffic flows and parking facilities. Some of these proposed steps would primarily have shortrun effects whereas others, such as upgrading the architecture of newly constructed buildings, would take much longer to have a substantial effect.

HOUSING AND CONSTRUCTION

Overview

Construction has been an extremely important sector in the Puerto Rican economy, and its revival from present reduced levels is considered by the Puerto Rican Government to be essential for the overall economic recovery of the island. Between 1960 and 1972 the construction sector's contribution to GNP rose from about 13 percent to 23 percent, and its employment rose from 45,000 to 81,000, or about 12 percent of overall employment. The recent recession caused 1976 construction expenditures, in constant dollars, to drop by about one-third from the 1972 level, and construction employment by about the same amount. A further decline was registered in 1977, as the demand for industrial and commercial construction continued to diminish, and housing and public works expenditures failed to take up the slack.

Housing.—Homebuilding, which accounted for about 30 percent of the value of construction activity during 1972-76, reached its peak in the years 1972-74, then declined, and has not begun a significant recovery. The falloff in housing starts was caused by greatly reduced unsubsidized housing activity, and aggravated by a near drying up of federally subsidized housing production. (The latter resulted from a 1973 moratorium on subsidized housing production for the entire United States, since rescinded.)

The Puerto Rican Government has assigned a key role to increased housing production to stimulate the economy, and it has outlined a 3-year effort for the production of 20,000 new housing units per year, divided almost equally between unsubsidized and subsidized housing (44 and 42 percent, respectively), with a 14-percent allowance for individually built houses (custom built or self built). Attainment of the subsidized housing target depends upon the availability of sufficient Federal subsidy aids and the ability of the Puerto Rican Government and the local homebuilding industry to overcome institutional constraints that have, hitherto, inhibited large-scale private ownership and operation of new rental housing. The major Federal subsidy program, the Section 8 Housing Assistance Payments Program of the

Department of Housing and Urban Development (HUD), provides subsidy for privately built and operated rental housing. (Public sponsorship is also permitted, but will have a secondary role.)

Business-related construction dropped precipitously between 1975-76, and this sector continued at low ebb in 1977 and 1978. Public expenditures for roads and other public works, however, showed some upturn in 1978. These activities, which are federally aided, will have greater comparative importance in the construction sector in 1978 and 1979.

Impact of Federal Programs and Policies.—Programs of at least 10 Federal agencies provide significant amounts of direct financing or other assistance for the construction of housing, public works, transportation, and other infrastructure facilities in Puerto Rico.

In the field of housing, unsubsidized production in Puerto Rico had been historically supported by the liberal financing terms and the protection to mortgage lenders provided under the Federal Housing Administration (FHA) mortgage insurance programs and the Veterans' Administration (VA) loan guaranty program. Houses under these programs were required to meet prescribed minimum design and amenity standards, and together with their virtual assurance against lender loss, FHA and VA mortgages found ready acceptance in the mainland's secondary mortgage market. During the 1960's, about 75 percent of Puerto Rico's unsubsidized housing production was produced under FHA mortgage insurance programs. During recent years, however, the role of FHA has become much smaller. In 1976 FHA insured only 7 percent of total new private housing starts on the island. VA loan guaranty activity, which had previously been much smaller than FHA's has recently matched and somewhat exceeded FHA's.

Conventional mortgage financing has largely supplanted FHA and VA financing in Puerto Rico, and this same secular shift has also been evidenced on the mainland. There are numerous reasons for this shift to non-Government-protected mortgage financing. Conventional mortgage terms have approached or matched those of FHA, and these mortgages have also found acceptance in the mainland's secondary markets. In Puerto Rico, local mortgages have recently entered into participating agreements with mainland conventional lenders, wherein the mainland institution will provide 90 percent of the mortgage loan, and the local mortgage lender will retain the remaining 10 percent and also earn the mortgage servicing fee. The processing time for conventional mortgages is reportedly much quicker than FHA's, and this faster approval is preferred by builders and buyers. Until recently FHA's mortgage ceiling of

\$45,000 for a single family house (now \$60,000) tended to preclude use of FHA financing in island subdivisions containing higher priced housing, targeted at second-time, upgrading buyers. Private mortgage insurance companies have provided protection to conventional lenders who seek additional lending safeguards. Also, continuing inflation has diminished lender risk, as the size of the outstanding mortgage loan tends to represent a constantly diminishing proportion of the property's increasing value.

The conditions suggest that FHA and VA will not rapidly recapture their previous share of Puerto Rico's mortgage financing. Puerto Rico's mortgage lending activities will, in all likelihood, continue to follow the mainland model, where FHA and VA mortgages currently claim only a small part of the mortgage market and the likelihood for their substantial, near-term turnaround appears small.

Federally subsidized housing, which has represented a substantial part of Puerto Rico's past housing production, is expected to account for about 42 percent of new housing units in the next 3 years. This part of the housing market is aided by four programs, three administered by the Department of Housing and Urban Development (HUD) and one by the Department of Agriculture's Farmers Home Administration (FmHA). These are: (1) a "deep subsidy" program to serve occupants of rental housing (HUD's section 8 program); (2) a "shallow subsidy" program to facilitate purchase of new housing (HUD's section 235 home ownership program);⁴ (3) a "deep subsidy" rental program (HUD's low income public housing program); and (4) FmHA's section 502 home ownership program, also considered a "shallow" subsidy program, despite its greater potential assistance than HUD's section 235 program.

In nonhousing construction, programs of eight U.S. agencies (in seven Departments) are identified as having recent impacts in Puerto Rico. These include the Department of Commerce's Economic Development Administration (EDA), which has provided an important one-time "shot in the arm" with 100-percent grants under the antirecession Public Works Employment Acts of 1976 and 1977; \$285 million going to Puerto Rico, mainly for community infrastructure. EDA is also providing additional impetus to construction under its regular public works grant program. That part of HUD's "block grant" funds which is spent on public works and site improvements can be roughly equated with outlay for construction activities, about \$30 million in FY 1977.

⁴ This program is different from the former section 235 program in that the amount of subsidy assistance has been substantially reduced and downpayment terms made more stringent; therefore, it is not expected to be used in Puerto Rico as much as the prior section 235 program.

The grant programs of the Environmental Protection Agency (EPA) for wastewater treatment construction and the grant and loan programs of the Farmers Home Administration (FmHA) for water and sewer construction are also large. (The allocation for Puerto Rico under these various programs amounted to more than \$100 million in FY 1976, the peak year.) Expenditures under two Department of Transportation (DOT) programs, the Public Roads Program of the Federal Highway Administration and the Airport Development Aid program of the Federal Aviation Agency, are also sizable. The programs of the U.S. Army Corps of Engineers and the Department of Health, Education, and Welfare also contribute to island construction activity.

Major Problems.—The marked decline in the formerly strong construction sector raises a number of problems. Several of the more important are considered here.

1. The basic problem is how to increase construction activity and development on a sound and orderly basis. A strong increase in construction depends upon revival and continued growth of the business, industrial, and tourist sectors of the economy. Factories, office buildings, and resort facilities, however, will be built or renovated only in response to demonstrated demand. Improved housing activity will automatically flow from economic improvement and increased family incomes.

2. The relatively high cost of housing, accompanied by the inability of most Puerto Ricans to afford even least expensive new housing, suggests that the level of present housing quality standards might be questioned. Only limited gains appear possible, however, in this area through reductions of space and amenity standards. Furthermore, such gains cannot be achieved at the expense of health or safety of the occupants.

3. Certain local institutional constraints have to be overcome in order to produce privately owned and operated subsidized rental housing under HUD's Section 8 Housing Assistance Payments Program. These include: (a) lack of an adequate number of Treasury-listed performance bonding companies for new rental housing construction; (b) an insufficient number of local owner-builders with interest and resources to undertake long-term financial investment in rental property; and (c) current lack of private experienced professional housing management firms to serve a prospective increase in subsidized new rental housing production.

4. There have been previous difficulties in taking complete advantage of all available Federal programs to assist public works construction, despite the fact that Puerto Rico's extremely rapid urban growth has created a great need for new and ad-

ditional urban infrastructure. In part, this can be attributed to the great difficulty of "fitting" Federal legislation to the unique, centralized administration of such programs in Puerto Rico. Much of the Federal public works legislation has been framed to serve the highly decentralized administration of the mainland's 50 States, with their vast number of local government's and public authorities. Need for greater administrative flexibility and adaptability, both at the Federal and Commonwealth level, are prerequisites for optimum Puerto Rican use of available Federal public works assistance. The recently demonstrated flexibility of the Economic Development Administration, under the antirecession Local Public Works (LPW) program, is cited by the Commonwealth as a prospective model for other Federal agencies.

PROGRAM AND POLICY OPTIONS

Federal Government Options

One of the possible options for lowering the cost of new housing is the federally approved reduction of space and amenity standards, without adversely impacting health and safety, for FHA insured or VA guaranteed housing. (Puerto Rico has recently achieved certain of these economies under a program financed with its own funds.) Opportunities for additional, substantial, construction economies, however, do not seem likely because of the continuing high costs of land, financing, and mechanical (cooking, electrical, and toilet) facilities. Furthermore, substantial compromises with space and amenity standards might prejudice the acceptance of Government-protected mortgages for such properties in the secondary mortgage markets of the mainland.

In the field of public works construction, the single most important recent Federal program has been the 100-percent grants provided under the Public Works Employment Acts of 1976 and 1977, administered by EDA. The continuation of this program is presently under consideration by the United States Congress.

Puerto Rican Government Options

In addition to some lowering of space and amenity standards which the Puerto Rican Government has already taken in its own programs, there may be certain site cost reductions which might help to reduce housing costs. In its public works activities, for example, Puerto Rico might bring water and sewer lines and streets to the boundaries of projects and subdivision sites, thus freeing developers from certain offsite expenses. The Government might also consider reducing the price of housing sites it

acquires through HUD's block grant programs, selling surplus land which it owns at reduced prices, and creating additional moderately priced building sites through land filling or drainage. It should be recognized that costs of finished sites represent only a fraction (20 to 25 percent) of total sales housing costs, and resultant economies from the above will be proportionately limited.

In the field of public works construction, a two-pronged approach is required. The first would be local government improvement in planning and capital budgeting procedures for such public works in order to obtain the maximum possible benefit from available Federal funds. In this regard, Puerto Rico might develop a comprehensive inventory of needed public works projects, giving priority to those that meet the criteria of the various Federal programs. In so doing, it might also seek the technical assistance of Federal agencies in qualifying projects for particular Federal programs. The second is a concentrated Federal effort to adapt its processing procedures to the unique administrative environment of Puerto Rico, characterized by its highly centralized administration of public works programs and related development of local matching funds. Federal agencies have tended to be administratively rigid at selected critical stages of public works program administration. There have been recent examples, however, of administrative flexibility that reflect Federal agency capacity to cope with the distinctive needs of Puerto Rico.

TRANSPORTATION

Overview

The transportation sector may be considered as consisting of three facets: (1) the movement of goods and people to and from the island by ships and planes; (2) the internal islandwide transportation; and (3) the urban transportation systems.

As an island heavily dependent on external sources for both raw materials and consumer goods, Puerto Rico's transportation linkages to the outside are vital to all segments of the economy. Most of Puerto Rico's shipping and air traffic is with the U.S. mainland. Shipping between Puerto Rico and the mainland—considered as part of the U.S. coastwise trade—is unbalanced; cargo tonnage is much heavier ingoing than outgoing. Freight costs are relatively high and have increased rapidly in recent years. San Juan is by far the most important port in the handling of dry cargo, with Ponce and Mayaguez of lesser significance. Ports on the southern coast, owned by manufacturing firms, handle

imports of crude oil and exports of refined petroleum products.

Road transportation dominates the internal transportation pattern. Since the island has no railroad, other than narrow-gage lines used to haul sugarcane, virtually all goods are moved between cities and towns by truck. Intercity public transportation is primarily by means of "publicos"—privately owned and operated cars and vans which accept passengers along established routes and charge fixed rates by distance. These are augmented by private bus services that connect San Juan with Mayaguez and Ponce, plus several small bus operations, using old equipment, that provide limited intertown services. Much travel is by privately owned cars. As of 1977 Puerto Rico had almost 770,000 vehicles, a 67-percent increase from 1970. At present there is one vehicle for every four persons on the island.

Within the San Juan metropolitan area buses, publicos, trucks, taxis, and especially private passenger cars serve the local needs. Heavy traffic flows, frequent traffic jams, and a relatively high accident rate are characteristics of travel in San Juan. A rapid rail transit system for San Juan is in the planning stage.

Impact of Federal Policies and Programs.—The policies of U.S. regulatory agencies greatly affect Puerto Rico's transportation system and operations. Since ocean transportation between Puerto Rico and the U.S. mainland is part of U.S. coastwise trade, the various laws and regulations concerning coastwise shipping apply to the island. This means that the trade is confined to service by U.S.-built, U.S.-operated, and U.S.-manned vessels under the U.S. flag. The operating and construction differential subsidies applicable to U.S. companies engaged in foreign trade also are not applicable. Other restrictions having important impacts are those of the Civil Aeronautics Board (CAB) which has broad authority to regulate, as well as promote, air transportation. Recent airline deregulation legislation, however, has somewhat eased these restrictions.

In addition to the impact of the regulatory agencies, the Federal Government's various transportation programs that assist construction of facilities and, in a few cases, provide assistance in operations, are of importance. Funds for building highways (apportioned to Puerto Rico according to the same formula as used for the States), funds for urban transportation systems (apportioned as for mainland urban areas), and funds for airport construction and improvement are of greatest significance. Other U.S. programs providing assistance include those for harbor maintenance and improvement (Army Corps of Engineers) and for navigation aids (the Coast Guard).

The numerous Federal transportation funding programs applicable to Puerto Rico, together with data concerning their use as of 1977 are covered in the full sector report.

Major Problems

The Transportation Sector Study started by examining problems and related issues which had been identified by the Puerto Rican Government. In particular, the rising costs of maritime transportation, the need for ship passenger service to assist tourism development, and the problem of improved air transportation were investigated. Other problems, however, were identified and studied along modal and government program lines.

Among the problems discussed in the sector study are: (1) the high cost of ocean freight; (2) the need for passenger ship service between Puerto Rico and the U.S. mainland; (3) expanded air service; (4) deficiencies in the road and urban transportation systems; and (5) delays in using available Federal funds for the construction of transportation facilities. Among additional transportation-related problems, not covered in this summary, included in the sector study are trade disruptions due to labor disputes, problems concerning ship construction and repair, as well as more specific aspects of the five problems listed above.

High Ocean Freight Rates.⁵—Ocean freight rates—so important to the Island's economy—are high and have risen in recent years. They are one element that affects the competitive position of Puerto Rican manufacturing plants—as well as the costs of imported consumer goods. The sector study provides data to analyze the factors involved. Low utilization rates of the ships engaged in the Puerto Rican-U.S. mainland trade, rising fuel costs, and use of outdated equipment were identified as basic causes. The analysis found that exemption from the cabotage laws—sometimes pointed to as an answer to the problem—would not provide a lasting remedy. The entry of foreign ships might initially lower freight rates, but in time with the likely establishment or realignment of liner conferences the carriers engaged in the Puerto Rican trade would be subject to “agreed upon rates” rather than rates reflecting the true costs of this limited trade segment.

The sector study concludes that little can be done that would materially lower rates and that relatively high freight rates can be expected to remain a basic feature of Puerto Rican commercial shipping. This points up the critical need for offsetting economies elsewhere—if Puerto Rican industries are to remain

competitive and Puerto Rican consumers are not to face greater price disparities.

Passenger Ship Services.—Presently there is no U.S.-flag passenger service between Puerto Rico and the U.S. mainland on either a liner or a cruise basis. The Commonwealth, which believes that the U.S. cabotage provisions hurt its tourist trade, has suggested that these restrictions be removed from passenger service so that foreign ships could operate between Puerto Rico and the U.S. mainland.

The sector study analyzes this proposal and concludes that such a change would not have a substantial beneficial effect on Puerto Rican tourism. In point-to-point service (liner service) it is considered unlikely that enough traffic could be generated to interest foreign ship carriers which would have to compete with quick, convenient air service. Some increased benefits might result if foreign cruise ships, which under present policy may remain in a Puerto Rican port only 24 hours (for ships carrying passengers embarked at another U.S. port), were to be allowed longer port stays. However, the increased revenues to Puerto Rico from such a change are likely to be limited since such ships normally serve as hotels and restaurants.

Expanded Air Service.—Puerto Rico considers its present air service inadequate from the standpoint of further development of tourism and in the handling of cargo. It advocates: (1) new routes between Puerto Rico and U.S. mainland cities and additional carriers for the established routes; (2) expanded air cargo service between Puerto Rico and the U.S. mainland and intra-Caribbean points; and (3) expanded air service to Europe and Latin America. These “problems” are complex ones, currently before the Civil Aeronautics Board (CAB) in two investigations. However, the Caribbean Area Service Investigation (Docket 30697) involves much more than Puerto Rico-U.S. mainland service and may not be expected to be completed for several years. The likely result of CAB investigations would be to eliminate entry restrictions to the Puerto Rican markets.

With respect to air cargo, the CAB recently granted authority for an airline to provide service between Puerto Rico (Borinquen Airport) and South America for a period of 7 years, with certain conditions.

Road and Urban Transportation.—The analysis of road transportation and urban transportation systems notes several problems. One is the general deterioration of highways; maintenance has not kept pace with the growth of vehicular traffic. Heavy traffic congestion and inadequate bus service in the San Juan metropolitan area are among other problems discussed.

⁵ The special problem of ocean costs related to petroleum are considered in the Energy Sector Study.

Federal Fund Programing.—An important problem identified in the course of the sector study, cutting across the various transportation modes, concerns the planning of projects and the program and project implementation in which Federal funds are involved. The Puerto Rican Government appears to have been unusually slow in developing projects in the construction of airports, highways, and urban transportation systems. In the case of the Federal-aid highway programs, for example, some \$72 million of unutilized funds were available as of 1977 and an additional \$3 million under the Economic Growth Center Development Program. Similarly, in the Federal urban transportation assistance program grants amounting to some \$51 million were available for obligation as of October 1977.

It is recognized that in the case of some programs the availability of adequate local funds for the "matching" of Federal grants is a major aspect of the problem. In other instances, however, this does not appear to be true since delays in project development have also occurred in programs with 90 percent, or even 100 percent, Federal funding.

Policy and Program Options

Many of the basic transportation problems identified are complex with multiple causes and are not ones that can be quickly solved or even materially alleviated. However, certain steps toward improvement of the overall situation are possible. These are considered here.

Port and Navigation Systems.—One way in which shipping costs can be reduced—though only to a limited degree—would be through improvement of Puerto Rican port and navigation systems. The sector study indicates the need for a basic plan; the Puerto Rican Government might well decide to prepare a master plan, including both an overall port capacity assessment and plans for future port development. The study identifies Federal programs that can provide planning grants to assist in such an effort. After an overall plan has been prepared, those port development projects of highest priority—if Puerto Rico decides they are of sufficient importance relative to other demands on its resources—may be financed partly by the Economic Development Administration (EDA) or other agencies. These past development projects, however, must compete with a myriad of other projects as there are no funds available strictly for port development.

Assistance for the improvement of local navigation systems also may be available. Currently the Coast Guard is reviewing the needs for additional electronic aids in the Greater Antilles which includes Puerto Rico.

Air Transportation.—In the field of air passenger transportation, the Civil Aeronautics Board (CAB), which is at present investigating the adequacy of air service to Puerto Rico, could decide—on the basis of a Puerto Rican appeal—to expedite the normally lengthy decisionmaking process. With respect to air cargo service between Puerto Rico and Latin America—one of the improvements desired by Puerto Rico—the CAB recently approved expanded service for a 7-year trial period. Any further improvements here will need to await results of this change. Moreover, close monitoring of the new service by the Puerto Rican Government could provide the basis for any needed further expansion.

Highway Transportation.—Several options exist in connection with the use of Federal-aid highway funds and other program funds related to safety, construction, and emergency relief. These funds have been of major importance in Puerto Rico's highway construction only in the past several years. The initial slowness in project development is understandable and some improvements are noted. However, additional efforts to step up project development are a real option. Greater use of the unobligated funds will not only contribute to improved transportation infrastructure but will also stimulate construction employment at several levels since almost all contractors, subcontractors, and material suppliers operating in Puerto Rico are local firms.

Improved project development involves a mix of local and Federal actions. Puerto Rico can do much to overcome delays, but better coordination on the part of Federal agencies at an early stage of project development is also a necessary ingredient. In the case of environmental impact statements and other special requirements, for example, Federal agencies can help by reducing review and approval time.

Urban Transportation.—In many respects local officials have been farsighted in the field of urban transportation. The highway and transit services of the San Juan urban area have been assessed on a continuing basis. Also, a system has been implemented to increase the efficiency of the existing facilities and the use of exclusive bus lanes was an early demonstration of this concept which has since been adopted by many U.S. mainland cities. The current planning effort for a rail rapid transit system in San Juan appears to be moving ahead.

Several other possible actions, however, have been identified in various studies that have not been implemented. For example, the failure to enforce present parking regulations or to impose additional parking restrictions contribute to street congestion. Further efforts to improve the equipment maintenance and service reliability of the Metropolitan Bus Au-

thority, which operates bus service within San Juan, would appear to be an important option; a reversal of the decline in bus ridership, which has occurred since the late 1960's, would also reduce congestion, as well as reduce petroleum consumption. In the case of Ponce, Mayaguez, and Caguas—the other three urbanized areas—more expeditious use of available "Section 5 Formula Assistance," annually allocated by the Federal Highway Administration (FHWA) specifically for these areas and providing operating assistance as well as assistance for capital improvements, seem worthy of greater attention than in the past.

ENERGY

Overview

Puerto Rico's energy needs are nearly all met by imported crude oil and its byproducts. These imports provide electric power, energy materials for industry, gasoline for transportation, and fuel oil for basic amenities.

Only about 60 percent of the petroleum imports are used to meet internal needs. The rest is exported, primarily to the mainland in the form of petroleum products and petrochemical products. The petrochemical industry was developed in the second half of the 1960's when the U.S. Government adopted special concessions so that Puerto Rico could supply the United States with such products. At that time it seemed certain that low-cost crude oil would continue to be readily available. That situation no longer exists. The OPEC pricing policies since 1973 have had a tremendous impact. Today, with greatly increased costs for feed stock, fuel, and power, the Puerto Rican petrochemical industry is no longer cost competitive with U.S. Gulf Coast producers. Also, the leading refining company—the Commonwealth Oil Refinery Company (CORCO)—due to a combination of unfavorable supply contracts and higher energy prices—is undergoing reorganization under chapter XI of the Federal Bankruptcy Act.

In addition to the petroleum refining and petrochemical groups, a major energy user is the Puerto Rico Water Resources Authority—the electric utility company that is the sole supplier of electric energy for industrial, commercial, and residential use. Electric power production has increased more than tenfold since the late 1950's—from 1 billion kilowatt hours to over 11 billion in 1977.

The impact of greatly increased crude oil prices in recent years has been, of course, worldwide in scope, but it was particularly pervasive in Puerto Rico.

The average cost of crude oil in Puerto Rico

jumped nearly fivefold between 1971 and 1977. Prices for industrial petroleum products registered a fourfold increase in this same period.

Electric rates more than doubled for individual consumer and tripled for industrial users, compared to an approximate 50-percent overall increase in the U.S. mainland. Since Puerto Rico has a modern electric power system that serves more than 95 percent of the population, everyone was affected by these increases. To alleviate the hardship on low-income families, the Commonwealth Government provides subsidies for households using less than 425 kilowatt hours per month.

Although Puerto Rican per capita energy consumption is lower than in the U.S. mainland, it may be considered high and much of it is in the form of gasoline. Consumption of gasoline increased nearly 50 percent from 1971 to 1977, even though prices nearly doubled. Today, there is one auto for every four Puerto Ricans and the average fuel consumption per motor vehicle is slightly higher than in the U.S. mainland.

Impact of Federal Programs and Policies

The U.S. Government has been directly involved in matters relating to Puerto Rican energy and the petrochemical industry since 1959. In that year crude oil import quotas were established for the island under the Mandatory Oil Import Program (MOIP). In 1965, Presidential Proclamation 3693 provided measures for the allocation of imports of feedstock raw materials in order to develop a petrochemical industry. In subsequent years amendments to the MOIP, additional Presidential proclamations, and the rules and regulations of successive energy agencies (now incorporated into the Department of Energy) have continued to control Puerto Rican imports of petroleum.

Regulations Affecting Supply and Demand.—

Since 1973 U.S. petroleum imports, formerly on a quota basis, have been on a fee system, with some imports being fee-exempt and some on a fee-paid basis. Under the program, specific long-term allocations of fee-exempt imports were provided Puerto Rican refiners, with additional imports being subject to an established fee. A supplemental U.S. import fee, added in early 1975, was dropped for Puerto Rico in mid-year with the imposition of an excise tax of the same amount collected by the Commonwealth. In December 1975 when the United States abolished its supplemental fee, Puerto Rico continued to levy its substitute tax of \$2 per barrel on imported crude oil and naphtha, with various exceptions, until July 1, 1978. On June 21, 1978, the Department of the Treasury of Puerto Rico issued a resolution, effective July 1, 1978, suspending the

supplemental oil import fee. This fee, however, could be reinstated at any time by adoption of a resolution by Puerto Rico's Department of the Treasury.

Price Regulations.—Puerto Rico is subject to U.S. petroleum price regulations covering crude oil, motor gasoline, and certain other products. These regulations, aimed at limiting increases above base period prices, should have the effect of restraining selling prices in Puerto Rico, but the \$2-per-barrel excise tax, only recently rescinded, has acted to offset the positive effect which these regulations may have had.

Entitlements Programs.—The Crude Oil Entitlement Program, instituted in late 1974 as an effort to equalize the cost of crude oil among U.S. refiners (later expanded to cover certain other petroleum products), has had a major favorable impact on Puerto Rico. Maximum entitlement benefits are received by Puerto Rican importers of foreign crude oil; naphtha importers also receive entitlements. CORCO, for example, had received a total of more than \$477 million from its sales of entitlements for crude oil and naphtha through December 1978. Despite the large payments, Puerto Rican officials believe that the entitlements did not fully equalize costs since Puerto Rican companies are completely dependent on higher priced imported naphtha feedstocks compared to mainland operators who have access to lower priced domestic naphtha. In November 1977, it was found that Puerto Rican companies were in fact at a disadvantage and a new formula was introduced for calculating the imputed cost of domestic naphtha resulting in increased entitlements for Puerto Rican firms. An October 1978 DOE decision extended previously granted exception relief permitting CORCO to utilize its own naphtha acquisition costs in calculating the value of naphtha entitlements. This relief is effective until September 30, 1979.

Major Problems

The Basic Issue.—The basic issue, simply stated, is: How can Puerto Rico best adjust—in both the short run and the long run—to its virtually complete dependence on imported petroleum in meeting its energy needs?

The answer to this involves developing energy policies and programs for the Island which are both realistic and also consonant with U.S. policies and programs, some of which are currently still being developed.

Other Issues.—Among the many related subsidiary issues are the following:

1. Are there alternative energy sources that

Puerto Rico can use to supply its needs?

2. What additional measures can the Government take to assure more efficient use of its present energy supplies?

3. What measures can Puerto Rico take to reduce gasoline consumption?

4. What are the future implications for the Puerto Rican petrochemical industry which is virtually 100 percent dependent on imported naphtha feedstock, high fuel costs, and high power costs?

Program and Policy Options

There are no easy solutions to Puerto Rico's basic energy problem. The nearly total reliance on imported petroleum, compounded by its highly enclosed and isolated system, and the existence of a large petrochemical infrastructure mean that rapid changes are not possible. Puerto Rico must live with high energy costs. It can, however, develop a strategy which directs stronger efforts than at present toward: (1) developing new energy sources for the long run; (2) greater conservation. It may need also to consider more basic changes that reduce the use of energy.

Alternative Energy Sources.—It is sometimes said that Puerto Rico has no alternative energy sources. It is true that it has no coal, no natural gas, nor proved resources of petroleum and that it has long since developed its small hydroelectric potential. Looking further ahead than the immediate future, however, Puerto Rico does have alternatives—solar energy, possible offshore oil supplies, wind, coal imports, and nuclear energy.

The Puerto Rican Government can decide on a strategy that takes full advantage of technological developments in alternative renewable resources. It can draw upon U.S. pilot studies and devise some of its own applicable to the special conditions, in Puerto Rico.

Simple solar energy technologies appear to offer the most immediate—through limited—alternatives. Solar water heaters, for example, might be used in houses and solar collectors for process heating in some factories within a short time. Wind-generated energy also appears promising in many areas of the island where wind patterns are of great intensity and consistency; the new federally sponsored wind turbine generator on the island of Culebra may indicate the viability of this energy source. Special efforts can be undertaken to expeditiously determine whether the offshore oil deposits are commercially significant. Despite serious environmental and safety problems in developing nuclear energy and the indefinite postponement of Puerto Rico's proposed nuclear plant, this source should not be ruled out. Over the long run, nuclear energy may be a work-

able alternative in supplying much of Puerto Rico's energy requirements.

Conservation Measures.—The Puerto Rican Energy Office has outlined several conservation measures—improved generating efficiency of electricity, lighting efficiency standards, thermal efficiency standards, more efficient government use of power, new government procurement practices, transportation conservation measures, and a solar water-heating program. If these measures are pushed vigorously, substantial savings can be accomplished. The Commonwealth may opt, however, for additional measures. For example, it might offer tax incentives to industrial users who conserve energy. Every possible means to achieve greater efficiency in the use of energy materials would seem to be desirable in Puerto Rico's strategy for the future.

A number of other measures—most of them involving changes in present lifestyle—may be considered. Reduction in the heavy use of automobiles, accompanied by an upgrading of the transportation system (especially in the San Juan area), may bring savings.

Petroleum Refining and Petrochemicals.—The present cost imbalance between the refining and petrochemical industries operating in Puerto Rico and on the mainland should, to a large extent, be eliminated over the next few years, as domestic energy prices are allowed to rise to world levels. With the equalization of feedstock, fuel, and power costs, the only remaining cost disadvantage of location in Puerto Rico would be transportation costs. The program of decontrol for crude oil is underway as the President has directed the DOE to phase out all controls on domestically produced crude oil by September 30, 1981.

Over a period of years, Puerto Rico will need to make changes in its energy mix. The final mix will depend on a number of factors, including the overall economic strategy chosen by the Commonwealth for its further development and the future U.S. energy policies and programs—as well as decisions taken by Puerto Rico itself concerning development of new energy sources, more efficient use of its energy, and possible reduction in energy usage.

COMMERCIAL BANKING

Overview

The commercial banking needs of Puerto Rico are generally well served by a network of 17 institutions operating 242 banking offices. As of mid-1977, their combined total assets were \$7.5 billion; loans and discounts amounted to \$4.7 billion, and deposits

to \$5.5 billion.⁶ Approximately half of the banking business is in the hands of branches of external banks (two U.S. and two Canadian) or local banks owned by nonresidents.

External participation has increased significantly in recent years. This is due in part to the fact that the two large New York banks (Chase Manhattan and Citibank) have supplemented their local deposits with funds from the home office or other non-Puerto Rican branches, and in part to the takeover of several local banks by external owners as a result of "rescue" operations.

The "structure" of banking in Puerto Rico is similar to that in the rest of the United States, in the sense that Puerto Rican banks provide essentially the same range of services to their depositors and borrowers as are provided elsewhere. However, because of Puerto Rico's unique position, first as a possession and later as an associated commonwealth, the branches of external banks play an important role (cross-State branching is, in general, prohibited in the 50 States). The overall loan/deposit ratio is unusually high since the branches of the two New York banks have brought funds into the island, but the balance sheet ratios are not unlike those elsewhere for the indigenous banks. Recently foreign ownership of individual "local" banks, i.e., with headquarters in Puerto Rico, has become an important feature.

Impact of Federal Programs and Policies

The major Federal program directly affecting the general health of the Puerto Rican banking system is that of the Federal Deposit Insurance Corporations (FDIC) in operations relating to bank failures. It is probably not an overstatement to say that without the FDIC, there would have been several bank failures in Puerto Rico in the last several years, with large losses to depositors, and with possible serious repercussion on even the sounder banks. As it is, all deposits—insured or uninsured—have been assumed by successor banks (in some cases with FDIC assistance, and in some cases without), and there have not even been any "runs" on threatened banks.

The FDIC, faced with the insolvency of a bank, generally has two possible courses of action. The first is to permit the closing of the banks, pay off the insured depositors, and liquidate the bank. The uninsured depositors and other creditors (and possibly the shareholders) would then be reimbursed as the bank's assets are realized. The other procedure—more commonly employed—is to purchase some of

⁶ Since the report on banking was completed, a major local bank—Banco Credito y Ahorro Ponceño—was closed. Its deposits and part of its assets were transferred to two other banks, Banco Popular and Banco de Santander-Puerto Rico. The assuming banks have reopened Banco Credito's offices, including the New York office which was taken over by the Banco de Santander.

the assets of the failing bank and/or extend direct assistance to another insured bank (which may be a newly formed bank) to enable the latter to assume the deposit liabilities of the failing bank. This second procedure, which was employed twice in Puerto Rico in recent years, has the advantage that all depositors of the bank are protected, and there is generally no interruption to banking services. However, the FDIC can use the second procedure only if it determines that it would be less costly to the Corporation than the first. Under very unusual circumstances, described in the banking sector study, the FDIC may extend aid directly to a bank in trouble in order to permit its continued operation.

There appears to be no serious criticism of the FDIC procedure on the part of Puerto Rico nor any serious suggestions for change.

A second Federal "program" is that of bank supervision, divided between the FDIC (for local insured banks) and the Comptroller of the Currency (for national banks, especially the local branches of Chase Manhattan and Citibank). Commonwealth authorities participate with the FDIC in the examination of local insured banks, but not with the Comptroller in the examination of national banks, although such participation appears to be authorized under Puerto Rican law. In view of the unique autonomous nature of the Commonwealth Government, it would appear that the Puerto Rican authorities would be justified in exercising the same degree of supervision over branches of external banks that they do over indigenous institutions.

Major Problems

Uncollectable Loans.—A major problem facing the Puerto Rican banking system in recent years has been the large volume of uncollectable loans, especially real estate related loans made during the boom years of the late 1960's and early 1970's. While some banks in the U.S. mainland found themselves in similar circumstances, Puerto Rico was unusually hard hit, and the recovery—especially in the real estate construction sector—has been much slower in Puerto Rico. With the resolution of the affairs of Banco Credito in early 1978, the major immediate difficulties appear to have been surmounted. Further recovery and growth of the local banking system presumably will be closely related to and dependent on Puerto Rico's general economic recovery and expansion.

The Role of External Banks.—In the view of many observers the major problem of the Puerto Rican banking system is the growing role of external, or externally owned, banks. The expansion of the Banco de Santander as a result of the settlement of the Banco Credito affair, the recent admission of

the Bank of America, and the acquisition of control of several other local banks by Spanish interests have combined to bring this problem to the fore.

While this may not be a major problem in a broad economic sense—indeed, a strong case can be made that external banking has, on balance, been beneficial to the Puerto Rican economy—political implications are involved. Although local unit banking is a predominant feature of U.S. banking and cross-State banking (either via branches or subsidiaries) has been widely inhibited, recent developments have been in the opposite direction. In Puerto Rico, however, the sentiment in favor of local banking is still strong, especially within the banking community itself. The desire for a better balance between local and external banking is understandable.

Local vs. External Banks.—In several respects, the local banks have not fared as well as the external banks operating in Puerto Rico. Their "shares" of deposits have been lower, they have been more strongly affected by a recent tax change, and they are at a disadvantage in attracting equity capital.

The local banks have a considerably smaller percentage of the deposits of sections 936 companies than the external banks—particularly the two large New York banks—primarily due to institutional reasons. The inability of local banks to fully capitalize on this important source of relatively low-cost deposits, is an adverse factor in their effort to improve their profit position.

Another local/external issue results from the imposition of the franchise tax on earnings. Although the full effect is yet to be felt, it appears that this tax has a greater impact on the tax burden of local banks than on external ones since the New York banks can credit the tax against their Federal income taxes, thereby reducing the impact. Thus, in comparison with the prefranchise tax period, the local banks have another unfavorable factor affecting their profits relative to external branch banks.

The need for additional capital by most of the local banks remains substantial. The recent heavy losses of these banks, however, have depressed Puerto Rican bank stocks and made it virtually impossible for them to raise additional local equity capital, except by way of reinvested earnings in the case of those continuing to show net profits. An outside bank, on the other hand, does not necessarily measure the contribution of its Puerto Rican operation to its overall position solely by the profit and loss statement of the Puerto Rican branch or subsidiary.

The problem, then, is how to make banking sufficiently profitable for the local banks. Only by this means can they attract additional local capital and maintain, or even increase, their relative share of banking activity.

Program and Policy Options

Unlike the other sector studies, the study covering commercial banking makes no attempt to propose Federal and Puerto Rican options related to the problems outlined above.

This does not mean that changes in the present banking arrangements may not be desirable. Rather, two factors prescribe this omission. First, there are no Federal programs in the Puerto Rican banking sector in the same sense that they exist for most of the other sectors where direct Federal funds and technical assistance are provided. As indicated, however, Federal banking agencies do exercise some authority over the Puerto Rican system. Second, in order to develop sound policy options a far more detailed study than was possible for the present report would be needed. For example, to propose specific measures that Government policymakers could undertake to strengthen the role of local banks would require a thorough study of the present operating revenues and costs, as well as other aspects of banking practices (based in part on confidential reports filed with the FDIC and the Commonwealth Treasury). Only in that way could an adequate appraisal of the weaknesses of local banks be made.

An additional consideration entered into the decision to omit options. Desirable as is the objective to assist local banks in achieving strength relative to external banks, this objective may be somewhat in conflict with the basic need to ensure that the Puerto Rican banking system is adequately furthering the economic development of Puerto Rico. The most readily apparent options that could be suggested on the basis of this limited study therefore may not give sufficient weight to the overriding objective of improving the Puerto Rican economy.

EMPLOYMENT, WAGE STRUCTURE, AND MIGRATION

Overview

Although not a sector in the same sense as manufacturing, agriculture, or tourism, a separate report on employment, unemployment, wage structure, and migration was included in the Study since these labor aspects are of vital concern.

Employment and Unemployment.—Puerto Rico has had secular, long-term high unemployment and underemployment. In the 1950's and 1960's the rapid economic development had a very favorable effect on unemployment, but even during the height of "Bootstrap" operations unemployment greatly exceeded levels on the U.S. mainland. New job creation averaged approximately 150,000 annually be-

tween 1950 and 1973. Notwithstanding the substantial increase in employment opportunities and the relief of population pressure through migration to the mainland, unemployment remained at 10 to 12 percent of the work force.

During the recent recession starting in 1973—more marked in Puerto Rico than on the mainland—employment dropped sharply and unemployment reached about 20 percent in 1976 and 1977. More recently, i.e., in late 1977 and in 1978, some cyclical economic recovery has occurred but the overall unemployment rate remains very high at about 17 percent (compared to about 6 percent on the mainland). The recent unemployment situation has been exacerbated by the inflow into the Puerto Rican labor force of large numbers of migrants returning from the U.S. mainland, a development that reversed the earlier long-term migration pattern.

About 19 percent of total employment is in manufacturing, 19 percent in trade, 17 percent in services, 6 percent in construction, and 6 percent in agriculture. The largest employment "sector" is public administration with 23 percent; however, this percentage includes employment in certain productive enterprises normally carried out by private business.

The sharpest drops in employment in the 1973–75 period occurred in construction and manufacturing. Construction employment plunged by about one-fourth and factory employment declined by one-tenth. Agricultural employment continued its long-term decline, although at a slower pace than in earlier years. The only sector to show sustained increases during this recent recessionary period was public administration, where the job gains in part represented federally financed manpower programs. Despite an encouraging upturn in 1977, as of January 1978 unemployment rates remained high in important sectors: 21 percent in manufacturing, 49 percent in construction, and 47 percent in agriculture.

Other significant features of Puerto Rico's employment situation are: (1) long-term and continuing decline in labor force participation, (2) very high rates of unemployment for youth, (3) a relatively high level of unemployment for heads of households, (4) shorter duration of unemployment periods, and (5) higher unemployment outside the San Juan metropolitan area than within it.

In 1976, the participation rate in the Puerto Rican labor force, i.e., those 16 years of age or over who were either employed or looking for work, was only 42 percent, compared to nearly 63 percent in the United States as a whole. Not only is labor force participation low, but almost one-tenth of the employed are considered to be underemployed.

The highest rates of unemployment are for youths, particularly those 16 to 19 years of age. During

1977, the unemployment rate for this group fluctuated around the 50 percent mark.

Unemployment among heads of households has increased in the 1970's. Whereas 7 percent of this group were unemployed in 1970, by 1976 the rate was 16 percent. This latter rate compares with one of less than 5 percent for the United States as a whole.

Unemployment in Puerto Rico is characterized by a much shorter duration than on the mainland. This may reflect high instability in employment as well as the possible impact of continuing migration of unemployed persons to and from the mainland.

Unemployment is considerably lower in the San Juan metropolitan area than in the rest of the island. The principal reason for this difference is probably due to the composition of the metropolitan area's economy; many persons in the San Juan area work for the Government or for commercial and service enterprises related thereto, which means greater immunity to cyclical swings.

Wage Structure and Rates.—The Puerto Rican economy has been shifting from one of low wage, low skill, labor intensive industries toward one more similar to that of the United States. Important differences exist, however, that affect the wage structure. Puerto Rico has a far larger percentage of workers in the public sector, including workers engaged in such enterprises as the sugar industry, shipping, and bus transportation which in the United States is handled by the private sector. Despite a decline in agricultural employment, Puerto Rico has a higher proportion of workers in this relatively low-paying sector. On the other hand, construction, a high wage industry, is relatively more important in Puerto Rico. Also, in the manufacturing sector such low wage industries as tobacco, textile, leather goods, and apparel account for a much larger percentage of employment than in the U.S. mainland.

Important characteristics of the present wage structure are: (1) a heavy concentration for many industries at or close to the legal minimums and (2) a relatively small spread between the minimum wage and the average wage.

As of October 1978, manufacturing earnings in Puerto Rico averaged \$3.45 per hour, which was about 55 percent of the U.S. average. This compares with a \$1.31 average in 1966, which was less than 48 percent of the U.S. average at that time. Most of the improvement in Puerto Rican wages occurred in the late 1960's, with advancement slowing in the 1970's.

Fringe Benefits.—Due to fragmentary data on fringe benefits in Puerto Rico, there is no reliable basis for determining the impact of fringes on overall labor costs. It is also difficult to make valid com-

parisons with such benefits in the U.S. mainland since Puerto Rican data do not cover all fringe benefits but only those mandatory under Puerto Rican law. Additional information on this aspect is needed, but it appears that the total of voluntary and mandatory fringe benefits in Puerto Rico may be somewhat smaller than on the U.S. mainland.

Impact of Federal Programs and Policies

Programs Related to Employment.—Various Federal Government programs primarily aimed at increasing employment operate in Puerto Rico. For the most part, these programs are run by the Commonwealth Government or local governments, with the U.S. Department of Labor providing funds and overall regulation. These programs, although making an important contribution, cannot by themselves take up all the slack created by very high levels of unemployment and the lack of job opportunities in the private sector.

These Department of Labor programs may be classified into five types:

- *Public and private job development and placements* under the Comprehensive Employment and Training Act (CETA) which operates through locally run programs.
- *Training and work experience*, particularly for youths and other economically disadvantaged groups.
- *Job counseling, testing, job development and placements* through the public Employment Service.
- *Income maintenance* through the Unemployment Insurance System.
- *Specialized training* through apprenticeship programs.

The funding provided these programs in Puerto Rico is determined by the same formula as for mainland jurisdictions. However, because of the high rates of unemployment, the amounts awarded to Puerto Rico are higher than for comparable populations elsewhere. In addition, Puerto Rico has fared comparatively well under the discretionary funded programs.

CETA programs in Puerto Rico are operated through seven local "prime sponsors." Six are cities: San Juan (in combination with Catano and Guaynabo), Bayamon, Carolina, Caguas, Mayaguez, and Ponce. All other municipalities are handled collectively. For FY 1978 funding for various CETA operations totaled about \$290 million. Most of the funds are under title I and title VI provisions which provide temporary employment; participants under

these two titles number about 28,000, or approximately 3 percent of the labor force.

Puerto Rico participates in several different youth employment and training programs, some of them established under recent legislation (Youth Employment and Demonstration Projects (Act of 1977). Allocations for youth programs, each of which has a somewhat different purpose and criteria, are by formula. Most are handled by the same administrative setup as the CETA programs. In addition to the employment and training activities of the CETA prime sponsors, described previously, job development and job finding activities are conducted by the Puerto Rico Employment Service, also supported by Federal funds which for FY 1978 amounted to over \$4 million. In 1977, more than 81,000 Puerto Ricans were placed in jobs through this program.

Puerto Rico participates in the Federal/State unemployment insurance program on the same basis as the various States. Each State establishes its own trust fund into which employers pay, and also establishes qualifications for claimants and the formula for regular unemployment insurance benefits. Additional benefits are available through a partially federally financed program which is "triggered" by certain insured unemployment rates. The Federal Government may also loan funds to State trust funds. Requirements in Puerto Rico are different in some respects than those in most States. For example, Puerto Rico, has a very liberal definition of "employer," allows extension of benefits for an additional period in certain industries, occupations or under "special unemployment" situations, and uses a more generous formula in computing partial payments. Currently, with Puerto Rico's Unemployment Insurance Fund in debt to the federal loan account by \$88.7 million, eligibility and qualification requirements are being tightened.

Specialized training under the apprenticeship program in Puerto Rico, as elsewhere, is financed by industry. The Federal Government's role is limited primarily to establishing standards to protect the welfare of apprentices and to serving as consultants. Currently, there is a heavy program concentration in a few occupations and very little use of the program in many occupations.

Policies and Programs Affecting the Wage Structure.—Various U.S. policies and programs directly affect the wage structure of Puerto Rico: the minimum wage legislation; programs that train people for better paying jobs; programs that result in productivity improvements; the measurement of the cost of living (on which wage increases are based); and assistance in collective bargaining involving wage adjustments. Particularly significant is the Fair Labor Standards Act (FLSA).

Under the FLSA, minimum wages in Puerto Rico

are set on an individual industry basis, and, if conditions warrant, may be set at a level below that established for the U.S. mainland. The law provides for frequent periodic increases and regular reviews by industry committees, with the objective of raising these rates as fast as economically feasible to the statutory U.S. levels. The most recent amendments in 1977 established higher statutory levels and a new schedule of annual automatic increases for 1978–81. However, because these automatic increases were substantial and exceeded those which industry committees had recommended in earlier years, the Secretary of Labor, by administrative order, on February 24, 1978, suspended further industry committee reviews. The impact of the 1977 amendments cannot be fully assessed at present, but given the operation of the automatic increases, it is estimated that by January 1, 1981, when the mainland statutory minimum reaches \$3.35, some Puerto Rican industry wage orders with subminimum rates will still remain. However, judging from current employment in these categories, the number of workers involved will be quite small.

Major Problems

The major problems—one basic to the entire economic future of Puerto Rico—is how the present overall high rate of unemployment can be reduced, at least to its pre-1974 level of approximately 10 to 12 percent. Included in this basic issue are the problems of providing employment, particularly for youths, in a constantly expanding population and for heads of households. Another subsidiary problem is the degree to which employment opportunities can be provided outside the San Juan area where unemployment is higher than in that urban area.

Policy and Program Options

Federal Government Options.—As indicated, the Federal Government provides considerable assistance to Puerto Rico under numerous programs aimed at improving employment. Funding levels of these programs by and large are either at or above the levels of similar programs on the U.S. mainland. Considering present legislation, overall U.S. budget constraints, and the fact that these programs are operated locally, Federal options appear limited.

There are, however, some things which the Federal Government can do. These include stepping up the work undertaken by the U.S. Bureau of Labor Statistics to review Puerto Rico's statistical data with the aim of improving its reliability and its comparability with U.S. data. Assistance might also be provided in efforts to fill data gaps. Special assistance might also be given by Federal officials, who

can draw on their experience of other areas of high unemployment, in counseling Puerto Rican "prime sponsors" on ways in which their efforts can be made more effective and responsive to local needs. Monitoring of wages and related development should continue.

Puerto Rican Government Options.—Since the various manpower programs are operated locally, the Puerto Rican Government undoubtedly has some options in making administrative and delivery improvements so that the greatest possible benefits are obtained from the funds expended. A thorough review may reveal, for example, the need for greater coordination between the various programs to prevent duplication or for devising new ways to reach unemployed youth not currently enrolled in any of the programs.

In particular it would appear that special efforts to work closely with private industry to create more jobs and to provide more apprenticeships and other on-the-job training would be helpful. Broadening the apprenticeship program to cover additional occupations, for example, is one specific option of this type.

SOCIAL CONDITIONS AND HUMAN SERVICES

This sector study covers the human welfare area—health, education, income security, and human development services. These subjects are closely related to the economic development of Puerto Rico.

Overview

Puerto Rico has made great strides over the years in improving social conditions. Life expectancy has risen dramatically. Mortality rates have been greatly reduced, with that of infant mortality now only slightly above that of the mainland. Whereas in 1940 only half the children of school age were in school, 4 out of 5 are today. College students numbered only 5,000 in 1940; more than 100,000 are now enrolled in colleges and universities.

Despite these advances, Puerto Rico has significant social problems, the most fundamental of which is the extent and degree of poverty. Using the Federal Government's official poverty cutoff, 60 percent of the island's population are "poor." The underlying source of this poverty is an imbalance between population growth and economic growth, resulting in persistently high unemployment. Since 1970, the overall population growth rate has averaged 3 percent per year whereas the real rate of economic growth has averaged less than 2 percent. The nat-

ural population growth rate is about 1.7 percent, approximately the rate of the world as a whole, but much higher than the U.S. rate of 0.6 percent.

Substantial net immigration in recent years has raised the overall population growth rate to the 3 percent level. Moreover, a high percentage of the population is young; about 60 percent of the population is under 25 years of age. The overall unemployment rate has been between 15 and 20 percent in recent years and has been 50 percent for youth.

The educational status of the population is lower than that of the U.S. mainland. The illiteracy rate is 11 percent (compared to less than 2 percent in the United States as a whole) and is compounded by a lack of English and Spanish language skills among a significant portion of the population. Eighty-five percent of school age children are enrolled in school; the average school years completed is 7. School facilities are inadequate and the number of trained teachers is limited. The number of college graduates is large, but many graduates are finding it difficult to obtain work. The higher educational system provides little technical training and there is insufficient vocational training at the secondary level.

Other characteristics of social conditions in Puerto Rico, reflecting in part its rapid industrialization and shift to urban living, are weakened family stability (indicated by a high divorce rate and the fact that more than 15 percent of the families are headed by a single parent) and an increasingly serious mental health problem.

The human services sector, which provides health, education, and human development services as well as income security assistance to Puerto Rico residents, is based on mutual cooperation among the Puerto Rican and Federal Governments and the private sector. The public medical care system serves approximately two-thirds of the population. The educational system consists of both public and private schools, with an emerging trend toward increased enrollments in private schools. The social services sector is not as well developed, partially because of a lack of resources but also because it is organizationally fragmented due, in part, to the categorical nature of Federal programs.

Impact of Federal Programs

The Federal Government is the major funding source for income security, health care financing, and student financial assistance programs, and provides substantial funds for human development and social services, health services, and elementary and secondary education in Puerto Rico. In some Federal programs, U.S. citizens residing in Puerto Rico do not receive the same level of benefits as do those who reside in the States.

The largest income security programs in Puerto Rico are Unemployment Insurance, Social Security (Old Age, Survivors, and Disability Insurance), Public Assistance Cash Payments (Aid to Families with Dependent Children and Aid to Aged, Blind and Disabled), and Food Stamps. Residents of Puerto Rico participate fully in the Social Security and Unemployment Insurance programs, receiving more than \$600 million in annual benefits. However, because wages are lower than on the U.S. mainland, benefits under these programs are generally lower than on the mainland. It is estimated that almost 70 percent of the population is eligible for and 50 percent actually receives some benefits under the Food Stamp Program, which provides more than \$600 million annually in Federal transfer payments (in the form of food coupons) to Puerto Rico. The Public Assistance programs provide relatively small cash transfers, largely because there is a Federal ceiling of \$24 million for these programs. In addition, residents of Puerto Rico are excluded from benefits under the Supplemental Security Income (SSI) program.

Health Programs.—Federal assistance for health services in Puerto Rico exceeded \$100 million in FY 77. Residents receive full entitlement under Medicare, which provided \$61 million in benefits in FY 76. The Medicaid program provides \$30 million annually to the public health care system.

Other Federal programs provided services in such areas as mental health, alcohol and drug abuse, family planning, community health centers and disease control.

Education Programs.—The Federal Government provided more than \$93 million to Puerto Rico in 1977 in support of elementary and secondary education. Of this amount, \$56 million was made available through Title I of the Elementary and Secondary Education Act of 1965. The 1978 amendments will increase this to \$102 million in FY 79.

Over \$100 million of Federal funds was provided in the field of higher education in FY 1977, through the various student financial assistance programs. Another \$12 million annually is provided for vocational education and a variety of grants are made in such fields as bilingual education, adult education, and the right-to-read program.

Human Development Service Programs. — The Federal Government provided a total of \$60 million for human development services in Puerto Rico in FY 1977. Funds for social services are provided primarily through Title XX of the Social Security Act. In FY 1977, the grant under this title amounted to \$10 million.

Other grants in 1977 included \$16.6 million for Head Start child development programs, \$1.5 million for the work incentives program, \$1.4 million for child welfare services, \$3.0 million for special programs for the aging, \$25.9 million for vocational rehabilitation services, and \$1.2 million for other rehabilitation programs.

Interrelationships Among Federal Programs.—In Puerto Rico, as elsewhere, activities carried out or expenditures incurred in one program often affect those in another. For example, mental health or family planning services may be provided through either the Medicaid or Title XX Social Services programs as well as in special mental health or family planning programs. Another example is the use of funds from Title I of the Elementary and Secondary Education Act to finance diagnostic health services which are delivered through the school system. Such services are authorized under Medicaid, but competing demands for these limited funds make it necessary to use the education funds instead. Hence proposals to restructure Federal programs to suit special conditions in Puerto Rico must be considered in the context of their effects on one another as well as their specific purposes.

Major Problems

The full sector study, in describing social and economic conditions of families and individuals and the various social programs, identifies many social problems. The principal ones, which are important to Puerto Rico's future economic development, are: (1) an imbalance between population growth and economic development; (2) limitations in basic, technical, and vocational education; (3) low income security and high unemployment; (4) limited financing for health care; and (5) limited resources and narrow focus of human development services programs.

Imbalance Between Population Growth and Economic Development.—More moderate population growth may accompany long-term economic development and improved education in Puerto Rico—as it has elsewhere. Nevertheless, the high fertility rate, coupled with the preponderance of young persons in the population, means that a marked decline in the overall population growth rate in the near future cannot be expected. With population growth generally outpacing job generation on the island—even in past periods of rapid development—this poses a basic economic and, consequently, a social problem.

Education—Basic, Vocational, and Technical.—At present large numbers of Puerto Rican youths

and adults lack basic reading, writing, or mathematical skills. In addition to the deprivation of a key element of quality of life for individuals, this hampers the development of a skilled work force, making it more difficult to attract and retain highly technological industries. Vocational education both within and outside the school system is underdeveloped; vocational guidance and counseling, training services and facilities are considered inadequate.

Income Security and Unemployment.—The widespread existence of poverty and the high rate of unemployment clearly indicate the need for continuing programs that provide income support to Puerto Rico. The basic question is whether the present programs (unemployment insurance, Social Security benefits, public assistance cash payments, food stamps, subsidized housing, etc.) are adequate—either alone or in combination with economic development measures—to meet Puerto Rico's needs. For many Puerto Rico residents, the present income support system is inadequate because of low benefit levels and gaps in coverage. However, increases in cash transfer programs alone will not solve the basic cause of poverty—unemployment.

Health Care Financing and Delivery.—While significant improvements have been made in health status and an extensive public health care system has been established, there are still problems of insufficient financing, maldistribution of health manpower, and inadequate planning. In addition, some conditions which are amenable to primary care and preventive health measures remain—infant mortality, low level of child immunization, and widespread mental health problems.

Human Development Services.—As on the mainland, the social services sector is not as well developed as other human service sectors, because only limited resources are allocated to it and because the particular services are narrowly focused on special problems. Human development services are needed by a wide variety of populations, for numerous different problems and purposes. These range from planning and advocacy on behalf of the aged or retarded, to child care and child welfare, to vocational rehabilitation and inhome care of the homebound. While the necessity exists to increase the level of resources associated with Federal programs, that course by itself will contribute only partially to solving the human development problems. Federal categorical programs which provide specific services to particular groups of people may constrain efforts by Puerto Rico to focus human development services on those areas of greatest need.

Program and Policy Options

Opportunities to improve economic and social conditions in Puerto Rico are available to the public and private sectors both within Puerto Rico and on the U.S. mainland. Options range from adoption of broad economic strategies to more modest modification of administrative practices or programs. Those options chosen to improve the economic and human service institutions of Puerto Rico must have certain broad features. First, they must be part of a well thought-out developmental strategy which links the development of human services to economic development, extensively involves citizens and private sector groups in its planning and execution, and builds on Puerto Rican culture and institutions. Second, the relationship between the Federal and Puerto Rican Governments in the improvement effort should be that of mutual cooperation. Most of the basic decisions must be made by Puerto Rico. Federal efforts should complement Puerto Rican development activities; and an effort should be made to eliminate Federal impediments to planning for the development of the social and economic infrastructure.

In this summary the options discussed relate to the major problem areas outlined above. Many additional options are included in the full sector study—"Social Conditions and Human Services Programs in Puerto Rico."

Promoting Balance Between Population Growth and Economic Development.—Options concerning industrial and agricultural development and job creation are found throughout the Federal study on social and economic conditions in Puerto Rico. The basic option considered here is whether, in addition to economic development efforts, increased family planning activities should be undertaken as a means of achieving a greater balance between population growth and economic development. This is primarily a Puerto Rican decision, involving perceptions of overall priorities and the probable success of its economic strategy for the future.

If it is decided to take steps to moderate the current population growth, the Federal Government could assist through increased funding for family planning services. Sources for possible increased Federal funding are: Title X of the Public Health Act (the Family Planning Program); Title XX (the Social Service Program) of the Social Security Act; the Maternal and Child Health Program; the Medicaid Program; and, for repeat pregnancies, the recently enacted Adolescent Health Services and Pregnancy Prevention Program.

Focusing on Education.—Puerto Rico will need to decide whether to devote greater efforts toward

improving basic elementary and secondary education as a way to promote both social and economic development. Improvements may involve some increase in allocation of funds, but also important are improvements which can be accomplished through administrative changes, including broader citizen participation. The Federal Government could help in the overall improvement of primary and secondary education; the 1978 amendments to the Elementary and Secondary Education Act, which calls for increased funding under title I through a change in the formula for Puerto Rico and the provision of special grants to areas with high concentrations of low income families, is particularly pertinent.

Puerto Rico also will need to decide whether to give high priority to the organization of a major campaign to increase vocational skills. Such a program might closely involve business in order to provide the type of training needed to enter the changing Puerto Rican job market of the 1980's. The decision to allocate larger amounts of its own Government funds for this purpose is clearly a Puerto Rican option. Federal technical assistance in designing the program may be desirable. Any increased Federal expenditures for implementing a broad vocational training program, however, would require new legislation.

Income Security and Unemployment.—Puerto Rican options are somewhat more limited here since most of these programs are basically Federal programs which have been extended to Puerto Rico. However, many programs require matching funds. This means that both the responsibility for contributing funds and the improvement of the management of the programs which are administered locally, falls heavily on Puerto Rico.

Puerto Rico could establish a basic policy in this field to emphasize service and job creation over income transfers. Services would provide jobs directly while building up necessary social infrastructure (e.g., schools and employment training) and improving the capacity for economic development.

With regard to the income security programs themselves, the study sets out two options. One option is the development of a wage subsidy program which could be targeted to certain groups of workers, if such a program is found feasible through further analysis and pilot testing. An experimental program could be developed cooperatively by Puerto Rican and Federal agencies responsible for labor, commerce, economic development, agriculture, and income security programs, as well as the private business and labor sectors. Another option is to modify and expand existing Federal programs by permanently raising the ceiling for Puerto Rico applicable to Aid to Families with Dependent Chil-

dren (AFDC) and Aid to Blind, Aged, and Disabled (Adult Categories).

Enhancing Health Care Financing and Delivery.

—There are three broad approaches which Puerto Rico could take with respect to health care: improving the public health care system, coordinating public and private sectors through improved planning, and addressing specific health problems. With a relatively successful public health care system already in place, and a large medically indigent population, it is appropriate for Puerto Rico to continue to support and improve its public system. Improving the public health care system will require increased funding and redistribution of health manpower. Additional resources may be available to Puerto Rico as economic development takes place. In the meantime, it may be necessary to look to the Federal Government for additional support. Options for the Federal Government include raising the Federal ceiling and matching rate for Medicaid, substituting a program aimed at priority medical and administrative problems of the public health care system, or modifying other Federal health programs to make them more compatible with conditions and with service delivery systems in Puerto Rico.

Current health manpower is not targeted to areas of greatest need. Options include providing incentives to encourage health professionals to enter the field of primary care and locate in underserved areas.

Additionally, better coordination between the public and private sector could be achieved through improved planning. Options include reorganizing health planning based on a change in the Health Systems Agency and the State Planning Agency relationship.

Finally, specific health problems require immediate attention. Options include developing a special program for reducing infant mortality, possibly using expanded Federal funding from Medicaid or Maternal and Child Health. A joint Puerto Rico-Federal program has been implemented to address the problem of low levels of child immunization. Improvements in services for mental health might involve a restructuring of organizations providing alcohol, drug abuse, and mental health services and additional funds for these services with an emphasis on prevention and education.

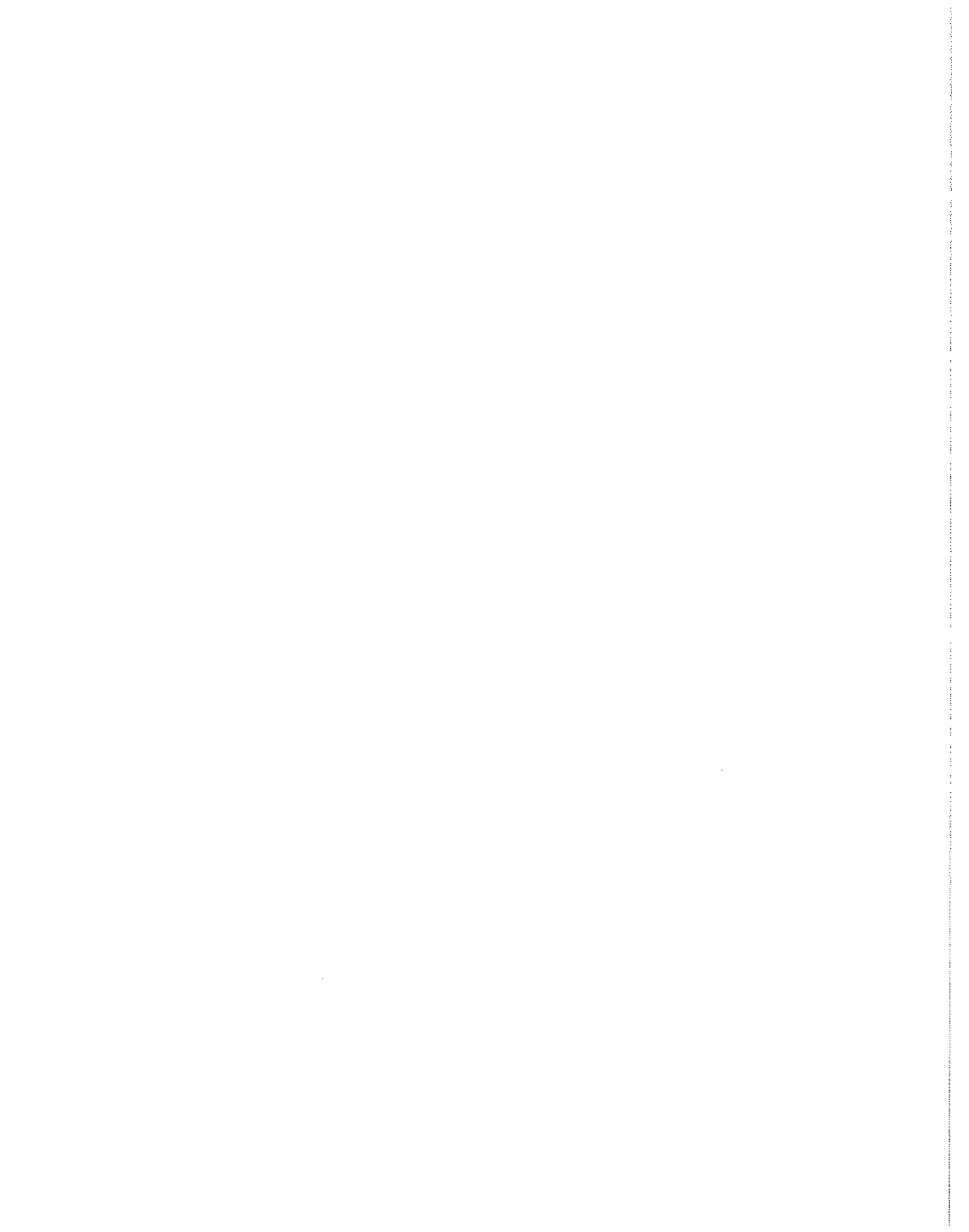
Restructuring Human Development Services.—

Options for human development services involve restructuring human development service programs in order to develop broadly based and coherent service programs for the family, children, youth, aged, handicapped, and developmentally disabled. What is required is a redesign of social service systems to identify the most serious problems, support the institutions and traditions of the island, develop

local community capacities, and build up the social service infrastructure.

Puerto Rico and the Federal Government could jointly consider the option of consolidating some of the current Federal categorical programs and using the funds for a redesigned social service system. A major vehicle for moving toward a more broadly

based service system is the Federal title XX social service program which provides greater flexibility in deciding how to utilize social service funds. An option would be to include Puerto Rico fully in the title XX program. An alternative would be to provide a direct appropriation of Federal funds to Puerto Rico for social service.



Part One: General Economic Assessment

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Staff Economist George Donald Hanrahan of the Office of the Chief Economist prepared Chapter I.—Summary and Findings, and the portions of Chapter II entitled Trends in the Gross Domestic and National Products, Inflation in Puerto Rico, and Savings and Investment. Economist Martha Davis, Special Assistant to the Chief Economist, contributed the Employment and Labor Markets and the Government sections of Chapter II, and Staff Economist Joseph G. Carson prepared Chapter II on External Trade. Study Director William B. Pounds and Randolph Mye, a member of the Puerto Rico Study Staff, made numerous helpful suggestions throughout the preparation of the GEA.

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PART ONE:
GENERAL ECONOMIC ASSESSMENT

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Chapter I.—Summary and Findings

INTRODUCTION

Puerto Rico has experienced rapid economic growth since World War II but, like most of the world, has found difficulty in sustaining high growth in the current decade. Although some signs of slowing growth were evident prior to 1974,¹ the oil crisis and the ensuing deep worldwide recession slowed, and even retarded the real growth rate, and caused the unemployment rate on the island to soar to more than double the 10-percent level that had prevailed in the early seventies. The severity of these setbacks reduced confidence among foreign investors in Puerto Rico as a site for investment and raised many questions about the future strength of the economy. In this regard, however, Puerto Rico shares in the climate of economic uncertainty that has prevailed worldwide since the early 1970's.

MAJOR ISSUES

This General Economic Assessment (GEA) finds that four major issues confront the Puerto Rican economy. These issues are:

1. Can the economy resume and sustain a high rate of real growth?
2. Can the high rate of unemployment be reduced?
3. Does the economy rely too heavily on the United States for finance and trade?
4. Is the income distribution too unequal?

These major issues, of course, subsume numerous and important subissues. Furthermore, the four issues are not independent of one another. As a result, one must consider that "tradeoffs" exist between combinations of the implied objectives underlying the issues—that is, real growth, employment, the degree of external finance and trade, and the equality of the income distribution. How objectives or criteria such as these relate to effective policy formulation is briefly discussed at the conclusion of this summary chapter.

¹ Annual dates in the discussion refer to the official fiscal year used in Puerto Rico—July 1 through June 30—the year designation being of the latter date.

CONSTRAINTS IN THE ECONOMY

Although the perception of what constitutes a serious constraint on further economic development in Puerto Rico is open to interpretation, several factors would seem to impose barriers of some general importance. Among these are:

1. The island is nearly devoid of commercial resources, including energy;
2. A significant portion of the labor supply remains unskilled;
3. The minimum wage rate will be raised to parity with the U.S. mainland by 1981;
4. Puerto Rico does not conduct independent monetary or trade policies; and
5. The island's trade is subject to high shipping costs to and from the U.S. mainland.

With the exception of the third, these constraints have largely delimited and shaped the character of the Puerto Rican economy. The economy is very open, being heavily dependent on the importation of raw materials. Its energy requirements are supplied almost entirely by imported oil. Much of the capital and the technology used in its manufacturing industries are likewise imported, most from the mainland. Total merchandise imports were in excess of 70 percent of the gross national product (GNP) in recent years. As return trade, the island's merchandise exports amounted to about 50 percent of the GNP. Some of the exports, the more traditional ones, such as textiles, apparel, shoes, and tourist service, are labor-intensive in nature; but the predominance of exports tend to be capital-intensive. Among the latter type are pharmaceuticals, scientific instruments, and petrochemicals.

Although the anticipated rise of the minimum wage rate might be expected to have a greater impact on the labor-intensive industries and cause a lessening of Puerto Rico's competitive position, the resulting impact cannot be that clearly assumed. One reason is the fact that many of the industrial average wage rates exceed the minimum by a considerable margin. Secondly, productivity growth could at least to a degree ameliorate any wage rate increases that might be experienced; thus unit labor costs may not be

adversely affected by the wage rate increase. The service sector of the economy, however, where productivity increases are much more difficult to come by, would generally be much more vulnerable to the minimum wage rate increases. Unless demand for services can advance rapidly enough to stimulate increased demand for service labor there is the possibility that the minimum wage rate increase could cause unemployment of such workers.

Any discussion of the competitiveness of Puerto Rican industry must view the situation in respect to both mainland and foreign producers. Puerto Rico's economic policy is limited for the most to manipulation of corporate tax exemptions under the Industrial Incentives Act (IIA) and to front-end subsidization of newly operating firms. Although it does not have a trade policy of its own, Puerto Rico lies within the United States customs area; and, consequently, it participates in the protection the area has to offer.

Land and Natural Resources

One of the constraints introduced above that shaped the development of the Puerto Rican economy is the island's poor endowment of natural resources. In chapter IV land, minerals, and water resources receive special attention. This summary merely stresses that several problems exist for Puerto Rico regarding its resources. Only 25 percent of it is arable at the present. Although a substantial part of the island is mountainous and not suitable for farming, much of the land problem stems from the de-emphasis of the agricultural sector which occurred under Operation Bootstrap, the industrialization program fostered by the Government after World War II. As a result of the program, a large portion of Puerto Rican farmland was no longer cultivated and subsequently fell into neglect. This disengaged land would have to be reclaimed if a renewal of agricultural development were to be pursued as a governmental policy. The Government's current experimentation with rice production is an example of the kind of effort that might have to be further extended if a revitalization of the agricultural sector is seriously attempted.

Excepting copper and nickel, the mineral deposits of Puerto Rico are trivial. The copper resources appear to be of high quality, but the low world market price of copper in recent years has not made the exercise of mining rights profitable. Furthermore, environmental control controversies have retarded the development of these mineral sources. It is claimed that oil deposits exist offshore, but recent surveys indicate that, if they exist, they lie in areas of such deep water that the cost of extraction might be extremely high. Whether title to the oil deposits lies with Puerto Rico or the United States is a matter

which must be decided before any existing oil potential could be activated.

Water is a resource of great importance for industry and agriculture as well as for individual consumption. A natural allocation problem arises in respect to the use of water in Puerto Rico because the northern half of the island receives considerable rainfall while the southern half receives very little. Problematic temporal and spatial variations of water supplies exist across the island because of this pattern of precipitation.¹ A second allocation problem develops from the fact that no less than 23 agencies of the Commonwealth Government and the Federal Government are involved in water management on the island.

SUMMARY OF FINDINGS RELATED TO THE MAJOR ISSUES

Economic Growth Potential

Although the Puerto Rican economy experienced several years of extremely rapid real growth without rapid inflation in the post-World War II era, real growth in the future is expected to be more moderate. Given the openness of the Puerto Rican economy, particularly towards the mainland economy, the island's future economic growth will necessarily be closely linked to world and mainland economic conditions. Trend growth rates in the United States are expected to be moderate in the 1980's, a result of recognition of the inflation threat that rapid stimulation of economic growth can create and also the slowing of the labor growth because of demographic changes. Granting that the industrial economies of the world can sustain moderate growth without serious inflation, the study foresees no fundamental change in Puerto Rico's particular conditions that would thwart the possibility of keeping real growth up to satisfactory rates. Real growth between 5 and 6 percent annually seems to be a reasonable expectation. The economy's recovery from the seriously depressed conditions of the mid-1970's appears to be complete. This finding of ample potential for moderately strong growth is premised on continued rise of the incremental capital-output ratio (ICOR) at its recent pace and a rate of capital formation that is feasible in terms of historic performance.² The expected growth potential described has already been partially confirmed. In 1978 the real GNP advanced 5.3 percent; and, at the time of this writing, the real growth rate for 1979 is possibly higher.

One further factor reinforcing the view that more

¹ Chapter IV contains a water budget for Puerto Rico that shows the system of sources and uses of water supplies.

² A detailed analysis supporting this finding is presented in the closing section of chapter II.

moderate real growth is in store for Puerto Rico is the outlook for construction activity which appears to have somewhat weaker growth potential for the immediate future than in the past. The level of performance and the rate of growth of construction expenditures before 1975 was impressive. At that time manufacturing and tourism were expanding rapidly and heavy governmental investment in the basic infrastructure of the economy was taking place. If construction in both the private and the governmental sectors expands with less vigor than was reflected in the investment boom years, the stimulus for income and employment growth coming from construction would likewise be moderated. Although possibly occurring at a reduced pace from that of the past, further development of the infrastructure in Puerto Rico does seem plausible, particularly in the rural areas.⁸ In addition to this possibility, added impetus to the economy could come from more intensive development of industry and agriculture in these areas. A shift of emphasis in development away from the urban sector would depend on new policies moving in that direction, particularly with respect to the development of agriculture and natural resources.

Although the Puerto Rican economy has grown significantly faster in 1978 and 1979 than in 1977, the recovery of the construction industry is still incomplete. Extensive apartment and condominium construction had occurred in the days prior to the crisis of the 1970's. The inventory of such construction may now have been run down sufficiently to key a new stimulus. For the long run, however, one must ask whether or not the growth of residential construction can sufficiently augment industrial and public construction in order that the construction sector might provide a reliable and significant long-run impetus to economic growth in Puerto Rico.

An additional influence on the rate of growth in the economy is the outlook regarding the budgets of the governments and the public enterprises. Except in the recession, public spending and employment have grown very rapidly for several years and helped to boost private sector activity. A more conservative expenditure policy in the public sector in the future would have a moderating effect on economic growth.

Lastly, the rate of real growth will be affected by the intentions of outside investors regarding the expansion of their present facilities in Puerto Rico and development of new sectors in the economy.

The Unemployment Problem

Under Operation Bootstrap Puerto Rico's monocrop agricultural economy of the pre-World War II days was abandoned. That economy had failed to

absorb satisfactorily the island's rapidly growing labor force. However, the developing manufacturing sector under Bootstrap similarly failed to open up enough jobs. Actually, it was the large emigration to the mainland that provided the "safety valve" for the economy's labor force and accounted for much of the drop in unemployment in the 1950's and 1960's.

Despite the fact that the mainland absorbed a considerable portion of the growing labor force, Puerto Rico's unemployment rate continued to be high. A jobless rate of 10 percent seems to have been the minimum attainable in recent years. During the recession of 1974-75 unemployment more than doubled that level. A large portion of the unemployment in the recession was concentrated in the construction industry. The sharp reduction in construction employment was partially attributable to a cutback in condominium and apartment building as well as to substantial decline in industrial investment. Federal funding under the Public Works Employment Act of 1976 was provided to help revive building activity. It is somewhat uncertain what source will sustain construction activity after these projects are completed.

The high level of unemployment in Puerto Rico constitutes a serious challenge to policy formulation to correct the problem. There exists considerable uncertainty, however, concerning the full nature and the measurement accuracy of the extent of unemployment. One basic source of this uncertainty is a possible exaggeration of the figures on return migration to the island. If the labor force is estimated using overstated immigration levels and even if the employment figures are reasonably accurate, an exaggerated unemployment percentage would result. A second source of uncertainty about the unemployment rate relates directly to the unemployment survey technique. Problems arise regarding the household surveys as to whether the questions asked about job searches and employment experience are being properly interpreted by respondents and whether the sampling procedure is sufficiently reliable. The ebb and flow of the college student labor force between the island and the U.S. mainland is also an important matter requiring further understanding.

Although it is rather obvious that large numbers of the unemployed are responsive to conditions of demand shifts in the economy, it is tempting to interpret the unemployment in the 10- to 12-percent range (and even beyond), a range which spans the minimal rates experienced since 1947, as representing structural unemployment. Many of the unemployed are rural dwellers whose labor was unabsorbed by the industrialization of the island. But whether structural changes are accountable for the "hard core" range of unemployment hinges, for one thing, on the removal of some of the uncertainties described sur-

⁸ Regional sewerage systems' development should assist in this regard in the next 5 years.

rounding the accuracy of the measurement of the employment situation on the island. But beyond that, further investigation of the socio-economic profiles of the unemployed and their turnover rates would seem in order. Further analysis of the relationship between food stamps and other income maintenance and labor force participation, initiation of studies of the role of the family unit and "planned leisure" periods in labor force participation, and continued investigation of the skill levels of the unemployed and demand requirements are all areas in which reliable information is critical to effective policy formulation.

Once the structural unemployment component is isolated, the next question is how much of the component can be traced to skill deficiencies in the context of improvement in technology in the economy and how much is basically frictional in character or representative of a partial participation in the labor force. Regarding the latter question, for example, it has been contended that some of the Puerto Rican unemployed demand reservation wage rates in excess of what is realistic. How relevant this hypothesis is in explaining the heavy unemployment remains, like the other questions cited, an important matter.

The question of how the skill level of the labor force affects economic development and unemployment in Puerto Rico cannot be answered easily. On the one hand, the median of years of schooling is less in Puerto Rico than on the U.S. mainland. Nonetheless, the island possesses a college-educated cadre proportionally equivalent to that of the mainland. College education in Puerto Rico, however, is more often in liberal arts rather than engineering, business administration, or applied sciences, areas which might be able to provide more immediate economic returns to both the students involved and the economy at large, by enhancing labor productivity. The average educational attainment of persons without college training being substantially lower for Puerto Ricans than for the corresponding group in the United States results in a scarcity of technicians and skilled workers. This is a constraint on growth and productivity advancement. These conditions produce what on first glance seems to be an anomaly; a tight labor market existing within an environment of seriously high unemployment. The answer lies, however, with the realization that much of the labor demanded is for semiskilled and skilled workers.

Another factor bearing on labor use in the future in Puerto Rico is the possibility that the wage rate structure could rise because of increases in minimum wage rates. Currently, each industry in Puerto Rico has its own minimum wage. Under recent amendments to the Fair Labor Standards Act, the minimum wage rates in most industries in Puerto Rico are to be raised toward parity with the United States by 1981. In 1977 about two-thirds of all covered work-

ers in Puerto Rico were enjoying wage rates above the mainland minimum of \$2.65 per hour. In the next 3 years, however, nearly all Puerto Rican workers will come under the law. Minimum wage rates will rise by an average of 11 percent a year in the adjustment period.

All of these considerations aside, the problem of unemployment is chronic in Puerto Rico and must be addressed with renewed vigor. Expanding employment would be an important step toward the goal of reducing income inequality, although income inequity is notoriously difficult to change. It also would enhance the share of income generated in Puerto Rico going to Puerto Ricans in contrast to that received by foreign providers of capital. Greater employment creation would also assist in reducing the number of Puerto Ricans dependent on Federal transfer payments for subsistence.

Increased employment can be encouraged by more flexible use of tax incentives. In the past, tax preferences have been extended mainly to the suppliers of capital. In the future, tax incentives could be extended in consideration of the employment generated by an enterprise. Initial construction employment might be considered, of course, as well as permanent operating jobs involved.

Trade and Capital Inflow

External trade is extremely important to the welfare of Puerto Rico. The island's economy depends heavily on the inflow of external capital and on the imports of technology, raw materials, and consumer goods, which account for a substantial portion of total consumption on the island. Puerto Rican industry relies mainly on export markets to sell its production. In sum, external trade is the "lifeblood" of the island's economy.

Capital Inflow

The extensive reliance of the Puerto Rican economy on external capital leads to important consequences. The economy's direction is guided in many ways by the outside decisions of mainland firms to invest or not to invest on the island. This situation, together with the great interdependence of Puerto Rico with world economic conditions, means that Puerto Rico's economic policies are executed in an environment dominated by uncontrollable outside influences.

There is no apparent alternative, however, to reliance on outside capital. The island economy is a net dissaver, and the prospect that the island will bring forth substantial domestic net saving in the near future appears dim. Internal saving could be forced through greater taxation and larger government surpluses, allowing that the increased surpluses

would not depress income and employment. The Government could divert the added tax revenue toward investment. The principle of self-financed industrialization could be followed. The multiplier effect of higher government investment balanced by higher taxes presumably would not contribute as much to overall economic activity as the multiplier effects ensuing from private sector investment, foreign investment, or exports. Allowing that additional internal saving might be stimulated by appropriate policies, the fact remains that most economies now passing through an era of rapid industrialization are doing so, as Puerto Rico, with the aid of substantial inflows of external capital.

Exports and Imports

Most of Puerto Rico's trade is with the United States. The mainland has been the key market for Puerto Rico's exports. In 1950, for example, 95 percent of all Puerto Rico's exports went to the U.S. mainland. Although some diversification in the destination of exports has taken place since 1950, the U.S. mainland continues to be the dominant destination. In 1977, the United States was still receiving about 86 percent of Puerto Rico's exports.

The composition of Puerto Rico's exports has undergone significant changes since the early 1950's. Traditional export products, such as food and related products (mainly sugar) and apparel made up most of her exports during the 1950's. The share of total exports attributable to these traditional items contrasted as industrial development proceeded, giving way to new manufactures. By 1977, manufactured goods, such as chemicals and related products and electrical machinery and parts, made up over 40 percent of Puerto Rico's exports.

The direct and important connection with the United States market has made the Puerto Rican economy responsive to the fluctuating business conditions of the mainland. The diversification of Puerto Rican exports by destination could give the economy a much greater degree of stability in terms of production and national income.

The sources of imports have varied little more than the destination of exports since 1950. Prior to 1973, Puerto Rico received about 90 percent of her imports from the United States. Given her heavy reliance on imports of petroleum from other suppliers, however, the oil price hikes of 1973 and 1974 changed the pattern of origin of Puerto Rico's imports dramatically. The value of oil imports ballooned from about 7 percent of total imports before 1973 to about 25 percent today. This large increase in the oil bill had severe repercussions throughout the Puerto Rican economy and was a major factor contributing to the recession in 1975.

Given present technology, Puerto Rico's economy must rely entirely on imported petroleum, with OPEC countries being the main suppliers. As long as this dependency on foreign oil remains, the performance of the economy will depend directly on the pricing policies of the oil-supplying nations. Long-term alternative energy sources might alleviate the dependency. Among the alternatives to oil in the long term are solar, wind, coal, nuclear, and possibly ocean wave energy.

Changes in the composition of Puerto Rican imports clearly reflect the transformation toward a manufacturing economy. In 1950, consumer goods accounted for roughly half of total imports and food imports made up one-quarter. As the industrial development proceeded, Puerto Rico's appetite for raw materials and intermediate products grew extensively, so that, by 1970, these goods constituted about 54 percent of total imports, while the consumer goods portion had dropped to 34 percent.

Government

Both the Puerto Rican Government and the U.S. Federal Government play very important roles in the Puerto Rican economy. The Puerto Rican Government, in conjunction with Federal financing, has directly employed a growing proportion of job holders. Its investment in public infrastructure and its policy of corporate tax exemptions have helped to stimulate the economy's growth for many years. The health services, education, and various other services it provides have raised the Puerto Rican standard of living. Increases in Commonwealth and municipal spending have been very large for over a decade. The birth and growth of the public enterprises, which provide additional public services, especially the capital-intensive ones, render the growth of the public sector even more striking to the observer.

Despite the increases in governmental activity, personal taxes have grown only slightly faster than personal income in this decade. This result stems from the fact that Federal Government support of Puerto Rican Government programs has provided a significant external source of financing, and because some of the growth in investment spending has been financed by issuing debt instruments.

The rapid growth of government operating expenditures is a controversial issue in Puerto Rico. This growth has been due partially to significant government employment increases and partially to large pay increases for government employees which averaged 10 percent annually from 1971 to 1975, although salaries were frozen momentarily at the end of this period. Only in 1972 did employment and compensation grow comparably. These raises both

inflated the government budget and set an inflationary example for private wage settlements.⁴ They were slowed to about 2 percent yearly in 1976 and 1977. Growth of other operating expenditures has been subsidized in varying degrees by the Federal Government. The composition of governmental activity has been modified by these subsidies.

Public investment and the debt which financed it have grown even more rapidly than the operating budget. Such spending is not usually supported directly by the Federal Government and entails a commitment by the issuing jurisdiction to meet debt service payments in the future. The recent exceptional growth of public debt has some serious implications for tax burden in the future. Determining the optimal level of public investment involves weighing the benefits of the projects against the repayment costs. To the extent that public facilities are not financially self-liquidating, the decision whether the benefits from the investments justify the commitment of public resources must be made by the political process. Because Puerto Rican bonds are sold on the mainland, however, the level of investment is constrained significantly by the willingness of U.S. investors to supply their capital. The future growth of public debt, in fact, could be limited, since a conservative estimate of Puerto Rican repayment capabilities may govern investors' appraisals in light of the 1975 upheaval in municipal bond markets. Acceptability of Puerto Rican debt has improved with the recovery of the economy and slowing of debt issuance.

Temporary tax increases were implemented in 1975, however, in an attempt to compensate for the decline in revenues stemming from the recession. Operating expenditures have slowed with the abatement of compensation growth and capital expenditures have actually declined in the past 2 years. Both factors have detracted from private output and employment expansion. However, government employment growth has provided one of the few sources of new jobs in recent years.

The Federal Government has become an increasingly important participant in the Puerto Rican economy in the past decade. In addition to its support for many of the Puerto Rican Government's functions, it is a source of substantial income support for individuals. Federal transfer payments last year constituted nearly 20 percent of Puerto Rico's personal income (far greater than the 5-percent share in 1970); Federal funds supported about one-third of Commonwealth and municipal operating expenditures.

Both government tax and spending policies seem to work toward a more equal distribution of income

in Puerto Rico. The reliance on progressive personal income taxes and approximately proportional excise taxes plus the absence of payroll taxes makes the tax system slightly progressive. Although significant impetus for social programs results from the policies of the Federal Government which favor the lower income groups, the shift of emphasis toward social services in the Commonwealth budget should also help to benefit the lower- and middle-income classes somewhat more than the high-income groups.

Policy Formulation

The foregoing discussion has raised a number of policy intervention matters for Puerto Ricans to assess. It is usually helpful to be systematic in such assessments. Economic policy must necessarily be conducted within the confines of the existing economic structure, although some elements of a policy design may themselves be directed towards changing the current structure, if only to some small degree. Outside forces impinging on the economy similarly determine policy latitudes. As a result, the economic structure and these outside forces together constrain any policy action. If policymakers are to take meaningful action within these constraints, criteria or goals must be set up in order to be able to assess policy outcomes. Such criteria are frequently designated as policy "targets," if indeed any quantitative dimensions can be assigned to them. The devices available for implementing policy are frequently referred to as the "instruments" of policy.

Obviously, if policy action is to be more than a random, spasmodic activity, there must be as clear knowledge as possible of the relationship existing between the criteria and the policy instruments. Otherwise, any policy that is followed may end up being more disruptive than helpful in remedying problems. Within the policy framework just described, policymakers find themselves faced continually with the necessity of balancing the costs of certain outcomes arising from the policy, or persistent unacceptable circumstances in the economy, and the risks involved in taking action. This balancing portion of policy decisionmaking is especially difficult when the relationships between the policy instruments and criteria are unclear, or even completely unknown.

The criteria frequently used in judging economic progress are fairly well known. Among them are:

1. the level of unemployment,
2. the growth rate of real output or product in the economy, aggregate and per capita,
3. the rate of income growth and the degree of equality of the income distribution,
4. the rate of inflation,
5. the stability of the gross national product, and
6. the rate of capital formation.

⁴ Intensified union pressure in the public enterprise contributed to wage increases in that sector.

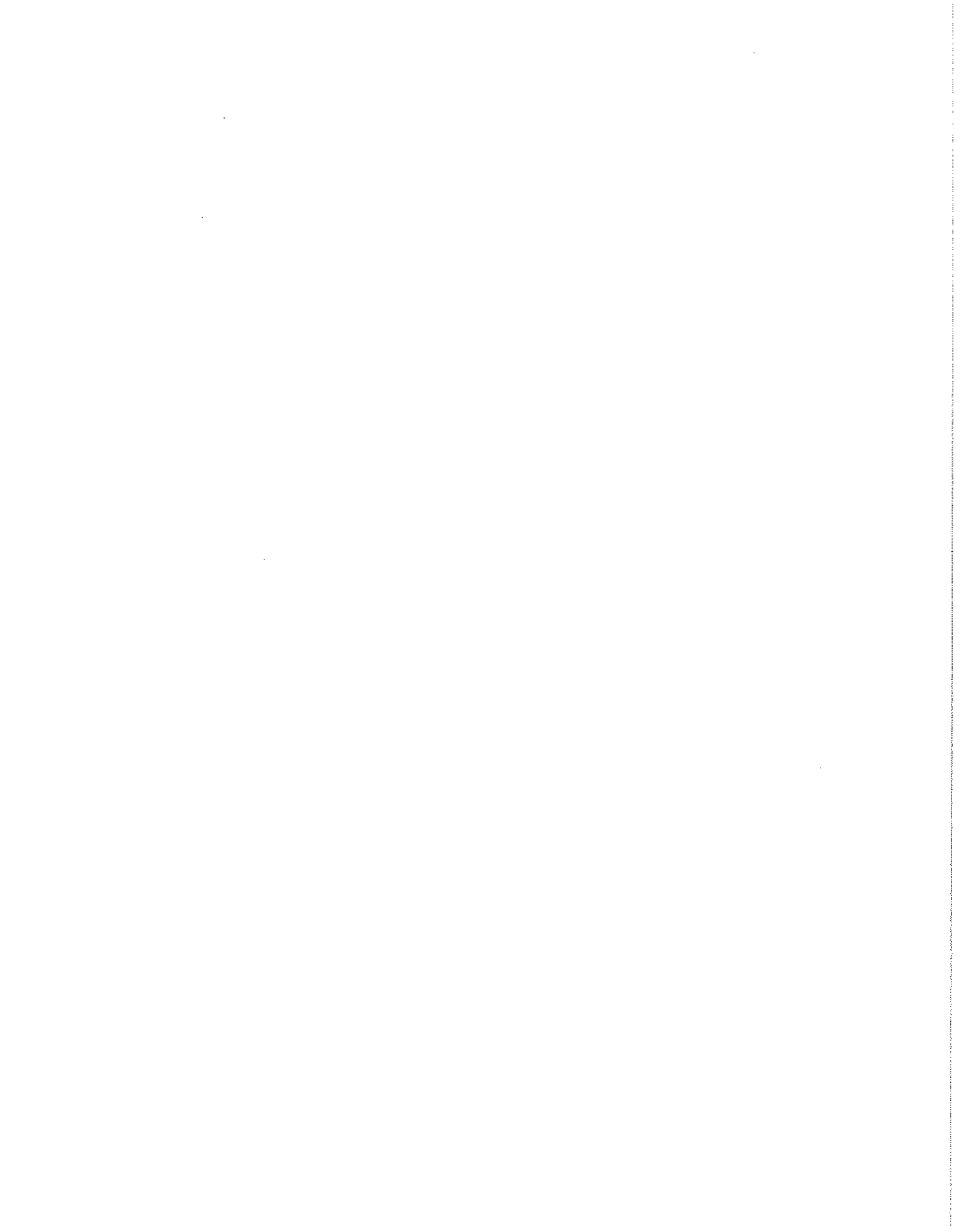
These or very similar criteria need ranking of priority by government policymakers in line with the policy framework already described. Trade-offs must be kept in mind since the policy criteria generally are not independent of each other. (The ranking presented above is in no way intended to convey a suggested order of priority.) In assessing policy intervention, the Puerto Rican Government, it would appear, must decide within a similar framework whether its present policies are properly addressing and attaining desired goals. Questions such as whether or not changes in the structure of the economy, the creation of employment, the level of capital formation, the import and export levels and patterns, and other economic factors are conforming to the specific policy priorities of the Government are important in an overall assessment of economic and social progress.

In Puerto Rico's case, its policy tools consist of the allocation of expenditures through governmental budgets, controlling of the revenue flow and the setting of front-end loading subsidies and exemptions under the aegis of the Industrial Incentives Act (IIA). Although no policy recommendations are provided in this Study, since it is the prerogative of the Puerto Rican Government to rank their chosen criteria, there are numerous policy options, many of them based on the IIA, presented in the GEA and elsewhere.

A particular ranking of policy criteria made by the Puerto Rican Government would imply the "tilt" which the policy mix is to take in regard to the degree of capital intensity of industry in Puerto Rico the Government might want to develop in the economy. The capital intensity of the industrial structure naturally relates directly to the growth potential of the economy—which was the first major issue cited

at the outset of this chapter—as well as to the issue of unemployment reduction—the second major issue mentioned. Involved also in the capital-intensity question is the degree to which the economy should rely on the mainland for finance and trade—an issue described as the third major issue facing the economy. The latter issue relates to the growing divergence between the gross domestic product (GDP), which is the value of the production generated on the island, and the GNP which is the value of the product available to Puerto Ricans for their final use. The divergence has grown continuously since 1963 with the GDP exceeding the GNP. Previous to 1963 the reverse was true. The gap with GDP in excess of GNP represents a flow of income going from the island, largely to the mainland, and consisting mostly of profits. The gap also shadows the extent to which Puerto Rico's capital is externally owned and controlled. When GNP exceeded GDP (prior to 1963) there was a net inflow of income to Puerto Rico, resulting almost entirely from the wages of Puerto Rican workers engaged on the mainland. These are important relationships to be considered. Lastly, the policy options selected by the Government would necessarily have to address the income distribution problem which was the fourth major issue the discussion poses as facing the economy.

Depending on the particular priorities set among the policy criteria, the policy options suggested throughout the Study vary in their appropriateness. It must be stressed, however, that even when a policy option appears to be the best available for attaining a certain goal, there is usually some disadvantage associated with it. Recognizing this fact is merely another way of saying that economic reality, even when viewed within the systematic policy framework suggested above, remains short of being ideal.



Chapter II.—The Growth Process in the Puerto Rican Economy 1947-77

INTRODUCTION

This chapter examines the overall economic progress of Puerto Rico in the past three decades. The development of the island's economy is reviewed and analyzed in terms of the total product and income, employment, inflation, government, and the saving and investment process.

TRENDS IN THE GROSS DOMESTIC AND NATIONAL PRODUCTS

Since the gross domestic product (GDP) and the gross national product (GNP) each convey slightly different information about the aggregate activity of an economy, both measures of economic performance are useful in a macro assessment, especially when a substantial divergence exists between them, as is the case in Puerto Rico. Although a detailed analysis of Puerto Rican employment and unemployment appears in a separate section of the chapter, some data concerning the employment situation enter the discussion in this section as well. A segment of the discussion also covers the changes in the composition of the aggregate product and income. An examination of these shifts gives a deeper understanding of the processes of growth and structural change which were so rapidly experienced by the Puerto Rican economy in its post-World War II industrialization.

The quickened pace of the Puerto Rican growth that resulted from the industrialization policy known as Operation Bootstrap is clearly evidenced in the average real growth rates of the GDP and the GNP for the selected periods presented in table 1. The performance of these two product measures between 1947 and 1977 is illustrated in figure 1.¹

The marked inversion of the GDP-GNP relationship that occurred in Puerto Rico during its economic

*Table 1.—Growth Rates of the Gross Domestic Product, Gross National Product, and Population in Puerto Rico, 1940-77*¹

[In percentages]

Period	Gross domestic product	Gross national product	Population	Gross domestic product per capita	Gross national product per capita
1940-47	N.A.	5.06	2.11	N.A.	2.89
1947-63	6.66	6.11	0.87	5.74	5.19
1963-73	7.37	6.55	1.64	5.64	4.83
1973-77	1.66	1.03	3.27	-1.56	-2.17
1947-77	6.21	5.58	1.45	4.69	4.07

¹ Growth rates are average compound annual rates of growth calculated between the terminal dates of the periods indicated, using constant 1954 dollar estimates of the national product measures.

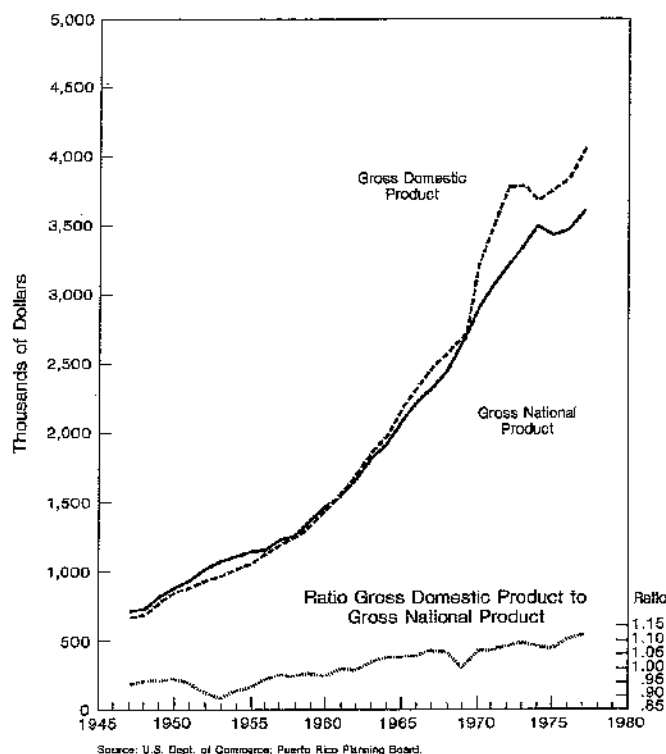
Source: U.S. Department of Commerce; Puerto Rico Planning Board.

development is evident in the figure. In the earlier years, the GNP exceeded the GDP, but in the sixties the configuration was reversed. The growth rate of the GDP, on the average, was faster than the GNP thereafter, and two product measures continued to diverge as the economy grew. Although the GDP frequently exceeds the GNP in developing economies, the relative magnitude of the divergence as it appears in the Puerto Rican economy is rather unusual. The exaggerated divergence of the GDP and GNP is probably the most definitive reflection of the very close relationship existing between the island's economy and the U.S. mainland, making Puerto Rico truly a "tandem economy" of the U.S. economy.

The GDP measures the value of the production carried on within the confines of the island in contrast to the GNP which measures the product value available to Puerto Ricans for consumption. As a result, the continuously widening excess of the GDP over the GNP measures the net outflow of factor income from the economy. The outflow goes mostly to the U.S. mainland as the economies return on the large capital investments made in the island. In the years preceding the intensification of the Puerto Rican industrialization policies in the early sixties, a net inflow of factor income had occurred. However, the inversion of the GNP-GDP relation-

¹ Since the drafting of this discussion, more recent data for the Puerto Rican product and income measures have become available. The data indicate that in 1978 the growth of GNP in real terms was about 5.3 percent. Indications are that a rate of increase at least as fast has occurred in 1979.

Figure 1
Puerto Rico Gross National Product and
Gross Domestic Product, 1947-77
 (Constant 1954 Dollars)



ship transformed Puerto Rico from a net recipient of factor income from abroad to a net payer of income to foreigners. The influence this transition had on the saving-investment process is outlined later.

Viewing the advances of GDP and GNP on a per capita basis can provide an even more meaningful picture of Puerto Rican economic progress than the growth rates of the aggregate measures can reveal. As the data in table 1 indicates, a significant acceleration of the per capita GNP occurred after 1947. An important factor contributing to the acceleration was the freedom of the populace to emigrate to the U.S. mainland. The acceleration depended as much on the reduced rate of net population growth, permitted by the massive emigration after World War II, as on the development of the economy's production potential. The per capita data also clearly reflect the sharp slowdown of the economy in the oil crisis and the recent recession. The deceleration of the growth rate of per capita GNP between 1973 and 1977 may be somewhat exaggerated, however. Some evidence suggests that the migration, which is officially reported in Puerto Rico as a net immigration to the island in this period, may actually have been almost negligible. This observation is based on an apparent misinterpretation of information coming from airline sources that was used in the official estimation of migration.

Relationship of Product and Employment

The massive migration of Puerto Ricans to the mainland in the early postwar period was described in the introductory chapter as the "safety valve" for a swelling labor force which resulted from the population increases. Despite the fact that real growth in the economy was extremely impressive—frequently running above 7 percent a year in GDP terms—the Puerto Rican employment situation was only moderately improved by the economic development, a point which appears rather paradoxical on first glance. Unemployment remained significant, averaging 14 percent between 1950 and 1962. Without the relief provided by the escape route to the mainland, the unemployment problem would have been substantially intensified.

In the fifties, as the economy was engaged in the first phase of the transition from a monocrop agricultural system to an industrial system, total employment contracted. The absorption of labor into the newly developed manufacturing sector fell behind the rate at which agricultural workers were being laid off. It was only after 1963 that a persistent employment expansion was underway. Under the momentum, spurred mainly by capital investment induced to enter the economy under the revisions in the Industrial Incentives Act, employment improved for a decade. Between 1963 and 1973, it increased on the average nearly 3 percent a year. In that span of years, the average rate of unemployment dropped to just over 12.5 percent as an average—still highly unsatisfactory, however. The oil crisis and the recession of 1974-75 quickly slashed in half the 3-percent average annual gain of employment, experienced in the prior decade. The rate of unemployment mounted rapidly and averaged 16 percent between 1973 and 1977. But the period's average by no means reveals the extent of the unemployment problem that prevailed in 1976 and 1977. In those years, the annual average rates reached 19 percent and 20 percent respectively. The peak monthly level was 22 percent in May 1977.

Cyclical Behavior of the GDP and GNP

Neither the GDP nor the GNP had declined in Puerto Rico throughout the economic development. In 1974, when the oil crisis hit, the real GNP continued to rise and even show a rather substantial increase for the year; but the GDP, on the other hand, recorded a small decline of \$2.7 million in constant 1954 dollars. By 1975, however, the severity of the recession was fully evidenced in both product measures. The GNP contracted \$69 million and the GDP dropped \$96 million in constant 1954 dollars. The changes were 2 percent and 2.5 percent of their respective product levels. These relative amplitudes

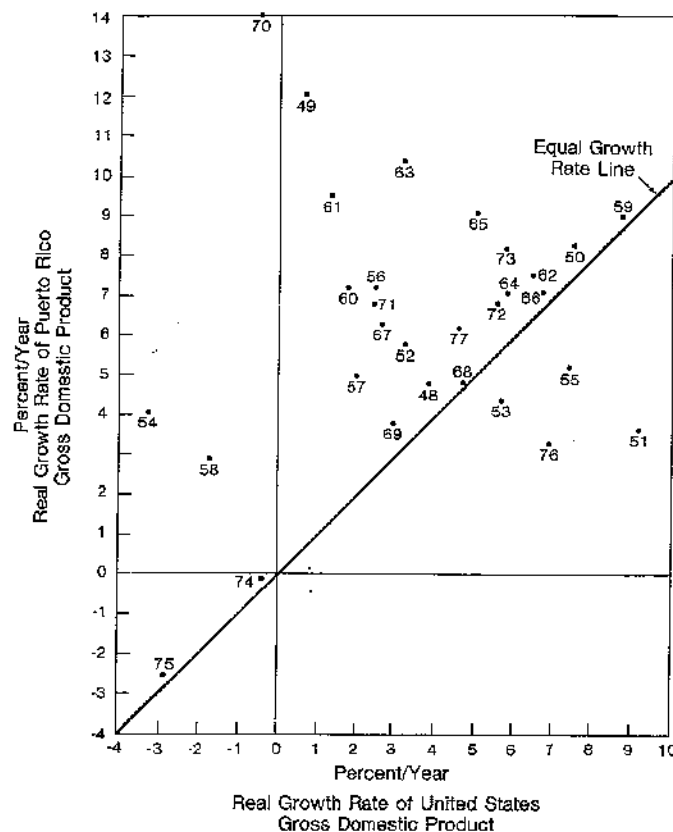
of contraction were very similar to the cutbacks in gross products experienced in the United States, but the Puerto Rican declines were slightly less severe and the 1976 rebound not as strong as in the United States.

As was the case with the GNP and GDP, the effects of the 1973-74 recession in terms of unemployment in the two economies were likewise roughly equivalent. There was somewhat greater than a doubling of the percentage rate of unemployment in Puerto Rico and nearly a doubling in the United States. In Puerto Rico this meant at the peak an unemployment rate of about 23 percent and in the United States a level of about 9 percent. As subsequent analysis will show, a significant share of the unemployment increase which surrounded the recession in Puerto Rico was concentrated in the construction industry. This industry had boomed in the late sixties and early seventies; but overbuilding, resulting from concentration on condominiums and apartments was evident even prior to the recession. The slumped construction situation carried over into the economy's post-recession rebound. Project financed under the public works Employment Act of 1976 as amended in 1977 have stimulated construction activity in the past year; however, construction employment has not regained its earlier levels.

Even though the Puerto Rican recession appeared to mirror the U.S. recession in terms of the relative amplitudes of the respective GDP fluctuations,² no valid generalization about the equality of relative responsiveness of the Puerto Rican GDP to the U.S. GDP can be derived from this rather unique instance. The reason why is seen in figure 2 which contains a plot of the growth rates of the real GDP's in each of the economies since 1948. A concentration of points about the 45°-line which bisects the figure would suggest an almost perfectly equivalent and correlated response of Puerto Rican GDP changes to GDP changes in the United States.³ As it appears, however, less than one-third of the plotted points lie within 1 percentage point of the 45°-line. It is also clearly evident that, in a number of years, the Puerto Rican real growth rate far exceeded that of the United States; however, the Puerto Rican product, it must be realized, was substantially less than 1 percent of the U.S. product throughout the period.

The inequivalence of simultaneous relative GDP responses in the two economies is quite evident. The plot shows considerable dispersion of points with a preponderance of faster growth in Puerto Rico. A

Figure 2
Comparison of the
Real Growth Rates of the Gross Domestic
Product in Puerto Rico and the United States, 1947-77



Source: U.S. Dept. of Commerce; Puerto Rico Planning Board.

variety of recession responses are indicated. In the 1954 recession, for example, the real growth rate of Puerto Rico's GDP was sustained at the previous year's level while the United States GDP contracted 3 percent after an increase of almost 6 percent in 1953. But in the recession of 1958, when GDP in the United States dropped about 2 percent, the real growth rate of GDP in Puerto Rico decelerated by 2 percentage points. Yet a third example of noncorrelation in critical response can be cited: The 1970 recession which caused the mainland's GDP to decline somewhat less than 1 percent was paralleled by a surge of growth in the real GDP in Puerto Rico—the growth rate rising to 14 percent from about 4 percent in the previous year.

The real growth rates for the two economies are plotted in a concurrent relationship in figure 2. However, it seems plausible that a closer response pattern might emerge if the Puerto Rican growth rate were to be lagged by a year, especially since the U.S. economy is considered as the driving force of Puerto Rico's economy. But when the Puerto Rican product measure was lagged by 1 year and plotted, a configuration of points with even fewer instances

² The GNP fluctuations in the 1974-75 recession were not completely parallel in Puerto Rico and the United States since real GNP in Puerto Rico was still rising whereas in the United States a decline was already underway.

³ A massing of points along any other straight line projected from the neighborhood of the origin would suggest nonequivalence but a high correlation of the growth rates.

of close correspondence of growth rates resulted. The analysis shows that the interdependency of the Puerto Rican economy on the U.S. economy cannot be generalized simply, certainly not in terms of real growth rates of GNP. The preponderance of faster growth in Puerto Rico than in the United States exhibited in figure 2 results not only from the fact that a much smaller base was involved in Puerto Rico, but largely, too, from the fact that the infrastructure of the economy was being developed during much of the period. The infrastructure growth apparently tended to compensate for the occasional depressing impacts resulting from changes in mainland demand for Puerto Rican exports. As the external trade analysis will show later, it is Puerto Rican exports, rather than total product, which tend to reflect more directly the shifts in United States product.

Whether the degree of responsiveness of the Puerto Rican economy to the production level of the United States will remain the same in the future is an important matter underlying of the two major issues concerning Puerto Rico which were raised in the first chapter of the report—that of the resumption of faster growth and the issue of the reliance of the economy on the mainland. Unless Puerto Rico launches into a second phase of infrastructure development, it might be expected that the economy's growth rate in coming years would track the U.S. conditions more closely than in prior years.⁴ The diversification of Puerto Rican exports by countries, a trend that has evolved in the past two decades, could possibly dilute the mainland impact. Nevertheless, even if the mainland impact is lessened, Puerto Rico will doubtlessly be completely dependent on world economic conditions, just from the mere size of its economy.

From the above analysis, it appears that the extensive development of the infrastructure and the corresponding concentration of production in the investment activity seemed to have precluded any cyclical behavior of the Puerto Rican economy in the classical sense of periodicity. The data indicate rather that prior to the 1974-75 recession, the "cyclical" behavior of the economy—if it can be so termed—took the form of variations in the rate of real growth. The nature of the construction expansion and contraction raises the question, nevertheless whether a construction "cycle" was not concealed in the dynamics of the economy in the past decade or so. A comprehensive exploration of the relationship of construction and Puerto Rican real growth seems a worthy area of research, particularly if future building prospects are included.

⁴ In the next 5 years high level investment in regional sewerage systems will contribute to further development of the infrastructure in Puerto Rico.

Sources of Changes in Real Growth

The performance of the components of the GNP on an annual basis were analyzed by decomposing the GNP growth rates and by a trend analysis. Such a year-to-year decomposition of the real growth rate of the GNP provides an understanding of the accounting contributions to real growth. Since the multiplier in the economy operates on exogenous (or shock) changes in the economy, identifying the causes of the fluctuations in the growth rate would be even more helpful. But that exercise would generally necessitate specifications of an econometric model, an analytic sophistication which was not feasible within the resource limitations of the present analysis. The accounting of the growth contributions, however, does provide some interesting information about the GNP movements. The results are presented in table 2. Each row of the table provides the decomposition of the overall growth rate. The contribution of a component is estimated by scaling the component's change according to the weight it carries in the GNP.

The calculations reveal that the changes in the GNP consisted primarily of additions to personal consumption expenditures. These expenditures, however, are generally dependent on the national income and are only occasionally the source of exogenous, or independent, impacts on the total product of the economy. They are more often the effect of the GNP change rather than its cause. The driving forces of growth are essentially the increases in domestic investment and exports. The data show that in several years the fixed investment component did make a major contribution. After 1973, however, the fixed investment component became a negative growth factor, because the level of investment actually fell. In 1975, exports also added a negative impact of some significance.

Although data inaccuracy could be responsible for some erratic movements, inventory investment shifts seemed to have had a variety of impacts on the Puerto Rican GNP and generally added to the apparent instability of the economy. The acceleration (or deceleration) of the rate of inventory investment creates a positive (or negative) effect on the rate of real GNP growth. The causal orientation of inventory shifts is very difficult to distinguish since an acceleration of inventory investment may be intentional in response to rising sales or anticipated increases; or the investment increase may be involuntary or unintentional, causing an inventory buildup because sales did not eventuate as predicted. A similar confounding of planned and unplanned changes occurs in the case of decelerations in inventory investment. A cutback in inventory accumulation may reflect either an intended inventory

Table 2.—Component Contribution to Real GNP Growth

[Percentage change SAAR]

Year	Gross national product	Personal consumption expenditures	Government	Gross fixed domestic investment	Inventory investment	Net exports	Exports	Imports
1977	3.8	6.4	1.1	-3.0	-2.9	2.2	9.8	-7.6
1976	1.0	6.7	-0.2	-2.9	0.9	-3.5	0.9	-4.4
1975	-1.9	-1.4	-1.8	-1.4	7.0	-5.3	-8.1	2.8
1974	1.2	-2.9	-0.4	-1.9	-3.0	9.4	-0.7	10.1
1973	7.3	7.1	1.8	-3.8	2.2	0.0	12.8	-12.8
1972	4.5	6.5	1.0	0.9	-0.1	-3.8	2.6	-6.4
1971	6.0	9.3	1.5	2.6	1.3	-8.7	1.0	-9.7
1970	8.2	6.3	2.2	5.3	-1.8	-3.8	4.0	-7.0
1969	9.1	9.7	1.4	2.3	1.1	-5.4	3.9	-9.3
1968	5.4	8.2	2.5	1.1	0.4	-6.8	2.6	-9.4
1967	4.7	1.3	2.9	4.6	-3.4	-0.7	5.8	-6.5
1966	6.7	6.5	0.3	0.4	0.1	-0.6	7.3	-7.9
1965	8.7	7.2	1.1	4.3	3.0	-6.9	1.8	-8.7
1964	4.7	9.5	0.6	3.7	-1.3	-7.8	4.1	-11.9
1963	8.6	7.3	0.8	1.3	0.1	-0.9	3.9	-4.8
1962	7.7	8.6	0.8	3.1	3.6	-8.4	3.8	-12.2
1961	6.0	3.8	1.5	0.4	-0.9	1.2	4.1	-2.9
1960	8.0	7.8	-0.2	3.0	-1.4	-1.2	8.2	-9.4
1959	8.3	7.9	1.1	1.0	2.8	-4.5	2.9	-7.4
1958	3.0	2.4	0.3	0.9	0.6	-1.2	0.3	-1.5
1957	3.1	1.3	2.4	2.5	0.3	-3.4	3.0	-6.4
1956	4.1	3.9	0.3	0.5	-0.1	-0.5	4.5	-5.0
1955	3.1	4.8	0.9	2.3	0.2	-5.1	1.1	-5.2
1954	2.1	2.1	0.6	1.0	1.2	-2.8	1.2	-4.0
1953	6.4	5.2	0.7	0.7	-4.1	3.9	11.1	-7.2
1952	9.8	2.4	0.6	1.9	2.2	2.7	3.8	-1.1
1951	5.3	4.6	1.5	0.9	2.6	-4.3	3.0	-7.3

Source: U.S. Department of Commerce; Puerto Rico Planning Board.

reduction in response to weakening sales, or it may be unintentional, resulting from an unexpected increase in product sales.

The destabilizing inventory investment shifts in Puerto Rico are worthy of a more careful examination in order to determine the reasons underlying the sharp fluctuations and to assess the prospects for reducing this source of instability in the future.

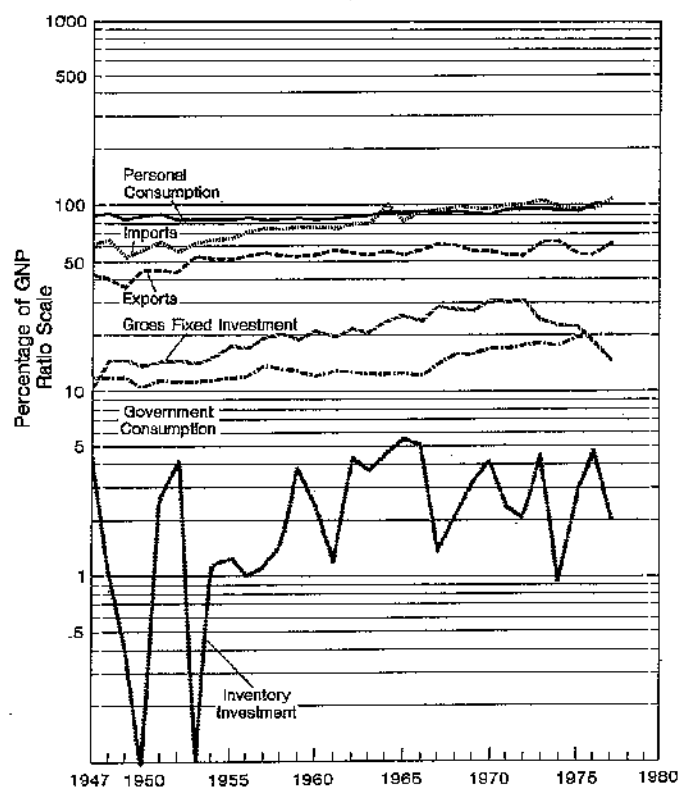
The component analysis also shows that, although exports provided considerable impetus for growth in several years, the net impact of trade on the economy's growth rates was definitely negative throughout the development of the economy, because imports tended to rise faster than exports. Lastly, shifts of the government consumption component seemed to have contributed little directly to the overall year-to-year real growth rate, but multiplier effects would be concealed in consumption impacts, as in the case of exports.

Trends in GNP Components

The preceding discussion identified, year by year, the accounted contributions of the GNP components to the real growth rate of the total GNP. In the present analysis, the same components are viewed in their trend behavior as percentage shares of the GNP, considered in constant 1954 dollar terms. The trends of the shares are graphed in figure 3. A ratio scale is used in the graph, so the slopes of the trend lines can be compared directly to determine

their relative rates of growth, since they reflect the rates of change of the shares. A summary table, covering the three significant postwar periods of

Figure 3
Components of Puerto Rico Gross National Product (GNP)
(Constant 1954 Dollars)



Source: U.S. Dept. of Commerce; Puerto Rico Planning Board.

Table 3.—Components as Percentage Shares of GNP¹

Period	Personal consumption	Government consumption	Gross fixed domestic investment	Inventory investment	Net exports	Exports	Imports
1947-62	85.8	12.6	17.0	1.9	-17.2	50.1	67.1
1963-73	91.8	15.5	28.5	3.2	-36.9	57.9	95.8
1974-77	96.8	19.4	20.1	2.6	-39.3	59.2	98.5

¹ Ratios were calculated on 1954 constant dollar basis; data are average shares for the period designated.

Source: U.S. Department of Commerce; Puerto Rico Planning Board.

Puerto Rican development, which have been cited frequently in earlier parts of the report, accompanies the graph.

The most prominent development among the shares lies in the profile of the gross fixed investment (GFI), surging and driving the economy until the share reaches a peak at the turn of the current decade, and then recedes to its level of the fifties. From 1947 to the peak in 1972 the GFI share gained a full 20 percentage points. The peaking of fixed investment in 1971-72 is evidence that the thrust of demand and growth in the economy was already weakening 2 or 3 years prior to the recession.

The second outstanding change depicted in the profiles is the strong rise in imports. The Puerto Rican economy has been extremely open. Imports of goods and services were 60 percent of the GNP in 1950; reached almost 75 percent in 1960; and then continued to grow, exceeding 100 percent in the seventies. Much of the growth—roughly one-third in this decade—was a result of additions to the importation of services as the capital investment expanded rapidly in the growth period. A constant dollar breakdown of imports is not available; however, the current dollar information shows the services component of imports rising from 19 percent in 1950, to 24 percent in 1960, and to 32 percent in 1970.

Exports increased their shares of GNP far slower than imports. In 1940 exports amounted to 52 percent of the real GNP. After World War II, the component's share at first fell to around 40 percent. In the fifties, the share constituted over 50 percent of GNP, on the average. After 1967 the export share fluctuated between 55 percent and 65 percent of the GNP.

Due to the fact that the export share trailed the growth of the import share significantly, the trade deficit was enlarged. This result is partially the complement of the external capital inflow that financed the capital expansion in the economy.

A third significant trend found in the graph relates to the expansion of the government consumption component of the GNP. This component almost doubled in its importance between 1947 and 1977. The process of industrialization of the econ-

omy obviously brought increased involvement of the Government in several dimensions, commanding a growing share of the total product of the economy as time went on. The details of this involvement appear in a special section of this chapter which is devoted to the Government's role in the economy.

Lastly, but not insignificantly, the graph also reveals the decisive uptrend in the consumption component that came after 1953. From that year to 1977 the consumption share rose from 82 percent of GNP to 102 percent. As will be discussed in more detail in a subsequent analysis of the saving and investment process, consumption expenditures in Puerto Rico have usually exceeded personal disposable income, so that the household sector has been a net dissaver in the economy. The net influx of capital, some in the form of Federal transfer payments, allowed the expansion of the consumption component while investment in the infrastructure of the island, as well as in manufacturing, and residential capital, was being undertaken. Consequently, we do not observe in Puerto Rico the traditional sacrificial transformation of consumption into investment. The external-savings flow permitted investment to run significantly in excess of internal saving.

Domestic Income and Its Distribution

Economic progress can also be recorded in terms of domestic and national income, the respective income counterparts of the GDP and the GNP. These income measures tend to closely corroborate, however, the trends and shifts in the GDP and the GNP and do not, therefore, add significant information as aggregates to the earlier growth analysis. But what is of interest are the changes in the distribution of income. The distribution can be considered in respect to the distributive shares received by the factors of production; by the various sectors of industry; and by families or individuals. The first two views are taken in the distributions calculated from the domestic income appearing in table 4.

Looking at these results, there is some mild fluctuation of distributive shares evident in the factor distribution. With the exception of 1965, the composition of the income accounted for by factor shares seems to have been relatively stable.

Despite the general stability of the factor shares,

Table 4.—Distribution of Domestic Income in Puerto Rico 1950-77

	1950	1955	1960	1965	1970	1975	1977
Millions of dollars							
Total	583.0	880.2	1,364.1	2,230.1	4,105.3	6,991.8	8,383.8
Percentages of total							
Labor	58.5	66.0	61.4	70.6	65.8	66.2	61.1
Property	41.5	34.0	38.6	29.4	34.2	33.8	38.9
Sector:							
Agriculture	25.6	17.5	13.2	8.5	4.4	4.3	3.9
Manufacturing	15.2	17.6	21.2	24.8	23.9	27.8	33.9
Construction and mining	4.8	4.8	6.6	8.1	8.6	5.9	3.5
Transportation and public utilities	8.7	8.0	9.3	9.6	8.5	8.9	8.8
Trade	17.4	16.8	17.4	18.0	15.7	13.5	13.2
Financial	8.9	8.9	10.3	11.3	12.5	10.0	9.1
Services	7.3	6.8	9.3	11.2	11.2	10.4	10.4
Government	12.1	11.3	12.8	13.8	15.2	19.1	17.2

Source: U.S. Department of Commerce; Puerto Rico Planning Board.

the sectoral distribution indicates that considerable restructuring of the economy occurred in the three decades. Puerto Rico's industrialization is clearly expressed in the exchange of the prime position in the structure between the agricultural and the manufacturing sectors of the economy. In this transition, agricultural income was cut back fivefold in its percentage of the total and manufacturing income doubled its share. The decisive shift of income from the agricultural sector into the manufacturing sector was paralleled to a degree by corresponding shifts in employment in these sectors. But, as was pointed out earlier, the manufacturing sector never absorbed all the displaced agricultural labor.

The income share of the government sector gained extensively in importance over the years, mirroring the growth of the GNP component that was previously noted. The service sector also experienced notable growth in its position as an income generator; and the share of income received by construction and mining swelled in the sixties, as the investment pace quickened, but subsided after 1970, when serious unemployment pervaded the industry. The shares going to trade and finance, it is evident, underwent very similar shifts. The transportation and utilities sector, on the other hand, experienced a more stable performance of its relative income.

Distribution of Income and Population

Viewing the distribution of income by distributive factor and sectoral shares aids in understanding the extent of restructuring that went on in the transition of Puerto Rico from an agricultural production system to an industrialized economy. The income distribution considered from these two viewpoints, however, emphasizes the manner in which the income is generated in the economy. That knowledge is fundamental to any analysis of an economy, of course. Of even greater concern, however, is the

question of how broadly the populace participates in receiving the income generated by the productive efforts of the labor force. This question was discussed in chapter I as one of the major issues surrounding the Puerto Rican economy. The answer to it is extremely important because the distribution of income on a family or individual basis provides the consumption and saving potential for the various income classes in the society. The question whether or not the income distribution is too unequal is closely tied, furthermore, to the issue whether Puerto Rico relies too heavily on the United States for finance and trade. The external capital inflow comes from both private investors and the Federal Government; from the latter through its transfer payments. Federal transfer payments have grown remarkably in recent years, as the next section will explain.

Despite the fact that the distribution of income is of essential importance to economies, not only because of the direct and indirect consequences, both economic and political, but as a foundation for economic policy decisions, information on distributions of income is quite limited. The problem is that population censuses are usually taken infrequently and, besides, income information is extremely difficult to obtain. Another reason for the dearth of information is that adjusting the gross income distribution for taxes, transfers payments, and income in kind is difficult; yet, income adjusted for these flows is the final indicator needed for equity considerations.

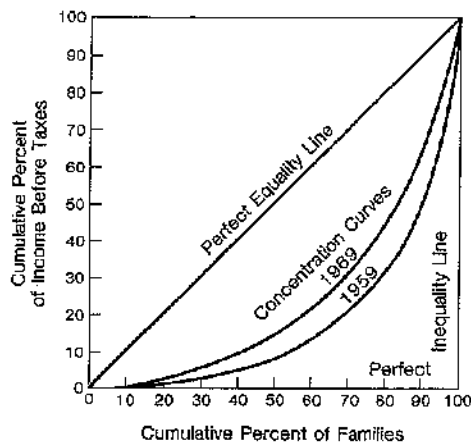
The scarcity of data and analysis of income described above holds for Puerto Rico as much as other areas. However, two recent studies of the before-tax income distribution by families and individuals are available. Both are private investigations. The one study⁵ derived the distribution directly from

⁵ R. M. Maldonado, "The Economic Costs and Benefits of Puerto Rico Political Alternatives," *The Southern Economic Journal*, Vol. 41, No. 2, October 1974.

the U.S. Census data. The second analysis⁶ applied an input-output and occupational structure model to the census data and thereby developed distributions of income by individuals for several years between 1953 and 1963. Only the results of the first investigation are discussed here. They are tabulated and plotted in the accompanying table and figure. The income used in the analysis does not include income in kind.

The two curves plotted in the diagram (figure 4),

Figure 4
Distribution of Income in Puerto Rico, 1959 and 1969



Income in 1959 of Families in Puerto Rico				Income in 1969 of Families in Puerto Rico			
Deciles of Families from Lowest to Highest Income	Income Received	Per Cent of Total Income	Number of Families	Deciles of Families from Lowest to Highest Income	Income Received	Per Cent of Total Income	Number of Families
Total	\$1,010,943,154	100.00	445,352	Total	\$2,516,631,038	100.00	564,751
0 to 9.99 per cent	4,471,314	.44	44,535	0 to 9.99 per cent	7,731,510	.31	56,475
10 to 19.99 per cent	11,905,918	1.18	44,535	10 to 19.99 per cent	35,108,174	1.39	56,475
20 to 29.99 per cent	23,965,911	2.37	44,535	20 to 29.99 per cent	69,924,445	2.79	56,475
30 to 39.99 per cent	34,073,688	3.37	44,535	30 to 39.99 per cent	111,532,295	4.43	56,475
40 to 49.99 per cent	48,423,628	4.79	44,535	40 to 49.99 per cent	152,253,137	6.05	56,475
50 to 59.99 per cent	64,955,525	6.43	44,535	50 to 59.99 per cent	197,700,203	7.86	56,475
60 to 69.99 per cent	86,435,321	8.56	44,535	60 to 69.99 per cent	235,070,742	9.37	56,475
70 to 79.99 per cent	117,559,361	11.63	44,535	70 to 79.99 per cent	340,075,307	13.54	56,475
80 to 89.99 per cent	165,335,278	16.35	44,535	80 to 89.99 per cent	474,392,699	18.85	56,475
Highest 10 per cent	459,740,037	44.88	44,535	Highest 10 per cent	931,412,899	35.62	56,475

Source: R. Weisskoff, Dept. of Finance, NYU Graduate School of Business, U.S. Dept. of Commerce.

which are known as Lorenz Curves, depict a slight movement of the distribution towards a situation of more income equality between the decennial years.⁷ The data show that in 1969 gross income in Puerto Rico was quite concentrated in respect to family population. The poorer half of the families received only 15 percent of the income, while the top 20 percent obtained 55 percent of the income. The results also show that the shift between 1959 and 1969 was not very significant—although somewhat favorable, except in the case of the highest and lowest deciles. The latter two groups, on the surface at least, were put at a greater disadvantage over the decade.

⁶R. Weisskoff, *Income Distribution and Export Production in Puerto Rico*, Center Paper No. 245, Yale University Economic Growth Center, 1976.

⁷The 45°-line in the plot represents the line of perfect income equality and the base and right side of the graph, forming the lower right-angle corner of the diagram, represent a line of perfect income inequality.

The plight of the poorer families that is implied by these distributions can be made clearer when we consider that 10 percent of the families in 1969 translated into 56,500 families, while in 1959 10 percent was equivalent to 44,500 families.

The distributions plotted may somewhat overstate the concentration because income in kind has not been included. Usually the lowest income groups would receive more of their income in this form than families found in other income strata. Nevertheless, if the overstatement was of the same degree in each of the decennial years, the concavity of the curves would not have been affected. Since the economy became more urbanized between the two dates, income in kind would be expected to have been slightly more important in 1959 than at the later date.

A further consideration is needed in assessing the income concentration. The progressivity of the Puerto Rican tax system—if it is realistic and not merely superficial—must be considered, along with transfer payments, if the distribution of income is to be interpreted in the sense of buying power attributable to the populace. However, information about the effective tax rate by income levels is not readily available. (This is an area of research that should be given added attention.) Regardless of the considerations that should be extended to the two distributions that have been cited here, the degree of concentration of money income can be clearly seen.

Progressive taxation and the use of transfer payments are devices of policy that can and have been used in attempting to shift an undesirable income distribution. In the case of Puerto Rico, the source of transfer payments is primarily the Federal Government. The question is whether these payments, and particularly in their recent volume, are sustainable in the long run. An alternative policy which can impact the distribution of income is a policy of promotion of employment in the high productivity sectors of the economy, or the sectors that might become high productivity areas in the future. If a larger portion of the labor force in the lower income echelons can be absorbed in such industries, the distribution of income will become more equitable through better and more jobs. Of course, job efforts in general should assist in providing some correction of the inequality.

The labor force, however, must be prepared to take on the higher skilled jobs if the job route to income redistribution is taken. This means, generally, that vocational education of the populace, particularly the younger labor force participants, needs special activation to prepare people for the areas in which labor demand seems to have strong enough potential in the future to warrant the training effort.

The tax policies of subsidization in the high productivity areas already afford stimulus to hiring that tends to improve the distribution of income in the sense of broadening it.

Some may argue that the distribution of income in Puerto Rico should be even more concentrated so that more internal saving can be generated to finance the investment pace of the island economy. There is obviously some relationship between the distribution of income and the rate of saving in an economy. The relationship would appear to be a complex one in Puerto Rico, where saving is negative overall. However, there appears to be evidence that some Puerto Ricans have placed their savings in foreign assets rather than domestic. How important these funds would be to domestic investment is unknown.

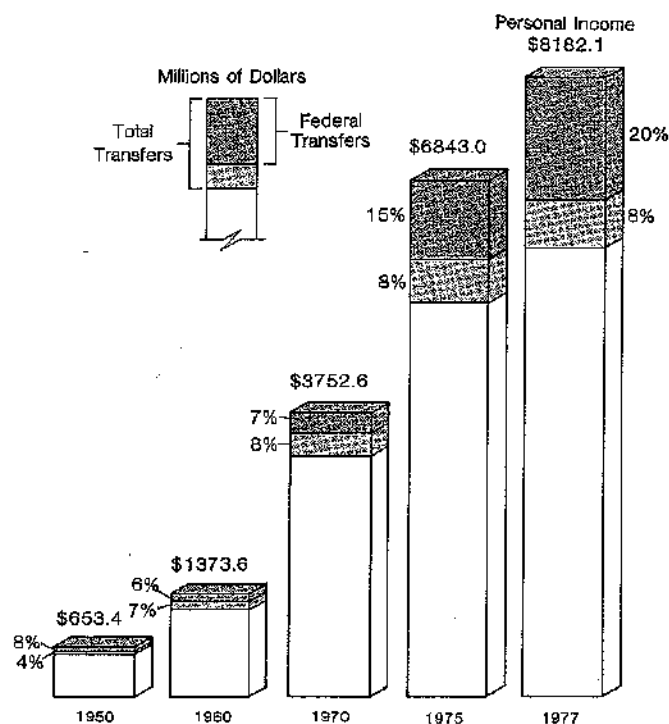
The questions raised in the foregone discussion are empirical to some degree, but they are, importantly, also normative. Analysis of the relationships and the policy impacts mentioned seems especially warranted in devising policy for Puerto Rico. The analysis in this report has merely stressed the importance of the income distribution issue. The more fundamental analysis must be left to more thorough future examinations of the issue.

Transfer Payments

The distribution of income can be shifted by imposing taxes on certain groups and making transfer payments which redistribute the income to groups which are considered needful of assistance. Transfer payments have been an income source in Puerto Rico for many years. Before World War II they constituted only 3 percent of personal income. But by 1950 they were 12 percent, and by 1970 they accounted for 15 percent. After being stepped up to buoy the economy in recession, they had grown to 28 percent in 1977.

Transfer payments originate with the Commonwealth and municipal governments, the Federal Government, public enterprises, business, and nonresidents. Although the Federal Government had been the main contributor of the transfer payments received by Puerto Ricans over a number of years, as the data in figure 5 show, it was after 1970 that the Federal transfer flow accelerated rapidly. The great rise was associated with payments to the unemployed and for job programs. It was attributable also to the introduction of Federal food stamps, which became the primary support for many families. When the food stamp program commenced in 1975, the stamps amounted to \$387.5 million in value, or about a third of the total Federal transfer payments going to Puerto Rico. Two years later, they were valued at \$801.1 million, or 43 percent of total Federal transfer payments. The rapid upswing in the distribution of

Figure 5
Total and Federal Transfer Payments as Percentages
of Personal Income in Puerto Rico, 1950-77



Source: U.S. Dept. of Commerce, Puerto Rico Planning Board.

food stamps is often cited as the source of some disruption of the supply of labor, since the opportunity cost of supplying labor is greatly altered by the food stamp provisions. How significant this factor is in regard to labor force participation is a matter of empirical investigation which is beyond the limits of analysis provided in this study. The Puerto Rican Department of Social Services has attempted an investigation of the matter, but additional efforts appear needed.

Federal transfer payments have been an extremely important source of external capital inflow for Puerto Rico, particularly in the very recent years. In 1960, Federal transfers amounted to 38 percent of the net external capital inflow. Between 1970 and 1972 they varied around 31 percent. The percentage rose to 45 percent in 1974; to 86 percent in 1976; and finally to 108 percent in 1977.

The preceding brief accounting of the rise of Federal transfer payments to Puerto Rico gives a notion of the significant role they play and have played in the development of the economy and the maintenance of spending. They further reflect the reliance of the economy on the mainland, or more precisely, on the Federal Government. Whether this relationship can continue in light of the political potential is an important corollary to the issue of whether the economic reliance on the United States is too extensive.

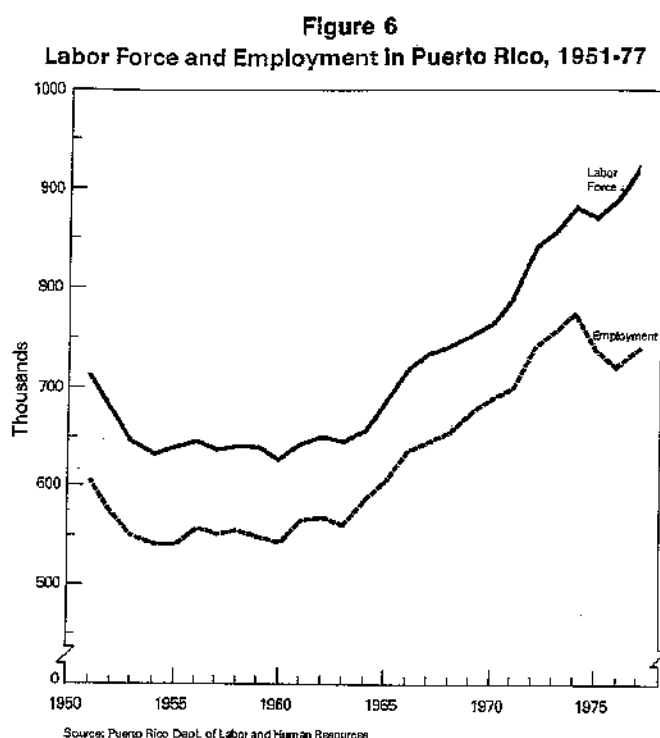
Because of the massive influx of Federal transfers, there has been little pressure on the Government of Puerto Rico to take on the responsibility of transferring income internally. The influx of transfer payments has, as in the case of consumption, allowed a significant portion of the Puerto Rican investments to be financed from mainland saving by being channeled through the Federal Government's taxing powers. How the configuration of transfers will, and should be changed, is an issue closely intertwined with that of increasing future economic growth, the employment issue, and the issue regarding the distribution of income. Any policy implications pertaining to transfer payments must be considered within the context of all four issues.

EMPLOYMENT AND LABOR MARKETS

High unemployment has always been a problem in Puerto Rico but the rate has been especially severe in the last 4 years. The unemployment rate climbed steadily from its 1973 level just below 12 percent to reach a high of 23 percent in May 1977. However, since then the rate has gradually declined to 16 percent in April 1979. Perhaps no other statistic indicates so clearly the weakness of the Puerto Rican economy, a weakness which resulted in part from the recession in the United States, with whose economy Puerto Rico is so closely linked.

The historic inability of the Puerto Rican economy to provide enough employment for its growing population led the Government to formulate policies in the late 1940's to stimulate investment in the private sector. The policy effort worked primarily through granting broad tax exemptions for businesses established by local or outside companies and was able to stimulate Puerto Rico's impressive employment growth in manufacturing. However, total employment declined in that decade, as manufacturing growth was not strong enough to offset weakness in such sectors as agriculture (see figure 6). Despite the drop in employment, the unemployment rate followed a downward trend because the labor force declined. This unusual development was due primarily to large emigration from Puerto Rico, which averaged nearly 50,000 persons (or about 2 percent of total population) per year from 1952 to 1959. Declining labor force participation by the remaining population, which fell from 55 percent in 1950 to 45 percent by 1960, also helped depress the size of the labor force.

In the 1960's and early 1970's, manufacturing employment continued to grow rapidly along with total employment. The labor force grew more normally, as immigration slowed and participation rates leveled off at about 45 percent. Employment gains



caused the unemployment rate to drop to the 10- to 11-percent range by the early 1970's.

Employment dropped sharply in early 1975, and the unemployment rate rose dramatically. As it rose, labor force participation rates were falling, indicating that the economy's weakness was even more severe than what was implied by the unemployment rate. As unemployment hit 23 percent in 1977, participation in the labor force fell to an historic low of about 42 percent.⁸ The rate was well below the 62-percent rate in the United States in that year. The Puerto Rican rate includes 14- to 15-year-olds, who have very low participation rates. One countervailing factor enlarging Puerto Rico's labor force and, therefore, exacerbating unemployment rates may be the reported return migration to the island.

In addition to unemployment, underemployment may be a problem in Puerto Rico. Employed workers who would frequently like to work longer hours have traditionally been concentrated in agriculture. This effort which led to a decline in underemployment during the 1960's as Puerto Rico industrialized. Because underemployment, as an indicator of underutilization of labor resources, is generally taken to move in tandem with the unemployment rate, it is therefore believed that underemployment has risen in the last few years.

Federal Government employment programs have helped to cushion the blow of recession in Puerto

⁸ Differences in computation of U.S. and Puerto Rican labor force statistics make exact comparisons impossible, but such general comparisons can be useful.

Rico. Jobs and training authorized under the Comprehensive Employment and Training Act of 1974 (CETA) have been the main vehicle for direct employment aid. Looking at the three major parts of CETA, Title I offers classroom and on-the-job training; Title II provides support for the Commonwealth to hire public service employees, and Title VI is a special recession measure which supports emergency public employment. Under these three Titles, 40,000 to 60,000 Puerto Ricans have been trained or employed in the past 3 years. Jobs thus provided constituted 5 percent of total employment in 1975, and 8 percent of employment in 1976 and 1977. Without these programs, government employment would not have added the strength it did to employment growth in the past 3 years, and the overall unemployment rate would probably have risen much higher.

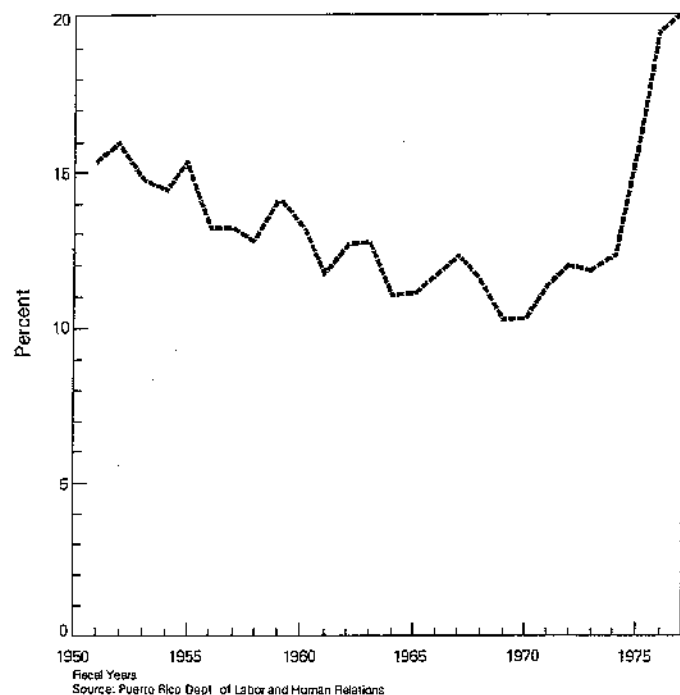
Unemployment Among Demographic Groups

To get a clearer picture of Puerto Rican labor markets, one must look beyond these aggregate trends to see how various groups fare. The younger the worker, for instance, the higher is the probability of unemployment. This holds true in Puerto Rico as well as in the United States. The overall unemployment rate in the last fiscal year was 20 percent, but that for 16- to 19-year olds was 48 percent, and the rate for 20- to 24-year olds was 33 percent. The lack of job prospects for 16- to 19-year olds is further reflected in their labor force participation rates, which are only 27 percent for males and 12 percent for females, although the rate for 20- to 24-year olds are nearly three times as high. In comparison, U.S. participation rates for workers between the ages of 16 and 19 were about 56 percent last year, although this higher rate is partly attributable to the greater availability of part-time work to teenagers on the mainland. Low participation rates reflect pessimism about job prospects as well as the effect of school enrollment among teenagers.

Unemployment rates for men and women in Puerto Rico show a pattern surprisingly different from that in the United States, the female rate is lower. Last year it was 15 percent, while that for males was 22.5 percent (see figure 7). A similar comparison holds true within each age group. One reason for this is the much higher unemployment rate (28 percent) in predominantly male blue-collar jobs than exists in services and white-collar occupations (15 and 9 percent respectively).

The exceptionally high unemployment rate among construction workers would itself add significantly to the rate of male unemployment. Another factor has been the relatively stronger growth in demand for

Figure 7
Unemployment Rate in Puerto Rico, 1951-77
(Percent of Labor Force 14 Years and Older)



female workers resulting from the sectoral pattern of recent Puerto Rican economic growth.

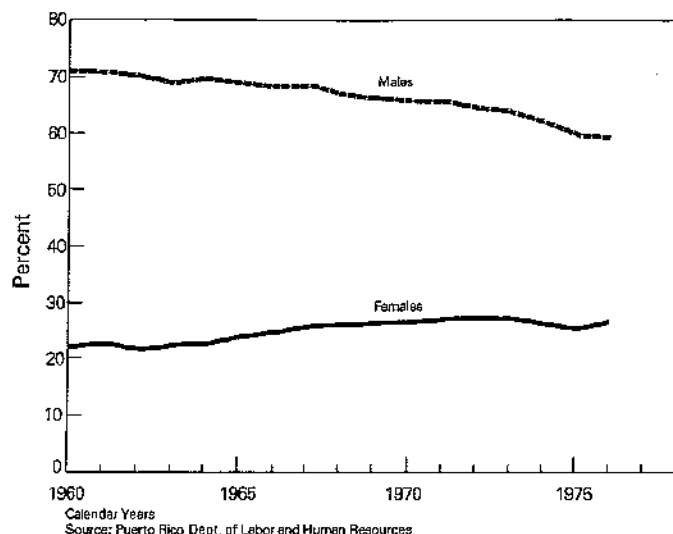
Another explanation for relatively low unemployment rates among women may be their labor force participation rate, which stands at 26 percent compared with 59 percent for males (a gap about equal to the difference between male and female rates in the United States). The low female participation rate may reflect the withdrawal from the labor force of low-skilled or agricultural workers who have become discouraged in their job searches; the women remaining in the labor force would then be those best equipped to find jobs and therefore experience an unemployment rate below that of men (see figure 8).

Employment By Sector

The preceding analysis has examined Puerto Rico's employment and unemployment developments at an aggregate level. The present section analyzes employment by sector in order to evaluate sectoral contributions in absorbing available labor force (see figure 9). The parallel analysis of unemployment by sectors cannot be made, however, since unemployment data are not available on such a basis.

The largest change of sectoral employment in the past two decades has been the decline of the agricultural sector; the sector provided employment for 23 percent of Puerto Rican workers in 1960 but for only 6 percent in 1977. In its place, manufacturing employment has grown along with services and trade

Figure 8
Labor Force Participation Rates for Men
and Women in Puerto Rico, 1960-77
 (Ages 14 and Over)



occupations, growth of which accompanied the manufacturing boom of the 1960's. Government employment has also risen substantially in this period. The construction industry showed healthy gains through 1972, but then declined to much lower levels. However, by mid-1978 an upturn was under way.

It should be noted that not all of the long-term trends will necessarily continue. The agricultural sector's long decline, for example, has seemingly ended. The transformation of Puerto Rico into an industrial economy and the failure of the farming sector to keep up with technological innovation that was occurring in other economies meant that greater job opportunities developed in urban areas than in rural areas. The differential in job possibilities caused many workers to migrate from the rural areas to the cities.

The two sectors, however, which displayed steady growth in the 1960's—government and services and trade—have also remained fairly strong in the 1970's. Employment in government has risen 54 percent since 1970, and that in services and trade has grown 13 percent, compared with an 8-percent growth of total employment. Both of these sectors depend on a healthy overall economy for their long-term strength.

Government and public enterprise employment has grown as a natural result of the expanding scope of government in Puerto Rico, as well as the Federal CETA employment programs which directly subsidize government employment. The more general financial support which is received from the Federal Government, in addition to tax revenues generated by local economic growth, constitute the two major sources of support for government employment. Government wages feed into the private economy as they are spent, supporting private employment, but clearly

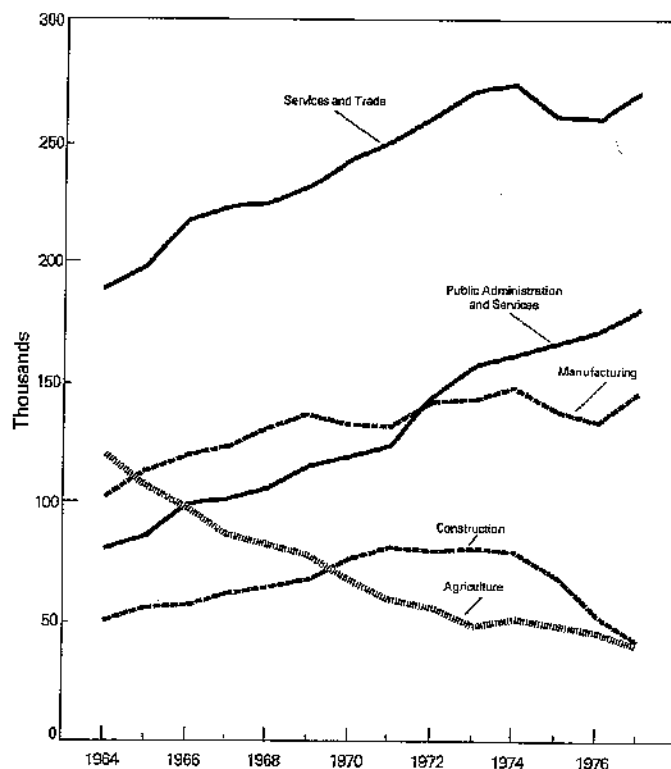
the government sector in the long run is more dependent on a healthy private economy than vice versa. Some of the growth in government employment during recession years reflects the extension of Commonwealth taxing and borrowing activities, which were stretched nearly to the limit.

The increase in services and trade employment in the 1970's reflects the disproportionate growth of consumption in most recent years. Since most services are produced locally while many of the goods consumed are imported, the service sector has shown a relatively large output increase. Inasmuch as demand for services comes mainly from middle- and high-income consumers; employment growth in goods-producing industries, especially since these include some of the highest-wage industries; is necessary for the services and trade sector to grow.

Services and trade activities generally provide fewer exports than manufacturing. Certain types of services are exported, including banking and tourism services. Growth in such sectors, for which Puerto Rico's location is advantageous, provides a strength which Puerto Rico might exploit to the fullest. The demand for services and trade in the industrialized world generally is expected to continue to rise.

The weakest sector in this decade has been the construction industry. After riding the wave of economic expansion in the 1960's, construction employ-

Figure 9
Employment by Sector in Puerto Rico, 1964-77



Source: U.S. Dept. of Commerce; Puerto Rico Economic Development Administration

ment plummeted 46 percent between 1974 and 1977. Substantial gains in dollars spent on construction between 1970 and 1975 appear to contradict this, but the much higher than average price inflation in this sector more than erased those gains. In real terms, construction activity in 1975 (the "peak" year) was actually lower than in 1970, and larger decreases have occurred since 1975.

Among three major categories of construction, housing suffered the largest declines from 1970 to 1975. Real spending on housing construction dropped 36 percent, despite large doses of Federal mortgage subsidy and public housing programs. Escalation of housing prices has outstripped the increases in family incomes in Puerto Rico in recent years. This factor and suspension of Federal 235 and 236 subsidy programs, resulted in construction of fewer new private housing units each year since 1973 and 1976, but by 1978 some revival had occurred. Increased public housing construction has made up for part of these private declines.

The largest construction category is industrial and commercial buildings, which has been the most volatile from year to year. The peak of nominal dollar activity of this kind was reached in 1975, but in real terms this only equaled the level of construction in 1970. Huge declines have occurred since 1975 in this building sector. Public construction is the only major component of the industry which showed small gains in real activity between 1970 and 1975, financed by the expansion of public indebtedness and grants from the Federal Government for highway, water and sewer, and other projects. Public construction in the near future will probably be largely financed by a Federal counter-cyclical public works grant of \$284 million received in 1977, under the local public works program. The amount exceeds the total public construction outlays made in Puerto Rico in 1976.

The last major sector of the economy is to examine manufacturing, which in most analyses of economic development is treated as a key to economic growth. Manufacturing jobs are generally the most productive and highest paying ones in the economy; they involve the most technical training and institutional change as part of the modernization process. Service, trade, government, and construction employment can be stimulated by a growing manufacturing sector. The manufacturing sector had performed particularly well in Puerto Rico until the early 1970's. Tremendous growth in manufacturing employment until then resulted from the Government's industrial promotion activities, in which generous business tax exemptions were the key element. Factories supported by this program and administered by Puerto Rico's Economic Development Administration (Fomento),

have accounted essentially for all of the manufacturing employment growth after 1960.

The employment growth tapered off significantly after 1969, and between 1974 and 1976 the level of employment in manufacturing fell more than in any sector except construction. In 1977 employment stood slightly below the 1974 peak level. While total manufacturing employment has fluctuated close to the same level in the past 5 years, there has been a shift in the industrial composition of that employment, a shift which began a decade ago. Since 1969, employment in apparel, textiles, and leather goods manufacturing has fallen off, that in the food industry has risen slightly, and jobs in metal fabrication, machinery, and chemicals have increased markedly. The effect of these different patterns on the distribution of manufacturing employment among industries appears in table 5.

Table 5.—Distribution of Manufacturing Employment in Puerto Rico (fiscal year)

[In percentages]

	1969	1977
Food, apparel, and textiles	50.5	45.2
Tobacco, leather and light manufacturing	19.3	12.0
Metals, machinery and instruments	14.7	24.0
Chemicals and petroleum products	5.1	10.6
Other	10.4	8.2

The shift of new industry, investment, and employment toward more capital-intensive sectors in manufacturing has been encouraged by U.S. and Puerto Rican tax exemptions on corporate profits earned in Puerto Rico. Since the rate of return to capital was increased by such tax exemptions, capital was attracted to the island and its cost to investors declined. Thus did oil refining, chemical, drug, and machinery manufacturing come to dominate the growth of Puerto Rican manufacturing and exports, although food and clothing firms still employ a very large proportion of workers. Other causes of this shift are discussed below.

An important implication of the concentration of growth in capital-intensive sectors is that less employment is generated from a given rate of growth in output or investment. If it is a Puerto Rican goal to raise employment by a certain amount, more capital and output will have to be generated to achieve the goal through expansion in chemicals than through expansion in apparel. The latter course would also result in more low-wage jobs.

Structural Causes of Unemployment

The serious unemployment problem facing Puerto Rico results both from labor demand and supply factors. The labor force has risen an average of 2.7 percent per year in this decade, according to official

figures, even though adult labor force participation rates have fallen steadily. The comparable rates for the 1950's and 1960's were: 0.8 percent and 2.0 percent. Since some job seekers become discouraged and drop out of the labor force in the face of high unemployment rates, the declining participation rate of the 1970's is a sign of underestimated unemployment.

Insufficient labor demand is the more traditional problem which policymakers try to address. Puerto Rico's economy recently has followed the business cycle of the United States; the deep U.S. recession of 1974-75 was a major cause of Puerto Rico's downturn in 1975. The unemployment which resulted was cyclical, and as income and employment have recovered on the mainland, the Puerto Rican economy benefited from increases in U.S. imports from and investment in Puerto Rico.

It is doubtful, however, that cyclical recovery alone will enable Puerto Rico's unemployment rate to return to the approximately 10-percent rate which prevailed 8 years ago. In the last several years, structural changes have occurred at the same time as the cyclical downturn, causing a different kind of unemployment which is generally termed "structural unemployment."

Basic economic shifts which cause "structural unemployment" can be the appearance of additional hard-to-employ groups in the labor force, regional shifts in economic activity on the island, significant changes in demand or supply of important goods, or changes in the international economic arena. Such basic changes tend to have long-term consequences, such as unemployment which does not disappear with a general cyclical recovery.

As industrialization proceeded, job growth became concentrated in urban areas and in factories, government, and service enterprises while farm and home needlework workers bore a disproportionate share of Puerto Rico's unemployment increases. Several different structural changes have occurred more recently, the two most important being the jump in world oil prices which followed the 1973 OPEC oil embargo, and the shift toward capital-intensive production. Both aspects affect Puerto Rico's international competitive position, which partially determines the strength of both domestic and foreign demand for manufactured goods, agricultural products, and services.

The move toward more capital-intensive manufacturing has to some extent brought with it a greater dependence on energy, specifically oil, as a productive input. In fact, oil-intensive production was especially attracted to Puerto Rico because of its formerly cheap imported oil. Costs have skyrocketed in the past 5 years; the complete dependence of Puerto Rico on imported oil means that, whereas it bought

cheap foreign oil during the era when its entry into the U.S. market was restricted, it now pays OPEC prices. Since U.S. oil prices have jumped less than international prices, Puerto Rico has more than lost its cost advantage. Many U.S. producers also have the option of substituting other energy sources for oil, while Puerto Ricans use only petroleum under present technology. Since Puerto Rico is at the mercy of OPEC price and supply decisions, new energy-intensive investment may well be slowed or stopped by the world oil situation.

The minimum wage rate hikes which Puerto Rico has already experienced and will continue to experience in the next 2 years may be significant for the future industrial composition on the island. In the decade prior to the mid-1960's, in addition to cheap oil another of Puerto Rico's chief attractions was its low wage rates relative to the United States. This factor brought labor-intensive industries to the island and provided increasing employment opportunities. In the last decade, however, most new manufacturing jobs were created in industries that were generally more capital intensive, which could absorb larger wage rate increases, but in which employment generation was relatively limited. Although manufacturing wage rates in Puerto Rico rose slightly less than in the United States in the past decade, the application of the U.S. minimum wage rate law (FLSA), expanding employee fringe benefits, and the increased number of paid holidays have raised labor costs in the island. Because of these factors labor-intensive industries may find location there less attractive. The increased number of paid holidays, for example, is estimated to have led to a work-year in 1976 about 10 percent shorter on the island than the U.S. average and an even greater shortfall compared with some of those industries among major foreign competitors.

In the case of the apparel sector which is such a large employer in Puerto Rican manufacturing, labor cost increases should be more fully compared with competing Asian and Latin American countries. For example, the average hourly wage rate in Puerto Rico's apparel industry rose 19 percent between 1974 and 1976,⁹ while hourly labor compensation including fringes rose 20 percent in Hong Kong, 26 percent in Taiwan, and 41 percent in Korea. Thus, despite the apparent higher level of the wage rate in Puerto Rico, its rate of increase appears to have been smaller than those of some of its competitors, allowing that the percentage change in labor compensation closely corroborates that of the wage rate. The scheduled increases in minimum wage rates of about 11 percent per year through 1981 may, however, change this relationship.

⁹ Between 1974 and 1977 the increase was 28 percent in the Puerto Rican apparel industry. Although the comparison is not entirely accurate, labor compensation is used in the case of foreign producers in the discussion because hourly wage rate data were not available.

In recent years, more and more workers in Puerto Rico have been covered by minimum wage rates and these rates have been brought closer and closer to the U.S. minimum. By 1976, 97 percent of non-supervisory manufacturing workers and 88 percent of services and trades employees were covered by a minimum wage. Nearly all will be covered by 1981. Each industry in Puerto Rico has a different minimum wage level, but 63 percent of covered workers were at or above the \$2.30 minimum in 1977, and another 29 percent had minimums of at least \$2.00. Industries which now have lower minimums than \$2.30 will be subject to bigger increases in the next 3 years, bringing nearly all sectors up to parity with the mainland by 1981.

Since average wage rates in Puerto Rican industries are clustered much closer to the \$2.30 per hour minimum wage rate than they are in the United States, average wage rates in all sectors are likely to be more affected by statutory changes in minimum wage rate than on the mainland. For example, the average hourly wage rate in apparel in 1976 was only 4 cents above the minimum (\$2.30 per hour) and would by necessity have to rise by at least the prescribed minimum in the next 3 years.¹⁰

In order to glean from wage information some notion of the competitiveness of Puerto Rican manufactures vis-a-vis mainland and foreign products, unit labor costs for various industries and economies would be extremely helpful. The data for such a comparison, however, are either nonexistent or not easily available. Labor productivities in various economies, which are needed ingredients for the comparison, cannot be determined. A further complication to valid comparison is the frequency of occurrence of noncomparable output mixes within industries of competing economies.

Although intereconomy comparisons are not possible, the available Puerto Rican data can provide some notion of the possible influences of increases in minimum wage rates or in the wage rate structure that might parallel such increases. Annual advances in labor productivity in manufacturing have averaged about 6 percent between 1965 and 1977. During the same period the average hourly wage rate increased approximately 7 percent, implying a small rise in unit labor cost. Unless labor productivity can advance more rapidly than it has, an increase in overall wage structure of roughly 11 percent—the annual rate of increase planned for minimum wage rates—if it did occur, would cause unit labor cost increases in manufacturing to be greater than those experienced in recent years.¹¹ Whether Puerto Rico's competitive

position would be damaged or not as a result of such wage rate increases will depend on the relative movement in these key variables.

In addition to the minimum wage rate and energy cost changes, other long-run changes may lessen Puerto Rico's investment attractiveness for certain industries. The advantages Puerto Rico has as a result of its association with the United States, such as safety for American investments, and exemption from tariffs on shipments to the United States, may decrease as investors become more accustomed to operating in foreign countries, and as worldwide tariff levels fall. An additional problem is the fact that tax holidays which have been the key factor in Puerto Rico's attractiveness to investors are increasingly used by competing economies.

In sum, these structural factors make Puerto Rico's employment outlook unclear. As was mentioned earlier, employment in agriculture dropped steadily as a result of the inability of Puerto Rican farmers to keep up with the technological progress experienced in other economies. Labor-intensive manufacturing may suffer somewhat from wage rate increases. The competitive position relative to the mainland of energy-intensive industries has been damaged by world oil price increases.

Construction employment gains may be limited by weakness in the housing market. Slower expansion of public infrastructure investment will probably also limit construction growth, although the 1977 Federal Local Public Works Capital Development and Investment (LPW) grants have contributed to the construction recovery. Growth of government employment, other than that supported by Federal programs, may slow in response to the widely perceived need for fiscal austerity.

A bright spot may be the long-term rise in world demand for services such as tourism and for island exports. Its proximity to Latin America could help its exports of machinery and instruments as that part of the world continues to industrialize. There may also be potential in development of import-substitution industries, especially since food and clothing imports constitute a substantial fraction of the total.

INFLATION IN PUERTO RICO

Inflation in the presence of distressing levels of unemployment has been the most perplexing economic problem facing the industrialized world in the postwar years. As a tandem economy of the U.S. mainland, Puerto Rico was certainly not immune to the problem. One side of the problem, the dimensions of the unemployment on the island, has already been reviewed. The inflation side of the problem, as it relates to Puerto Rico, is discussed in this section.

¹⁰ The minimum wage rate will increase by yearly increments of 25 or 30 cents depending on the level of the minimum wage rate in 1977.

¹¹ The minimum wage rate will increase by yearly increments of 25 or 30 cents until 1981 depending on the level of the minimum wage rate in 1977.

The analysis (1) compares the Puerto Rican inflation to that of the U.S. mainland; (2) examines the nature of the inflation in Puerto Rico in respect to cost-push and demand-pull influences; and (3) explores the sectoral sources of the aggregate inflation.

Inflation in the Two Economies

The rate of inflation in Puerto Rico in the postwar years was virtually the same as in the United States. The rate averaged about 3.5 percent per year in the two economies over the span of the three decades. The relevant data, displayed in table 6 show the

**Table 6.—Gross Domestic Product Inflation Rates
Puerto Rico and the United States, 1940–77¹**

Period	Annual average rate of inflation [In percentages]	
	Puerto Rico	United States
1947–63	2.36	2.31
1963–73	4.00	3.98
1973–77	6.66	7.41
1947–77	3.47	3.53

¹ Average annual compound rates of change calculated using terminal dates designated from implicit price deflator for GDP.

pattern of development. The inflation rate was slightly faster in the United States than in Puerto Rico, it can be noted, in the very recent years; but, on the whole, the differences in the calculated average rates are trivial. The continued acceleration of the inflation throughout the period is evident in each of the economies.

Nature of the Inflation

Although taxonomies of inflation frequently list numerous kinds of inflation, only two basic types seem to emerge from inflation analysis. The more traditional of the two is demand-pull inflation. This type results from a distinct increase in the economy's aggregate demand for goods and services against a given level of production or supply. The effect is particularly evident when the economy is at capacity production or at levels near capacity. However, not all of the demand-pull effect gets directed toward price increases. Some of it is released in the form of an increased order backlog (meaning a lengthening of the delivery time for products and services) or increased imports.

The second basic type of inflation stems from cost changes. It is known simply as cost-push inflation. Cost-push inflation is the overall price increase associated with rises in resource and materials costs, taxes, interest rates, and profit margins. This type of inflation, which has become extremely hard for policy to deal with, is usually associated with the industrial-

ized economies, particularly where competition is greatly modified, or even nonexistent, due to the high concentration and excessive market power of firms and the collective bargaining on wages and work conditions by organized labor. However, even in the lesser developed economies, where market imperfections frequently prevail, this type of inflation is evident.

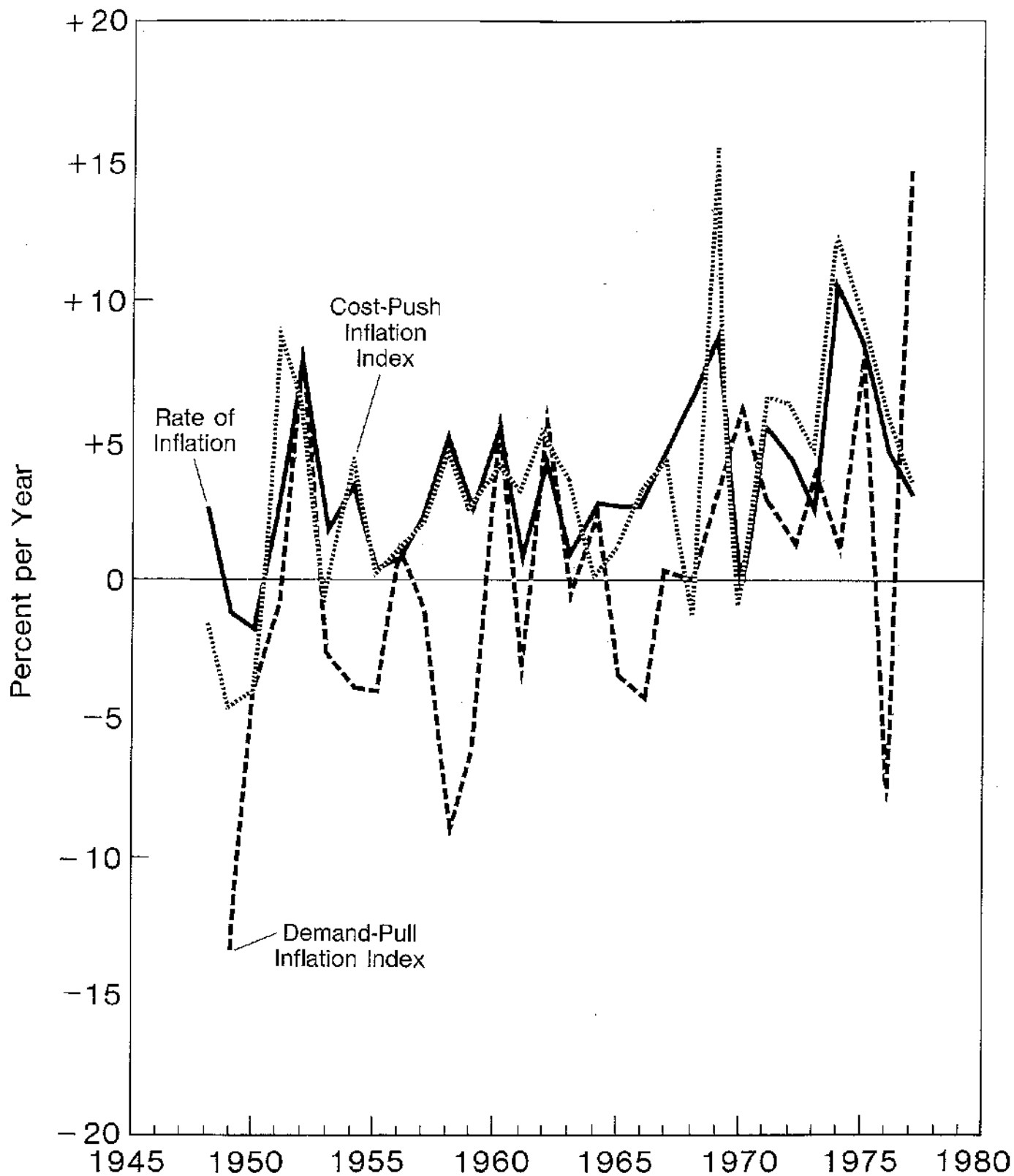
Unfortunately, neither of the two fundamental inflation types described above is directly observable. Furthermore, their detection is complicated by the fact that most often they interact, demand-pull primarily reinforcing the cost-push inflation. However, the design of appropriate policy responses necessitates that the causal nature of the inflationary pressure be understood. Nevertheless, in the case of Puerto Rico, knowledge of the nature of the inflation is only partially helpful to solving the problem, because the tools of policy available to the government to counteract demand-pull inflation are quite limited. Monetary policy, for instance, is almost precluded, except for certain elements of credit control, given that the essential policy is determined for the island by the U.S. monetary authority. The available fiscal measures, on the other hand, are constricted by a lack of policy channels and by the limited flexibility in government expenditure patterns. While the Commonwealth may retain a limited capacity to deal with demand-pull inflation, there may be likewise very little Puerto Ricans can do to offset the major portion of cost-push inflation. This latter pressure may be more significant than demand-pull inflation for Puerto Rico, because of the high import content of the production inputs and consumption goods in the economy. Thus, price increases would largely reflect external inflation conditions and would appear as an internal cost-push to Puerto Rico. Under these circumstances, the anti-inflation policy of the government is reduced essentially to controlling wage increases.

Inflation Indexes

To analyze the nature of the Puerto Rican postwar inflation, the study used two indexes, or indicators. These indicators are superimposed on a profile of the Puerto Rican inflation rate in figure 10. The indexes are slight modifications of two measures introduced several years ago by a prominent English economist.¹² the demand-pull indicator is here defined as the rate of increase of corporate profits in excess of the rate of increase of nominal expenditures, as measured by the gross domestic product (GDP). Defined in this manner, the index does not capture directly the increased backlog effect mentioned earli-

¹² R. G. Harrod, *The British Economy*, McGraw-Hill, New York, 1963.

Figure 10
Inflation by Type in Puerto Rico, 1947-77



Source: U.S. Dept. of Commerce; Puerto Rico Planning Board

er. However, when lagged it captures to a considerable extent the inflationary pressure caused by any backlog. In the graph, the demand-pull index is lagged 1 year. A correlation analysis reveals that the lagged profile fits the rate of inflation profile better than a leading or unlagged indicator. The need for the lag implies that the demand-pull effect seemed to have required some months to permeate the Puerto Rican price indicators.

To measure the cost-push component of the inflation, the study uses the rate of increase of nominal gross domestic income in excess of the rate of increase in the real GDP as the indicator.¹³ The index formulated in this manner is really a unit-cost measure concept. An upward movement of the index means that the rate of cost increase is outstripping the rate at which real production is rising; hence, unit cost is rising and productivity must be falling. A downward movement in the index, on the other hand, means that the rate of increase in production is faster than the rate at which the costs of production are rising; consequently, unit cost is falling and productivity is rising. In contrast to the demand-pull indicator, the cost-push index is plotted in the graph concurrent with the inflation rate. The price response to cost changes seems to be reflected, for the most part, within the same year as the cost impact. This conclusion is likewise based on the analysis of alternative correlations for the lead and lag fits that were applied.

Inflation Pattern

A comparison of the profiles in the graph shows that the historic pattern of inflation in Puerto Rico—as recorded by the GDP deflator—seems to mirror the profile of the cost-push inflation indicator more than the indicator of demand-pull. An outstanding characteristic of the graph is the strong upward trend in the cost-push evident over the entire period. Despite the dominance of the cost-push influence, the demand-pull index coincides perfectly at several critical spikes with the sharp shift in the rate of inflation. Outstanding instances of the coincidence are the changes which developed in the Korean War year of 1951, the events in 1959 and 1961, and the rebound from the recent recession.

The 1959 spike corresponds to the change of government in Cuba. The 1961 occasion relates to the closing of the U.S. import quota on Cuban sugar. The negative demand-pulls, observable in the years between the Korean War and the mid-sixties, suggest that the economy may have passed through a period of insufficient aggregate demand at that time; or at

least, the demand strength was not sustained. These signs of demand weakness may account for the decline and general sluggishness of employment in those years.

The cost-push inflation index shows that between 1953 and 1969, when the economy's aggregate demand appears somewhat weak, there were several occasions of significant cost-push when the index reflected excesses of 4 percent or more. Then, in 1969, cost-push inflation gained additional momentum and surged to over 15 percent. Further cost acceleration followed in the seventies, persisting through the recession, and subsiding only in 1977. All in all, the graphs afford a clear visualization of the fact that the rate of inflation is a resultant of cost-push and demand-pull inflation components.

Wage Cost and Total Cost-Push Comparison

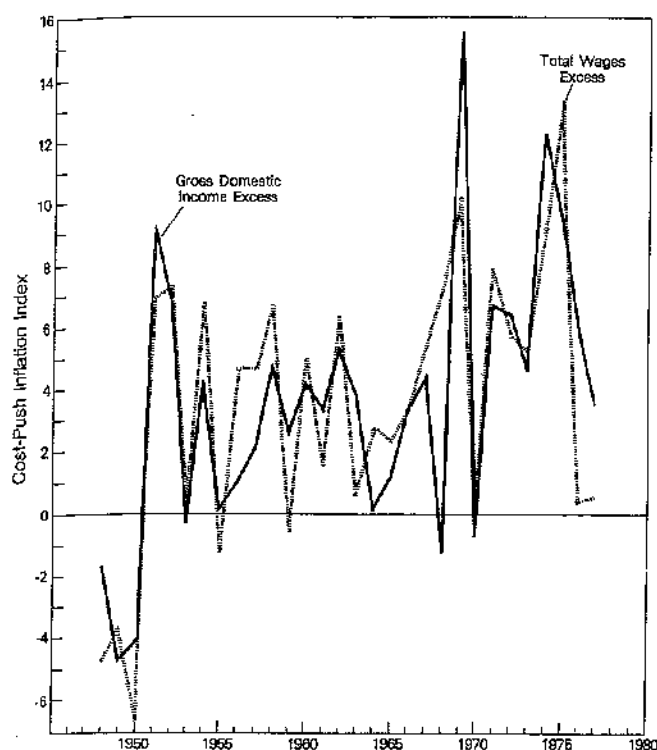
Cost-push inflation is frequently interpreted as synonymous with wage inflation. Although the interpretation in itself is an improper limitation and focus of the concept, labor costs usually do constitute a large share of the total cost of production; and hence, the changes in total costs often correlate closely with the changes in labor costs. In order to check the pattern that exists in Puerto Rico between labor cost-push and total cost-push, a calculation of the cost-push indicator was made using the rate of increase in total wages in lieu of the rate of increase of the gross domestic income. The alternative cost-push indicators are compared in figure 11. The profiles reveal very similar patterns of cost-push inflation in their overall image. However, some minor differences do appear. For example, somewhat more wage influence than total cost influence emerges in the fifties, while the reverse configuration holds true in 1976 and 1977 when virtually no wage influence is evident. Even though the two cost-push indicators are generally substitutable in the Puerto Rican experience, the differences between them are frequent enough to suggest caution in stating any generalizations that assume wage costs as being identical to total costs

Productivity and Wage Rate Movements

Since the cost-push indicator, as explained above, is a quasi-unit cost (or reciprocally a quasi-productivity measure), the persistent cost-push trend, evident in the analysis, implies that a reduction in productivity growth occurred over the years. Since the cost-push analysis presented in the previous discussion is not a generally familiar one, it seems helpful to corroborate the impressions gained from the prior analysis with the evidence resulting from a more conventional comparison of labor productivity with costs.

¹³ Gross domestic income is income generated by production within the confines of the island and thus includes the profits and interest going to outside investors.

Figure 11
Cost-Push Inflation in Puerto Rico, 1948-77



Source: U.S. Dept. of Commerce; Puerto Rico Planning Board

A more conventional comparison of the growth in labor productivity with the rate of increase in the average annual wage rate is provided in table 7. The productivity used in the table is measured by calculating the real GDP per employee and the average annual wage rate was derived by dividing total compensation in the economy by total employment. In each of the three periods cited, the average wage annual rate in nominal terms advanced faster than productivity. Between 1951 and 1963, for example, the wage rate increased at a rate half again as fast as productivity, and in the following decade it grew over twice as fast as productivity. Between 1973 and

Table 7.—Labor Productivity and Average Annual Wage Rate Puerto Rico, 1951-77

[Average annual percentage change]

Period	Productivity ¹	Average annual wage rates	
		Nominal ²	Real ³
1951-63	7.15	10.07	7.67
1963-73	4.20	8.65	5.36
1973-77	2.28	7.99	-0.92

¹ Labor productivity measured by dividing gross domestic product by total employment.

² Average annual wage rate calculated by dividing total compensation to employees by total employment.

³ Real average annual wage rate calculated by dividing the average annual wage rate by the consumption GNP deflator.

Source: U.S. Department of Commerce; Puerto Rico Planning Board.

1977, mainly due to the recession, productivity grew only about 2.3 percent per year on the average. Nevertheless, the average annual wage rate continued to rise about 8 percent a year. The performance of the two measures discloses a clear trend of much less deceleration in the wage rate in contrast to the deceleration of productivity growth, a combination of movements causing significant cost-push effects that were picked up in the indicator profiles graphed in the preceding analysis; thus, the two analyses render the same overall conclusions regarding the weight of the cost-push type of inflation relative to the demand-pull.

Real Wage Rate Performance

Although production costs increased because the growth in the average nominal wage rate exceeded the rise in productivity, the growth of the average real annual wage rate did conform closer to the productivity growth. The conformity is to be expected, since the buying power of the wage rate is determined ultimately by the growth of labor's productivity. The growth rates of the wage rate shown in table 7 were adjusted for the inflation in consumer goods and services by applying the GNP consumption deflator. The average rates of change in the real wage rate resulting from the deflation calculation are the following: for the period 1951-63, 7.7 percent a year; for the period 1963-73, 5.4 percent a year; and for the period 1973-77, -0.9 percent a year. These results show that the growth rate of the real wage rate decelerated considerably, paralleling the deceleration in the growth rate of labor productivity between 1951 and 1973 and actually contracted over the period 1973-77. Thus labor productivity did continue to grow, albeit slowed down from its earlier pace. The growth rates of the real wage rate averaged about 1.0 to 1.5 percentage points higher than the labor productivity growth rates between 1951 and 1973, but tracked the growth in productivity fairly closely. If the GDP deflator rather than the consumption deflator had been used in adjusting the wage, even closer results would be expected. The significant deceleration of real wage rate growth is observable in the manufacturing sector as well. In that sector, the real wage rate advanced 3.6 percent a year between 1965 and 1970, on the average, but grew only 1.5 percent per year between 1970 and 1976.

Changes in Relative Factor Costs

The wage rate changes introduced above can be compared to capital goods and land prices, in order to gain some notion of the relative changes in the prices of the factors of production that occurred during the industrialization period. Although the time periods for which the data are available do not

Table 8.—Increases in Factor Prices and Manufacturing Wage Rate in Puerto Rico, 1955–76

[In percentages]

Period	Manufacturing wage rate	Capital goods prices	Industrial ¹ land prices
1960–70	NA	3.2	7.3
1965–70	7.7	3.5	NA
1970–75	8.2	7.8	NA

¹ Price of prime San Juan industrial land; rate of increase calculated using average of land values between 1955 and 1964 centered at 1960 as initial point of time span indicated.

Source: Puerto Rico Planning Board.

perfectly coincide as is apparent in table 8, the comparison of the inflation rates in input prices does provide some insight into the substitution potential that faced producers in those years. According to the rates of change shown in the table, between 1960 and 1970, capital goods prices apparently did not increase as much as the manufacturing wage rate and the average price of prime industrial land. After 1970, however, the rate of inflation in capital goods prices had almost caught up to the growth in the manufacturing wage rate.

The configuration of the inflation rates in the prices of the three basic production inputs suggests that the use of capital was favored over labor and land during the sixties. Interest payments are, of course, an additional factor in the decision to invest. In the 1970's, interest rates rose much faster than in earlier years. The accelerated interest rates would have suppressed investment, unless the expectations of inflation in product prices rose even faster and certainly faster than wages; otherwise the revenues could not rise faster than the rate of interest. The deepening of capital that occurred in the development of the economy, observable particularly from the mid-sixties on, would also tend to support the hypothesis that the substitution of capital for labor may have been a significant factor during the development period.¹⁴ However, further study on this point is needed.

¹⁴ The "deepening of capital" refers to the addition of units of capital to a production system; strictly speaking, the units should possess the same technology. The additional increments of capital suffer from a declining productivity effect.

Inflation Behavior of the GNP Components

As mentioned earlier the study explored the sectoral sources of the Puerto Rican inflation. The components. The GNP component deflators are derived in the preparation of the national product and income accounts and have 1954 as their index base. The deflators are graphed in figure 12 and the average rates of change for several time periods are included in table 9.

Analysis consists of a comparison of the inflation found in the price deflators for the various GNP com-

The data in the table show a marked acceleration of the component prices throughout the overall period, but the acceleration is particularly strong in the seventies. The prices of imports and exports show the fastest advances. The rate of inflation in import prices bordered on double-digit in recent years, and export prices rose at a rate only slightly less. The rising cost of oil imports, of course, was the key factor pressing up import prices. Until the seventies, the inflation in import and export prices had been very mild in comparison with the rates in the other components. It is of interest to note that even in the late sixties some acceleration in export and import price increases is evident, reflective of the Vietnam War escalation and its concomitant inflationary pressure on the U.S. mainland economy.

The increase in capital goods prices has already been introduced in the factor cost discussion. It will be recalled that inflation in capital goods prices doubled in the seventies in contrast to the sixties. The price changes in structures were not separated out from the price developments in machinery and equipment in the prior discussion. The inflation rates, however, were distinctly different in the two investment subcomponents, as table 9 and figure 12 show. Construction prices rose much faster than machinery and equipment prices for nearly two decades. It was during that time when extensive building occurred in both the residential and nonresidential areas of the economy.

In the consumer sector, price increases averaged slightly over 3 percent per year in the early fifties; but decelerated significantly towards the mid-sixties, the inflation rate moving down to about half the pace

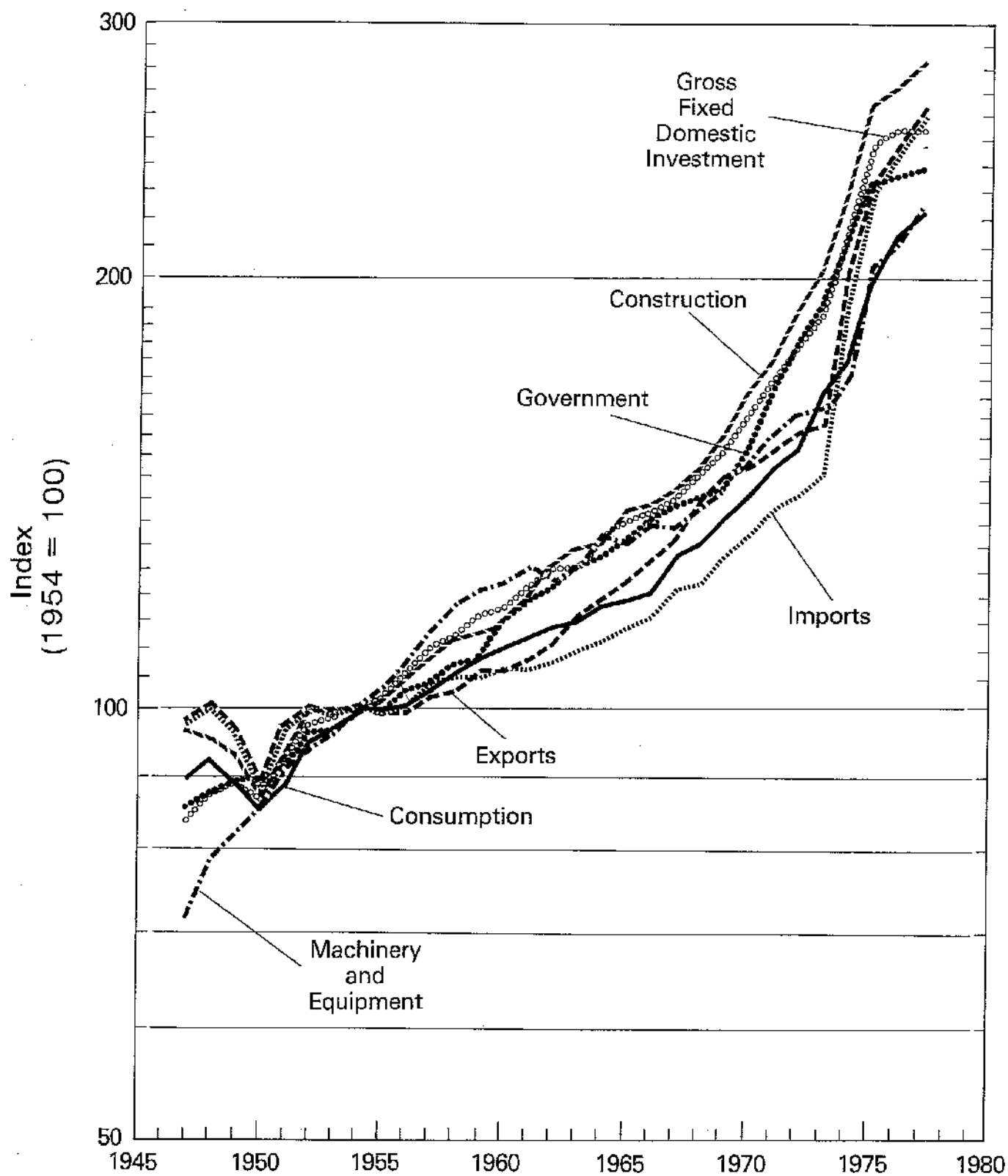
Table 9.—Average Annual Inflation Rates of GNP Component Deflators Puerto Rico 1950–77

[Percentage change]

Period	Consumption	Government	Gross fixed investment	Construction	Machinery and equipment	Exports ¹	Imports
1950–55	3.14	2.16	3.24	2.95	3.85	2.27	2.31
1955–60	2.09	3.00	2.89	2.53	3.57	1.43	1.47
1960–65	1.49	2.67	2.89	3.68	1.37	2.98	1.33
1965–70	3.46	3.01	3.54	3.90	2.67	3.65	3.05
1970–77	6.66	6.51	6.86	7.87	5.81	8.70	9.98

¹ Export and import deflators prior to 1955 are identical.

Figure 12
GNP Component Price Deflators
in Puerto Rico, 1947-77



of the previous decade. In the late sixties, as the Vietnam War activity on the mainland intensified, consumer inflation accelerated once again. Further inflation momentum developed in the oil crisis, when the mainland inflation rate went into double-digit levels. The recession brought some relief; however, the cost-push inflation influence, as shown earlier, persisted even across the recession.

As in the consumer sector, the rate of inflation in the government sector hovered about a 3-percent annual rate for a number of years. By the current decade, however, that rate had more than doubled. Since the government expenditure component relates mainly to the salaries of government employees, the government sector's inflation rate roughly parallels the rise in the government's wages and salaries.

The analysis of the average price level changes of the GNP components reveals that the Puerto Rican inflation was largely centered in the construction and external trade areas, the former area exhibiting more inflation over a longer period than other sectors. This pattern might be expected in view of the intensive construction activity that took place on the island and lasted for more than a decade, as export activity also rapidly expanded.

This impact might be expected in an extremely open economy such as Puerto Rico. Because of the extensive trade flow, particularly with the mainland, the economy's overall inflation was probably largely determined by external pressures. These effects appeared as cost-push factors in the previous analysis of the inflation.

THE GOVERNMENT SECTOR

The rapid growth of the government sector in the past two decades is one of the most important developments in the Puerto Rican economy. The growth has been fostered by several factors. The increased urbanization of the population in the last 35 years and the optimism generated by the apparent success of industrialization led the Commonwealth government to supply a wider variety of public services. These elements were also reflected in the growth of "public enterprises," which are relatively autonomous government units, operating much of the sugar industry, an extended university system, and the telephone service, as well as other public services. These public enterprises have mushroomed in number and size, supported in varying degrees by subsidies from the Commonwealth in addition to their own operating receipts. They also have built up large stocks of assets and financial debt.

A third contribution to the growth of Commonwealth and municipal government has been the grants-in-aid received from the Federal Government; like that of U.S. States and localities, Puerto Rican

government spending has increased through the establishment of new programs which are largely federally funded.

The major roles of government and public enterprises in Puerto Rico have been the economic development programs begun two decades ago and the provision of some basic public services. Some public funds have been invested in the expansion of basic infrastructure, complementing the tax exemption and other service portions of the development program. The scope of the government sector has been expanded somewhat in recent years with the addition of more social welfare spending, necessitated partly by the abrupt slowdown of growth in 1974 and partially funded by Federal grants. The growth of Federal grants has extended to municipalities as well as to the Commonwealth government.

In fact, the Federal Government occupies a central position in government's role in the Puerto Rican economy. Besides its direct contributions to Commonwealth and municipal budgets, the Federal Government has two other roles: that of an income support agency transferring money directly to Puerto Rican residents; and that of a direct participant in the economy through the operations of Federal agencies in Puerto Rico, mainly Defense Department and Veterans Administration programs.

The first Federal function is historically the largest. Throughout the past decade Puerto Rican governments have received 20 to 28 percent of their receipts from the Federal Government. The personal income support role is increasingly important, however, for rapid increases have occurred in Federal transfer payments to Puerto Ricans in the past 4 years. (A fourth very important role, discussed in detail in chapter VII of the Industrial Study, relates to the U.S. corporate tax exemption policies which have stimulated Puerto Rican growth.)

There are three basic functions of the government policy which have been identified by public finance economists. These are stabilization of the economy, allocation of resources between the public and private sectors, and redistribution of income among income classes. Puerto Rico's small size and high degree of interdependence between Puerto Rico and the United States make it harder for the Commonwealth to carry out the stabilization and redistribution functions than it is for the Federal Government. Yet all three issues are as controversial in Puerto Rico as they are in the United States. Before addressing them, however, an overview of Puerto Rican spending and receipts will be helpful.

Government Spending

The government sector, consisting of Commonwealth and municipal governments and public enter-

prises, has been an important contributor to consumption and investment in Puerto Rico in the last 20 years. Its contribution to fixed investment has been especially important. Several measures of the magnitude of government spending might be used, but one of the most illustrative is the percentage of GNP which government budgets represent. This focuses on the current operating expenditures of the two levels of government, including only that part of public enterprise activity directly supported by Commonwealth revenues. This measure, as seen in table 10, indicates a government role that has risen continuously but has accelerated most rapidly in the mid-1970's.

Table 10.—Puerto Rican Commonwealth and Municipal Government Spending

[Millions of dollars]

Year	Total operating expenditures		U.S. Federal transfers to government	Budget less transfers, as percentage of GNP
	Amount	As percentage of GNP		
1950	\$ 110.4	14.6	\$ 9.1	13.4
1955	176.8	15.5	21.3	13.6
1960	286.7	17.1	44.2	14.5
1965	548.0	19.8	118.0	15.6
1970	1,105.1	23.6	256.5	18.1
1971	1,320.6	25.1	314.7	19.2
1972	1,549.2	27.1	413.3	19.8
1973	1,796.9	28.7	491.6	20.8
1974	1,956.8	28.8	500.0	21.4
1975	2,415.7	33.8	650.6	24.7
1976	2,617.4	35.2	822.7	24.1
1977	2,797.2	37.3	844.9	24.7

Source: U.S. Department of Commerce; Puerto Rico Planning Board.

One of the causes of this trend is the increasing contribution of Federal Government funds to Puerto Rican programs. The largest is the transference of customs and excise taxes collected and covered back by the United States to Puerto Rico, but there is also substantial specific program support for education, training, public employment, community development, and other activities. Such funds have constituted a rapidly growing fraction of government spending and of GNP. Domestically funded government outlays, excluding the above items are smaller than

total spending and have grown much less rapidly, as seen in table 10.

The relative magnitude of total government spending in Puerto Rico in the mid-1970's was roughly comparable to that of Federal, State, and local government in the United States; the total in each represented about one-third of GNP. No exact comparison should be drawn, however, since the U.S. accounts combine capital expenditures with operating expenditures, and the functional scope of government in each area is different.

When operating expenditure is broken down by type of payment (as in table 11) a very different pattern emerges from that on the mainland. The lion's share of government spending goes to direct purchases of goods and services and most of this is in the form of employee compensation. Less goes to transfer payments than in the United States. Generous public employee fringe benefits legislated early in the 1970's contribute to the still-high compensation share; currently, about 25 percent of compensation takes the form of mandatory fringes. Despite some decrease in its relative share through time, direct purchases in 1976 constituted 67 percent of operating expenditures, and employee compensation alone was 52 percent. The comparable portions of the Federal budget going to these categories are 34 and 16 percent, respectively.

The only other large category of spending is transfer payments to individuals. Much of this is unemployment insurance and pension payments; only 7 percent of transfers, or about 1.5 percent of total spending, is categorized as social welfare spending. (When direct Federal transfers to individuals are included, transfers become much more significant for the economy.) Subsidies to industries include both public and private enterprises; the largest beneficiaries are private agricultural concerns and a variety of public corporations. Transfers to the Federal Government, which have reached their highest levels in the past 4 years, are primarily contributions to the unemployment insurance and social security fund.

The distribution of outlays reflects the nature of the role of Commonwealth and municipal governments, which is oriented more toward direct provision of services to the public than in the United States.

Table 11.—Distribution of Commonwealth and Municipal Operating Expenditures

[In percentages]

	1950	1960	1965	1970	1975	1976	1977
Total purchases of goods and services	87	80	76	75	71	67	67
(Employee Comp.)	(64)	(61)	(56)	(55)	(55)	(53)	(52)
Transfers to individuals	11	15	15	16	17	21	21
Subsidies to enterprises	1	3	2	3	4	4	4
Interest paid	1	2	3	3	5	5	5
Transfers to Federal Government	0	0	4	3	3	3	3
Total	100	100	100	100	100	100	100

The absence of national defense spending and the more limited extent of social insurance programs in Puerto Rico does much to distinguish its spending pattern from that of the United States, as does the assignment of some public functions to separate public enterprises. Most of the capital investment by government is undertaken by the quasi-independent public enterprises. This reduces the magnitude of goods purchases (largely construction) falling under the Commonwealth budget from levels which would exist if these functions were performed directly by the central administration.

The combined capital investment budgets of the municipal and commonwealth governments and the public corporations represent a significant portion of total Puerto Rican fixed capital investment. Government-assisted home building and public works have been a fairly constant proportion of total fixed investment in the last 8 years, while industrial and commercial building by public enterprises rose steadily until 1976. In 1975 it exceeded the record high proportion of total investment that it comprised in the early years of industrialization. The total share of public investment is shown in table 12. For sev-

Table 12.—Government and Public Enterprise Investment as Percentage of Total Investment in Each Category

Year	Dwellings	Industrial and commercial bldgs. ¹	Machinery and equipment	Public works as percentage of total investment	Total public as percentage of total
1955	24	46	29.8	11	36
1960	18	55	14.0	13	37
1970	17	30	7.5	10	28
1972	21	44	7.5	13	36
1973	16	51	10.5	14	35
1974	16	56	9.8	13	39
1975	19	67	12.4	13	47
1976	17	62	8.6	13	41
1977	17	67	8.2	14	39

¹ This includes investment by the Puerto Rican Industrial Development Company, a public enterprise which builds, leases, and sells industrial and commercial buildings.

Source: U.S. Department of Commerce.

eral years, it should be noted, the increasing importance of public investment in industrial and commercial building in the 1970's resulted from decreasing private investment rather than growing public investment.

Revenue Structure

The structure of the Puerto Rican revenue system also differs from that in the United States. The outstanding differences stem from the relatively small scale of the Puerto Rican social insurance system, the heavy reliance on excise taxes on consumer goods,

and the significant support given by an outside source, namely the Federal Government.

Looking at the recurrent receipts of the Commonwealth General Fund, special funds, and the debt repayment fund, some major characteristics appear. First, Puerto Rico is like the United States in that it has a highly progressive income tax and a corporate profits tax with rates comparable to those in the United States. Corporate tax receipts are lower than they might be since most of the new manufacturing corporations on the island receive income tax exemption as an inducement to locate there. Still, these two categories of income tax provide about one-third of total government revenue, a proportion which has remained fairly constant through time.

Excise taxes are the only other large tax source. They have been levied traditionally on alcoholic beverages, cigarettes, and motor vehicles, the last being a progressive tax according to the size of the vehicle. These three items now contribute 54 percent of excise tax receipts, although two additional large revenue sources have been developed since 1975 with the imposition of a general sales tax of 5 percent on nonfood purchases (a number of exemptions have since been passed) and a tax on petroleum imports (recently repealed). In 1977 these two new sources accounted for 33 percent of excise revenues, despite the addition of some exemptions from the general sales tax. Moreover, there appears to be a continued weakening in the tax collections on imported petroleum from the high levels in 1976 through 1978.

The third single largest source of revenue is the Federal Government, which gives two types of assistance. About two-thirds is grants-in-aid, which support various program efforts mentioned above, the other one-third coming from rebates derived from excise taxes and customs duties collected by the U.S. Government and reverted to the Puerto Rican Treasury (see table 13).

Tax rates in several categories have been raised in the last few years in an attempt to keep revenues growing despite lagging income growth and in order

Table 13.—Sources of Commonwealth Government Receipts Distribution in Fiscal Years

[In percentages]						
	1950	1960	1970	1972	1975	1977
Income taxes ¹	25.6	30.3	30.3	33.2	34.0	32.9
Individual	11.9	18.0	18.0	18.7	21.6	22.9
Corporate	12.3	10.4	10.5	12.8	10.8	8.9
Excise taxes	36.9	35.5	25.8	21.4	20.0	24.9
Property taxes	5.0	3.0	3.0	2.7	4.9	4.6
Licenses, fees, permits, lottery, miscellaneous	14.8	10.5	8.4	7.8	6.6	6.1
Total Federal transfers	17.3	23.0	31.7	34.2	33.7	31.1
Grants-in-aid	NA	10.9	17.3	21.3	23.1	21.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

¹ Includes payments by nonresidents not included in subtotals.

Source: U.S. Department of Commerce.

to balance the operating budget in accord with the constitution. The major increase came in 1975, when temporary personal and corporate income tax surcharges were enacted; these levies were a flat 2 percent corporate and a progressive personal tax surcharge of from 1 to 5 percent, averaging about 2½ percent. (The personal surcharge was retroactive to 1974.) The general excise tax and the oil import levy were imposed at approximately the same time. Real property taxes, the effective rates of which had dropped steadily due to outdated assessments, also were raised in 1975 by quadrupling the tax rates.

Puerto Rico does have a social insurance system under which taxes are collected and transfer payments made. These tax contributions do not appear under recurrent receipts, since they flow into a separate account, but they do appear in the consolidated accounts. Throughout this decade these contributions have represented about 12 percent of total government receipts. They add to the tax burden and finance an important segment of transfer payments, but this is not a discretionary government program and does not receive much analysis in studies of Puerto Rican public finance.

With this background on the nature of spending and receipts in the Puerto Rican Government, one can analyze the three roles of government outlined earlier in this chapter for the Puerto Rican case.

Stabilization of Economic Growth

Income and employment stabilization is a fiscal function which has risen to paramount importance in the United States. There is a limited amount one can say about this function in Puerto Rico, because its economy has suffered very few setbacks to its growth in the postwar period. The mid-1950's were an era of slower than average growth of gross product, but until 1974 there has been no period when countercyclical policies were obviously necessary. Thus, there is only one instance in which the ability or desire of the Commonwealth to pursue an active countercyclical policy can be tested.

Spending and receipts figures during the recent recession reflect the absence of effective countercyclical policies in Puerto Rico. This is not to say that the government is not an important part of the economy or does not foster economic growth. One look at the rising proportion of GNP generated by government or public investment in infrastructure would dispel that idea. Rather, this means that expansion of government spending or changes in taxation were not undertaken to smooth out the cyclical variations in growth in the mid-1970's.

Two large tax impositions in 1974-75 led to the fastest increase in the tax burden in the decade up to that point, surpassed only by that of the following

Table 14.—Selected Trends in Puerto Rican Government Spending and Receipts, Annual Growth Rates, Fiscal Years

[In percentages]

Year	Total Tax and nontax receipts	Tax receipts	Operating expenditures	U.S. Federal transfers to Puerto Rico	
				To government	To individuals
1970	11.7	10.5	21.7	14.6	NA
1971	17.4	16.7	19.5	22.7	25.5
1972	18.7	16.3	17.2	31.3	15.4
1973	9.7	8.7	16.0	19.0	26.1
1974	4.1	1.6	8.9	1.7	17.5
1975	18.4	17.5	23.5	30.1	70.2
1976	21.9	24.0	8.3	26.5	42.5
1977	5.0	6.7	6.9	2.7	9.5

Source: U.S. Department of Commerce.

year; tax receipts thus grew faster in the midst of recession (see table 14). Spending, on the other hand, grew at a lesser rate during the recession than it had earlier in the decade—the average growth rate in 1974-76 was about 13 percent compared to 17 percent in the previous 3 years. This combination of policies exercised a less expansive effect on economic growth than had previous policies. An attempted countercyclical public works program had to be abandoned because of a lack of Commonwealth revenue in 1974 and 1975.

Federal Government spending in Puerto Rico did, however, provide a countercyclical thrust, mainly in the form of direct transfers to individuals when personal income needed bolstering. The largest jump in these payments came when food stamps were extended to Puerto Rico in 1975, although the second largest transfer program, social security, also grew rapidly throughout the mid-1970's. Total Federal transfers as a percentage of personal income grew from about 10 percent in FY 1974 to 19 percent in 1976.

Federal transfers to Puerto Rican governments during the recession grew on an average at about the same rate as earlier in the decade. A very uneven pattern lies behind the average, however, as these transfers hardly grew in 1974 and then grew explosively in 1975 and 1976. Thus, countercyclical Federal aid to government was late in arriving, but in combination with Federal aid to individuals, Federal spending in Puerto Rico did rise somewhat in 1974 before accelerating in 1975.

One specific category of Commonwealth spending, employee compensation, has special macroeconomic ramification. Through most of the early 1970's, compensation grew rapidly because of employment and salary increases. The growth of government salaries and fringe benefits may be a stimulus to higher wage demands within the private sector. The government's reaction to increased wage demands do directly impact on the economy's international competitive

position. The sharp deceleration of government compensation growth in the past 2 years, from an average of 10 percent in 1971-75 to about 2 percent last year, is a very encouraging development.

In looking toward the future of countercyclical policies in Puerto Rico, the limited possibilities for such policies to be effective should be noted. In the small, open economy of Puerto Rico, there is a high marginal propensity to import both consumer and producer goods when income grows. When taxes are cut, for instance, some of the extra disposable income will be spent on domestically produced goods but much will be spent on imports. This means that the "multiplier effects" of the policy stimulus are dispersed throughout the economies from which Puerto Rico imports, rather than being concentrated in the local economy. Fiscal policy will, therefore, be less effective in stimulating growth than it is in a large country like the United States.

Discretionary stabilization policy often requires deficit spending, which in Puerto Rico's case must be confined to the capital budget, since an operating balanced budget is mandated by the Constitution. Financing the Federal deficit is generally manageable in the United States, where domestic savings are the major source of financing. Puerto Rico's dependence on outside financing, specifically U.S. capital, gives it advantages as well as potential problems in financing any future deficit. Because Puerto Rican borrowing would represent a small demand for capital relative to the large U.S. credit markets, such borrowing cannot "crowd out" private investment or force up interest rates by putting pressure on capital supplies. At the same time, Puerto Rico could be vulnerable to a complete cutoff of its capital supply if confidence in its economy falls for some reason.

The other major macroeconomic policy instrument, monetary policy, is not available for Puerto Rico. The island does not have its own currency and relies heavily on U.S. source funding to supply its investment needs. The principle behind monetary policy is that interest rates can be manipulated to affect spending. For Puerto Rico, however, interest rates and the supply of capital are determined in U.S. capital markets, which are affected by U.S. monetary policy.

In fact, Puerto Rico has experienced healthy growth of business investment through its access to U.S. capital markets. The impossibility of an expansionary internal monetary policy has not hindered growth and development.

Allocation of Resources

The second major function of government is allocation of output between the public and private sectors and provision of public services and goods.

Such a division is less than clear for an economy like Puerto Rico's, where some normally private enterprises are publicly operated and where many private firms receive substantial public subsidy in one form or another. But the general trend in the growth of public goods can be discerned from the fraction of GNP represented by government budgets, which was discussed earlier. The tax hikes of 1975, combined with slower private sector expansion, re-allocated output toward public goods and services, a trend which began well before the recession. One should note that that portion of the budget going to transfers to individuals will ultimately be spent by those individuals, reflecting private tastes and not the decisions of any government.

The goods and services provided by the Commonwealth can be determined from Puerto Rico's budget. Last year, about 55 percent of total spending went into education, health, and social welfare programs, for both operating and capital expenditures. About 11 percent was devoted to industrial and special agricultural development projects, with the same fraction going toward protection of persons and property. The remainder is spent on assistance to local government and private enterprises and on general government.

Increases in government taxes, while they detract from private output in the short run, do finance spending which stimulates private output in the long run. Expansion of education, infrastructure, economic development, or even health programs will all contribute to private productivity.

Redistribution of Income

The third governmental function mentioned is its role in redistributing income. The redistributive effect of government policy can be judged by considering the benefits of its spending programs for different income classes in combination with the tax burdens of each class. If low-income groups benefit more from government programs than they generally pay in taxes, the system can be considered progressive, although such calculations are by nature very inexact.

The Commonwealth's spending is concentrated in education, health, and social welfare programs; these three categories constitute the bulk of last year's budget. In each case, substantial support of some programs, especially income support programs, comes from the Federal Government. The training and care provided benefit many low-income Puerto Ricans who would not otherwise receive any such services, in contrast to the United States, where more of the population could afford to buy some education or health care on its own. For this reason, and because there is less spent on general benefit programs

such as defense, highways, or blanket social insurance, Commonwealth spending is helping to move Puerto Rico's income distribution toward equality.

Despite large amounts of Federal support for government programs, substantial tax revenues are raised in Puerto Rico and their burdens must be assessed. The three largest Commonwealth tax sources are individual and corporate income taxes and excise taxes. The income tax is sharply progressive, with most rates higher than in the United States, although a different deduction structure makes taxable incomes different. For example, renters can deduct 10 percent of their rent, up to \$240, from taxable income. Presumably the effective burdens from the personal income tax system reflect its progressive structure.

Analysis of the corporate income tax is always difficult because its ultimate incidence is debatable. In Puerto Rico's case, this is complicated by the existence of exemptions from this tax. If the tax were assumed to be passed on to consumers, one would have to know which industries pay the tax and which are exempt to conclude anything about its progressivity.

The large excise tax collections are perhaps the most unusual aspect of Puerto Rico's tax system. A general excise levied in 1975 and a petroleum import tax constitute about one-third of this category, but the largest sources are taxes on alcoholic beverages and motor vehicles. The latter is probably the only excise which could be considered progressive, since it does not affect the 43 percent of (mostly low-income) households without cars. The tax has a graduated rate schedule, taxing large cars at much steeper rates. The presence of some public transportation in the largest cities means cars are not a necessity and this excise is progressive in the urban context. The greater need for motor vehicles in rural areas and in agriculture means that there may be a very large burden on the rural poor. The other excise taxes are usually assumed to fall about equally on all income classes.

Although the incidence of corporate income taxes is in doubt, roughly proportional excise taxes combined with a progressive personal income tax and the absence of payroll taxes make the overall tax structure of the Commonwealth somewhat progressive. Inclusion of local taxes, which are largely property taxes, does not change this conclusion. In combination with spending policies, one can safely say that government activities in Puerto Rico are a positive force toward a somewhat more equal income distribution.

Public Debt

Public debt is an aspect of government finance

which is usually deemphasized by economists in the United States. Yet the level of public debt in Puerto Rico, which includes Commonwealth, municipal, and public enterprise debt, has been a source of concern. Its rise, largely due to public enterprise expansion, caused problems for Puerto Rico in the New York credit market, particularly because an astounding 49-percent increase occurred in the debt total in 1974-75, just before the New York City-related upheaval in municipal bond markets in 1975. The rate of increase in Puerto Rican public debt has slowed markedly in the past 2 years.

Public debt issuance has been a major source of funding for the growing role of government in the Puerto Rican economy in this decade, funding public capital investment and to some degree operating expenditures. The expansion of public works and of basic infrastructure has represented a major public undertaking, appropriate in a still-developing economy. The growth of debt can be seen in figure 13 and its increasing size in relation to GNP appears in table 15.

The amount of debt (principal and interest) which the Commonwealth and municipalities may contract is limited by the Puerto Rican Constitution in any given year. In the case of the Commonwealth, it is not to exceed an amount whose debt service requirements including principal and interest will equal 15 percent of the average internally generated revenues for the last 2 years. The proportion of internal revenues which are devoted to debt financing gives

Figure 13
Gross Long-Term Public Debt in Puerto Rico, 1950-77

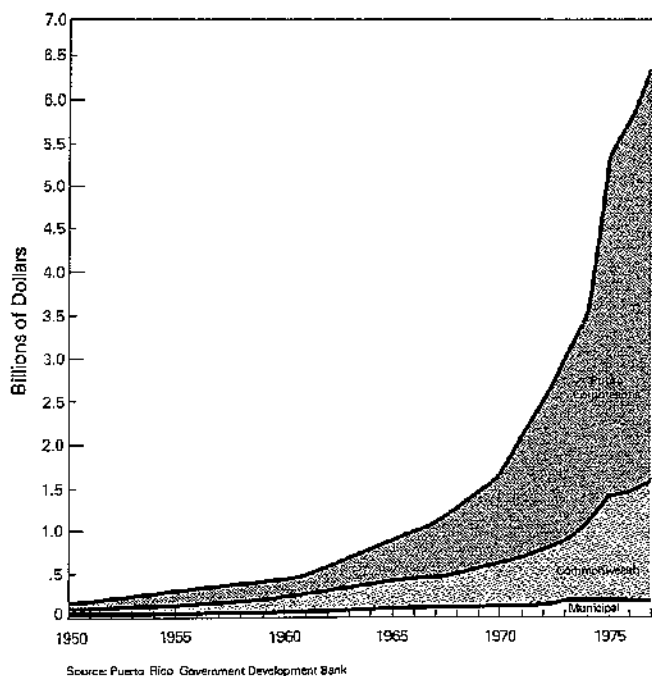


Table 15.—Public Debt as a Percentage of GNP of Puerto Rico

Year	Common-wealth debt	Municipal debt	Public corporation debt	Total public debt
1968	12.1	3.0	20.5	35.6
1970	10.9	2.5	22.4	35.9
1972	11.7	2.5	30.2	44.5
1973	11.8	2.5	33.9	48.2
1974	14.8	2.3	38.2	55.3
1975	17.2	2.2	54.9	74.2
1976	17.6	2.3	57.4	77.3
1977	17.1	2.2	57.9	77.0
1978	15.1	2.0	54.9	71.5

Source: Puerto Rico Government Development Bank; Puerto Rico Planning Board.

an indication of the strain which Commonwealth debt place on revenues; in 1977 the fraction was 10.4 percent. This ratio has risen steadily over the past 15 years but has been below 10 percent during most of that period.

Despite the fact that the 15-percent constitutional limit has not been reached it has had one important effect: the growth of public investment and borrowing has been concentrated in public corporations not subject to any legal limitations. However, in the last 2 years the Government Development Bank has acted as agent for these institutions to ensure their financial integrity. Three of the ten debt-issuing corporations do, however, have the tax revenues of the Commonwealth backing up their credit. These are the Sugar Corporation, Public Buildings Authority, and Housing and Urban Renewal Corporation.

Although the rate of increase decelerated recently, public enterprises' debt mounted in recent years as the number and scope of these institutions have expanded. Most of them provide basic services or public infrastructure, such as the Water Resources, Highway, Public Building, Aqueduct and Sewer, Ports, and Maritime Authorities, and the University of Puerto Rico. These enterprises account for about two-thirds of total public enterprise debt.

Two other corporations perform public services which one might not categorize as basic but which can be considered public functions. These are the Urban Renewal and Housing Corporation and the Industrial Development Corporation. The latter lends capital to private companies and has a variety of other functions similar to those of State and local industrial development organizations in the United States.

Two public enterprises, the Telephone Authority and the Sugar Corporation, have assumed functions which in the United States belong to the private sector. Under private ownership, these activities did not generate profits high enough to merit expansion of production, or in the case of sugar to even maintain capacity at a constant level. Public takeover and

subsidy have allowed telephone service to be expanded, and the downslide of employment in sugar production and refining has slowed somewhat.

The broad functional scope of Puerto Rico's public activities makes it misleading to compare its public debt with that of any one level of government in the United States. The same functions are spread among Federal, State, and local governments, in addition to quasi-public debt issuers and private communications companies in the United States, whose total debt may be proportionately as large as the Puerto Rican public debt.

Since so much public investment and debt is undertaken by these corporations in addition to the Commonwealth, the burden placed on the economy by debt service payments cannot be measured simply by the percentage of government spending going to interest payments. In fact, there is a complicated network of subsidy payments out of Commonwealth funds for public corporations' operating and/or capital expenses. Thus, part of the cost of public enterprise investment is integrated into the Commonwealth budget, while the rest is represented by separate debt service payments. For the purpose of estimating debt burden, it is useful to calculate the percentage of GNP which goes into the payment of combined debt obligations.

With the limited data available, one can conclude that in the past 3 years the percentage of GNP devoted to Commonwealth and public enterprise debt service (principal and interest) has risen from 3.5 percent in 1975 to 4.6 percent in 1977.

Puerto Rico's much lower levels of government debt prior to 1975 imply debt service payments probably well below 3 percent of GNP. Assuming that U.S. lending will continue to supply this Puerto Rican borrowing, it becomes a political decision for Puerto Rico whether this much of its GNP should be devoted to support of public investment of the sort which has been described.

SAVING AND INVESTMENT

The process of capital accumulation is vital to any economy because investment is the driving force of economic growth. Hence, it is essential that ample financing be available so that promising investment opportunities may be pursued to the fullest extent. Although Puerto Rico was a net dissaving economy during most of its industrialization, ample saving to support the investment boom and sustain rapid growth in the economy came from the U.S. mainland. The heavy reliance of the economy on the U.S. mainland and the implications of that reliance for the control of firms and the distribution of income

have already been discussed as being one of the major issues confronting the Puerto Rican economy. This section of the analysis deals with the magnitude and distribution of the capital that Puerto Rico successfully accumulated, its profitability and efficiency and the relationship of the investment level to the real growth rate of the economy.

The investment boom that developed under the aegis of Operation Bootstrap provided strong growth impetus to the Puerto Rican economy; but by 1971, the share of real gross domestic product (GDP) devoted to fixed capital expansion had peaked and contracted seriously thereafter.

The intensified investment which resulted from the boom brought an increase in the amount of capital needed to produce a unit of output, implying a falling marginal product of the capital, or what is known as a "deepening" of capital.¹⁸ The capital deepening and the inflation of capital stock values in recent years caused the rate of return on capital to decline. The recession of 1974-75 exacerbated the decline and complicated the analysis of trends in the productivity of capital because of the highly erratic output movements relating to the recession. The recovery of the economy in 1976 and 1977, however, brought about a marked revival in the rate of return on Puerto Rican capital.

Net External Capital Inflow

An earlier discussion of the relationship between the Puerto Rican GDP and the GNP pointed out that the increasing excess of GDP over the GNP was a reflection of the rising outflow of factor income going mainly to the mainland in the form of profits on capital invested on the island during the industrialization. The growth of the capital inflow in the period of industrialization was truly remarkable. In 1963 the net inflow of capital amounted to only \$250 million. By 1970 it had grown to \$882 million; and in 1977 it reached \$1,510 million. As the inflow of capital swelled in dollar terms, its importance as a source of saving relative to the uses of funds likewise increased. In the interim between 1947 and 1963 the capital inflow (net of errors and omissions) accounted for 44.2 percent of the economy's total uses of funds (see table 16 and figure 14). Between 1963 and 1973, however, external financing covered 61.3 percent of the total uses of funds and 81.6 percent between 1973 and 1977. The share of total property income generated in Puerto Rico received by foreigners grew much faster than the funds they

¹⁸ In the strict theoretical sense, the "deepening" of capital concept applies to additions of identical capital units having the same technology. Obviously in reality, technology and employment as well as the nature of capital units shifted in Puerto Rico in the time described. Comments in the text, consequently, referring to capital deepening and the falling productivity of capital are the net of these many changes of inputs and technology in the economy.

Table 16.—Sources of Financing of Puerto Rican Investment, 1947-77¹

[In percentages of total uses of funds]

Years	External capital inflow	Depreciation	Puerto Rican		Ratio of rest of world property income to total gross property income
			Private saving	Government saving	
1947-63	44.2	31.0	3.9	20.7	13.3
1963-73	61.3	24.4	-0.2	13.9	34.3
1973-77	81.6	26.1	-12.7	7.4	54.6

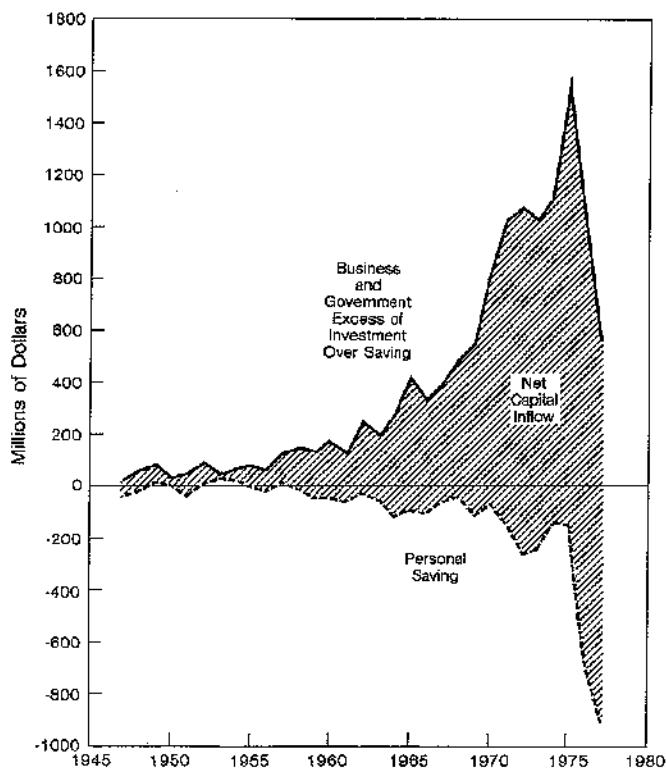
¹ Percentages may not sum to 100 percent since the external capital flows were not adjusted for errors and omissions.

supplied. While the share of financing accountable to the influx of savings doubled during the postwar years, the share of property income going abroad increased more than fourfold.

Domestic Savings

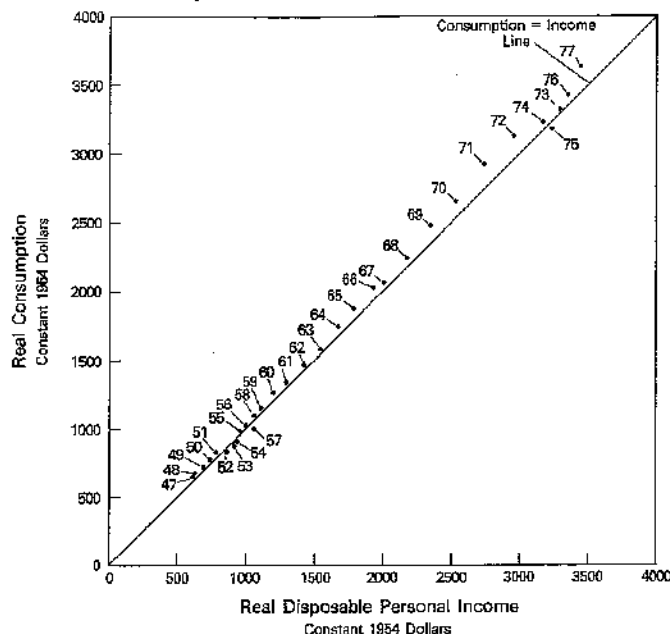
While external savings evolved as the mainstay of financing in Puerto Rico, private and government saving declined in importance and internal dissaving intensified. The shifts in the importance of the sources of funds are evident in table 16. Puerto Rican consumers had provided some positive saving in the

Figure 14
Net Capital Inflow to Puerto Rico, 1947-77



Source: U.S. Dept. of Commerce; Puerto Rico Planning Board

Figure 15
Consumption Function in Puerto Rico, 1947-77



Source: U.S. Dept. of Commerce; Puerto Rico Planning Board

early years as the consumption-income plot in figure 15 reveals, but personal dissaving was by far the dominating behavior. By the time of the investment boom of the sixties the private economy was a chronic net dissaver. The government sector was to follow.

The persistent dissaving among consumers in Puerto Rico is frequently cited by Puerto Ricans, and outsiders as well, as consumer behavior unique to the island. The claim is not easily verified, however, since the national accounts of most economies are kept on the basis of the United Nations accounting scheme which does not include the personal disposable income measure. Therefore, in order to ascertain the uniqueness of the Puerto Rican dissaving propensity, comparative information from various economies including the direct taxes consumers pay would be necessary.

Although the singularity of the Puerto Rican personal dissaving in respect to personal disposable income can not be easily verified, information from comparable economies regarding consumption in respect to personal income—income after transfer payments but before tax deductions—seems to indicate that the Puerto Rican saving behavior is not unusual, Puerto Rican consumption being not unlike the economies as a percentage of income.

Although dissaving by consumers in respect to *personal* income did occur at times, positive saving was the more prevalent condition. The persistence of dissaving among Puerto Rican consumers in respect to *personal disposable* income does raise some questions concerning the underlying influences—

some of a positive and some negative but which in their net effect result in an obvious emphasis of current consumption over future consumption. How these influences interact, whether they be cultural or more directly economic in nature, is a complicated process demanding more attention than this report can extend. It must also be realized that the saving concept referred to is that used in the product and income accounts. Other saving concepts—such as one including saving on a residual from income of consumption which includes imputed consumption values of durables and housing—would render different impressions, no doubt, of the saving behavior of Puerto Ricans than the presently utilized saving concept provides.

The persistence of internal dissaving, as accounted in the product and income accounts, is important and closely involved in the issue of economic reliance on the mainland. Internal saving, of course, can be "forced" within limits, by taxation. Consumer taxes have risen substantially relative to incomes in Puerto Rico in the post-World War II years. In 1950 personal disposable income would have been 2.4 percent greater without the taxes deducted; in 1960, 3.0 percent; in 1970, 5.6 percent; and in 1977, 6.9 percent. Counteracting this growing tax impact, however, has been the growth of transfer payments. Puerto Rico taken in the aggregate, shows a "tax effort"—the ratio of taxes to personal income—very much in line with many States, about 15 percent. However, since no Federal taxes are paid by Puerto Ricans, mainlanders are taxed an additional 15 to 20 percent in Federal taxes. Taxes in Puerto Rico as an aggregate proportion of GNP also seem low when compared to many underdeveloped economies, according to some evidence.

Financial Intermediation

The paucity of internal savings in Puerto Rico may result partially from a smaller variety of financial instruments and institutions available there than to mainlanders; however, given the generally broad development of facilities for banking and investment on the island this possibility seems rather implausible. It is possible that consumption was attractive even to the surplus income units, upgrading their standard of living, or that investing in mainland financial instruments was more secure and remunerative than saving through local debt instruments. Mainland banks and insurance companies were apparently inclined to use their funds on purchasing short-term investments or in investing their funds in mainland companies. Local companies were, therefore, largely denied the receipt of longer term funds for investment. Even a local company with a somewhat in-

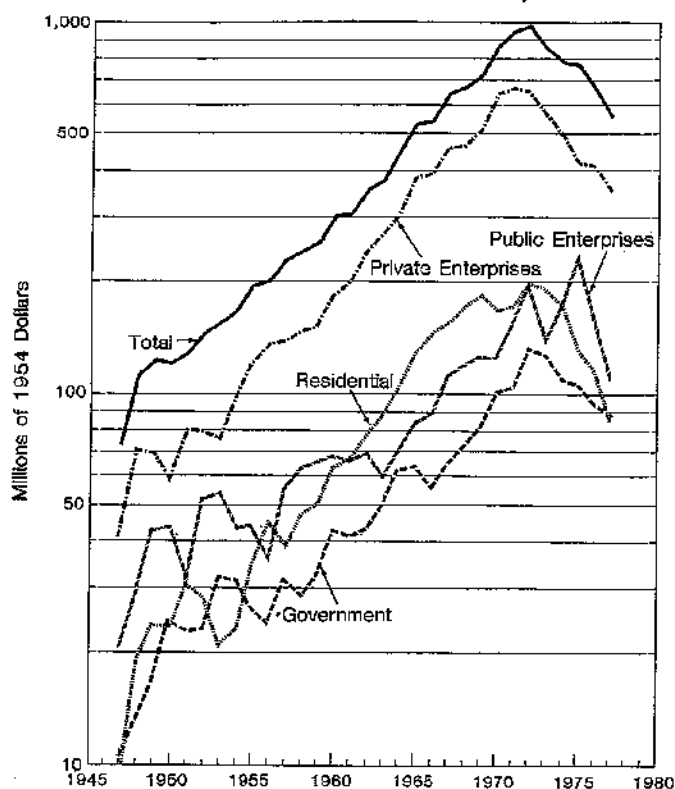
novative management or technology often, it seems, to have faced a difficulty in attracting equity or debt financing. The greater attractiveness of mainland saving opportunities opposed to local probably discouraged local entrepreneurship and extended Puerto Rican reliance on foreign direct investment.

Investment and Finance

The availability of plentiful foreign funds to Puerto Rico underwrote the success of the investment expansion and permitted the economy to attain the unusually high rates of real growth evidenced during the industrialization process. Provision 931 (now 936) in the U.S. Tax Code, as well as the exemptions and subsidies extended by the Puerto Rican Industrial Incentives Act, assisted foreign investors directly by augmenting their rate of return appreciably. The tax breaks and subsidies granted under Operation Bootstrap, however, may not have been the crucial factor in investment decisions since the profitability of Puerto Rican capital vis-a-vis the mainland (as will be shown subsequently) was impressive even allowing for mainland taxes. The incentives offered to firms and the special recruitment of firms carried out under Operation Bootstrap, it seems plausible, may have ultimately been more influential in extending valuable publicity about Puerto Rico to investors and thus stimulating their interest in the island as a potentially profitable production site than they were in adding to the marginal efficiency of the investments. On the other hand, it can be argued that premium profit margins were needed to attract firms because of the uncertainties involved in off-shore investment in the earlier years of Puerto Rico's industrialization.

Whatever influence the incentive and recruitment efforts provided, Puerto Rican investment clearly took off and grew impressively under Operation

Figure 16
Gross Fixed Investment in Puerto Rico, 1947-77



Source: Puerto Rico Planning Board

Bootstrap (see figure 16). Gross domestic fixed investment (GDFI) advanced in real terms at an average annual rate of 10.7 percent in the years from 1947 to 1963. Residential investment rose at an annual rate of about 15 percent and nonresidential investment at 10 percent during the period (see table 17). The private sector contributed nearly 60 percent of the total fixed capital formation, while public enterprises accounted for 26 percent, and government 15 percent. In this early period of industrialization,

Table 17.—Gross Fixed Investment and Capital Stock in Puerto Rico, 1947-77¹

[In constant 1954 dollars]

	Average annual level			Percentage of total		
	1947-63	1964-73	1974-77	1947-63	1964-73	1974-77
Gross Fixed Investment:						
Total	\$ 209.8	\$ 719.8	\$ 698.8	100.0	100.0	100.0
Private enterprises	130.4	504.0	422.1	60.1	70.3	60.6
Public enterprises	50.1	126.2	175.3	25.5	17.4	24.8
Government	29.5	88.8	101.4	14.5	12.2	14.6
Residential	41.0	166.9	131.2	18.8	23.8	18.5
Gross Fixed Capital:						
Total	2,806.7	7,259.2	11,786.8	100.0	100.0	100.0
Private enterprises	1,471.7	4,436.7	7,296.9	52.2	60.6	62.0
Public enterprises	736.1	1,656.0	2,695.1	26.0	23.1	22.8
Government	598.9	1,166.4	1,794.9	21.8	16.4	15.2
Residential	689.9	2,211.8	3,628.0	24.6	30.5	30.8

¹ Component figures may not sum to totals due to rounding or data inaccuracy.

Source: U.S. Department of Commerce; Puerto Rico Planning Board.

about 19 percent on the average of GDFI was being allocated annually for housing.

In the decade between 1964 and 1973, GDFI growth decelerated somewhat to an average of 8.4 percent per year. Nonetheless, the average yearly level of investment in constant 1954 dollars was more than three times the average between 1947 and 1963, \$719.8 million compared to \$209.8 million. Along with this growth came a significant shift in the composition of the investment. Private enterprises increased their average share of the GDFI by 10 percentage points over the 1947-63 average, bringing it to 70 percent. The average share provided by public enterprises decreased from 26 percent to 17 percent and the government share dropped from 15 percent to 12 percent. The share going to housing rose from 19 percent to 24 percent. In constant 1954 dollars, the yearly average investment in housing between 1964 and 1973 was four times the average in the 1947-63 period.

By 1973 the investment boom had largely run its course. The worldwide inflation, the crisis in energy supplies, and ultimately the 1974-75 recession toppled the expansion. Paralleling the worldwide slowdown of production and capital accumulation, the accumulation of fixed capital in Puerto Rico was severely reduced. Between 1973 and 1977, fixed investment in constant 1954 dollars declined 36.3 percent, from \$565 million to \$360 million. The depression of fixed investment trimmed the yearly average for the period from \$504 million to \$422 million.

The crisis and recovery years of 1973 through 1977 brought about further changes in the sectoral distribution of the investment. Private enterprises provided only 61 percent of the GDFI in the period, compared to 70 percent as an average between 1963 and 1973, leaving the share at virtually its 1947-63 average. The contraction of the private sector's share caused the public enterprise and government shares to increase; the former, from 17 percent, the average for the 1963-73 period, to 25 percent; and the latter, from 12 percent to 15 percent. In constant 1954 dollars, the average annual investment of public enterprises increased from \$126.2 million for the interim between 1964 and 1973 to \$175.3 million for the period 1974 to 1977. The increase was due largely to an upsurge in public enterprise investment spending in 1975. A comparison using 1973 and 1977 as period endpoints shows a decrease in investment for the sector from \$150 million to \$119.1 million, or about 20.6 percent in real terms. Public enterprise investment thus tended to be procyclical in the downswing.

Government investment averaged \$101.4 million, in constant 1954 dollars, between 1974 and 1977,

compared to \$88.8 million in the 1964-73 decade. As in the case of public enterprise investment, however, the average spending level does not capture the dropoff that is caught by a year-over-year comparison of the endpoint years of the period. Government investment dropped between 1973 and 1977 from \$135.8 million to \$87.2 million, in constant 1954 dollars, clearly, not a stabilizing influence on the economy. In percentage terms, government investment contracted nearly as much as private investment, while public enterprise investment contracted about two-thirds.

Although the contractions described above were severe, the brunt of the economic setback fell on the residential construction, where investment contracted 55.5 percent from 1973 to 1977, in real terms. The level of spending plummeted from \$193.5 million to \$86.1 million in 1954 dollars. The contraction pulled housing investment below the level of 1963. That year preceded the great housing boom which ultimately extended over a decade, peaking in 1972 at \$197.7 million in constant 1954 dollars. Residential investment continued high but decelerated in 1973 and the collapse followed, causing heavy losses for many investors in the housing expansion.

The feverish construction of condominiums that had developed proved to be excessive, resulting in a substantial inventory. However, as the economy continued to recover and expand in 1978, the inventory dwindled.

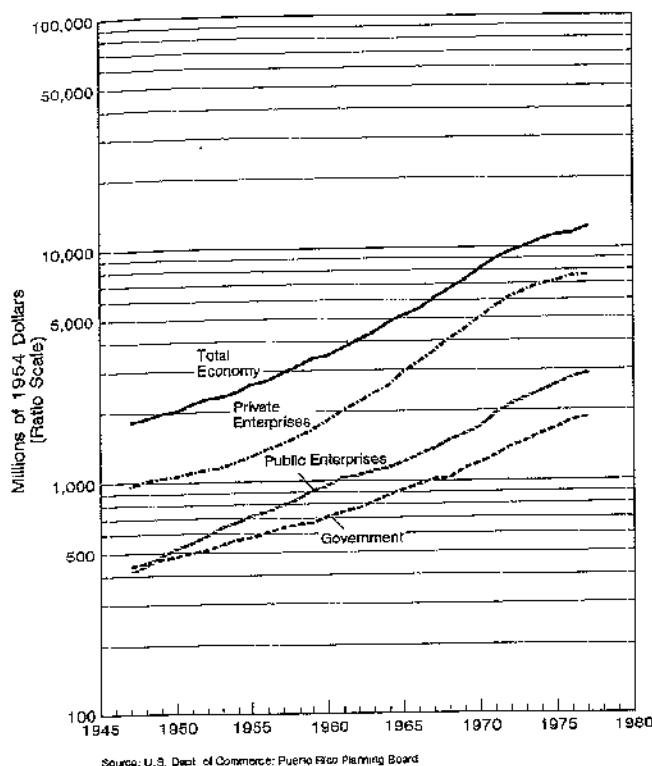
Capital Stock of Puerto Rico

The accelerated accumulation of fixed capital in the sixties and early seventies increased the Puerto Rican capital stock by a substantial margin. The increases caused shifts in the sectoral composition of the capital stock. Summary data relating to the average dollar levels and percentage shares of Puerto Rico's gross fixed capital stock have been included in table 17, graphs of the components of the capital items appear in figure 17. The average capital stock estimates shown are in constant 1954 dollars and were derived from estimates of the Puerto Rican capital stock prepared especially for this study.

The estimates were made by using the perpetual inventory method applied to GDFI data recorded in the Puerto Rican national income and product accounts for the years from 1947 to 1977.

The perpetual inventory method assumes that the value of the gross capital stock in any given year is equal to the accumulated values of the gross fixed investment from prior dates minus the value of the discarded capital. The discards of capital are assumed to be 85 percent of the items listed in U.S. Internal Revenue Service Bulletin F (1942 edition). The re-

Figure 17
Gross Capital Stock in Puerto Rico, 1947-77



tirement pattern of capital was derived from a modified Winfrey S-3 distribution centered on the average life of a given type of capital.¹⁶

The net capital stock was estimated by use of a straight-line depreciation technique. The depreciation thus derived was then deducted from the gross fixed capital stock estimates. Three different valuations of the capital stock were made: Constant cost in 1954 dollars, current or replacement cost, and historic cost. The GDFI implicit price deflator was used to convert the current-dollar investment values to a 1954 constant dollar basis. In making the current cost valuation, the replacement value of the capital in the year being estimated served as the cost measure. Lastly, in making the historic cost valuation, the investment was evaluated in terms of the prices current in the year the investment was made and the quantities then being aggregated. The constant cost valuation appears in table 17 because it is a surrogate for the physical volume of capital.

Between the first and second periods shown in the table, the average gross fixed capital stock increased about 159 percent mainly due to the capital accumulated by the private sector. That sector's share of the total stock increased from 52 percent to 61 percent as yearly averages between the periods. Residential capital stock rose significantly from a yearly average of \$689.9 million between 1947-63 to

\$2,211.8 million between 1964 and 1973 in constant 1954 dollars. The heavy emphasis on residential construction raised the share of total fixed capital allocated to housing from 25 percent to 30 percent. Despite this progress in housing, the share of capital allocated to residential use was still considerably below the U.S. mainland share, which averaged about 48 percent of total economy's capital between 1964 and 1973.

Considering the fact that Puerto Rican investment was seriously depressed between 1973 and 1977, the total gross fixed capital stock was more than 60 percent on a yearly average basis above the average for the 1964-73 decade. The depression of investment between 1973 and 1977 appeared to have little effect on the distribution of Puerto Rican capital which hardly changed from the previous decade. However, when the 1973-77 distribution is compared to the average for the 1947-63 period, some rather significant changes show up. The share of private capital had grown 10 percentage points, for example, while the public enterprise capital share was down 3 percentage points and the government capital share was down 6 percentage points. These long-term compositional changes reflect the drift toward more capital-intensive private enterprise production that occurred as the industrialization of the island progressed.

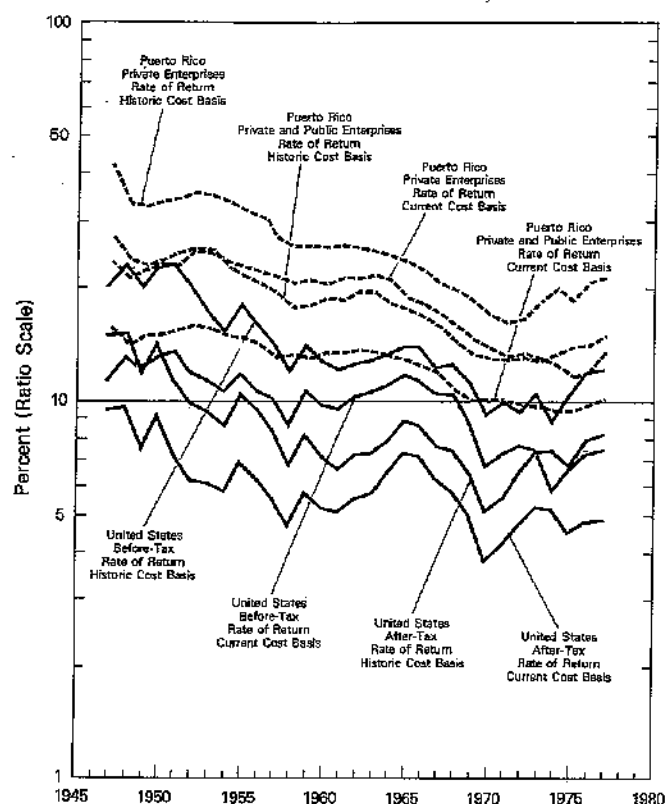
Rate of Return on Puerto Rican Capital

An essential factor in the decision to invest is the profitability anticipated from the investment. Due to changing conditions, the anticipated return on new investment is not necessarily equal to the rate of return on existing capital in an economy. The going rate of return on capital, however, may serve as a helpful guideline to the profitability of additional capital. When examining profitability historically as in the present analysis, all rates of return, of course, are actual rates of return and cannot be taken baldly as predictors of future rates of return. Historic rates of return on capital can, nonetheless, provide some insight into the relative investment conditions that prevailed between economies, industries, or regions, and to that extent, assist in assessing future rates of return. Puerto Rican and U.S. mainland rates of profit are compared in this section with these possible benefits and shortcomings in mind.

The historic rate of return on capital in Puerto Rico is compared to the U.S. mainland in figure 18 and table 18. The average rates of return are shown for the three time intervals previously used in the review of investment and the capital stock development. Rates of return were calculated for both current and historic-cost valuations of the capital stock and on a before- and after-tax basis. The results

¹⁶ This methodology closely parallels that used in deriving the U.S. Department of Commerce capital stock series for the United States.

Figure 18
Rate of Return on Gross Fixed Capital
in Puerto Rico and United States, 1947-77



Source: U.S. Dept. of Commerce; Puerto Rico Planning Board.

directly reflect the significance of the current-cost alternative valuation of the capital stock in determining the rate of return. Due to the inflation of capital goods prices in recent years, the current- (or replacement) cost valuation has been substantially greater than the historic-cost valuation.

As a result of the divergence between the two different valuations, the rate of return based on the current-cost valuation of the capital is considerably lower than the historic-cost rate of return. The period average of the current-cost rate of return also shows a downward trend over all three periods in both

Puerto Rico and the United States while the averages of the historic-cost rate of return decline only between the first two periods, but show virtually no change between the second and third periods, when the inflation accelerated.

The Puerto Rican profit rates were calculated including and excluding public enterprise capital in the base. Since about one-quarter of the Puerto Rican stock of fixed capital belongs to the public enterprises, the inclusion of such capital depresses the rate of return by about half. The public enterprises have operated essentially on the basis of efficiency pricing, a technique which prices output at the average cost of production. With efficiency pricing, the profits of the public enterprises approach zero, or are possibly negative as in recent years. The implicit return on capital, i.e., the real rate of interest, although earned by the public enterprises, is considered a cost of current operation and does not appear as profit. To properly compare Puerto Rican profit rates with those of the mainland, the public enterprise capital must necessarily be excluded from the capital base used in the calculations since no comparable component of capital exists in the mainland economy.

The rates of return in the two economies can be compared in two ways: (1) in terms of their ratio or (2) in terms of the percentage-point differential existing between them. On the basis of the first comparison, the Puerto Rican rate of return on private capital was very nearly two times the before-tax rate of return for corporations on the mainland and about three times the after-tax rate of return. The results of the percentage-point differential comparison of the profitability are presented in table 19. The profit differentials found there range from 2.60 to 22.58 percentage points, depending on which capital valuation is selected. On the current-cost basis, profit differentials have narrowed over the three periods recorded in the table. The narrowing of the differentials reflects disproportionate rates of

Table 18.—Average Annual Rates of Return on Gross Fixed Capital¹, 1947-77

[In percentages]

Period	Puerto Rico		United States ²						Private enterprises
	Private and public enterprises								
	Current-cost valuation	Historic-cost valuation	Current-cost valuation		Historic-cost valuation				
			Before tax	After tax	Before tax	After tax			
1947-63	15.54	22.17	11.37	6.55	17.15	9.94	22.97	32.52	
1964-73	12.20	15.87	9.42	5.57	12.01	7.19	16.91	21.15	
1974-77	9.44	15.42	6.84	4.76	10.99	7.62	13.53	21.54	

¹ Profits used in calculating rates of return include inventory valuation adjustment (IVA) and exclude capital consumption adjustment.

² U.S. rate of return is average rate of return for all corporations.

Sources: U.S. Department of Commerce; Puerto Rico Planning Board.

Table 19.—Differentials Between Puerto Rican and United States Average Annual Rates of Return on Gross Fixed Capital, 1947-77

[In percentages]

Period	Private and public enterprises				Private enterprises			
	Current-cost valuation		Historic-cost valuation		Current-cost valuation		Historic-cost valuation	
	Before tax	After tax	Before tax	After tax	Before tax	After tax	Before tax	After tax
1947-63	4.17	8.99	5.02	12.23	11.60	16.42	15.37	22.58
1964-73	2.78	6.63	3.86	8.68	7.49	11.34	9.14	13.96
1974-77	2.60	4.68	4.43	7.80	6.69	8.77	10.55	13.92

inflation in capital goods and output prices between the two economies, the Puerto Rican rate of return succumbing more than the mainland rate. On the historic-cost basis, the differential remained fairly stable, although the before-tax rates of return showed some increased differential between the 1974-77 and the 1964-73 periods. The stability of the differentials on the historic-cost basis simply reflects the stability of the rates of return when calculated on that basis.

Although the differentials were usually smaller after 1964, the before-tax profit differential on private capital still averaged 6.69 percentage points between 1974 and 1977 on the current-cost valuation basis. The differential was less than a percentage point below the 7.49-point average differential recorded between 1964 and 1973, when the economy was booming. The corresponding after-tax profit differential did narrow more, averaging 8.77 points between 1974 and 1977 compared to 11.34 points between 1964 and 1973. On the historic-cost valuation basis, the before-tax profit differential increased to 10.55 points on the average from 9.14 points between the 1964-73 and the 1974-77 periods. By the same comparison, the after-tax differential remained virtually the same.

Allowing that the data are accurate, the average profit differentials have been sizable. How much of the differential represents greater capital efficiency in Puerto Rico is difficult to assess. The presence of transfer pricing techniques among mainland firms operating in Puerto Rico is one factor that clouds any comparison of the profit rates between the two economies. Significant transfer pricing distortions would tend to exaggerate the island's profits. In addition, the analysis should be expanded to take into account the concentration of profits in certain industries. This concentration would tend to aggravate the comparison between Puerto Rican and U.S. rates of return, particularly in recent years. High productivity, relatively high wages, and distributive effects of this concentration could in part explain the large differential (although decreasing in recent years) between U.S. and Puerto Rico indicated earlier. A decomposition of the rates of return into

their components can provide some understanding as to the sources of the differential in profitability.

Decomposition of the Rates of Return

The aggregate profits of an economy can be expressed as the gross domestic product minus total wages and salaries (i.e., wage bill) minus total payments to property (i.e., interest and rent) minus capital consumption allowances (with their adjustment for capital goods price changes), indirect business taxes and nontax liability plus business transfer payments less subsidies. The capital consumption allowances, taxes, the nontax liability, business transfer payments and subsidies can be lumped together with the interest and rent payments as a residual component, leaving only two cost components. The aggregate profits can then be expressed as:

$$\text{Profits} = \text{GDP} - \text{Labor} - \text{Residual}$$

This expression permits the rate of return on capital to be decomposed into the three right-hand components of the equation once the equation is divided through by the appropriate value of the capital stock. The equation then becomes:

$$\text{Rate of Return} = \frac{\text{GDP/Capital} - \text{Labor/Capital} - \text{Residual/Capital}}{\text{Residual/Capital}}$$

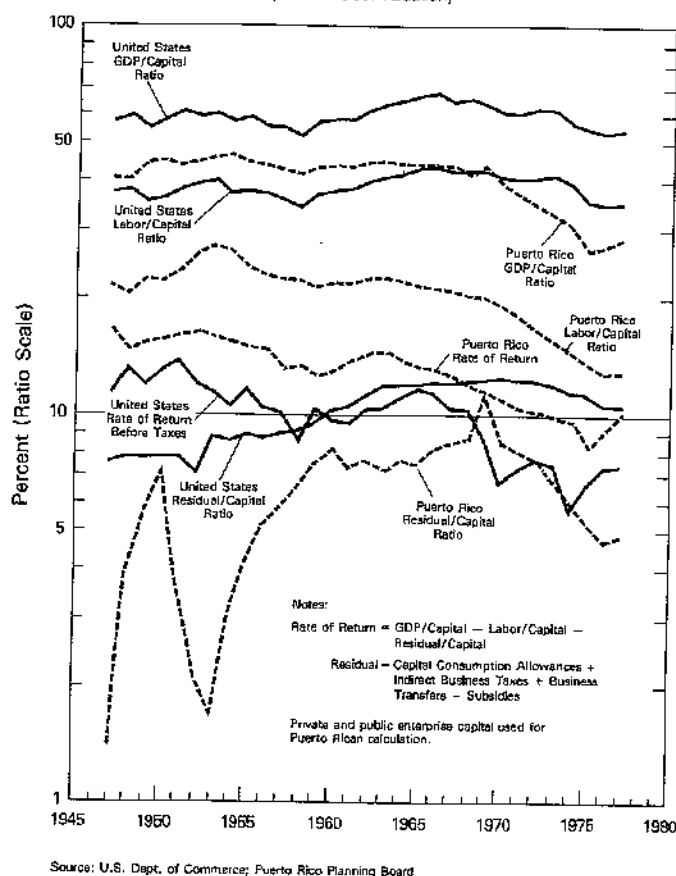
If the capital measure is the gross capital stock, as is the case in the present analysis, the rate of return applies accordingly.

The first component on the right is the reciprocal of the capital/output ratio—capital needed per unit of output—in dollar terms. The second component is the labor/capital ratio in dollar terms. The latter ratio measures the capital-intensity of the production process in value terms. The higher the ratio the more the labor expenditure per dollar of capital used in the production system. Since the interest, rent, and miscellaneous expenditures comprising the residual component are not large and about the same magnitude in the two economies, they are ignored in the present analysis without loss of understanding.

Since the GDP is a critical component in the decomposition of the rate of return, and in Puerto Rico's case the value of the public enterprise product cannot be separated out, the corresponding stock of capital used in the calculation included the public enterprise capital. As mentioned earlier the mainland capital stock is not directly comparable. This affects the decomposition likewise, depressing the output/capital ratio more than the two cost components.

The decomposition of the rates of return in Puerto Rico and the United States is shown in figure 19.

Figure 19
Decomposition of Rate of Return on Gross Fixed Capital
in Puerto Rico and United States, 1947-77
(Current Cost Valuation)



Three significant points can be made from the comparison of the two rates. First, both the GDP/capital ratio and the labor/capital ratio trended downward in Puerto Rico's economy over the three decades of industrialization in contrast to the behavior of these ratios in the mainland economy at the same time. In contrast to the Puerto Rican trends, the two ratios were nearly stable in the U.S. economy.

A second significant finding is that the two ratios in the Puerto Rican economy were considerably smaller than the comparable mainland ratios. The GDP/capital ratio, for instance, was about two-thirds of the U.S. ratio over most of the time, falling to

less, however, in the 1970's. Part of the difference can possibly be explained by the fact that output of the public enterprises is included in the Puerto Rico GDP. Since the public enterprise output is priced at average cost, or approximately so, the product value would tend to be less than if the composition of the product had no component of public enterprise production involved or a smaller one.

Beyond that matter, however, the lower GDP/capital ratio in Puerto Rico, suggests a lower average productivity of the economy's capital. The GDP/capital ratio appearing in the analysis happens to be in value terms, so it is not a measure equivalent to the average physical product of the capital stock. The next section, however, will deal with the capital/output ratio in real terms. That ratio is higher in Puerto Rico for the private and the public enterprises than in the business sector of the United States by the order of magnitude of about 2.5 to 1.6 for a period extending over more than 2 decades of the post-World War II years. The comparison means that the average productivity of capital on the island was about two-thirds that of the mainland, precisely the ratio found in the decomposition in value terms.

The labor/capital ratio in Puerto Rico, according to the decomposition, was about two-thirds of the ratio in the United States from 1947 to the mid-1960's, when the ratio fell to one-half and less of the mainland's ratio. The disparity in the ratio of labor value to capital value indicates a much greater capital-intensity of production in Puerto Rico. The ratio's decline over the years means that a far greater input of capital (with deepening) was made than of labor in the production system. The labor/capital ratio in value terms is a function of both the volumes and unit prices of the inputs. Although the average wage rate in Puerto Rico stayed around 40 percent of the average mainland wage rate, total labor costs rose faster than on the mainland because of the greater rise in employment. Manufacturing employment in Puerto Rico, for example, increased 35 percent between 1965 and 1973, compared to 11 percent on the mainland. This difference would tend to raise the labor/capital ratio in respect to the United States ratio if the value of the capital did not change. Capital prices on the other hand, were probably about the same in the two economies and, consequently, changed at the same rates. In the 8 years between 1965 and 1973, however, the Puerto Rican real stock of capital expanded 102 percent, while corporate capital on the mainland grew 43 percent. Hence, the increase in the use of capital was much greater in Puerto Rico than in the United States, thus depressing the labor/capital ratio in value terms and in real terms over time and in respect to the mainland.

A third most important point is also revealed by

the comparative decomposition of the rates of return. It is that the Puerto Rican labor/capital ratio being roughly half of the similar U.S. ratio and the GDP/capital ratio about two-thirds of the U.S. ratio accounted for the Puerto Rican profit differential vis-a-vis the mainland which was discussed in the previous section. Although the average productivity of the capital was less in Puerto Rico, the lower wage cost and the intensive use of capital netted the higher rate of return. The differential profit margin vis-a-vis the mainland also reflected a substantially different concentration of industries in the Puerto Rican economy as opposed to the mainland.

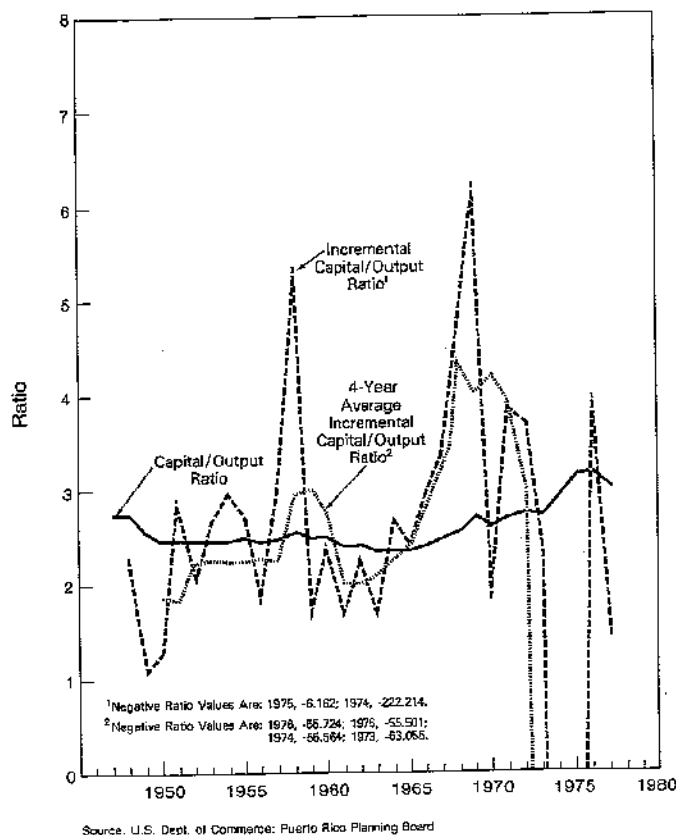
Capital-Output Ratio

The decomposition of the rate of return on capital involved the output/capital ratio in value terms, a ratio which was interpreted as a productivity measure. In capital analysis, the efficiency of capital is usually measured in real terms, however, The analysis focuses on a reciprocal measure of the earlier ratio, the capital/output ratio (COR), which can be represented symbolically as K/GDP . The ratio specifies the amount of capital needed to produce a unit of output. Since the ratio involves physical units, it is the reciprocal of the average physical productivity of capital. When the ratio is formulated in terms of increments of the variables rather than absolute levels, the measure is known as the incremental capital/output ratio (ICOR), which can be expressed as $\Delta K/\Delta GDP$. The ICOR is the reciprocal of the marginal physical productivity of capital.¹⁷

In prevailing capital theory, the addition of units of capital embodying the same technology is thought of as a deepening of capital, a process that implies a declining marginal productivity of the capital. Alternatively, if units of capital having innovative technology associated with them are added to the production system, capital is said to have "widened"; with new technology, the marginal productivity of the capital would increase. Since capital deepening and widening can occur simultaneously, the net effect on the marginal productivity of capital will depend on the relative strength of the two influences. If innovative technology is not sufficiently extensive in the economy, even though it is present, the marginal productivity of capital will still decline as capital is added. Capital deepening thus occurs in the net sense.

The trends occurring in the Puerto Rican COR and ICOR values since 1947 are presented in figure 20 and table 20. The capital stock measure used

Figure 20
Ratios of Gross Capital Stock
to Gross Domestic Product (GDP) 1947-77
(Constant 1954 Dollars)



in the calculations includes the gross fixed capital of all sectors and of all types of capital in the economy. Since the ICOR tends to be very sensitive to short-term swings in output, a moving average of the ratio is frequently used in order to filter out excessively erratic movement. A 4-year moving average has been included in the graphs for this purpose. The moving average, however, did not remove the extreme turbulence in the ratio associated with the recession.

As the data show, the Puerto Rican COR averaged 2.50-2.55 over most of the period of the indus-

Table 20.—Average Capital/Output and Incremental Capital/Output Ratios Puerto Rico, 1947-77¹

Period	Capital/ Output ratio	Average productivity of gross fixed capital	Incremental capital/output ratio	Marginal productivity of gross fixed capital
1947-63	2.50	.400	2.37	.422
1963-73	2.55	.392	3.28	.305
1973-77	3.01	.332	7.96	.126

¹ Excepting the incremental ratio for 1973-77, the average ratios were calculated by averaging the annual ratios for the years in the period indicated. The incremental ratio for 1973-77 was calculated from the respective capital and GDP changes spanning the entire period 1973-77 in order to avoid introducing negative and extremely large yearly changes.

Source: U.S. Department of Commerce.

¹⁷ Since technology and employment have shifted in reality as the COR and ICOR change, the corresponding productivity shifts (whether average or marginal) can be interpreted only as approximations of changes in the productivity concepts taken in their theoretical sense in which technology and labor are assumed to be held fast.

trialization. At the end of the sixties, however, the ratio began to increase and averaged 3.01 in the years of crisis and recovery, 1973-77. Accordingly, the average productivity of capital was nearly stable for almost two and a half decades, but its yearly average in the 1973-77 period was 15.2 percent below its prior average.

The Puerto Rican ICOR gradually increased over the three decades after World War II, with a corresponding downward trend in the marginal productivity of capital. From 1947 to 1963 the ICOR averaged 2.37, but between 1963 and 1973 the ratio was 3.28 on the average. The reciprocal values representing the marginal product were 0.422 and 0.305, respectively, meaning that a decline of about 28 percent occurred between the averages of the periods. In the crisis and recovery years, 1973-77, the ICOR average reached 7.96. The latter measure was derived by taking the changes of capital and output over the span of the entire period in order to avoid the drastic swings due to the recession shifts. The percentage decline of the corresponding marginal productivity was about 59 percent from the 1963-73 average.

The recently recorded ICOR value of 7.96 is probably not fully comparable to the ratios for the earlier periods since the unemployment rate was distinctively higher and the capacity utilization rate lower in the economy in the 1973-77 period than in prior periods. Between 1973 and 1977 Puerto Rican unemployment averaged about 16 percent, compared to 14 percent for the 1947-63 period and 12 percent in the 1963-73 decade. Account should be made of these contrasting conditions between intervals. If the utilization of the capital is less than full, the volume of capital involved in the production process is overstated and the average productivity and marginal productivity measures are consequently understated. Capacity utilization information, however, is not available for Puerto Rico; and unfortunately, the unemployment rate cannot serve as an acceptable proxy. Knowledge of the unemployment conditions can assist, nonetheless, in interpreting the ICOR values for different production periods.

Even if capacity utilization data were available for Puerto Rico, however, a further complication of analysis remains. That is the question of how the rate of capacity utilization interacts with the employment level in its impact on the COR and the ICOR. The augmentation of capital with labor would be expected to increase the average and marginal products of the capital unless the production techniques has fixed capital/labor relationships over various ranges of output. In peculiar circumstances, negative productivity effects may even occur. If fixed input requirements prevail in the production system, the addition of one input to the other would not increase

output unless more of the second factor was also used. The augmentation of capital with labor can serve a dual policy purpose in that more of the unemployed can be put to work while simultaneously helping to boost the rate of return on capital.

ICOR, Investment Share, and the Rate of Growth

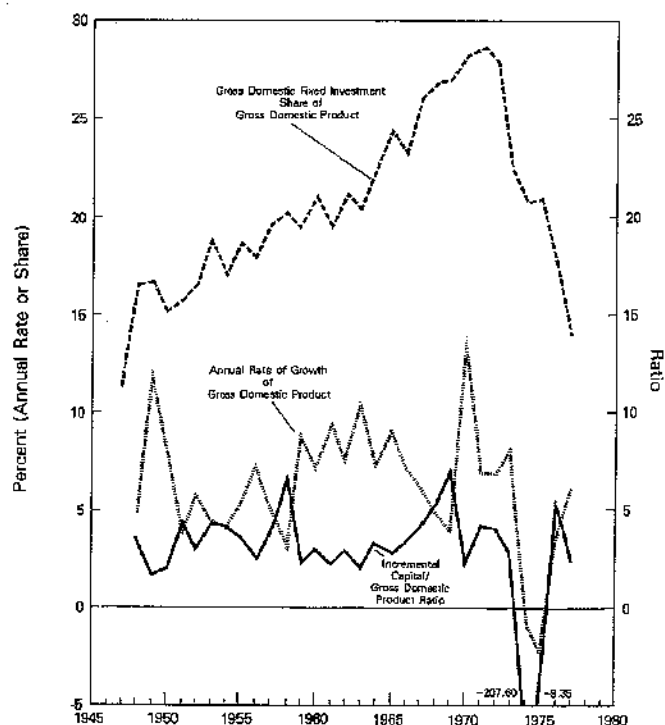
Besides being a measure of capital efficiency, the ICOR is a key variable that connects the investment share of the production to the rate of growth in the economy. The investment share and the rate of real growth are related by the following identity:

$$\text{GDFI/GDP} = \text{ICOR} \times \text{growth rate of GDP.}$$

Each combination of an investment share and a rate of growth of real GDP implies a corresponding value for the ICOR. The ICOR values implied by the investment shares and rates of economic growth in Puerto Rico for each of the post-World War II years are plotted in figure 21. Table 21 presents average values for the three periods of analysis. As the graph shows, except for the years 1974-77, the ICOR is largely a mirror image of the real GDP growth rate.

Since the GDFI does not exactly equal the change in the gross fixed capital stock in any year, due to

Figure 21
Gross Domestic Fixed Investment Share,
Incremental Capital/Output Ratio and Growth of Gross
Domestic Product Puerto Rico, 1948-77
(Constant 1954 Dollars)



Source: U. S. Dept. of Commerce; Puerto Rico Planning Board.

Table 21.—Implicit Incremental Capital/Output Ratio (ICOR) Puerto Rico, 1948-77¹

Period	Average rate of real growth in GDP	Average share of real GDPI/GDP	Average implicit ICOR
	(%)	(%)	Value
1948-62	6.44	18.33	3.28
1963-73	7.67	25.16	3.71
1974-77	1.72	18.32	10.98

¹ With the exception of the average ICOR for the period 1974-77, all tabulated entries are arithmetic averages of yearly values occurring within the designated periods. The average ICOR for 1974-77 was calculated by using the interval average cited in the table for the growth rate of the real gross domestic product and the average investment share. This alternative method was used to avoid averaging in negative ICOR values which resulted in 1974 and 1975.

Source: U.S. Department of Commerce; Puerto Rico Planning Board.

the fact that the discards are not accounted for, an implicit ICOR value derived from the identity introduced will not correspond exactly to the ICOR found by direct calculation from the capital stock increments. The relative changes of the implicit ICOR using the GDPI should tend to approximate the percentage changes of the directly calculated ICOR. Since our interest in the analysis centers on the evidence of capital deepening the behavior of the implicit ICOR is of some assistance.

Table 21 shows that the average of the implicit ICOR values for Puerto Rico for the period 1963-73 was about 13 percent higher than the average for the period; however, 1948-62 the ICOR varied considerably within each of the periods. The ICOR average between 1974 and 1977 was three times the averages of the other two periods shown. The 10.98 value for the very recent period is derived by taking the increments of output and capital occurring across the entire span of years 1974-77. Changes are taken across the span of years and averaged by the years, the value is 8.17, a value very close to the 7.96 calculated directly earlier for the same period.

The average values for the 1948-62 and the 1963-73 periods are larger than those calculated by the direct method; this is to be expected since the discarded capital is not accounted for in the present computation. The directly calculated ICOR values showed an increase of 38 percent in the period average between the 1947-63 and the 1963-73 periods. The result conflicts with the 2-percent rise recorded in the average between the same two periods by the indirect method. The latter result would suggest that capital deepening was trivial between the two periods. The sharp change between the averages of the 1963-73 and 1974-77 periods calculated by the indirect method appears to be more in line with the change observed in the direct calculation. Thus, all three approaches to capital efficiency used in the analysis—

rate of return on capital, the COR and ICOR measures made directly from the capital stock estimates, and the indirect ICOR estimates made via the growth-investment share identity—give the impression of a somewhat declining efficiency over the two- and a half decades after 1947, followed by an exaggerated deterioration of efficiency during the crisis and recovery years.

Future Growth and Investment

The relationship between past GDPI/GDP shares and the rate of real growth of Puerto Rican GDP can serve as a guideline for projecting future performance of the economy. It will be recalled that one of the major issues outlined at the outset of this report was the question whether Puerto Rico could resume real economic growth at rates similar to prior experience under Operation Bootstrap. It was indicated that no apparent barriers to a return to acceptable, although moderated, growth rates seemed on the horizon. However, knowledge of the size of the ICOR can give an impression that future growth rates of GDP would seem within the limits of the investment realities. It is possible that change in technology could bring about significant ICOR changes in the future. Evidence seems to indicate that higher costs of energy have already pressed production mixes towards greater relative labor content in a number of industries, both on the mainland and abroad. Because of various conceivable combinations of this sort, postulating future ICOR values has its risks. However, on the basis of physical trends, capital deepening of some extent that can be interpreted from the previous evidence as having occurred in the past might reasonably be assumed to continue. Secondly, a simple calculation of the GDPI/GDP shares compatible with various combinations of ICOR's and real GDP growth rates can serve to suggest at least the limits of future investment needs. The combinations can also provide the growth potential once the investment effect of the economy in terms of the share of GDP is provided.

Table 22 presents several combinations of investment shares and future growth rates for the Puerto Rican economy. The values shown in the body of the table are gross fixed investment shares that are compatible with the ICOR values and the GDP growth rates appearing in the margins, allowing for a 25-percent augmentation of the shares to account for capital discards which must be deducted from the investment. The values appearing in the table within the confines of the steplike boundary line and the margins of the table are smaller shares than the maximum 28 percent GDPI/GDP share experienced by Puerto Rico in 1970 and 1971. The first two ICOR values in the left-hand column were calculated di-

Table 22.—Investment Shares, Incremental Capital/Output Ratio, and Real Growth Rates for Puerto Rico¹

Incremental capital/output ratio	Annual growth rate of real gross domestic product					
	4.0	5.0	6.0	6.7	7.4	8.0
	Gross fixed domestic investment share of gross domestic product					
2.4	12.0	15.0	18.0	20.1	22.2	24.0
3.3	16.5	20.6	24.8	27.6	30.5	33.0
4.0	20.0	25.0	30.0	33.5	37.0	40.0
4.5	22.5	28.1	33.8	37.7	41.6	45.0

¹ Investment shares include a 25-percent augmentation to account for discards.

Source: U.S. Department of Commerce.

rectly from the capital stock data and represent the averages experienced in the 1947-63 and 1963-73 periods. The latter period's average is 38 percent higher than the former period's average. The values found in the third and fourth columns are the real GDP growth rates actually experienced in the prior periods cited; hence, the share values falling within the described boundaries of the table could be called "historically feasible values."

The highest ICOR value appearing in the table, the value 4.5, was derived by applying to the 3.3 ratio the same 38-percent historical increase that occurred in the ICOR average between the 1947-63 period and the 1963-73 period. This seems like a reasonable limiting increase to assume. It says, in essence, that technological change would proceed in this decade as it had in the previous, with a net deepening of capital of the same degree resulting. In order to have 5-percent real GDP growth per year with an ICOR of 4.5 the investment share would have to be 22.7 percent. Allowing for a 25-percent augmentation for discards, the GDFI/GDP share would be inflated to 28.1 percent.¹⁸ This GDP share equals the maximum historic share since 1947.

According to the combinations of variables tabled, it appears that, if capital deepening were less than 38 percent so that the future ICOR might be projected at 4.0 as a maximum for example—an increase

¹⁸ The annual change in the gross fixed capital stock of Puerto Rico averaged about 80 percent of the GDFI from 1963 to 1973, the 20-percent difference reflecting the proportion of discards. Using this same proportion for the future, the investment share calculated from the identity would have to be increased by 25 percent to convert the share to a GDFI/share.

of only 21 percent, Puerto Ricans could anticipate a real GDP growth of between 5 and 6 percent a year. To attain this combination, the GDFI/GDP share would have to be in the neighborhood of 25 percent, the average experienced in the 1963-73 investment expansion. If the ICOR could remain low at around 3.5, a GDFI/GDP share of 20 percent, which would approximate recent experience, could support a real annual growth rate of GDP in excess of 5.5 percent.

The table can also be used to infer future expectations that seem unreasonable. The table shows, for example, that if the economy were to regain the 7.4-percent average annual real growth rate of the 1963-73 period, the ICOR must be considerably reduced by way of technological change or else an extraordinary investment effort would be required. As another limiting case, if the ICOR were to stay at 3.3—the average between 1963 and 1973—a 30.5-percent investment share would be required. At an ICOR value of 4.0 a GDFI/GNP share of 37.0 percent is needed. The 30.5-percent share might possibly be within Puerto Rico's grasp if high-level economic activity can be resumed with controllable inflation. The 37.0-percent share, on the other hand, would appear to be well beyond any reasonable expectation.

Another measure of the growth potential can be had by assuming that a given GDFI/GDP share—such as the 19 percent averaged in the crisis and recovery period (1973-77)—would continue. Then, in order for real growth to be maintained at the 7.4-percent historic average annual rate of the 1963-73 expansion, the ICOR must be 2.7—a situation implying innovative changes of significance.

Innovative changes, of course, are the ultimate source of real economic growth. With such progress the ICOR can be reduced and the marginal physical productivity of capital raised. It is possible then to support faster growth with smaller investment shares. Production costs are also reduced, thus countering inflation of the kind arising from the cost base. Employment demand is also increased with innovation. All of the results of innovation are desirable. Keeping in mind that the Puerto Rican economy of the near future will operate within a world environment of inflation in which sustained economic growth becomes increasingly more difficult, innovation becomes even more salutary.

Chapter III.—External Trade

INTRODUCTION

Foreign trade has played an important role in the industrial development of Puerto Rico's economy. Puerto Rico has relied heavily on export growth to provide the impetus for growth to the rest of the economy. Imports of raw materials and intermediate products provided necessary inputs for Puerto Rican firms, while through exportation these firms were able to find markets for their final products.

One way to perceive the importance of foreign trade is to compare its relative importance with that of other components of gross product. The figures in table 1 indicate that exports and imports have continually risen much faster than gross national product. Exports during the 1950's were about 35 percent of gross national product, and as industrial development continued through the 1960's exports grew to about 40 percent of gross national product, and in 1977 this ratio reached nearly 57 percent. Merchandise imports, on the other hand, equaled about 50 percent in 1955, and their share of gross national product remained nearly flat through 1970. With the oil crisis of 1973-74 and Puerto Rico's heavy dependence on imported oil, imports skyrocketed to 71 percent of gross product, and their share reached 77 percent in 1977.

The level of the ratios is even more dramatic when one compares them with other trade-oriented countries. In the Netherlands, one of the many trade-oriented countries of Europe, exports equaled about 45 percent of gross national product in 1976, while economies of similar size to Puerto Rico, like the Dominican Republic and the Netherlands Antilles, had ratios of 22 percent and 29 percent, respectively. On the import side, the Netherlands led with a ratio

of 44 percent while the Dominican Republic and the Netherlands Antilles had ratios near 30 percent.

DIRECTIONS OF TRADE

There have been few changes in the direction of Puerto Rico's exports since the early 1950's. United States has remained the major market for all of Puerto Rico's industries. During the 1950's nearly 95 percent of Puerto Rico's exports went to the mainland. This pattern remained virtually unchanged during most of the 1960's. In the last half of the 1960's, however, Puerto Rico started to export more to Caribbean countries, especially the Virgin Islands, and to some European countries.

The total dollar amount exported to the Virgin Islands during the 1960's about equaled the dollar amount exported to all aforementioned countries. Most of these exports were shipped to countries nearby—the Dominican Republic, the Netherlands Antilles, Venezuela, Jamaica, and the French Caribbean Islands. But the European market was also tested in the late 1960's with most of the exports shipped to Great Britain and the Netherlands.

In the 1970's the United States remained the major market, receiving about 85 percent of Puerto Rico's exports (see table 2). The Caribbean countries made up about 8 percent of the export market with the most important countries—the Virgin Islands, the Dominican Republic, and the Netherlands Antilles. Exports to the European market also grew substantially during this time. European countries led by Netherlands, Belgium and Luxembourg, and France purchased about 3 times more goods in 1976 than they did in 1970. The continents of Asia and Africa

Table 1.—Exports, Imports, and Certain Components of Gross National Product

[Percentages of GNP]

	1955	1960	1965	1970	1975	1976	1977
Exports (merchandise)	32.5	37.5	36.0	36.8	44.0	45.0	56.6
Imports (merchandise)	50.7	54.0	54.4	53.5	71.0	72.8	77.3
Gross domestic fixed investment	17.4	21.1	26.0	29.9	26.8	22.8	18.3
Government expenditures	12.3	13.0	13.7	15.3	22.6	21.7	21.6
Consumer purchases of durable commodities	9.1	10.5	11.2	12.8	11.9	13.9	14.9

Source: Puerto Rico Planning Board.

Table 2.—Top 10 Exporters to Puerto Rico in 1976 (Fiscal Years)

					Ratio in Puerto Rico Total Imports	
	1966	1970	1975	1976	1966	1976
	[Millions of dollars]				Percentages	
1. United States	1,356	1,963	3,004	3,389	81.7	62.4
2. Venezuela	96	142	486	535	5.8	9.8
3. Japan	31	74	129	153	1.8	2.8
4. Bahamas	—	—	81	121	—	2.2
5. Libya	—	—	22	97	—	1.8
6. Netherlands Antilles	14	36	123	88	0.8	1.6
7. Iran	—	—	148	80	—	1.5
8. Saudi Arabia	—	—	29	65	—	1.2
9. Algeria	—	—	106	61	—	1.1
10. Spain	10	35	56	58	0.6	1.0

Top 10 Importers from Puerto Rico in 1976

	1966	1970	1975	1976	Ratio in Puerto Rico Total Exports	
					1966	1976
	[Millions of dollars]				Percentages	
1. United States	1,055	1,533	2,652	2,817	91.3	84.2
2. Virgin Islands	52	78	129	117	4.5	3.5
3. Netherlands	7	31	32	86	0.6	2.6
4. Dominican Republic	10	17	55	40	0.8	1.2
5. Venezuela	1	7	24	33	-----	1.0
6. France	-----	1	12	27	-----	0.8
7. Netherland Antilles	2	4	24	24	-----	0.7
8. Belgium and Luxembourg	-----	7	16	20	-----	0.6
9. Trinidad and 10. Tobago	1	1	24	14	-----	0.4

Source: Puerto Rico Planning Board.

only purchased a small share of Puerto Rico's exports. In 1976, they purchased a total of \$32 million with main commodities being chemicals and electrical equipment.

The sources of imports have varied more than the destination of exports since 1950. The United States remains the major exporter to Puerto Rico although its share has dropped about 30 percent since 1950. In 1950, Puerto Rico received 90 percent of its imports from the United States. The other important trading countries were Canada, and Venezuela, from which Puerto Rico received most of its petroleum imports. During the late 1950's and into the mid-1960's oil imports from Venezuela to Puerto Rico grew substantially reflecting the changes taking place in the Puerto Rican economy. Also in the 1960's, many European countries led by Spain and West

Germany, began exporting a great deal more to Puerto Rico.

The last 7 years must be divided into two different periods. From 1970 through 1973, there was hardly any change in the direction of imports. Because Puerto Rico's appetite for oil was growing much faster than its demand for other commodities, oil-exporting nations were taking a larger share of the import market. But the United States still supplied about 75 percent of the island's imports. The second period is from 1974 to the present during which the world was confronted with oil price increases from \$3 to over \$13 per barrel. With Puerto Rico's heavy dependence on oil imports, this price rise dramatically changed the structure of her imports. Oil imports went from \$230 million in 1973 to nearly \$1 billion in 1974 (see table 3).

Table 3.—Puerto Rico's Imports from OPEC Countries

[In millions of dollars]

	Calendar year									
	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Venezuela	108.9	116.7	128.5	143.9	178.4	219.4	191.2	516.1	511.8	556.0
Other	4.1	4.3	6.4	8.4	10.9	26.8	38.7	422.8	406.9	444.0
Total	113.0	121.0	134.9	152.3	189.3	246.2	229.9	938.9	918.7	1,000.0

Source: Puerto Rico Planning Board.

Venezuela remained the major exporter of oil to Puerto Rico but countries like Libya, Iran, Saudi Arabia, and Algeria that did not even appear in Puerto Rico's trade account in the early 1970's became some of the largest exporters to the island during this period. The pattern changed so quickly that the United States, which held nearly 75 percent of the import market in 1973 retained only 59 percent 1 year later. In the first half of fiscal year 1978 the picture remains the same with the mainland share about 60 percent of the import market and the OPEC countries holding 26 percent.

COMPOSITION OF TRADE

The structure of Puerto Rico's exports has changed dramatically during the postwar period, an indication that considerable industrial development has taken place. During the early 1950's sugar alone accounted for over 50 percent of total exports; by 1960 its share had declined to 24 percent, and sugar share in total exports declined continuously until in 1977, it accounted for only 2 percent. Not only did its export share decline; the absolute value of sugar exports also declined, particularly during the late 1960's. The value of sugar exports reached a peak

of \$153 million in 1953 but declined thereafter. In 1977 sugar exports equaled only \$74 million (see table 4). This decline in sugar exports reflects the changes that were taking place within the Puerto Rican economy, and the 700,000-ton drop in sugar production between 1960 and 1970 is an indication of the change.

The shares of other traditional exports also have declined. Apparel maintained a relatively stable share of total exports, averaging mostly between 23 and 28 percent between 1950 and 1977. Since 1973, apparel exports have declined continually to about 11 percent of total exports in 1977. Beverage and tobacco products made up about 8 percent of total exports during the 1950's and rose to an average of about 12 percent during the 1960's. Since 1971, however, their share also has fallen steadily and now stands at only 5 percent of total exports.

Puerto Rico's industrial development is reflected in the rapid growth of manufactured goods during the postwar period. In 1950, manufactured goods (excluding apparel) totaled about 12 percent of exports. By 1960 manufactured goods made up about 30 percent of total exports, and currently these goods make up over 50 percent of total exports. The main industrial products are chemical and related products

Table 4.—By Commodity Category Export Trends (Fiscal Years)

	Export value					Component ratio		
	1966	1970	1975	1976	1977	1966	1970	1977
	Millions of dollars					Percentages		
Food and live animals	196.8	214.2	432.5	411.2	533.9	17.0	12.4	11.9
Fish	60.1	95.1	251.5	230.6	295.1	5.2	5.5	6.6
Sugar	100.0	62.5	73.1	69.4	74.8	8.7	3.6	1.7
Beverages and Tobacco	146.9	151.8	170.9	182.3	213.3	12.7	8.8	4.8
Beverages	18.3	31.5	43.5	52.9	70.8	1.6	1.8	1.6
Tobacco	128.6	120.3	127.4	129.4	142.5	11.1	7.0	3.2
Mineral fuels and lubricant and related materials	89.8	130.8	439.4	345.2	502.5	7.8	7.6	11.2
Petroleum products	85.9	129.5	435.6	342.7	497.1	7.4	7.5	11.0
Chemicals	75.2	233.5	790.4	1,187.2	1,533.2	6.5	13.5	34.2
Chemical elements and compounds	29.8	77.9	356.3	453.6	607.2	2.6	4.5	13.5
Medicinal and pharmaceutical products	30.9	107.9	278.9	361.6	492.7	2.7	6.2	11.0
Manufactured goods classified material	98.9	148.2	247.8	146.4	192.4	8.5	8.6	4.3
Textile products	17.5	54.8	115.9	23.3	47.8	1.5	3.2	1.1
Machinery and transport equipment	110.3	193.9	322.0	287.7	532.0	9.5	11.2	11.5
Machinery (nonelectric)	19.5	29.7	98.9	58.3	106.3	1.7	1.7	2.4
Electric	86.8	155.9	204.5	208.4	384.5	7.5	9.0	8.6
Transport	4.0	8.3	18.6	21.0	40.2	0.3	0.5	0.9
Miscellaneous manufactured articles	389.4	577.7	642.4	667.7	870.9	33.7	33.4	19.4
Clothing	255.8	387.8	349.5	342.6	430.2	22.1	22.4	9.4
Shoes	46.0	69.4	66.0	57.3	70.2	4.0	4.0	1.8
Professional scientific	30.5	51.4	63.9	101.1	159.9	2.6	3.0	3.6

Source: Puerto Rico Planning Board.

and machinery and transport equipment, especially electrical machinery and parts.

Chemical products made up only 2 percent of total exports during the 1950's; by the 1960's chemical exports were growing at an annual rate of 26 percent. Petrochemical, and medicinal and pharmaceutical products made up most of the chemical exports. In the 1970's with a strong worldwide demand for chemicals, these exports went from \$233 million in 1970 to over \$1.5 billion in 1977 and currently make up nearly one-third of Puerto Rico's exports.

Machinery and transport equipment also showed periods of remarkable growth. Between 1947 and 1952 there was very little production of machinery and transport equipment on the island. By 1960, exports of these products totaled about \$50 million. During the late 1960's the production of a wide range of electrical apparatus and telecommunications equipment spearheaded the growth of this category of exports. Today, Puerto Rico exports over \$500 million of machinery and transport equipment with about \$400 million of these exports in the category of electrical equipment.

The import trends also reflect the changes in the Puerto Rican economy as industrialization proceeded. During the early years of the industrial development effort, consumer goods accounted for about 50 percent of total imports, the food component making up one-half of consumer goods (see tables 5 and 6). By 1960, the consumer goods share had fallen to 40 percent and they continued to decline slightly. By 1977, they accounted for about 35 percent of total imports.

Raw materials and intermediate goods totaled 44 percent of imports in 1950 even though gross product of the manufacturing sector was only 15 percent of total production. This share is very high mainly because Puerto Rico has virtually no domestic sup-

plies of oil or other natural resources. Therefore, Puerto Rico must import almost all the necessary inputs for production. These imports were eight times larger in 1970 than in 1950. This increase in raw materials and intermediate goods was the result of more emphasis placed on manufacturing in the later 1950's and 1960's, and is reflected in the growth of manufacturing production to 42 percent of gross product by 1970 when it also generated 43 percent of total net income.

Since 1970 the dollar amount of these imports has nearly tripled in value. The 1973-74 price increase of oil is the major reason for this large increase. Oil imports went from \$338 million in 1973 to \$1.6 billion in 1977. Imports of raw materials and intermediate goods excluding petroleum increased by \$800 million since 1970. In the last few years Puerto Rico has reduced its appetite for oil and is now importing about the same amount of oil as in 1973.

IMPORT PROBLEMS

Puerto Rico is a small island with limited amounts of all productive resources, except labor. Those minerals which are available are quickly being exhausted.

The land is mostly rugged and wooded with few areas fertile enough for agriculture. Internal capital formation is small. In sum, Puerto Rico has had to depend on importing the necessary capital, technology, and raw materials to carry out the transformation from an agricultural to a manufacturing economy.

An important factor in carrying out this transition was the attraction of foreign investment. Puerto Rico had to encourage investors to the island with various tax incentives, offering virtually completely tax-exempt status to almost all businesses that located there.

Table 5.—Economic Classification of Merchandise Imports (Fiscal Years)

	1955	1965	1970	1973	1974	1975	1976	1977
Millions of dollars								
Total	580.3	1,504.3	2,505.5	3,456.1	4,223.8	4,950.7	5,431.8	6,108.1
Consumer goods	272.0	536.2	846.2	1,461.2	1,481.8	1,602.8	1,965.1	2,163.1
Durable	49.5	167.1	267.8	424.9	343.5	352.9	526.0	609.8
Automobiles	14.6	58.9	102.8	213.0	131.3	122.2	230.1	268.0
Other durable goods	34.9	108.2	165.0	211.9	212.2	230.7	295.9	341.8
Nondurable	222.5	369.1	578.4	1,036.3	1,138.4	1,249.9	1,439.1	1,553.3
Food	127.1	200.0	306.8	621.6	712.3	787.3	902.0	984.2
Other nondurable goods	95.4	169.1	226.1	419.3	441.2	482.2	546.7	579.6
Capital goods	53.3	144.0	308.2	314.7	248.8	299.5	325.9	333.1
Raw materials and intermediate goods	255.9	824.1	1,351.0	1,680.2	2,493.2	3,048.3	3,140.8	3,611.9
Percentages								
Consumer goods	46.9	35.6	33.8	42.3	35.1	32.4	36.2	35.4
Durables	8.5	11.1	10.7	12.3	8.1	7.1	9.7	10.0
Nondurables	38.4	24.5	23.1	30.0	27.0	25.3	26.5	25.4
Capital goods	9.2	9.6	12.3	9.1	5.9	6.0	6.0	5.5
Raw materials and intermediate goods	43.9	54.8	53.9	48.6	59.0	61.6	57.8	59.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Puerto Rico Planning Board.

Table 6.—By Commodity Category Import Trends (Fiscal Years)

	Import value (millions of dollars)					Percentages		
	1966	1970	1975	1976	1977	1966	1975	1977
Food and live animals	296.9	412.3	869.2	978.2	1,075.1	17.9	17.8	17.6
Meat and meat products	180.4	122.9	217.7	280.9	293.9	10.8	4.4	4.8
Fruits and vegetables	39.0	56.8	107.8	134.1	133.1	2.3	2.2	2.2
Mineral fuels and lubricants and related materials	122.0	206.2	1,271.2	1,382.0	1,651.8	7.3	26.1	27.1
Petroleum products	108.6	203.4	1,270.2	1,380.9	1,649.7	6.5	26.0	27.0
Chemicals	102.5	151.1	363.8	425.5	549.4	6.2	7.4	9.0
Organic	8.3	11.4	95.8	104.3	146.3	0.5	1.9	2.4
Medicinal and pharmaceutical products	23.0	28.4	93.7	87.2	118.9	1.4	1.9	1.9
Manufactured goods classified by material	423.1	649.9	966.4	987.9	1,012.0	25.5	19.8	16.6
Paper products	42.3	67.9	166.7	177.8	186.0	2.5	3.4	3.0
Textile fabrics	160.7	214.6	231.5	282.1	288.2	9.7	4.7	4.7
Iron and steel and other metals	105.9	194.1	301.1	249.6	279.7	6.4	6.2	4.6
Machinery and transport equipment	336.0	613.0	684.3	858.5	918.9	20.2	14.0	15.1
Machinery (nonelectric)	115.7	261.5	240.5	247.4	229.4	7.0	4.9	3.8
Electrical	86.8	146.5	229.8	274.0	290.0	5.2	4.7	4.8
Transport	133.4	205.0	213.8	337.0	399.5	8.0	4.4	6.5
Miscellaneous manufactured articles	234.2	295.8	435.8	487.7	514.3	14.1	8.9	8.4
Clothing	76.5	85.0	87.0	91.0	103.8	4.6	1.8	1.7
Shoes	24.7	43.5	50.7	71.0	64.3	1.5	1.0	1.0
Professional, scientific and controlling instruments	31.4	44.1	54.5	63.7	62.8	1.9	1.1	1.0

Source: Puerto Rico Planning Board.

When the industrialization process was in full gear, foreign direct investment played a major role, making up about one-third of the gross fixed investment on the island (see table 7). A large part of the funds come from the mainland, when many U.S. firms found it attractive to locate in Puerto Rico, avoiding the high tax rates on the mainland and still having duty-free access to the U.S. market. Prior to the recession of 1974-75, foreign investment continued to flow at an increasing rate, and in 1972 its share of gross fixed investment was about 48 percent. In 1973 and 1974, however, capital investment fell sharply reflecting the recession in the United States. With the United States emerging from the recession by early 1975, Puerto Rico experienced a heavy inflow of capital in fiscal year 1976. The close integration of the Puerto Rican economy with that of the mainland is reflected by these movements of capital flows. Shifts in U.S. economic activity usually are transmitted quickly to the island, in this case, by a slackening off of direct investment.

Another area in which Puerto Rico is heavily dependent on imports is energy. Puerto Rico is nearly entirely dependent on petroleum with virtually no resources to satisfy its own internal needs. Prior to the 1973 oil embargo, Puerto Rico imported large amounts of petroleum from nearby sources at a very low cost—about \$2 per barrel in the early 1970's.

Table 7.—Foreign Direct Investment in Puerto Rico

Fiscal years	Foreign direct investment (millions of dollars)	Foreign direct investment/gross fixed domestic investment (percentage)
1947	10.0	16.2
1948	0.5	.5
1949	7.0	6.0
1950	11.2	10.1
1951	20.9	16.7
1952	17.3	11.5
1953	19.2	12.1
1954	30.1	17.4
1955	41.9	20.7
1956	57.1	26.3
1957	59.5	22.9
1958	101.4	36.0
1959	59.1	19.5
1960	74.9	21.1
1961	95.4	25.3
1962	170.0	38.0
1963	169.6	34.9
1964	176.3	30.2
1965	192.4	26.7
1966	225.0	30.2
1967	312.4	34.6
1968	283.5	29.4
1969	369.5	33.7
1970	407.0	29.0
1971	680.2	42.7
1972	836.8	47.5
1973	540.7	33.7
1974	437.9	26.1
1975	542.8	28.4
1976	1,178.0	69.5

¹ Preliminary.

Source: Puerto Rico Planning Board.

This abundant supply of cheap oil induced the development of industries such as petroleum refineries and petrochemical products.

The pricing policies of the OPEC nations over the past few years have had dramatic consequences on these and other industries. Some 155 plants have closed down between 1973 and 1975, and many firms that have stayed in operation have had their profit margins squeezed since they were able to pass on only part of the higher energy costs into prices. The Commonwealth Oil Refining Company, Puerto Rico's largest private business, has recently filed for protection under chapter 11 of the Federal bankruptcy law.

Puerto Rico currently imports over 100 million barrels of oil a year, but 40 percent of this energy is reexported after refining. Oil imports have slowed considerably since the oil embargo of 1973, but their dollar cost has skyrocketed. Oil imports in 1973 cost nearly \$400 million, but in the following year Puerto Rico's oil bill went to more than \$1 billion. This large diversion of income has had a negative influence on the economy over the past few years.

The data for 1977, indicate that real growth of gross national product was up substantially and the level of employment in manufacturing is approaching its peak level of 1974. If future price hikes by OPEC countries are modest, further disruptions from energy costs will be avoided. As long as Puerto Rico remains dependent on foreign oil, however, the stability of its economy will depend significantly on the pricing policies of the oil-supplying nations.

Imported consumer goods account for a considerable portion of total consumption (see table 8). In the early 1950's when Puerto Rico was an agricultural economy, imports of consumer goods made up about 37 percent of all goods consumed on the island. As the industrialization process got under way, imports of consumer goods varied only slightly in relation to total consumption. At present, after almost three decades of emphasis on the manufacturing sector, dependency on imported consumer goods remains. Consumer goods imports make up nearly 40 percent of the durable and nondurable commodities purchased on the island.

Nondurable goods imports, which make up about 75 percent of all consumer goods imported, have changed very slightly since 1950. The agricultural sector has been unable to meet domestic food demands. Puerto Rico imported nearly 40 percent of its food even when the economy was a traditional agricultural economy. Local farmers have been unable to compete with foreign suppliers to a large extent.

The trend in durable goods imports reflects the fact that manufacturing production has been oriented toward the export market rather than toward domestic consumption. In 1950, roughly 40 percent of all durable goods consumed came from foreign sources. In 1977, slightly more than half of the total dollar amount spent on durable goods went to foreign suppliers. Automobiles are imported exclusively. Prior to 1975, payments to foreign suppliers of automobiles comprised 60 percent of total expenditures on automobiles. The other 40 percent went to local dealerships in the form of markups and excise taxes paid on automobiles. In 1976, automobile imports equaled almost 80 percent of total purchases. The large rise from 1975 to 1976 can be partly ascribed to the large increase in motor vehicle inventories that took place at the retail and wholesale level—a total of about \$80 million. The change in the excise tax on imported automobiles enacted on August 1, 1975 (for FY 1976) also contributed to the large rise in imports relative to total purchases.

Some estimates were calculated of the income elasticity of demand for the imports in Puerto Rico (see table 9). Total imports and those of certain types of commodities were regressed against real Puerto Rican disposable income, and a price variable (the ratio of domestic prices versus import prices).

The elasticity of total imports with respect to real disposable income was estimated to be 1.14 (i.e., a 1-percent increase in real Puerto Rican disposable income results in a rise of more than 1 percent in real total imports). This elasticity reflects the fact that imports are very important to the Puerto Rican economy. Also this relationship tells government officials that tax measures to increase income or business activity will have limited multiplier effects be-

Table 8.—Shares of Imports Within Major Categories of Consumer Goods

	[In percentages]							
	1950	1955	1960	1965	1970	1975	1976	1977
Consumer goods:								
Total	36.7	39.4	37.4	36.0	36.0	37.4	39.1	39.0
Durables	41.1	47.7	45.0	53.9	44.4	41.3	50.7	51.7
Automobiles	52.3	60.1	66.3	62.9	56.8	58.7	79.7	74.8
Electric appliances	41.0	63.9	57.1	67.6	66.6	54.3	52.6	59.8
Nondurables	36.1	38.0	35.7	31.3	30.1	36.4	36.0	35.5
Food	37.4	39.5	37.0	34.0	35.9	47.4	45.0	45.5
Alcoholic beverages and tobacco products	17.8	13.8	11.6	12.3	13.9	14.7	14.9	16.4

Source: Puerto Rico Planning Board.

Table 9.—Regressions of Puerto Rican Imports on Disposable Income and Relative Prices, 1950-77

[In 1954 dollars]

Elasticity of—	With respect to—	Constant term	Elasticity	R-Squared	Durbin Watson
Puerto Rican imports	Puerto Rican disposable income	-6.08	1.14	.994	1.84
	Price (Puerto Rican deflator for PCE ² /Puerto Rican deflator for imports)	¹ (-31.35)	¹ (44.07) 0.63 ¹ (3.92)		
Puerto Rican imports of food	Puerto Rican disposable income	-7.56	1.12	.969	1.83
	Price (Puerto Rican deflator for food/U.S. deflator for food ³)	¹ (-3.86)	¹ (4.53) -0.60 ¹ (-1.53)		
Puerto Rican imports of nondurable goods	Puerto Rican disposable income	-5.37	0.94	.985	1.93
	Price (Puerto Rican deflator for nondurable goods/U.S. deflator for nondurable goods ³)	¹ (-6.44)	¹ (8.61) -0.04 ¹ (-.25)		
Puerto Rican imports of durable goods	Puerto Rican disposable income	-11.41	1.63	.976	1.96
	Price (Puerto Rican deflator for durable goods/U.S. deflator for durable goods ³)	¹ (-17.84)	¹ (15.50) -1.01 ¹ (-0.72)		

¹ t-Statistic.

² Puerto Rican Deflator for Personal Consumption Expenditures.

³ 1972 base.

Source: Puerto Rican Income and Product Accounts and U.S. National Income Accounts.

cause of the large "leakage" through the import sector.

The high income elasticity for durable goods imports may be in part explained by the fact that durable goods make up a rising share of GNP at income levels prevailing in Puerto Rico, and there are few durable goods of high quality produced on the island. Local residents prefer to purchase a brand name product produced on the mainland over a similar locally made product because the former has the better reputation for quality and durability.

Unless local production improves or international firms locate factories in Puerto Rico, durable goods imports will continue to be preferred.

The elasticity for food and nondurable imports were estimated to be 1.12 and .94. These income elasticities are high and are contrary to the fact that people spend declining proportions of their incomes on essential items as incomes rise.

Given the reliance of the Puerto Rican economy on the outside world, these elasticities do not appear to be unrealistic. As shown earlier, foreign imports have become an increasing share of gross national product. Certainly, a large part of the rise is due to the higher dollar value for oil imports, but nonoil imports make up a higher percentage of gross product than it did 30 years ago. The 1.12 income elasticity for food imports is contrary to the fact that people usually will spend less of their income on food items as their income grows. But, as shown in this section the agricultural sector has been unable to meet domestic food demand (the share of food imports to total expenditures for food has risen from 37.4 percent in 1950 to 45.5 percent in 1977). Also, as incomes increased over the past 30 years, the consum-

ers' food basket has probably changed to include more luxury food items, a large part of which must be imported. Furthermore, growth in the tourist industry would also contribute to a high dependency on foreign food products, since this industry most likely serves a high proportion of the luxury food items consumed on the island. In sum, the income elasticities estimated are supported by other data.

Table 10.—Puerto Rico's Exports to the United States

Fiscal year	Merchandise exports (millions)	Merchandise exports to United States (percentage)	Exports of manufactured goods to United States (millions)
1950	\$ 242.5	96.8	\$ 70.9
1951	278.9	97.2	81.5
1952	270.3	98.2	101.1
1953	333.0	95.0	135.3
1954	362.4	93.4	141.4
1955	372.4	95.9	178.5
1956	432.2	93.6	222.8
1957	472.2	91.2	260.9
1958	487.0	90.8	274.4
1959	530.1	93.4	348.2
1960	629.2	94.4	366.6
1961	692.5	95.5	435.0
1962	769.6	94.2	471.3
1963	865.3	92.7	476.8
1964	938.7	92.1	512.4
1965	996.6	91.4	538.3
1966	1,172.9	90.0	647.2
1967	1,346.9	87.1	745.2
1968	1,479.5	84.9	884.3
1969	1,638.7	85.2	939.6
1970	1,729.3	88.7	1,011.5
1971	1,796.8	88.3	1,061.8
1972	1,974.3	88.3	1,137.3
1973	2,465.7	88.5	1,468.7
1974	3,338.7	85.1	1,852.6
1975	3,138.4	84.6	1,654.7
1976	3,346.2	84.2	1,886.5
1977	4,479.2	86.2	2,642.5

Source: U.S. Trade with Puerto Rico and Possessions, Department of Commerce.

EXPORT PROBLEMS

The Puerto Rican industrial development has been primarily based on the export market. Capital and technology from the United States and petroleum from Venezuela facilitated the process. This combination of resources made it possible for Puerto Rico to develop several industries on a large enough scale to generate substantial employment opportunities, raise its standard of living, and complete the transformation to a manufacturing economy.

Development of the Puerto Rican economy along these lines has led to a very high dependency on trade oriented toward the United States and has made

it subject to the influence of fluctuations in the mainland economy. This dependency can be seen in the high percentage of exports shipped to the United States (see table 10, p. 107). In the early stages of development, production was totally oriented toward the United States. As the industrial development has proceeded, there has been some diversification in the direction of exports. Currently, Puerto Rico exports about 86 percent of its goods to the mainland.

This close relationship between the mainland and the island has enabled Puerto Rico to enjoy faster rates of growth than it could have achieved on its own. At present, Puerto Rico faces great difficulties in trying to maintain an adequate rate of growth

Table 11.—Relative Shares of United States Import Market of Certain Commodities

	[In percentages]											
	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Textiles												
Mexico	2.4	3.4	3.0	1.9	1.7	2.3	1.6	2.1	3.3	4.8	4.7	3.5
Great Britain	7.5	6.2	5.9	5.5	4.9	6.0	6.7	6.0	5.9	1.1	4.5	4.7
West Germany	2.2	2.9	3.5	4.3	5.2	11.1	12.7	9.5	7.1	4.9	5.0	4.1
Bangladesh	—	—	—	—	—	—	—	2.2	3.9	3.4	3.7	3.6
Hong Kong	3.0	3.9	4.6	3.9	4.1	3.7	3.2	4.2	5.1	6.2	4.9	5.5
Italy	6.3	5.0	5.3	7.0	5.8	6.3	4.4	4.8	5.6	4.2	4.9	3.5
India	22.5	19.3	20.3	16.8	18.3	11.5	11.1	13.3	10.7	11.9	9.6	9.9
Japan	26.3	26.0	25.3	26.6	26.5	25.3	25.3	21.5	17.2	15.4	21.8	20.9
Taiwan	.9	.9	.9	.9	.9	1.0	1.3	1.3	1.4	1.9	3.0	3.6
Puerto Rico	3.9	3.8	3.8	4.9	5.1	4.7	4.3	7.0	10.1	9.6	2.1	1.4
Clothing												
Hong Kong	14.9	14.5	15.5	16.5	16.6	16.6	18.2	17.9	17.0	17.8	20.6	22.5
Italy	13.1	11.9	10.9	10.5	8.7	6.7	5.1	4.6	4.6	4.0	3.5	3.3
Korea	1.4	1.6	3.0	5.1	6.4	7.2	9.7	10.5	9.6	10.6	13.4	16.6
Taiwan	1.5	1.7	2.7	4.1	6.0	9.0	13.9	14.0	14.3	15.5	15.2	15.5
Japan	17.8	19.3	17.0	15.7	17.4	16.9	15.0	13.4	9.7	6.7	5.3	5.3
Puerto Rico	30.1	30.1	31.1	29.4	24.4	22.6	16.9	16.1	14.9	13.5	11.0	9.3
Shoes												
Brazil	4.8	4.5	3.7	4.1	4.1	2.8	2.9	4.3	7.2	7.6	9.0	7.8
Italy	27.2	31.5	31.9	38.6	38.4	38.1	35.3	34.9	31.8	26.9	24.8	19.1
Korea	1.8	2.0	2.1	2.4	1.3	1.1	3.3	4.5	5.3	8.8	9.5	15.9
Taiwan	0.7	1.6	2.3	3.8	4.2	5.7	8.1	10.1	12.5	14.1	15.2	20.3
Spain	3.3	4.3	7.1	11.6	14.3	11.2	15.5	17.9	16.8	16.2	17.0	19.1
Puerto Rico	20.0	19.9	19.0	17.5	13.2	10.3	7.1	6.0	5.9	5.4	4.0	3.7
Chemicals												
Canada	26.4	24.8	25.2	23.2	22.6	22.1	21.3	18.3	18.9	16.5	17.6	20.0
Great Britain	6.3	7.1	6.9	6.6	6.5	6.7	7.0	7.4	6.8	6.2	7.1	8.3
France	6.5	5.9	5.5	5.3	4.7	5.2	4.8	5.2	6.0	6.3	5.7	7.2
West Germany	10.6	12.1	11.8	13.5	12.8	11.6	12.9	12.7	12.2	11.1	9.6	9.6
Japan	5.3	6.8	6.4	7.3	8.8	10.7	10.5	10.4	8.2	10.6	8.8	7.1
Puerto Rico	6.7	7.6	10.1	9.4	10.1	11.4	13.4	16.0	16.7	13.4	17.8	18.5
Medicinal and pharmaceutical												
Great Britain	9.0	6.4	6.2	6.1	5.0	5.7	4.3	6.1	5.4	7.9	6.2	6.3
West Germany	8.5	8.1	4.7	4.8	5.0	4.3	4.7	4.9	5.7	8.9	6.9	6.8
Italy	2.5	2.5	3.7	3.2	2.2	2.7	2.6	2.9	2.4	2.8	5.9	4.8
Japan	0.4	3.6	2.8	2.9	2.8	2.6	3.2	2.8	3.2	6.2	4.5	4.5
Puerto Rico	30.5	38.5	45.8	47.2	48.4	55.6	58.2	60.4	62.4	48.3	54.6	54.8
Electrical machinery and equipment												
Mexico	—	0.5	0.8	2.3	3.5	4.4	5.4	6.9	8.3	10.9	11.2	9.3
West Germany	6.8	6.2	6.2	5.7	4.8	4.9	5.3	5.2	5.6	5.5	5.9	4.4
Singapore	—	—	—	—	0.4	1.4	2.6	4.1	5.6	5.5	5.1	4.6
Hong Kong	4.5	6.0	5.8	5.7	6.2	5.9	5.3	6.0	6.0	6.3	5.2	5.0
Taiwan	0.6	1.2	2.2	3.6	4.5	5.3	6.7	9.4	11.0	10.7	8.1	8.6
Japan	45.6	43.6	42.2	42.0	43.0	40.8	41.6	39.0	33.2	28.9	30.0	38.7
Puerto Rico	9.3	7.9	7.1	6.6	6.2	5.6	6.0	5.2	4.9	3.2	3.1	3.2

Source: U.S. General Imports-World Area by Commodity Groupings (FT 155); Puerto Rico Planning Board.

since some major export industries are experiencing deterioration in their competitive positions. Higher oil prices, increases in the minimum wage, and higher fringe benefits have diminished the comparative advantage that some Puerto Rican industries previously held.

Table 11 shows Puerto Rico's share of certain United States import markets and also those of other foreign countries that dominate those markets. In cases where Puerto Rico has lost ground, countries with very low wages have been the beneficiaries.

Textile exports have fallen from a high of \$170 million and 10 percent of the U.S. import market in 1973 to only \$48 million and a little over 1 percent of the import market in 1977. The factors causing this shift are the higher energy costs and the recent rise in average hourly compensation stemming mostly from increases in the minimum wage. Wages in Puerto Rican textile industries are well above those in countries which are Puerto Rico's main competitors (see table 12).

Table 12.—Average Hourly Earnings in Textile Industries

[In U.S. dollars for 1976]

Taiwan	\$.42	Japan	\$2.06
Korea	.44	Italy	2.14
Hong Kong	.78	Puerto Rico	2.36
Mexico	1.29		

Source: U.S. Department of Labor

Between 1950 and 1970, clothing and shoe exports made up one-fourth to one-third of total Puerto Rican exports. Apparel was one of the major items exported during the 1950's and 1960's. Rising wages and stiff competition from countries in East Asia have plagued these industries. In 1965, Puerto Rican clothing exports were 30 percent of United States clothing imports. In 1977, this share had fallen below 10 percent. Puerto Rico has lost its comparative advantage mainly to Korea and Taiwan, where average hourly wages are about one-fifth of Puerto Rico's. Shoe exports reflect the same picture.

Puerto Rico chemical exports, primarily medicinal and pharmaceutical products, have increased their share of the United States import market. Puerto Rico's medicinal and pharmaceutical products dominate U.S. imports of such items. Their share had risen as high as 62 percent in 1973, and currently these exports comprise 55 percent of U.S. imports. The major reasons for which Puerto Rico's medicinal and pharmaceutical exports have been able to maintain their share are:

- (1) Petroleum is not a major input so the high oil prices have had little impact;
- (2) this industry is capital intensive—labor inputs are a small percentage of total cost; thus the recent

increases in the minimum wage have not affected this industry seriously;

- (3) the major producers of these goods, besides Puerto Rico, are U.S. plants where the total cost of production is higher.

If Puerto Rico continues to receive duty-free access to the mainland market, medicinal and pharmaceutical exports should be able to maintain their share.

The production of electrical machinery and equipment has become a major part of the manufacturing process in Puerto Rico. This sector currently generates 6 percent of the gross product and employs about 13,000 people. Exports of electrical equipment have faced strong competition from foreign producers supplying the U.S. market even though they rose from \$84 million in 1965 to over \$380 million in 1977. These exports comprised almost 10 percent of the U.S. imports in 1965, but their share has declined since then to a level of only 3 percent in 1977.

A major factor causing this share decline has been the cost of labor. Between 1966 and 1977, average hourly earnings in electrical equipment industries in Puerto Rico rose by 7 percent annually from \$1.47 to \$3.18. Mexico, Singapore, Hong Kong, and Taiwan, which have increased their share of the U.S. market for electrical equipment at the expense of the island's equipment industry have average hourly earnings well below the level in Puerto Rico. Other factors also have contributed to the decline in their share of the market such as petroleum prices and transportation costs.

In general, export growth has been tied to the economic activity of the mainland. Between 1950 and 1977, Puerto Rican real exports increased at an annual average rate of 7 percent. In only seven of those years has export growth been substantially below that level. Those years were:

Table 13.—Annual Growth Rate of Puerto Rican Exports, Selected Years

Fiscal year	Percentage change
1952	-7.3
1955	3.6
1958	2.1
1965	2.9
1970	2.1
1975	-18.4
1976	0.4

Source: Puerto Rico Planning Board.

Five of these below average growth rates occurred when the United States experienced a recession, 1954, 1958, 1970, and 1975. The similar patterns of growth indicate a close relationship between Puerto Rican exports and the United States economy.

Another way to gauge the relationship between Puerto Rican exports and U.S. GNP is to measure

Table 14.—Elasticities of Puerto Rican Exports, 1950-77

Elasticity of—	With respect to—	Constant term	Elasticity	R-Squared	Durbin-Watson
Puerto Rican exports (1972\$) —		—10.52 ¹(—40.07)		.990	1.55
	U.S. gross national product (1972\$) —		1.97 ¹(50.35)		
	Price ratio (P.R. implicit deflator for exports 1972 base) — (U.S. implicit deflator for GNP 1972 base) —		—0.71 ¹(—3.61)		

¹ t-statistic.

the income elasticity of U.S. imports from Puerto Rico.

Since the 1960's the growth in Puerto Rican merchandise exports to the United States stems mainly from three commodity groups: pharmaceuticals (drugs), electrical equipment, and professional and scientific equipment. Many of the pharmaceutical preparations and some of the professional and scientific equipment (mainly watches and clocks) are income elastic. Thus, we believe that an income elasticity of 2.0 for Puerto Rican exports to the United States is consistent with the export data.

The high elasticity is one indication that Puerto Rican exports, and the island's economy as a whole, is subjected to strong influence from cyclical fluctuations of the mainland's economy. The Puerto Rican economy is extremely dependent on the U.S. economy for capital and for markets. The effects of changes in economic activity on the mainland are quickly transmitted to Puerto Rico, mainly through a rise or fall in exports, which then influences the fortunes of other sectors of the Puerto Rican economy.

The marginal propensity of Americans to consume Puerto Rican exports in 1972 dollar terms was estimated to be 0.04. Thus, a change of \$1 billion in U.S. GNP brings about a \$40 million change in Puerto Rican exports. Relating this change to the output and employment multipliers estimated by the Puerto Rican Planning Board for a change in exports, an increase of \$40 million in exports would bring about a \$73.0 million rise in the island's gross product and create 4,700 new jobs.

As long as Puerto Rican exports are directed primarily to the United States, future growth prospects depend mainly on the mainland economy. If trading countries continue to lower their tariffs Puerto Rican exports may become price competitive in new foreign markets. Greater diversification of exports would help to cushion Puerto Rico's economy against the fluctuations on the mainland. At present, however, Puerto Rico's export growth depends entirely on the maintenance of the economic recovery in the United States. (See table 15.)

Table 15.—Regressions of Puerto Rican Exports on U.S. GNP and Relative Prices, 1950-77

Dependent variable	Independent variable	Constant term	Coefficient	R-Squared	Durbin-Watson
Puerto Rican exports (nominal dollars) —		—2,598.97 ¹(—4.88)		.991	1.86
	U.S. GNP (nominal dollars) —		0.00328 ¹(46.02)		
	Price ratio (Puerto Rican deflator for exports 1972 base) — (U.S. GNP deflator 1972 base) —		1,785.550 ¹(3.33)		
Puerto Rican exports (1972\$) —		—8.67 ¹(—1.70)		.983	1.73
	U.S. GNP (1972\$) —		0.03885 ¹(25.85)		
	Price ratio (Puerto Rican deflator for exports 1972 base) — (U.S. GNP deflator 1972 base) —		—7.207 ¹(—1.40)		

¹ t-statistic.

Chapter IV.—Land, Mineral, and Water Resources

Nature's endowment of resources and the development of their productive potential largely influence the overall potential for productivity and growth in an economy. Recognizing this point the chapter that follows is devoted to a comprehensive assessment of the land, mineral, and water resources of Puerto Rico and weighs their availabilities against their projected future demands.

Mainly because of mountainous terrain, the land area in Puerto Rico that is suitable for agriculture and for residential, commercial, and industrial development is very limited and concentrated along the coastline. The Puerto Rican population, consequently, which even on an islandwide basis is very dense, is particularly dense in an area such as San Juan. Under the pressures of population and general economic growth land values have risen decisively in recent years and are expected to continue the trend. The chapter describes and analyzes these trends in respect to various types of land.

The discussion of Puerto Rico's mineral resources in the chapter points out that the island's availabilities consist of apparently ample supplies of construction-type minerals—stone, cement, lime, clays, sand, and gravel—rather than metallic deposits. There are only modest amounts of metallic deposits and these have very limited possibilities for commercialization. The most plentiful of the metallic mineral deposits are found in the form of copper. However, negotiations between the Puerto Rican Government and two mining companies concerning possible exploitation of the major deposits, carried on over several years, has been unsuccessful, due to disagreements over the matter of revenue sharing. With regard to petroleum and gas, very limited onshore testing has shown no traces. The possibility that onshore and/or offshore deposits exist is still subject to verification. A general metallogenic map of Puerto Rico appears as an annex to this chapter.

One of the contributions of the third section of the chapter is a water budget analysis for Puerto Rico and its surrounding islands. Water sources for the economy are examined from the viewpoint of

quality as well as quantity. The analysis is also broken down by provinces. The discussion further enumerates and comments on the various problems that Puerto Rico faces in its water development programs which presently are guided by the Water Law of Puerto Rico (Public Law 136), passed in June 1976.

LAND

Introduction

The discussion in this section relates to the allocation of land in Puerto Rico. The section:

- Analyzes the trends in land use and land values and rental rates;
- Describes the structure of land markets and methods of land finance and transaction controls, as well as the size distribution of landholdings; and
- Assesses the distribution of land use and attempts to identify the issues arising from deviations between the directions of trends and policy goals.

Historical Distribution of Land Use and Problems

Topography, Population Density, and Productivity.—Puerto Rico is a rectangular shaped island about 35 miles wide and 100 miles long. The island has an area about two-thirds the size of Connecticut. Approximately 3.2 million people reside in the area, meaning a density of nearly 1,000 persons per square mile, which is about equivalent to that of New Jersey or Rhode Island. Puerto Rico's population is largely concentrated on the coastal flatlands, where four-fifths of the population lives. One-third of the total population is centered in the San Juan metropolitan area.

Nearly 75 percent of the island is noncultivable, mainly because of steep hillsides and mountainous terrain. One million acres are probably best suited for grazing, forests, or wildlife. The soil of Puerto

Table 1.—Soil Survey Inventory

Land resource description	Total acres	Percentage of Puerto Rico	Erosion hazard (acres)	Excess water (acres)	Unfavorable soil conditions (acres)	Climatic limitation (acres)
Class 1—Suitable to all crops and uses. Few limitations, can be cropped intensively	50,000	2.3				
Class 2—Suitable to most crops. Requires careful management	162,000	7.4	50,000	51,000	61,000	
Class 3—Limited choice of crops. Requires special conservation practice	217,000	9.9	135,000	26,000	43,000	3,000
Subtotal classes 1-3	429,000	19.6	185,000	87,000	104,000	3,000
Class 4—Severe crop limitations. Not suited to clean cultivation. Tendency to low yields	157,000	7.2	119,000	12,000	23,000	4,000
Subtotal classes 1-4	586,000	26.8	304,000	99,000	127,000	7,000
Class 6—Unsuited to cultivation. Use for pasture, range, forest, or wildlife	362,000	6.6	284,000	2,000	76,000	
Class 7—Unsuited to cultivation. Use for grazing, forest, or wildlife	1,089,000	49.9	594,000	7,000	488,000	
Class 8—Unsuited to any agriculture. Use for recreation, wildlife, water supply or esthetic purposes	147,000	6.7	—	35,000	112,000	
Subtotal classes 6-8	1,598,000	73.2	878,000	44,000	676,000	
Total	2,184,000	100.0	1,182,000	143,000	803,000	7,000
Percentage of Puerto Rico	100		36	9	51.2	

Rico consists of more than 350 identifiable types, having considerable variation in productivity even though they frequently lie very close to each other. The differences in soils result from varying climate, vegetation, relief, age, and parent material.

The numerous soil types have been grouped into eight productivity classes, the first three representing the most productive types in terms of cultivated crops (see table 1). Less than 20 percent of the island can be classified in these three groups, however. In terms of acreage, only 50,000 acres can be cultivated intensively without concern for ensuing erosion, drainage, soil degeneracy or climate problems. Another 150,000 acres can be used for crop production, however, only when accompanied by substantial conservation measures designed to avoid erosion, drainage, soil degeneracy, or climate probability, or moderate climatic conditions.

As figure 1 shows, the more productive soils are found on the perimeter of the island; hence, agricultural enterprises are located on the coastal flatlands with substantial areas of the interior of the island being better devoted to grazing, tree crops, and forestry, as indicated in figure 2.

Declining Importance of Agricultural and Forestry Uses.—The history of Puerto Rico revolves about agriculture. As much as 90 percent of the island has been cropped despite the fact that only 30 percent appears suitable for cultivation. The island originally was totally forested, but increasing demands for food, resulting from the Puerto Rican population expansion, and for export commodities led to massive and systemic deforestation. Tillage of slopes where

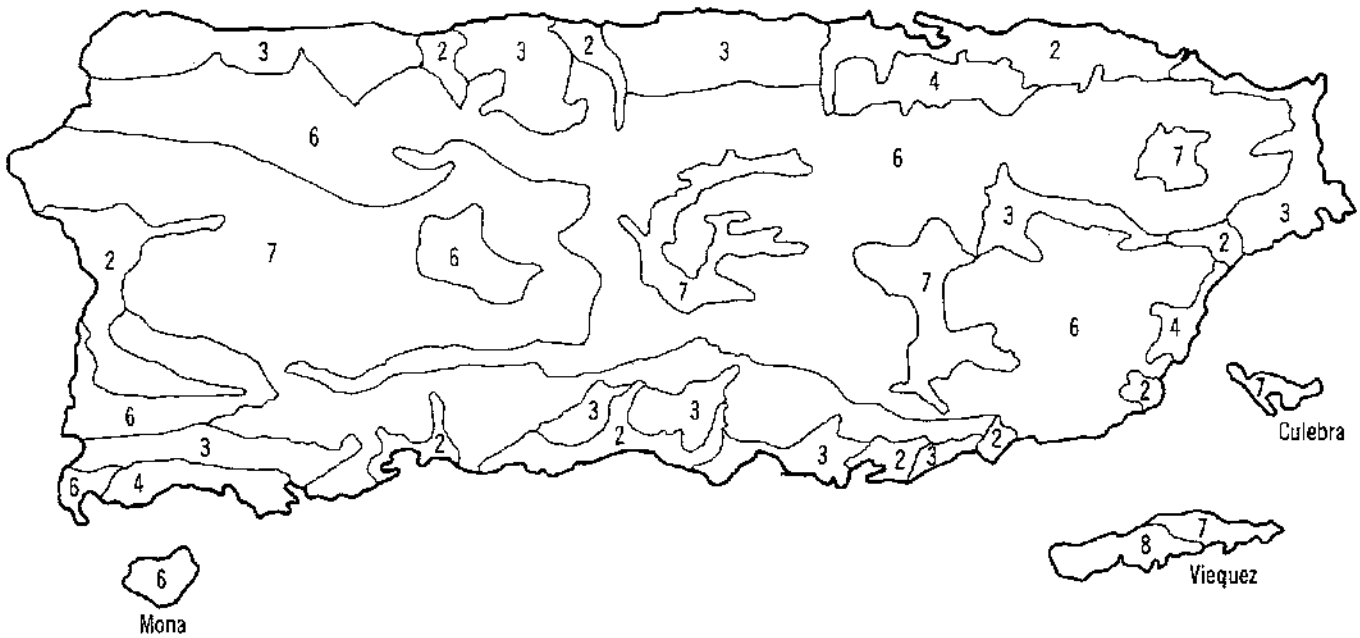
more than half of the soil consisted of fragile soil types, has resulted in erosion, sedimentation of water supplies, and loss of soil productivity.

By 1830 Puerto Rico's self-sufficiency in timber products had been lost and their importation increased to the point where currently the island imports in excess of 90 percent of its wood and paper products. Although it has been recommended over the last 25 years that between 200,000 and 400,000 acres be set aside for the establishment of commercial forests, little has been done to reach this goal. Recently, the Department of Natural Resources has initiated a reforestation program. However, its magnitude is far below the actual need, and it is not oriented solely to commercial purposes.

The land use pattern in Puerto Rico has shifted recently toward a more productive allocation than was followed in earlier years. Tobacco and sugar growing, for example, has left the mountains and hillsides, opening up 1.5 million acres for grazing and forestry. However, it seems that Puerto Rico may not be reaping the greatest benefits from the transfer of production efforts since most of the abandoned lands are being left unmanaged with the result that brush and low-valued trees are taking over.

Urban Sprawl.—Urban uses of Puerto Rican land are increasing at an accelerated pace. The urban sprawl rate is currently about 4,000 acres per year. The topography most desirable for building sites is also unfortunately the most productive for crops (see figure 3. Furthermore, the major flood plain, shown in figure 4, is largely limited to agricultural

Figure 1.
Land Capability Classes of Puerto Rico



Note: See Table 1 For Description Of Land Resource Classes.

Figure 2.
Land Capability by General Agricultural Uses

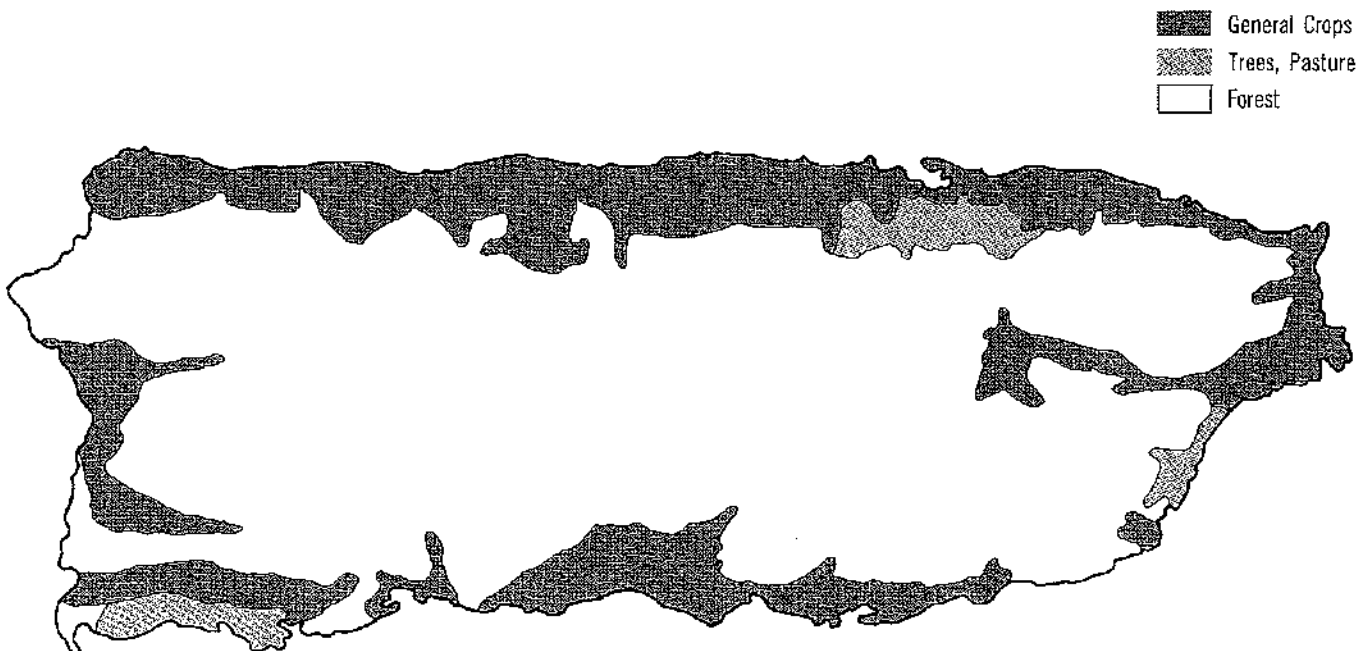


Figure 3.
Urban Development Construction As Of 1975

Construction as of 1975

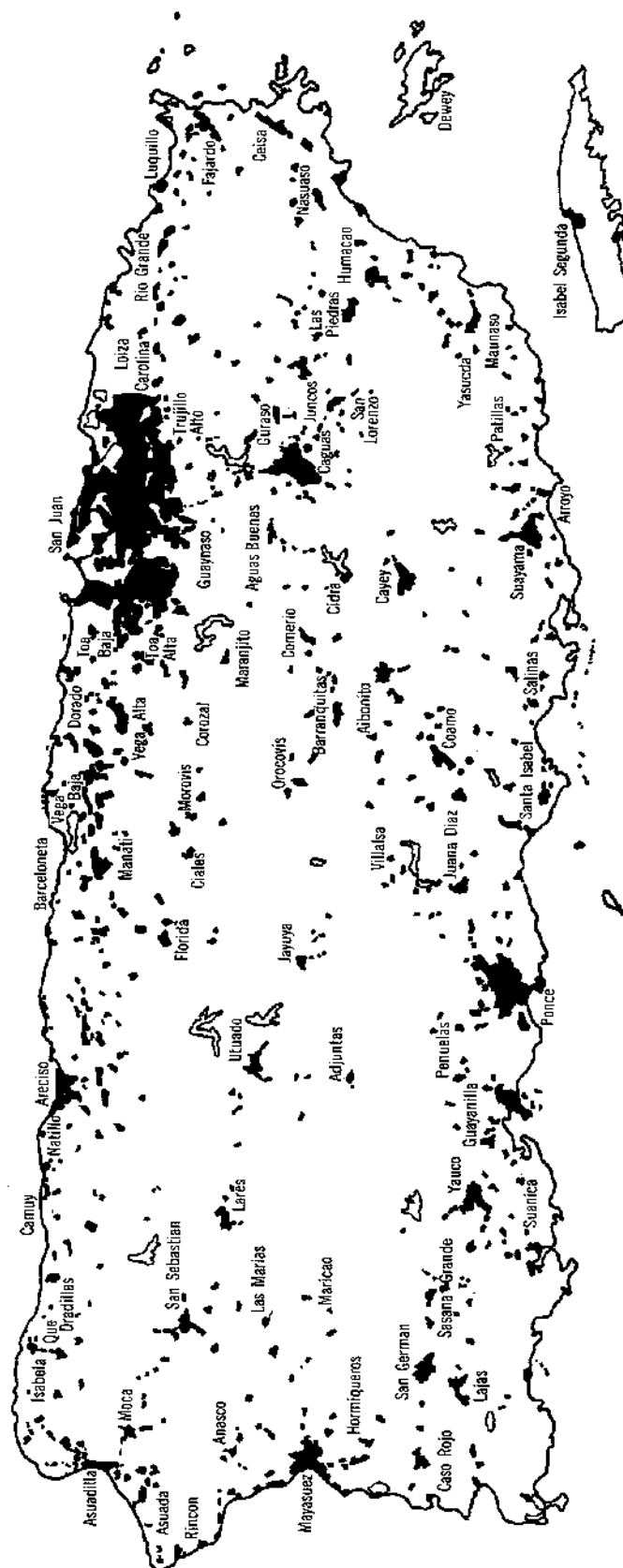
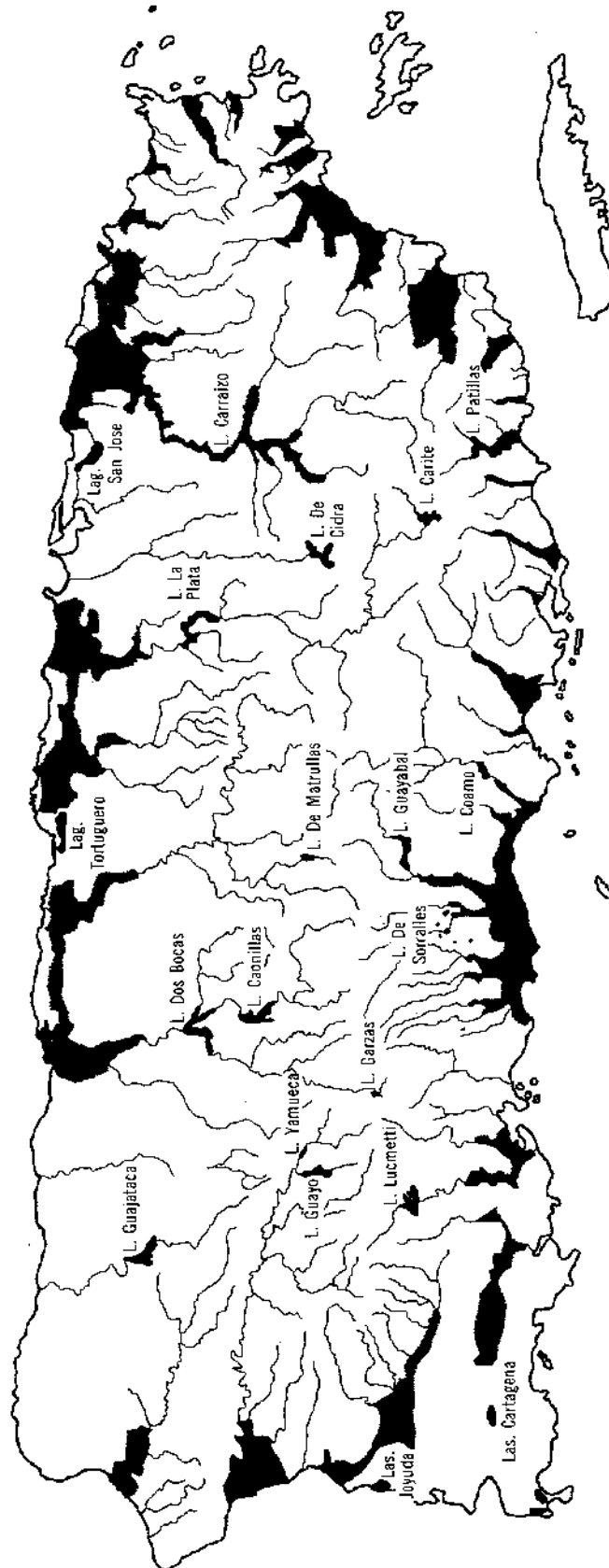


Figure 4.
Floodable Areas



Source: United States Geological Survey

Table 2.—*Net Land Demand, Net Supply and Surplus or Deficit for Manufacturing in 1985, by Subregions*
[In acres]

	Agua- dilla	Arecibo	Caguas	Cayey	Pajardo	Guayama	Humacao	Manati Vega Baja	Mayaguez	Ponce	San Juan	Total
Land supply	8,957	10,322	1,127	818	932	13,432	5,027	6,704	11,860	12,694	7,971	79,842
Land demand	2,071	4,357	2,024	558	538	5,968	3,221	3,160	3,426	8,923	12,432	46,678
Land surplus	6,886	5,965	-897	260	394	7,464	1,806	3,544	8,434	3,771	-4,461	33,164

and recreational uses. With less than 30 percent of the island having the better lands, competition for the more desirable areas is very keen.

According to a study made in 1976 for the Puerto Rico Industrial Development Company (PRIDCO), heavy demand pressures may be exerted on the industrial lands of San Juan and Caguas by 1985, while other areas are expected to be much less in demand (see table 2).¹

The study provided population projections, estimates of manufacturing jobs in 2-digit SIC industries, and a dispersion grid of jobs to subregions. A map depicting the location and extent of the industrial and urban areas anticipated for 1985 appears in figure 5.

The study points out that several additional problems are likely to emerge as the Commonwealth attempts to balance future land supply with demand. Several options for dealing with land conditions in the next decade were outlined in the study mentioned.

(1) Move the industries to less congested areas. (This action would raise problems of lack of support facilities and increased commuting).

(2) Move the people to new areas. (This action would raise problems involving social and communal life and costs of supplying schools, hospitals, and other public facilities.)

(3) Change the industrial mix. (This action would offer the opportunity to exchange light industry, with possibly 40 jobs per acre, for heavy industry, with possibly 3 jobs per acre. However, heavy industry is a large user of water and generates pollutants, thus limiting its location choices.)

(4) Satisfy only industrial demands. (This action would create problems regarding needs for housing, recreational, commercial, agricultural, and other uses.)

(5) Construct high-rise buildings for light industry. (This action would need further evaluation of the building costs.)

(6) Satisfy only part of the industrial land use demands. (This action would raise problems with reducing the unemployment rate.)

None of the suggested options would be easy to

implement. The Puerto Rico Planning Board would be faced with the challenge of coordinating the future development of the island. However, the computerized system for accessing aerial photography and land-use data prepared by the Puerto Rico Department of Natural Resources provides a helpful data base to start from. Also, the mapping and zoning functions within the Planning Board should provide a framework for public guidance of long-term capital investment decisions in the private sector.

A major element that must be considered in the allocation of land is real estate taxation. Commonwealth real estate taxation policies affect industry location and land use. In 1969, tax holidays of 10, 12, and 17 years were granted to firms locating in certain municipalities. The areas with higher unemployment rates were offered longer tax grace periods. In 1975, the tax holidays were revised, with the tax exemption periods specified for 10, 15, 25, and 30 years. Depending on the length of the planning horizon for business investment, an investor can take advantage of the tax benefit by amortizing it over the entire grace period and then relocating in another area when the period lapses.

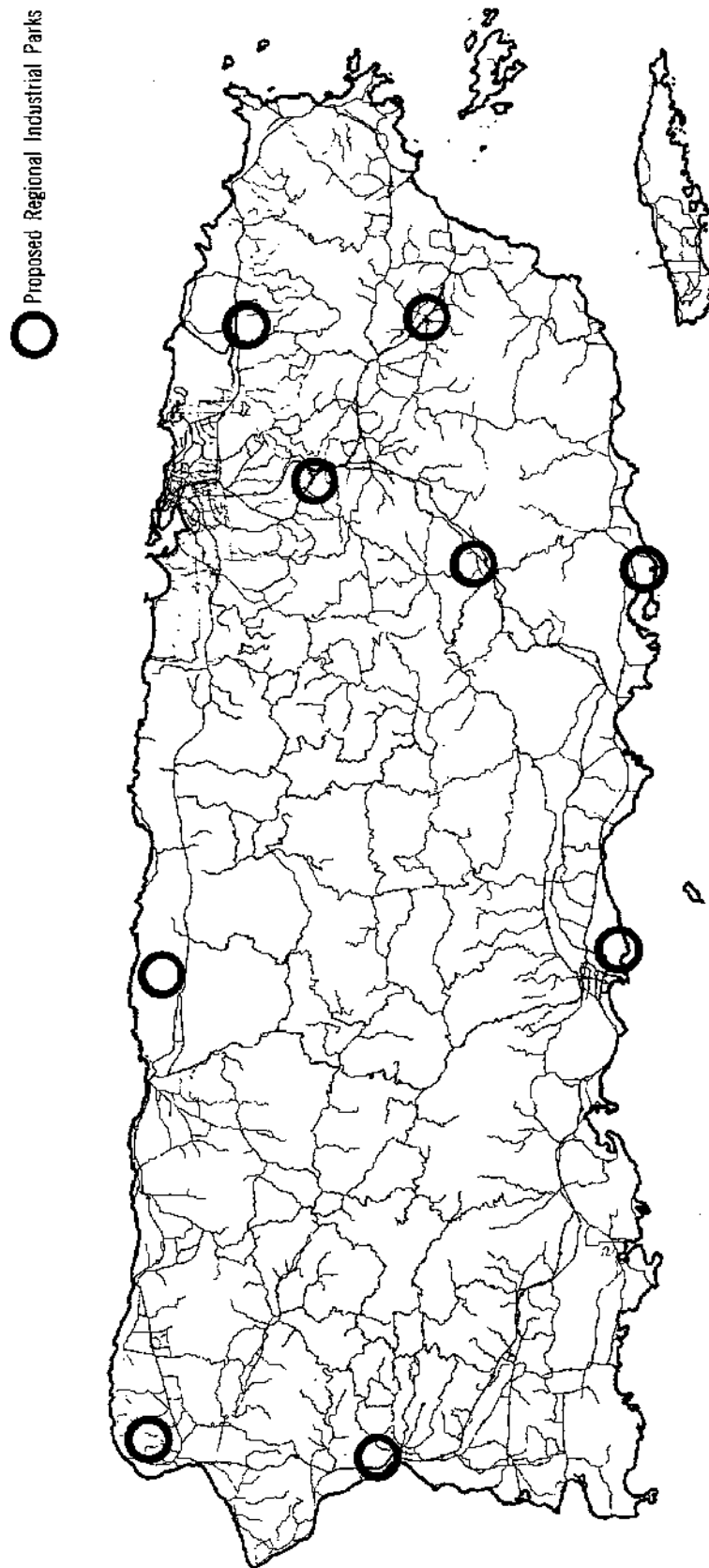
Squatters.—Poor housing, high unemployment, and large families, along with the presence of unused or speculative land holdings, provide a climate for squatting. Shanty towns can be constructed almost overnight, and, once a family has established itself, Puerto Rican law makes eviction extremely difficult.

The overall extent of squatting is unknown. However, the Puerto Rico Land Authority estimates that about 2,000 acres have been squatted on in the last 10 years. Close surveillance in 1977 resulted in only 25 acres being squatted on.

Communities.—The high population density, an efficient major road system, and the small size of the island have contributed to a relatively unplanned suburban environment which evolved along the highways. Many homes are the primary residence of families. Other homes are vacation-type facilities for the wealthier urbanite. These "communities" have no affiliated political entity other than the rural municipality. The haphazard development of the communities lies beyond the zoning powers invested in the Puerto Rico Planning Board, and the resulting challenges to communal esthetics are not unlike those

¹ The study was prepared by the Puerto Rico Management and Economic Consultants, Inc.

Figure 5.
Industrial Development



associated with similar commercial developments along the business arterials of the mainland.

Furthermore, a problem arises in providing public services to such strip developments due to the high costs of servicing. Transportation needs can be efficiently met to some degree, but most other community services are inefficiently provided unless they are distributed over greater concentrations of business establishments and residences. Lastly, using lands adjacent to highways for residences may also draw on areas which are highly productive for agriculture.

Abandoned Areas.—Reasons why a region with high population density, high unemployment, and high land value may also have apparently abandoned areas can be offered. First, because land values have been rising steadily at about 10 percent per year during the early 1970's (although somewhat less in the last few years), holding unused land provides a nearly risk-free store of wealth, even in the less attractive highlands. Second, the children of the owners of the larger coffee, tobacco, and sugar plantations on the highlands left the farms years ago for schooling in town and stayed in the cities after obtaining professional and managerial positions. Their inheritance becomes a useful store of wealth, even when there is little apparent incentive for active use.

Clean Air and Water.—The constraints resulting from the Environmental Protection Agency's regulations bear on land use, particularly by heavy industry. Even though the island is small and the industrial pollutants can quickly be sent out to sea, their impact while on land can be substantial.

The lack of sufficient modern water facilities also restricts land use. Industrial and residential water users can easily outbid agricultural water users. Substantial irrigation is needed for developing vegetable production and processing in the southwest corner of the island. The lack of adequate sewer facilities can cause contaminated water supplies. The latrines and septic systems used in the highlands, industrial wastes, agricultural processing effluents, and potential mining runoff can affect both surface and underground water supplies.

Puerto Rico Land Use Goals

The Puerto Rican Planning Board has taken the first step toward making some major decisions about the utilization of land resources in Puerto Rico. The June 1977 *Land Use Element Summary Statement* provides a broad overview of the policy development, implementation, and coordination process. It also outlines six major components of a comprehensive land use policy as follows:

1. *Urban Development.*—Communities, towns,

and cities should be dense, compact, and attractive so that they allow for reduced negative impacts on land outside the urban area, provide greater efficiency in the installation and operation of public services and facilities, and improve accessibility by means of private as well as mass public transportation.

2. *Industrial Development.*—Industries should be strategically located so that the land best suited for such purposes is used intensively, thus reducing the conflict between competing goals.

3. *Agricultural Development.*—Agricultural activities should be developed on all efficient land so that Puerto Rico can produce a greater share of its food consumption on its own while at the same time maximizing rural-land use to promote the country's development.

4. *Flood Hazard Areas.*—The loss of lives as well as physical damage due to flood and wave action should be minimized. A policy is needed for identifying and promoting land uses toward that goal.

5. *Infrastructure.*—The infrastructure of the island should be developed in a timely manner as an instrument of planning so as to organize and promote overall comprehensive development.

6. *Natural, Environmental, and Cultural Resource Areas.*—The environment should be preserved and protected by promoting the judicious use of all natural, environmental, and cultural resources.

Urban Areas.—Although no land sales prices are published in Puerto Rico, one source of indirect land value data is the Department of the Treasury (Hacienda) which provides assessed values updated from 1958. The Department of the Treasury uses sales contract prices which are recorded with the Section of Registry, Department of Justice, in its assessment of taxes. The data are acquired at the municipality level and forwarded to the Department of the Treasury. The estimates made from the assessed values, however, are inaccurate due to the broad latitude in the ratio of assessed value to market value. The ratio ranges from one-half to two-thirds of the market value. The wide latitude also creates a tax equity problem. A new official assessment of real estate may be warranted in order to provide more nearly equal tax treatment for property owners.

Although the lack of direct sales price data makes land values difficult to estimate, estimating urban land values is especially difficult because of the complementary value of buildings and other improvements associated with urban land. Some notion of urban land values in Puerto Rico can be sensed from a sample of lot values for different areas of San Juan analyzed by the Department of the Treasury. The sample showed beach area properties having values of \$60 to \$80 per square meter, while residential properties were valued from \$25 to \$50 per

square meter. The residential lot sizes varied from 300 to 500 square meters, or .08 acre to .20 acre. Private real estate researchers have found very few developments on the overall island with lot values less than \$15 per square meter. Residential properties appeared to fall generally in the \$35,000 to \$70,000 range. Few properties sold for prices between \$20,000 and \$25,000.

Rural Locations.—According to the Puerto Rican Department of the Treasury estimates of real estate market values for island coastal properties range from \$8,000 per acre in the southwest to \$80,000 per acre (about \$20 per square meter) near San Juan. Most of the coastline lands are valued at \$15,000 (\$3.70 per square meter) to \$30,000 per acre, whereas highland agricultural lands are valued as low as \$1,200 to \$2,000 per acre. However, where competition for land intensifies among commercial and industrial firms, land value increases substantially. Considerable acreage surrounding San Juan, for instance, sells at prices ranging from \$8,000 to \$15,000 per acre. Actual sales prices recorded with the Federal Land Bank lie within the ranges cited.

Structure of Puerto Rican Land Markets

Land use in Puerto Rico is subject to public regulation and seemingly will continue to be. The Puerto Rico Planning Board presently issues land-use permits and controls zoning. Because of insufficient personnel for regulation and the high priority assigned to areas contiguous to major urban centers, effective land control is visible largely only in the metropolitan communities.

Financing and Transactions.—The financing of property purchases comes from a spectrum of sources: Families, private banks, credit unions, the Commonwealth Housing Bank, Federal Housing Administration (FHA), Veterans Administration (VA), Federal Land Bank, Agricultural Credit Corporation, Farm Home Administration (FmHA), and the Small Business Administration (SBA). The larger banks have access to mortgage credit markets on the mainland. Some banks have direct affiliations with offisland banking interests. Few banks have the expertise needed to handle agriculture loans, however; most banks, consequently, prefer to direct their lending toward the commercial and industrial loan markets. The Bank of America and Chase Manhattan Bank presently extend the bulk of agricultural loans made in Puerto Rico. The Bank of America has ample experience in making agricultural loans and significantly supplements the lending done by the Federal Land Bank and the Agricultural Credit Corporation.

Size of Private Holdings.—Prior to 1941, private landholdings in Puerto Rico were very concentrated, about 170,000 acres being held by four mainland sugar corporations. The Land Reform Law of 1941, however, restricted private landholdings to less than 500 acres. The law made way for the ultimate dismantling of the plantation agriculture system and provided for the satisfactory compensation of the landholdings that had been distributed. In the early 1970's, one of the last of the large holdings—one comprising 13,000 acres owned by the Aquire Company—was parceled out.

The diverted lands have been distributed under three Commonwealth programs:

(1) Title IV which coordinates large "proportional profit" farms engaged in sugar production into a cooperative venture. The 1974 Agricultural Census showed that 86 percent of farms were individual proprietorships, whose owners have exchange rights as well as use rights;

(2) Title V which allots small lots (parcelas) to landless laborers for homes and gardens; and

(3) Title VI which establishes use rights (usufructuario) for small private farmers on plots consisting of 5 to 25 acres.

Size of Public Holdings.—The Puerto Rico Land Authority is the largest landowner on the island, operating nearly 95,000 acres of the best agricultural lands available. The Authority has allocated nearly 45,000 acres for sugar production and 4,000 acres for pineapples. About 28,000 acres are presently leased to individual farmers and around 15,000 acres are involved in conservation programs. By controlling these acreages, the Commonwealth effects a substantial leverage on the choice of the agricultural commodities that are produced. Leased lands are leased at very low rates. Most rents on these lands range from \$1 per acre to \$40 per acre. The rents usually just cover taxes. Comparable rents on private lands are \$30 to \$40 per acre.

The present Commonwealth Administration is seriously attempting to improve agricultural productivity. Under plans now implemented, new contracts for lands on the North Coast which are suitable for rice growing, beef raising, and dairying will rent at \$40 per acre in the first 3 years of the lease, \$45 per acre for the following 2 years, and \$55 per acre thereafter. Rents on the vegetable-growing lands of the South Coast will be \$50, \$70, and \$90 per acre for the same periods, respectively. The rents are significantly higher than past levels but are extremely low in comparison to the returns that can be derived from high-yielding, well-managed farm operations. The Department of Agriculture in Puerto Rico hopes that the long-term leases will provide sufficient

incentives to shift production into more profitable areas.

The second largest public landholder is the Puerto Rico Land Administration. At one time it held over 55,000 acres, but it eventually sold off more than 18,000 acres for low-income housing and other private enterprises. Of the remaining acreage, about 12,000 acres are reserved for Commonwealth Government activities and roughly 24,000 acres are in agricultural use, most of which is rented out to the Sugar Corporation.

Land Development and Outlook

The island has special physical and population constraints that limit some types of development while providing incentives or opportunities for other types. The more important of these constraints and incentives are worthy of some discussion.

Zoning Constraints.—As mentioned earlier, the Puerto Rico Planning Board possesses the institutional framework for guiding land development on the island. The physical and technical planning that takes place, however, needs to be coordinated with continuing socio-economic analysis of the desires and needs of land dwellers. Otherwise planning would become more of a constraint to efficient development than a promoter. Without sufficient understanding of public reactions, actual and potential, to policy changes, technically feasible projects can easily fail. The experience with high-rise housing is one such example. In properly fulfilling public needs, there appears to be a significant incentive for the Planning Board to take the leadership in coordinating public opinion and participation in proper land-use planning.

Recreation and Forestry.—A second opportunity for efficient land use lies in the fact that outdoor recreational facilities could be expanded if the timber trees were planted on the abandoned hillsides of the island. Reforestation probably could provide an improved, and more esthetic, environment within 5 years. Watersheds would be protected and small wildlife could thrive. Within 25 years, harvestable timber could be expected, contributing to overall economic development.

Labor Costs.—On an island with nearly 1.5 inhabitants per acre, the ratio of labor to land use becomes an especially important factor. Whereas light industry might provide 20 jobs per acre—especially if high-rise buildings were used—heavy industry might provide only 3 jobs; production of ornamentals would provide possibly 10 jobs; vegetable growing, 0.25 job per acre; sugar cane, 0.12; and rice, 0.02. It does not follow, however, that activities generating low labor to land ratios are necessarily

poor investments. It does mean that the selection of industries for Puerto Rico has important impact on employment, land use, and the overall contribution to the island's economic well-being.

Apprehensions Regarding Self-Sufficiency.

—Rather than adopting policies which are designed to hasten the economy towards self-sufficiency in agricultural production, the selection of policy options based on the principle of comparative advantage would be more efficient for Puerto Rico. In order to ascertain the lines of agricultural commodities or services wherein the comparative advantage lies, relatively intensive study of production alternatives must be undertaken. This report did not assume that task; however, the Agriculture Sector Analysis appearing in the Report does discuss three optional policies of agricultural development for the island.

MINERAL RESOURCES¹

In the early 1950's scientists of the U.S. Geological Survey (USGS) in cooperation with Puerto Rican geologists began an intensive program to study and map the geology of the island.² The map resulting from the investigation shows the distribution of mineral deposits in relation to various geological factors.

Metal Resources

Puerto Rico has never been considered as an important source of mineral resources. Modest amounts of gold, iron, lead, zinc, and manganese ores have been found on the island. Commercial exploitation of these deposits has been limited, however.

One of the more plentiful metallic ores on the island is copper. Commercial amounts exist in at least two areas. Negotiations lasting over several years, between the Government of Puerto Rico and two mining companies have been unsuccessful because of lack of agreement over sharing of revenues. The companies estimate that there is sufficient ore to justify an average annual output of 50,000 tons for about 30 years.

Several lateritic nickel deposits have also been discovered in western Puerto Rico. The two largest deposits may be of near-commercial quality. However, the deposit at Las Mesas in Mayaguez is not accessible because of extended urban development. The deposit in the Guanijibo area of Cabo Rojo is being explored more extensively to determine its size. Recent evidence indicates that the reserve and the nickel content of the deposit may be substantially higher than originally estimated. This, coupled with

¹ This section is based on material contributed by the Bureau of Mines, Department of the Interior.

² Metallogenic map of Puerto Rico may be purchased from the U.S. Geological Survey.

rapid urbanization in the vicinity, requires immediate policy decisions by the Government regarding land use, further detailed exploration, and possible development of a mining operation.

Aside from the copper and nickel deposits, there appears to be little evidence that other metals are present in sufficiently large quantities to justify commercial exploitation. However, further exploration is needed along these lines.

Petroleum Prospects

Favorable geologic conditions in the form of stratigraphic traps, both onshore and offshore, have interested the Government of Puerto Rico in exploring for oil and gas. Three onshore test wells were drilled several years ago, but showed no traces of oil or gas. However, the possibility of onshore and/or offshore deposits still exists. At present, no major exploration effort is being undertaken by private companies. The Government of Puerto Rico will conduct an onshore seismic survey and test-drilling program in the Dorado-Manati area associated with already identified offshore prospects to determine the existence of petroleum and gas deposits.

Nonmetallic Minerals

Puerto Rico is more greatly endowed with construction minerals than metals. In the past decade the value of Puerto Rico's output of construction minerals—stone, cement, lime, clays, sand, and gravel—has increased from \$63 million to \$135 mil-

lion. Limestone resources and clay are found extensively on the island and provide a source of input for the island's two cement plants and for lime manufacture. Puerto Rico also has other types of stone useful in construction, such as volcanic rocks, granodiarite, and serpentinite. Volcanic rocks are widespread and are the most commonly quarried materials for construction purposes. Marble is also quarried and used in the manufacture of terrazo tiles.

Flood-plain sand and gravel deposits are one of the principal sources of aggregate found in Puerto Rico that is suitable for making concrete. The deposits are abundant and are widely drawn on throughout the island. As a future source, the offshore sands appear to be the most prominent provider. In addition to these supplies, there are also several quarries on the island that crush quarried stones to fine aggregate size for concrete.

Summary

Although Puerto Rico is nearly devoid of commercially exploitable mineral deposits, its non-metallic mineral sources seem adequate to meet most any level of desired construction activity. Despite the fact that presently world prices prevent the exploitation of existing metallic mineral supplies in Puerto Rico, interest could likely be stimulated in respect to Puerto Rican deposits if metal prices were to rise to levels of 1974. The potential for future petroleum production can be determined only by further exploration.

Annex Enclosure to Mineral Resources

METALLOGENIC MAP OF PUERTO RICO

BY

DENNIS P. COX AND REGINALD P. BRIGGS

INTRODUCTION

The purpose of a metallogenic map is to show the distribution of mineral deposits in relation to geologic factors, particularly those factors that have had an important influence on the formation of the deposits. Other types of mineral resource maps aid the mineral economist by showing graphically the relationship between important mineral deposits and population centers and transportation routes. (For a description of Puerto Rico's mineral resources with more emphasis on mineral economics see Briggs, 1969a). The metallogenic map on the other hand is of principal benefit to the prospector and economic geologist because it outlines target areas where certain types of deposits may be found.

Consequently, metallogenic maps, especially large-scale ones such as this, may show mineral occurrences which in themselves are far too small to have economic significance. Taken together however, such occurrences may delineate trends which guide the geologist in the search for concealed deposits of greater value. This map, then, is not meant to illustrate the present mineral wealth of Puerto Rico, but rather is intended as a prospecting tool.

It should also be emphasized that maps of this type can never be considered final. With new mineral discoveries, with new demands for minerals not now considered valuable, and (or) with increased geologic knowledge, new trends develop and new target areas for exploration may be revealed.

GEOLOGIC FRAMEWORK

Puerto Rico is readily divided into three broad geologic provinces. The largest of these is the mountainous volcanic-plutonic province, commonly called the "older complex," that is underlain chiefly by volcanic and plutonic rocks ranging in age from Early Cretaceous to middle Eocene. This province extends from coast to coast east-west across the island and contains nearly all of the metalliferous deposits. Resting on the flanks of this volcanic-plutonic core are the northern and southern limestone provinces in which bedrock is composed of marine sedimentary rocks, chiefly limestone, that

range in age from early Oligocene to Middle Miocene. Surficial deposits mantle more than 15 percent of the area of Puerto Rico. These are composed of subaerial, alluvial, and marine materials that were deposited from Miocene time to the present. The surficial deposits are concentrated predominantly in plains and filled valleys along the coasts and in a few large interior valleys (Weaver, 1964).

The volcanic-plutonic province.—The structure of the volcanic-plutonic province is dominated by broad folds and by extensive fault systems along which appreciable transcurrent movement has occurred, for the most part in a left-lateral sense. Both faults and fold axes are oriented chiefly along west to northwest trends, although major faults also occur with other orientations (Briggs, 1964). Relatively shallow gravity gliding on a large scale has occurred in southern Puerto Rico (Glover and Mattson, 1960), but no conclusive evidence for the presence of deep-seated thrust faults has been found.

Two zones of transcurrent faults in particular serve to define subprovinces of the "older complex." One of these zones, the great northern Puerto Rico fault zone, extends from the Vieques Sound near Puerto de Humacao westward to a point about 35 kilometers west-southwest of San Juan where it is overlapped by middle Tertiary rocks. Total offset on this fault zone may be well over 60 kilometers in a left-lateral sense (Briggs and Pease, 1968). The other, the great southern Puerto Rico fault zone, extends from the coast about 10 kilometers north of Mayagüez east-southeastward to a point near Ponce where it too is overlapped by younger units. Left-lateral displacement along this zone may be greater than that along the northern zone, for lithostratigraphic and structural contrasts are greater across this zone.

The central volcanic-plutonic subprovince.—The oldest rocks described from the central volcanic-plutonic subprovince are chiefly massive volcanic breccias that contain occasional limestone lenses near the top of the breccia section. Near the San Lorenzo batholith these limestones are thermally metamorphosed and are the host rocks for magnetite-chalcopyrite deposits (locality 38-9 and others). Fossils from limestones have been assigned to the upper part of the Lower Cretaceous (Briggs, 1969). No fossils have been identified from

rocks stratigraphically beneath, so one can say only that the oldest known rocks in the central subprovince are Early Cretaceous in age. Overlying the breccia section are Lower Cretaceous (Albian) to Upper Cretaceous (Santonian?) thin-bedded tuffaceous sandstone and siltstone intercalated with basalt and andesite pillow lava, basalt aqueagene tuff, and basalt and andesite volcanic breccia (Berryhill and Glover, 1960; Pease and Briggs, 1960; Briggs and Gelabert, 1962; Berryhill, 1965; Nelson and Monroe, 1966; Nelson, 1967; Mattson, 1968b; Briggs, 1969). Resting with partial unconformity on this moderately well bedded section are sequences containing marine and nonmarine tuffaceous conglomerate, limestone, marine and subaerial tuff, and subaerial volcanic breccias of Late Cretaceous (Santonian? to Maestrichtian) age (Glover, 1961; Berryhill, 1965; Nelson and Monroe, 1966; Mattson, 1968b).

Tuffaceous rocks and limestone of Paleocene to middle Eocene age overlie the Cretaceous rocks, also with partial unconformity (Glover and Mattson, 1967; Nelson, 1967b; Mattson, 1968a, 1968b). In south-central Puerto Rico where these rocks are complexly involved in a gravity glide series, limestone is the host rock for manganese deposits of small to moderate size (48-3 and others).

One of the chief characteristics differentiating the central subprovince from those on the southwest and northeast is the presence within this crustal block of large plutonic bodies. The San Lorenzo and Utuado batholiths and numerous smaller bodies occupy perhaps 20 percent of the outcrop area of the central subprovince (Briggs, 1964). The age of intrusion appears to be centered at about the close of the Cretaceous Period, for Upper Cretaceous units have been intruded (Glover, 1961; Briggs and Gelabert, 1962; Berryhill, 1965; Nelson, 1967b), but middle Eocene rocks rest on exposed plutonic rocks (Mattson, 1966, 1968b). Granodiorite makes up the bulk of larger plutonic bodies, but diorite, quartz diorite, gabbro, and quartz monzonite also are common (Weaver, 1958; Broedel, 1961; Nelson, 1967b; Mattson, 1968a). A group of quartz diorite porphyry stocks of Eocene age has been recognized along the south border of the Utuado batholith. These include the copper-mineralized stocks at Tanamá and Río Viví.

The southwestern volcanic-plutonic subprovince.—The chief characteristics of the southwestern volcanic-plutonic subprovince that differentiate it from the remainder of Puerto Rico are the presence there of large bodies of serpentinite and of extensive thick marine limestones (Mattson, 1960). The serpentinite provides the bedrock source for laterite deposits containing nickel, iron and cobalt. Plutonic bodies of any size are rare. The oldest rocks in the area are included in the Bermeja Complex of Mattson (1960) which contains the serpentinite as well as amphibolite, chert, and metamorphosed volcanic rocks. The Bermeja probably is Early Cretaceous in age.

Overlying the Bermeja Complex is a sequence of lava, agglomerate, marine limestone, mudstone, and tuff which is mostly if not entirely Late Cretaceous in age. Resting on this sequence are strata of Paleocene and

Eocene age, including lavas, breccias, tuffs, and reworked volcanic rocks (Mattson, 1960).

The northeastern volcanic-plutonic subprovince.—The northeastern volcanic-plutonic subprovince is complex both structurally and stratigraphically. On the west, lava and related volcanoclastic strata of probable Late Cretaceous (Cenomanian) age rest on a thick sequence of well stratified tuff, breccia, and lava of uncertain age (Pease, 1968b). On the east, breccias and tuffs of Cenomanian Age rest on a very thick sequence of Lower Cretaceous (Albian) well stratified tuff and breccia (Seiders, 1971a) which in turn rests on an older lava. The base of this section has not yet been mapped.

Overlying the Cenomanian rocks is a thick sequence of Upper Cretaceous well-stratified tuff with some breccia, limestone, and lava. These are overlain unconformably by lower Tertiary volcanic breccia, tuff, limestone, and well stratified siltstone (Pease, 1968a; Seiders, 1971b).

Although strata of the northeastern subprovince are widely altered hydrothermally, only one large intrusive body, the Río Blanco stock, crops out in the subprovince (Seiders, 1971a).

The northern and southern limestone provinces.—After middle Eocene time extensive uplift occurred along an east-west axis. Erosion and subsequent depression of the Puerto Rico area was accompanied by deposition of the nonvolcanic rocks of the northern and southern limestone provinces. Strata of the larger of these two, the northern province, include only slightly deformed marine limestone, marl, claystone and subordinate dolomite that dip gently northward (Zapp and others, 1948; Monroe, 1966). The southern limestone province is similar lithologically, but is highly faulted in comparison to the northern province (W. H. Monroe, written commun., 1970). The limestones of the northern province display a striking karst topography (Monroe, 1968). In the southern province karst development is relatively minor.

Superficial deposits.—These deposits include the blanket sands of Miocene to Holocene age which are widespread in the karst areas of northern Puerto Rico (Briggs, 1966), Pleistocene eolianite and marine calcarenite along the north and west coasts (Kaye, 1959a), and Holocene alluvial, swamp, delta, piedmont, beach, and dune deposits. Large landslide deposits are prominent features in some areas (Pease and Briggs, 1960; Monroe, 1964, 1967), and high-level weathered terrace deposits occur that may be as old as middle Tertiary in age.

Erosion surfaces bearing residual and transported lateritic earth are relics of ancient sea stands to levels as high as perhaps 800 meters (Weaver, 1960, 1968). One of the more prominent of these surfaces is about 600 meters elevation in central Puerto Rico, and has been assigned a tentative Miocene age (Briggs, 1960). Most of the erosion surfaces have been dissected extensively and some have been warped. Stepped relationships suggest that some surfaces have been faulted. One nickeliferous laterite deposit (28-2) occupies a surface ranging from about 15 to 100 m elevation, another (29-1) is on a surface that rises from about 50 m on the west to about 400 m on the east, and one of the smaller deposits (30-

3) occurs as high as 880 m in elevation (Heidenreich and Reynolds, 1959).

METALLOGENIC MAP

Symbols.—The map shows 184 mineral occurrences, prospects, small mines, and important ore deposits. The nature of each occurrence or deposit is shown on the map by a colored symbol and on the accompanying listing by a corresponding alphanumeric code. The symbol and code describe the metal or metals contained in the deposit, the nature of the plutonic igneous rock that is most closely associated with the deposit, and the type of hydrothermal alteration that accompanied the mineralization. The size of the deposit and its geologic type are shown, as well as the type and age of the volcanic or sedimentary host rocks.

Ore and gangue minerals are listed on the map for most of the localities, but stress is laid on the primary minerals of the deposit rather than on those produced during weathering. All copper deposits on the island contain some malachite or azurite, for example, and all of the manganese deposits are composed mainly of complex oxide minerals. Repetitious listing of these minerals is avoided.

The accompanying listing shows, in addition to the code, the map number, latitude and longitude and bibliographic references for each point. For deposits of wide areal extent, the latitude and longitude represent the approximate center of the deposit.

The metallogenic code and symbol system is modified from the system adopted by the North American Metallogenic Map Committee. Modifications, which were necessary because of the small size and limited number of geologic environments of the map area and the absence of certain types of deposits, have resulted in the omission of some numbers from the code used herein. In general, however, this map is compatible with the metallogenic maps of Central America (at 1:2,000,000) and North America (at 1:5,000,000).

Interpretation.—On examination of the map, a few clusters, trends and associations of mineral occurrences can be seen that have interesting geologic connotations. For example, copper deposits and occurrences form an almost continuous belt along the south side of the Utuado batholith. Chalcopyrite is the main hypogene ore mineral; magnetite and pyrite are abundant gangue minerals. Molybdenite is a rare associate of chalcopyrite. Hydrothermal alteration is widespread along this belt, and altered quartz diorite porphyry is the host rock in the largest deposits at Tanamá (17-3) and Río Viví (32-8, 32-10). Probably all of these deposits are younger than the Utuado batholith which locally is itself hydrothermally altered and mineralized. Rather the deposits are most closely associated with Eocene porphyry stocks which were intruded along the flank of the batholith.

Occurrences of zinc and zinc-copper in small veins are roughly peripheral to this belt as would be expected in a typical zonal relationship.

Another cluster of points is found associated with the Morovis stock. Small veins, containing digenite or chal-

copyrite-bornite, or sphalerite-galena-barite in a gangue of quartz, carbonates and zeolites, are found around the exposed south side of this stock and of the small neighboring pluton to the west. High silver values are characteristic of these occurrences and suggest that this cluster is genetically distinct from the larger group of copper deposits to the southwest.

Manganese deposits and small copper veins occur discontinuously along the southwest flank of the central volcanic-plutonic subprovince and are most numerous around the Juana Diaz manganese mine (48-3) near the south coast of the island. These deposits contain mainly secondary manganese oxides and copper carbonates, and the nature of their hypogene minerals is not clear. Remnants of rhodonite, quartz, calcite and epidote are present in two of the manganese deposits, and native copper, tetrahedrite(?), and chalcocite are found at one of the copper occurrences (14-2). Two other small manganese deposits and a copper occurrence (21-1, 21-2, 21-3) are found on the north flank of the central subprovince. This suggests that manganese and associated copper mineralization was controlled by the two major zones of transcurrent faults that separate the subprovinces.

Nickel, iron, and cobalt are concentrated in lateritic soils overlying the serpentine bodies in the southwestern subprovince. Intensive chemical weathering produced the soils, residually enriched in metals.

Dolomite is present in moderate to large quantities in the Northern Limestone Province (Vázquez and others, 1957). The largest potential source of dolomite is Isla de Mona which apparently is composed chiefly of a calcitic dolomite unit capped by a relatively thin limestone unit. Isla de Mona also is the site of small to moderate-sized cave phosphorite or guano deposits. This material forms deposits locally as thick as 3.5 m on the floors of caves which are developed chiefly in the lower 10 m of the limestone unit where this zone crops out in the steep cliffs that surround the island. Map symbols on the island show points where samples analyzed as dolomite have been collected and show also the chief caves from which phosphorite was mined in the period 1877 to 1924.

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UNPUBLISHED DATA

In addition to data derived from published sources much information was obtained from unpublished re-

ports, maps and personal communication. Extensive mineral resources data collected by the late Carl H. Broedel during the period 1957 to 1959 formed the basic framework around which this compilation was made. Other contributors of unpublished data are:

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WATER RESOURCES OF PUERTO RICO *

Introduction

At the request of the U.S. Department of Commerce (DOC) the U.S. Geological Survey has provided this discussion of the water resources of the island for the Federal Interagency Study of the Economy of Puerto Rico.

Explanation of Units.—Since the International System (SI) of units is convenient to use in water analysis, it is used throughout the discussion. The English System equivalents appear in parentheses following each SI usage. A table of conversion factors is presented below:

<i>Multiply SI unit</i>	<i>by</i>	<i>to obtain English unit</i>
kilometer (km)	0.6215	mile (mi)
square kilometer (km ²)	.3861	square mile (mi ²)
millimeter (mm)	.0394	inch (in)
cubic hectometer (hm ³)	264.2	million gallons (Mgal)
cubic hectometer per year (hm ³ /yr)	.7238	million gallons per day (Mgal/d)
cubic meter (m ³)	35.31	cubic feet (ft ³)
cubic meter (m ³)	264.2	gallon (gal)

Availability and Quality of Water

Two of the most important questions involved in making an appraisal of water conditions in an area are how much water is available and what quality it is. The adequacy of the supply is often difficult to determine because a large amount of data is necessary in order to make an accurate estimate of the availability. On the other hand, the quality of water is much easier to assess since variation in quality is less than in the quantity of water; hence, fewer data are required to make an assessment of equivalent reliability.

Hydrogeologic Setting.—Although Puerto Rico is only 177 km by 56 km (110 mi by 35 mi) at its maximum dimensions (see figure 6), the island varies considerably in topography, geology, and hydrology. The volcanic and orogenic development of the island produced igneous and metamorphic rocks which form the west-east mountainous axis (see figure 7). Limestone beds were deposited along the north and south coasts of the volcanic mass during periods of general subsidence.

On the north coast where deposition was most widespread, the total thickness of limestone exceeds 1,220 m (4,000 ft). Overlying most of the north coastal area are alluvium and blanket sands. The alluvium, found chiefly in the valleys of major rivers,

is as thick as 61 m (200 ft); the blanket sands, found in flat areas between limestone hills, are as much as 18 m (60 ft) thick. Inland of the blanket sands and alluvium are large outcrops of the limestone beds. In some areas these outcrops were accompanied by intensive sinkhole development which has produced a classic tropical karst topography.

On the south coast, limestone deposition was considerably less widespread. In the eastern half of the south coast, the limestone is almost completely blanketed by coalescing alluvial fans of rivers draining the interior plutonic rocks. In the western half, limestone outcrops are separated by narrow alluvial valleys. On the extreme southwest coast, the diversity of geology is shown by an assortment of blanket sands, limestone, alluvium, serpentine, tuffaceous sandstone, siltstone, breccia, beach and dune deposits, conglomerate, lava, and tuff.

Limestone deposition was minimal on the west coast and almost absent on the east coast. The alluvial valleys on the west coast contain some limestone lenses and overlie limestone in some isolated areas. In contrast, the alluvial valleys of the east coast overlie plutonic and intrusive igneous rocks.

The interior of the island is underlain by sedimentary, volcanic, and intrusive rocks. Most of the rocks are fine grained or dense, and they will not yield large quantities of water to wells. Alluvial deposits are thick, they yield moderate supplies of water to wells.

On the north coast, the deep limestone aquifer is confined and the contained ground water is under greater than atmospheric pressure (artesian). The artesian system contains high volumes of ground water and is recharged primarily from rainfall through sinkholes and local outcrops. The water or unconfined aquifer overlying the artesian system also contains copious supplies of ground water and is recharged mainly by local rainfall. Some recharge to the unconfined aquifer comes from streams cutting into the alluvium. But much of each year, the streams are fed from the ground-water system.

The south coast is covered by less permeable limestone and tight alluvial deposits. Moreover, average annual rainfall is less on the south coast than on the north coast and the amount of recharge varies correspondingly (see figure 8).

On the east coast, the alluvial aquifers receive about 2,080 mm (80 in) average annual rainfall. The alluvium on the east coast is generally more permeable than on the south coast and recharge is considerably higher except in the Fajardo area.

On the west coast, alluvial deposits in the major stream valleys and the underlying limestone are the sources of ground water. Yields of wells vary from about 400 gallons per minute in the alluvium to about 1,100 gallons per minute in the limestone.

* This section was prepared by the U.S. Geological Survey.

Figure 6.
The Principal Islands of the Commonwealth of Puerto Rico, and Location Map.

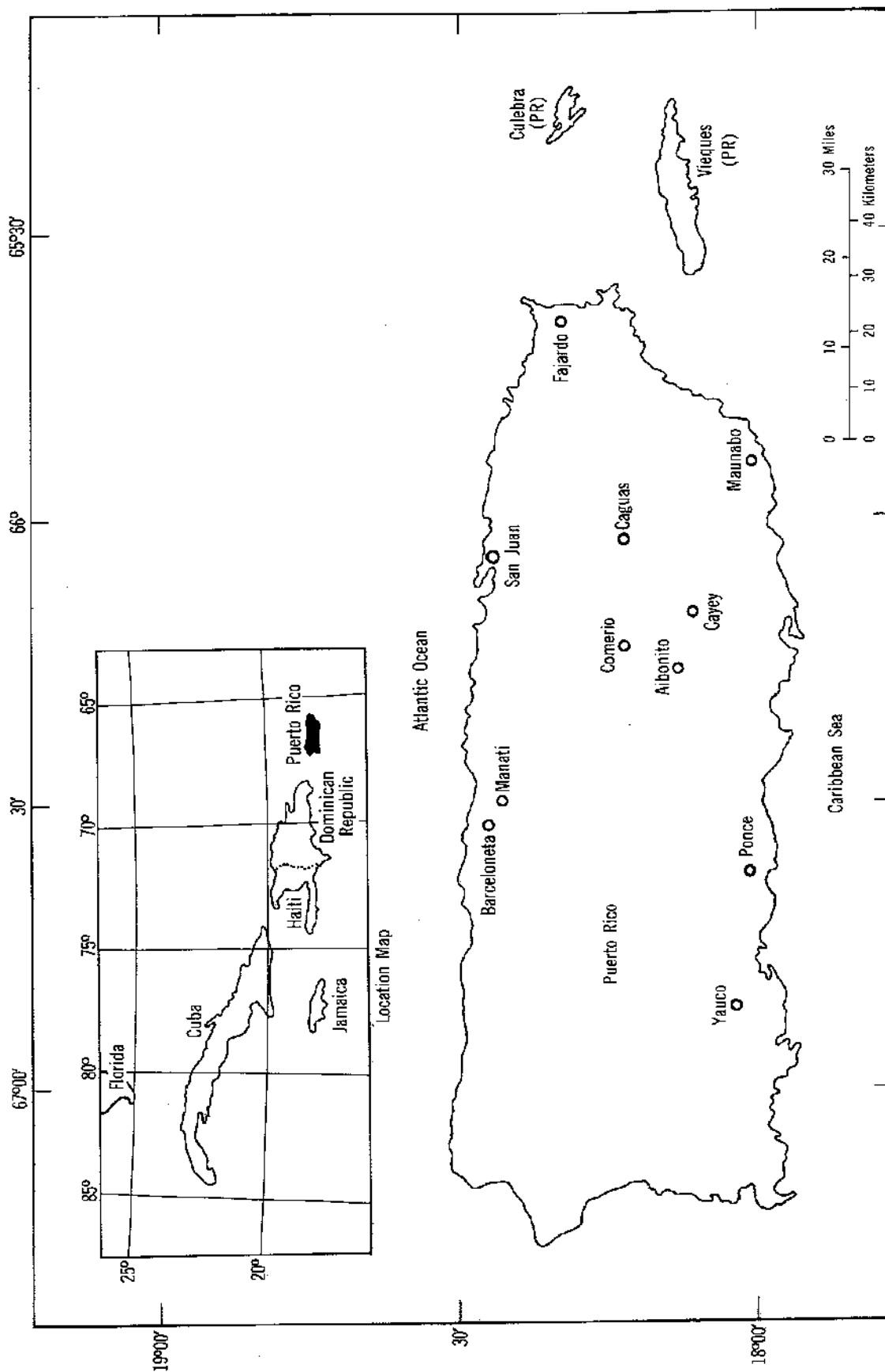


Figure 7.
Relief Map of Puerto Rico.

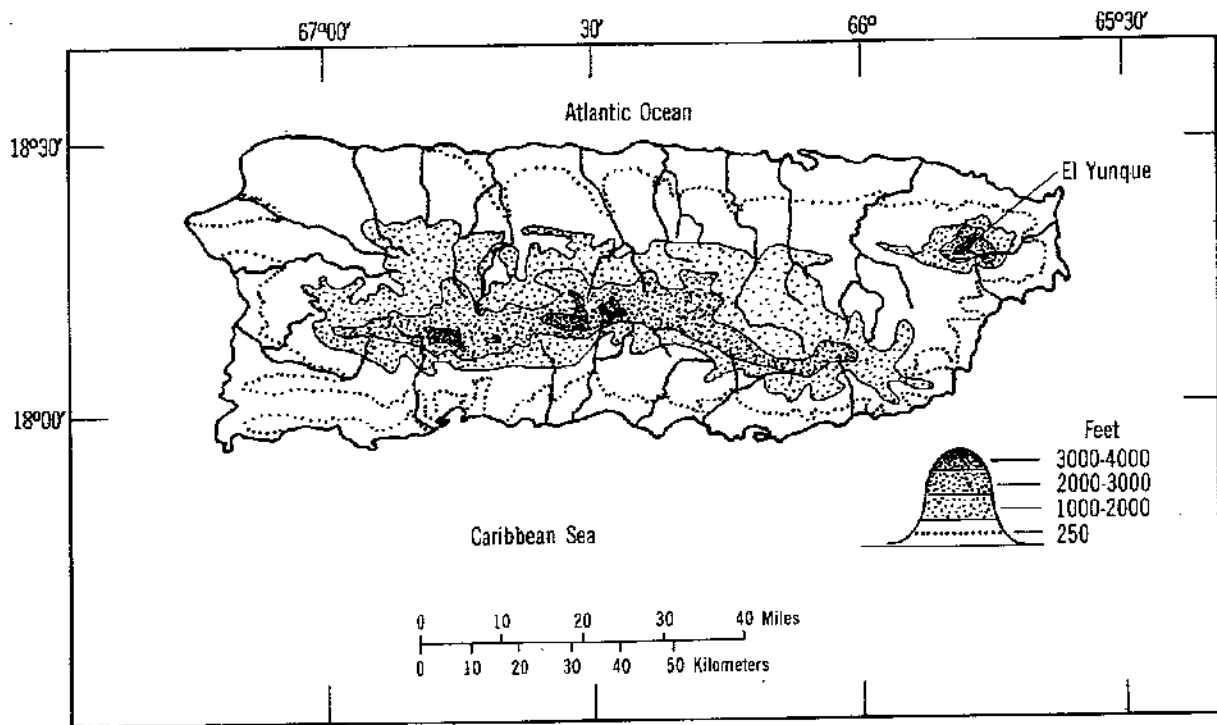
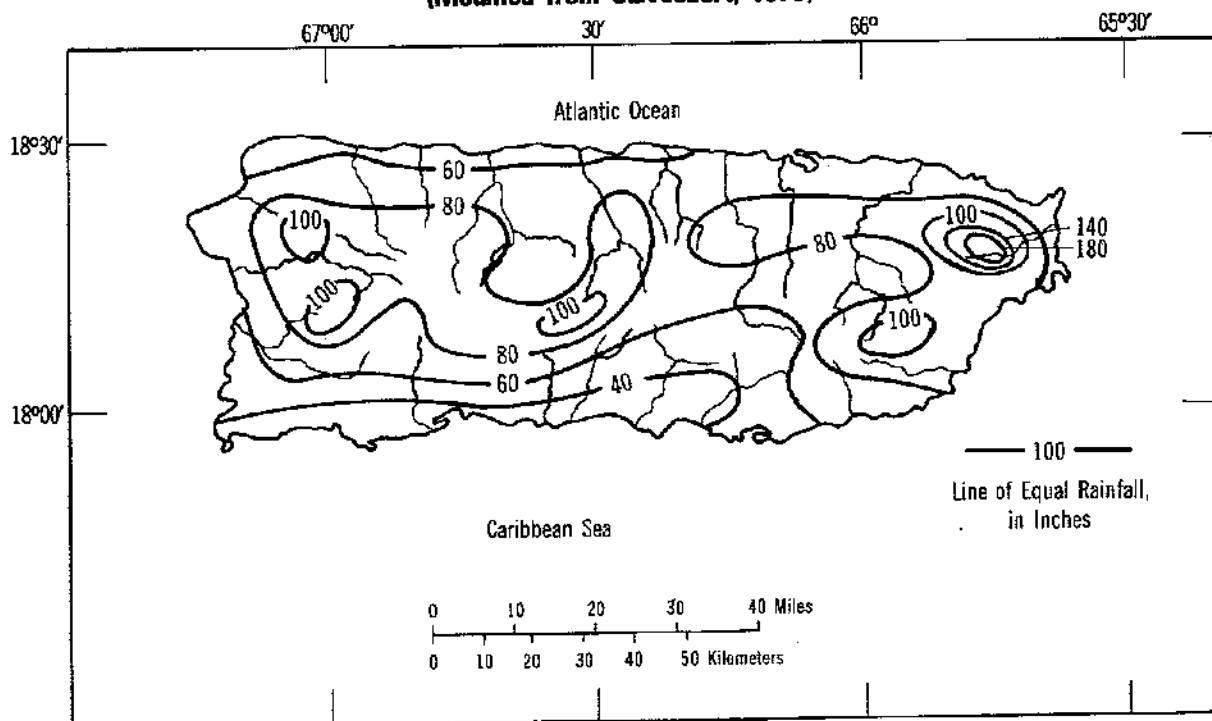


Figure 8.
Average Annual Precipitation.
(Modified from Calvesbert, 1970)



Quantity of Water Available.—As indicated in figure 9, Puerto Rico and its adjacent islands receive an estimated 16,000 hm³ (11,600 Mgal/d) of water annually as rainfall.⁸ In 1975 about 10,000 hm³/yr (7,240 Mgal/d) of water was returned to the atmosphere by evapotranspiration; more than 5,000 hm³ (3,620 Mgal/d) by streams flow to the area; 260 hm³ (188 Mgal/d) by ground-water discharge to the lowlands and the ocean; and municipalities, industry, and agriculture returned by means of consumptive use, for about 580 hm³ (420 Mgal/d) of discharges to the ocean, and evapotranspiration.

Of the more than 5,000 hm³ of streamflow to the sea, probably only about half could be retained in reservoirs. The same percentage retainment probably holds true of ground-water discharge to the ocean—about half of the 260 hm³ discharged to the ocean could be retained for use by pumping wells located near the coast. However, wells would have to be properly spaced and pumpage monitored to prevent the lowering of water to critical levels at which seawater intrusion into the aquifer might occur.

Of the 580 hm³ used by municipalities, industry, and agriculture, 255 hm³ (185 Mgal/d) is returned to the atmosphere as evapotranspiration by agriculture and is uncontrollable. Of the remaining 325 hm³ (235 Mgal/d), probably half could be reused by recycling the effluent from proposed sewage treatment plants.

The above analysis indicates that about 2,790 hm³/yr (2,020 Mgal/d) of additional water is available for use. However, this is a theoretical amount; the actual amount is subject to technical, social, and economic constraints. Moreover, the potential amount would not be distributed evenly throughout the island. For instance, although the south coast comprises about 16 percent of the island, 16 percent of 2,790 hm³, or 445 hm³ (323 Mgal/d), is not available for additional water supplies. Therefore, to increase the short-term water supply potential of the south coast would require improvements in present water use. Long-term increases will require the importation of water from water-rich areas of the north coast and interior.

Quality of Water Available.—The chemical composition of nearly all surface waters in Puerto Rico is about the same, being predominantly of the calcium-bicarbonate type. However, characteristic differences do occur, especially in terms of dissolved solids and concentrations of specifications. The differences are shown in figure 10.

Most of the ground-water supplies in Puerto Rico are also similar in chemical composition. Calcium, magnesium, and bicarbonate are the principal ions found in them. Calcium and chloride ions predomi-

nate in the ground water of the Lajas Valley and other heavily pumped areas along the south coast. Their presence indicates seawater contamination or salt buildup in the soils as a result of irrigation. Nitrates are also found in all ground water near the south coast, reportedly in concentrations as high as 149 mg/L (milligrams per liter). The nitrates probably originate from the fertilizers that are used extensively in cultivating sugarcane.⁴

Most of the ground waters of Puerto Rico are hard (100–300 mg/L). Color is usually about 10 units and fluoride concentrations are seldom more than a few tenths of a milligram per liter.⁵ In the alluvium of the Maunabo Valley and adjacent valleys, high concentrations of manganese and iron are present in some of the well water.

The Puerto Rico Department of Health makes scheduled collections of samples from all public water supplies—on the island surface. The samples are analyzed to determine if the water quality meets Federal standard for drinking water. Industries usually perform chemical analyses of their own water supplies to detect any constituents that might be harmful to industrial machinery or products. Water quality is monitored at 55 surface-water sites throughout the island by the U.S. Geological Survey under a variety of cooperative programs with other Federal and Commonwealth agencies. However, in areas where public or industrial water supplies do not exist, few data on the quality of ground water have been collected.

The physical properties of ground water in Puerto Rico fall within acceptable tolerances for most purposes. Surface water, however, requires considerable filtration during high flows so that suspended sediment can be removed. Few, if any, surface waters in Puerto Rico are free of coliform bacteria. Numerous streams throughout the island have coliform counts in the thousands of coliform per milliliter. Even the pristine waters found at the highest elevations of El Yunque (see figure 7) must be chlorinated to reduce the coliform counts to levels acceptable for drinking water.

Water Budget

In 1948 McGuinness divided Puerto Rico into five ground water provinces (refer to figure 11).⁶ These areas were delineated by aquifer boundaries. McGuinness' provinces are used for development of the water budgets presented in the discussion that follows. The water budgets are for 1975, but also cover future needs and supplies.

⁴ Bogart, D. B., Agnow, T. and Crooks, J. W., *Water Resources of Puerto Rico—A Program Report*, Commonwealth of Puerto Rico Water Resources Bulletin No. 4, 1964.

⁵ Bogart, *op. cit.*, p. 90.

⁶ McGuinness, C. L., *Ground Water Resources of Puerto Rico*, San Juan Aqueduct and Sewer Authority, 1948.

⁸ Gomez F., United States Geological Survey memorandum, 1978.

Figure 9.
Generalized Water Use and Water Budget for Puerto Rico and Adjacent Islands.
 (Modified from F. Gomez, U.S. Geological Survey Written Communication, 1978)

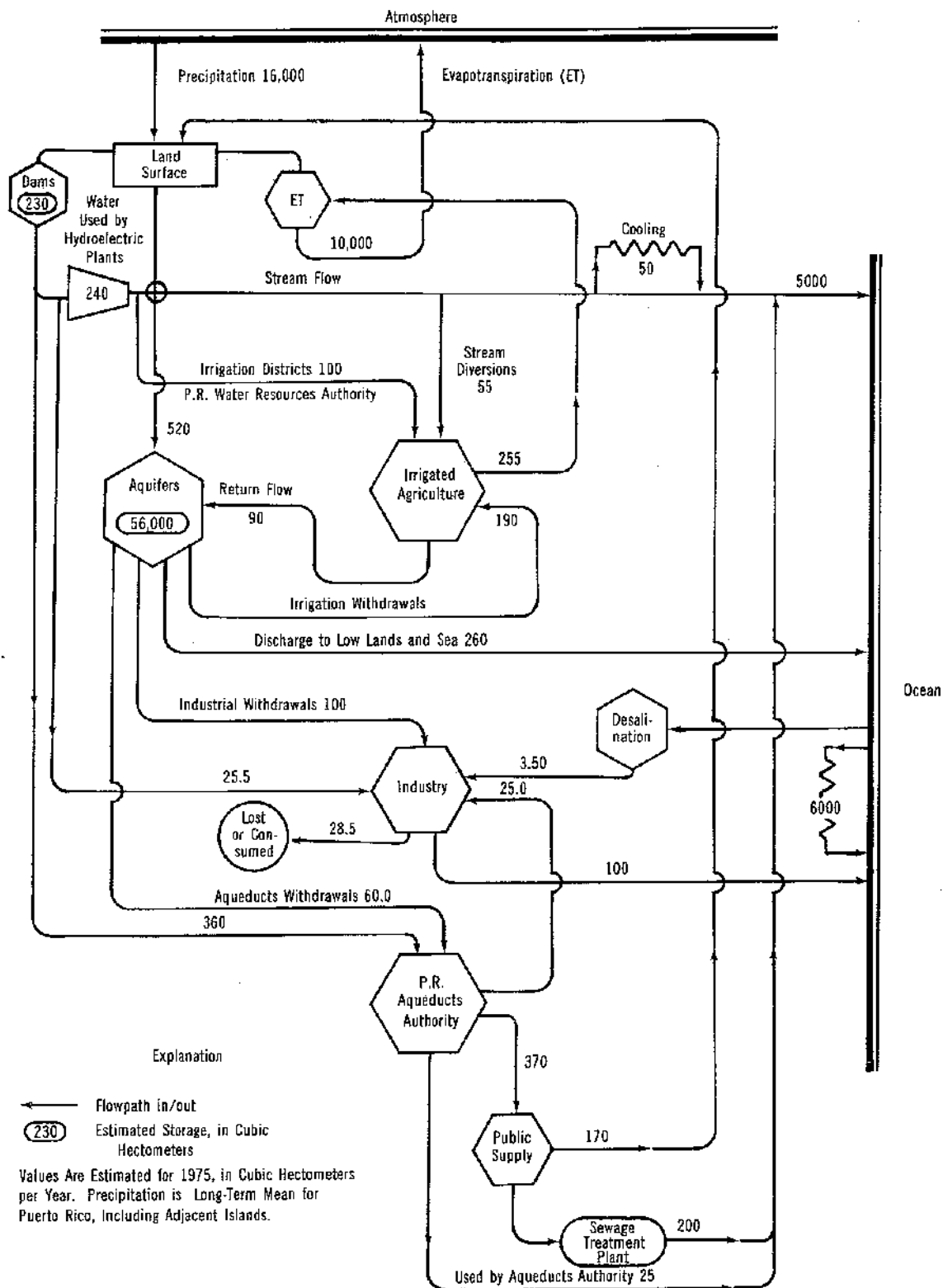


Figure 10.
Chemical Characteristics of Surface Water.

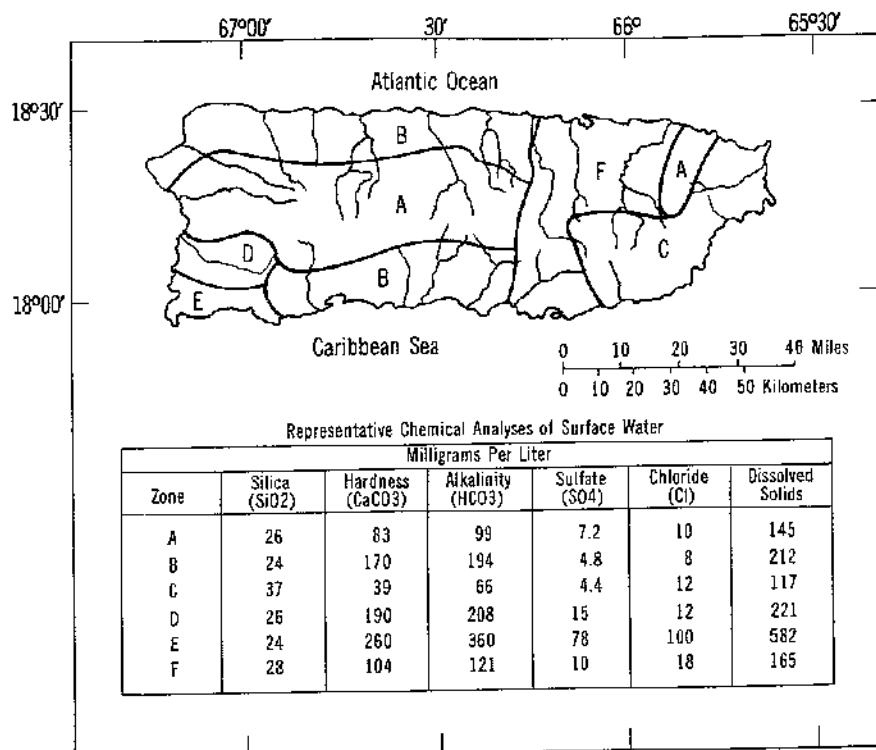
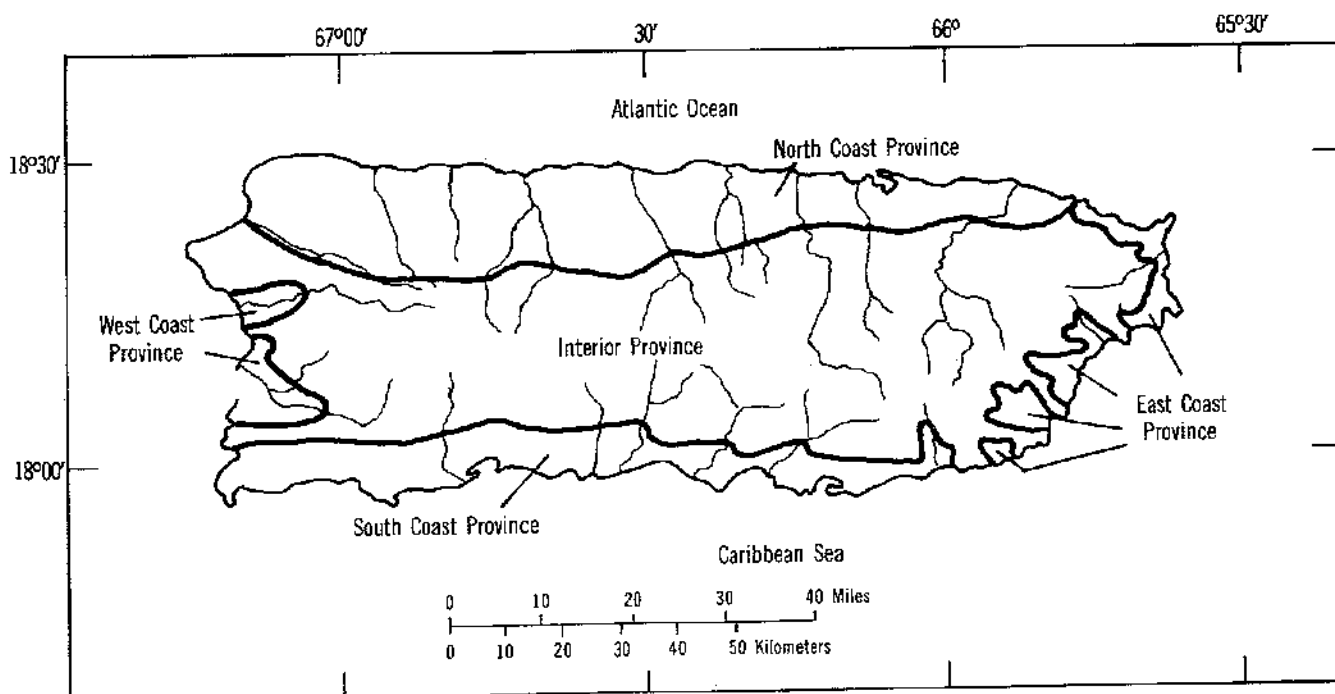


Figure 11.
Ground-Water Provinces of Puerto Rico.
(Modified from McGuinness, 1948)



Puerto Rico and the outlying islands comprise about 9,000 square kilometers (3,475 square miles). The long-term mean annual rainfall is 1,850 mm (72.9 in.) for Puerto Rico itself. The inclusion of the outlying islands reduces the rainfall value to about 1,780 mm (70.1 in.). The 1975 water budgets for Puerto Rico and the outlying islands of Vieques, Culebra, and Mona and for each of the five provinces appear below:⁷

Islandwide		
	hm ³ /yr	Mgal/d
Input:		
Precipitation	16,000	11,600
Evapotranspiration	10,000	7,240
Stream flow to ocean	5,000	3,620
Ground-water discharge to wetlands and ocean	260	188
Surface-water use:		
Agriculture	155	112
Public supplies	360	260
Output:		
Ground-water withdrawals:		
Agriculture	100	72
Industry	100	72
Public supplies	60	43
Total (rounded)	16,000	11,600
North Coast Province		
Input:		
Precipitation	3,630	2,630
Stream inflow (from Interior Province)	2,240	1,620
Total (rounded)	5,870	4,250
Output:		
Evapotranspiration	2,510	1,820
Streamflow to ocean	3,150	2,280
Ground-water discharge to wetlands and ocean	121	88
Ground-water withdrawal	90	65
Total (rounded)	5,870	4,250
South Coast Province		
Input:		
Precipitation	470	340
Stream inflow (from Interior Province)	495	358
Irrigation imports	80	58
Total (rounded)	1,040	756
Output:		
Evapotranspiration	490	355
Streamflow to sea	350	253
Ground-water discharge to wetlands and ocean	50	36
Ground-water withdrawal:		
Agriculture	100	72
Industry	40	29
Public supplies	10	7
Total (rounded)	1,040	753

⁷ Gomez, *op. cit.*

West Coast Province		
Input:		
Precipitation	360	261
Stream inflow (from Interior Province)	880	673
Total (rounded)	1,240	898
Output:		
Evapotranspiration	270	195
Streamflow to sea	920	666
Ground-water discharge to wetlands and ocean	40	29
Ground-water withdrawals	10	7
Total (rounded)	1,240	897
East Coast Province		
Input:		
Precipitation	390	282
Stream inflow (from Interior Province)	510	369
Total (rounded)	900	651
Output:		
Evapotranspiration	278	201
Streamflow to sea	580	420
Ground-water discharge to wetlands and ocean	30	22
Ground-water withdrawals:		
Agriculture	0	0
Industry	10	7
Public supplies	2	1
Total (rounded)	900	651

Interior Province

Because data are scarce for the Interior Province the following table was obtained by subtracting the total water budgets of the four provinces from the islandwide budget (excluding the outlying islands):

	hm ³ /yr	Mgal/d
Input:		
Precipitation	11,100	8,030
Output:		
Evapotranspiration	6,490	4,700
Streamflow to other provinces	4,200	3,040
Ground-water discharges and withdrawals	376	272
Total (rounded)	11,100	8,010

Water Sources and Uses

Islandwide.—About 60 percent of Puerto Rico's human water needs are served from surface water and 40 percent from ground water. Figure 4 provides a breakdown of water rises in Puerto Rico in 1975, including those of the islands of Vieques, Culebra, and Mona.⁸ Surface-water sources accounted for

⁸ Gomez, *op. cit.*

about 86 percent of the public supplies but only about 17 percent of the industrial supplies; agriculture uses drew almost equally from ground water and surface water sources.

Municipal and industrial water supplies are treated and distributed by the Puerto Rico Aqueduct and Sewer Authority (PRASA). The charges levied for treated water in 1978 were the following:

0-10 m ³ (0-2,640 gal)	\$1.60 per month (61¢ per 1,000 gal)
10-50 m ³ (2,640-13,200 gal)	22¢ per m ³ per month (83¢ per 1,000 gal)
50-1,000 m ³ (13,200-264,000 gal) ..	26¢ per m ³ per month (98¢ per 1,000 gal)
1,000-10,000 m ³ (35,000- 353,000 ft ³)	21¢ per m ³ per month (79¢ per 1,000 gal)
more than 10,000 m ³ (more than 2,640,000 gal)	16¢ per m ³ per month (61¢ per 1,000 gal)

North Coast Province.—In the North Coast Province, public and agriculture demands are supported almost exclusively by surface water. However, industry receives more than half its water needs from ground water.

South Coast Province.—Ground water is the primary water source for the south coast. Of the 190 hm³/yr (137 Mgal/d) of ground water used islandwide by agriculture, 180 hm³/yr (130 Mgal/d) is used on the south coast. Of the 100 hm³/yr (72 Mgal/d) used islandwide by industry, 40 hm³/yr (29 Mgal/d) is used on the south coast. Almost 500 hm³/yr (360 Mgal/d) of streamflow enters or is diverted to the south coast, a large portion of which recharges the ground-water system. Most municipalities on the south coast use ground water for their public supplies; however, Ponce, the largest city on the south coast, relies on surface water, making surface water the major source of public supplies in the entire province.

West and East Coast Provinces.—Owing to the plentiful surface water on the west and east coasts in comparison to the south coast, major water users need not depend on aquifers for their water. Only 1 or 2 percent of the water used on the west and east coasts comes from ground-water withdrawals.

Interior Province.—Surface water is the major source in the area. Almost all of the water supplies in the interior are either industrial or public. In 1960, however, Aibonito obtained its public supplies from four wells and Comerio derived its public supply from one spring and one well. In Cayey 27 percent of the supply came from wells while in Caguas almost 10 percent was provided by wells.

Future Water Demands

Public supplies accounted for 420 hm³ (304 Mgal/d) of the water used in Puerto Rico in 1975. It is estimated that public supplies will reach nearly 600 hm³ in 1985. Agricultural water use was 345 hm³ (250 Mgal/d) in 1975 and is estimated to remain the same through 1985 because more efficient irrigation measures and water reuse practices are underway. Industrial water use was 154 hm³ (112 Mgal/d) in 1975, 25 hm³ (18 Mgal/d) coming from public sources. An additional 50 hm³ (36 Mgal/d) came from surface waters and was used for cooling in sugar production. Industrial uses are expected to increase only slightly through 1985 because the stringent environmental controls which have been imposed on the effluents will force industry to use water more effectively and judiciously.⁹

Water Problems

A number of water problems, both existing and anticipated, may have significant impacts on the economic future of Puerto Rico. Several of these problems are of natural origin. Others are manmade or aggravated by human activities.

The most obvious natural problem and one not unique to Puerto Rico is the annual variability of rainfall within and between years and with location. Measures of precipitation recorded between 1941 and 1970 by the U.S. National Oceanic and Atmospheric Administration, show San Juan having a monthly high average precipitation of 177.0 mm (6.97 in) in August and a monthly low average of 51.8 mm (2.04 in) in March. Ponce, on the south coast, according to the records, had a monthly high average precipitation of 147.0 mm (5.79 in) occurring in October and a monthly low average of 18.3 mm (0.72 in) coming in February.

Precipitation and its subsequent stream flow can vary considerably from year to year. For example, annual precipitation at San Juan was 940 mm (37.0 in) in 1966, but 1,910 mm (75.2 in) in 1965. Annual precipitation at Ponce was 380 mm (15.0 in) in 1967 and 1,600 mm (63.0 in) in 1970.

As mentioned earlier, precipitation varies substantially with location as well as time. In the El Yunque area (near the east coast) average annual precipitation exceeds 4,570 mm (180 in), while only 97 mm (60 in) to the southeast (west of Ponce) the average annual precipitation is about 890 mm (35 in).¹⁰

Although the unsatisfactory temporal and spatial distributions of rainfall are severe problems, they are

⁹ Gomez, *op. cit.*

¹⁰ Calvesbert, R. J., *Climate of Puerto Rico and U.S. Virgin Islands*, U.S. Department of Commerce Environmental Science Services Administrative publication, No. 60-52, Silver Spring, Md.

of natural order. Another major problem, however, one that is manmade, is the lack of any formal scheme of coordination between the 23 agencies of the Commonwealth and of the Federal Government that are concerned with water management.¹¹

The Water Law of Puerto Rico (Public Law 136), approved in June 1976, empowers the Department of Natural Resources to develop plans and regulate the use, conservation, and development of water resources. The development and implementation of an islandwide water plan would assist in solving the following problems:

1. *The issue of quantity and quality of ground water.* The U.S. Geological Survey's present monitoring network is insufficient to provide a reliable estimate of either the ground-water storage or the water quality for the island.

2. *The problem of the longevity of stream-flow gages.*—The U.S. Geological Survey's islandwide streamflow network needs to be stabilized in order to permit the long-term collection of data at key locations. Few stations in Puerto Rico have records of sufficient length to generate reliable flood frequency and duration data.

3. *The contamination of resources.*—Some of the factors affecting the quality of the island's water resources are natural, such as quality of precipitation, character of the host rock in the aquifers and the wastes from wild animals. But by far the greatest impact on water quality derives from manmade activities.

This group of problems which are currently being reviewed by the Islandwide 208 Program of the Puerto Rico Environmental Quality Board includes the following:

a. *Seawater encroachment.*—Pumpage from wells in several areas along the south coast has lowered ground-water levels sufficiently to cause seawater encroachment deep in the alluvial aquifer.

b. *Landfills.*—In the past, the locations of landfills have been determined more by economic considerations than by a concern for the protection of water resources. Many landfills are located on permeable materials which offer ready access for toxic leachates to the ground-water and surface-water system.¹²

c. *Sewage treatment plants.*—Many public sewage and industrial-waste treatment plants operate at much greater levels than their optimal design capacities. This condition leads to poorly treated effluents entering the rivers and streams of the island.

d. *Nonpoint sources.*—The quality of water re-

sources is affected to a large degree by factors whose sources are difficult to pinpoint and, therefore, difficult to control. The sources include agricultural operations, urban runoff and mining and construction activities among others. These problems are presently (1978) being evaluated by the Islandwide 208 Program of the Puerto Rico Environmental Quality Board.

4. *Distribution of users.*—Some of the problems of adequate water resources are the result of the distribution of water users:

a. *Barceloneta-Manati area.*—The foregoing presentation of water budgets throughout the island shows the North Coast Province to have, by far, the largest potential of water supplies. Yet in the Barceloneta-Manati area water levels in the artesian system declined steadily since 1972.

Many wells that flowed in the past must now be pumped. This condition results from the fact that industrial users are concentrated in their location. The combined water withdrawals of the users are consequently larger than the capacity of the aquifer to transmit water. Several methods are available for relieving this problem including the following:

(1) *Enlargement of the withdrawal area.*—Drawdowns in wells would be significantly reduced if current demands were met by the supplier wells being spread over a larger area and the water delivered to the user via pipelines.

(2) *Use of the water-table aquifer.*—A more practical alternative to the above method is to augment current water needs by utilizing the shallower water-table aquifer—that is water under atmospheric pressure.

b. *Yauco area.*—The Yauco area on the south coast is similar to the Barceloneta-Manati area in that wells fields are concentrated in a small area. However, the Yauco area has considerably less water than the north coast and has only the shallow water-table aquifer in the alluvial deposits available for most uses.

c. *Conflicts of users.*—On the south coast, the varying needs of water users intensify water-management problems. Hydroelectric plants need large volumes of water for the generation to electricity; agriculture needs large supply for irrigation; PRASA requires water for public supplies; and sugar mills and oil refineries require large amounts for the manufacture of their products. Providing water for all of these concurrent needs would be a formidable task even in a water-rich area, but on the south coast it becomes a monumental one. The task of water allocation on the south coast

¹¹ Summary, U.S. Army Corps of Engineers, 1979.

¹² Gomez, *op. cit.*

is compounded by the areal discontinuity of the alluvial aquifers: some water users are unable to meet their needs from supplies within the area where they are located and must obtain additional supplies from adjoining areas.

6. *Storage of water.*—It was pointed out earlier that possibly half of the streamflow discharge to the ocean, or about 2,500 hm³/yr (1,800 Mgal/d), might be salvageable and used later; however, this figure was probably unrealistic because of the economic and technical constraints involved. One of these constraints is storage. Given the capacities of the reservoirs in 1975, about 5,000 hm³ (3,620 Mgal/d) of stream discharge flowed to the sea. Capacities of most of the reservoirs are decreasing each year as a result of sedimentation. In order to salvage the streamflow discharge to the ocean additional reservoirs would be required. The U.S. Army Corps of Engineers is currently designing reservoirs on the south coast to salvage some of the runoff.

7. *Flooding.*—Floods have always had a serious impact on the economy of Puerto Rico. However, the U.S. Geological Survey has documented many of the floods which occurred on the island. Hypothetical floodway boundaries have been delineated in several basins as part of the U.S. Department of Housing and Urban Development's FIA flood insurance studies. The Corps of Engineers and other agencies have prepared similar maps for other basins. These documents should be of assistance to water managers and planners and also to land users and industrial planners.

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Statistical Appendix

Data for Table 1 and Figure 1, Chapter II

Year	Gross domestic product (millions of constant 1954 dollars)	Gross national product (millions of constant 1954 dollars)	Per capita gross domestic product (constant 1954 dollars)	Per capita gross national product (constant 1954 dollars)	Population (thousands)
1977	4,048.1	3,594.4	1,223	1,086	3,310
1976	3,812.4	3,461.6	—	—	—
1975	3,691.1	3,424.7	—	—	—
1974	3,787.2	3,493.6	—	—	—
1973	3,789.9	3,450.3	1,302	1,186	2,910
1972	3,501.3	3,215.9	—	—	—
1971	3,277.0	3,075.6	—	—	—
1970	3,067.8	2,901.4	1,132	1,070	2,711
1969	2,691.6	2,684.0	—	—	—
1968	2,593.0	2,455.3	—	—	—
1967	2,475.4	2,328.4	—	—	—
1966	2,329.1	2,223.2	—	—	—
1965	2,175.5	2,083.0	—	—	—
1964	1,994.4	1,916.8	—	—	—
1963	1,862.0	1,820.7	—	—	—
1962	1,686.6	1,683.9	—	—	—
1961	1,568.5	1,562.8	—	—	—
1960	1,431.9	1,473.2	428	630	3,342
1959	1,335.2	1,363.6	—	—	—
1958	1,225.2	1,258.4	—	—	—
1957	1,190.8	1,221.8	—	—	—
1956	1,134.0	1,185.1	—	—	—
1955	1,058.3	1,138.5	—	—	—
1954	1,006.4	1,104.4	—	—	—
1953	966.6	1,081.3	—	—	—
1952	925.6	1,015.9	—	—	—
1951	875.0	925.0	—	—	—
1950	844.1	878.7	383	399	2,206
1949	779.7	818.6	—	—	—
1948	695.9	732.3	—	—	—
1947	664.0	705.3	—	—	—
1946	—	—	—	—	—
1945	—	—	—	—	—
1944	—	—	—	—	—
1943	—	—	—	—	—
1942	—	—	—	—	—
1941	—	—	—	—	—
1940	—	—	—	269	1,859

Data for Figure 2, Chapter II.—Annual Percentage Rate of Growth of Gross Domestic Product

Year	Puerto Rico (constant 1954 dollar basis)	United States ¹ (constant 1972 dollar basis)
1977	6.2	4.6
1976	3.3	6.9
1975	-2.5	-2.9
1974	-0.1	-0.4
1973	8.2	5.8
1972	6.8	5.6
1971	6.8	2.5
1970	14.0	-0.5
1969	3.8	3.0
1968	4.8	4.7
1967	6.3	2.6
1966	7.1	6.7
1965	9.1	5.0
1964	7.1	5.8
1963	10.4	3.2
1962	7.5	6.5
1961	9.5	1.3
1960	7.2	1.7
1959	9.0	8.7
1958	2.9	-1.8
1957	5.0	2.0
1956	7.2	2.5
1955	5.2	7.4
1954	4.1	-3.3
1953	4.4	5.7
1952	5.8	3.3
1951	3.7	9.2
1950	8.3	7.5
1949	12.0	0.6
1948	4.8	3.9

¹United States gross domestic product was translated to Puerto Rican fiscal year basis, i.e., July 1 to June 30.

Data for Table 3 and Figure 3, Chapter II.—Components of Puerto Rican Gross National Product (GNP)

[In constant 1954 dollars]

Year	Gross national product	Personal consumption	Government consumption	Gross domestic fixed investment	Inventory investment	Net exports	Exports	Imports
1977	3,594.4	3,650.6	720.0	566.6	72.0	-1,422.6	2,267.6	3,690.1
1976	3,461.6	3,428.0	679.9	671.6	170.1	-1,496.2	1,928.7	3,424.8
1975	3,424.7	3,198.2	686.5	770.7	90.3	-1,375.8	1,897.0	3,272.7
1974	3,493.6	3,247.7	621.9	786.1	30.7	-1,192.9	2,182.7	3,375.6
1973	3,450.3	3,317.8	636.2	851.2	164.0	-1,518.8	2,204.5	3,723.3
1972	3,215.9	3,120.1	576.2	974.8	63.0	-1,518.2	1,791.3	3,309.5
1971	3,075.6	2,918.7	545.4	940.7	72.2	-1,401.3	1,710.2	3,111.5
1970	2,901.4	2,648.8	499.4	869.6	32.3	-1,148.6	1,680.0	2,828.6
1969	2,684.0	2,480.4	438.9	727.2	83.4	-1,045.9	1,571.9	2,617.8
1968	2,455.3	2,242.6	404.0	670.3	51.6	-913.3	1,475.2	2,388.5
1967	2,328.4	2,062.7	345.8	643.8	31.7	-744.7	1,414.1	2,158.7
1966	2,223.2	2,022.5	279.6	540.4	110.1	-729.3	1,284.1	2,013.9
1965	2,083.0	1,886.5	271.9	531.0	110.6	-717.0	1,130.5	1,847.5
1964	1,916.8	1,748.2	249.8	448.9	61.0	-583.9	1,095.3	1,679.1
1963	1,820.7	1,574.2	237.6	380.3	68.5	-440.0	1,019.6	1,459.8
1962	1,683.9	1,451.3	224.3	358.1	74.8	-424.4	953.0	1,377.4
1961	1,562.8	1,317.1	210.3	308.7	19.7	-292.9	893.2	1,186.1
1960	1,473.2	1,260.8	188.3	302.0	33.6	-311.6	831.6	1,143.1
1959	1,363.6	1,154.8	192.1	260.8	51.4	-295.3	719.5	1,014.8
1958	1,258.4	1,054.9	177.1	247.0	18.6	-239.2	682.1	921.2
1957	1,221.8	1,025.7	172.9	235.0	13.1	-224.9	677.9	902.8
1956	1,185.1	1,009.7	143.8	204.5	12.0	-184.3	641.9	826.2
1955	1,138.5	984.9	139.8	198.9	14.3	-178.3	589.8	769.1
1954	1,104.4	911.8	129.7	172.7	13.2	-123.0	577.1	700.1
1953	1,081.3	886.9	123.2	181.0	-0.3	-94.4	564.9	658.4
1952	1,015.9	835.7	115.7	153.9	41.7	-131.1	451.9	583.0
1951	925.0	813.6	109.5	138.0	21.8	-156.1	416.7	572.8
1950	878.7	773.6	96.2	128.1	-0.9	-118.3	390.0	508.3
1949	818.6	713.9	104.4	130.3	6.0	-136.1	318.5	454.6
1948	732.3	672.7	90.7	114.9	7.6	-156.6	293.9	447.5
1947	705.3	645.4	87.5	73.9	29.4	-131.0	303.3	434.3
1940	499.3	425.3	30.6	38.8	2.7	1.9	261.2	259.3

Data for Table 3 and Figure 3, Chapter II.—Components of Puerto Rican Gross National Product, 1940-77

[In percentages of 1954-dollar values]

Year	Personal consumption	Government consumption	Gross domestic fixed investment	Inventory investment	Net exports	Exports	Imports
1977	101.6	20.0	15.8	2.0	-39.6	63.1	102.7
1976	99.0	19.6	19.4	4.9	-43.2	55.7	98.9
1975	93.4	20.0	22.5	2.6	-40.2	55.4	95.6
1974	93.0	17.8	22.5	0.9	-34.1	62.5	96.6
1973	96.2	18.4	24.7	4.8	-44.0	63.9	107.9
1972	97.0	17.9	30.3	2.0	-47.2	55.7	102.9
1971	94.9	17.7	30.6	2.3	-45.6	55.6	101.2
1970	91.3	17.2	30.0	1.1	-39.6	57.9	97.5
1969	92.4	16.4	27.1	3.1	-39.0	58.6	97.5
1968	91.3	16.5	27.3	2.1	-37.2	60.1	97.3
1967	88.2	14.8	27.5	1.4	-31.8	60.4	92.3
1966	91.0	12.6	24.3	5.0	-32.8	57.8	90.6
1965	90.6	13.1	25.5	5.3	-34.4	54.3	88.7
1964	91.2	13.0	23.4	4.2	-30.5	57.1	98.0
1963	86.0	13.0	20.8	3.7	-24.0	55.7	79.8
1962	86.2	13.3	21.3	4.4	-25.2	56.6	81.8
1961	84.3	13.5	19.8	1.3	-18.7	57.2	75.9
1960	85.6	12.8	20.5	2.3	-21.2	56.4	77.6
1959	84.7	14.1	19.1	3.8	-21.7	52.8	74.4
1958	83.8	14.1	19.6	1.5	-19.0	54.2	73.2
1957	83.9	14.2	19.2	1.1	-18.4	55.5	73.9
1956	85.2	12.1	17.3	1.0	-15.6	54.2	69.7
1955	84.8	12.3	17.5	1.3	-15.7	51.8	67.6
1954	82.6	11.7	15.6	1.2	-11.1	52.3	63.4
1953	82.2	11.4	14.9	0.0	-8.5	54.1	60.7
1952	82.3	11.4	15.1	4.1	-12.9	44.5	57.4
1951	88.0	11.8	14.9	2.4	-16.9	45.0	61.9
1950	88.0	10.9	14.6	0.1	-13.5	44.4	57.8
1949	87.2	12.8	15.9	0.7	-16.6	38.9	55.6
1948	91.9	12.4	15.7	1.0	-21.0	40.1	61.1
1947	91.5	12.4	10.5	4.2	-18.6	43.0	61.6
1940	85.2	6.1	7.8	0.5	0.4	52.3	51.9

Source: Puerto Rico Planning Board.

Data for Figure 5, Chapter II.—Total and Net Federal Transfer Payments, Personal Income 1950-77

Year	Puerto Rico personal income (millions of dollars)	Federal transfer payments	Percentage Federal transfer payments of personal income	Total transfer payments (millions of dollars)	Percentage total transfer of personal income
1977	8,182.1	1,602.2	19.58	2,369.4	28.96
1976	—	—	—	—	—
1975	6,343.0	1,026.6	16.18	1,576.6	24.85
1974	—	—	—	—	—
1973	—	—	—	—	—
1972	—	—	—	—	—
1971	—	—	—	—	—
1970	3,752.6	280.8	4.76	572.2	15.25
1969	—	—	—	—	—
1968	—	—	—	—	—
1967	—	—	—	—	—
1966	—	—	—	—	—
1965	—	—	—	—	—
1964	—	—	—	—	—
1963	—	—	—	—	—
1962	—	—	—	—	—
1961	—	—	—	—	—
1960	1,373.8	78.1	5.68	177.1	12.89
1959	—	—	—	—	—
1958	—	—	—	—	—
1957	—	—	—	—	—
1956	—	—	—	—	—
1955	—	—	—	—	—
1954	—	—	—	—	—
1953	—	—	—	—	—
1952	—	—	—	—	—
1951	—	—	—	—	—
1950	853.4	50.4	5.91	78.1	9.15
1949	—	—	—	—	—
1948	—	—	—	—	—
1947	—	—	—	—	—
1946	—	—	—	—	—
1945	—	—	—	—	—
1944	—	—	—	—	—
1943	—	—	—	—	—
1942	—	—	—	—	—
1941	—	—	—	—	—
1940	—	—	—	—	—

Data for Figures 6 and 7, Chapter II.—Labor Force, Employment, and Unemployment (thousands of workers, percentage unemployed)

Year	Figure 6		Figure 7
	Labor force (in thousands)	Employment (in thousands)	Unemployment (percentage)
1951	713	604	15.4
1952	679	571	16.0
1953	646	550	14.8
1954	631	540	14.5
1955	637	539	15.3
1956	643	558	13.2
1957	636	552	13.2
1958	637	555	12.8
1959	637	546	14.2
1960	625	542	13.3
1961	641	565	11.8
1962	651	568	12.7
1963	643	561	12.8
1964	658	586	11.0
1965	681	605	11.2
1966	717	634	11.7
1967	733	643	12.3
1968	739	654	11.6
1969	753	675	10.3
1970	765	686	10.3
1971	789	700	11.3
1972	837	737	12.0
1973	858	757	11.8
1974	884	775	12.3
1975	872	738	15.4
1976	890	718	19.4
1977	925	739	20.1

Data for Figure 9, Chapter II.—Employment by Sector (Fiscal Years)

[In thousands]

Year	Manufacturing	Public administration and services	Services and trade	Construction	Agriculture
1964	101.3	81.0	190.7	51.3	122.4
1965	112.3	86.7	199.5	56.5	108.4
1966	118.9	98.7	217.3	57.5	98.6
1967	122.8	101.4	223.5	62.4	88.0
1968	129.3	105.4	225.3	64.2	84.7
1969	136.1	114.3	232.8	67.5	78.1
1970	132.6	117.8	243.8	76.0	68.3
1971	132.5	123.7	251.4	81.1	61.0
1972	141.3	143.7	261.2	79.4	57.5
1973	141.6	157.1	273.1	79.6	49.6
1974	147.2	160.8	275.2	79.8	53.3
1975	137.3	165.6	261.6	68.6	50.2
1976	133.4	170.8	260.8	53.4	47.0
1977	144.2	180.9	271.8	43.0	43.0

Data for Figure 8, Chapter II.—Labor Force Participation Rates

[Percentages]

Year	Male	Female
1960	71.5	22.1
1961	71.3	22.6
1962	70.3	21.7
1963	69.2	22.1
1964	69.4	22.7
1965	68.8	23.8
1966	68.6	24.9
1967	68.0	25.3
1968	67.0	25.5
1969	66.3	26.0
1970	65.6	26.0
1971	65.5	26.6
1972	64.5	26.9
1973	63.8	26.8
1974	62.3	26.5
1975	59.7	25.2
1976	59.4	26.1
1977	—	—

Data for Tables 6 and 7, Chapter II

Year	Gross domestic product Puerto Rico (millions of 1954 dollars)	Total em- ployment (thousands)	Average productivity of labor	Total com- pensation (millions of dollars)	Average annual wage rate	Gross national product consumption deflator	Real average annual wage rate
1977	4,048.1	739	\$5,478	5,349.4	\$7,239	222.1	\$3,259
1976	—	—	—	—	—	—	—
1975	—	—	—	—	—	—	—
1974	—	—	—	—	—	—	—
1973	3,789.9	757	5,006	4,029.5	5,323	157.4	3,382
1972	—	—	—	—	—	—	—
1971	—	—	—	—	—	—	—
1970	—	—	—	—	—	—	—
1969	—	—	—	—	—	—	—
1968	—	—	—	—	—	—	—
1967	—	—	—	—	—	—	—
1966	—	—	—	—	—	—	—
1965	—	—	—	—	—	—	—
1964	—	—	—	—	—	—	—
1963	1,862.0	561	3,319	1,302.4	2,322	115.7	2,007
1962	—	—	—	—	—	—	—
1961	—	—	—	—	—	—	—
1960	—	—	—	—	—	—	—
1959	—	—	—	—	—	—	—
1958	—	—	—	—	—	—	—
1957	—	—	—	—	—	—	—
1956	—	—	—	—	—	—	—
1955	—	—	—	—	—	—	—
1954	—	—	—	—	—	—	—
1953	—	—	—	—	—	—	—
1952	—	—	—	—	—	—	—
1951	875.0	604	1,449	443.2	734	88.8	827
1950	—	—	—	—	—	—	—
1949	—	—	—	—	—	—	—
1948	—	—	—	—	—	—	—
1947	—	—	—	—	—	—	—
1940	—	—	—	—	—	—	—

PERCENTAGE CHANGES

1977-73	2.3 (2.28)	8.0 (7.99)	-0.92
1963-73	4.2 (4.20)	8.7 (8.65)	5.36
1951-63	7.2 (7.15)	10.1 (10.07)	7.67

Data for Figure 10 and Table 5, Chapter II

Year	Rate of inflation ¹ (percentage)	Demand-pull inflation index	Cost-push inflation	Implicit price deflators gross domestic product	
				Puerto Rico	United States
1977	3.10	7.0	3.5	240.04	—
1976	4.70	14.7	6.0	232.82	—
1975	8.54	-8.0	9.4	222.36	—
1974	10.44	8.0	12.3	204.86	—
1973	2.55	1.1	4.7	185.50	—
1972	4.39	4.0	6.4	180.89	—
1971	5.59	1.4	6.8	173.28	—
1970	-0.98	2.9	-0.8	164.11	—
1969	8.88	6.1	15.5	165.73	—
1968	6.66	3.3	-1.2	152.21	—
1967	4.83	0	4.4	142.71	—
1966	2.78	0.4	3.3	136.13	—
1965	2.76	-4.1	1.2	132.45	—
1964	2.84	-3.2	0.2	128.89	—
1963	.93	2.6	3.8	125.33	—
1962	4.43	-8	5.3	124.18	—
1961	.63	5.5	3.3	118.91	—
1960	5.46	-3.4	4.1	118.16	—
1959	2.66	5.8	2.6	112.04	—
1958	5.25	-5.9	4.8	109.14	—
1957	2.45	-9.0	2.1	103.70	—
1956	.84	-9	1.0	101.22	—
1955	.38	1.4	0.1	100.38	—
1954	3.52	-3.9	4.3	100.00	—
1953	1.90	-3.7	-0.3	96.60	—
1952	8.03	-2.4	6.8	94.80	—
1951	2.32	8.5	9.1	87.75	—
1950	-1.82	-7	-4.1	85.76	—
1949	-1.03	-4.0	-4.7	87.35	—
1948	2.40	-13.4	-1.7	88.19	—

¹ Calculated from the implicit price deflator for the gross domestic product.

Data for Figure 12 and Table 8, Chapter II.—GNP Component Price Deflators, Puerto Rico

[1954=100.0]

Year	Consumption	Government	Gross fixed investment	Construction	Machinery and equipment	Exports	Imports
1977	222.1	238.0	256.5	283.0	222.4	264.3	258.0
1976	214.7	237.9	252.5	272.9	213.1	248.2	246.5
1975	199.8	234.9	248.3	265.5	202.5	233.7	230.7
1974	175.2	213.2	213.4	231.5	170.2	202.0	191.7
1973	167.4	193.5	188.3	202.5	162.2	157.1	146.0
1972	152.0	180.6	180.7	189.1	161.3	156.4	142.6
1971	147.2	167.6	169.4	175.4	156.0	152.2	137.1
1970	141.4	153.1	161.2	166.5	149.8	147.4	132.6
1969	135.5	143.0	151.5	155.7	143.0	146.0	127.0
1968	130.9	140.3	145.1	147.1	138.4	140.1	122.3
1967	127.8	139.1	139.9	142.3	134.6	132.1	121.1
1966	121.6	136.9	137.8	139.2	134.9	127.0	116.7
1965	119.3	132.0	135.5	137.5	131.2	123.2	114.1
1964	117.5	127.3	132.2	131.9	132.8	119.0	111.5
1963	115.7	126.9	125.4	129.4	125.4	116.7	110.0
1962	114.7	122.6	125.0	125.8	123.3	111.3	107.9
1961	113.1	119.0	122.3	120.6	125.8	107.1	106.5
1960	110.8	115.7	117.5	114.8	122.6	106.4	106.8
1959	108.1	108.1	116.0	113.1	121.3	105.6	105.2
1958	106.3	107.4	113.9	112.0	118.2	103.0	104.4
1957	103.4	104.6	110.6	108.9	113.9	102.0	101.3
1956	101.1	103.1	106.2	105.7	107.2	99.1	99.3
1955	99.9	99.8	101.9	101.3	102.9	99.1	99.8
1954	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1953	97.1	96.9	98.8	99.9	96.7	99.8	100.6
1952	95.2	96.3	97.8	99.2	94.2	100.6	96.2
1951	88.8	90.1	92.1	92.9	90.3	98.2	88.6
1950	85.6	89.7	86.9	87.6	85.2	88.6	96.7
1949	89.0	89.4	89.0	93.0	82.0	96.7	101.7
1948	92.2	87.6	87.5	95.4	78.6	101.7	98.8
1947	89.5	85.1	83.6	96.8	71.4	98.8	52.1
1940	55.4	68.7	59.4	54.0	64.7	52.1	52.1

Data for Figure 14, Chapter II

[In millions of dollars]

Year	Excess of investment over saving—government and business	Personal saving
1977	564.6	-923.0
1976	1,034.9	-656.3
1975	1,537.9	-148.6
1974	1,117.4	-198.1
1973	1,029.1	-245.8
1972	1,072.0	-264.5
1971	1,020.6	-146.8
1970	814.6	-67.9
1969	559.1	-109.2
1968	480.6	-42.9
1967	396.4	-62.0
1966	331.3	-115.5
1965	410.9	-88.6
1964	272.1	-118.7
1963	197.7	-52.4
1962	247.2	-30.4
1961	126.7	-54.6
1960	166.2	-48.4
1959	129.9	-45.7
1958	135.1	-10.6
1957	119.0	4.8
1956	64.8	-24.1
1955	74.1	-3.0
1954	61.5	16.6
1953	44.5	19.3
1952	87.0	11.1
1951	45.7	-44.7
1950	32.0	1.9
1949	73.2	14.8
1948	58.4	-19.8
1947	23.5	-40.7
1940	—	—

Data for Figure 15, Chapter II

[In millions of 1972 dollars]

Year	Personal consumption	Disposable personal income
1977	3,650.6	3,446.0
1976	3,428.0	3,345.3
1975	3,198.2	3,226.2
1974	3,247.7	3,176.0
1973	3,317.8	3,301.9
1972	3,120.1	2,944.9
1971	2,918.7	2,726.3
1970	2,648.8	2,521.1
1969	2,480.4	2,331.7
1968	2,242.6	2,179.0
1967	2,062.7	2,002.1
1966	2,022.5	1,928.6
1965	1,886.5	1,789.6
1964	1,748.2	1,671.1
1963	1,574.2	1,570.0
1962	1,451.3	1,440.5
1961	1,317.1	1,312.1
1960	1,260.8	1,203.5
1959	1,154.8	1,119.9
1958	1,054.9	1,052.5
1957	1,025.7	1,040.9
1956	1,009.7	1,007.3
1955	984.9	975.5
1954	911.8	931.2
1953	886.9	903.6
1952	835.7	856.0
1951	813.6	781.7
1950	773.6	745.0
1949	713.9	705.3
1948	672.7	629.8
1947	645.4	622.1
1940	—	—

Data for Figure 16 and Table 17, Chapter II

Year	Gross fixed investment (billions of 1954 dollars)	Gross residential investment (billions of 1954 dollars)	Percentage of total	Gross private fixed investment (billions of 1954 dollars)	Percentage of total	Gross government fixed investment (billions of 1954 dollars)	Percentage of total	Gross public enterprises fixed investment (billions of 1954 dollars)	Percentage of total
1977	566.6	86.1	15.20	360.2	63.57	87.2	15.39	119.1	21.02
1976	671.6	120.3	17.91	410.4	61.11	95.2	14.18	166.1	24.73
1975	770.7	140.5	18.23	423.4	54.94	109.6	14.22	237.6	30.83
1974	786.1	177.7	22.61	494.4	62.89	113.4	14.43	178.2	22.67
1973	851.2	193.5	22.73	565.4	66.42	135.8	15.95	150.0	17.62
1972	974.8	197.7	20.28	637.7	65.42	140.4	14.40	196.7	20.18
1971	940.7	177.7	18.89	668.2	71.03	106.4	11.31	166.0	17.65
1970	869.6	173.6	19.96	635.2	73.05	103.0	11.84	131.3	15.10
1969	727.2	185.9	25.70	514.0	70.68	81.7	11.23	131.5	18.08
1968	670.3	178.8	26.67	471.1	70.28	72.4	10.80	126.9	18.93
1967	643.8	161.1	25.02	462.1	71.78	65.9	10.24	115.8	17.99
1966	540.4	155.8	28.83	395.7	73.22	56.0	10.36	88.7	16.41
1965	531.0	137.9	25.97	383.7	72.26	63.8	12.02	83.5	15.73
1964	448.9	106.2	23.66	307.4	68.48	62.6	13.95	71.7	15.97
1963	380.3	89.2	23.46	271.7	71.44	50.7	13.33	59.9	15.75
1962	358.1	77.4	21.61	246.7	68.89	43.7	12.20	69.8	19.49
1961	308.7	67.7	21.93	199.9	64.76	41.8	13.54	67.0	21.70
1960	302.0	63.1	20.89	189.9	62.88	43.3	14.34	68.8	22.78
1959	260.8	50.9	19.52	160.4	61.50	32.8	12.58	66.6	25.54
1958	247.0	47.5	19.23	155.7	63.04	29.0	11.74	62.2	25.18
1957	235.0	39.1	16.64	147.5	62.77	31.6	13.45	55.9	23.79
1956	204.5	46.5	22.74	143.3	70.07	24.8	12.13	36.4	17.80
1955	198.9	34.7	17.45	127.2	63.95	26.8	13.47	44.9	22.57
1954	172.7	23.8	13.78	97.2	56.28	31.6	18.30	43.9	25.42
1953	161.0	21.1	13.11	75.1	46.65	32.0	19.88	53.9	33.48
1952	153.9	28.3	18.39	79.2	51.46	23.3	15.14	51.6	33.53
1951	136.0	31.1	22.87	80.4	59.12	23.1	16.99	32.8	24.12
1950	128.1	24.0	18.74	59.7	46.60	24.9	19.44	43.6	34.04
1949	130.3	24.2	18.57	69.4	53.26	17.5	13.43	43.4	33.31
1948	114.9	19.3	16.80	70.4	61.27	14.1	12.27	30.3	26.37
1947	73.9	9.7	13.13	42.3	57.24	10.7	14.48	20.9	28.28

Data for Figure 17, Chapter II

Year	Puerto Rico gross capital stock, private enterprises historic cost valuation (millions of dollars)	Puerto Rico gross capital stock, private and public enterprises historic cost valuation (millions of dollars)	Puerto Rico gross capital stock, private enterprises current cost valuation (millions of dollars)	Puerto Rico gross capital stock, private and public enterprises current cost valuation (millions of dollars)
1977	12,592.1	17,360.6	20,443.3	28,771.1
1976	11,931.6	16,379.4	19,210.1	26,958.2
1975	11,135.6	15,145.8	17,892.4	24,985.2
1974	10,306.3	13,702.0	15,725.7	21,712.5
1973	9,449.8	12,449.1	13,072.0	17,944.6
1972	8,556.9	11,266.6	11,250.5	15,387.4
1971	7,553.3	9,905.9	9,727.1	13,251.3
1970	6,545.8	8,620.5	8,267.4	11,315.0
1969	5,633.3	7,502.5	6,989.5	9,673.0
1968	4,952.5	6,629.5	5,999.6	8,348.6
1967	4,354.1	5,855.8	5,209.3	7,290.8
1966	3,784.9	5,133.0	4,553.6	6,429.9
1965	3,308.7	4,543.2	4,046.1	5,783.7
1964	2,851.5	3,980.5	3,547.4	5,143.8
1963	2,500.1	3,542.8	3,139.3	4,608.1
1962	2,203.6	3,179.8	2,790.5	4,163.2
1961	1,941.0	2,840.1	2,498.4	3,756.2
1960	1,736.1	2,561.4	2,250.9	3,388.7
1959	1,548.7	2,301.6	2,033.6	3,070.0
1958	1,396.1	2,079.6	1,879.5	2,837.5
1957	1,249.6	1,869.4	1,716.7	2,596.9
1956	1,116.5	1,681.4	1,549.8	2,351.8
1955	992.2	1,523.3	1,385.8	2,127.7
1954	888.2	1,378.2	1,261.3	1,944.4
1953	815.8	1,265.9	1,190.9	1,830.5
1952	764.9	1,165.4	1,144.3	1,732.4
1951	709.3	1,062.4	1,064.7	1,588.1
1950	656.3	982.7	963.5	1,431.2
1949	624.2	916.3	930.3	1,361.5
1948	581.0	837.2	917.7	1,327.8
1947	538.3	770.7	885.9	1,277.0

Data for Figure 18 and Tables 18 and 19, Chapter II

Year	Puerto Rico private enterprises profits (millions of dollars)	Puerto Rico private and public enterprises profits (millions of dollars)	Puerto Rico rate of return private enterprises historic cost valuation (percentage)	Puerto Rico rate of return private and public enterprises historic cost valuation (percentage)
1977	1,401.6	1,288.5	11.13	7.42
1976	1,312.5	1,234.7	11.00	7.34
1975	1,141.6	1,078.4	10.25	7.12
1974	1,192.9	1,178.7	11.57	8.60
1973	1,077.2	1,039.1	11.40	8.35
1972	1,015.6	1,007.4	11.87	8.94
1971	923.2	930.8	12.22	9.40
1970	846.6	852.1	12.93	9.88
1969	778.7	790.5	13.82	10.54
1968	738.0	754.6	14.90	11.38
1967	694.0	710.0	15.94	12.12
1966	680.8	688.4	17.99	13.41
1965	627.7	639.0	18.97	14.06
1964	589.1	601.7	20.66	15.12
1963	569.3	581.7	22.77	16.42
1962	496.2	504.9	22.52	15.88
1961	448.5	454.9	23.11	16.02
1960	393.0	398.4	22.64	15.55
1959	377.7	382.3	24.39	16.61
1958	321.2	326.2	23.01	15.69
1957	305.8	312.6	24.47	16.72
1956	322.8	328.6	28.91	19.55
1955	306.8	312.6	30.92	20.52
1954	288.2	294.5	32.45	21.37
1953	282.2	285.9	34.59	22.58
1952	279.1	284.9	36.49	24.45
1951	248.9	254.4	35.09	23.95
1950	215.9	219.1	32.90	22.30
1949	207.8	209.6	33.29	22.87
1948	195.5	196.8	33.65	23.51
1947	202.5	203.6	37.62	26.42

Data for Figure 18 and Tables 18 and 19, Chapter II.—Con.

Year	United States rate of return all-corporations before taxes, historic cost valuation (percentage)	United States rate of return all corporations after taxes, historic cost valuation (percentage)	United States rate of return all corporations before taxes, current cost valuation (percentage)	United States rate of return all corporations after taxes, current cost valuation (percentage)
1977	12.45	8.12	7.40	4.82
1976	12.34	7.97	7.38	4.76
1975	10.42	6.86	6.70	4.41
1974	8.73	7.51	5.87	5.05
1973	10.67	7.36	7.53	5.20
1972	9.37	6.50	7.77	4.73
1971	9.88	5.69	7.27	4.19
1970	9.13	5.09	6.82	3.80
1969	11.52	6.48	8.83	4.96
1968	13.15	7.40	10.37	5.83
1967	13.06	7.75	10.49	6.23
1966	14.61	8.75	11.85	7.10
1965	14.76	8.92	12.02	7.26
1964	13.91	7.95	11.26	6.44
1963	13.26	7.25	10.56	5.78
1962	13.07	7.20	10.17	5.61
1961	12.55	6.65	9.50	5.04
1960	13.32	7.03	9.77	5.16
1959	14.85	8.12	10.53	5.76
1958	12.60	6.83	8.68	4.70
1957	14.90	8.37	10.02	5.63
1956	16.40	9.51	10.85	6.29
1955	18.20	10.29	12.21	6.90
1954	15.94	8.64	10.77	5.84
1953	17.97	9.19	11.78	6.02
1952	19.80	9.70	12.47	6.11
1951	23.18	11.56	14.19	7.08
1950	22.45	14.75	13.74	9.03
1949	19.96	12.12	12.34	7.49
1948	23.16	15.93	13.85	9.53
1947	20.00	15.78	11.84	9.34

Data for Figure 18 and Tables 18 and 19, Chapter II.—Con.

Year	United States nonresidential all corporations capital stock historic cost valuation (billions of dollars)	United States nonresidential all corporations capital stock current dollar valuation (billions of dollars)	United States corporate profits with inventory valuation adjustment without capital consumption adjustment (billions of dollars)	United States corporate profits after taxes (billions of dollars)
1977	1,261.9	2,124.4	157.1	102.5
1976	1,156.3	1,933.7	142.7	92.1
1975	1,070.4	1,664.2	111.5	73.4
1974	991.4	1,474.7	86.5	74.5
1973	911.3	1,291.0	97.2	67.1
1972	839.4	1,153.7	89.6	54.6
1971	778.0	1,058.2	76.9	44.3
1970	727.3	974.0	66.4	37.0
1969	676.3	882.5	77.9	43.8
1968	624.3	791.8	82.1	46.2
1967	579.0	720.4	75.6	44.9
1966	538.0	663.2	78.6	47.1
1965	496.6	609.9	73.3	44.3
1964	461.4	570.2	64.2	36.7
1963	434.3	545.2	57.6	31.5
1962	411.0	527.9	53.7	29.6
1961	388.0	512.4	48.7	25.8
1960	367.1	500.4	48.9	25.8
1959	344.7	486.4	51.2	28.0
1958	323.7	469.8	40.8	22.1
1957	304.6	453.1	45.4	25.5
1956	279.8	423.0	45.9	26.6
1955	256.6	382.5	46.7	26.4
1954	237.2	350.9	37.8	20.5
1953	219.8	335.4	39.5	20.2
1952	201.0	319.1	39.8	19.5
1951	184.2	301.0	42.7	21.3
1950	167.5	273.6	37.6	24.7
1949	154.3	249.5	30.8	18.7
1948	142.5	238.3	33.0	22.7
1947	128.0	216.2	25.6	20.2

Data for Figure 19, Chapter II

[In percentages]

Year	Puerto Rican rate of return	Puerto Rican nongovern- ment gross national product to nongovern- ment capital stock in current dollars	Puerto Rican labor cost of nongov- ernment capital stock in current dollars	Residual nongovern- ment capital stock current dollars
1977	10.29	28.75	13.57	4.89
1976	9.43	27.77	13.50	4.84
1975	8.28	27.51	14.06	5.17
1974	9.75	30.71	15.15	5.81
1973	9.97	33.44	16.72	6.75
1972	10.36	35.46	17.43	7.67
1971	10.42	37.30	18.54	8.34
1970	10.95	39.11	19.53	8.63
1969	11.65	44.31	20.10	12.56
1968	12.62	41.97	20.67	8.68
1967	13.33	43.07	21.16	8.58
1966	13.97	44.02	21.76	8.29
1965	14.07	44.52	21.91	8.54
1964	14.64	44.62	22.38	7.60
1963	15.27	45.34	22.96	7.11
1962	14.83	45.04	22.75	7.46
1961	14.74	44.36	22.22	7.40
1960	14.12	44.77	22.25	8.40
1959	14.21	43.45	21.39	7.85
1958	13.05	41.88	22.29	6.54
1957	13.93	42.44	22.59	5.92
1956	15.61	43.88	23.05	5.22
1955	16.10	44.85	24.71	4.04
1954	16.47	46.47	26.99	3.01
1953	16.84	45.88	27.18	1.86
1952	17.32	45.53	26.11	2.10
1951	16.88	43.66	23.22	3.56
1950	16.34	45.62	22.21	7.07
1949	16.06	44.72	22.83	5.83
1948	15.40	40.05	20.38	4.27
1947	17.06	40.48	21.93	1.49
1940				

See note at end of table.

Data for Figure 19, Chapter II.—Con.

[In percentages]

Year	United States rate of return before taxes	Ratio of United States gross domestic product to corporation business capital stock in current dollars	Ratio of United States labor income to corporate business capital stock in current dollars	Ratio of United States residual to corporate business capital stock in current dollars
1977	7.40	54.67	36.59	10.68
1976	7.38	53.88	35.70	10.80
1975	6.70	55.23	36.83	11.70
1974	5.87	57.54	39.73	11.94
1973	7.53	61.15	41.31	12.31
1972	7.77	61.45	40.79	12.89
1971	7.27	60.25	40.05	12.93
1970	6.82	60.82	41.00	13.00
1969	8.83	64.60	42.80	12.97
1968	10.37	66.14	42.94	12.83
1967	10.49	65.96	42.80	12.67
1966	11.85	68.00	43.47	12.68
1965	12.02	67.19	42.58	12.59
1964	11.26	65.54	41.93	12.35
1963	10.56	63.52	40.83	12.13
1962	10.17	61.72	39.97	11.58
1961	9.50	58.31	38.17	10.64
1960	9.77	58.15	38.13	10.25
1959	10.53	57.22	37.15	9.54
1958	8.68	52.70	34.93	9.09
1957	10.02	55.73	36.79	8.92
1956	10.85	56.97	37.45	8.67
1955	12.21	58.98	37.88	8.89
1954	10.77	57.14	37.73	8.64
1953	11.78	60.52	40.01	8.73
1952	12.47	59.35	39.86	7.02
1951	14.19	60.07	38.11	7.77
1950	13.74	57.60	36.11	7.75
1949	12.34	55.75	35.67	7.74
1948	13.85	59.67	38.27	7.75
1947	11.84	57.40	38.02	7.54
1940				

See note at end of table.

Data for Figure 19, Chapter II.—Con.

[In percentages]

Year	Puerto Rico rate of return private and public enterprises (current cost basis)	Ratio of gross domestic product, private and public enterprises to gross capital stock (current cost basis)	Ratio of labor cost to gross capital stock private and public enterprises (current cost basis)	Ratio of resi- dual gross to capital stock
1977	10.29	28.75	13.57	4.89
1976	9.43	27.77	13.50	4.84
1975	8.28	27.51	14.06	5.17
1974	9.75	30.71	15.15	5.81
1973	9.97	33.44	16.72	6.75
1972	10.36	35.46	17.43	7.67
1971	10.42	37.30	18.54	8.34
1970	10.95	39.11	19.53	8.63
1969	11.65	44.31	20.10	12.56
1968	12.62	41.97	20.67	8.68
1967	13.33	43.07	21.16	8.58
1966	13.97	44.02	21.76	8.29
1965	14.07	44.52	21.91	8.54
1964	14.64	44.62	22.38	7.60
1963	15.27	45.34	22.96	7.11
1962	14.83	45.04	22.75	7.46
1961	14.74	44.36	22.22	7.40
1960	14.12	44.77	22.25	8.40
1959	14.21	43.45	21.39	7.85
1958	13.05	41.88	22.29	6.54
1957	13.93	42.44	22.59	5.92
1956	15.61	43.88	23.05	5.22
1955	16.10	44.85	24.71	4.04
1954	16.47	46.47	26.99	3.01
1953	16.84	45.89	27.18	1.86
1952	17.32	45.53	26.11	2.10
1951	16.88	43.66	23.22	3.56
1950	16.34	45.62	22.21	7.07
1949	16.06	44.72	22.83	5.83
1948	15.40	40.05	20.38	4.27
1947	17.06	40.48	21.93	1.49
1940				

Note: Residual = capital consumption allowances plus indirect business taxes plus business transfers minus subsidies.

Data for Table 20 and Figure 20, Chapter II

[In billions of 1954 dollars]

Year	Gross capital stock	Gross domestic product
1977	12,444.2	4,048.1
1976	12,085.0	3,812.4
1975	11,605.2	3,691.1
1974	11,013.0	3,787.2
1973	10,390.8	3,789.9
1972	9,692.4	3,501.3
1971	8,861.8	3,277.0
1970	8,051.8	3,067.8
1969	7,306.8	2,691.6
1968	6,695.4	2,593.0
1967	6,133.6	2,475.4
1966	5,593.9	2,329.1
1965	5,151.7	2,175.5
1964	4,713.5	1,994.4
1963	4,359.3	1,862.0
1962	4,063.6	1,686.6
1961	3,786.3	1,568.5
1960	3,552.4	1,431.9
1959	3,324.2	1,335.2
1958	3,133.3	1,225.2
1957	2,952.6	1,190.8
1956	2,783.9	1,134.0
1955	2,639.7	1,058.3
1954	2,497.6	1,006.4
1953	2,379.6	966.6
1952	2,270.3	925.6
1951	2,165.0	875.0
1950	2,076.8	844.1
1949	1,993.7	779.7
1948	1,904.8	695.9
1947	1,831.2	664.0

Data for Table 20 and Figure 20, Chapter II.—Con.

[In 1954 dollar terms]

Year	Capital/ output ratio	Incremental capital/output ratio	4-year average incremental capital/ output ratio
1977	3.074	1.524	—
1976	3.170	3.955	-55.724
1975	3.144	-6.162	-55.501
1974	2.908	-222.214	-55.564
1973	2.742	2.419	-53.055
1972	2.768	3.703	2.994
1971	2.704	3.872	3.939
1970	2.625	1.980	4.208
1969	2.715	6.201	4.086
1968	2.582	4.777	4.331
1967	2.478	3.384	3.385
1966	2.402	2.960	2.860
1965	2.368	2.420	2.435
1964	2.363	2.675	2.282
1963	2.341	1.686	2.105
1962	2.409	2.348	2.027
1961	2.414	1.712	2.039
1960	2.481	2.360	2.765
1959	2.490	1.735	3.080
1958	2.559	5.253	2.966
1957	2.480	2.970	2.532
1956	2.455	1.905	2.645
1955	2.494	2.738	2.569
1954	2.482	2.965	2.613
1953	2.462	2.666	2.642
1952	2.453	2.081	2.223
1951	2.474	2.854	1.822
1950	2.400	1.290	1.878
1949	2.557	1.061	—
1948	2.737	2.307	—
1947	2.758	—	—

Data for Figure 21 and Table 21, Chapter II

Year	Annual rate of growth of gross domestic product (GDP) (in 1954 dollars) (percentage)	Percentage share gross domestic fixed investment to gross domestic product (in 1954 dollars)	Implicit incremental capital/GDP ratio ¹
1977	6.2	14.00	2.26
1976	3.3	17.62	5.34
1975	-2.5	20.88	-8.35
1974	-0.1	20.76	-207.60
1973	8.2	22.46	2.74
1972	6.8	27.84	4.09
1971	6.8	28.71	4.22
1970	14.0	28.35	2.03
1969	3.8	27.02	7.11
1968	4.8	25.85	5.39
1967	6.3	26.01	4.13
1966	7.1	23.20	3.27
1965	9.1	24.41	2.68
1964	7.1	22.51	3.17
1963	10.4	20.42	1.96
1962	7.5	21.23	2.83
1961	9.5	19.68	2.07
1960	7.2	21.09	2.93
1959	9.0	19.53	2.17
1958	2.9	20.16	6.95
1957	5.0	19.73	3.95
1956	7.2	18.03	2.50
1955	5.2	18.79	3.61
1954	4.1	17.16	4.19
1953	4.4	18.73	4.26
1952	5.8	16.63	2.87
1951	3.7	15.77	4.26
1950	8.3	15.18	1.83
1949	12.0	16.71	1.39
1948	4.8	16.51	3.44

¹Derived by dividing percentage share gross domestic fixed investment to gross domestic product by annual rate of growth of gross domestic product.

Data for Table 1, Chapter III

[In millions of current dollars]

Year	Gross domestic fixed investment	Government expenditures	Consumer purchases of durable commodities	Gross national product
1955	202.6	140	104	1,141.8
1960	354.9	218	177	1,670.4
1965	719.6	380	310	2,763.9
1970	1,401.6	765	602	4,687.5
1975	1,913.4	1,612	854	7,135.7
1976	1,695.7	1,616	1,037	7,438.5
1977	1,453.5	1,713	1,179	1,913.9

Data for Table 2, Chapter III

[In millions of dollars]

Year	Puerto Rico total imports (merchandise)	Puerto Rico total exports (merchandise)
1966	\$1,658.6	\$1,172.9
1976	5,431.8	3,346.2

Data for Table 3, Chapter III.—Puerto Rico's Imports from OPEC Countries

Country	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Venezuela	108.9	116.7	128.5	143.9	178.4	219.4	191.2	516.1	511.8	556.7
Mexico	2.0	2.2	2.8	5.3	7.5	9.6	11.3	13.9	42.7	27.4
Ecuador	1.8	1.8	2.4	2.3	3.4	7.1	6.1	81.3	51.5	22.7
Kuwait	—	—	—	—	—	—	—	—	—	4.2
Saudi Arabia	—	—	—	—	—	—	—	17.1	60.3	38.5
Qatar	—	—	—	—	—	—	—	2.1	—	—
Union of Arab Emirates	—	—	—	—	—	—	—	7.1	15.5	6.4
Algeria	—	—	.3	.3	—	7.3	21.1	139.3	34.9	93.5
Libya	—	—	.5	—	—	—	—	12.2	28.9	—
Nigeria	.3	—	—	—	—	—	—	24.3	129.4	13.4
Gabon	—	—	.4	—	—	.3	.2	119.8	—	95.1
Iran	—	.3	—	.5	—	1.6	—	5.7	—	7.4
Indonesia	—	—	—	—	—	—	—	—	—	—

**Data for Table 7, Chapter III.—Gross Fixed
Domestic Investment**

[In millions of dollars]

1947	61.8	1962	477.7
1948	100.5	1963	486.8
1949	116.0	1964	584.1
1950	111.4	1965	719.6
1951	125.2	1966	744.6
1952	150.2	1967	902.5
1953	159.0	1968	963.8
1954	172.7	1969	1,096.4
1955	202.6	1970	1,401.6
1956	217.3	1971	1,593.7
1957	259.9	1972	1,761.2
1958	281.5	1973	1,602.9
1959	302.4	1974	1,677.4
1960	354.9	1975	1,913.4
1961	377.5	1976	1,695.7

Data for Table 8, Chapter III.—Personal Consumption Expenditures

[In millions]

Year	Total	Durables	Auto's	Electrical appliances	Nondurables	Food	Alcoholic beverages
1950	662.5	54.3	10.9	14.6	417.4	239.0	55.4
1955	964.4	103.8	24.3	28.0	585.8	321.4	88.2
1960	1,397.5	177.0	43.0	49.2	800.4	423.3	115.9
1965	2,250.6	309.8	93.7	70.5	1,180.1	568.6	188.5
1970	3,746.5	602.1	181.1	88.7	1,919.6	852.9	275.2
1975	6,390.1	854.3	208.2	145.4	3,425.1	1,661.0	421.2
1976	7,360.7	1,036.7	288.5	188.0	3,990.0	2,005.0	496.7
1977	8,116.4	1,179.3	358.3	212.5	4,367.3	2,160.0	513.2

See table 3, chapter III for import data.

Data for Table 11, Chapter III.

[Percentage millions]

TEXTILES											
Year	Mexico	Great Britain	West Germany	Bangla- desh	Hong Kong	Italy	India	Japan	Taiwan	Puerto Rico	U.S. total imports
1965	20.3	62.1	18.4	—	25.0	52.1	186.0	217.7	7.6	32.2	827.4
1966	32.1	57.8	27.1	—	36.8	46.9	181.0	243.4	8.2	36.1	937.3
1967	25.3	50.0	29.7	—	38.8	45.2	168.7	213.3	7.9	32.1	844.0
1968	19.0	65.9	44.0	—	40.1	71.4	170.4	269.7	8.7	49.7	1,012.2
1969	18.6	53.0	55.8	—	44.6	62.1	197.0	284.9	9.5	54.8	1,073.8
1970	18.1	71.9	132.0	—	44.7	75.0	137.4	301.9	12.4	56.2	1,191.6
1971	24.2	99.6	188.3	—	47.6	66.0	164.8	375.7	19.4	63.6	1,485.6
1972	34.5	98.6	156.8	35.2	68.8	79.9	218.2	354.0	22.2	115.7	1,644.1
1973	58.1	103.3	123.4	68.1	89.5	98.7	187.0	300.6	25.3	177.0	1,745.1
1974	87.0	74.4	87.7	61.3	112.6	76.3	215.0	278.2	34.7	173.3	1,802.0
1975	58.4	56.5	61.8	46.1	69.8	60.6	119.3	271.3	36.8	25.7	1,244.7
1976	59.7	79.2	77.1	50.6	127.4	93.7	165.0	353.6	61.3	24.4	1,688.2

CLOTHING

Year	Hong Kong	Italy	Korea	Taiwan	Japan	Puerto Rico	U.S. total
1965	114.7	101.2	10.6	11.5	137.5	232.6	771.6
1966	124.8	102.5	13.4	14.4	166.8	259.7	862.7
1967	146.7	102.9	28.3	25.7	160.4	293.8	942.5
1968	200.7	127.4	61.6	50.4	190.9	356.9	1,212.2
1969	243.7	127.5	94.3	88.2	254.6	357.8	1,463.5
1970	265.8	109.2	118.1	147.5	276.9	370.2	1,639.2
1971	333.3	92.6	178.3	255.8	274.6	309.5	1,830.6
1972	402.1	103.0	236.6	314.7	300.9	362.5	2,245.2
1973	432.6	117.3	245.3	365.2	248.1	379.2	2,547.2
1974	479.4	107.0	287.0	418.3	182.2	363.8	2,694.8
1975	593.8	102.3	386.9	437.2	153.7	316.6	2,879.0
1976	617.7	130.0	662.8	617.7	212.1	370.1	3,990.0

Data for Table 11, Chapter III.—Continued

SHOES								
Year	Brazil	Italy	Korea	Taiwan	Japan	Puerto Rico	U.S. total	
1965	.3	54.5	3.7	1.4	52.8	40.1	200.5	
1966	.1	74.7	4.8	3.9	48.9	47.3	237.2	
1967	.2	103.7	7.0	7.6	61.8	61.7	324.9	
1968	.3	158.2	9.9	15.5	80.0	71.9	410.0	
1969	1.5	198.5	8.2	21.8	84.4	68.3	516.4	
1970	6.5	267.4	12.9	39.9	92.2	72.5	710.9	
1971	23.6	288.2	26.8	65.9	95.4	57.9	815.9	
1972	42.3	340.1	43.6	98.7	55.4	58.5	923.5	
1973	83.2	364.5	61.2	143.4	22.6	68.0	1,147.2	
1974	92.9	328.3	107.0	171.5	15.5	66.3	1,219.0	
1975	121.5	336.6	129.1	206.2	14.0	54.3	1,355.0	
1976	140.5	342.7	284.4	364.0	17.5	66.1	1,790.1	
CHEMICALS								
Year	Canada	Great Britain	France	West Germany	Japan	Puerto Rico	U.S. total	
1965	221	53	54	88	45	56	834	
1966	253	72	60	124	69	78	1,020	
1967	270	70	59	126	69	108	1,071	
1968	291	83	66	169	91	118	1,252	
1969	310	89	64	175	121	139	1,370	
1970	362	110	85	190	176	187	1,637	
1971	397	131	89	241	196	249	1,861	
1972	439	177	125	306	250	383	2,397	
1973	554	198	177	356	239	490	2,926	
1974	760	286	292	514	487	620	4,610	
1975	795	319	256	435	400	804	4,510	
1976	1,185	490	426	570	424	1,094	5,927	
PHARMACEUTICALS								
Year	Great Britain	West Germany	Italy	Japan	Puerto Rico	U.S. total		
1965	7.4	7.0	2.1	0.3	25	82		
1966	7.5	9.5	3.0	4.2	45	117		
1967	8.1	6.2	4.9	3.7	60	131		
1968	8.7	6.8	4.6	4.2	67	142		
1969	8.1	8.2	3.6	4.6	78	161		
1970	11.2	8.4	5.4	5.2	109	196		
1971	13.4	14.5	8.0	10.0	180	309		
1972	22.8	18.5	10.9	10.6	226	374		
1973	23.7	24.7	10.5	14.1	272	436		
1974	32.7	34.1	11.4	25.7	199	412		
1975	32.3	36.0	31.0	23.5	285	522		
1976	37.7	40.5	29.0	27.0	327	597		
ELECTRICAL MACHINERY								
Year	Mexico	West Germany	Singapore	Hong Kong	Taiwan	Japan	Puerto Rico	U.S. total
1965	0.3	47.8	—	31.9	4.3	319.4	65	700
1966	5.2	67.9	—	65.4	13.2	476.4	86	1,091
1967	9.7	75.9	—	71.5	27.0	516.6	82	1,226
1968	37.5	92.1	—	92.1	58.0	672.0	106	1,600
1969	72.3	99.9	7.9	129.4	92.7	891.9	128	2,074
1970	106.8	117.0	34.3	141.0	128.0	983.0	135	2,406
1971	148.6	145.0	70.8	145.9	182.3	1,131.0	162	2,718
1972	245.3	185.0	147.1	214.1	335.8	1,390.3	184	3,559
1973	393.0	262.0	267.0	281.0	517.8	1,562.0	229	4,699
1974	611.5	306.0	306.5	351.5	601.8	1,618.0	180	5,596
1975	577.3	303.0	259.0	269.1	417.8	1,544.0	157	5,129
1976	722.6	341.1	359.6	384.7	665.3	2,993.3	250	7,733

Part Two: Federal Programs and Policies

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Part Two: Federal Programs and Policies

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Chapter I.—The Federal Relationship Between Puerto Rico and the United States of America

INTRODUCTION

The relationship between Puerto Rico and the United States of America has experienced various changes since Puerto Rico became an American possession in 1898. This relationship has ranged from Puerto Rico's initial status as a militarily occupied possession of the United States, through different stages as an American unincorporated territory, to the present status as Commonwealth, or Free Associated State (*Estado Libre Asociado*). In each of the periods in which these statuses have existed, the relationship of Puerto Rico to the United States has been somewhat different, as has been the concomitant influence of Federal laws, Federal regulatory programs, and Federal funds on Puerto Rico's economic and social development.¹

An analysis of these differing historical relationships between Puerto Rico and the United States is necessary in order to understand Puerto Rico's economic and social development. This is due to the impact—both positive and negative—which Federal laws, regulations, programs, and transfer payments have had, and can have, on the Government of Puerto Rico and its people.

The legal relationship of Puerto Rico with the United States, which in its present status of Commonwealth is not clearly defined, has provided an interesting area for students of the law who are concerned with territories and territorial incorporation. To those interested in this area of the law, the nuances of the various relationships provide the means for evaluating the role of the United States

vis-a-vis its present and former territories.² That interest is, however, completely beyond the scope of this Report of the Puerto Rican Interagency Economic Study, although it includes the issue of the Puerto Rico-United States relationship.

The primary interest in analyzing the legal relationships between Puerto Rico and the United States is to lay a foundation for determining how the present legal status affects both the type and amount of Federal financial assistance programs for Puerto Rico. In addition, this analysis can help in evaluating secondary interests such as the extent to which Federal regulatory programs may be applied in Puerto Rico and the general economic effects of the magnitude and distribution pattern of Federal outlays in Puerto Rico. Finally, it provides the basis for evaluating the issue of existing differential Federal program treatment for Puerto Rico and the important issues which exist because of Puerto Rico's present status. (These issues, which will be further developed in chapters III and V of this report, include, *inter alia*, the exclusion of Puerto Rico from the Supplemental Security Income Program (SSI) under the Social Security Act; the application of the cabotage shipping laws to maritime commerce between Puerto Rico and the United States; and the separate minimum wage levels which have been applied in Puerto Rico pursuant to the Fair Labor Standards Act.)

The perspective for viewing the past and present relationships and their effects is relevant in terms of answering the following question: What are the resulting rights, duties, and benefits which accrue to Puerto Rico in light of its not-completely defined association with the U.S.? In other words, what is the extent to which Federal laws and programs—including those of a "regulatory nature"—apply in

¹ There are two unpublished documents dealing with the historical and legal issues of Puerto Rico which a reader who is interested in either considerably more legal detail than will be provided in this report, or in political perspectives, should read. These are: (1) "Puerto Rico: Independence or Statehood? A Survey of Historical, Political, and Socio-economic Factors, with Pro and Con Arguments," William R. Tansill, Government Division, Congressional Research Service, The Library of Congress, Washington, D.C., October 28, 1977. (2) "The Commonwealth of Puerto Rico," Arnold Leibowitz, President, Institute of International Law and Economic Development, Washington, D.C., February, 1978.

² For an excellent treatment of the Territorial Clause of the U.S. Constitution (art. IV, sec. 3, cl. 2) and territorial arrangements, rights and responsibilities, see, "Inventive Statesmanship vs. the Territorial Clause: The Constitutionality of Agreements Limiting Territorial Powers," 60 Va. L. Rev. 1041-1072 (1977).

Puerto Rico; and what is the extent to which Puerto Rico may, and does, participate in Federal programs which transfer Federal funds to Puerto Rico?

In order to establish this perspective, this chapter first analyzes the nature of past political relationships and, second, the present relationship between Puerto Rico and the United States.

THE HISTORICAL LEGAL RELATIONSHIP—1898 TO THE PRESENT

1898 to 1950

It is necessary to begin with Puerto Rico's existence as a province of the Spanish Kingdom to fully understand the nature of the existing legal and political relationships between Puerto Rico and the United States. This is because the application of laws to certain present day local situations may stem from Spanish civil law, the law in existence in Puerto Rico prior to the beginnings of its relationship with the United States. These situations can occur because Federal legislation, both existing and prospective, may not be applicable to Puerto Rico when local conditions would make this impractical. Such a situation exists because of a "not locally inapplicable" exemption from Federal statutory laws which is contained in section 9 of the Puerto Rican Federal Relations Act.³ Since no consistent rules have been formulated by the courts for application of this phrase from the time it was first included in the First Organic Act of Puerto Rico,⁴ it is possible for local laws which stem from Spanish civil law to apply in certain situations. It is also important to begin an analysis with Puerto Rico's relationship with Spain because of the cultural distinctiveness of the people and institutions of the island.

Constitutional life for the Puerto Rican people began with constitutional life in the Spanish Kingdom in 1876. In that year a binding constitution was forced upon the King of Spain by the Spanish people. As a Spanish province, Puerto Rico was governed by this document as an expression of Spanish civil and constitutional law. Under the terms of the Constitution of 1876, Puerto Rico was to be governed in accordance with special provisions set forth in the document. These provisions could work in making for either more or less liberal laws in the overseas province (such as Puerto Rico) than in Spain. Under the special provisions of the Constitu-

tion of 1876, a special government charter was adopted on November 25, 1897 for both Puerto Rico and Cuba.

The form of constitutional government established for Puerto Rico by Spain in 1897 did not last long. On August 12, 1898, the terms of a peace protocol were agreed to between Spain and the United States of America as a means of ending the Spanish American War. On April 11, 1899, the ratification of the Treaty of Paris took place. Under this treaty the territory of Puerto Rico (as well as that of the Philippines) was ceded from the Kingdom of Spain to the United States.

From 1898 to 1900 Puerto Rico was placed under, and controlled by, a United States military government. The existence of this form of government operated in three stages. The first, which took place during the war, was that of occupation. During this time the United States armed forces took absolute control over the people of the occupied territory and their civilian affairs. The second, which took place between the cessation of hostilities and ratification of the peace treaty, was that of belligerency. During this time the United States held the status of a belligerent nation. As such, it was in legal possession and control of Puerto Rico through hostile occupation. The third, which took place between ratification of the peace treaty and the transfer of control of civil affairs to the first appointed Governor of Puerto Rico on May 1, 1900, was simple military government.

The civilian relationship between Puerto Rico and the United States began formally on May 1, 1900 with the Presidential signing of the First Organic Act, popularly known as the Foraker Act.⁵ The specific legislative intent of this act was to temporarily provide revenues, and to establish a civilian government, for Puerto Rico.

Beginning with the Foraker Act, and carrying through subsequent acts and amendments until the establishment of the Commonwealth in 1952, the general relationship of Puerto Rico to the United States was that of an unincorporated territory. As such, the treatment afforded Puerto Rico under Federal law was affected by three factors: (1) the role of the U.S. Constitution in relation to Puerto Rico; (2) the evolution of the doctrine of "unincorporated versus incorporated" territories⁶ as applied to Puerto Rico; and (3) specific statutory grants to Puerto Rico by the United States Congress.

³ *Ibid.*

⁴ Act of July 3, 1950, 64 Stat. 319.

⁵ Act of May 1, 1900, 31 Stat. 77-86. This Act, the first of two Organic Acts which was known as the "Foraker Act," and which was in force from May 1, 1900 to March 2, 1917, states in section 8, in part, as follows:

... and so far as the same (i.e., the laws and ordinances of Puerto Rico now in force) are not inconsistent or in conflict with the statutory laws of the United States not locally inapplicable ...

⁶ This distinction was created by the Insular Cases: *De Lima v. Bidwell*, 182 U.S. 1 (1901); *Downes v. Bidwell*, 182 U.S. 244 (1901); *Dooley v. United States*, 182 U.S. 222 (1901); and *Armstrong v. United States*, 182 U.S. 243 (1901). Under these decisions, Puerto Rico was declared to be an "unincorporated territory," e.g., one dependent upon congressional action to decide when its territorial status would change and under what circumstances the U.S. Constitution would apply.

Federal powers in a territory, which are exercised pursuant to the Territorial Clause of the Constitution and the recognized inherent power of a national government to acquire territory, are generally regarded as being extremely broad. They are perhaps unlimited except where the civil rights of the inhabitants are involved. Pursuant to the United States territorial powers, during the time that Puerto Rico was a territory, the Federal Government possessed the right to pass legislation affecting Puerto Rico, take executive action to govern local Puerto Rican affairs, appoint high governmental officials in Puerto Rico, and veto legislation passed by the Puerto Rican legislature. At various times between 1900 and 1950 these powers were in fact exercised.

The primary Federal statutes which affected Puerto Rico during the territory period, in addition to the Foraker Act, were the Jones Act of 1917⁷ and the Elective Governor Act of 1947.⁸ The primary effects of the Jones Act were: (1) to confer naturalized U.S. citizenship on all citizens of Puerto Rico who did not reject it; and (2) to make provision for the beginning of a civil government for Puerto Rico. (In 1940, by amendment to the Nationality Act, persons born in Puerto Rico after January 13, 1941 were deemed citizens of the United States by virtue of birth.)⁹ The primary effect of the Elective Governor Act was the conferral on the Puerto Rican people of the right to elect their own Governor. Previous to this act the Governor was appointed by the President of the United States, subject to confirmation by the United States Senate. The importance of the Elective Governor Act was that after the 1948 election, Puerto Rico possessed for the first time an entirely popularly elected government. Although provision was made in the act to have a federally appointed Auditor to oversee Puerto Rico's budgetary activities, and a "Coordinator of Federal Agencies" to coordinate the administration of all Federal civilian functions and activities in Puerto Rico, such positions were never funded by the U.S. Congress.

In addition to these acts, numerous Federal statutes affected Puerto Rico by taking actions such as changing the name of the territory from "Porto Rico" to Puerto Rico¹⁰ and creating eight executive departments for the Puerto Rican Government.¹¹ In addition, Congress frequently extended national legislation to Puerto Rico. One such example was the passage of the Fair Labor Standards Act (FLSA) in 1938. As originally passed, the FLSA was fully applicable in Puerto Rico. Because of the economic

chaos caused in Puerto Rico by the imposition of minimum wages considerably higher than those which existed, special legislation for Puerto Rico was soon passed. Through a separate amendment to the FLSA which was enacted in 1940, Puerto Rico was exempted from the minimum wage laws established for workers on the mainland and a special committee was established to set wages for Puerto Rico and the U.S. Virgin Islands.

1950 to Present

The period from 1950 to the present is characterized by the acquisition of Commonwealth status by Puerto Rico, resulting local governmental autonomy in association with the States of the Union, and congressionally mandated investigations designed to clarify or modify the particulars of the Commonwealth relationship.

What this Commonwealth status is, is not always exactly known because its status is unique in American law.¹² Enough, however, is known from the laws affecting the relationship to describe the effects of Federal laws and programs on Puerto Rico.

In 1950, acting in response to an initiative of the Government of Puerto Rico, and in order to define a new relationship for Puerto Rico with the United States, the U.S. Congress passed Public Law 600.¹³ Congress' apparent primary reason for passing the legislation was its concern during the immediate post-World War II period with the application of, and exemptions from, Federal legislation in Puerto Rico.

Public Law 600 affected the then existing relationship between Puerto Rico and the United States in two primary ways. First, subject to the approval of the people of Puerto Rico and the U.S. Congress, Puerto Rico was authorized to organize its own government and to establish its own laws through the drafting of its Constitution. Public Law 600 provided for a referendum to be held in Puerto Rico pursuant to the laws of Puerto Rico on the adoption of the Constitution. Second, Public Law 600 repealed certain portions of the Jones Act of 1917, modified other portions, and renamed the amended remainder the Puerto Rican Federal Relations Act. It is this act, produced by Public Law 600, which continues to form the basis for the relationship between Puerto Rico and the United States.

As a consequence of Public Law 600, Congress set the general principles of the Federal-Puerto Rican relationship which exists today and which has authorized the Puerto Rican people to formulate their own laws for the conduct of their own internal af-

⁷ Act of March 2, 1917, 39 Stat. 951-968. This act, the second Organic Act for Puerto Rico, expanded Puerto Rico's share in her own governing.

⁸ Act of August 5, 1947, 61 Stat. 770-773.

⁹ 8 USCA 1402.

¹⁰ Act of May 17, 1932, 47 Stat. 158.

¹¹ Act of February 18, 1931, 46 Stat. 1168.

¹² On January 9, 1978, a second jurisdiction acquired Commonwealth status with the United States, The Northern Marianas Islands. See, *Covenant to Establish a Commonwealth of the Northern Marianas Islands in Political Union with the United States of America*, Public Law 94-241.

¹³ Act of July 3, 1950, 64 Stat. 319-320.

fairs. With the passage of Public Law 600 and, contingent upon the adoption of its own Constitution, Puerto Rico entered into a new relationship with the United States primarily characterized by a more sophisticated form of self-government for the island. From a Federal standpoint, and acting pursuant to its territorial powers, the Federal Government declared the following ten provisions as the principal features of the relationship:

1. Tariffs in trade between Puerto Rico and the United States would be eliminated;
2. Tariffs for Puerto Rico and the United States would be equal on all items imported from abroad (with the exception of coffee);
3. Puerto Rico would be exempted from the Internal Revenue laws of the United States;
4. No export duties would be permitted to be levied on exports from Puerto Rico to the United States;
5. Bonds issued by the Government of Puerto Rico would be exempt from Federal taxation;
6. Harbors, navigable streams, bodies of water and submerged lands around Puerto Rico, not used by the United States for public purposes, would be under the control of Puerto Rico;
7. Funds collected as excise taxes on items shipped from the island to the United States would be returned to the Puerto Rican Treasury;
8. A Resident Commissioner from Puerto Rico would be authorized to sit in Congress;
9. An exemption from the Interstate Commerce Act and the Safety Appliance Act would be created for Puerto Rico; and
10. The United States District Court in Puerto Rico would exercise Federal jurisdiction.

Pursuant to Public Law 600 the Puerto Rican referendum was held, the intent of law in adopting a constitution was approved on June 4, 1951, and delegates were elected to a Constitutional Convention. The Convention in turn drafted a proposed Constitution which was approved by popular vote on March 3, 1952. After the Puerto Rican action, Congress debated the Constitution and, conditional upon three changes,¹⁴ approved it in Public Law 447.¹⁵ The Puerto Rican Constitutional Convention accepted the Congressional changes and the Constitution of the Commonwealth became effective on July 25, 1952 by proclamation of Governor Luis Munoz Marin. Local self-government was thus

¹⁴ These three changes were: (1) The deletion of a provision which recognized the right to work, the right to an adequate standard of living, and a guarantee to social protection in old age or sickness. This provision was patterned after the United Nations' Universal Declaration of Human Rights. (2) The addition of a provision assuring continuance of private elementary schools. (3) The addition of a provision requiring that any amendment to the Constitution be consistent with the U.S. Constitution and the Puerto Rican Federal Relations Act.

¹⁵ Act of July 3, 1952, 66 Stat. 327.

achieved for Puerto Rico in the form of a "compact"¹⁶ with the United States.

With the formal establishment of the Commonwealth in 1952 Puerto Rico acquired—pursuant to its Constitution—a large measure of self-government. Pursuant to its Constitution the Puerto Rican Government appoints its own judges and cabinet officials, sets its own educational policies, promulgates a civil and criminal code, establishes its own internal taxation procedures, and determines its own budget.

Proponents of the Commonwealth "compact" theory contend that for all intents and purposes it created a new form of governmental status somewhere between statehood and independence; and that in this status lies the nature of the present Puerto Rico-United States relationship. As will be seen, it is the lack of certainty as to the full extent and meaning of the relationship, as well as the evolving role of what it actually is, that has affected, and will continue to affect—until changed—the relations of the people and the institutions of Puerto Rico with those of the United States.

The events resulting from the enactment of Public Law 600—the Puerto Rican Federal Relations Act, the Puerto Rican Constitution, etc.—"raise the question of the extent to which they have permanently altered the status of Puerto Rico and the powers which Congress can exercise over it, pursuant to the territorial clause."¹⁷ Advocates of the "compact" theory maintain that Puerto Rico is no longer a territory within the range of the plenary territorial powers. Instead, they argue, a new category has been created—the "Free Associated State"¹⁸ bound to the United States by a compact unalterable unilaterally by either party. Opponents of the compact theory maintain that the events which led to the establishment of the Commonwealth of Puerto Rico were merely an exercise of Congress' sovereign territorial powers, which it (has) never surrendered."¹⁹

There is an absence of a clear legal answer to the question of whether Congress can, and in fact, has limited its territorial authority over Puerto Rico. Congress' intent in granting local autonomy to Puerto Rico may not preclude an equal intent to maintain

¹⁶ Public Law 600 states in its preamble: "(F)ully recognizing the principle of government by consent this Act is now adopted in the nature of a compact so that the people of Puerto Rico may organize a government pursuant to a constitution of their own adoption." (emphasis added.)

¹⁷ U.S. Const., art. IV, sec. 3, cl. 2, which states as follows: "The Congress shall have power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States; and nothing in the Constitution shall be so construed as to prejudice any claims of the United States, or of any particular State." (emphasis added.)

¹⁸ The word "commonwealth" is the official translation of "estado libre asociado", which when translated literally becomes "free associated state".

¹⁹ Virginia Law Review, *op.cit.*, p. 1064.

unchanged its relationship with, and control of, Puerto Rico.

The U.S. Supreme Court has not dealt directly with the status of Puerto Rico, and the response of the Federal Courts has been ambiguous and not uniform. Whether Puerto Rico is *de jure* and *de facto* a territory of the United States, or something else, and whether its relationship with the United States is governed by the provisions of the Territorial Clause or the "compact," is subject to interpretation and currently not a clear issue. More importantly, this subtle legal/political issue is quite beyond the scope of this Study.

The fact that continuing differences regarding the meaning of Puerto Rico's status exist has been reflected in three congressionally sponsored efforts to further define the exact nature of the Commonwealth status. The latter two of these resulted in considerable analysis and specific recommendations.

The first effort took place in 1959 when the Commonwealth Government caused legislation to be introduced in both Houses of Congress to improve the Puerto Rican-United States relationship. After hearings were held on the original legislation in late spring by the Senate Committee on Interior and Insular Affairs, a substitute measure was introduced by Senator Murray, the Chairman of the Committee, and Dr. Fernos-Insern, the Resident Commissioner of Puerto Rico. These later bills (S. 2078 and H.R. 9234) were modifications of the original legislation having taken into consideration Executive Branch comment on the bills as first introduced. Although hearings were held on the later legislation, it was not reported out of the Senate Committee. Among other "improvements," Puerto Rico would have been given the authority to petition Congress to reduce U.S. tariffs, applicable only to Puerto Rico, on certain other imports, and the "privilege" of starting to pay Federal income and excise taxes.

The second effort, and the first one to result in specific recommendations, took place under the auspices of a United States-Puerto Rico Commission on the Status of Puerto Rico. This Commission was created pursuant to Public Law 88-271 in 1964.²⁰ Whereas the first analysis was congressional in nature, this Commission included representatives from both the Congress and Puerto Rico.²¹ The Commission produced numerous works and recommendations. One of the most effective was the suggestion that a plebiscite be held in Puerto Rico on the status

question. Hearings of the Commission have been published,²² as well as its report.²³

In 1967, the Puerto Rican Legislature enacted a bill providing for the holding of a plebiscite as had been recommended. As a result of the July 23, 1967 plebiscite, supporters of Commonwealth status won with 60.5 percent of the vote. Supporters of statehood had 38.9 percent. Those supporting independence boycotted the election.

As a belated response to the 1967 plebiscite, an Ad Hoc Advisory Group on Puerto Rico, appointed jointly by the President of the United States and the Governor of the Commonwealth of Puerto Rico, was established in September 1973. Its work constituted the third, and most extensive, effort to reevaluate and redefine the Commonwealth status. After extensive hearings in both San Juan and Washington, D.C., the Group submitted a report to the President and the Governor on October 1, 1975 which proposed a "Compact of Permanent Union Between Puerto Rico and the United States. Among the more important recommendations proposed were the following:

1. Release Puerto Rico from Federal minimum wage jurisdiction;
2. Provide for a nonvoting Resident Commissioner in the U.S. Senate;
3. Give Puerto Rico a voice in determining immigration policy;
4. Give Puerto Rico primary jurisdiction over environmental matters, subject to Congressional veto;
5. Give Puerto Rico the right to fix tariffs on foreign goods under international agreements, subject to the Federal Government's consent;
6. Provide the Governor or the Resident Commissioner of the Senate the right to object to proposed "nonessential" legislation before a given committee, with the committee then voting on whether to hear the objection; and
7. Create a permanent Commission to handle all other status matters.

On December 15, 1975, Resident Commissioner Jaime Benitez introduced H.R. 11200 to approve the proposed Compact of Permanent Union. Although Congressional hearings were held on the Compact,²⁴ no action has ever been taken on the recommended changes.

In the latter two instances of activity, specific recommendations and proposed changes were suggested in the Federal-Puerto Rican relationship. In both

²⁰ Act of February 20, 1964, 78 Stat. 17; Puerto Rican Law No. 9, April, 1964.

²¹ Public Law 88-271 provided for the Commission to be composed of thirteen members; seven to be appointed by the President of the United States, the President of the U.S. Senate, and the Speaker of the House of Representatives; and six to be appointed by the Commonwealth Government.

²² S.Doc. 108 (89-2), Vols. I, II, and III. The hearings covered (1) legal-constitutional matters, (2) social-cultural matters, and (3) economic matters.

²³ "Status of Puerto Rico-Commission Report," U.S.-Puerto Rico Commission on the Status of Puerto Rico. Government Printing Office, Washington, D.C., 1965.

²⁴ The Compact was analyzed in hearings on December 3, 1975 before the U.S. Senate Committee on Interior and Insular Affairs.

cases, no action was ever taken. The importance of the activities, however, lies in the fact that a further definition of rights under the "Compact" relationship has been suggested within Congress itself.

As will be seen in the following chapters of this report, the present legal relationship between Puerto Rico and the Federal Government has been altered and affected by the numerous decisions taken by the Federal Government toward Puerto Rico. Acting generally within the provisions of the Compact rela-

tionship, every decision by the Congress or the Executive Branch in either program delivery or policy application has modified and altered this relationship. The general nature of this present relationship is one of great Federal influence in the Commonwealth, one which has not always followed principles of strict equity nor been carried out pursuant to the intent of the legal relationship which had been established between the peoples of the United States and Puerto Rico.

Chapter II.—Effects of Federal Expenditures in Puerto Rico

INTRODUCTION

The impact of Federal programs and policies on the Puerto Rican economy can be analyzed on both the micro and macroeconomic levels. A microeconomic approach would require an analysis of the level of effect on individual firms, commercial enterprises, or services. Such an analysis would necessitate a review of a variety of industry or individual sector effects in order to comprehend the changes resulting from Federal programs and policies. A broader viewpoint is provided by a macroeconomic focus which seeks to determine the Federal Government's influence on the total insular economy of Puerto Rico. The analysis in this chapter emphasizes this latter broader scale approach.

The variety of Federal programs operating in Puerto Rico can also be viewed from at least three different perspectives: (1) by looking at the aggregate flow of Federal funds; (2) by examining the functional uses of this assistance, that is, by evaluating the effects of its breakdown into major categories such as health, education, income maintenance, transportation, etc.; and finally, (3) by evaluating the utility of a number of individual programs. These three perspectives are reflected in this chapter in varying degrees.

The first section, entitled "Types, Levels, and Magnitudes of Federal Expenditures in Puerto Rico," describes the magnitudes and kinds of Federal expenditures which operate in the Commonwealth.

The second and third sections, entitled "General Effects of Federal Outlays on Puerto Rican Income" and "General Impact of Federal Outlays on Puerto Rican Government Services," note the effects that the size of the Federal disbursements have on Puerto Rican incomes, both individual and collective, and on Government services.

The fourth and fifth sections, entitled "Functional Distribution in Puerto Rico of Federal Disbursements for State and Local Governments," and "Functional Composition of the Commonwealth Government Budget," analyze the functional distribution of Federal grants-in-aid and the relationship between Federal outlays and the Puerto Rican Government budget. The aggregate grants-in-aid funds described in the first section of this chapter are broken down into their functional components and the Federal priorities compared to the Commonwealth priorities. The analyses in these sections emphasize the role of economic development activities in both sets of priorities.

It should be noted that a detailed inventory of all Federal outlays to Puerto Rico, on a Federal agency breakdown, is to be found in appendix I to this report. Although appendix I is intended to provide a useful point of reference for all parts of this report, it is particularly useful in lending an understanding to the analyses presented in this chapter.

TYPES, LEVELS, AND MAGNITUDES OF FEDERAL EXPENDITURES IN PUERTO RICO

The amount of Federal funds received in Puerto Rico has an extremely important effect on the Commonwealth's economy. Net Federal disbursements from fiscal years 1970 to 1977¹ have accounted for 13 to 30 percent of the Commonwealth's gross product (GNP). Transfer payments from Federal sources accounted for almost 20 percent of Puerto Rican personal income in 1977. By any kind of measurement, the quantities of Federal funds are substantial, as is their relative importance to the total economy of the Commonwealth.

The Federal disbursements received in Puerto Rico fall into five categories: (1) transfer payments, (2) grants-in-aid, (3) net operating expenses of Federal agencies in Puerto Rico, (4) returned excise taxes and customs duties, and (5) loan programs.

¹ Unless otherwise noted, all years referred to in this report will be fiscal years. Puerto Rican and Federal Government fiscal years corresponded up through 1976. Starting in calendar year 1977, the Federal fiscal year was changed from a July 1 to June 30 basis to an October 1 to September 30 schedule. The intervening 3-month period, July 1 to September 30, 1976, was classified as a transitional quarter and treated separately. Thus, the Puerto Rican fiscal year 1977 began and ended 3 months earlier than did the 1977 Federal accounting period.

Table 1.—Disbursements of Federal Government in Puerto Rico, (Fiscal Years)

[In millions of dollars]

Type of expenditure	1970	1971	1972	1973	1974	1975	1976	1977
Transfer payments	303.2	377.6	432.7	543.9	635.7	1,167.1	1,692.5	1,835.0
Grants to Government sector	256.5	314.7	413.3	491.6	500.0	650.6	822.7	844.9
Net operating expenses of Federal agencies in Puerto Rico	160.8	175.4	160.0	175.7	181.4	187.7	226.2	230.5
Returned excise taxes	79.6	90.0	102.5	108.1	95.0	114.6	138.1	143.4
Customs duties	39.0	35.3	44.9	42.7	32.0	32.0	45.0	54.4
Gross total disbursements	839.1	993.0	1,153.4	1,362.0	1,444.1	2,152.0	2,924.5	3,108.2
Less: Payments to Federal Government	231.1	269.9	301.7	356.3	427.2	591.2	686.5	727.6
Net total disbursements	608.0	723.1	851.7	1,005.7	1,016.9	1,560.8	2,238.0	2,380.6
Net Federal disbursements as a percentage of Puerto Rican GNP	13	14	15	16	15	22	30	30

Source: Puerto Rican Planning Board, 1976 *Informe Económico al Gobernador*, pp. 120-132, A-14 to A-16, A-26; Unpublished 1977 *Informe Económico*, pp. A-20 to A-22, A-28.

(See table 1.) The nature of these five categories, and their relative importance in Puerto Rico, are described below.

Transfer Payments

Transfer payments are defined as expenditures for which no goods or services are exchanged. In the case of Federal transfers, payments represent a unilateral flow of funds to recipients, a large percentage of which are individuals.

In 1976, the Federal Government made total domestic transfer payments of \$154 billion. As is the case with the United States as a whole, Federal transfer payments in Puerto Rico constitute the largest category of Federal disbursements. Although such payments have been of a lesser per capita magnitude in Puerto Rico than in the United States—\$534 per capita in 1976 in Puerto Rico vs. \$715 per

capita in 1976 in the United States—their relative importance vis-a-vis personal income is greater in Puerto Rico than in the United States—22 percent in Puerto Rico vs. 9 percent in the United States.² Both the per capita and percentage figures would be considerably higher for Puerto Rico were it not for the fact that Puerto Rico is presently excluded from, or limited in, participation in a number of major Federal assistance programs. (Chapter III details the Federal programs under which Puerto Rico is accorded differential treatment.)

Measured in current dollars, there has been a six-fold increase in gross Federal transfer payments to Puerto Rico during the 1970-77 period, with the greatest increase occurring in 1975 with the introduction of the Food Stamps program. More importantly, there has been a fifteenfold increase in the net inflow of transfer payments over these years, reflecting both the overall increase in these payments to Puerto Ricans, and the relative decline in corresponding payments by Puerto Ricans to the Federal Government. (See table 2.)

Table 2.—Federal Transfer Payments to Puerto Rico, (Fiscal Years)

[In millions of dollars]

Payments	1950	1960	1970	1971	1972	1973	1974	1975	1976	1977 ²
Payments to Puerto Rico:										
Old-age and Survivors Insurance benefits	(1)	36.9	174.0	226.5	250.2	330.4	384.9	467.9	567.2	687.7
Veterans' benefits	49.7	39.5	76.9	83.4	102.1	127.8	146.9	178.4	199.8	185.2
Value of food stamps	—	—	—	—	—	—	—	387.5	754.9	802.1
Medicare benefits	—	—	22.0	24.4	28.1	29.4	36.0	43.6	49.9	57.1
Transfers to private institutions	—	—	2.9	3.5	7.3	7.6	7.3	16.6	38.4	21.0
Others	19.4	16.8	27.4	39.4	45.0	48.7	60.6	73.1	83.0	81.9
Total inflows	69.1	93.3	303.2	377.6	432.7	543.9	635.7	1,167.1	1,692.5	1,835.0
Payments from Puerto Rico to Federal Government:										
Old-age and Survivors Insurance contribution	—	34.7	170.1	198.7	226.7	270.8	334.3	362.1	367.2	393.1
Cost of food stamps	—	—	—	—	—	—	—	106.9	185.5	192.2
Unemployment contribution	—	—	34.6	39.6	42.4	50.7	55.1	78.9	87.7	93.3
Contribution to Medicare	—	—	4.5	6.1	6.6	7.0	8.5	9.6	10.4	11.3
Others	5.7	10.6	29.1	25.8	26.0	28.1	29.3	33.7	35.7	37.6
Total outflows	5.7	45.3	231.1	270.2	301.7	156.8	427.2	591.2	686.5	727.6
Net transfer payments	63.4	48.0	72.1	107.4	131.4	187.1	208.5	575.9	1,006.0	1,107.4

¹ Less than \$50,000.

² Preliminary figures.

Source: Puerto Rico Planning Board, 1976 *Informe Económico al Gobernador*, pp. 122-124, A-14; Unpublished 1977 *Informe Económico*, pp. A-21 to A-22.

Net receipts from transfer payments in Puerto Rico rose from \$72 million in 1970 to \$1,107 million in 1977. For each dollar received in 1977, the Puerto Ricans made offsetting contributions of about 40 cents—a decline from the 76 cents paid in 1970. A large proportion of this decline can be attributed to the Food Stamps program. If outlays associated with this Department of Agriculture program are eliminated from transfer payments calculations, the relative proportion of offsetting contributions from Puerto Rico would be much higher.⁵

The income effects of both the total magnitude and the separate components of transfer payments are discussed in the next section. However, the considerable volume of disbursements received in Puerto Rico provides a preliminary indication of their importance.

Grants-in-Aid

Grants-in-aid and transfer payments are similar in nature and purpose. In fact, many grants-in-aid can be categorized as transfer payments are, as expenditures for which no goods or services are exchanged. The similarity of purpose can best be described by the following:

There is a substantial degree of substitutability between grants-in-aid and domestic transfer payments and—to a lesser extent—nondefense payments. For example, low-income veterans could be eligible for free medical care under medicaid (grants), in a veterans hospital (nondefense pur-

chase), or, perhaps medicare (transfer payments). The supplementary security income transfer payments are a substitute for the preexisting program of grants to States for public assistance for the elderly and handicapped.⁵

Grants-in-aid and transfer payments differ, however, in their allocation processes. Grant expenditures, which are made for programs designed to help State and local Governments provide general public services or to finance programs, are normally handled through public agencies as opposed to being received directly by individuals.

During the seventies, grants-in-aid and transfer payments represented the fastest growing categories of Federal expenditures. From 1970 to 1977, transfer payments rose from 28 to 40 percent of the United States budget. Federal grants increased from less than 12 percent of U.S. program expenditures to over 16 percent during the same period.⁶ Although grants-in-aid dollars received in Puerto Rico lag behind the national average on a per capita basis, it is difficult to measure the exact differences. This is because U.S. grant amounts are based on *outlays*, while Puerto Rican figures represent *actual receipts*. (See table 3.) Allowing for these discrepancies,

⁵ In the food stamp program the recipients paid an average of 26 cents per program dollar in FY 1975-77. Puerto Rican contributions for other transfers such as social security, unemployment fund taxes, and similar programs, amounted to about 56 cents per dollar received.

⁶ Office of Management and Budget, *Special Analysis, Budget of the United States Government, Fiscal Year 1977*, p. 16.

⁶ *Special Analyses of the 1978 U.S. Budget*, pp. 8, 15-19; and *Special Analyses of the 1979 U.S. Budget*, pp. 46, 52-59.

Table 3.—Federal Grants to Puerto Rican Public Sector, (Fiscal Years)

[In millions of dollars]

Agencies	1965	1970	1971	1972	1973	1974	1975	1976	1977
COMMONWEALTH GOVERNMENT AGENCIES									
General programs:									
Education Department	11.6	44.8	53.3	89.6	92.9	80.4	120.3	111.3	154.0
Health Department	22.4	41.5	38.9	44.9	70.3	54.9	63.4	71.8	44.0
Social Services Department		28.0	44.1	48.2	50.5	55.6	63.8	108.8	77.9
Labor Department	7.9	29.3	36.7	44.2	54.0	52.9	40.6	106.8	100.6
Others	2.9	3.3	10.4	21.3	29.4	32.8	56.3	72.9	92.0
Total, general programs	44.8	146.9	183.4	248.2	297.1	276.6	344.4	471.5	468.5
Special programs:									
Unemployment insurance trust funds	17.0	29.4	42.8	59.8	59.0	64.4	104.5	123.8	120.8
School Lunch Program and Food for Free Distribution ¹	23.4	42.8	45.0	47.0	67.0	78.5	55.5	9.8	13.6
Total, special programs	40.4	72.2	87.8	106.8	126.0	142.9	160.0	133.6	134.4
Total, Government agencies	85.2	219.1	271.2	355.0	423.1	419.5	504.4	605.1	602.9
COMMONWEALTH PUBLIC AUTHORITIES									
Housing and Urban Renewal Corporation	10.9	8.6	5.9	7.7	9.6	18.7	12.3	13.5	14.6
University of Puerto Rico	8.8	11.6	10.0	9.7	16.9	18.0	27.6	32.6	31.9
Highway Authority	7.0	3.7	8.1	6.4	9.3	9.2	15.3	21.8	15.8
Aqueduct and Sewer Authority	1.2	2.0	1.7	3.6	2.2	9.1	13.6	20.8	17.7
Others	3.3	7.3	10.2	18.6	14.9	8.5	19.1	32.1	31.9
Total, public authorities	31.2	33.2	35.9	46.0	53.0	63.5	87.9	120.8	111.9
MUNICIPALITIES									
Total, municipalities	9.1	4.1	7.8	12.3	15.4	17.0	58.3	96.7	130.1
Grand total	126.0	256.5	314.7	413.3	491.6	500.0	650.6	822.7	844.9

¹ With Puerto Rico's inclusion in the Food Stamp Program in 1975, the Free Food Distribution operations were limited to school lunch activities.

Source: Puerto Rico Planning Board, 1976 *Informe Económico al Gobernador*, pp. 122-124, A-14; unpublished 1977 *Informe Económico*,

Table 4.—Net Operation Expenditures of Federal Agencies in Puerto Rico, (Fiscal Years)

[In thousands of dollars]

Agency	1950	1960	1970	1971	1972	1973	1974	1975	1976	1977
Department of Defense	25.7	65.7	105.2	99.9	84.0	83.6	73.9	75.8	91.2	87.3
Veterans' Administration	10.9	8.4	19.5	21.6	24.0	28.2	33.0	33.2	45.5	57.2
Post Office Department ¹	.5	.2	4.2	11.0	10.4	12.0	20.9	15.4	16.4	7.1
Department of Health, Education, and Welfare	.6	1.3	5.4	5.6	2.8	7.0	7.8	10.6	13.6	17.9
Department of Transportation		1.6	.1	6.5	7.4	8.0	8.9	10.4	12.7	12.8
Department of Agriculture	2.3	2.9	5.6	5.8	7.6	8.2	8.3	7.6	7.4	8.4
Department of the Treasury ²	1.9	3.6	4.9	4.7	5.5	5.7	6.9	8.0	9.5	9.6
Others ³	4.9	8.1	15.9	20.3	18.3	23.1	21.7	26.8	30.0	30.2
Total expenditures	46.8	91.8	160.8	175.4	160.0	175.7	181.4	187.7	226.2	230.5

¹ The excess of expenditures over receipts.

² Includes amount of customs duties retained to compensate for collection expenses.

³ Consists of expenditures of other agencies, plus expenses which are not attributable to individual agencies.

Source: Puerto Rican Planning Board, 1976 *Informe Económico al Gobernador*, pp. 129-130, A-16; Unpublished 1977 *Informe Económico*, p. A-20.

Puerto Rico's per capita grant receipts lagged behind the U.S. average by \$10 in 1976 and \$46 in 1977.⁷

NET OPERATING EXPENSES OF FEDERAL AGENCIES

The expenditures in this category, which include items such as salaries, rent, equipment and supplies, are received in Puerto Rico by operation of Federal agency offices. Although their impact may be more indirect than those associated with transfers and grants, they do provide important "... employment opportunities for Puerto Ricans, and thus increase consumer demand for local goods and services."⁸ Even though some of these expenditures are used to make purchases outside the Commonwealth, the major portion of the approximately \$1,500 million spent in the 1970-77 period did have significant local employment and consumption effects in Puerto Rico. (See table 4.)

RETURNED FEDERAL EXCISE TAXES AND CUSTOMS DUTIES

Federal excise taxes on Puerto Rican tobacco products and alcoholic beverages sold in the United States, and customs duties collected on foreign goods imported into Puerto Rico, are, with some exceptions and deductions, returned to the Commonwealth Government. The revenue derived from these

⁷ A more exact comparison can be obtained by using U.S. Treasury Department estimates of aid to the fifty States and Puerto Rico. Unfortunately, these data include a few grantlike loans, exclude grants to individuals and private institutions, and include a category "miscellaneous assistance" which contains such nongrant items as returned excise taxes and customs duties. If this latter category is eliminated, the remaining amounts show Puerto Rico as having per capital receipts of \$88 less than the national average in 1976, with the gap decreasing to \$84 in 1977. However, because these statistics involve less than the total annual grants-in-aid, their usefulness is excessively compromised.

⁸ 1976 *Informe Económico al Gobernador*, p. 129.

two sources, which are distributed at the discretion of the Puerto Rican Government,⁹ provided 8.7 percent of the 1976 Commonwealth budget.

The current legal basis for these returns is section 9 of the Puerto Rican Federal Relations Act which states that:

... all taxes collected under the internal revenue laws of the United States on articles produced in Puerto Rico and transported to the United States, or consumed in the island shall be covered into the Treasury of Puerto Rico.¹⁰

The Commonwealth's special tax status is also established in the U.S. Internal Revenue Code.¹¹

Although the Legislature of Puerto Rico has expressly consented to some exceptions, Federal excise tax and customs duty rebates have returned over \$1,000 million to the Puerto Rican Treasury in the 1970-77 period.¹² These figures represent the accumulated tax revenues less collection/accounting costs.¹³

LOAN PROGRAMS

Credit assistance programs—direct loans, loan guarantees, and interest subsidies—provide funds for Government entities, businesses, and individuals in Puerto Rico. Although this type of assistance is not aggregated with the Federal disbursements in determining total payments, the outlays must be

⁹ Commonwealth of Puerto Rico, Office of the Governor, Bureau of the Budget, *The Budget in Brief for Fiscal Year 1978*, July, 1977, pp. 48-49.

¹⁰ 1 L.P.R.A. 9 (1965).

¹¹ 26 U.S.C.A., 7652 (1954)(a)(1)-(3).

¹² The Commonwealth has consented to: (1) abide by certain internal revenue laws regarding narcotic drugs and marijuana; (2) permit that "... the costs and administration in Puerto Rico of the provisions on exemption of industrial alcohol shipped to the United States be charged against and retained out of the taxes collected on shipments under the internal revenue laws of the United States on commodities of Puerto Rican manufacture shipped to the United States ..."; and (3) pay Federal processing taxes on refined sugar.

¹³ 1977 *Informe Económico al Gobernador*, Puerto Rican Planning Board, p. A-29.

considered in analyzing the effects of Federal funds in Puerto Rico for reasons such as the following:

While the requirement of repayment places the loan programs on the basis fundamentally different from grants-in-aid, they nevertheless deserve categorization as aid programs. By and large the interest rates charged are lower than those in the private lending market, thus resulting in considerable savings to the borrowers. Also, some Federal loans are available to individuals who do not have the necessary credit standing to secure capital from private lending institutions.¹⁴

Repayment and interest factors are the two primary—but not the only—differences between loans and the previously discussed categories of Federal disbursements. Some loan programs do not involve any actual flow of Federal money. This is the case with *guaranties* of loans made by private lending agencies where the Government only "... assumes responsibility for payment of some portion of principal and interest in the event that the borrower defaults on his obligation."¹⁵ The growth in this type of assistance is such that loan guarantees may soon account for as much as half of all Federal funds advanced in the United States domestic credit markets.¹⁶ In Puerto Rico, where loan guarantees amounted to approximately \$165 million in 1976, their role has been substantial.

Another set of lending operations not actually using Federal funds are those carried out by "Federal Credit Agencies." For example, the Baltimore Bank for Cooperatives, which serves farm cooperatives,

does not lend Government money. Although it was organized by Congress in 1933, the bank obtains its loan funds through capital stock investments, by selling debentures to private investors, and from retained earnings. A sister institution, the Federal Land Bank of Baltimore, obtained its original capital from the Federal Government but has subsequently been acquired by private farmers.¹⁷

In analyzing the costs to the Federal Government of its total lending activities, the ratio of direct loans to guarantees must be considered, private monies must be accounted for, and funds derived from loan repayments and interest must be noted. Even though the dollar value of total loans to Puerto Rico does not equal an equivalent dollar outlay from the United States Government, the benefits to the Commonwealth are significant.

In total, the various Federal credit agencies have contributed significantly to the net inflow of capital over the years.¹⁸ (See table 5; Note—loan guarantees are not included.) Even though the loans must be repaid with interest, outflows have generally been smaller than annual new loan funds. In fact, from 1942 to 1976, there were only five years in which there were net outflows (1946, 1953, 1961–63). Over the 35 years, the average annual inflow exceeded \$19 million. Since the value of these loans increased substantially in the 1970's, their role in

¹⁴ Rita M. Maldonado, *The Role of the Financial Sector in the Economic Development of Puerto Rico*. Federal Deposit Insurance Corporation, Washington, D.C., 1970, pp. 68–72.

¹⁵ The Agriculture Department issues a category of "insured loans" which are treated by the Community Services Administration as guaranteed loans. These "insured loans" actually have "... the characteristics of direct loans," and are correctly treated as such in Puerto Rican Government accounts. Technically they are insured by the Agriculture Department since they are ultimately sold to the Treasury Department. They also fit the definition of direct loans which utilize Federal funds, and are included in table 3.12. (U.S. Congress, *Catalog of Federal Loan Guarantee Programs*, pp. 19, 33, 43–44.)

¹⁶ Richard B. Cappalli, *Federal Aid to Puerto Rico*. Institute of Urban Law, University of Puerto Rico, 1970, pp. 6–7.

¹⁷ *Special Analyses of the 1978 U.S. Budget*, op. cit., p. 100.

¹⁸ U.S. Congress, House Committee on Banking, Finance and Urban Affairs, *Catalog of Federal Loan Guarantee Programs*, 95th Cong., 1st Sess., September, 1977, p. ix.

Table 5.—Loans to Puerto Rico by Federal Credit Agencies, (Fiscal Years)

[In millions of dollars]

Loans	1950	1960	1970	1971	1972	1973	1974	1975	1976	1977
Long-term Administration										
Farmer's Home Administration	2.6	2.4	12.9	16.4	10.6	34.8	32.6	50.8	43.8	75.6
Small Business Administration	—	2.3	9.5	21.4	18.5	8.1	29.0	25.4	48.4	35.0
Federal National Mortgage Association	8.0	22.4	—	—	—	—	—	—	—	—
Government National Mortgage Association	—	—	2.2	2.1	18.1	27.2	11.5	67.6	72.2	71.1
Federal Land Bank of Baltimore	1.8	4.4	3.7	4.6	5.6	9.3	16.5	8.8	12.2	16.6
Others ²	1.6	7.2	14.4	10.0	6.6	20.1	5.5	7.5	6.7	7.6
Total, New long-term loans	14.0	38.7	42.7	54.6	59.4	99.5	95.0	160.0	183.3	205.9
Short-term loans:										
Federal Intermediate Credit Bank of Baltimore	17.4	23.9	30.1	30.2	26.1	23.5	8.1	6.7	9.9	7.9
Baltimore Bank for Cooperatives	2.9	16.4	7.7	4.9	7.2	8.1	8.4	5.8	3.6	5.0
Commodity Credit Corporation	—	.7	2.8	1.5	2.1	1.8	2.7	.8	(*)	—
Total, new short-term loans	20.3	41.0	40.6	36.6	35.4	33.4	19.3	13.3	13.5	12.9
Net inflow (outflow) of loans:										
Long-term loans less repayments	6.4	27.2	27.1	30.1	29.8	66.9	19.2	89.2	74.1	85.4
Short-term loans less repayments	(2.9)	3.9	2.0	2.5	(4.0)	(7.9)	(3.8)	(1.9)	5.5	(.8)
Total, net inflow of loans	3.4	31.1	29.1	32.6	25.8	(59.0)	15.4	87.3	79.6	84.6

¹ On 9/30/68 the Federal Mortgage Association became a private corporation and the Government National Mortgage Association was organized.

² Economic Development Administration; Department of Housing and Urban Development loans in addition to those of the Government National Mortgage Association; Veterans Administration; Department

of Health, Education, and Welfare; Baltimore Bank for Cooperatives, and the Reconstruction Finance Corporation.

³ Less than \$0.5 million.

Source: *Puerto Rico, Balance of Payments, 1942–61*, pp. 57–60; *Puerto Rico Balance of Payments, 1975*, pp. 49–52; Unpublished 1977, tables 19 and 20.

augmenting capital inflows to Puerto Rico needs to be noted. An analysis of long term loans and their contribution to Puerto Rican investments is contained in chapter IV.

GENERAL EFFECTS OF FEDERAL OUTLAYS ON PUERTO RICAN INCOME

Puerto Rico is believed to be among the very few countries in the world where personal income exceeds both GNP and Net Income. That this excess occurs in both 1976 and 1977 is indicative of the magnitude of Federal assistance to the Commonwealth in recent years. That is, Federal funds directly and indirectly supply such a large share of total Puerto Rican income that personal income exceeds the value of all goods and final services produced and remaining in the Commonwealth.

One type of Federal disbursements—transfer pay-

Table 6.—Personal Income in Puerto Rico and the United States in Fiscal Year 1976

[In millions of dollars]

Item	Puerto Rico		50 States and the District of Columbia	
	Amount	Percent-age	Amount	Percent-age
Total personal income	7,682	(100)	1,320,050	(100)
Wages and salaries	4,567	(59)	847,325	(64)
Non-Federal government and Government enterprises	1,574		120,825	
Federal Government	199		60,725	
Manufacturing	1,895		224,750	
Others	1,899		441,025	
Other labor income	284	(2)	70,325	(5)
Income from property	1,242	(16)	268,225	(20)
Proprietors' income	714		89,525	
Rental income	453		22,675	
Dividends	44		33,500	
Personal interest income	31		122,525	
Transfer payments to persons	2,119	(28)	186,875	(14)
Federal payments	1,433		153,600	
Others	686		33,275	
Less: Employee Contributions to Social Insurance	310	(4)	52,700	(4)

¹ Includes \$16.5 million for wages to nonresidents.

² Consists of \$32.5 million for wages to private sector employees, and \$51.3 to public sector personnel.

³ Somewhat understated because it consists entirely of income from unincorporated enterprises. Income of partnerships was not available.

⁴ Includes miscellaneous income received from abroad.

⁵ From *Special Analyses, The 1978 U.S. Budget*, pp. 14-20, 27.

⁶ Includes contributions of \$90 million to the Puerto Rican Government Fund; and \$220 million to the Federal Government.

Source: Unless otherwise indicated, Puerto Rican figures are from the 1976 *Informe Económico al Gobernador*, pp. 17-81, 4-10, A-14; U.S. data are from *Survey of Current Business*, 7 (July 1977), pp. 27-28, 31-32.

Table 7.—Ratio of Transfer Payments to Total Personal Income in Puerto Rico and Selected States

Region	1965	1970	1975
Index, United States=	100	100	100
Puerto Rico	183	155	200
Arkansas	142	136	122
District of Columbia	165	166	164
Maine	125	126	131
Mississippi	126	125	122
Rhode Island	118	120	133
West Virginia	149	141	130

Source: Puerto Rican figures for these three fiscal years are from: 1976 *Informe Económico al Gobernador*, p. A-10. U.S. calendar year data are from: Vernon Renshaw and Howard L. Friedenberg, "Transfer Payments: Regional Patterns, 1965-75," *Survey of Current Business*, 57 (May 1977), pp. 15-19.

ments to individuals—has a direct and obvious impact on Puerto Rican incomes. (See table 6.) In 1976, Federal transfer payments to individuals accounted for 18.8 percent of Puerto Rican personal income while transfers from all sources accounted for 27.6 percent. If the employee contributions to Federal social insurance funds are deducted from these Federal transfers, the result would be a net Federal transfer balance of \$1,213 million.¹⁸ Similarly, the net transfer balance of Puerto Rican governmental units would be \$596 million. On a net balance basis then, in 1976, Federal transfer payments to individuals constituted 15.8 percent of personal income in Puerto Rico, and transfers from all sources provided 23.5 percent of Puerto Rican personal income. Compared to United States income derived from gross or net transfers, the Commonwealth's percentage is quite sizable.

Since the per capita income in Puerto Rico is significantly lower than the per capita income in the United States, the most meaningful comparison can be made by contrasting the island's receipt of transfer payments with that of some of the poorer States. Although equivalent data are not available, a general approximation can be achieved by comparing the payments to Puerto Rico in fiscal years 1965, 1970 and 1975 with transfers in calendar years 1965, 1970 and 1975 for the States and the District of Columbia. (See table 7.) An analysis of the transfers in these years shows that even though per capita receipts of most States continually exceeded those of Puerto Rico, only once did a mainland jurisdiction have a greater ratio of transfer payments to personal income.¹⁹ Despite the lower absolute amount of transfer payments in Puerto Rico, their relative effect on the smaller per capita incomes (1976=\$2,349 GNP/capita) is larger than the comparative effects on the mainland jurisdictions.

¹⁸ This varies from the net transfers in table 2 (\$1,006) for several reasons. First, because the data were slightly revised since the above figures were calculated. Second, because subsidies to industries (\$35.1) were not added. Third, because employee's contributions to social insurance (\$220.3) were not deducted.

¹⁹ In 1970 the District of Columbia had a slightly higher transfer payment/personal income ratio (0.162) than did Puerto Rico (0.152), while it had a vastly higher per capita receipt (\$824 versus \$212).

Aside from the obvious influence of direct transfer payments, it is difficult to trace the flow of other Federal funds into Puerto Rican incomes. Salaries paid to Federal employees in the Commonwealth added an easily detectable \$199 million in 1976. Because returned customs duties and Federal excise taxes are covered over to the Commonwealth's Treasury, it could be assumed that they finance the same proportion of personal services, and thus incomes, as does the General Fund²⁰ as a whole.²¹ But even this latter assumption cannot be applied to all excise tax returns allocated to the Special Fund²² since some of these revenues are used for, *inter alia*,²³ subsequent advertising of Puerto Rican rum on the mainland.

The income generating effects of grants and loans are even more difficult to pinpoint. Since employment is only an incidental component of most grants and loans, complete knowledge of the funding breakdown of hundreds of programs would be needed to accurately estimate their direct contribution to Puerto Rican income. This information is not available.

Direct employment is only the most obvious income producer. The total impact of Federal funds not only encompasses direct payments, plus the indirect growth of incomes resulting from Federal purchases, but also includes income generating purchases of goods and services resulting from the initial Federal input. Although no figure on incomes thus calculated is available, Federal assistance in Puerto Rico has an income effect greater than the initial outlays of transfer payments and money directly used for employment.

Not only is the existing level of personal income tied to Federal funds, but the growth of incomes over the years can be associated with the parallel

growth of Federal assistance. For example, the Commonwealth's Net Income, in current dollars, rose from \$3,300 million at the end of 1969 to \$6,207 million in 1976. It appears that the net inflow of Federal assistance contributed heavily to this income expansion. Though a precise measurement of the Federal impact cannot be provided, a rough estimate can be made using an income multiplier calculated by the Puerto Rican Planning Board.²⁴

Because of the Commonwealth's high marginal propensity to import, the income multiplier is, on the average, relatively low, at least in view of Puerto Rico's population size and distance from external suppliers.²⁵ The ratio of the ultimate change in income to the original change in spending has been estimated in 1974 to be about 1.4. Such calculations are, by nature, rather crude approximations and the accuracy of a multiplier supposedly applicable to the 1974-75 period may change considerably during the 1970-76 span.²⁶

Using the 1.4 multiplier, the increase in total net income during the 1970-76 period due to the increase in direct Federal expenditures amounted to approximately \$1,080 million. This estimate includes the effects of Federal loans but excludes transfer payments which are not part of Net Income. The \$1,080 million figure represents over 37 percent of the total increase in Net Income. If, for the sake of comparison, the same multiplier is used to gage the impact of total Federal expenditures on personal income (which does include transfer payments), the percentage rises. Personal income generated from Federal expenditures from the beginning of 1970 to the end of 1976 would thus be \$2,325 million, or about 54 percent of the total increase.

In addition to the normal caveats concerning the imprecise nature of multipliers in general, the income multiplier may be used too liberally. The presumed applicability of a 1974 calculation is stretched to cover 7 years and is used with personal income as well as with net income. There is an implied assumption that the duration of multiplier effects can be

²⁰ The General Fund is "... the main State operating fund where the largest percentage of fiscal revenues are deposited. These are the monies which the Legislative Assembly appropriates annually for the payment of current expenditures, debt service and public improvement projects. These receipts originate from various sources: tax revenues, including income taxes, inheritance and gift taxes, excise taxes, from alcoholic beverages and from other expendable goods such as cigarettes, petroleum products, motor vehicles and accessories, electrical and gas appliances, and others; collection from motor vehicles and other licenses; surplus from the operating budget; transfers from the Interest on Investments Fund; fees, fines, and forfeits; income from the operation of the lottery; customs duties; and excise taxes on offshore shipments." *The Budget in Brief for Fiscal Year 1978*, Office of the Governor of the Commonwealth of Puerto Rico, July 1977, p. 16.

²¹ For Fiscal Year 1976, when 66 percent of the General Fund was allocated to personal services, this approach would credit these returned taxes with funneling \$102,131,480 directly into personal incomes. (*The Budget in Brief for Fiscal Year 1978*, op. cit., pp. 48, 55-56.)

²² The Special Fund contains "... monies earmarked for specific uses. Some of the resources classified as special funds are: property taxes reserved for the redemption of the Commonwealth debt; excise taxes from consumption goods decreed to defray specific activities and services, such as footwear for students and special taxes on occupied hotel rooms which are devoted to cover the cost of the activities of the Recreational Development Company, United States Government grants-in-aid for special educational, health, welfare, and other programs are also classified as special funds."

²³ "The outlays against special funds do not require annual legislative approval because they have been previously authorized by law." *The Budget in Brief for Fiscal year 1978*, *Ibid*, p. 16.

²⁴ A multiplier is "... the ratio of the ultimate increase in income caused by an original increase in spending to that original increase. ... As a process, the multiplier is the sequence of consumption spending set off by the original increase in spending. The original increase, being new, will add to the incomes of some people, who will spend a portion of their new incomes on consumption, in turn adding to the incomes of other people, who will then spend, and so on." (*Economics 73-74 Encyclopedia*, Duskin Publishing Group, Inc., Guilford, Connecticut, 1973, pp. 167-68.)

²⁵ Robert Dennis and Robert W. Rafuse, *Tax Exemption and Its Alternative: Investment Incentives in the Development Program of Puerto Rico*, prepared for the Government Development Bank of Puerto Rico, January, 1976, pp. 29-31.

²⁶ The Puerto Rico Planning Board also provided individual multipliers, ranging from 0.3 to 2.4, for various kinds of "exogenous" inputs, including some for Federal expenditures. The latter did not completely correspond to the disbursement classifications used in this study, but with some adjustments they produced a multiplier a little higher than 1.4. The 1.4 is used here, nevertheless, because it is easier for the reader to understand, and because it is a more conservative estimate. See *Ibid*.

neatly limited to the fiscal years being considered. The multiplier effects are worth presenting. A glance at the estimations, combined with the previous discussion of the magnitude of Federal expenditures, provide an overview of the impact of the Federal Government on incomes in Puerto Rico.

With regard to Puerto Rico's income multiplier, it should be noted that the United States is the chief beneficiary of the Commonwealth's high import coefficient which is responsible for the low nature of the ratio. For example, in 1976 the Commonwealth imported United States commodities (excluding services) valued at \$3,389 million.²⁷ An estimated \$331 million of these imports involved agricultural products financed under the Food Stamp program.²⁸ The portion of other imports from the United States paid for with Federal Government funds is not known, but the income generating effects of Federal assistance to Puerto Rico rapidly spreads to the mainland.

In conclusion then, total Federal assistance in the Commonwealth has a major effect on incomes, one which greatly exceeds the amount of personal income which is potentially traceable to direct employment financed by the initial outlays. In terms of GNP, personal income, disposable income, and Net Income, Federal funds are critically important. With this impact clarified, the less quantitative effects of these disbursements need to be examined with a look at their influence on the size and nature of governmental services in Puerto Rico.

²⁷ "Economic Ties Grow Between U.S. and Puerto Rico," *Puerto Rico Business Review*, 2 (April 15, 1977), p. 8. The equivalent calendar year figure was \$3,682 million (U.S. Department of Commerce, *U.S. Trade with Puerto Rico and U.S. Possessions*, U.S. Government Printing Office, Washington, D.C., 1977). In Fiscal Year 1975, 61 percent of all merchandise imports were from the U.S. (Commonwealth of Puerto Rico Planning Board, 1975 *External Trade Statistics*, June, 1977, p. 317.)

²⁸ This estimate is made by Angel Ruiz and Parimal Choudhury in "The Impact of the Food Stamp Program on the Puerto Rican Economy: An Input-Output Approach," reprinted in *An Agenda for a Socio-Economic Study of Puerto Rico, Part Two*, Office of the Governor of Puerto Rico, June, 1977, p. 419.

GENERAL IMPACT OF FEDERAL OUTLAYS ON PUERTO RICAN GOVERNMENT SERVICES

An analysis of the magnitude of Federal contributions to the budgets of Puerto Rican governmental units can indicate how they relate to associated governmental services. In addition, an examination of how specific funds are used can provide a more precise knowledge of this relationship. Accordingly, this section examines the role of aggregate amounts of Federal funds in Puerto Rican Government budgets, and discusses the categorical breakdown and specific uses of the Federal disbursements.

Because the Puerto Rican governmental structure is so highly centralized, most Federal funds are allocated directly to the Commonwealth Government. For example, in 1976 less than 12 percent of the total Federal grants-in-aid were directed to municipal governments. Although these local units have been receiving increasing amounts of these grants, reflecting a similar trend of fund allocation on the mainland, the Commonwealth Government is still the dominant recipient. From 1970 to 1976, Federal grants at the municipal level grew from \$4.1 million to \$96.7 million.

Federal funds add substantially to the Commonwealth Government's total revenue even though they are generally understated in budget reports. The most frequently used method for showing the Federal share of the Commonwealth's budget is to present Federal funds as a part of the Commonwealth's recurring receipts. (See table 8.) One problem with presenting Federal funds in this manner is that the latter represents only a portion of all revenues since some U.S. grants are not included. Thus, in 1975 the total Federal grants listed in the Commonwealth Budget under "General Fund and Special Fund Revenues" exceeded those cited as recurrent receipts by over \$34 million. In 1976, the equivalent gap was

Table 8.—Federal Funds in Commonwealth Government Recurrent Receipts, (Fiscal Years)

[In millions of dollars]								
Receipts	1970	1971	1972	1973	1974	1975	1976	1977
Total receipts	823.3	963.1	1,143.2	1,261.5	1,264.1	1,501.8	1,861.6	1,978.6
Federal funds	260.8	297.9	390.7	426.8	398.8	506.4	603.7	614.7
Grants-in-aid	142.2	172.7	243.3	276.0	271.8	347.3	420.6	416.9
Returned excise taxes	76.6	90.0	102.5	108.1	95.0	114.6	138.1	143.4
Returned customs duties	39.0	35.3	44.9	42.7	32.0	32.0	45.0	54.4
Petroleum import tax ¹	—	—	—	—	—	12.6	—	—
Federal funds as a percentage of all recurrent receipts	31.7	30.9	34.2	33.8	31.4	33.7	32.4	31.1

¹ The petroleum import tax, which was imposed by the Federal Government in April 1975, was withdrawn in fiscal year 1976. Puerto Rico has continued to collect this tax at the rate of \$2 per barrel, but the proceeds have been reclassified as internal revenue, even though a small amount was apparently collected by the U.S. Government in 1976. See: *Budget in Brief for 1978*, p. 21.

\$40 million.²⁹ These \$34 and \$40 million amounts presumably represented "nonrecurrent receipts." Even the higher figures found in the full budget documents do not represent all Federal grants to the Commonwealth Government. Among other omissions, they exclude disbursements to the Puerto Rican public corporations.

Puerto Rico has a large number of public corporations which receive budget allotments for operating expenses and capital investment from both Commonwealth General Funds and Special Appropriations. In 1976, 26 corporations received \$273 million in such allotments, or approximately 12 percent of the total Commonwealth Budget for that year. Federal Government contributions to public corporations, which technically do not pass through the Commonwealth Treasury Department, are not included in the Budget. If they had been, they would have added another \$117 million in 1976. In addition, school lunch program moneys and some unemployment funds are items which are neither included in the U.S. grants-in-aid totals nor considered to be Federal contributions to the Commonwealth's Budget.³⁰ (See table 3.)

The recorded Federal contribution to the Official Commonwealth Budget understates the Federal share of the Commonwealth Budget to a degree, and so understates its share of Commonwealth expenses. The Puerto Rican definition of government revenue differs from that employed by States. For the latter, the following U.S. Bureau of the Census definition applies:

Revenue and expenditure comprise actual receipts and payments (net of such correcting transactions as recoveries or refunds) of a government and its agencies, including government-operated enterprises, utilities, and public trust funds. Transactions excluded are debt issuance and retirement, loans and investments, agency and private trust transactions, and internal transfers between funds of government.³¹

Using the criteria in this definition, Federal sources of Commonwealth Government revenue would include all grants-in-aid received by any central government agency or public corporation, plus returned excise taxes and customs duties sent to the Commonwealth Treasury. As mentioned previously, the Census definition has not been applied in the past with regard to Federal assistance to Puerto Rican public corporations. (In the consolidated Puerto Rican

budget for FY 1979, public corporation costs and related Federal grants are recognized.)³²

With these budget differences identified, comparisons of Federal receipts in the Puerto Rican Government Budget can be made with those of the States. These comparisons further point out the relative importance of Federal outlays to the Commonwealth. In 1975 and 1976, the Federal contribution to total revenues of the 50 States averaged 23 percent, while those to the Commonwealth Government averaged about 31 percent.³³ Proportionately, Puerto Rican receipts are thus almost a third larger than those of the States.

The reasons for the disparity in Puerto Rico's favor must, however, be qualified. With the Puerto Rican centralized political system, the Commonwealth Government has more responsibilities, especially in education and health, than does the typical State where more activities are financed by local government units. So an additional and perhaps more realistic contrast might be made between Federal aid to State and local governments in the United States on the one hand, and aid to the Commonwealth and municipal governments in Puerto Rico on the other. In the United States in 1975, a year for which comparable data are available, the Federal input as a percentage of all revenues to State and local governments averaged 18 percent. In Puerto Rico, the equivalent Federal funding accounted for just under 26 percent.³⁴ When all governmental units are included, Federal assistance as a percentage of total revenue is lower than stated above in both the United States and the Commonwealth, but proportionately the Puerto Rican receipts are only slightly less than when just State government budgets were considered. In absolute terms the mainland units receive more, but in relative terms, these Federal funds are more important to the smaller Puerto Rican unit budgets.

THE FUNCTIONAL DISTRIBUTION IN PUERTO RICO OF FEDERAL DISBURSEMENTS FOR STATE AND LOCAL GOVERNMENTS

The foregoing analysis in this chapter has surveyed the overall impact of all Federal disbursements

²⁹ Oficina del Gobernador, Negociado del Presupuesto, *Presupuesto Para el Año Fiscal 1978*, tomo I, pp. 60-61.

³⁰ The amounts for the Unemployment Insurance Trust Funds listed as Federal grants by the Planning Board are offset by unemployment contributions listed as payments to the Federal Government in the transfer payments accounts. Only the net amounts are considered in subsequent calculations in this section.

³¹ U.S. Department of Commerce, Bureau of the Census, *Governmental Finances in 1975-76*. U.S. Government Printing Office, Washington, D.C., 1977, p. 2.

³² In 1979, the unconsolidated budget would have been approximately \$2.6 billion; the consolidated budget is estimated at \$5.3 billion. (*The Dorville News Letter*, No. 4, February 4, 1978, p. 1.) Public corporations were not totally ignored in previous budgets. Student fees from the University of Puerto Rico were included as revenue and, on the expenditure side, contributions of the General Fund to public corporations were also incorporated. So these have been hybrid, complicated documents not strictly comparable with mainland State budgets. Still, because the typical State has few government-operated enterprises, their partial exclusion in the Puerto Rican situation should not preclude rough comparisons.

³³ *Presupuesto Para el Año Fiscal 1978*, pp. 60-61; *Governmental Finances in 1974-75*, p. 18; *Governmental Finances in 1975-76*, p. 19.

³⁴ *Governmental Finances in 1974-75*, p. 18; *Puerto Rico Income and Product, 1975*, Puerto Rico Planning Board, pp. 28-29.

in Puerto Rico. As has been seen, the amount of Federal assistance received by the Commonwealth is critically important in and of itself despite the lower per capita receipts relative to those on a national basis. As has been previously discussed, Federal assistance is relatively more significant to the Commonwealth because Puerto Rico has limited internal resources and a lower per capita income level. As a result, incomes, consumer demand, and governmental services are all more firmly integrated with Federal assistance than they are in the other Federal jurisdictions.

As in any jurisdiction, each economic function in Puerto Rico increases with an increase in the flow of Federal dollars. Nevertheless, these dollars may not be directed toward alleviating the Commonwealth's most pressing economic problems of development. They may meet social needs, or spur consumption and demand as a consequence, but it is questionable that they promote economic development. It is thus important not only to examine the funding levels and the types of programs funded, but also how Federal moneys are actually used in Puerto Rico to promote direct economic development. That is the purpose of this section, to analyze whether, and how, Federal disbursement directed at State and local governments impact on Puerto Rico's economic development.

Much of the Federal disbursements received in Puerto Rico have "no strings" attached. Transfer payments and returned excise taxes and customs duties, as well as the operating expenditures of Federal agencies, are used at the discretion of the recipients. On the other hand, grants-in-aid and loans are directed at specific targets. Accordingly, they have "strings" designed to achieve certain goals. The availability of these grants and loans reflects primarily the Federal, and only secondarily the Commonwealth, priorities. The issue which therefore needs to be addressed is whether existing resources are being used to obtain appropriate types of development. To this end both Federal and Commonwealth priorities must be analyzed in light of Puerto Rico's basic economic development needs.

While economic development is not the primary goal of most Federal and Commonwealth programs, the nature of Puerto Rico's economic problems requires a closer look at the overall impact of Federal assistance on its development. The need for such an evaluation is particularly necessary when noting the size of those Federal and Commonwealth expenditures which specifically treat the consequences of lagging development.

A first step in assessing the development impact is to analyze the vast array of Federal programs and to determine how many of them make a relatively direct contribution to Puerto Rico's economic development. Following such an examination of the

functional composition of Federal outlays, a second step is to make a comparative investigation of the Commonwealth's own budgetary priorities.

Functional Composition of Federal Expenditures

In industrialized market economy countries, the types of direct economic assistance provided by governments to the private sector are mostly oriented toward financing public works, supplying investment and export assistance, and providing technical and financial aid to selected businesses. The direct economic assistance activities of the U.S. Government fall into this pattern. Except for the Department of Commerce's Economic Development Administration, and Regional Planning Commissions,³⁵ the U.S. Budget Account Listing does not utilize the term "economic development assistance."³⁶ Though development assistance is not restricted to programs entitled as such, a review of the functional budgetary categories does highlight the scarcity of this type of aid. The functional budgetary categories and the amounts allocated to each in FY 1976 are presented in table 9. Table 10 compares the proportional distribution of FY 1976 Federal aid to State and local governments, to that of Puerto Rico.³⁷

³⁵ Title V of the Public Works and Economic Development Assistance Act of 1965, 42 U.S.C. 3121 *et seq.*

³⁶ Office of Management and Budget, *The Budget of the United States Government, Fiscal Year 1977*. U.S. Government Printing Office, Washington, D.C., 1976, pp. 185-308, esp. p. 213.

³⁷ Although the amounts and programs in this table do not represent total Federal aid to State and local governments, they do include most grants, but only a few loans, e.g., those "... for purposes similar to those for which grants are made." The table presents more than a representative sample of Federal aid. It can be used to illustrate the varieties of assistance available to Puerto Rico.

To provide a slightly different perspective on the same data, table 10 compares the receipt of aid under each functional category for the Nation as a whole with that for Puerto Rico. It also presents the data from table 9 in a more concise manner, and includes percentage breakdowns which identify significant differences between the functional mix of Federal programs on the mainland and on the island.

For a detailed explanation of inclusions and exclusions, see, Department of the Treasury, *Federal Aid to States: Fiscal Year 1976 and Transitional Quarter*, U.S. Government Printing Office, Washington, D.C., 1976, pp. II-IV.

Table 9.—Functional Distribution of Federal Aid to State and Local Governments: Fiscal Year 1976¹

[In thousands of dollars]

Agency and program	Total aid to States and other areas	Aid to Puerto Rico
NATIONAL DEFENSE		
Department of Defense:		
Civil preparedness	38,249	686
National Guard centers construction	50,892	971
Subtotal	89,141	1,657
NATURAL RESOURCES, ENVIRONMENT, AND ENERGY		
Department of Agriculture:		
Watershed and flood prevention; resource conservation and development ²	126,853	31
National Forests and school funds ²	139,178	817

See footnotes at end of table.

Agency and program	Total aid to States and other areas	Aid to Puerto Rico
Department of Commerce:		
NOAA coastal zone management ²	13,023	350
NOAA operations research and facilities ²	23,964	262
Department of the Interior:		
Water resources research ²	8,730	110
Land and water conservation fund	155,924	1,498
Fish and wildlife restoration	66,016	398
Preservation of historic properties	8,190	2
Department of Defense:		
Corps of Engineers (flood control) ²	4,297	—
Environmental Protection Agency:		
Abatement and control	134,357	973
Construction of waste treatment facilities ²	2,428,569	16,559
Tennessee Valley Authority (shared revenue)	48,370	—
Water Resources Council (resource planning)	3,584	74
Subtotal	3,161,055	21,074

AGRICULTURE

Department of Agriculture:		
Cooperative State Research Service ²	101,849	2,234
Extension Service ²	181,006	3,888
Commodity Credit Corporation (donations)	148,117	5,149
Subtotal	430,972	11,271

COMMERCE AND TRANSPORTATION

Department of Commerce:		
Minority business development ²	4,484	(3)
Department of Transportation:		
Highway trust fund ²	6,482,173	20,550
Urban mass transportation ²	1,262,177	9,517
Highway beautification	31,514	34
State boating safety assistance	4,828	47
Airport and airway trust fund ²	268,741	1,384
Forest and public lands highways ²	2,095	—
Highway safety programs	92,604	726
Natural gas pipeline safety	1,152	15
Railroad safety assistance	2,206	—
Rail and highway crossings	3,503	—
Offsystem roads ²	5,282	—
Subtotal	8,160,759	32,273

COMMUNITY AND REGIONAL DEVELOPMENT

Funds appropriated to the President:		
Appalachian regional development programs ²	301,991	—
Disaster relief ⁴	251,551	48,311
Department of Agriculture:		
Rural water and waste disposal ⁶	88,710	885
Department of Commerce:		
Economic development facilities ^{2,6}	128,299	7,041
Economic adjustment assistance programs ²	98,785	2,029
Regional Action Planning Commissions ²	40,383	—
Planning, technical assistance, and research ²	4,064	203
Department of Housing and Urban Development:		
Community development block grants ⁷	982,789	17,697
Urban renewal	1,165,271	3,245
Model cities program ⁷	135,265	1,300
Neighborhood facilities ⁷	21,999	252
Open space land programs ⁷	46,580	285
Basic water and sewer facilities ⁷	67,299	515
Comprehensive planning assistance	93,815	1,045
Community development training	338	8
Department of the Interior:		
Bureau of Indian Affairs	14,680	—
Community Services Administration:		
Community action programs ⁸	382,514	15,599
Subtotal	3,824,333	98,416

EDUCATION, TRAINING, EMPLOYMENT, AND SOCIAL SERVICES

Department of Commerce:		
Job opportunities program ^{2,9}	337,867	9,882

See footnotes at end of table.

Agency and program	Total aid to States and other areas	Aid to Puerto Rico
Department of Health, Education, and Welfare:		
Elementary and secondary education	2,130,246	34,190
Human development ¹⁰	1,593,641	45,419
Occupational, vocational, and adult education ²	747,867	5,138
Emergency school assistance	211,038	1,584
Education for the handicapped	97,719	1,214
Educational development	13,383	38
Higher education	51,855	1,154
Library resources	137,197	831
American Printing House for the Blind	2,338	9
School assistance in federally affected areas	577,940	3,852
Indian education	23,641	—
Innovative and experimental programs	509	—
Work incentives ¹¹	298,751	3,211
Social services	2,151,684	12,263
State and local training	52,267	38
Child welfare services	47,545	1,040
Department of Labor:		
Employment and training assistance ²	2,874,183	65,136
Temporary employment assistance	1,872,257	58,841
Emergency employment assistance	(2,517)	—
Employment services ¹²	1,332,862	14,602
Unemployment trust fund ¹³	60,295	638
Corporation for Public Broadcasting	73,861	—
National Foundation on the Arts and Humanities	17,216	236
Subtotal	14,706,162	258,276

HEALTH

Funds appropriated to the President:		
Special Action Office for Drug Abuse		
Prevention	1,654	—
Department of Agriculture:		
Meat and poultry inspection	29,590	(12)
Department of Health, Education, and Welfare:		
Health Services Administration	771,222	17,421
Health Resources Administration	602,917	6,349
Center for Disease Control	64,160	303
Alcohol, Drug, and Mental Health		
Administration	558,031	4,051
Medical assistance (Medicaid)	8,568,233	30,000
Department of Labor:		
Occupational Safety and Health Administration	29,252	44
Subtotal	10,625,059	58,168

INCOME SECURITY

Department of Agriculture:		
Funds for strengthening markets, incomes, and supply	222,583	(14)
Administration of food stamp program	266,954	16,773
Child nutrition and special milk programs ¹⁵	1,853,175	37,489
Special supplemental food program	141,702	5,601
Department of Health, Education, and Welfare:		
Public assistance maintenance	5,848,683	25,631
Department of Housing and Urban Development:		
Low-rent public housing	1,599,238	39,292
Subtotal	9,932,335	124,786

VETERANS BENEFITS AND SERVICES

Veterans Administration	52,218	250
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LAW ENFORCEMENT AND JUSTICE

Department of Justice:		
Law enforcement assistance	786,037	11,092
Equal Employment Opportunity Commission	4,807	68
Subtotal	790,844	11,160

GENERAL GOVERNMENT

Civil Service Commission:		
Inter-governmental personnel assistance	15,220	122

Agency and program	Total aid to States and other areas	Aid to Puerto Rico
REVENUE SHARING AND GENERAL PURPOSE FISCAL ASSISTANCE		
Department of the Interior:		
Receipts under Mineral Leasing Acts (shared revenues)	119,601	—
Certain special funds (shared revenues) ..	54,000	—
Internal revenue collections for the Virgin Islands	32,733	—
Department of the Treasury:		
General revenue sharing	6,238,146	—
Customs receipts for Puerto Rico and the Virgin Islands	186,817	¹⁰ 53,100
Internal revenue collections for Puerto Rico	139,855	¹⁷ 139,855
Federal payment to the District of Columbia	231,800	—
Federal Energy Administration:		
Payments to Puerto Rico and the Virgin Islands ¹⁸	4,802	1,503
Subtotal	7,007,754	194,458
OTHER MISCELLANEOUS AID		
All sources	292,073	—
Total of direct economic development programs	—	(145,425)
Grand totals	59,087,925	812,951

¹ Funding data are from the Department of the Treasury, *Federal Aid to States: Fiscal Year 1976 and Transition Quarter*. The functional categories are those used by the OMB. See especially: *Special Analysis, Budget of the United States Government, Fiscal Year 1978*, pp. 280-87. Some adjustments were made to combine the two classification schemes. Included in this aid are cash and grants-in-kind, some payments to nonprofit institutions, and a very limited number of direct Federal loans for purposes for which grants are made.

² Denotes program areas having the most direct influence on stimulating economic growth.

³ The Federal Outlays booklet lists \$294,000 for Puerto Rico for FY 1976.

⁴ Administered by HUD.

⁵ Consists of housing, rural development, and water and waste disposal grants.

⁶ Includes funds administered by EPA and HEW.

⁷ The Block Grant Program consolidated seven former categorical programs, some of which are still listed separated in the Treasury Department date. Programs with this footnote are officially under the block grant.

⁸ Includes \$312,000 administered by HEW.

⁹ Includes \$53 million administered by EPA, HEW, the Appalachian Regional Commission, and the Community Services Administration.

¹⁰ Consists of child development, youth, aging, and vocational rehabilitation programs.

¹¹ Includes \$191 million administered by Labor.

¹² Unemployment trust fund figures represent funds granted directly from the unemployment trust fund to the States. Payments administered by Labor from the unemployment trust fund are included under employment services.

¹³ Despite the lack of grant money, the Animal and Plant Health Inspection had expenditures of \$1.243 million for salaries and expenses related to meat and poultry inspection in 1976, according to the Federal Outlay Book.

¹⁴ In 1975 Puerto Rico received \$3.6 million, or 1.12 percent of the funds for that year. In the transitional quarter (July 1-September 30, 1976) Puerto Rico received \$17,000.

¹⁵ Also contains \$55.6 million in "funds for strengthening markets."

¹⁶ According to Planning Board data, this would represent total collections. To obtain the net payment to the Commonwealth Government, The amount retained by Customs (\$7.8 million) to defray collection costs must be deducted. The official Commonwealth figure for the net proceeds it received is \$45,024,080.

¹⁷ The Puerto Rican Budget Bureau figure is \$138,078,216.

¹⁸ During fiscal year 1976 the United States withdrew the oil import fee; so these figures would represent only collections for only a part of this year.

Table 10.—Proportional Distribution of Federal Aid to State and Local Governments: Fiscal Year 1976
[In percentages]

Functional categories	State and other areas	Puerto Rico including returned taxes	Puerto Rico excluding returned taxes ¹
National defense	(²)	(³)	(³)
Natural resources, environment, and energy	5	3	3
Agriculture	1	(²)	2
Commerce and transportation	14	4	5
Community and regional development ..	6	12	16
Education, training, employment, and social services	25	32	42
Health	18	7	9
Income security	17	15	20
Veterans benefits and services	(²)	(²)	(²)
Law enforcement and justice	1	1	2
General government	(²)	(²)	(²)
Revenue sharing and general purpose			
Fiscal assistance	12	24	—
	100	100	100

¹ The U.S. Treasury Department classifies excise taxes and customs duties returned to the Commonwealth under miscellaneous Treasury Department outlays. Since these constitute almost 24 percent of the Federal aid to Puerto Rico considered here, they tend to distort the percentages allocated to other functions, and have been deducted in this column (i.e., \$812,951,000—\$194,458,000=\$618,493,000).

² Less than 0.5 percent.

Source: Same as those used for table I B-1.

No matter how the data are presented, the statistics indicate that there are few Federal programs which are directly and specifically designed to promote economic growth.³⁸ This does not mean that the broad array of Federal programs does not have any economic impact, only that few are of a direct development nature. The previous discussion has provided evidence of Federal program impacts, particularly where Federal transfer payments directly influence income and consumer demand.

The great majority of Federal programs contribute to economic development only in an indirect fashion. This occurs under the assumption that Federal aid permits Puerto Rico, as any jurisdiction, to concentrate its own resources in growth oriented developmental activities. The problem with such an assumption is that there is no guarantee that the "freed" funds are in fact so channeled. Indeed, there is no assurance that particular programs would even exist without Federal backing. A more useful operational definition of economic development programs is as follows: Economic development programs—that is, those with a measurable direct impact on economic growth—are considered to be those providing assistance designed to:

- Directly increase productive capabilities in particular economic sectors;

³⁸ Although the 100 percent nonmatching Local Public Works (LPW) program of the Economic Development Administration (Public Law 94-369) would fall in this category, its \$290 million allocation for Puerto Rico during FY 1977 and 1978 will be a "one-shot" occurrence only. The extent to which this program will impact on the long term economic development of Puerto Rico is directly dependent on the Commonwealth's selection of projects to be financed with LPW funds.

- conserve or augment economically valuable natural resources supplies; and
- develop required infrastructure such as energy producing facilities, transportation, and other utilities and services that sustain or increase the productivity of other industries.

These are only general criteria. However, by linking these objectives to actual Federal programs, an identification of development oriented assistance can be summarized. (See table 9, where programs designed to achieve one or more of these objectives are identified by footnotes.) Such an identification represents only a very rough categorization of Federal programs having the greatest developmental potential since it does not deal with a totally inclusive listing of Federal assistance.

Even with these qualifications, however, the exercise highlights two important facts. First, even with a liberal interpretation of what constitutes direct aid to economic development, only a limited portion of Federal assistance can be so classified. Second, in 1976, Puerto Rico received relatively less direct "economic development assistance" than did the typical mainland State.

An analysis of the data in table 9 shows that in FY 1976 the programs classified as the most direct economic development stimulants accounted for \$15,585,860,000 or approximately only 26 percent of all Federal assistance. If "Revenue Sharing and General Purpose Fiscal Assistance" funds are excluded, however, direct economic development programs constituted 30 percent of all Federal aid. Funds from this latter category are excluded because their functional uses are not proscribed. Even the 26 percent classification of these Federal programs is probably too generous. Most of the broad functional categories making up either the 26 percent or the 30 percent figure contain funds which are used for nondevelopmental activities. Yet, such a classification does provide a measuring device which is useful in determining whether Puerto Rico receives a proportional share of the limited amount of development assistance available. For 1976, it did not. Excluding the revenue sharing category, the Commonwealth's receipt of "economic development assistance" in FY 1976 (\$145,425,000) made up only 23.5 percent of the total aid inflow (\$618,493,000) as contrasted to the 30 percent national average.

An authoritative discussion of this apparent shortfall would require the investigation of more than one year, and the consideration of a wider selection of Federal expenditures. However, although any further conclusions would be tentative, the indications are that the Commonwealth has probably received a disproportionately small amount of Fed-

eral assistance classified as having direct economic development potential.

One way to increase the developmental impact of Federal assistance in Puerto Rico would be to modify the existing programs to reduce Puerto Rican costs, increase the effectiveness with which Puerto Rican funds are utilized, or grant Puerto Rico greater autonomy over the uses of the Federal funds it receives.

Beyond the implication that most Federal aid to Puerto Rico has, at best, only an indirect impact on economic development, there are also effects which result from non-Federal expenditures which are required because many Federal programs stipulate matching funds. In these cases, the Commonwealth Government, as any recipient jurisdiction, must finance a certain percentage of the program costs. Given this requirement, along with some more intangible influences of Federal priorities on Puerto Rican Government spending, there is a tendency for the lack of Federal emphasis on economic development to carry over and have an effect on how the Commonwealth Government allocates its own resources.

One way to alter the pattern of the Federal funds affecting the Commonwealth's budget allocations would be to change the distribution of Federal programs so as to provide for a greater flow of economic development funds. Another way would be to increase the overall magnitude of Federal funds flowing to the Commonwealth.

A way in which Federal outlays to the Commonwealth could be redirected in order to spur economic development would be to designate the Commonwealth of Puerto Rico, along with the Territory of the Virgin Islands, as the "Antillean Economic Development Region." Such a designation could be made pursuant to the Regional Development Act of 1975⁸⁹ which authorizes the establishment of such a Regional Commission. This procedure would be relatively simple since the vast majority of the work required prior to designation of the Region has already been undertaken.

On March 11, 1976, the Governors of the Commonwealth of Puerto Rico and the Territory of the Virgin Islands formally requested the Secretary of the U.S. Department of Commerce that the two jurisdictions be designated as the "Antillean Economic Development Region." In their letter to the Secretary, which submitted the formal application and the required statistical material to support the request, they observed that the Regional Development Act of 1975 clearly reflected the intent of Congress that the region be designated. They noted that the kind of assistance available through a regional planning

⁸⁹ Public Law 94-188, 89 Stat. 1091.

commission was conditioned on a comprehensive long-range plan approved by the Secretary of Commerce. They also pointed to the:

... serve fiscal limitations of our respective budgets to finance the complex, sophisticated and comprehensive development planning which regional status entails. . . ."

Finally, they urged that the region be designated as soon as possible.

In the almost 3 years that have passed since the Antilian Region designation request was submitted, a decision has been deferred. The primary reason is that there is a need to reexamine the larger issue of what could become a complete nationwide system of regions and regional commissions, and the implications for Federal budgets of such additional designations. Even though this reason is understandable, and reflects the careful study which needs to be done when changing the delivery mechanisms of programs of the Federal Government, the need for the Antilian Region is such that its creation would not necessarily establish a precedent for the Nation. This is especially true when an examination is made of the specific intent of Congress as well as the criteria which were established for regional commissions in the original enabling legislation.⁴⁰

As originally passed, title V (sec. 501) of the Public Works and Economic Development Assistance Act of 1965 stipulated that economic development regions could only be formed by two or more "contiguous" States, with the exception of Hawaii and Alaska. The theory behind this requirement was that regional problems were of a form and scale that superseded the capacity or willingness of single States to manage. Through the years, it was determined that Puerto Rico and the Virgin Islands were not "contiguous." Thus, they were not eligible for designation as a region.

In response to this determination, the Regional Development Act of 1975 made Puerto Rico and the Virgin Islands exceptions to the "contiguity" requirement. The purpose was to pave the way for designation of the region should the area meet the qualifying criteria of the act.

Title V of the act sets forth eight criteria, "among others," against which the Secretary of Commerce is to determine whether or not the formation of a region should be allowed. These criteria address such things as the level of unemployment, the level of income, the rates of population or capital outmigration, the levels of housing and health conditions, the dependence on a few industries that may be in decline, slow rates of economic growth, or adverse effects due to changing technology. The act does not

specify a minimum number of criteria that must be satisfied, nor does it specify how far from measured indices the region must be. It does require that the proposed regional designation be done with the concurrence of the Governors involved and that there be some historical, economic, geographic, and cultural relationships among the component areas.

At a time when both the Commonwealth and the Federal governments are actively concerned with finding solutions to deal with the economic problems of Puerto Rico—as evidenced by the President's request for the Interagency Study Group—the Antilian Regional Commission could provide a much needed vehicle for long-range planning and the comprehensive consideration of future strategies for economic growth and development.

Functional Composition of the Commonwealth Government Budget

Although it is impossible to precisely measure the effect of present levels of Federal assistance on Puerto Rican development, an analysis of the Commonwealth Budget can determine whether it also de-emphasizes economic development assistance.

The Puerto Rican Government links its budgetary expenditures to five program areas,⁴¹ one of which is entitled, Economic Development. Other topical listings include Social Development, Government Management, Protection and Safety of Persons and Property, and Technical and Economic Assistance to Municipal Governments and Private Entities. (See table 11.)⁴²

In the budget itself, the proportion of funds made available for economic development in relation to the total budget is small. In recent years Commonwealth funds for social development have been five times as great as those for economic development. Even some of the latter funds have not been used on targets with the optimum economic growth potential. For example, subsidies for sugar, coffee, and tobacco growers have diminished total appropriations without significantly improving the agricultural sector efficiencies.⁴³ Most of the appropriations do seem to be better directed toward specific development activities. But because "development funding" represents only about one-tenth of the total budget, the impact is limited.

The status of economic development programs in the Commonwealth Budget is not just a recent phenomenon. This program sector's size has been grad-

⁴¹ For a detailed listing of Government agencies funded under each of these categories, see, *Presupuesto Para el Año Fiscal 1978, Tomo I*, pp. 19-23.

⁴² Although the amounts listed in each of the five areas in table 11 only partially represent budget projections, they do give a fairly accurate idea of how the budget is divided, and how small the amount is for economic development.

⁴³ Budget in Brief, pp. 40-41, 62; *Presupuesto Para el Año Fiscal 1978, Tomo II*, section 80, pp. 1-2.

⁴⁰ Public Works and Economic Development Act of 1965, Public Law 89-136, as amended; 42 U.S.C.A. 3181 (a); 79 Stat. 564.

Table 11.—Commonwealth Joint Budget for Operating Expenses and Capital Investments, by Programmatic Area and Sector, for Fiscal Years 1974–77, (Fiscal Years)

[In thousands of dollars]

Programmatic area and sector	1974	1975	1976	1977
Total	1,623.2	1,983.4	1,681.8	2,036.5
I. Government management:				
1. Legislation and controllership	10.5	13.2	13.6	13.9
2. General administration of the Executive Branch	55.6	61.3	50.3	71.3
3. Electoral process	1.1	5.0	7.4	9.8
4. Commonwealth public debt	77.3	85.2	105.5	151.9
5. Auxiliary services	19.8	31.2	17.7	19.0
6. Reserve of land	3.0	3.2	2.0	0
7. Fringe benefits for public employees	18.3	19.3	11.9	22.5
Total, Government management	185.6	218.5	208.4	288.4
II. Protection and safety of persons and property:				
1. Administration of justice	29.6	34.7	39.9	34.8
2. Enforcement of law and order	80.0	96.0	81.0	97.3
3. Custody and rehabilitation of the imprisoned	15.7	14.4	12.7	18.2
4. Prevention and aid against disasters and their effects	18.2	24.1	14.0	23.0
5. Protection of the citizen as a consumer and proprietor	12.5	13.8	8.2	12.2
6. Labor relations and safety	45.2	35.4	30.9	51.3
7. Traffic safety	3.1	3.0	1.5	3.3
Total, Protection and safety of persons and property	202.3	221.4	188.3	240.1
III. Social development:				
1. Education and culture	535.7	590.0	528.0	648.9
2. Health	188.8	207.7	187.5	209.2
3. Social welfare	145.8	255.3	212.2	309.7
4. Housing and environmental improvement	36.1	59.4	41.4	12.2
5. Social security	1.1	3.8	3.3	16.1
6. Recreation	17.8	20.3	12.1	15.7
Total, Social development	925.2	1,136.4	984.5	1,211.8
IV. Economic development:				
1. Agricultural	104.1	101.5	91.7	128.9
2. Industrial	39.6	62.5	25.6	23.6
3. Commercial	2.6	10.3	4.3	2.8
4. Cooperative	4.7	6.9	4.3	5.1
5. Tourist	5.4	7.0	6.4	4.5
6. Transportation and communications	54.4	77.4	45.2	39.5
7. Natural resources	5.5	7.0	5.4	7.1
8. Electric energy	5.4	13.3	16.7	0
Total, Economic development	221.7	294.9	199.8	211.5
V. Technical and economic assistance to municipal governments and private entities	88.5	112.3	100.8	84.7

Sources: for 1974, the *Presupuesto para el año fiscal 1975*, Tomo I, p. 90; for 1975 and 1976 the *Presupuesto para 1976*, p. 62; for 1977, *The Budget in Brief for Fiscal Year 1978*, pp. 48–49.

ually decreasing for a number of years. The 1928 budget of \$17 million showed a 40 to 29 percent division between social development activities on the one hand, and economic development funding on the other.⁴⁴ By 1940 there was a 42 to 27 percent split.⁴⁵ The decline in economic development funding has continued over the years, producing a 50 percent relative drop over the last half century. (See table 12.)

In analyzing the budget itself, it appears that Federal government programs and their priorities have historically influenced Puerto Rican priorities. This has resulted because of the intangible influence derived from Puerto Rico's close association with the Federal Government, and the more tangible influences which flow from the program requirements for obtaining Federal funds. It is not a coincidence

that for the 1974–77 period, about four-fifths of the estimated Federal grants-in-aid expected by the Commonwealth Government were to be in the social development area.⁴⁶ (See table 12.) The Federal distribution tends to pull Puerto Rican funds in the same direction.

If, for example, the receipt of Federal dollars is contingent upon making costly changes in health care delivery methods, the Puerto Ricans are induced—just as are their Mainland counterparts—to come up with the money to make the required modifications. Similarly, if Federal dollars can be obtained for health, welfare, or other social development activities, and require only a partial Puerto Rican contribution to total costs, chances are again increased that the Commonwealth Government will allot money to these undertakings.

⁴⁴ Victor Clark, et al., *Porto Rico and Its Problems*. Brookings Institution, Washington, D.C., 1930, pp. 147–155.

⁴⁵ Arthur J. Mann, "Public Expenditure Patterns in the Dominican Republic and Puerto Rico, 1930–1970," *Social and Economic Studies*, 24 (March, 1975), pp. 47–69.

⁴⁶ These grants are only the ones received directly by the Commonwealth Treasury Department and they represent about half of all Federal grants. (*Presupuesto para 1973*, p. 91; *Presupuesto para 1976*, p. 63; and *Presupuesto para 1978*, p. 64.)

Table 12.—Functional Distribution of Commonwealth Government Expenditures, (Fiscal Years)
[Percentage distribution]

Expenditure category	1951	1960	1970	1971	1972	1973	1974	1975	1976
General government	9	11	10	11	10	17	20	20	22
Protection and security of persons and property	6	7	9	10	10	10	10	10	10
Social development	44	54	58	55	56	52	50	49	47
Education	20	29	33	31	32	29	27	22	20
Health	10	25	14	10	12	12	12	15	13
Welfare	13		6	10	9	8	7	8	10
Labor relations, parks, and recreation	1		5	4	4	4	4	3	3
Economic development	15	21	8	13	13	11	9	9	9
Industrial, agricultural, and commercial development	6	11	5	8	10	9	6	6	6
Transportation and communications	9	10	3	5	3	2	3	3	3
Other	26	7	15	11	11	10	11	12	12
Total expenditures in millions of dollars	\$167	\$274	\$863	\$1,001	\$1,229	\$1,430	\$1,499	\$1,786	\$1,790

Source: for 1951—Planning Board, *Statistical Yearbook, Historical Statistics 1959*, pp. 283-41; for 1960, 1965, 1970 and 1971-76—Commonwealth of Puerto Rico, Department of the Treasury, *Report on Economy and Finances, Puerto Rico, 1961*, and 1968, 1975, and 1976.

Even though not all Federal programs involve costly requirements, and not all of them compel recipients to match Federal funds, during the 1970's State and local governments provided an estimated one dollar of matching funds for every three dollars of Federal assistance.⁴⁷ These matching funds require a conformity to Federal standards, and are tied to the availability distribution of Federal programs.

The matching issue calls for particular attention because for some programs Puerto Rico has higher matching requirements than do the States. Conversely, for a number of programs, the matching formulae are flexible and range from 10 to 90 percent, with required contributions usually being smaller for areas with higher poverty indicators. In such cases, Puerto Rico has a smaller matching burden.

To determine exactly where the Commonwealth ends up in the matching situation calls for an analysis of the actual matching requirements for hundreds of individual programs—requirements which often vary from State to State, and sometimes even from year to year. Without getting into this analysis here,⁴⁸ the "matching requirements" issue can only be identified as a factor which influences Commonwealth spending. It is one policy area where beneficial future modifications (exceptions) might be made in the Federal programs. These modifications can be recommended by the Federal agencies.

⁴⁷ *Special Analyses*, 1978 U.S. Budget, p. 275.

⁴⁸ Such an analysis of 103 Federal programs which annually disburse over \$1 million in funds to Puerto Rico is contained in the sectoral overviews presented in chapter VI.

An exclusive focusing on the budget can, of course, produce some misconceptions. This is because the Commonwealth pays for economic development through the use of industrial tax exemptions which are not fully represented in the budget.

The Puerto Rican Government decided in the early 1940's to forego potential short term tax revenue collections from some investors in order to attract more industries—a policy which has produced some economic rewards.⁴⁹ Just what the associated cost has been in lost budgetary revenue is impossible to determine. If all the currently exempt companies had paid, and were paying, corporate income taxes, the Commonwealth Treasury would certainly have fuller coffers. Yet, without the tax exemption many of these companies with their taxable payrolls would probably not be operating in Puerto Rico. Although an analysis of the relative costs and benefits of industrial tax exemption programs is beyond our discussion here, industrial tax exemptions may or may not entail a net budgetary cost beyond the industrial development promotion appropriations. Although no attempt has been made to measure the total industrial incentive costs, they are a reminder that Puerto Rican Government efforts in stimulating economic growth are not totally accounted for in the budget.

⁴⁹ See Report II, Sector entitled "Industrial Development," for a complete description and analysis of the use of industrial tax exemptions in industrial development.

Chapter III.—Review of Differential Federal Program Treatment in Puerto Rico

INTRODUCTION

Of the over 1,000 Federal domestic assistance programs which are in existence,¹ it has been estimated that there are 644 programs in which the Commonwealth of Puerto Rico is eligible to participate.² Of the Federal assistance programs in which Puerto Rico actually participates, approximately 100 programs individually disburse over, or guarantee payments of, \$1 million to Puerto Rico annually.³

Puerto Rico receives "State-like" treatment in the majority of the Federal programs in which it participates. By participating in these programs, Puerto Rico is accorded the same eligibility and benefit standards, and is subject to the same Federal performance requirements and control of expenditures, as are the States.

The same cannot be said, however, for several important Federal programs in which Puerto Rico receives other than "State-like" treatment. The effect of this "other than State-like treatment" has been to reduce the total amount of funds which could flow to Puerto Rico from the Federal Government.

In FY 1977, Puerto Rico received gross total disbursements from the Federal Government in the amount of \$3,108 million.⁴ When these Federal funds are adjusted for the Puerto Rican contributions to the Federal Government (e.g., Social Se-

curity and retirement fund payments, food stamps purchase payments, etc.), they represent net total disbursements of \$2,380 million.⁵ In terms of national ranking, in FY 1977 Puerto Rico only placed 35th out of all Federal jurisdictions (e.g., the States and the District of Columbia) in the amount of Federal funds received, while it was 4th in the total number of poor, and 25th in total population.⁶

A review of the programs in which Puerto Rico participates on either a full or less than State-like basis highlights the Federal policy considerations which underlie the legislative actions of the U.S. Congress toward Puerto Rico in the establishment of the various programs. From this review, it is apparent that these policy determinants are responsible for the disparate, and inequitable distribution of Federal assistance to Puerto Rico which has existed over the past decades.

The disparate distribution of Federal funds to Puerto Rico is due to the fact that in a number of applicable Federal programs, the Commonwealth is either statutorily restricted to receiving benefits of a substantially lower level than those for the States, or is totally excluded from receiving Federal benefits. This differential program treatment may occur in one or more of the following manners:

1. Exclusion of Puerto Rico from Federal programs;
2. Limitations on Puerto Rican participation in Federal programs; and
3. Restricted Federal funding levels for Puerto Rico.

This differential treatment is in turn caused by one or more of the following statutory actions:

1. Exclusion of the Commonwealth of Puerto Rico from major authorizing legislation;
2. Statutory limitations or ceilings placed on Federal funding levels to Puerto Rico; and

¹ 1977 *Catalog of Federal Domestic Assistance*, Executive Office of the President, Office of Management and Budget, Washington, D.C., 1977, p. IV. The 1977 catalog describes 1,046 domestic assistance programs which are administered by 55 Federal agencies.

² See, "Federal Programs Available to the Territories, Vol. I," U.S. Department of the Interior, Office of Territorial Affairs, Washington, D.C., 1978. The figures in this report, which was mandated by Congress in Public Law 95-134, were arrived at through the use of questionnaires sent to various Federal agencies. The report does not include why Puerto Rico does not participate in a program, or whether participation would benefit Puerto Rico. The numbers themselves should be regarded only as a best estimate since the report's participation data covers only FY 1977.

³ See chapter VI of this report for a complete description of these programs. The programs are set forth by Departments. Each of these program descriptions gives the summary of purpose, statutory objective, basis of Puerto Rican eligibility, outlays in the United States and Puerto Rico, allotment methodology, requirements for funding, and legal and other barriers to full Puerto Rican participation.

⁴ 1977 *Informe Económico Al Gobernador*, Puerto Rico Planning Board, pp. A-20, A-22, A-28.

⁵ *Ibid.*

⁶ *Fiscal Year 1977 Federal Outlays*, Community Services Administration, Washington, D.C., 1977.

3. Application of different Federal matching rates than those which are applied to the District of Columbia and the States.

There is no apparent consistent rationale underlying the mixture of exclusions, ceilings, and differential matching rates that are currently applied by Congress to Puerto Rico in its Federal program participation. Rather than the strict consideration of the criterion of need a variety of political and economic arguments have been used by Congress to determine levels of Federal assistance to, and to justify individual acts of differential treatment for, Puerto Rico. Traditionally, these Congressional arguments have been that:

1. The residents of Puerto Rico do not contribute to the Federal Treasury by virtue of Puerto Rico's exemption from the U.S. Internal Revenue Laws;

2. The cost of extending equal treatment to Puerto Rico under all Federal grant programs would be extremely high, and Puerto Rico could receive a disproportionately large share of the total Federal funds available for poverty programs; and

3. The large influx of Federal funds into Puerto Rico under State-like treatment would have a disruptive impact on the Puerto Rican economy.

The Commonwealth Government recently surveyed 91 Federal grants-in-aid programs which are applicable to Puerto Rico and which allocate funds to "States" on the basis of statutory formulae. According to this survey,⁷ Puerto Rico is either ineligible to participate, or subject to special funding limitations, in 29 of these programs.

The majority of these 29 programs would not contribute significant amounts of additional Federal funds to Puerto Rico if Puerto Rico were accorded State-like program treatment.⁸ Eight of these programs, however, are particularly important because of the nature of their income redistribution potential and the sizable amounts of additional Federal funds that they would allocate to Puerto Rico if it were treated as a State. The following list identifies these eight programs by the type of differential treatment they accord to Puerto Rico.

Exclusion

1. General Revenue Sharing—Local Fiscal Assistance Act of 1972
2. Supplemental Security Income (SSI)—Title XVI of the Social Security Act (SSA)
3. Prouty Program—Title II of SSA

⁷ McManis Associates, Inc., "Analysis of Utilization of Federal Funds in San Juan and Puerto Rico," July, 1976.

⁸ The same can be said for the estimated 40 percent of the Federal programs in which Puerto Rico is eligible to participate but does not.

Limited Participation

4. Aid to Families with Dependent Children (AFDC)—Title IV of SSA
5. Social Services—Title XX of SSA
6. Medicaid—Title XIX of SSA
7. Educationally Deprived Children—Title I, Elementary and Secondary Education Act (ESEA)
8. Anti-Recessional Financial Assistance (ARFA)—Title II, Public Works Employment Act of 1976

As is evident from this list, a major part of the differential treatment accorded Puerto Rico is the result of five public assistance or income maintenance programs which are authorized by the Social Security Act and administered by the U.S. Department of Health, Education and Welfare (HEW).

These exclusions and limitations on Puerto Rican participation in social programs are particularly onerous because they affect basic human needs. Furthermore, United States citizens in Puerto Rico are denied equal benefits solely on the basis of place of residence. If these same individuals were to move to the mainland, they could receive full benefits, while other citizens would lose said benefit if they relocated from the mainland to Puerto Rico.

The following sections of this chapter present information regarding the differential treatment accorded to Puerto Rico. The section which follows immediately presents detailed information regarding the major Federal grant programs mentioned above. The next section discusses additional examples of differential program treatment. Further discussion of the major programs administered by HEW is contained in the sector study entitled "Social Conditions and Human Services."

DIFFERENTIAL TREATMENT ACCORDED PUERTO RICO IN MAJOR FEDERAL ASSISTANCE PROGRAMS

General Revenue Sharing

Title I of the State and Local Fiscal Assistance Act of 1972 (Public Law 92-512, as amended by Public Law 94-488; 31 USCA 1221 *et seq.*) authorizes the General Revenue Sharing program, and provides for the distribution of approximately \$55 billion to more than 39,000 units of State and local government over a period of 8 years and 9 months.

The payments to eligible units of government are made quarterly on the basis of each unit's allocation for an entitlement period. The entitlement periods,

and maximum amounts to be distributed, are as follows:

Entitlement period	Start	End	Duration	Amount
1	Jan. 72	June 72	6 Months	\$2,650,000,000
2	Jul. 72	Dec. 72	6 Months	2,650,000,000
3	Jan. 73	June 73	6 Months	2,987,500,000
4	Jul. 73	June 74	1 Year	6,050,000,000
5	Jul. 74	June 75	1 Year	6,200,000,000
6	Jul. 75	June 76	1 Year	6,350,000,000
7	Jul. 76	Dec. 76	6 Months	3,325,000,000
8	Jan. 77	Sept. 77	9 Months	4,987,500,000
9	Oct. 77	Sept. 78	1 Year	6,850,000,000
10	Oct. 78	Sept. 79	1 Year	6,850,000,000
11	Oct. 79	Sept. 80	1 Year	6,850,000,000

The amounts distributed to each unit of government are determined by applying complex formulae to descriptive data pertaining to each unit. The formulas are used to determine each government's share of the total amount distributed in each entitlement period. The data elements required for the allocating formulas are: (1) population, (2) urbanized population, (3) population inversely weighted for per capita income, (4) income tax collections, and (5) general tax effort.

The overall entitlement amount for each State is then allocated as follows: One-third to the State government unit and two-thirds to the units of local government within the State.

Puerto Rico does not participate in the General Revenue Sharing (GRS) program. While the General Revenue Sharing law does not specifically exclude Puerto Rico, it is clear that the Congressional intent in establishing the program would not be followed by the inclusion of a jurisdiction which is completely exempt from payment of Federal income taxes. In this respect, the U.S. Treasury has stated:

The fact that Puerto Rico residents do not pay federal income tax, while general revenue sharing redistributes part of the receipts of the Federal income tax, presents a question of equity . . .⁹

Furthermore, if Congress overlooked this apparent question of equity, there would still be considerable problems in calculating the formula allocation to Puerto Rico under Revenue Sharing. This is due to the fact that up-to-date official U.S. statistics required for the formula calculation are not available for the Commonwealth of Puerto Rico.¹⁰ In addition, many general assumptions would have to be

made in estimating the potential level of Federal income tax collections in Puerto Rico.

According to the U.S. Department of the Treasury, if the General Revenue Sharing allocation formula had been applied to Puerto Rico for entitlement period six (July 1975 to June 1976), Puerto Rico would have received an estimated \$210 million.¹¹ This level of allocation would have ranked Puerto Rico eighth in total GRS funds and first in GRS funds per capita.

Regarding this GRS estimated allocation to Puerto Rico, the Department of the Treasury notes:

The per capita revenue sharing amount for Puerto Rico is higher than that for any of the States, which may reflect the fact that Puerto Rico was not contemplated as a recipient when Congress devised the present formulas.

Therefore, there is no assurance that these amounts would be received should any actual amendment of the general revenue sharing act in the future modify the formulas. Further, the Administration's policy at this time does not contemplate seeking to make Puerto Rico eligible for general revenue sharing payments.¹²

Supplemental Security Income (SSI)

The Supplemental Security Income (SSI) program was created by Congress to provide supplemental income to persons aged 65 and over and to persons who are blind or disabled.

The SSI program, title XVI of the Social Security Act (42 USCA 1381 *et seq.*), authorized by Public Law 92-603, the "Social Security Amendments of 1972," became effective on January 1, 1974. It replaced the previous SSA Federal income maintenance programs for the adult categories, namely: Old Age Assistance (OAA)—Title I; Aid to the Blind (AB)—Title X; and Aid to the Permanently and Totally Disabled (APTD)—Title XIV. SSI provided for higher Federal payments to the States by contributing 100 percent of the minimum standard payment allowed by law in the adult categories programs.

Puerto Rico, however, is excluded from participating in the SSI program and instead is required to continue operating under the old programs of adult categorical assistance—OAA, AB, and APTD. (See secs. 1611 (f) and 1614 (e) of the SSA.) In addition, until the beginning of FY 1979 (when the law was amended and the ceiling raised to \$72 million) section 1108 of the SSA established an annual ceiling of \$24 million for Federal payments to Puerto Rico to cover not only the costs of the adult cate-

⁹ Letter of May 21, 1976 from the Office of Revenue Sharing, U.S. Department of the Treasury, to Mr. Arnold Baker, Office of the Commonwealth of Puerto Rico in Washington.

¹⁰ Yearly estimates of State population, urban population, and per capita income are generated by the Census Bureau's "Current Population Reports" (CPR). Puerto Rico is not included in the CPR. See chapter V, section C.

¹¹ Source: Treasury Department letter to Arnold Baker, May 21, 1976. The Treasury Department cautions that this estimate is based on unofficial statistics of, and supplied by, the Puerto Rican Government, and should not be considered as final.

¹² *Ibid.*

gorical programs (OAA, AB and APTD), but also the costs of the Aid to Families with Dependent Children (AFDC) program. Finally, Puerto Rico is excluded from fully participating in the sliding matching formula originally used to determine the Federal share of total adult categorical program costs for the States and the District of Columbia. If included in this formula, Puerto Rico would have been eligible to receive a Federal share, or Federal Funding Participation (FFP), of 83 percent of total program costs in the AFDC and adult categories program. Instead, a 50 percent Federal share of total program costs in these programs was statutorily imposed on Puerto Rico until October 1978 thereby considerably reducing the Federal contribution to the Commonwealth.

The imposed \$24 million annual ceiling and the limited Federal Funding Participation (FFP) in Puerto Rico have resulted in extremely low benefit levels for the participants of the adult categorical programs in Puerto Rico. The current average monthly payments per individual in Puerto Rico under these programs are as follows:¹³

- Old Age Assistance (OAA) = \$19.03
- Aid to the Blind (AB) = \$13.61
- Aid to the Permanently and Totally Disabled (APTD) = \$14.31.

In contrast, since July 1977, needy aged, blind, or disabled individuals in the 50 States and the District of Columbia have been assured a minimum monthly Federal SSI benefit of \$177.80 for an eligible individual and \$266.70 for an eligible couple. In addition, since these benefits are 100 percent federally funded, many States are able to supplement the Federal SSI benefits with additional State funds.

It should be noted, also, that the \$24 million annual ceiling, imposed by section 1108 of the Social Security Act on Puerto Rico, was not changed for 7 years, from 1972 to the beginning of FY 1979. As a result, the already low benefit levels of income assistance provided by the OAA, AB, and APTD programs in Puerto Rico were further decreased by inflation to less than 60 percent of their real 1972 purchasing power. In FY 1977, then, the real value of the \$24 million ceiling was approximately only \$17 million.

If Puerto Rico were accorded State-like treatment in the SSI program, its full funding level of allocations would have been approximately \$320 million in FY 1977.¹⁴ This would have represented a net increase of some \$300 million in FY 1977 alloca-

tions to Puerto Rico if the current adult categorical programs allocations were removed.

On two separate occasions the U.S. House of Representatives has agreed to extend full SSI benefits to Puerto Rico—once in the 92nd Congress when the House passed H.R. 1 to establish the SSI program; and, more recently, in the SSI amendments bill, H.R. 8911, which passed in September 1976. On both occasions the Senate refused to accept the provisions and denied SSI coverage for Puerto Rico.

More recently in July 1977, the U.S. House of Representatives passed the "Public Assistance Amendments of 1977," H.R. 7200. Section 201 of H.R. 7200 extended full SSI benefits to residents of Puerto Rico, effective April 1, 1978.

According to H.R. 7200, the benefit levels for eligible participants in Puerto Rico "... would be adjusted so as to bear the same ratio to the SSI benefit rates in the States as the per capita income of Puerto Rico bears to the per capita income of the State with the lowest per capita income."

$$\begin{aligned} & \text{(SSI payment in Puerto Rico =} \\ & \frac{\text{Per. Cap. Income Puerto Rico}}{\text{Per. Cap. Income Mississippi}} \times \\ & \text{Average SSI payment in United States)} \end{aligned}$$

As estimated by the Congressional Budget Office, under this formula, if Puerto Rico had been fully included in the SSI program, its level of Federal benefit payments would have been \$102.40 per individual and \$153.60 per eligible couple.¹⁵ These benefit levels would still have been considerably lower than the average benefit levels for the United States given Puerto Rico's lower per capita income.

The U.S. Senate, however, did not approve H.R. 7200 as passed by the House. Instead of extending the SSI program to Puerto Rico, the Senate version of the bill, as recommended by the Senate Finance Committee (See Senate Report 95-573, October 29, 1977.), proposed that Puerto Rico continue to participate in the old adult categories programs and provide for:

1. Tripling the annual ceiling for the APTD/OAA/AB/AFDC programs in Puerto Rico from the level of \$24 million to \$72 million; and
2. Increasing the Federal matching rate or share from the 50 percent level to 75 percent.

Finally, the Commonwealth Government proposed a third alternative to deal with the extension of SSI benefits to Puerto Rico. On July 18, 1977, in Senate hearings on H.R. 7200,¹⁶ the Governor of Puerto Rico proposed that SSI benefits be extended to

¹³ House Report No. 95-394, "Public Assistance Amendments of 1977," Committee on Ways and Means, June 7, 1977, p. 47.

¹⁴ "Report of the Under Secretary's Advisory Group on Puerto Rico, Guam, and the Virgin Islands," U.S. Department of Health, Education and Welfare, October, 1976, p. 26.

¹⁵ House Report No. 95-394, *op. cit.*, p. 47.

¹⁶ "Public Assistance Amendments of 1977, Hearings before the Subcommittee on Public Assistance," Committee on Finance, U.S. Senate, July, 1977, p. 194.

Puerto Rico over a 5-year phase-in period. According to this proposal, in FY 1978 the Federal Government would have extended to Puerto Rico 60 percent of its full SSI formula allocations, and increased it yearly until the allocation reached a 100 percent level in FY 1982. The distribution of percentage allocations and Federal cost would have been as follows:¹⁷

Year	Percentage of full allocation	Cost (millions of dollars)
1978	60	150.2
1979	70	175.8
1980	80	200.3
1981	90	225.4
1982	100	250.4

These costs were based on the following estimated target population for the SSI program in Puerto Rico: 112,000 aged, 60,000 disabled, and 6,000 blind.¹⁸

On November 6, 1978, the U.S. Congress enacted Public Law 95-600, the "Revenue Act of 1978." For FY 1979, section 802 of Public Law 95-600 authorizes the provisions suggested by the Senate and triples the annual authorization ceiling for the adult categories programs (AABD/AFDC) in Puerto Rico, from \$24 million to \$72 million; and it increases the Federal matching rate from 50 percent to 75 percent. The combined result of these two legislative provisions is to effectively double the size of the previous public assistance programs in Puerto Rico with no increase in the required Commonwealth Government matching funds. These two provisions, however, have been authorized only for the fiscal year ending on September 30, 1979.

The continued exclusion of Puerto Rico from the SSI program is probably the cost controversial of all cases of differential treatment accorded Puerto Rico by the Federal Government. The Constitutionality of this exclusion was recently challenged in *Gautier Torres v. Matthews* and *Bracero Colon v. Califano*.¹⁹ In both cases, the U.S. District Court for the District of Puerto Rico agreed with the plaintiffs' claim that denial of SSI benefits—which they had previously received as mainland residents—upon their moving to Puerto Rico, constituted a violation of their 14th Amendment right to travel.

On February 27, 1978, the U.S. Supreme Court reversed the District Court's decisions.²⁰ The Supreme Court stated:

In *Shapiro v. Thompson*, 394 U.S. 618, and *Me-*

morial Hospital v. Maricopa County, 415 U.S. 250, this Court held that laws prohibiting newly arrived residents in a State or county from receiving the same vital benefits as other residents unconstitutionally burdened the right of interstate travel. As the Court said in *Memorial Hospital*, "the right of interstate travel must be seen as insuring new residents the same right to vital governmental benefits and privileges in the States to which they migrate as are enjoyed by other residents."

In the present cases the District Court altogether transposed that proposition. It held that the Constitution requires that a person who travels to Puerto Rico must be given benefits superior to those enjoyed by other residents of Puerto Rico if the newcomer enjoyed those benefits in the State from which he came. This Court has never held that the constitutional right to travel embraces any such doctrine, and we decline to do so now. Such a doctrine would apply with equal force to any benefits a State might provide for its residents, and would require a State to continue to pay those benefits indefinitely to any persons who had once resided there. And the broader implications of such a doctrine in other areas of substantive law would bid fair to destroy the independent power of each State under our Constitution to enact laws uniformly applicable to all its residents.²¹

In attacking the Congressional exclusion of Puerto Rico from the SSI program, the *Gautier Torres* complaint had also relied on the equal protection component of the Due Process Clause of the Fifth Amendment. The District Court, however, had acknowledged that the U.S. Congress has the power to treat Puerto Rico differently, and is not compelled to extend every Federal program to the island by virtue of Puerto Rico's unique relationship to the United States, which "has no parallel in our history."²²

Despite the recent decision to uphold Congress' exclusion of Puerto Rico from the SSI program, this issue will most likely continue to be a matter of concern and argument regarding the Federal-Commonwealth relationship. This is particularly true in view of Congress' recent Commonwealth agreement with the Northern Marianas Islands²³ under which the Federal government has agreed to provide SSI benefits to residents of the Marianas.

Prouty Program

The Prouty Amendment to OASDI (Public Law 87-368, 92-603, 93-233; 42 U.S.C.A. 427-428)

¹⁷ *Ibid.*, at 908.

¹⁸ The District Court cited the following cases as precedent: *Examining Board v. Flores de Otero*, 426 U.S. 572, *Baltac v. Puerto Rico*, 258 U.S. 298; *Door v. United States*, 195 U.S. 138 and *Downes v. Bedwell*, 182 U.S. 244.

¹⁹ *Covenant to Establish a Commonwealth of the Northern Marianas Islands in Political Union with the United States of America*, Public Law 94-241, 48 U.S.C.A. 1681.

²⁰ *Ibid.*

²¹ *Ibid.*, p. 192.

²² D.C.P.R. Civ. No. 75-1331, decided February 14, 1977.

²³ *Califano v. Gautier Torres*, 98 S. Ct. 906 (1978).

created Title II of the Social Security Act (SSA) to provide a Federal minimum income in the form of monthly cash payments to individuals who attained age 72 prior to 1968, and who are ineligible for Social Security benefits. Under the Prouty program, the average benefits paid in 1977 were \$73.80 per individual and \$110.90 per couple.²⁴

Since the inception of the Prouty program in 1966, Puerto Rico has been statutorily excluded. The Constitutionality of this discriminatory treatment was challenged by a class action suit, *Rodriguez-Cintrón v. Richardson*.²⁵ The Federal District Court for Puerto Rico found in favor of the plaintiffs, and held that exclusion of individual Puerto Rican residents from Prouty eligibility was unconstitutional. The U.S. Supreme Court, however, vacated the District Court's decision on procedural grounds unrelated to the substance of the case.²⁶

If the current differential treatment were eliminated, and full Prouty benefits extended to Puerto Rico, it would receive approximately \$10 million annually.²⁷

Currently, there is no pending or contemplated legislation to amend the Prouty program and extend the benefits to Puerto Rico.

AFDC—Aid to Families with Dependent Children

Title IV of the Social Security Act (SSA) of 1935, as amended, created the Aid to Families with Dependent Children (AFDC) program (42 U.S.C.A. 601 *et seq.*, 1301 *et seq.* 1351 *et seq.*) This program provides Federal funds to encourage the care of dependent children in their own homes or in the homes of relatives by enabling each State to furnish financial assistance, rehabilitation, and other services to such needy dependent children and the parents or relatives with whom they live.

The AFDC program has become one of the largest Federal grant programs. In FY 1976, the program had expenditures of \$5.3 billion²⁸ in cash payments. For the States and the District of Columbia, the Federal share of total AFDC program costs is determined by a formula based on the relationship between a State's per capita income and the national per capita income. According to this formula, the "poorest" States may receive a Federal contribution of up to 83 percent of the total costs of the program,

while the "richer" States receive no less than 50 percent. No maximum limit is imposed on the total Federal funds a State may receive for its AFDC program. The total Federal expenditure for each State is determined by the State's own contribution to the program; therefore, the more a State wants to invest in the program, the higher will be the Federal contribution.

Puerto Rico was not extended coverage under the AFDC program until 1950. Since then it has participated in the program only in a limited fashion. From FY 1972 to the beginning of FY 1979 (when the law was amended and the ceiling raised to \$72 million) section 1108 of the SSA established an absolute annual ceiling of \$24 million for Federal payments to Puerto Rico to cover not only the Federal costs of the AFDC program, but also the costs of the Aid to the Blind (AB), Old Age Assistance (OAA), and the Aid to the Permanently and Totally Disabled (APTD) programs. These adult category programs of income maintenance have been replaced in the United States since 1973 by the Supplemental Security Income (SSI) program.

In addition, Puerto Rico was excluded from the sliding matching formula used to determine the Federal AFDC share for the States. During that same period, the Federal share for Puerto Rico was statutorily fixed at 50 percent of the total AFDC program costs, instead of the 83 percent Federal share which Puerto Rico would have been eligible to receive under the formula used to allocate the Federal AFDC funds to the States and the District of Columbia.

The above restrictions severely limited the level of assistance in Puerto Rico under the AFDC program. For example, in May 1977, the average AFDC payment per recipient in Puerto Rico was \$10.89. In contrast, the U.S. average AFDC payment per recipient was \$75.56; in Guam it was \$50.71; and in the U.S. Virgin Islands it was \$39.75.²⁹

The \$24 million annual ceiling on Federal funds for AFDC and adult categories programs in Puerto Rico were not increased between FY 1972 and FY 1979. As a result of cost-of-living increases in Puerto Rico of more than 40 percent in the past 5 years, the real value of the Federal contribution under the \$24 million ceiling was reduced to less than \$17 million in FY 1977.

The higher matching rate specified for Puerto Rico by section 1108 of the SSA was a burden to the already limited financial capacity of the Commonwealth Government. In addition, it created difficulties in Puerto Rico's meeting the full statutory service requirements mandated under the Title IV program.

In June 1977, the U.S. House of Representatives

²⁴ 1977 Catalog of Federal Domestic Assistance, *op. cit.*, p. 343.

²⁵ D.C.P.R. Civ. No. 72-1099.

²⁶ U.S. Supreme Court vacated the case because of the failure of plaintiff's counsel to inform the Court of the death of the plaintiff. In taking this action, the Court asked the District Court to determine whether the issue is moot or whether the class action is still valid and a substitution of plaintiffs can occur.

²⁷ "Report of the Under Secretary's Advisory Group on Puerto Rico," *op. cit.*, p. 26.

²⁸ Report No. 95-573, "Public Assistance Amendments of 1977," U.S. House of Representatives, Nov. 1, 1977, table 9, p. 67.

²⁹ *Ibid.*, p. 109.

passed H.R. 7200, "Public Assistance Amendments of 1977." Section 203 of H.R. 7200, as passed, proposed to eliminate the current \$24 million annual ceiling for Federal AFDC funds to Puerto Rico, effective April 1, 1978. The bill did not, however, completely eliminate the differential treatment accorded to Puerto Rico, since it continued to exclude the application of the Federal sliding matching formula to Puerto Rico and retained the original statutory 50/50 matching rate.

In November 1977, the Senate Finance Committee reported on H.R. 7200, and made recommendations which were quite different than those proposed in the House-approved bill. The Finance Committee's reported bill proposed: (1) an increase in the annual ceiling for AFDC/OAA/AB/APTD Federal funds for Puerto Rico from the current level of \$24 million to \$72 million; and (2) an increase in the Federal matching rate, or share of total AFDC program costs, from the current 50 percent to 75 percent. Both changes were to become effective as of April 1, 1978.

On November 6, 1978, the U.S. Congress enacted Public Law 95-600, the "Revenue Act of 1978." For FY 1979, section 802 of Public Law 95-600 amends the Social Security Act (SSA) by tripling the annual ceiling level and increasing to 75 percent the Federal matching rate for public assistance (including AFDC) programs in Puerto Rico. The combined effect of these two measures is to double the size of the original annual total AFDC program expenditures in Puerto Rico without an increase in the Commonwealth Government's costs. That is, for FY 1979 the total AFDC program in Puerto Rico will increase from the original annual level of \$48 million at 50/50 matching (\$24 million Federal, \$24 million Puerto Rico) to a level of \$96 million at 75/25 matching (\$72 million Federal, \$24 million Puerto Rico).

Social Services

Title XX of the Social Security Act (SSA) (Public Law 93-647, 42 U.S.C.A. 1397), authorizes the allocation of formula grants for the development of social services programs. These programs have as objectives to "... provide potential and current recipients of public assistance an array of services which will effectively assist these persons in attaining or retaining the least level of dependence on public welfare."

Under the current law, Puerto Rico may receive an allotment for a social services program *only* from amounts that the States and the District of Columbia certify, after the beginning of the fiscal year, that they will not use out of their share of title XX allotments for that year. In addition, the law specifies an

allotment ceiling of \$15 million for Puerto Rico regardless of the amount of funds unused by the States.

These present provisions cause obvious problems in planning and implementing an effective Title XX program since the availability or magnitude of funds allocated to Puerto Rico is unknown until some three months after the beginning of the program year.

The "Public Assistance Amendments of 1977" (H.R. 7200) a bill which passed the U.S. House of Representatives but failed to be enacted by the 95th Congress, addressed the issue of late notification on the available title XX funds. Section 202 of H.R. 7200 required States to certify prior to, as well as after, the beginning of the fiscal year, the amount of their Title XX allotment they did not expect to spend and which would therefore be available for allotment to Puerto Rico. It is expected that an administration bill requesting a direct, fixed allocation of \$15 million in Title XX funds for Puerto Rico will be introduced in the 96th Congress.

Medicaid

In 1965, title XIX of the Social Security Act (SSA), as amended, created the Medicaid program to provide Federal financial assistance to States for a variety of medical services for eligible public assistance recipients (42 U.S.C.A. 1396 *et seq.*). Federal Medicaid funds are available to match State expenditures for medical care provided under a State plan.

For the States, the Federal share or Federal Financial Participation (FFP) in the Medicaid program may range from 50 percent to 83 percent of the total program cost and is determined by a formula based upon the relation of a State's per capita income to the national per capita income. There is no maximum level on the total of Federal funds which a State may receive.

Puerto Rico has always received differential treatment in the Medicaid Program. In 1965, when Congress established the Medicaid Program, a 55 percent Federal matching share was imposed on Puerto Rico instead of the 83 percent Federal matching it was eligible for by virtue of its low per capita income.

In 1968, Congress imposed an annual ceiling of \$20 million in Federal funds for the Medicaid program in Puerto Rico and reduced the Federal share from 55 percent to 50 percent. In addition, Puerto Rico was exempted from the limit on the income levels for the medically indigent ("133 percent rule") and the "freedom of choice" requirements of the Medicaid program. This was done in view of (1) Puerto Rico's extremely low levels of cash as-

sistance payments, and (2) the inappropriateness of a "freedom of choice agreement" vis-a-vis the extensive public health care system existing in Puerto Rico.

In 1972, Public Law 92-603 (42 U.S.C.A. 271a) raised the annual ceiling for Federal Medicaid funds to Puerto Rico to \$30 million, but kept the 50 to 50 matching requirement.

The \$30 million Federal Medicaid ceiling for Puerto Rico has remained in effect to date, even though during the 1972-77 period, national Federal appropriations for the Medicaid program almost doubled from \$7.3 billion to \$14.3 billion,³⁰ and the Puerto Rican Index of Medical Costs increased by 60 percent. Therefore, both in real dollar terms and as a proportion of total Federal expenditures in the Medicaid program, the imposed ceiling and Federal share limitation have in effect represented a substantial decline in Federal support for the Medicaid program in Puerto Rico. As a result of this limited Federal assistance, the Commonwealth Government currently overmatches the Federal share and pays approximately 72 percent of total program costs.³¹ By comparison, the "poorest" State, Mississippi, supplies only some 22 percent, and the "richest" State, California, provides only 45 percent of their respective total Medicaid program costs.

In general terms, the Medicaid program requires that Puerto Rico provide the same medical and hospital services to its participants and meet the same administrative conditions as any State. The Commonwealth Government contends, however, that the current annual ceiling of \$30 million and the 50 to 50 matching requirement imposed on Puerto Rico's Medicaid program have prevented it from providing the full range of services required under the Act, those services needed to provide optimum health care to the medically indigent in Puerto Rico. The Commonwealth Government estimates that a complete Medicaid program in Puerto Rico in FY 1978 would require a minimum budget of \$120 million, or approximately \$12 million more than currently available from combined Federal and Commonwealth funds.³²

During 1977, various bills were introduced in Congress to amend the Social Security Act in order to eliminate this current differential treatment, and to provide Medicaid benefits to Puerto Rico, and to the territories, on the same basis as for the States. On February 28, 1978, the House passed H.R. 9434, which was a "clean bill" incorporating or amending the provisions of various similar bills, but

the bill failed to pass by the end of the 95th Congress and therefore no change was made in the Medicaid allocations to Puerto Rico.

Regarding Puerto Rico, the version of H.R. 9434 which passed the House provided for: (1) an increase in the ceiling for annual Federal Medicaid expenditures in Puerto Rico, from the current level of \$30 million, to \$50 million in FY 1978, and \$60 million in FY 1979; (2) automatic ceiling increases for each fiscal year after FY 1979, by a percent equal to the percentage increase in the Consumer Price Index; and (3) determination of the Federal matching requirements, or Federal share, by the same statutory formula used for the States, beginning in FY 1979. (This would have raised the Federal share of total program costs in Puerto Rico from the current 50 percent to 83 percent.)

Although enactment of H.R. 9434 would have greatly improved the levels of Federal Medicaid assistance to Puerto Rico, it would not have completely eliminated the differential treatment accorded to it under this program. In this context, the House Committee Report stated that "... the special arrangements justified by the particular nature of the health systems in the jurisdictions, particularly the absence of a freedom of choice requirement and the exemption from the ceiling on income levels for the medically needy, do support the retention, at this time, of reasonable ceilings on the amount of Federal dollars which are made available for medical assistance"³³ (Emphasis added.)

The following table presents the Congressional Budget Office's estimates of the Federal expenditures for the Medicaid program in Puerto Rico, from FY 1978 through FY 1982, in accordance with the provisions of H.R. 9434.³⁴

[In millions of dollars]

	(A) Federal expenditures under new program	(B) Current cost	(C) Additional cost to Federal Government (A - B)
FY 78	47.50	30.0	17.5
FY 79	60.00	30.0	30.0
FY 80	63.59	30.0	33.59
FY 81	67.28	30.0	37.28
FY 82	70.99	30.0	40.99
Total	309.36	150.0	159.36

³⁰ "Increase Medicaid Assistance to Puerto Rico, the Virgin Islands and Guam, Hearings Before the Subcommittee on Health and the Environment," U.S. House of Representatives, Committee on Interstate and Foreign Commerce, Sept. 8, 1977, Serial 95-37, p. 18.

³¹ *Ibid.*, p. 46.

³² *Ibid.*, p. 20.

³³ Report No. 95-771, "Medicaid Amendments Relating to Puerto Rico, the Virgin Islands, and Guam," Committee on Interstate and Foreign Commerce, U.S. House of Representatives, October 27, 1977, p. 4.

³⁴ *Ibid.*, pp. 7 and 8.

Educationally Deprived Children— Title I, ESEA

Title I of the Elementary and Secondary Education Act (ESEA) authorizes the allocation of formula grants to expand and improve educational programs to meet the special needs of educationally disadvantaged children.⁸⁵

There are five programs operating under title I of ESEA: (1) Local Educational Agencies (LEA); (2) Handicapped Children; (3) Neglected and Delinquent Children in Institutions; (4) Migrant Children; and (5) Special Incentive Grants. The LEA program, however, receives more than 75 percent of the total Title I funds appropriated by Congress.

Title I of ESEA is the largest single program, from Federal or Commonwealth sources, which provides financial assistance to the elementary and secondary school system in Puerto Rico. In FY 1977, approximately \$48 million of Title I funds were allotted to Puerto Rico, of which \$46.8 million (97.5 percent) were for the LEA program.

Puerto Rico has always received differential treatment under Title I of ESEA. Special provisions of the law restrict Puerto Rico's entitlement to substantially less than it would receive if it were treated as a State. Until FY 1974, Puerto Rico was defined as an "outlying area" and together with Guam, the U.S. Virgin Islands, American Samoa, and the Trust Territories of the Pacific Islands was restricted to a title I "set-aside" of 3 percent of total annual appropriations. Under this condition, Puerto Rico received an annual title I allocation of approximately \$26 million.

In 1974, however, Congress redefined Puerto Rico as a "State" for purposes of title I—ESEA allocations, but restricted it to a special allotment formula applicable only to Puerto Rico.⁸⁶

The "State" formula determines that each State may receive a maximum Title I—ESEA allotment equal to the sum of school age (5–17) poor children, plus two-thirds of children in families receiving AFDC benefits, plus the number of institutionalized (neglected and delinquent) children, multiplied by 40 percent of the average per pupil expenditure in the State. The State average per pupil expenditure (APE) figure may not exceed 120 percent or fall below 80 percent of the United States average per pupil expenditure.

The formula for Puerto Rico, however, does not establish a minimum of 80 percent of the United States average per pupil expenditure, and the comparatively low level of Puerto Rico average per pupil

expenditure (\$572)⁸⁷ results in a much lower Title I—ESEA allotment for Puerto Rico.

In addition, Congress imposed a severe limitation on the title I funds allotted by formula to Puerto Rico. In 1974, when Puerto Rico was redefined as a "State" instead of an outlying area for purposes of title I—ESEA allocations, it became apparent that even with the special provisions for Puerto Rico, the Title I formula would allocate much larger amounts of funds to the island than it had received under the previous "set-aside" limitations. In order to ease the transition to the larger amount of Federal funds, the Congress imposed arbitrary cuts of 50 percent in FY 1975 and 25 percent in FY's 1976, 1977, and 1978 in the amounts allocated by the Title I formula to Puerto Rico. Although in FY 1979 Puerto Rico will receive an uncut formula allocation under Title I, it will still be subject to an allocation based on an APE lower than the 80 percent "floor" applicable to the States.

Finally, until November 1978, Puerto Rico was excluded from a Special Incentives Grant Program which operates concurrently with the Title I programs, and which provides extra funds to States that reach more deprived children. (See 20 U.S.C.A. 241d.)

During FY 1978, the Commonwealth of Puerto Rico will receive approximately \$56 million in Title I—ESEA funds (\$53 million for the LEA program). In FY 1979, it will receive approximately \$79 million. Under full State-like treatment, however, Puerto Rico could have received approximately \$120 million in FY 1978.⁸⁸

In November 1978 Congress enacted Public Law 95–561, "The Education Amendments of 1978," and authorized an increase in national funds for Title I of ESEA. Despite the amendments of Public Law 95–561 a differential treatment will still be applied to Puerto Rico. Section III(a)(2)(C) provides that the LEA program formula allocation for Puerto Rico be adjusted to reflect the same ratio that Puerto Rico's average per pupil expenditure (APE) bears to the lowest State APE.⁸⁹ Under this provision of Public Law 95–561, Puerto Rico's allocation for the LEA program would be approximately \$80 million in FY 1979, rather than the estimated \$125 million it could receive if it were accorded full State treatment.

⁸⁷ Source: National Center for Education Statistics, Division of Estimates.

⁸⁸ *Ibid.*

⁸⁹ According to Section III (a)(2)(C) of Public Law 95–561 the formula for Puerto Rico would be:

$$\text{No. of eligible children} \times \frac{\text{Puerto Rico APE}}{\text{Low State APE}} \times 32\% \text{ of U.S. APE}$$

⁸⁵ See, 20 U.S.C.A. 241, *et seq.*

⁸⁶ See, 20 U.S.C.A. 241 c(a)(3)(C); 20 U.S.C.A. 244(b).

Anti-Recessional Financial Assistance (ARFA)

The Anti-Recessional Financial Assistance (ARFA) program provides those State and local governments hardest hit by the recession with formula grants for direct emergency Federal assistance to fund basic governmental services threatened by budget cuts. These funds cannot be used for capital construction, only for maintenance of basic governmental services which would otherwise be terminated.

The program, which was authorized by Title II of Public Law 94-369, the Public Works Employment Act of 1976,⁴⁰ began disbursing funds during FY 1977. The amount allocated to the States varies with the unemployment rate and automatically terminates when the national unemployment rate drops below 6 percent.

Puerto Rico and the United States territories were excluded from the original authorizing legislation of the Anti-Recessional Assistance program. In May 1977, however, the law was amended by Public Law 95-30⁴¹ to include Puerto Rico and the territories, although under continued differential treatment. The amendment established that a "set-aside" equal to 1 percent of the amount disbursed to the States (i.e., the national appropriation) be distributed each quarter to Puerto Rico, Guam, American Samoa and the U.S. Virgin Islands, in proportion to each area's share of their population.

In FY 1977, then, Puerto Rico received an allocation of approximately \$4.8 million; and in FY 1978, it will receive approximately \$12.3 million.⁴² On the basis of the level of national appropriations, had Puerto Rico been treated as a State in this program it could have received some \$82 million⁴³ in FY 1977.

By comparison, for quarters 5-7, since Puerto Rico and the territories became eligible for ARFA, the Commonwealth has received per capita ARFA allocations of \$3.91. The average per capita allo-

cation for the States for the same period has been \$6.27.⁴⁴

The differential treatment accorded to Puerto Rico in the Anti-Recessional Assistance program is, at least in part, justified by Congress on the basis of its belief that the data needed for the allocation formula is not available, or is not reliable, for Puerto Rico and the territories. To this effect, section 215 (C)(3) of the Public Works Employment Act of 1976—42 U.S.C.A. 6735 (c)(3)—provides that:

The Secretary (Department of Labor) shall, in consultation with the Secretary of Commerce, conduct an investigation of . . . the availability and reliability of data concerning Puerto Rico, Guam, American Samoa, Virgin Islands, and the Trust Territory of the Pacific Islands, and the extent to which such territories may properly be made part of the regular allocation system applicable to the several States.

In accordance with this provision, in March 1978, the Office of Revenue Sharing, U.S. Department of the Treasury, submitted to Congress a "Report on Alternate Methods of Allocating Federal Intergovernment Assistance."

The report analyzed and evaluated the availability and reliability of the data necessary for the Anti-Recessional Financial Assistance (ARFA) formula allocation: population, employment/unemployment, per capita income, tax effort, wages and hourly rates. For each data group, the report states that data for Puerto Rico are more available and reliable than similar data for the territories, given Puerto Rico's receipt of technical assistance from relevant United States agencies such as the Bureau of Economic Analysis, Bureau of Labor Statistics, and Bureau of the Census.

Regardless of these findings, which recognize Puerto Rico's data advantage over the territories, the report concludes that there are sufficient problems of standardization, comparability and timeliness with the data from the territories, including Puerto Rico, and that "little data is currently available which would warrant advocating the inclusion of the territories in the regular allocation process . . ."⁴⁵

After discussing the pluses and minuses of various alternative methods of allocating ARFA funds to Puerto Rico and the territories, the report states:

Therefore, the current statutory methodology, which distributes the 1 percent (of the amount available for States and localities) set-aside on the basis of relative population is as equitable to both States and territories as can be expected with the constraints imposed by data availability.⁴⁶

⁴⁴ U.S. Department of the Treasury, "Report on Alternative Methods of Allocating Federal Intergovernmental Assistance," March, 1978, p. 125.

⁴⁵ *Ibid.*, p. 121.

⁴⁶ *Ibid.*, p. 127.

⁴⁰ 42 U.S.C.A. 6736 *et. seq.*

⁴¹ 42 U.S.C.A. 6736 (a).

⁴² Source: Office of Revenue Sharing, U.S. Department of the Treasury, May 1978. Puerto Rico and the territories did not become eligible for ARFA until May 1977. As a result, they received only one quarterly payment in FY 1977.

For FY 1978, the ARFA quarterly payments were calculated as: Oct. 1977 = \$3,960,487; Jan. 1978 = \$3,699,420; April 1978 = \$2,866,348; July 1978 = \$1,732,700.

⁴³ Source: Letter of April 8, 1977 from Acting Director, Office of Revenue Sharing, U.S. Department of the Treasury, to Congressman Baltasar Corrada, Resident Commissioner from Puerto Rico.

Figure of \$82 million extrapolated from estimated quarterly allocation.

The Office of Revenue Sharing cautions that its estimates are quite inexact and probably overstated given that: 1) formula allocations are based on unofficial data provided by the Government of Puerto Rico and adjusted to approximate Federal formula requirements; 2) the high per capita level of ARFA allocations to Puerto Rico, if treated as a state, may reflect that Puerto Rico was not contemplated as a recipient when Congress devised the present formulas.

Table 1.—Summary of Differential Treatment Accorded to Puerto Rico in Major Federal Assistance Programs

Program	Puerto Rico	States and District of Columbia
(1) General Revenue Sharing	Excluded	100% Federal
(2) Supplemental Security Income (SSI)—Title XVI of SSA	Excluded	100% Federal
(3) Prouty—Title II of SAA	Excluded	100% Federal
(4) AFDC—(Title IV of SSA) and Adult Categorical Programs (OA, AB, APFD)	Ceiling: \$72 million Match: 75%	No ceiling ¹ 50%—83%
(5) Social Services—Title XX of SSA	Ceiling: \$15 million ² Match: 75%	\$2.5 billion 75%
(6) Medicaid—Title XIX of SSA	Ceiling: \$30 million Match: 50%	No ceiling 50%—83%
(7) Educationally Deprived Children—Title I of ESEA	Ceiling of 75% of formula allocation.	100% Federal
(8) Anti-Recessional Financial Assistance (ARFA)	"Set-aside" of 1% ³ of National appropriation.	100% Federal to be distributed according to state unemployment rate above 6%.

¹ Adult categorical programs replaced by SSI.

² Funds available to Puerto Rico only if unused by the States.

³ One percent of national appropriation distributed among Puerto Rico, Guam, the Virgin Islands, and American Samoa according to each's share of the total population.

FURTHER DISCUSSION OF DIFFERENTIAL PROGRAM TREATMENT

Exclusion

Exclusion is generally dealt with in the previous section. These congressionally mandated exclusions appear to be primarily based on Puerto Rico's exemption from Federal taxation and an apparent belief that "... distinction ... can be made between the rights of Puerto Rico and the Territories as political jurisdictions and the rights of their residents as U.S. citizens."⁴⁷

In addition, in the transportation programs area, Puerto Rico has been excluded from the *Interstate Highway Construction* program. Though Congress excludes the Commonwealth and all United States island territories from this program, it has included the islands of Hawaii. Puerto Rico participates in a less favorable companion program, the *Highway Planning Construction* (Federal-Aid Highway) program.⁴⁸

The results of this exclusion are twofold. First, Puerto Rico is forced to participate in the Federal-

Aid Program which has a less favorable matching rate than the Interstate program (70-30 vs. 90-10). Second, Federal-Aid program funds cannot be used to maintain roads built under the program. Puerto Rico does not have much money for highway maintenance and its roads therefore deteriorate.

The ban on the use of Federal-Aid Highway program funds for maintenance does not affect most States on the mainland. Those States are eligible to participate in the overlapping Interstate Highway program which allows its funds to be used for maintenance. Due to Puerto Rico's exclusion from the Interstate Highway program, the maintenance prohibition in the Federal-Aid program has become a burden which is not shouldered by the States.

Limitations on Participation

Congress often permits Puerto Rico to participate in a particular program, but limits the amount of funds available to Puerto Rico or its citizens. Congress has limited the size of the Puerto Rican share of funds ("limited entitlement") by fixing the formula variable, omitting a funding floor, setting a higher matching requirement, or imposing a statutory ceiling.

In such instances, Congress may not accord Puerto Rico State-like treatment because it believes that under the formula allotment, the island would receive a disproportionately large share of the total allotment. There are a few possible reasons for this policy sentiment. First, since Puerto Ricans do not pay Federal taxes, the Members of Congress may feel more funds should go to their own taxpaying districts rather than to Puerto Rico. Under a uniform formula, Puerto Rico might receive more aid per capita than any State, which apparently would not be an acceptable situation in Congress.

Second, Congress may erroneously believe that the standard of living in Puerto Rico and, hence, income requirements, are much lower than on the mainland. By this logic, it follows that if the standard of living is lower, benefits per person should be proportionately lower as a reflection of reduced income requirements. Many program allotment formulas depend upon State per capita income figures; the lower the State per capita figure, the larger the State's allotment. In many instances, the per capita income variable for Puerto Rico has been frozen, thereby factoring out the formula's sensitivity to the rise and fall of per capita income on the island. In essence, the congressional determination of the standard of living in Puerto Rico is codified in a special allotment formula that will set the funding level for the island for years after the program has been enacted.

The *Vocational Education Basic Grants* pro-

⁴⁷ "Report of the Under Secretary's Advisory Group on Puerto Rico," *op. cit.*, p. 2.

⁴⁸ Federal-Aid Highway Act of 1973, as amended; Public Law 93-87; Title 23 U.S.C.

gram⁴⁹ is an example of the policy establishing a special allotment. In the formula for this program, the variable representing State per capita income has been fixed for Puerto Rico. It has been fixed at an artificially high level which represents high per capita income. Since Puerto Rico has the lowest per capita income figure in the United States, this setting of the variable has eliminated the island's very low per capita income figure as a factor in determining the Puerto Rican allotment.

Sometimes, when a program formula guarantees a minimum amount of money to each participating State, the minimum for Puerto Rico is not set. In the *Educationally Deprived Children's* program,⁵⁰ the formula variable representing a State's average per pupil expenditure is not allowed to drop below a figure representing 80 percent of the national average per pupil expenditure. This limitation is dealt with in the previous section.

The concern with the control of the Puerto Rican share of a program's funds can appear in discretionary grants-in-aid programs. Discretionary grants are not allotted to the States by any formula so there are no variables for Congress to adjust. Nonetheless, restrictions can be applied through the use of a high matching requirement. In the *Community Mental Health Center* program,⁵¹ the matching requirement for some grants varies inversely with the per capita income of each State. For Puerto Rico, however, the matching requirement is set at 2 to 1, e.g., \$2 Federal for each \$1 Puerto Rican. This matching requirement will not change regardless of the changes in island per capita income.

At times, the limitation on funds available under a program is embodied in a statutory ceiling on all payments to the island. This is true in the Medicaid, AFDC, and Adult Categories programs which are described in the previous section of this chapter.

Restricted Funding Levels

Congress has at times changed Puerto Rico's status in a program from "outlying area" to "State," and thus increased the flow of funds under the program. Yet, at the same time, Congress has expressed a concern that the island may not be prepared for a great increase in funding levels. In such a case, Congress does not deny that Puerto Rico deserves full funding as a State; it only expresses its belief that full funding should come in stages, not all at once. This situation occurred when Puerto

Rico was switched from a set-aside to a formula grant in the *Educationally Deprived Children* program.⁵² Congress slashed the island's first years' formula-calculated allotment by 50 percent (FY 1975), and by 25 percent for FY 1976, FY 1977 and FY 1978. In the FY 1979, Puerto Rico finally receives its full allotment. Such an incremental approach was enacted because Congress thought that the island might otherwise be swamped with Federal funds.

Yet, in other similar situations, the impending flood of Federal funds destined for Puerto Rico has not dissuaded Congress. The *Food Stamps* program⁵³ Congress slashed the island's first years' program is one of the largest Federal programs currently in existence on the island, with over \$593,000,000 paid to individuals on the island in fiscal year 1976. Congress slightly reduced net food stamp payments to Puerto Rico but did not slash funds as they had in the *Educationally Deprived Child* program above.

Inherent Limitations on State-Like Treatment

Congress occasionally extends "State-like" treatment to Puerto Rico in a formula grant program but specifically denies it full funding as a "State" on the grounds that the island cannot supply reliable statistics which are needed to calculate an allotment.⁵⁴ In the *Anti-Recession Financial Assistance* program⁵⁵ run by the Office of Revenue Sharing, U.S. Department of the Treasury, Puerto Rico has been denied State-like treatment for precisely this reason. A detailed analysis of this program was presented in the previous section of this chapter.

In other instances, Congress accords Puerto Rico State-like treatment in a program, but the program itself is so ill-suited to the Commonwealth's needs that the program fails to operate effectively. One such example is the ill-matched hiring incentive of the WIN program,⁵⁶ a program which is designed to place welfare recipients in employment situations. To encourage the hiring of WIN participants, Congress enacted a 20 percent Federal tax credit for employers who hire them. Since Puerto Rican employers do not pay Federal taxes, a Federal tax credit is not an incentive in the Commonwealth.

A third example of inherent limitations on State-like treatment are those programs whose objectives are not in accord with Puerto Rican needs. Until

⁴⁹ Vocational Education Act of 1963, as amended by Title II of the Education Amendments of 1976, Public Law 94-482; 20 U.S.C. 2301 to 2461; 90 Stat. 2168-2213.

⁵⁰ Elementary and Second Education Act of 1965, Title I; Public Law 89-10 as amended by Public Law 93-380; 20 U.S.C. 241a-244m.

⁵¹ Mental Retardation Facilities and Community Mental Health Centers Construction Act of 1963, Title II, Part A; Public Law 88-164 as amended by Public Law 89-105, 90-51, 90-574, 91-211, 91-513, 91-515, and 94-63.

⁵² *Op. cit.*

⁵³ The Food Stamp Act of 1964, Public Law 88-525, as amended; 7 U.S.C. 2011-2026 (1964), as amended.

⁵⁴ For an analysis of the issue of statistics and data collection activities in Puerto Rico, see chapter V.

⁵⁵ Title XV, Part B of the Public Health Service Act; 42 U.S.C. 300 (1) 2.

⁵⁶ Social Security Amendments of 1967, as amended; 42 U.S.C. 601 *et seq.*, and 26 U.S.C. 31 *et seq.*; 81 Stat. 821.

its recent amendment by the 95th Congress the *Bilingual Education* program,⁵⁷ which seeks to teach English to children who do not speak it, was an example of such a program. In Puerto Rico, Spanish is the dominant language and the objective of a bilingual education program there was not clear. On the island, the teaching of English is handled by the public schools and Puerto Rican educators wanted to but were statutorily prohibited from using program funds to teach Spanish to recent mainland immigrants, who had limited Spanish-speaking ability. The Congressional amendment to Title VII allows for such use of bilingual education funds.

State-Like Treatment and Strict Program Requirements

In the above instances, Congress has singled out Puerto Rico for a differential treatment which is disadvantageous in terms of lower funding levels. Nevertheless, Congress has accorded Puerto Rico State-like treatment in many programs. Over the past ten years, there has been a trend toward including the island in programs as a "State." When Congress does treat Puerto Rico as a "State," it does so without consideration of the unique circumstances and problems existing on the island.

At present, certain programs in which Puerto Rico participates as a "State" contain strict requirements that Puerto Rico finds difficult to meet. Where Puerto Rico is made eligible as a "State," Congress rarely inserts a waiver for a difficult requirement that Puerto Rico most likely cannot meet. Congress does insert waivers for outlying territories that share in a set-aside for some programs. If Puerto Rico should share in a set-aside for that type of program, the requirements for its participation are eased.

The loosening of the requirements, however, is often offered in exchange for greatly reduced allotments under a set-aside. This is precisely what happened to the outlying areas in the *Health Planning—Health Systems Agencies* program⁵⁸ in which Puerto Rico is classified as a "State". Whether Congressional legislation should be tailored to Puerto Rican needs is a policy question that cannot be answered here, but nonetheless, examples can be given of this problem manifested in the operation of Federal programs in Puerto Rico.

Matching Requirements

The most common example of Federal program requirements too tough to meet exists in the matching requirement. As an example, U.S. Department

of Agriculture officials who administer the *Agricultural Cooperative Extension* program⁵⁹ have commented that Puerto Rican universities have had trouble raising funds to match the Federal grants for practical agricultural research. Similar arguments have been made regarding the Commonwealth's seeming inability to match Federal funds for transportation and construction programs.

Federal Statistical Restraints

Funding levels in the Anti-Recessional Financial Assistance program are tied to national statistics representing a countrywide recession and not to acute State economic problems. The program is triggered when the national unemployment level figure exceeds 6 percent. Puerto Rican unemployment is, and has always been, far above this figure. Yet its share, in the form of a set-aside, will not come unless the national figure exceeds 6 percent.

Nonparticipation in Available Programs

Many competitive programs or subprograms applicable to Puerto Rico do not operate in Puerto Rico. Though Puerto Rico is accorded "State" status in those programs, it does not take advantage of them. It cannot be concluded that the statutory requirements are too strict or that there are problems in the administration of the programs. Nonetheless, it may be helpful to list a few programs in which Puerto Rico does not participate, but for which it is fully eligible. These programs are identified without presenting the precise cause of nonparticipation.⁶⁰

The Economic Development Administration's (EDA) *Business Development Assistance Loan* program⁶¹ is designed to extend loans to businesses in the poverty-stricken areas of the country. The program extends both fixed asset loans and working capital loans. EDA will award a fixed asset loan to cover 65 percent of the projected cost of purchase of the asset and a working capital loan to cover 100 percent of projected working capital needs. The working capital loan subprogram uses most of the funds appropriated to the program nationally; however, Puerto Rico has not received a working capital loan in the three years 1975, 1976, and 1977. The fixed asset loan, which Puerto Rico does receive, requires "matching" (65-35) since it will only cover 65 percent of projected costs. The working capital

⁵⁷ Smith-Lewis Act, as amended, 7 U.S.C. 341-349; and Rural Development Act of 1972, 7 U.S.C. 2661-2668.

⁵⁸ It should be pointed out that many of these programs provide "competitive grants." Since Puerto Rico must compete for the limited specific funds with the States, nonparticipation may be the result of inadequate Puerto Rico application procedures and other similar reasons.

⁶¹ Public Works and Economic Development Act of 1965; Public Law 85-136, as amended; 42 U.S.C. 3142, 3171.

⁵⁹ Title VII of the Elementary and Secondary Education Act of 1965; Public Law 89-10, as amended by Public Law 93-380; 20 U.S.C. 880G; and Public Law 95-561.

⁶⁰ Title XV, Part B of the Public Health Service Act; 42 U.S.C. 300 (1) 2.

loan, however, covers 100 percent of the amount needed.

EDA's *Special Economic Adjustment Assistance* program⁶² is intended to make grants to an area facing a sudden increase in unemployment due to factory closings. Puerto Rico has not received grants under this program for two out of the past three years. Perhaps the Puerto Rican unemployment rate is already so high that there cannot be a sufficient "spurt" in unemployment to cause Puerto Rico to make more use of this program.

Under the *Strengthening Developing Institutions* program,⁶³ new colleges receive grants to strengthen their academic program. For many years Puerto Rican schools have applied for and received the annual basic grants. For some reason, though, none of these schools has applied to the advanced grants that cover a three year period of time.

Research training grants are awarded under the *Mental Health Training Grant* program⁶⁴ to train students who will go on to do research in the field of mental health. No research training grants have been awarded to Puerto Rican research institutions or schools because, it is claimed by the program administrators, these potential grant recipients do not possess the highest level of skills necessary to qualify as an educator of others in the research

field. The difficulty in locating acceptable grant recipients on the island appears to be a constant handicap regarding requests for research grants. As an exception to this trend, the *Biomedical and Environmental Research* program⁶⁵ of the Department of Energy makes special provision for a Puerto Rican research institute. The Puerto Rican Center for Energy and Environmental Research need not compete for research grants for the next few years under this program. The Center is the recipient of special direct funding for the years 1976 to 1980.⁶⁶ The special treatment is designed to give the Center time to mature as a research entity. After 1980, the Center will have to compete with other institutes in the country for discretionary grants under this program.

National demonstration projects are rarely awarded to Puerto Rico. Demonstration projects, such as the type funded by the *Upward Bound* program,⁶⁷ are intended to develop innovative methods to deal with problems.

For more examples of Federal programs that do not minister to the particular needs and problems of Puerto Rico, one may look at the number of Federal programs in which Puerto Rico does not fully participate. These can be found in chapter VI.

⁶² *Ibid.*, 42 U.S.C. 3241, 3243 and 3245.

⁶³ Higher Education Act of 1965, Title III, Sections 301-306, as amended; Public Law 89-329; 28 U.S.C. 1051-1056.

⁶⁴ Public Health Service Act, Sec. 303; Public Law 78-410; 42 U.S.C. 242a.

⁶⁵ Energy Reorganization Act of 1974, Public Law 93-438; 42 U.S.C. 5817.

⁶⁶ The Department of Energy approved a \$63 million grant to the Center to conduct a solar energy project. *New York Times*, March 2, 1978, p. A13.

⁶⁷ Higher Education Act of 1965, Title IV-A; Public Law 89-329, 90-575, 92-318, 94-482; 20 U.S.C. 1101.

Chapter IV.—Relationship of Federal Assistance Programs to Puerto Rico's Critical Economic Requirements

INTRODUCTION

Three of Puerto Rico's chief economic development concerns, at least those which potentially can be affected by Federal programs, are (1) reducing unemployment (2) increasing labor productivity, and (3) increasing capital investment. These concerns are closely interrelated.

The objectives of Federal programs, which are available to the Commonwealth, are, like Puerto Rico's aforementioned economic development concerns, closely interrelated. In relating particular programs to one category of development concerns there is always a constant danger that the Federal objectives will be oversimplified. Despite these difficulties, both the development concerns and relevant groups of Federal programs need to be brought together in a common analytic framework. The following chapter, therefore, analyzes the three economic development concerns of unemployment, labor productivity, and investment; and compares the effects of Federal programs on these concerns.

REDUCING UNEMPLOYMENT

Despite Puerto Rico's accelerated economic growth of recent decades, double-digit unemployment rates have persisted. The Commonwealth's average unemployment rate was 19.6 percent in calendar year 1977.¹ Since outlays for Federal programs designed to reduce unemployment are largely tied to unemployment rates, Federal funds have flowed to Puerto Rico in quantities which are seemingly large in relation to the island's population. Even though Puerto Rico has been a major beneficiary of these Federal programs, the results have

not been notably satisfactory. At best, they have been only modest in terms of their accomplishment.

General Nature of Puerto Rico's Labor Force and Economy

The modest accomplishment of the various Federal programs to reduce unemployment largely reflects the severity of the problem in Puerto Rico. While most Federal programs are designed to combat cyclical unemployment, Puerto Rico continues to suffer from a combination of cyclical and long term structural joblessness. Although the situation has worsened in recessionary times, unemployment has remained high for decades. The unemployment rate only recently fell below the levels of 1975-76.

The reasons for the continuing high levels of unemployment are varied. A major consideration is the rapid decline of Puerto Rico's agricultural sector during a period of rapid industrialization which transformed the nature of the economy. Between 1950 and 1977, agricultural employment declined from 214,000 to a mere 41,000, while manufacturing (excluding home needlework) only rose from 55,000 to 144,000.² Home needlework decreased from 51,000 to less than 2,000 during this same period. There was a net loss of 133,000 jobs in these industries during a period when the resident population grew by over a million. While other employment sectors have grown, especially the Government, total employment has increased by only 143,000 over these 27 years. Puerto Rico thus suffers from the fact that for decades, simply not enough jobs have been created to compensate for the decline in agricultural employment and the increase in the size of the potential labor force. The unemployment rate has remained high despite a continual decline in the actual labor force partici-

¹A monthly high of 22.1 percent was attained in June, 1977. More detailed information about unemployment rates is presented in the sector study entitled "Employment, Wage Structure, and Migration," conducted by the U.S. Department of Labor.

²These figures, and those which follow in the paragraph, are from unpublished Puerto Rico Planning Board figures and data from the Commonwealth's Department of Labor and Human Resources.

pation rate—the percentage of all members of the working-age population who are either employed or seeking employment.³

The economic transformation of Puerto Rico over the last 30 years has been accompanied by a compositional change in the industrial sector. While industries with higher capital/labor ratios have become increasingly important to the aggregate income and employment growth, they have not been able to absorb a large share of the available supply of low-skilled workers. Moreover, the wage competition from these industries may have driven wages upward thereby reducing the labor absorption capacity of the relatively more labor intensive industries.

Table 1.—Puerto Rican Unemployment by Educational Level

Highest grade completed	Unemployment rate		Percentage distribution in whole population	
	1976	1975	1976	1975
Total	19.6	18.2	100.0	100.0
None	21.9	15.9	3.2	2.8
1-3	21.4	18.7	8.6	8.6
4-6	24.1	21.4	18.2	18.0
7-9	26.4	24.9	23.4	24.0
10-11	28.7	26.5	13.2	12.5
12	17.5	16.7	24.8	25.7
13 and over	8.3	8.2	8.5	8.5
Median of school years completed			9.6	9.6

Source: "The Echenique Economic Report," *Puerto Rican Business Review* (May 20, 1977) p. 4.

Not all of the jobless in Puerto Rico are, however, unskilled or uneducated. (See table 1.) In the 1975-76 period, workers with 10 to 11 years of school had the highest unemployment rate. This population may have lacked specific vocational skills, but they do not appear to be the least trainable. In absolute terms, in the majority of the unemployed had less than a tenth grade education. For these workers the problem may be, at least partially, a higher

³ Puerto Rico Planning Board, *Socio-Economic Statistics of Puerto Rico, Fiscal Years 1940, 1950, 1960 and 1962 to 1975*.

degree of selectivity in accepting unskilled work rather than the lack of such work.

This higher degree of selectivity in accepting unskilled work may be caused, or aggravated, by the high level of Federal transfer payments received in Puerto Rico.⁴ Although this allegation about the possible effects of government assistance is by no means conclusive, it has been claimed in some quarters that "... there is some evidence that there are jobs in Puerto Rico that are going begging"; and that this "... problem of jobs with no takers is especially evident in unskilled and semiskilled areas where salaries are just above the minimum wage and are thus not considered attractive, especially since food coupons and other government help is available."⁵

An additional reason for the high levels of unemployment appears to be that many workers in Puerto Rico place a high premium on obtaining industrial positions. This emphasis may result from the job security, high wage rates, or the prestige associated with "technical" industrial employment. Employment in the Government sector, which has almost quadrupled since 1950, seems to be an acceptable alternative to an industrial position.

This desire for higher paying, prestigious work may be reinforced by the Puerto Rican's self-image as a worker in an advanced industrialized state. This image is reinforced by available international comparative statistics. On the basis of gross national product per capita, the World Bank places Puerto Rico in the "upper middle income" group of developing countries. This category is surpassed only by "capital surplus oil exporters" and "industrialized countries." Some current surveys by the International Labor Organization indicate that the labor structure in Puerto Rico already resembles those existing in the industrialized States. (See table 2.)

⁴ See: Choudhury, Parimal. "The Food Stamp Program and Unemployment in Puerto Rico." Puerto Rico Department of Social Services, May 1978.

⁵ "Good News, New Job Up," *Caribbean Business* 5 (December 1, 1977), p. 2.

Table 2.—Structure of the Economically Active Populations in Selected Countries

[Percentage distribution]

Occupational group	Puerto Rico	U.S.	Belgium	Japan	Ireland	Guatemala	Korea	Dominican Republic
Professional, technical, and related workers	10.4	13.9	11.1	7.8	9.3	3.6	2.8	2.7
Administrative and managerial	8.2	9.7	4.6	4.2	1.6	1.1	0.6	0.3
Clerical and related workers	11.6	17.1	12.8	17.1	11.8	2.7	6.1	6.5
Sales	6.6	6.1	10.2	12.5	9.7	6.2	12.4	5.0
Service	13.6	13.4	6.7	8.5	7.2	9.1	6.9	5.1
Agricultural and forestry workers, fishermen and hunters	7.0	3.2	4.5	13.4	25.8	56.7	44.0	44.4
Nonagricultural production, transportation, and laborers	41.2	33.4	45.2	33.9	33.4	20.6	23.1	19.5
Others	1.4	3.2	4.9	2.6	1.2	—	4.1	16.5

Source: International Labour Organization, *1976 Year Book of Labour Statistics* (Geneva, Switzerland: International Labour Office, 1976), pp. 190-255.

Even though Puerto Rico is classified as an industrialized country, there is an important disjunction between image and reality. Despite this classification, Puerto Rico is a developing country, one where 30 percent of the 1977 GNP came from net Federal disbursements, and where the unemployment rate is higher than that of the average "upper middle income" country. The aspirations of the Puerto Rican labor force may accordingly be higher than the industrial base which presently exists to support it.

Whatever the causes of the continuing high levels of unemployment in Puerto Rico, the Government sector, with its share of total employment having grown from 16 percent in 1970 to 23 percent in 1977, cannot be expected to absorb many more workers. The manufacturing sector, even if it maintained its 1970-77 expansion rate, can be expected to generate fewer than 2,000 jobs annually. Labor intensive operations are increasingly being replaced by more capital intensive operations and it does not appear that other sectors will take up much of the slack.

Without analyzing ways in which to increase employment opportunities—that is dealt with by the sector studies dealing with agriculture, labor, and industrial development—we can look to the programs of the Federal Government to discover how they have worked, or not worked, in solving Puerto Rico's particular problems.

Federal Programs to Reduce Unemployment

Although overlaps exist, Federal assistance in the unemployment area is essentially of three types: (1) programs to actually create jobs, (2) programs to assist job hunters, and (3) program to train workers for jobs. All of these are based on the assumption that the economy will generally expand but be subject to periods of recession. Even with employment creation programs which are mostly products of recessions, temporary positions are supplied as a method of easing the "structurally unemployed" back into new work opportunities. These programs are designed to meet temporary social needs while simultaneously providing a valuable dividend, i.e., "work experience."

Placing the unemployed in jobs is not the only objective of Federal unemployment programs. There is also a concern for those already employed. Thus, for example, with unemployment compensation there are two purposes:

For individuals it provides support while those temporarily out of work search for a job. For the economy as a whole it supports aggregate pur-

chasing power during slack periods by providing income to the unemployed.⁶

Because Puerto Rican unemployment rates have historically been high, Federal money pumped into the economy has helped to maintain incomes and consumer demand levels. Maintenance of income and demand has had significant employment effects.

In terms of directly putting people to work, however, the gains have been meager. To have a fuller understanding of the problems, as well as a basis for considering policy adjustments, the programs themselves need to be examined more clearly. Beginning with those programs which simply assist the unemployed in finding work, the examination will also include additional services and the direct funding of employment.⁷

Unemployment Compensation and Services

Unemployment Insurance.⁸—has been the most enduring form of assistance, with most funds for benefits being derived from employer taxes collected within each State.⁹ In periods of normal unemployment, the Federal contribution is limited to providing grants which finance the administrative costs of unemployment insurance programs. In periods of high unemployment, however, Federal funding is available for benefit payments.

In recent years Puerto Rico has received significant amounts of Federal unemployment insurance grants for *Extended Benefits* which are paid when unemployment is especially high on a national or State basis. These benefits go to workers who are still without jobs at the end of their regular unemployment benefit period (20 weeks in Puerto Rico), with the States and the Federal government sharing the costs equally. Usually no additional benefits are paid after the additional period passes (10 weeks in Puerto Rico). Because of the recent recession, two additional temporary assistance programs were enacted in 1974, *Special Employment Assistance*, and *Federal Supplemental Benefits*. Both of these programs, which were totally funded by the Federal Government, expired on January 1, 1978.¹⁰ The former program paid benefits to persons not covered

⁶ *The Budget of the United States Government, Fiscal Year 1979*, p. 197.

⁷ Excluded from this discussion will be unemployment benefits and allowances of Federal workers, and disability and injury payments. Although these assist unemployed persons, they are not representative of the general efforts in this area.

⁸ A detailed analysis of this program, and other unemployment programs in this section, can be found in the sector study entitled "Employment, Wage Structure, and Migration" and in the section entitled "Department of Labor" which appears in chapter VI of this report. For that reason, no legal citations to this and the following specific programs will be given.

⁹ In most States the maximum allowable employer tax rate is 2.7 percent of each employee's first \$6,000 in earnings. In Puerto Rico there is a 3.0 percent rate on 100 percent of wages.

Source: Sector study: "Employment, Wage Structure, and Migration," *op. cit.*

¹⁰ 1979 U.S. Budget, pp. 196-97.

by regular unemployment insurance. The latter program provided additional payments (for another 10 weeks in Puerto Rico) to those who had exhausted their regular and extended benefits.

Although the last two programs have been terminated, all four programs share the assumption that an unemployed person is only temporarily out of work. In Puerto Rico during the 1975-77 period, however, almost 72 percent of those receiving regular unemployment compensation remained unemployed for the entire 20 weeks—a rate almost double the average for the United States. Over 82 percent of these persons used up all their extended benefits. Of those who began collecting supplemental benefits, 63 percent were still unemployed when these benefits ran out. Approximately 38 out of every 100 workers receiving forty weeks of assistance failed to find employment. Furthermore, many of those who did find jobs subsequently returned to the unemployment rolls. These figures cast some doubts on the extent to which the concept of temporary unemployment applies to Puerto Rico.

The unemployed receive more than cash benefits. They also have the federally assisted *Employment Service* to help them in their job hunting. Puerto Rico currently has Employment Service Offices located throughout the island, with a staff to provide counseling and placement services. In 1974-76, and the first nine months of 1977, they recorded job placements for a total of 208,000 persons.¹¹ During the entire 1974-77 period, however, net total employment in Puerto Rico decreased by 36,000,¹² indicating that there were numerous repeat placements.

Employment Training and Other Services.—In most Federal programs in this area, additional steps are taken to assist the unemployed. The Employment Service itself is funded to carry out some of these. The *Work Incentive* program (WIN) is designed to move persons over 16 years of age off the Aid to Families with Dependent Children (AFDC) rolls and into permanent employment. In this program the employment goal is intended to be accomplished by the provision of training, social services, job placement assistance, and a 20 percent employer tax credit for the first year's wages paid to WIN program participants. Puerto Rico's low 5.3 percent placement rate for WIN registrants in the 1974-76 period is partly attributable to the inability to offer this Federal tax exemption.¹³

¹¹ In the same time span the number of new and renewal applicants was 858,090. Source: Employment Security Automated Reporting System (ESARS).

¹² Unpublished Planning Board data.

¹³ The national rate of 9.5 percent for the same period was not very high either.

Source: Employment Security Automated Reporting System (ESARS).

The Department of Health, Education and Welfare has a similar program to put AFDC recipients to work. Beginning in 1978, the funding of the two programs was combined. HEW's *Work Incentive Program-Child Care Employment Related Supportive Services* program utilizes State welfare agencies to provide the necessary child care and other services.

Another program designed to help persons find full time permanent employment is directed at *Migrant and Seasonal Farm Workers*. This Labor Department program provides a host of services, including relocation assistance, training, health services, day care, nutritional assistance, legal aid, and placement. The objective of the program is to help these workers find alternatives to seasonal work. A similar program targeting a specific group is the Community Services Administration's *Older Persons Opportunity Services*. Disadvantaged persons over 60 years of age receive cash payments, health, welfare, housing, legal, consumer, and other assistance.

Two programs which focus heavily on training are the *Apprenticeship Outreach Program* (AOP), and the *Job Corps*. The former program is geared to helping applicants from minority groups enter apprenticeship programs. The latter program provides intensive educational and vocational training for young, low income persons. Although Puerto Rico itself has a number of apprenticeship programs, the Federal AOP is a very small operation. In fact, all Labor Department apprenticeship activities are limited to providing technical and advisory services. The Job Corps, on the other hand, is more substantial, and the two residential Job Corps Centers in Puerto Rico have had a good record in placing their graduates. For FY 1977, for example, these centers had a placement rate of 97 percent, which was higher than the 92.6 percent national rate.¹⁴

As shown by their funding levels, (See, table 3) all of the training and other service programs are relatively small operations, except for those included in the *Comprehensive Employment and Training Program* (CETA). In broad terms, these CETA programs are designed

. . . to provide job training and employment opportunities for economically disadvantaged, unemployed, and underemployed persons, and to assure that training and other services lead to maximum employment opportunities and enhance self-sufficiency . . .¹⁵

¹⁴ Sector study, "Employment, Wage Structure and Migration," *op. cit.*

¹⁵ The Comprehensive Employment and Training Act of 1973, Public Law 93-203, sec. 2. Strictly speaking, a number of programs not given a CETA label are actually authorized under the Comprehensive Employment and Training Act of 1973, as amended. Only those listed as CETA Programs (Catalog of Federal Domestic Assistance No. 17.232) are so identified in this section.

Funds from CETA Titles I, II, and VI can be used for training, although in Puerto Rico only Title I has been utilized for this purpose. Title I also includes direct employment operations.¹⁶ Under Title I, both classroom and on-the-job training were provided for over 15,000 Puerto Ricans in 1975 and 1976.¹⁷

Although some program participants found jobs, training alone does not appear to possess a great unemployment reducing potential in Puerto Rico. Without indepth evaluations of the quality of these programs, it is impossible to determine whether the training itself was inadequate, or whether the sheer lack of available jobs made it impossible to place large numbers of trainees. The Federal Government, however, has decided that training and placement services were not enough to cope with present unemployment and has greatly increased the flow of funds.

Creation of Employment Opportunities.—CETA Title I funds in Puerto Rico have, for the most part, supported persons obtaining work experience and financed public service employment. With some minor exceptions, Titles II and VI moneys have also been utilized for public service jobs. Under CETA Titles I, II, and VI, close to 69,000 Puerto Rican public service jobs were financed in the years 1975 and 1976.¹⁸ Title III, Section (a)(3) funds also create employment. In this case, these are "jobs, including those in recreation and related programs, for economically disadvantaged youths during the summer months."¹⁹

The other major recent employment producing programs have been directed by the U.S. Department of Commerce. These have involved public works projects in areas of high unemployment or insufficient economic growth. The most employment oriented of these was the *Job Opportunities* program,²⁰ a 1974 recession measure formulated as a temporary means of reducing unemployment.²¹ The appropriated funds have been used by the Commerce Department and 16 other Federal agencies. Final reports on employment creation are not yet available, but probably about 2,250 jobs were created in Puerto Rico under this program in 1976.²² The

principal administering agency on the island has been the Department of Health, Education and Welfare, followed by the Departments of Commerce and Interior, and the Community Service Administration. The last and final appropriation was made in 1976.²³

Two other public works employment programs impacting on Puerto Rico are the *Economic Development-Public Works Impact Projects* (PWIP) program, and the *Local Public Works Capital Development and Investment* (LPW) program. Both are designed to provide immediate work for the unemployed through the construction or renovation of public facilities. In the PWIP program, the Federal Government provides grants for up to 80 percent of project costs, requiring that work be started within 90 days of grant approval, and completed within a year.²⁴ The Local Public Works (LPW) program, whose authorization ended on December 31, 1978, permitted up to 100 percent Federal financing of project costs also with a 90 day start-up requirement.²⁵

These 90-day restrictions are indicative of the Congressional intent to rapidly create jobs in high unemployment areas. Just how much employment was generated under these programs in Puerto Rico is unknown. The Local Public Works program began nationally only in FY 1977. Preliminary Puerto Rico Planning Board data show that only about one-fifth of approved funds were received during that year. After these appropriations have been spent, the lasting effect may be only minimal. They are only structured to deal with temporary unemployment and do not appear to adhere closely to the idea:

... that Federal financial assistance . . . in areas needing development should enable such areas to help themselves achieve lasting improvement and enhance the domestic prosperity by the establishment of stable and diversified local economies and improved local conditions . . . (and that) such assistance is preceded by and consistent with sound, long range economic planning.

...²⁶

In some cases the programs provide valuable on-the-job training. But it is doubtful whether they contribute significantly to regional development, to high priority public works, or to significantly lowering Puerto Rico's chronically high unemployment level.²⁷

¹⁶ Title II funds can be used to finance Title I activities, including training, but all Title II funds in Puerto Rico have been used for public service employment.

¹⁷ Source: Employment and Training Administration (ETA), U.S. Department of Labor.

¹⁸ *Ibid.*

¹⁹ The Comprehensive Employment and Training Act, sec. 304 (a)(3).

²⁰ A detailed analysis of this program, and other public works programs in this section, can be found in the section entitled "Department of Commerce" in chapter VI of this report. For that reason, no legal citations to this and the following specific programs will be given.

²¹ 1978 U.S. Budget Appendix, p. 197.

²² This assumption is based on the amount expended in the Commonwealth, divided by the expected national average cost per job of \$5,000. 1977 U.S. Budget, p. 124; U.S. Department of Commerce, 1976 Annual Report, Economic Development Administration, p. 9.

²³ 1978 U.S. Budget, p. 152.

²⁴ 1976 EDA Annual Report, op. cit., p. 7.

²⁵ 13 CFR 316, 4-5, 316.10.

²⁶ Public Works and Economic Development Act, as amended, Public Law 89-136, section 2.

²⁷ The Ford Administration had some doubts about their national effectiveness. "The Administration believes that the job opportunities program and the local public works program are inappropriate means of stimulating increased employment. The jobs created are temporary in nature and the projects and services provided are not necessarily those that are high on the list of priorities of the ordinary citizen." (1978 U.S. Budget, p. 139.) The Carter Administration declined to provide additional funding for these two programs, although increases were recommended for the most established Commerce Department public works activities (1979 U.S. Budget, pp. 154, 157-58.)

The public works programs more conducive to achieving such ends are discussed in the later section of this chapter which deals with Puerto Rico's investment needs.

Summary

None of the unemployment reducing programs can be credited with having had a major impact in Puerto Rico. In the 1970-77 period they probably helped prevent the unemployment situation from becoming worse. Some training and public works efforts were also contributed. Still, the unemployment problem not only remained in Puerto Rico, it worsened. The average rate of total employment rose from 675,000 at the start of 1970 to 775,000 in 1974, and then declined to 739,000 in 1977.²⁸

The net gain of 64,000 jobs is inadequate. The labor force grew by almost three times that amount, and the population increased by over one-half million. In 1977, the Puerto Rican Government estimated that 286,000 new jobs must be created by 1985 simply to attain a 12-percent unemployment rate.²⁹ It realizes that some Federal activities, like the WIN program, are not destined to be of much help in meeting this goal:

In a labor-surplus economy such as that of Puerto Rico . . . this (Work Incentive program) is ineffecutal. Without a job market to absorb program participants at the end of the line, there is only a short-term incentive to become a WIN trainee.³⁰

The lack of a job market is the key consideration—the one which restricts the effectiveness of most Federal unemployment programs in Puerto Rico.

Training persons for nonexistent positions will not provide rich rewards. The island may benefit more from Federal efforts to upgrade work skills. In addition, a better linking of job opportunity and existing training programs is needed. The longstanding Special Incentive Program, administered by the Puerto Rico Economic Development Administration (FOMENTO) and the Industrial Development Company (PRIDCO), represents a more appropriate approach. It permits industrialists to partially defray startup costs by providing grants for training purposes. It is designed to train workers specifically for new factories opening on the island.

Some CETA sponsored on-the-job training also results in the acquisition of specific useful skills. Without enough new or expanded operations in the private sector, however, the benefits from training programs will be limited, and the counseling and

other services will do little to place persons in permanent jobs.

The net gain of 64,000 new jobs between 1970 and 1977 is not made up of all permanent jobs. Some are financed under Federal temporary employment programs. Others, especially in the construction industry, are supported by other Federal grants and loans. The specific contribution of these programs is impossible to measure, but the costs are quite tangible. The relevant programs had a 1970-77 price tag of \$722 million. (See table 3.) Even if all 64,000 new positions were credited to these Federal programs, the cost per job exceeded \$11,000. Viewed from a different perspective and as a very rough measure only, for \$722 million of direct investment, almost three times as many jobs could have been created.³¹ Although private investment dollars and unemployment programs funds are obviously not interchangeable, this contrast is only made to provide a useful background for considering the extent to which these later funds are justified by the resulting benefits.

INCREASING LABOR PRODUCTIVITY

The fact that there is a high level of unemployment in any geographic area, such as in Puerto Rico, does not automatically ensure that investments will be made to take advantage of the attendant labor surplus. A number of other factors will also serve to influence a decision to invest in any such labor surplus area, including the productivity of the labor force itself.

The need for a higher level of labor productivity has been recognized by Puerto Rico as a precondition to its further economic development. For example, the Committee to Study Puerto Rico's Finances stated in 1975 as follows:

People are ultimately Puerto Rico's major resource, but wages have outrun the improvement of labor skill. If the island is to attract enough industries to employ the labor force, labor must be brought up to price by upgrading skills.³²

Because labor productivity can be enhanced by education, a linkage is made in this section between labor productivity and the Puerto Rican education system. It is not presumed that labor pro-

²⁸ Unpublished Puerto Rico Planning Board data.

²⁹ See, *Agenda for a Socio-Economic Study of Puerto Rico, Part Two*, Office of the Governor of Puerto Rico, July, 1977, p. 237.

³⁰ *Ibid.*, p. 20.

³¹ This estimate is based on U.S. National Planning Association (NPA) assumed effects of \$1 million investment attracted through Fomento promotion. NPA estimated that 100 direct and 164 indirect jobs would be created per \$1 million of investment by a foreign source. These may be overstated, but since their employment producing effects of investment by Puerto Rican firms were much higher, the 264 total jobs per \$1 million was used under the assumption that it represented a realistic number. Thus, \$721.97 million would probably have created at least 190,600 direct and indirect jobs. See Dennis and Rafuse, *Tax Exemption and Its Alternatives*, pp. 34-35.

³² The Committee to Study Puerto Rico's Finances, *Report to the Governor*, December 11, 1975, p. 21.

Table 3.—Federal Unemployment Programs in Puerto Rico, (Fiscal Years)

[In thousands of dollars]

Programs	1970	1971	1972	1973	1974	1975	1976	1977
Multipurpose programs:								
Comprehensive Employment and Training Programs	—	—	—	—	38,471	190,324	113,446	158,799
Title I, Manpower Services	—	—	—	—	NA	1 (35,384)	1 (34,442)	1 (40,445)
Title II, Public Employment Programs	—	—	—	—	NA	1 (15,332)	1 (20,323)	NA
Title III, Section 304(a)(3)—Summer Youth Jobs	—	—	—	—	NA	1 (11,342)	1 (12,954)	1 (14,343)
Title VI, Emergency Jobs	—	—	—	—	NA	1 (28,267)	1 (45,727)	NA
Economic Opportunities Program	26	1,271	—	—	—	—	—	—
Manpower Training and Employment Service	—	1,494	7,500	—	—	—	—	—
Operation Mainstream	—	541	266	266	—	—	—	—
Public Services Careers	—	355	1,567	731	13	—	—	—
Unemployment compensation and services:								
Employment Service ²	226	5,013	3,949	3,855	4,078	4,418	13,844	6,054
Unemployment Insurance—Grants to States	282	6,934	18,051	10,811	9,942	18,754	10,548	13,348
Employment training and other services:								
Job Corps	736	864	1,054	2,332	1,400	1,393	1,543	1,654
Job Opportunities in Private Business Sector	1,288	6,359	3,086	1,604	—	—	—	—
MDTA—Institutional Training	3,951	4,834	3,383	3,347	2,552	—	—	—
Migrant and Seasonal Farm Workers	—	—	—	250	290	250	2,997	2,258
National On-The-Job Training	764	4	161	149	—	—	—	—
New Careers	797	—	—	—	—	—	—	—
Older Persons Opportunities and Service	—	—	499	3,002	256	2,840	2,644	2,840
Neighborhood Youth Corps	6,575	11,577	14,443	14,419	—	—	—	—
Work Incentive Program	2,970	555	1,283	2,732	6,123	1,934	12,900	1,099
Work Incentive Program—Child Care—Employment Related Services	128	25	583	—	1,152	1,250	1,153	1,196
Youth Employment and Training Programs	—	—	—	—	—	—	—	528
Job creation programs:								
Job Opportunities—Title X	—	—	—	—	—	—	11,264	—
Local Public Works ³	—	—	—	—	—	—	—	2,085
Public Employment Program	—	—	27,948	10,449	—	—	—	—
Totals	17,743	39,826	84,221	54,337	64,479	121,163	150,340	189,861

¹ Denotes figures from the U.S. Labor Department's Sector Study.

² In the years 1970–74, includes Federal Grants to Placement Services.

³ Includes only funding actually received by Puerto Rico according to unpublished Commonwealth Treasury Department worksheets. Obligations for Federal fiscal year 1977 were \$284,129,000, the effects of which will be felt mostly in 1978 and 1979.

Note: Unless otherwise indicated, all amounts are from the Community Services Administration, *Federal Outlays*.

ductivity depends completely on the workers' prior education, or that enhanced productivity is the only worthy achievement of education. Nor is it presumed that so-called labor productivity is totally dependent on the efficiency of labor itself. Yet, there is an important connection between basic education, subsequent occupational proficiency, and general labor productivity. In an economic analysis of the effect of Federal programs and policies on Puerto Rico, it is useful to determine the value of Federal assistance to the Commonwealth's education system.

Need for Better Trained and Trainable Workers

The critical need for improved occupational skills is self evident. The means for achieving the required capabilities are less clear. Although "vocational training, subsidies for training, and related programs can be reviewed and expanded in socially profitable directions," ³³ special training programs can only produce limited improvements. The lower a population's skill level and capacity to be trained, the lower the chances are that these training programs will turn

out qualified workers such as are required in Puerto Rico's increasingly technical industries.

Furthermore, it is generally accepted that on-the-job training is one of the most effective methods for preparing qualified workers. To provide this training, employers in Puerto Rico are demanding more preparation than is being supplied by special short term programs. Many training program graduates are not being hired in Puerto Rico's labor surplus economy; and some of those who do obtain employment following such training are poorly prepared to benefit from subsequent on-the-job training. Both groups lack what the economy needs—a high level of trainability.

Trainability rests heavily on a solid fundamental educational background. A growing awareness in many States that school systems often fail to provide such backgrounds is being joined by an increasing realization that compensatory training courses do not adequately bridge the educational gap. Those being trained are not sufficiently trainable, and thus are not becoming employable.

This mainland problem is magnified in Puerto Rico where short term courses are even less effective. Most Federal training programs are "... for eco-

³³ *Ibid.*, p. 23.

nominically disadvantaged, unemployed, and underemployed persons . . ."³⁴ Even though the most unemployable are not always selected,³⁵ this concentration on the working-age unemployed is often similar to closing the barn door after the horses have escaped. Too many of the unemployed in Puerto Rico either left school after only a few years, or simply receive a poor education. They lack the fundamental educational backgrounds needed to adequately profit from short term remedial training.

Only substantial improvements in Puerto Rico's school system will ultimately increase the trainability of the unemployed and, more importantly, upgrade the on-the-job trainability and skills of the broad population. Education systems can only be strengthened slowly, and the effects of the better schools on reducing unemployment and increasing labor productivity are even longer in coming. Unfortunately, there are no short term solutions. A longer term emphasis is required.

Labor productivity depends on more than education. Indeed, what is called labor productivity depends on more than labor. This ratio of output to a specific labor input cannot be separated from associated capital investments and technological advancements.

Still, given standard amounts of all factors of production, costs can be significantly affected by differing workers' skill levels and attitudes. In areas where the productivity of labor is low per se, wages and skill requirements also tend to be low.

Maintaining unit labor cost levels or moderating these cost increases relative to competing offisland industries is important to the long term competitiveness of the island's industrial base. Nevertheless, the more technologically advanced companies also require higher skill levels to operate. If wages continue rising—the Federal minimum wage legislation provides a constant boost in this direction—and if the more sophisticated industries are to satisfy their manpower needs,³⁶ labor productivity needs to be increased.

Over the longrun, improved education will help

raise this productivity.³⁷ A better educated, and more easily trainable, population should also be attractive to potential investors on the island. Economic rewards for Federal and Commonwealth investments in elementary, secondary, vocational, and technical education can be substantial.

Need to Improve Puerto Rico's Education System

Education is the largest single item in the Commonwealth's budget, accounting for 26 to 33 percent of all funds over the years 1974 to 1977.³⁸ Yet, the budgetary base is relatively small and per student expenditures are correspondingly low. They are so low that the Puerto Rican Government has been unable to supply the ". . . buildings, equipment, materials, books, teachers, and other personnel necessary (to maintain an adequate educational system)."³⁹

In 1977, per student expenditures for public elementary and secondary schools in Puerto Rico were \$694. This amount is approximately one-third of the expenditure level of \$1,740 for public elementary and secondary education in the United States as whole.⁴⁰ Of the \$694 expenditure, over 22 percent came from Federal funds. In the average State, the Federal Government supplies about 10 percent of the public educational expenditures.⁴¹

Despite receiving a greater percentage of Federal assistance than the average State, per student outlays in Puerto Rico lag behind the poorer States on the mainland.⁴² At the same time, the Commonwealth's educational needs are greater than those of the mainland.

- Only about . . . 56 cents per child has been spent annually on instructional materials over

³⁷ Labor productivity growth has been declining since 1960. "The annual rate of growth in output per employee has averaged 2.4 percent in the 1970's as compared to 6.3 percent in the 1950's." (*Agenda for a Socio-Economic Study of Puerto Rico, Part Two*, op. cit., p. 245.) These figures are based on GNP per employee, not GDP. Furthermore, this is an excessively rough measurement for the productivity of the labor component of labor productivity. It is impossible to precisely calculate the trends in the efficiency of labor per se.

³⁸ See, table 11, chapter II, p. 173. The cultural element in the functional category of "Education and Culture" for "Social Development" is quite small. In 1977, expenditures on cultural activities represented only a little over one percent of this category. Source: Institute of Puerto Rican Culture (*Budget in Brief for 1978*, pp. 52-54.)

³⁹ *Agenda for a Socio-Economic Study of Puerto Rico, Part Two*, op. cit., p. 47.

⁴⁰ Source: Office of Estimates, National Center for Educational Statistics.

⁴¹ Oficina del Gobernador, *Presupuesto para el Año Fiscal 1978*, Tomo I, Section 43, pp. 4-6; U.S. Department of Commerce, *Statistical Abstract of the United States, 1977* (U.S. Government Printing Office, 1977), pp. 129, 131.

⁴² Using roughly equivalent data, some comparisons can be made between Commonwealth Government expenditures and those of State and local governments in the United States. (The Commonwealth Government is the sole source of public education funds in Puerto Rico.) For 1976, the Puerto Rican Government's expenditures—excluding Federal funds—for elementary and secondary education amounted to \$438 per student. In Alabama and Mississippi, per student non-Federal funding of local schools were \$581 and \$502. (Department of Commerce, *Governmental Finances in 1975-76*, pp. 52-57; *Statistical Abstract of U.S.*, p. 127.)

³⁴ Comprehensive Training and Employment Act of 1973, Public Law 93-203, sec. 2.301(a).

³⁵ CETA programs are supposed to be aimed at the chronically unemployed. A commission studying the problems of older persons recently claimed, however, that "program administrators are encouraged . . . to reach certain numerical goals in putting unemployed to work. So naturally (they) use the cream of the applicants—those who are job-ready, and screen out those in need of services who face serious employment barriers." ("Rights Panel: U.S. Bias Hurts Aged," *Washington Star*, January 10, 1978, p. 1.) This may be at least partially correct, but the programs themselves are still far from involving the "cream" of the unemployed.

³⁶ An indication of the increasing sophistication of the Puerto Rican economy is the high correlation in the 1975-77 period between education levels and employability. (1977 *Informe Económico al Gobernador*, p. 29.)

the past years in the Puerto Rican public schools.⁴³

- An estimated 4,950 new classrooms and other structures need to be constructed by 1981 just to enable Puerto Rican students to have full 6-hour school days.⁴⁴
- Natural illiterates make up about 10 percent of the over 13-year-old population; functional illiterates constitute another 5 percent.⁴⁵
- The median educational level for Puerto Ricans only reached 8.6 years in 1976.⁴⁶

Higher education on the island also has problems. The University of Puerto Rico's student enrollment jumped from 38,000 to 51,000 in the 1970-76 period. Private college student rolls grew from 19,000 to 54,000 over the same 7 years.⁴⁷ This quantitative progress is accompanied by two major qualitative concerns: (1) the difficulties in maintaining adequate facilities, programs, and staff to cope with the enrollment explosion; and (2) the tendency of students to select academic majors for which the Puerto Rican economy has little need.

Per student expenditures on public higher education exceed the funding for public elementary and secondary students. Whereas Puerto Rican expenditures for public and secondary education were only one-third of the national average, budgetary support for each University of Puerto Rico (UPR) student is about three-fourths of the per student rate for public universities on the mainland.⁴⁸ For 1977 and 1978, the Commonwealth Government's budget for UPR is more than one-third the size of the entire Department of Education budget which covers 14 times as many students.⁴⁹

Briefly then, the above-described is the educational situation on all levels in Puerto Rico. It is in relation to these conditions that the value of Federal assistance must be measured.

⁴³ Sector study, "Social Conditions and Human Services," U.S. Department of Health, Education, and Welfare. The same figure was cited in "Lion's Share of Budget Fails to Uplift Education," *San Juan Star*, December 14, 1977, p. 1. In 1976, the Puerto Rican Department of Education spent \$2,393,054 for "production and purchase of textbooks and educational material," or \$3.37 per pupil. But since there were translation costs, materials for teachers, and other expenses, it may well be that only \$0.56 was ultimately expended for materials for students. (1978 *Presupuesto*, op. cit., Sección 43, p. 47.)

⁴⁴ *Agenda for a Socio-Economic Study of Puerto Rico, Part Two*, op. cit., p. 50.

⁴⁵ *Agenda for a Socio-Economic Study of Puerto Rico, Part Two*, op. cit., p. 53. Natural illiterates are persons who never learned to read or write.

⁴⁶ 1977 *Informe Económico al Gobernador*, p. 297.

⁴⁷ Sector study, "Social Conditions and Human Services," op. cit.

⁴⁸ In 1976, the Commonwealth Government had disbursements and obligations to the University of Puerto Rico of \$135,414,373 (excluding \$32,115,827 of Federal funding to the UPR). This equals \$2,655 for each of UPR's 51,000 students. In the United States the 1976 estimated public college enrollment was 7,695,000. Estimated non-Federal financing of public institutions of higher education was \$26 billion, or \$3,379 per student. Although the data equivalency (and in the case of U.S. estimates, the data accuracy) are too crude to make fine comparisons, these figures leave UPR per student funding at 78 percent of the U.S. public college level. (1978 *Presupuesto*, Sec. 44, pp. 3-4; 1977 U.S. *Statistical Abstract*, pp. 129, 131.)

⁴⁹ 1978 *Budget in Brief*, p. 53.

Federal Programs to Improve Puerto Rican Education

Federal education programs operating in the Commonwealth have total current annual funding levels of more than \$200 million—well over \$200 for each Puerto Rican student. (See table 4.) Arguments can be made that this funding is insufficient.⁵⁰ The focus of this section though is on the uses of this assistance. The central question which will be addressed is how well the available Federal programs conform to the island's needs in the areas of elementary, secondary, vocational, and higher education.

Federal Assistance to General Elementary and Secondary Education.—Federal funding for elementary and secondary education is low in Puerto Rico. Funding also seems to be particularly scarce in the areas of greatest need.

In 1976, HEW elementary and secondary education programs (excluding vocational education) accounted for approximately 49 percent of all HEW education funding on a national basis.⁵¹ In Puerto Rico in the same year, the equivalent figure was 43 percent.⁵²

Only a little over 40 percent of Federal education funds in Puerto Rico are directed to the elementary and secondary levels. This occurs for two principal reasons: (1) less than one-half of available Federal funds are designed for general elementary and secondary education purposes; and (2) Puerto Rico does not fully share in the largest set of Federal programs, those for educationally deprived children. With the large number of low income students on the island, Puerto Rico would receive more grants for educationally deprived student programs if it were not subject to a special allotment formula⁵³ for these programs.⁵⁴

Programs for educationally deprived students on

⁵⁰ In November 1977, Puerto Rico's Secretary of Education argued in particular for the need for more Federal assistance for the Commonwealth's public schools. Testifying before the U.S. House Subcommittee of Elementary, Secondary and Vocational Education, Mr. Chardon emphasized the need to change present Federal formulae to enable Puerto Rico to receive additional financial assistance.

⁵¹ *Special Analyses, Budget of the U.S., Fiscal Year 1978*, pp. 174-176.

⁵² These and other Federal funds distribution calculations are based on the data in table 4, chapter III. Because some minor programs are not included in that table, and because of possible inaccuracies in the Community Services Administration data (see appendix 1), these calculations should be treated as essentially correct but still rough estimates.

⁵³ In the States, per pupil expenditures cannot fall below 80 percent of the U.S. average. In the Puerto Rican formula, there is no such floor. Furthermore, Congress cut the formula amounts to Puerto Rico by 50 percent in 1975, and 25 percent in 1976-78. The island will receive its special formula share in 1979, but this may still not provide the same funding as would State-like treatment. (20 U.S.C.A. 241c (a) (2), (a) (3) (C).)

⁵⁴ A detailed analysis of Federal education programs referenced in this section can be found in the section entitled "Department of Health, Education, and Welfare" which appears in chapter VI of this report. For that reason, no legal citations to this and the following specific programs will be given.

Table 4.—Federal Programs for General Education in Puerto Rico,¹ (Fiscal Years)

[In thousands of dollars]

Education programs	1970	1971	1972	1973	1974	1975	1976	1977
HIGHER EDUCATION, GENERAL								
Student financial assistance and related programs:								
Cuban Education—Student Loans		[145]	[147]	[99]	[77]	[17]		
Supplemental Education Opportunity Grants	1,348	2,119	1,386	2,436	2,936	4,083	3,832	3,725
Higher Education Act Insured Loans (Guaranteed Student Loans)		[92]	[180]	[388]	[868]	[3,078]	[1,676]	[2,503]
Higher Education Work-Study	743	2,365	2,028	3,448	4,894	5,679	6,981	6,231
National Direct Student Loans	[1,052]	[1,066]	[1,890]	[4,133]	[2,310]	[2,896]	[2,971]	[3,370]
Special Services for Disadvantaged Students	277	125	64	205	625	658	88	1,204
Talent Search		64	157	225	110	110	29	157
Upward Bound		150	160	353	341	386	100	351
Basic Educational Opportunity Grant Programs					14,179	12,765	55,472	98,258
Higher Education—Veterans' Cost Of Instruction Program (VA)				206	210			152
Grants to States for Student Incentives							360	550
Veterans Educational Assistance (VA)	8,242	13,589	16,562	27,964	35,090	45,292	54,962	28,755
Dependents Educational Assistance (VA)	923	1,453	1,915	2,671	3,073	4,822	5,352	5,362
Subtotal—Loans	[1,144]	[1,391]	[2,425]	[5,100]	[5,465]	[4,589]	[5,474]	[5,214]
Subtotal—Grants	11,533	19,863	22,272	37,510	61,458	73,795	127,176	145,746
Assistance to institutions:								
College Library Resources	74	198	285	110	89			104
Higher Education—Land Grant Colleges and Universities	256	229	229	225	218	218	218	245
Higher Education—Strengthening Developing Institutions	552	575	678	700	1,255	1,315	1,185	1,616
Higher Education Academic Facilities Construction— Interest Subsidization	861	272	286	485			305	349
Higher Education Academic Facilities—Public Community Colleges and Technical Institutes			151			472		
Higher Education Personnel Development— Institutes, Short-term Training and Special Projects	123			165				
Teacher Corps—Operations and Training	52	254	766	82	809		404	218
University Community Service—Grants to States	62	81	80	30	123	10	98	98
Higher Education—Cooperative Education			20	95	158	110	108	111
Higher Education Instructional Equipment		60	107		121		86	70
Subtotal	1,980	1,669	2,602	1,892	2,773	2,125	2,404	2,811
Total—Higher Education:								
Loans	[1,144]	[1,391]	[2,425]	[5,100]	[5,465]	[4,589]	[5,474]	[5,214]
Grants	13,513	21,532	24,874	39,402	64,231	75,920	129,580	147,557
ELEMENTARY AND SECONDARY EDUCATION								
General Programs:								
Educationally Deprived Children—Local Educational Agencies						227,367	236,873	47,004
Elementary and Secondary—Educationally Deprived Children	23,608	821				516	676	489
Educationally Deprived Children—Migrants Educationally Deprived Children— State Administration			272	289	315	291	388	563
Preschool, Elementary and Secondary Personnel Development—Grants to States		625						
Personnel Development Programs		248						
State Grants—Education Professional Development	418	250	110					
School Assistance in Federally Affected Areas— Maintenance and Operation	7,071	404	616	489	467	363	1,139	12,365
School Library Resources, Textbooks, and Other Instructional Materials		1,635	1,842	1,847	1,828	1,440	695	
Strengthening Instruction Through Equipment and Minor Remodeling	422	671	605	19	417	279	132	
Strengthening State Departments of Education— Grants to States	265	265	321	327	345	553	314	
Libraries and Learning Resources	846	1,635	1,842				1,113	
Educational Personnel Development— Urban/Rural School Development						182	160	
Subtotal	32,630	6,554	5,608	2,971	3,372	30,991	41,490	60,421
Special Programs and Innovative Projects:								
Bilingual Education		105	88	85	406	556	2459	2491
Educational Classroom Personnel Training— Bilingual Education				420				
Educationally Deprived Children—Handicapped			359	524	571	571	571	630
Educationally Deprived Children in State Administered Institutions Serving Neglected or Delinquent Children			329	491	654	654	654	1,073
Follow Through		897	6	543	622	90	743	743
Handicapped Early Childhood Assistance					60	129		
Handicapped Preschool and School Programs	569		652	652	728	546	1,063	374
Handicapped Personnel Preparation	199		239	393	394	250	700	299

Table 4.—Federal Programs for General Education in Puerto Rico,¹ (Fiscal Years)—Con.

[In thousands of dollars]

	1970	1971	1972	1973	1974	1975	1976	1977
Special Programs and Innovative Projects: Con.								
Preschool, Elementary and Secondary Education—								
Special Programs and Projects					439			
Supplemental Education Centers—Special Projects			420			243	127	
Supplementary Educational Centers and Services,								
Guidance, Counseling and Testing	2,584	3,069	2,712	2,706	2,706	1,525	994	
Special Programs for Children with Specific								
Learning Disabilities			125			128		130
Emergency School Aid Act—Educational Television							*731	
Emergency School Aid Act—Special Programs				428	1,500	986		1,130
Right to Read—Elimination of Illiteracy					35	101		91
Educational Innovation and Support							1,401	
Child Development—Head Start (HEW Office of								
Human Development)	7,779	6,710	5,095	4,958		15,852	15,659	16,562
Subtotal	11,131	10,781	10,025	11,173	8,115	21,631	23,102	21,523
Total—Elementary and Secondary Education	43,761	17,335	15,633	14,144	11,487	52,622	64,592	81,944
VOCATIONAL EDUCATION*								
Basic Grants to States	6,136		6,942	6,489	6,724	6,716	6,631	6,059
Consumer and Homemaking	278	395	463	433	505	565	643	545
Cooperative Education	381	252	531	536	536	536	536	402
Research	372	332	326	152	270	259	*259	214
Special Needs			362	338	326	314	314	266
State Advisory Councils		37	44	42	59	65	65	74
Work Study		92	98	90	114	136	136	101
Innovation	177	268	495	397	497	497	*440	385
Personnel—State Systems Program		15	30	65	162		*182	
Vocational and Adult Education—Research								
(Special Projects)			444					
Total—Vocational Educational	7,344	1,391	9,735	8,542	9,193	9,088	9,206	8,046
OTHER PROGRAMS								
Cooperative Extension Services (Ag. Dept.)	3,070	3,550	3,812	3,937	4,012	4,209	4,499	4,438
Adult Education—Grants to States	648	6,671	787	984	821	1,037		*1,200
Adult Education—Special Projects		300	30	198				
Construction of Public Libraries	77	123	132	24		228		
Educational Broadcasting Facilities					395			
Library Services—Grants for Public Libraries	523	484	674	456			692	837
Total—Other Programs	4,318	11,128	5,435	5,599	5,228	5,474	5,191	6,475
Grand Total—All Education Programs:								
Loans	[1,144]	[1,391]	[2,425]	[5,100]	[5,465]	[4,589]	[5,474]	[5,214]
Grants	68,936	51,386	55,677	67,687	90,139	143,104	208,569	244,022

¹ These general education activities exclude programs which are primarily for medical education. Also excluded are programs from which Puerto Rico did not receive over \$200,000 in total payments in the 1970-77 period. Unless otherwise indicated, programs are those of the Office of Education of HEW.

² Figures supplied by HEW's Office of Education. For 1975, no amount was listed in the *Federal Outlay Book*. For 1976, the *Federal Outlay Book* erroneously printed \$368,873,000.

³ See source.

⁴ Amount listed in "Social Conditions and Human Services Programs in Puerto Rico," prepared by HEW for the interagency study on the Puerto Rican economy, first draft, March 1978, p. 115.

Official titles of all program in this section begin with the term, Vocational Education (e.g., Vocational Education—Basic Grants to States).

⁵ Same source as ⁴, p. 117.

Source: Community Services Administration, *Federal Outlays in Territories & Other Areas Administered by the U.S.* (annual publication), unless noted by ¹. When the validity of the *Federal Outlays* figures for 1976 were in doubt, data were used from the *Federal Regional Council—Region II, Budget Book 1978*. When such an exception is made, an ¹ indicates that the figure is from the *Budget Book 1978*. For three programs, data from HEW were used. These are discussed under footnotes ², ⁴, and ⁵.

the mainland might be considered as special programs, ones designed for particular groups or purposes rather than for general education. With Puerto Rico's income level, these programs can be used essentially for general educational activities. Limitations on funding for these programs are thus particularly unfortunate. A basic problem with Federal aid to elementary and secondary education in the Commonwealth is therefore that in the 1970-77 period, more funds flowed to special programs and innovation projects than to general education. (See table 4.)

The deficiencies in Puerto Rico's public schools are general in nature. Although innovations can sometimes be useful, and programs for special groups can be beneficial, what the Commonwealth

needs most is money for basic educational functions. Federal funds which are ultimately used for classroom instruction and direct support functions seem to be discouragingly small. This is probably a reflection of mainland needs, where it is presumed that State and local governments in all but the lowest income areas can adequately support the fundamental school operations. Because of the clash between this assumption and the reality of Puerto Rican financial capabilities, the limited Federal funds which are available in this area are not being utilized with optimum effectiveness.

Federal Assistance to Vocational Education.—With vocational education, the chief problems can be

rapidly summarized as follows: not enough students, not enough first-rate facilities and equipment, and not enough money.

The number of students in vocational and technical programs in Puerto Rico grew by less than 5,000 between the academic years 1970-71 to 1975-76, with the latter figure being lower than in 1972-73.⁵⁵ In total, almost 187,000 persons are enrolled in what are called employment-vocational and technical programs. This would be more than an ample number of trainees if they were all in long term vocational education programs. The only requirement for being among this 187,000, however, is to take a single vocational education course. (See table 5.)

Table 5.—Vocational and Technical Programs of the Puerto Rican Department of Education: FY 1976

[In thousands of dollars]

Function	Commonwealth budget	Federal contribution	Number of students
Administration	435	3,604	—
Industrial vocational education (offices and industries)	5,113	2,152	20,231
Health related occupations education	352	—	2,123
Technical institute courses	1,583	1,443	4,001
Industrial arts courses	5,194	—	55,305
Agricultural programs	1,274	818	8,255
Homemaking courses	6,432	603	64,873
Commercial education	2,616	761	18,660
Marketing education	435	152	11,686
Veterans' instruction and training	—	689	1,472
Total	23,434	10,222	186,604

¹ The \$9,206 listed for vocational education in table 3.4 was calculated on an obligation basis; the \$10,222 is calculated on a receipt basis. See appendix A for more details on data comparability.

Source: Estado Libre de Puerto Rico, *Presupuesto Para el Año Fiscal 1976*, Tomo I, Sección 43, pp. 4-7, 20-30.

In view of the island's need for skilled manpower, it is doubtful that there are enough students specializing in vocational education in the island's 124 schools and centers with occupational facilities. In addition, over one-third of these facilities are reportedly in need of major repairs, and much of the equipment is obsolete.⁵⁶ The bottom line issue again is money. In 1976, the Commonwealth's Department of Education devoted less than 8 percent of its own funds to vocational education,⁵⁷ and Federal programs—although apparently well designed—did not contain enough funding to close the financing gap.

Federal Assistance to Puerto Rican Higher Education.—In the 1970-77 period, over 96 percent of

Federal grants for higher education, plus all loans for educational purposes, were used for direct student financial assistance and related programs. Over these seven years, only \$18 million was used to assist the universities which are attended by the federally aided students.

These data are possibly imprecise, but the distribution pattern is dramatically evident. Despite the value of aiding college students, the Puerto Rican private and public sectors have to increasingly devote scarce resources to finance higher education expenses not covered by student fees and tuitions.

These Puerto Rican funds are well spent if the university students are receiving high quality education, and if the related training corresponds to the island's occupational needs. On both counts, however, there is some room for doubt. The University of Puerto Rico has recently taken steps to adapt to the increasing demand for more technically trained graduates.⁵⁸ It has still been difficult, however, for the Commonwealth's universities to provide high quality and appropriate kinds of instruction, and possible difficulties in these areas need to be fully assessed before the value of existing Federal programs can be accurately determined.

Summary.—Federal education programs help alleviate many deficiencies in the Commonwealth's education system. In some areas where Puerto Rican financial resources are specially thin, Federal funds can be critically important. A few programs—such as Headstart and Education for Migrants' Children—might not even exist without Federal backing.

Federal education programs require few repayments or matching funds. Over 96 percent of the programs are of a grants-in-aid or similar direct payments nature, and matching requirements are exceptionally low. Over one-half of the programs have no matching stipulations. Many others call for only small cash or in-kind contributions.

Matching requirements are the highest in the vocational education programs. Depending upon the exact nature of the necessary matching requirements (50 percent for most of the vocational programs), such Puerto Rican payment requirements may reduce the Commonwealth's ability to obtain Federal funds in the vocational area. Conversely, if matching funds are to be spent on equipment, facilities, and other points of obvious need, these matching requirements may actually be beneficial.

The fundamental problem with Federal education

⁵⁵ 1977 *Informe Económico al Gobernador*, pp. 298-299. See also, *Agenda for a Socio-Economic Study of Puerto Rico, Part Two*, op. cit., p. 86.

⁵⁶ *Ibid.*, pp. 80-82.

⁵⁷ Estado Libre de Puerto Rico, *Presupuesto para el Año Fiscal 1976*, Tomo I, Sección 43, pp. 4-7, 20-30.

⁵⁸ The University of Puerto Rico's President announced in 1976 "... the creation of five new Bachelor of Arts programs at the Humacao campus, including Chemical Engineering, English, and Marine Biology." UPR has also introduced "... an Associate Arts Degree at Arecibo in Chemistry and Engineering in conjunction with laboratory training and opportunities at private industrial sites nearby." ("University Keeps Growing to Meet Island Needs," *Puerto Rican Business Review*, September 15, 1976, pp. 6-7.)

programs does not relate to the magnitude of the funding, although it could be greater, or to the financial conditions attached to that funding's flow. The chief difficulty lies with the program selection. While Puerto Rico is still struggling to supply the basics, too many Federal programs provide educational extras. The relatively small allocations to central educational functions on the primary and secondary levels are a manifestation of this program selection problem. This problem is also indicated by the massive financial assistance to university students without compensatory assistance to the institutions that serve them.

Most Federal programs are not designed to assist the Puerto Ricans with their most essential needs. It is not expected that Federal programs alone can solve Puerto Rico's educational problems. The more that Federal funds are directed to the most basic educational needs, however, the more they will assist the Commonwealth in preparing the better trained and trainable graduates required in its economy.

INCREASING CAPITAL INVESTMENT

Economic development in Puerto Rico depends, as it does in any national or subnational jurisdiction, on the availability of (1) an adequate supply of manpower, (2) a relatively high level of labor productivity, (3) an adequate amount of technological innovation, and (4) capital investment. Of all of these factors which are necessary for development, capital formation⁵⁹ may be regarded as probably the most important.

The analysis in the preceding two sections of this chapter discussed Federal programs and policies and their effect on two of the critical factors impeding Puerto Rico's economic development, namely unemployment and low levels of labor productivity. In a similar fashion, this section analyzes the effect of Federal programs and policies on a third factor which impedes Puerto Rican development, namely an inadequate supply of investment capital.

This section first focuses briefly on why capital formation is so important to Puerto Rico and why the present levels of capital investment in the Commonwealth are inadequate.⁶⁰ An analysis is then made of why the Federal Government has been limited in its ability, through programs providing loans

and grants for investment projects, to assist the Commonwealth in overcoming the problem of an inadequate level of investment.

General Nature of Capital Investment Needs in Puerto Rico

Since the inception of the "Bootstrap" economic transformation of Puerto Rico in the late 1940's, and continuing through to the beginning of the 1970's, the level of economic growth in the Commonwealth was quite high. Since the beginning of the 1970's, however, the rate of economic growth has slackened. Part of the reason for this has been the decline in the real rate of investment in Puerto Rico.

There are several ways to analyze the adequacy of capital investments necessary for fostering continued economic development in Puerto Rico. The first way is to merely compare the changes in various measurements of investments. An overview of the relevant data for these measurements shows that (1) gross domestic investment, measured in constant 1954 prices, consistently fell from \$1,038 million in 1972 to \$639 million in 1977, a drop of 62 percent; and (2) gross fixed investment grew slowly from 1970 to 1975, dropped sharply in 1976, and fell below the 1970 level in 1977. (See tables 6 and 7.)

A second way to analyze adequacy of capital investment is to look at the ratio of investment to Gross National Product. The constancy or annual changes in this percentage can then be compared to show relative annual performance. A corollary of this procedure is to compare the resulting ratio for Puerto Rico with the ratio for other "countries" in a similar stage of economic development, such as those countries which are classified by the World Bank as "upper middle income."⁶¹

Although the GNP has been increasing in Puerto Rico in recent years, it has only barely been keeping pace with the expanding population. During the 1970-77 period, per capita GNP rose from \$1,729 to \$2,391, or a dollar rise of \$662. Most of the increase, however, reflects inflation since the constant dollar per capita rise was only \$16.⁶² Taking the figures for investment and GNP in Puerto Rico, in-

⁵⁹ The World Bank classified 34 countries as being in the "upper middle income" group (which excludes capital surplus oil exporters). In these countries the 1975 GNP per capita exceeded \$1,075. International Bank for Reconstruction and Development, *World Economic and Social Indicators*, Report No. 700/77/05 (July, 1977), p. 17; Sources and Notes, pp. 2-6.

⁶² Constant dollars or "constant value" refers to a national income/account adjusted for price changes. What remains is a dollar measure that changes only because of changes in the quantities of goods and services. If, for example, constant value GNP increases, the quantity of goods and services produced by the economy has increased. (*Economics 73/74 Encyclopedia*, p. 41.) In this report, 1954 is used as the index year. Except for constant dollar gross domestic product figures, which were deflated by using implicit price deflators of the Puerto Rican Planning Board, all calculations were done by the Planning Board.

⁶⁰ "Capital formation—the creation of transportation, communications, and power facilities, the construction of factories, the acquisition of machines, tools and other instruments of production . . ." Franklin R. Root, *International Trade and Investment: Theory, Policy, Enterprise*. South-Western Publishing Co., Cincinnati, Ohio, 1973, 3rd ed., p. 413.

⁶¹ The discussion of capital investment in this section is not designed to be in-depth. The reason is that the issue of capital investment is dealt with in detail in other areas of the Interagency Study. For any reader who is interested in this issue in detail, see Part One, *General Economic Assessment*, and Part Two, the sector study entitled "Industrial Development."

Table 6.—Gross Domestic Investment in Puerto Rico

[In millions of dollars and percentage distributions]

	1950	1960	1970	1971	1972	1973	1974	1975	1976	1977
Domestic product:										
Gross domestic product	724	1,692	5,035	5,679	6,334	7,030	7,759	8,208	8,876	9,717
Gross domestic product in 1954 dollars	844	1,432	3,116	3,325	3,556	3,869	3,987	3,939	4,130	4,413
Gross national product	755	1,676	4,687	5,253	5,727	6,270	6,798	7,136	7,438	7,914
Gross national product in 1954 dollars	879	1,473	2,901	3,076	3,216	3,450	3,494	3,425	3,462	3,594
Domestic investment:										
Total investment	111	397	1,452	1,708	1,862	1,791	1,826	2,116	2,061	1,600
Total investment in 1954 dollars	127	336	902	1,013	1,038	1,015	817	861	842	639
Investment related to domestic product:										
Investment as a percentage of GDP	15	23	29	30	29	25	24	26	23	16
Investment in 1954 dollars as a percentage of GDP	15	23	29	30	29	26	20	22	20	14
Investment as a percentage of GNP	15	24	31	33	33	29	27	30	28	20
Investment in 1954 dollars as a percentage of GNP	15	23	29	30	29	26	20	22	20	14
Investment in "Upper Middle Income Countries" as a percentage of GNP	NA	NA	24	24	25	25	25	25	NA	NA

Source: Planning Board, 1977 *Informe Económico al Gobernador*, pp. A-2, A-3, A-4, A-22; Planning Board, *Puerto Rico Income and Product 1975*, pp. 6-7; Planning Board, unpublished data from Bureau of Social Accounts and Censuses; International Bank for Reconstruction and Development, *World Economic and Social Indicators*, Report No. 700/77/05 (July 1977), p. 17.

vestment as a percentage of GNP has fluctuated between a high of 33 percent in 1971 and a low of 20 percent in 1977. Even though the Puerto Rican figures slightly exceeded the average percentage for "upper middle income" countries for the years 1970 to 1975 (the years for which data are available), the percentage rate in Puerto Rico has declined absolutely since 1972.

A third way to analyze adequacy of capital investment, in a way which relates investment more directly to production capability, is to relate such investment to the Commonwealth's Gross Domestic Product (GDP).⁶² GDP, which represents the value

of all production in Puerto Rico, is larger than GNP. Relative to the larger GDP, investment has been falling since 1971.

Further, there is some evidence that Puerto Rico has recently been suffering from decreasing capital productivity. A detailed discussion of this issue is contained in the General Economic Assessment (GEA) sector study.

The changing composition of investment, with the public sector taking a bigger share of total investment since 1970, may be a cause for the decline in aggregate productivity, particularly given the infrastructure orientation of this investment. (See table

⁶² "Gross domestic product at market prices is the market value of a country's output (before deductions for capital consumption) attributable to factors of production located in the territory of the given country," or in the case of Puerto Rico, in the given region. "It differs from gross national product by the exclusion of . . . factor income payments (such as interest and dividends) received from the rest of the world," and the inclusion of factor payments sent to the rest of the world. The GDP concept accounts for all production of goods and services within a region, discounting inflows and outflows of factor

payments. (Root, *International Trade and Investment*, op. cit., p. 410.) In the Puerto Rican situation, the net factor income payments are sent to the rest of the world, rather than received from external sources. The difference between the value of production which generates income for residents of Puerto Rico (GNP) ". . . is mainly the remittance of profit and interest to mainland firms and creditors (an outflow) less wages and salaries paid by the Federal Government to Puerto Rican residents (an inflow)." (The Committee to study Puerto Rico's Finances, *Report to the Governor*, December 11, 1975, p. 15.)

Table 7.—Fixed Domestic Investment in Puerto Rico

[In millions of dollars]

	1950	1960	1970	1971	1972	1973	1974	1975	1976	1977
Gross fixed investment	111	355	1,402	1,594	1,761	1,603	1,677	1,913	1,696	1,454
Sources:										
Government and public corporations ¹	59	130	387	474	629	567	661	905	701	571
Private enterprises ²	52	225	1,015	1,120	1,132	1,036	1,016	1,008	995	882
Uses:										
Housing	26	88	349	409	472	467	488	460	396	292
Industrial and Commercial Buildings	34	95	494	577	590	424	568	784	586	401
Governmental Public Works	19	44	146	157	224	226	226	243	225	210
Machinery and Equipment	33	128	413	451	476	486	396	426	489	550
Net fixed investment	74	238	1,036	1,188	1,306	1,106	1,144	1,348	1,091	792
Gross fixed investment in 1954 dollars	128	302	870	941	975	851	786	771	672	567
Sources:										
Government and public corporations	68	112	235	273	337	286	292	348	462	207
Private enterprises	60	190	635	668	638	565	494	423	410	360
Uses:										
Construction	90	198	594	651	680	552	554	560	442	319
Machinery and equipment	38	104	276	289	295	300	232	211	229	247

¹ Does not include 1975-77 investments of Government-owned Puerto Rican Maritime Shipping Authority.

² Includes a \$67.3 million investment in 1975 by the Government-owned Puerto Rican Telephone Authority.

Sources: Planning Board, 1977 *Informe Económico al Gobernador*, pp. A-3, A-12; Planning Board, unpublished data from the Bureau of Social Accounts and Censuses.

7.) The share of total gross fixed investment in the Commonwealth's economy due to the Government and public enterprises rose from 27 percent in 1970 to 39 percent in 1977.⁶⁴ In the shortrun, these investments directly and indirectly increase the island's GNP. Over the longrun, however, the value of goods and services produced will continue to rise only if investment is used to create additional productive capacity. The product of Government investment, excluding public enterprises, is not recorded in the national accounts. Therefore, to some extent the rise in the capital/output ratio is related to this one-sided accounting.

The reduction in real private investment during the 1970's poses a serious threat to Puerto Rico's future productivity. Private enterprises financed 46 percent of all industrial and commercial buildings during those years, and 91 percent of all machinery and equipment.⁶⁵ That they did so at a decreasing rate raises the possibility of fewer new productive facilities in coming years.

Puerto Rico has had to rely on external sources for financing of its investments. Without saving there can be no investment. Internal saving has been inadequate to cover the rate of investment; consequently, the island has depended heavily on external capital, mostly from the U.S. mainland.

As a result of a rising demand for external capital, the net inflow of external capital in the 1970-77 period was over \$12.5 billion—triple the flow of the previous eight-year period (1962-1969). The gross public debt reached \$6.3 billion—quadruple the \$1.5 billion debt existing at the beginning of the decade.⁶⁶

Personal savings in particular have been low or negative for some time. In the last thirty years (1947-1977), personal consumption expenditures exceeded disposable personal income in all but 7 years.⁶⁷ Some Puerto Ricans are saving, but others are consuming so far beyond their means that investors cannot look toward net personal savings as a source of domestic investment capital.

Private business savings have been more positive. Aftertax profits of Puerto Rican corporations (excluding profits of mainland subsidiaries and also of

unincorporated enterprises) were almost \$200 million annually in the mid-1970's.

Unfortunately—from the viewpoint of increasing Puerto Rican private saving—there is little scope for increases in net business savings, precisely because so large a fraction of the aftertax profits of Puerto Rican corporations are already being saved. In 1974, for example, while mainland corporations saved 58 percent of their after-tax profits, Puerto Rican corporations saved 88 percent.⁶⁸

Limited positive business savings, combined with increasing negative personal savings, produce a deficit in total private savings, leaving the public sector—including those of the Commonwealth Government—as the only major source of domestic savings.

When the savings of the public sector are inadequate, as they are in Puerto Rico, they have to be made up for by budget deficits. At times, deficits are desirable in the government sector as stabilization devices; however, when the overall budget deficits are added to low or negative private savings, and combined with an ever increasing need for investment capital, a number of problems are created. Among them are:

- A rising public debt which makes Puerto Rican bonds and loan applications less attractive, raising interest rates demanded by lenders, and limiting the quantity of borrowable funds.
- An increasing drain on government revenues caused by growing debt-servicing requirements.
- An expanding outflow of profits and dividends from previous private sector investments from external sources.
- An inability of local Puerto Rican companies to obtain sufficient financing from local capital sources.⁶⁹

With these problems added to the difficulties brought about by the declining investment rates and the decreasing investment efficiency, the potential for investment assistance by the Federal Government becomes a matter of serious concern.

Federal Government Investment Activities

The bulk of Federal investment in the Commonwealth is made up of long term loans from Federal

⁶⁴ This governmental share consists of investments by the Commonwealth, by the municipalities, and by public corporations.

⁶⁵ 1977 *Informe Económico al Gobernador*, p. A-12.

⁶⁶ *Puerto Rico Income and Product*, preliminary 1977 table 19; 1977 *Informe Económico al Gobernador*, pp. A-15, A-32; 1976 *Informe Económico al Gobernador*, p. A-28; *Puerto Rico Balance of Payments*, preliminary 1977 table 8.

⁶⁷ The positive years were 1952-1955, 1957, 1963, and 1975. (*Puerto Rico Income and Product* 1975, pp. 6-7; 1977 *Informe Económico al Gobernador*, p. A-1.) A more complex accounting method for obtaining annual saving by individuals was employed previously. (*Planning Board, Net Income and Gross Product, Puerto Rico—1940 and 1947-1955*, p. 197.) These calculations, which are no longer published, produced figures which differed somewhat from those obtained by simply subtracting disposable income from personal consumption, but they demonstrated the same negative savings direction.

⁶⁸ Committee to Study Puerto Rico's Finances, *Report*, p. 25.

⁶⁹ As noted by the Commonwealth Government:

... the promotion of local firms ... is handicapped by the fact that internal capital formation is small and these firms do not have easy access to other sources to finance their investment needs ... These restrictions do not affect firms moving into Puerto Rico because they usually bring their own capital and/or they have ready access to U.S. financial sources ... (*An Agenda for a Socio-Economic Study of Puerto Rico, Part Two*, op. cit., pp. 269-270.)

credit agencies. (See table 8.) These loans accounted for about 7 percent of total gross fixed investment on the island in the 1970-77 period. Although the amount of such long term loans to Puerto Rico quintupled during the 1970-77 period, and although the Federal share of total gross investment rose to 11 percent in 1975, 1976, and 1977, gross investment in Puerto Rico during this period rose only 3 percent. Furthermore, the relatively high rate of such Federal investments has not been high enough to prevent a decline in the Commonwealth's net investment rate.

Despite being unable to stem the decrease in the net investment rate, the impact of the Federal Government's long term loans is not insignificant. The lifeblood of Puerto Rico's construction industry, for example, is supplied by Federal dollars. Furthermore, Federal investment amounts expand beyond the above-stated figures if investment type grants-in-aid are added to Federal loans. Yet, most Federal disbursements in Puerto Rico of a grant nature are

not for investment purposes. Their limited investment portion can therefore slow, but not stop, the general investment rate decline, and there is a consequence—a growing dependence on Federal funds adds to Puerto Rico's overall reliance on external financing.

Even though long term loans from Federal credit agencies increased five fold between 1970-1977, on a net basis the adjusted value of Federal credit agency long term loans to Puerto Rico has been declining since 1973. Short term loan repayments to Federal credit agencies exceeded such new loan amounts in all but one year during the 1970-77 period.

The present array of Federal long term loans may be thus increasing, rather than decreasing, the Commonwealth's reliance on external capital. There is some question whether Federal investment funds have promoted sufficient economic development to finance the annual loan repayments which are now running over \$100 million. Current loans may par-

Table 8.—Federal Financing of Capital Improvements in Puerto Rico

[In thousands of dollars]

Programs	1970	1971	1972	1973	1974	1975	1976	1977
BUSINESS DEVELOPMENT								
Department of Agriculture:								
Emergency Disaster Loans	[4]	[226]	[19]	[8,054]	[3,176]	[11,137]	[927]	[56]
Farm Operating Loans	[1,196]	[859]	[746]	[700]	[1,317]	[1,078]	[1,451]	[3,855]
Economic Opportunity Farm Operating Loans	78	34			[150]	[3,000]	[16,763]	[18,691]
Business and Industrial Loans						473	404	340
Industrial Development Grants								
Department of Commerce:								
Economic Development—Business Development Assistance	[2,344]	[5,606]	[4,051]	[409]			[2,770]	[434]
Economic Development—Special Economic Development and Adjustment Assistance							3,185	
Small Business Administration:								
Economic Opportunity Loans for Small Business	[2,779]	[3,998]	[7,224]	[5,678]	[6,858]	[6,143]	[5,607]	[10,733]
Small Business Investment Companies		[100]				[500]	[500]	
Small Business Loans	[6,422]	[8,304]	[5,961]	[11,108]	[15,292]	[7,798]	[14,644]	[27,853]
State and Local Development Company Loans				[453]	[1,574]	[158]	[581]	[931]
ECONOMIC INFRASTRUCTURE								
Department of Agriculture:								
Rural Electrification Loans					[12,834]		[9,502]	[20,540]
Rural Telephone Loans							[25,000]	
Department of Commerce:								
Economic Development—Grants and Loan for Public Works and Development Facilities ¹	7,512	7,551	462	1,401	3,109	3,070	3,731	
Grants to States for Supplementary and Basic Funding of Titles I, II, and IV Activities						482	713	699
Department of Transportation:								
Highway Research, Planning and Construction	13,572	7,125	8,240	11,947	15,172	25,719	22,129	34,048
Urban Mass Transportation Capital Improvement Grants	345	199	469		641	738	51,337	6,958
Grants-in-Aid for Airports	743	4,816	421	600	252	1,482		
Airport Facilities and Equipment	105	47	147	29				
RESOURCE CONSERVATION AND DEVELOPMENT								
Department of Agriculture:								
Emergency Conservation Measures		179	214				571	450
Agricultural Conservation Program	793	743				865	472	526
Soil and Water Loans	[67]	[35]	[41]	[6]	[6]	[5]	[32]	[63]
Water System Development Grants	199	103	348					
Water System Loans	[511]		[366]					
Soil Survey	144	151	165	160	161	155	154	149
Total grants and services	23,491	20,948	10,466	14,137	19,335	32,894	82,696	43,170
Total direct loans and loan guarantees	[13,323]	[19,128]	[18,408]	[26,408]	[41,207]	[29,819]	[77,677]	[83,156]

¹ Consisted entirely of grants in Puerto Rico.

Source: Community Services Administration, *Federal Outlays in Territories & Other Areas Administered by the United States*.

tially be needed simply to indirectly pay off inadequately productive old loans.

As has been shown in chapter II of this report, funds for physical capital investment make up only a small part of all Federal assistance to Puerto Rico. Only a limited portion of these physical capital investment funds are used for what could be called "directly productive" purposes. Most Federal Government investments parallel those of the Commonwealth Government. They are generally designed to improve social conditions rather than expand productive economic capacity.

Not only do Federal funds fail to compensate for the low economic productivity of Commonwealth Government investments, they may have an adverse effect. To the degree that Federal dollars are made available for marginally productive or non-productive purposes, Puerto Rico's scarce matching funds (for grants) and borrowing capabilities (for loans) may be drawn away from more productive alternate uses.

The housing industry, for example, is the single largest recipient of Federal investments on the island. So large are Federal housing activities that almost half of all mortgages issued in Puerto Rico in 1975, 1976 and 1977 were backed by Federal loans or loan guarantees.⁷⁰

Although investment in housing is socially desirable and has indirect positive effects on overall economic growth, it is not generally considered to be as productive and conducive to self-sustained growth as are other forms of investment.⁷¹

Because most Federal investment in the Commonwealth falls into this "not very productive nor conducive to self-sustained growth" category, table 8 in this chapter is produced for purposes of illustrating the size and nature of the more productive Federal investments. No definitive criteria exist for ranking investments along the productivity continuum, so the standards used in preparing the table are explained below.

It is assumed that physical capital investments can be made for at least three purposes:

- *Business Development*—the construction of factories and other facilities; the acquisition of machines, equipment and similar instruments of industrial, agriculture, or other production;
- *Infrastructure*—the creation and maintenance of transportation, communications, power facilities, and similar enterprises which contribute to the productivity of other industries; and
- *Resource Conservation and Development*—the

preservation and enlargement of natural resources for the current or future use of business and infrastructure enterprises.

Despite occasional overlaps in these kinds of investments, Federal programs presented in table 8 are assigned to one of these three categories on the basis of each program's primary function.

Conversely, Federal programs are excluded from the table unless they provide physical capital for businesses, for economic infrastructure, or for resource conservation and development.⁷² This excludes programs consisting chiefly of advisory services, technical assistance, research, and Federal agency personnel services, even if they are involved in business infrastructure or resource development undertakings. Also excluded are investment programs which provided less than \$100,000 to Puerto Rico in the 1970-77 period.

An analysis of the programs listed indicates that even the stiff criteria for selecting productive investments results in a list containing a few programs which make only marginal economic development contributions.

A glance at table 8 reveals the small size of Federal physical capital investments in Puerto Rico—approximately \$556 million in the 1970-77 period. Few Federal investment programs supply funds only for economically productive ends. For example, although Agriculture Department loans are used for equipment and livestock purchases and for production facilities, these loans also serve such socially orientated ends as debt refinancing, family subsistence needs, housing, and paying for property taxes and insurance premiums.⁷³ Even with business development activities, there are usually some clear social purposes for which a degree of economic productivity will be sacrificed.

So it is that the Department of Commerce's economic development program objectives share the spotlight with its program concern for the unemployed and for the welfare of areas with slow economic growth. In both the business development and infrastructure programs of the Department's Economic Development Administration (EDA), the need to create employment opportunities is a continuing consideration.⁷⁴ In addition, most EDA loans

⁷⁰ Disaster relief programs, although providing capital, are excluded unless most funds are specifically designated for restoring productive facilities or natural resources. Sewer systems are also excluded, even though some economists consider sewers as infrastructure projects. Primary sewers for industries may serve production purposes, but most sewers, or wastewater treatment works improvements to meet more rigorous environmental standards, add little to productivity and draw on scarce investment dollars that might be better invested to generate future output.

⁷¹ The following Agriculture Department loans finance one or more of the above-mentioned uses: Emergency, disaster loans, farm operating loans, and business and industrial loans. See chapter VI.

⁷² Three EDA public works programs—Public Works Impact Projects, Local Public Works, and Job Opportunities—are not listed in table 8. They are so job-creation orientated that they are classified as unemployment rather than investment programs.

⁷⁰ 1977 *Informe Económico al Gobernador*, pp. 88-89.

⁷¹ Maldonado, *Role of Financial Sector in Puerto Rico*, op. cit., pp. 49, 52.

are directed to areas where economic growth is lagging behind the rest of the Nation.

The Small Business Administration (SBA) also has a special social responsibility. Many SBA programs are designed to specifically assist socially and economically disadvantaged individuals. Minority group members, low-income individuals, and business persons unable to obtain commercial credit are the chief recipients of SBA assistance.⁷⁸

The investment programs listed in table 8 are the physical capital generating Federal investments, not necessarily the most productive investments possible. Since approximately 44 percent of the funding for these programs comes from grants-in-aid rather than from loans (\$247 million versus \$309 million) the economic growth generated by all these investments may more than compensate for loan repayment requirements. These Federal investments, however, are neither large enough, nor directly productive enough, to compensate for the low measured economic development potential of other Federal investments. In the final analysis, total Federal investments probably tend to raise, rather than lower, the island's capital/output ratio.

⁷⁸ SBA's Economic Opportunity Loans for Small Businesses is its most socially orientated program. Seventy percent of these loans in 1976 were made to minority group members, and about half of the 1975 recipients had incomes under \$9,000. (*U.S. Small Business Administration 1976 Annual Report, Vol. 2*, Washington, D.C., pp. 29-32.) The Administration's Small Business Investment Company lending, and its Small Business loans, also consider such social factors, although to a lesser extent.

Summary

Federal capital investment funds are only a small part of all Federal aid. Even the productivity of the most economically valuable Federal investments is reduced by competing social objectives. Puerto Rico's investment problems will not be alleviated merely by a continuation of the current levels and types of Federal investments. But severe economic dislocations would result from a sudden large reduction in Federal investment fund levels, especially in the Puerto Rican construction industry. Yet, more thought should be given to the long term economic value of what is being constructed by Federal investment dollars. With the island's current investment problems, Federal investments, if they are of low productivity, would be a problem of serious concern.

Given the lack of Federal investment funds available for economic development activities, it would be unrealistic to look to the Federal Government as a prime source of productive capital. Still, more economic growth could be generated from Federal investment by (1) emphasizing the productive over the social goals in individual Federal programs, and (2) giving greater priority to selecting the highly productive investment programs. Without policy changes directed to these goals, current Federal investment programs will do little to assist the Commonwealth overcome its investment problems.

Chapter V.—Salient Federal Administrative and Regulatory Issues

INTRODUCTION

The influence and impact of the Federal Government on the Commonwealth of Puerto Rico goes well beyond those effects which result from the flow of funds from Federal domestic assistance programs. Puerto Rico's social and economic development is also strongly affected by (1) administrative requirements imposed by Federal agencies as a condition for Puerto Rico's receipt of funds, (2) Federal Executive Branch policies which flow from arrangements for program delivery and from the exercise of statutory discretionary authority, and (3) Federal regulations which are applied pursuant to a Congressional mandate.

Just as the States on the U.S. Mainland have experienced costs and benefits from these Federal policies, so also has Puerto Rico been affected by "... Federal laws or rules imposing Government-established standards and significant economic responsibilities on individuals or organizations outside the Federal establishment."¹

Puerto Rico may, however, be more directly influenced by these policies than the mainland States because of its island location and its stage of development. As a result, Federal policies may not respond adequately to Puerto Rico's needs. The impact of the regulations may tend to outweigh intended benefits. The exact costs and benefits are difficult to measure, and sometimes the necessary modifications are difficult to determine. There is frequent disagreement about whether changes in the policies with respect to Puerto Rico are even required.

In considering these "Federal laws and rules," there are at least five policies and regulations which warrant separate analysis as opposed to being treated as part of overall policy considerations. These five, which have been identified by the Puerto Rican Gov-

ernment in "An Agenda for a Socio-Economic Study of Puerto Rico," are:

(1) The placement of Puerto Rico in the Federal Regional system.

(2) The incomplete coverage of Puerto Rico in Federal data collection activities.

(3) Maritime regulations which exclude foreign-owned and foreign-built ships from the U.S. mainland-Puerto Rico trade.

(4) 1977 Amendments to the Fair Labor Standards Act which are designed to achieve mainland-Puerto Rican minimum wage parity.

(5) Environmental regulations.

A description of these policies and regulations, along with discussions of their economic effects and possible options for change, are presented in this chapter.

COORDINATION OF FEDERAL PROGRAMS AND POLICIES THROUGH THE FEDERAL REGIONAL SYSTEM

The vast number of programs which are presently administered by the various Federal departments and agencies has created at least three problems in the delivery of Federal services to the American people through their local, county, and State governments.

The first of these is that in the delivery of, and supervision over, these programs, the availability of particular Federal funds or services can force a local response to their availability instead of the alternative effect of Federal funds being used to solve a locally identified problem. The second is that with a multiplicity of programs, the Executive Branch runs the risks of lacking an effective mechanism to monitor the programs in a "State" jurisdiction so as to avoid a duplication of Federal services. The third is that with programs being administered on a national basis, not enough attention is paid to the socio-economic peculiarities of the geographic areas

¹Domestic Council Review Group on Regulatory Reform, *The Challenge of Regulatory Reform: A Report to the President*. U.S. Government Printing Office, Washington, D.C., 1977, p. 4.

as represented by their local, county, and State governments.

All of these problems are particularly acute for Puerto Rico because of (1) its non-State status as a Commonwealth, with the concomitant possibility of its receiving differential Federal program treatment; (2) its indigenous cultural differences, and resulting distinct needs, from the U.S. mainland; and (3) its geographic separation from the United States.

There are at present about 100 Federal payment programs of categorical grants-in-aid, bloc grant, and transfer payment varieties which individually disburse over \$1 million annually to Puerto Rico. There are numerous programs which make smaller annual disbursements. As mentioned in chapter II, in FY 1977, Puerto Rico received \$3.108 billion in gross Federal disbursements.

In addition to the Federal payment programs, there are a number of national regulatory programs which find Federal application in Puerto Rico. Under practically all of the enabling Federal statutes, these programs are applied in Puerto Rico as they are in any State.

As a result of a substantial Federal impact on Puerto Rico, and of the direct financial relationship which exists between the Federal Government and Puerto Rico, an overriding need of the Puerto Rican Government is to have access to a uniform Federal mechanism for program delivery. This access is needed in order to mitigate any of the negative effects Federal programs may bring about, as well as to ensure that Puerto Rico receives all of the Federal moneys to which it is entitled by operation of the Federal programs.

The Puerto Rican "Agenda for a Socio-Economic Study" indicates, in the following language, that consistency in program delivery has been lacking:

Puerto Rico's Federal Government regional location has been characterized by a lack of consistency since 1970. Currently we are included for most purposes in Region II, together with New York, New Jersey, and the Virgin Islands. However, in some cases we are included in the Southeastern region, in others, in the Atlantic region, in others, in the Southern region; and in others, in the Caribbean region. The location has often been changed from one region to another. Undoubtedly, this entails such problems as communication and coordination with regional offices with different points of view and perspectives about programs and issues.²

The effect of this is that there has been an inadequate amount of coordination among Federal agencies in meeting the problems of Puerto Rico. Addi-

tionally, the Puerto Rican governmental officials have not been able to focus through a central point on a unified strategy to meet their particular social and economic development needs.

The problem Puerto Rico faces (as well as State governments), was intended to be met by actions of the Federal Government to standardize program delivery as early as 1968. The fact that problems still are perceived to exist by Puerto Rico indicates that a further delineation of solutions is needed for the Commonwealth.

To assist the Federal Government in achieving more uniformity in the geographic jurisdiction of Federal field offices as a basis for promoting more systematic coordination among Federal agencies, and between Federal, State and local governments, Standard Federal Administrative Regions were created in 1972. These regions followed upon a Presidential directive of March 27, 1969 which was issued, in part, in response to the Intergovernmental Cooperation Act of 1968.³ This directive instructed selected Federal departments and agencies to adopt a uniform field structure of eight regions with common boundaries and common headquarters. This original directive was modified on May 21, 1969⁴ in order to upgrade two subregional offices to full regions, giving a final total of 10. These regions were also created for securing management improvements and economies through greater inter-agency and intergovernmental cooperation.

The policies and requirements governing standard administrative regions have been drawn up in OMB Circular A-105, entitled Standard Federal Regions. This circular states the boundaries and regional office locations for the 10 Standard Regions. Agencies not conforming to the uniform regional boundaries are published each year as part of the Federal Register. The 1977 listing was published on July 6, 1977 in the Federal Register, Vol. 42, No. 129, from p. 34756 to p. 34853.

On February 12, 1972, Executive Order 11647⁵ expanded on the concept of the standard regions and created the concept of Federal Regional Councils (FRCS). A Regional Council was created by this Executive Order for each of the 10 Standard Federal regions. In addition, an Under Secretaries Group for Regional Operations, chaired by the Deputy Director of the Office of Management and Budget (OMB), was established to provide policy guidance to these councils. The Regional Councils were mandated to improve coordination of the categorical grant system and to develop closer working relationships among themselves, and with State and local governments.

² *An Agenda for a Socio-Economic Study of Puerto Rico, Part I*, Office of the Governor of Puerto Rico, June, 1977, pp. 31-32.

³ Public Law 90-577, 82 Stat. 1098.

⁴ White House Press Release of May 21, 1969.

⁵ 37 F.R. 3167.

Under the regional council system, Puerto Rico is located in Region II, along with the Virgin Islands and the States of New York and New Jersey. Accordingly, all programs of the Department of Health, Education, and Welfare (with the exception of the Indian Health Services Administration which does not operate in Puerto Rico), the Department of Housing and Urban Development, the Department of Labor (with the exception of the Office of the Solicitor which has a regional office in Puerto Rico), the Community Services Administration, the Environmental Protection Agency, and the Department of Energy follow the directive and operate their programs from New York City in Region II.

The same is not true, however, for the Departments of Agriculture, Commerce, Interior, and Transportation. In all of these instances, important program responsibilities are either located in cities other than New York City in Region II, or in another region. Under this system, Federal programs which benefit Puerto Rico are not all subject to the same amount of centralized regional control. Under this system, the Government of Puerto Rico does not have access to a Regional Council which could deal with the totality of Puerto Rican problems.

In terms of the actual operation of Federal Region II, the fact that Puerto Rico is in its jurisdiction does not guarantee that there is the needed coordinated effort or that the programs are administered in a like manner. The amount of coordination depends in large measure on the role the Regional Council actually takes. This may change depending on a particular Administration's concept of Regional Councils, and the actual attitudes of the Departmental representatives on the Council.

In addition, the actual administration of the programs depends on a number of program variables, such as whether there is continuing close contact between the Federal program administrators and the Puerto Rican Government officials, the extent of program responsibilities, and the amount of program coordination between the Federal agencies and Puerto Rico. In a cumulative sense, the fact that programs are administered from the same Federal region does not automatically ensure completeness of delivery of services or total coordination of views and attitudes.

The first and most important of these program variables which affect program delivery is the nature of the program being administered. Whether a program is targeted at human needs or physical development, and whether it is ongoing or temporary in nature, will generally determine the completeness of oversight responsibility which is exercised from the region. By way of example, the administration of the Comprehensive Employment and Training Act (CETA), a bloc grant training program of four pri-

mary parts operated under the auspices of DOL, is centered in New York City in Region II. A large and basically bilingual staff operates a program budgeted for Puerto Rico in FY 1978 in the amount of \$278.5 million. It operates on a basis of one DOL program field representative to one prime sponsor. (Puerto Rico has seven prime sponsors for CETA—six representing major urban areas and the seventh representing the balance of the Commonwealth.) The daily oversight provided on this basis is necessitated by the nature of the program and the need to maintain ongoing relationships with projects in the field.

On the other hand, the Department of Housing and Urban Development, in the management of most of its home construction and community development programs, uses the regional offices generally to exercise oversight responsibilities of a legal nature. Most of the actual work is done either through HUD's area offices in Puerto Rico, which are more or less directly responsible to Washington, or from Washington itself.

In dealing with Puerto Rico, it is extremely important that Federal agencies have a system of direct relationships with program recipients in the Commonwealth. In addition, because of the cross-mixing between programs of the various agencies, and because of the relationship of physical programs to meeting basic human needs (e.g., the link between highway and home construction and employment creation in the depressed Puerto Rican construction sector), it is necessary that agencies be able to coordinate their approaches to Puerto Rico. In the end, to the extent that options can be agreed upon for addressing Puerto Rican problems, there must be a workable mechanism to coordinate Federal approaches.

One of the most viable alternatives for achieving this goal would be to coordinate a greater number of activities through the Regional Council system. Although a Federal Regional Council already exists for purposes of dealing with Puerto Rico, and although the present chairman of the Federal Regional Council II is desirous of doing more with and for Puerto Rico, still more needs to be done. The lack of a central role for the Regional Council can be seen from the fact that although the Puerto Rican Government has submitted its "Agenda for a Socio-Economic Study of Puerto Rico" to Washington, four projects proposed to Region II since the submission do not relate to this agenda.⁶

There are at present three alternatives for pro-

⁶ These projects are: (1) a project to upgrade the navigability of Martin Pena Canal, (2) technical assistance for Puerto Rican Government personnel to increase their financial management capabilities, (3) a Federal Drug Administration (FDA) drug testing lab, and (4) application of the Intergovernmental Personnel Act to Puerto Rico so as to increase the exchange of government personnel between the U.S. and Puerto Rican Governments.

gram location in the Federal regional system which have been proposed: (1) retain program jurisdiction over Puerto Rico in Region II, and work to ensure that program administration is totally consolidated in New York City; (2) move Puerto Rico out of the Federal Region II and into Region IV, which is based in Atlanta, Georgia; and (3) create a separate Federal Region for Puerto Rico and the Virgin Islands. These alternatives are discussed below.

1. Total Placement in Federal Region II

Puerto Rico was originally placed in Federal Region II for two apparent reasons: (a) the location of a substantial Puerto Rican population in the New York City/New Jersey region with a presumed similarity of problems; and (b) the fact that when the Federal regional system was first initiated, the only direct flights to Puerto Rico left from New York City. An additional apparent reason was that the programs which had historically operated for Puerto Rico, like certain of the Department of Labor programs (e.g., Employment Security Act), had been administered from New York City.

The primary reason for continuing to place Puerto Rican jurisdiction in Federal Region II (and to move other programs into this region when possible) is the fact that there are a number of well established program relationships which presently operate out of New York City. The expertise is thus largely in place. Secondly, many of the problems of Puerto Rico are urban in nature and can best be dealt with by program administrators who deal with urban problems of the States of New York and New Jersey.

There do not appear to be any program-related reasons against maintaining the present relationship.

2. Location of Puerto Rico in Federal Region IV

The impetus for placing the Commonwealth of Puerto Rico in Federal Region IV, which is based in Atlanta, Ga., is a resolution adopted by the Southern Governors' Conference in the spring of 1977. This resolution, which was authorized by the Governor of the Commonwealth of Puerto Rico, requests that the Federal Government "... take such action as is necessary so that Puerto Rico is treated for all appropriate purposes as part of Federal Region IV, with headquarters in Atlanta." Although the Governor of Puerto Rico has informally indicated that he no longer desires this shift, this alternative has to be considered viable because the action is a formal one taken by the entire membership of the Southern Governors' Conference.

The justification for this action would appear to be to place Puerto Rico in a region in which the

Governor is a member of a Governors' Conference. In such a manner the Governors might be able to agree to certain solutions to problems in program delivery in order to seek joint action to ameliorate them. Some reasons for opposing this shift are that: the problems of the Commonwealth may have less in common with the problems of those States located in Region IV than with those in Region II; there is currently limited expertise and program relationship in Region IV regarding Puerto Rico.

3. Creation of a Federal Region for Puerto Rico and the Virgin Islands

The impetus for the creation of a separate Federal region for the Virgin Islands and Puerto Rico comes from the Puerto Rican Mayors Association. Their attitude is that, since the Commonwealth desires a centralized and coordinated relationship with all Federal functions, a common Puerto Rican site would enable the Federal officers to carry out their tasks in a more coordinated and uniform manner. Furthermore, such a shift would assist the Federal officers in getting acquainted with the special needs of Puerto Rico and the region, which, for historical, political, and cultural reasons, is unique when compared to those of other regions in the United States.

On the other hand, such a move would require the expansion of the Regional system from ten to eleven regions. This could lead to requests for other new regions to cover smaller areas. In addition, such a move could require a shifting of many Federal employees and an increase in the number of Federal employees, which would have to be budgeted for. Finally, such a shift might affect the political relationship between the people of Puerto Rico and the Federal Government vis-a-vis the elected office of the Governor of Puerto Rico. One way that the intent of this option might be met would be through the designation of the two jurisdictions as the "Antilian Economic Development Region." This option is discussed in section E of chapter II.

Summary

The executive branch is at present studying the entire issue of the Federal Regional Councils as part of the executive branch reorganization. At issue is the function of the Federal Regional Councils and their future. With respect to any action, and whatever changes, if any, are made, the delivery of Federal programs to Puerto Rico must be tailored as closely as possible to Puerto Rico's needs. In the meantime, it is necessary that programs being administered with respect to Puerto Rico be spelled out in more specific terms of the location of office responsibility and coordination so as to alleviate any disadvantages the Puerto Rican people may have in

trying to deal with a Federal bureaucracy which is physically located in many places on the U.S. mainland.

INCOMPLETE COVERAGE OF PUERTO RICO IN FEDERAL DATA COLLECTION ACTIVITIES

Since the 1960's, officials of the Government of Puerto Rico have expressed concern that their statistical information system has been unable to provide complete, reliable, and timely data on the economic and social conditions of Puerto Rico. This situation has been aggravated by the complex and rapid changes which have beset the Puerto Rican economy since 1973.⁷

Deficiencies in the system are due primarily to (1) the lack of Puerto Rican resources for all the necessary data collection and compilation activities, and (2) the fact that Puerto Rico is generally accorded differential treatment by, or not fully covered in, Federal data collection activities. As a result, the Puerto Rican Government, and the Federal agencies whose programs disperse funds to Puerto Rico, have been hampered in their formulation of public policy and planning objectives.

A solution needs to be found so that the necessary information for economic and social planning for Puerto Rico can be made available. To this end, the Puerto Rican Government has expressed that

... it seems desirable that some of the Puerto Rican economic information systems be integrated with the various statistical programs of the U.S. Government agencies. . . . If the proposed integration were not considered feasible it would be necessary then to obtain Federal funds for the expansion of local information systems.⁸

This section deals primarily with the incomplete coverage of Puerto Rico in Federal data collection activities and possible Federal assistance to Puerto Rico. Specifically, it addresses this issue vis-a-vis the programs of two major Federal sources of official U.S. statistics, the Bureau of the Census (U.S. Department of Commerce) and the Bureau of Labor Statistics (U.S. Department of Labor).

Puerto Rico is currently fully covered in some of the major data collection activities of the U.S. Bureau of the Census. These are the Censuses of Population, Housing, and Agriculture.

Puerto Rico is completely excluded, however, from the Censuses of Transportation and Mining and the Current Survey Series. The Survey Series produces a number of "Current Reports" which are

sometimes used as the official intercensal Federal Government estimates on population, employment and unemployment, income and business, construction, and manufacturing activity. In addition, since 1973 the yearly "County Business Patterns" report has not been done for Puerto Rico.

Puerto Rico is incompletely covered in the Census of Governments and in the Economic Census (Retail, Wholesale, and Service Industries; and Construction and Manufacturing Activity).⁹

Commonwealth officials contend, furthermore, that the U.S. Bureau of the Census assigns a low priority to its existing data collection and publication activities for Puerto Rico. They contend that as a result, data for Puerto Rico is published significantly later than for the rest of the Nation, sometimes when it is obsolete.

Exclusion from the Current Population Survey (CPS) is of particular concern for Puerto Rico since the formulae allocations of some major Federal programs are based on these CPS official estimates. Examples of such Federal programs are those authorized by the Anti-Recessional Financial Assistance Act (ARFA), the Comprehensive Employment and Training Act (CETA), the Local Public Works Capital Development and Investment Act of 1976 (LPW), and the State and Local Fiscal Assistance Act of 1972 (General Revenue Sharing). Given that Puerto Rico is not included in the CPS, it must conduct its own labor force survey.¹⁰ The resulting employment/unemployment and income estimates are, however, not readily accepted by the Federal Government as official statistics.

The Puerto Rican Government contends that the lack of official U.S. statistics for Puerto Rico has resulted in countless cases of erroneous Federal grant allocations being made to the island, particularly those made on the basis of population, employment/unemployment, and income, and that such erroneous allocations have caused "losses of millions of vitally needed dollars."¹¹ This situation has recently occurred in Federal allocations made under the Housing and Community Development Act, the Home Purchase Act, and the Local Public Works Employment Act of 1977. Sizable corrections in the amounts originally allocated to Puerto Rico under these Acts have been necessary. In addition, in at least one case, that being the Anti-Recessional Financial Assistance Program (ARFA), Congress has denied full funding or equal treatment to Puerto Rico in a formula grant program primarily on the grounds that no reliable statistics, as are needed to

⁹ Although the quinquennial Economic Census is done in Puerto Rico, the methodology, questionnaire content, and data classifications are somewhat different from those utilized in the States.

¹⁰ The survey, entitled "Labor Force Survey for Wage Earner's Families," is conducted by the Puerto Rican Bureau of Labor Statistics.

¹¹ Letter of January 3, 1978 from Governor Romero Barcelo to Hon. Juanita Kreps, Secretary, U.S. Department of Commerce.

⁷ *An Agenda for a Socio-Economic Study of Puerto Rico, Part Two*, Office of the Governor of Puerto Rico, June, 1977, p. 380.

⁸ *Ibid.*

calculate an allotment of Federal funds, are available in Puerto Rico.¹²

Finally, an annual official estimate of the Puerto Rican population, such as could be provided by the CPS, would enable the Puerto Rican Government to effectively address the currently much-discussed issue of the impact of out- and in-migration patterns on the Puerto Rican population.

There is no legislative impediment to the complete inclusion of Puerto Rico in any of the census or survey activities of the U.S. Bureau of the Census. Various sections of title XIII of the U.S. Code¹³ provide either for the automatic inclusion of Puerto Rico in specific censuses, or inclusion pursuant to the Secretary of Commerce's discretionary authority to extend censuses and surveys to Puerto Rico.

Officials in the U.S. Bureau of the Census indicate that there are reasons why full coverage has not been extended to Puerto Rico, although it is statutorily possible. According to these officials, the primary reason for the exclusion, or incomplete inclusion, of Puerto Rico in the Census Bureau's statistical programs is the Bureau's budgetary constraints. These constraints are particularly relevant in view of the high cost of providing full coverage for Puerto Rico. This high cost results primarily from the Commonwealth's different governmental organization ("municipios" vs. counties as exist in most States), and its use of somewhat different data bases and definitions. As a consequence, it is claimed that it would be almost impossible to adapt all existing Puerto Rican data, or extend full coverage to Puerto Rico, within the Bureau's current level of appropriations.

One of the examples cited by the Bureau officials in support of their claim was the attempt to completely cover Puerto Rico in the 1972 Census of Governments. The cost of coverage proved to be exorbitant. As a result, coverage of Puerto Rico had to be limited to only one of the six reports normally done for each State under the Census of Governments. Similarly, for all of the Survey Series reports (e.g., Current Population Reports, Governmental Finance, Governmental Employment, Annual Survey of Manufactures, and Annual Housing Survey,) ¹⁴ the sample bases have had to be limited to the 50 States and the District of Columbia. According to the Bureau's officials, the cost of including Puerto Rico and other outlying areas in the sample(s) would have been quite disproportionate to the small size of these areas' universe of data.

A second reason cited by the Bureau's officials for not extending all its censuses, and particularly its

periodic surveys, to Puerto Rico is that in many instances Puerto Rican Government agencies fail to comply with the Bureau's reporting requirements. Another reason cited is that Puerto Rico had not, until recently, made a formal request for inclusion in each of the censuses and surveys conducted by the U.S. Bureau of the Census.

In an attempt to resolve the problem of Puerto Rico's exclusion, or incomplete treatment, in the U.S. Bureau of the Census' activities, the Governor of the Commonwealth has made a formal request of the Secretary of the U.S. Department of Commerce. In his letter of January 3, 1978, the Governor requested "... that Puerto Rico be included in all national censuses and surveys on a continuing basis, and that this be done as soon as possible." A follow-up letter was sent on May 18.

Although the immediate implementation of this request appears unlikely,¹⁵ There are some options which could be presently addressed in order to resolve some of the existing problems. These options are discussed below.

The Governor of Puerto Rico's request is timely with respect to the CPS where action regarding two alternatives is immediately possible. The first is to extend the CPS sample to fully include Puerto Rico. Discussions are currently under way between the Bureau of the Census and the Bureau of Labor Statistics (BLS) regarding an expansion of the CPS sample following the 1980 Census of Population. Consideration of Puerto Rico in these initial planning stages would provide a definite advantage in dealing with Puerto Rico's needs and requests for an improved economic information system.

The second alternative, which is a more expedient and less costly course of action, would be to modify the existing Puerto Rican labor force survey ("Labor Force Survey of Wage Earners' Families") so that it conforms to the Bureau of the Census' and Bureau of Labor Statistics' standards and methodology. Once revised and approved by the Bureau of the Census and BLS, this survey would generate labor force and income data which would be accepted as official statistics by the Federal Government. In addition, this revised survey could serve as the vehicle for collecting other types of data deemed necessary by the Puerto Rican and Federal Governments.

With respect to this latter course of action, it should be noted that BLS has recently increased its technical assistance activities in Puerto Rico. The New York Regional Office of BLS is currently assisting the Puerto Rican Bureau of Labor Statistics in developing a survey of employers to collect monthly estimates of nonagricultural employment on

¹² See, 42 U.S.C.A. 6735 (c)(3); and U.S. Department of the Treasury, "Report on Alternative Methods of Allocating Federal Intergovernmental Assistance," March, 1978, p. 121.

¹³ See, 13 U.S.C.A. 161, 181, 182, and 191.

¹⁴ Although these surveys are conducted by the U.S. Bureau of the Census, some (such as the CPS and the Housing Survey) are wholly or partly financed by other Federal agencies such as BLS, and HUD.

¹⁵ The primary reason is that present budgetary, administrative, and technical considerations will require considerable coordination and discussion between the Bureau of Census and other Federal agencies.

an industry by industry basis. This would be similar to the Federal Bureau of Labor Statistics' own survey which collects data for its monthly publication "Employment and Earnings."

In addition, initial discussions have been held between the Puerto Rican Government and BLS regarding a possible review and evaluation of the current Puerto Rican labor force survey. This exercise would entail a detailed analysis of the standards, definitions, and methodology of the Puerto Rican survey, with the object being to officially certify the validity of the data collected.

It is clear that Puerto Rico is in critical need of an improved and reliable data collection and information system, be it the result of either extending full coverage of Federal statistical programs to Puerto Rico, or modifying those Puerto Rican programs already in existence to comply with Federal standards and methodology. Although the latter action would be more expedient and less costly, either course entails the commitment of additional Federal funds to Puerto Rico. It is unlikely that the Bureau of the Census or BLS would have any funds available before FY 1979.

Regardless of the availability of these Federal funds, it is most important that Puerto Rico be considered in all relevant and current Federal efforts to formulate statistical policy and to improve, standardize or design future statistical methods and programs. Two such efforts are particularly important since they will have a direct impact on the future activities of the Bureau of the Census and BLS, namely, programs of (1) the National Commission on Employment and Unemployment Statistics (NCEUS) and (2) the Office of Federal Statistical Policy and Standards (OFSPS).

The NCEUS was created on August 1, 1977 pursuant to the Emergency Jobs Program Extension Act of 1976. The Commission's mandate is to

... identify the needs of the Nation for labor force statistics and assess the extent to which current procedures, concepts, and methodology in the collection, analysis, and presentation of such statistics constitute a comprehensive, reliable, timely, and consistent system of measuring employment and unemployment and indicating trends therein.¹⁶

The Commission's future work is directly relevant to Puerto Rico's current unemployment problems and its concern for reliable statistics.

The OFSPS was created by an Executive Order of October 7, 1977.¹⁷ By this action, the responsibility for statistical policy functions was transferred from the Office of Management and Budget (OMB) to the U.S. Department of Commerce. The OFSPS is

responsible for assessing the integrity, accuracy, and timeliness of Federal statistics. It is concerned with the development and coordination of statistical policy, and the development and implementation of statistical standards and guidelines.

It seems that the OFSPS, with its mandate and authority for overall Federal statistical policy and standards, would be the ideal vehicle to address the issue of Puerto Rican statistical needs vis-a-vis Federal Government programs. Immediate consideration could be given to creating an OFSPS-chaired Interagency Committee to deal with this issue. This Interagency Committee could include representatives of the OFSPS, the U.S. Bureau of the Census, the Bureau of Labor Statistics, the Puerto Rican Planning Board, and the Puerto Rican Bureau of Labor Statistics.

There are numerous budgetary, administrative, and technical considerations inherent in any of the previously mentioned options. Given the complexity and time consuming nature of those considerations, it is critical that the Government of Puerto Rico clearly identify its priorities regarding its needs for *specific* data items not currently covered by Federal statistical programs. This "priorities list" would be particularly useful to the OFSPS in reviewing Puerto Rico's needs vis-a-vis Federal statistical policy.

MARITIME REGULATIONS

The cost of maritime commerce between Puerto Rico and the U.S. mainland has been a long-term irritant to the Commonwealth.¹⁸ Puerto Ricans generally believe that shipping costs are unnecessarily high because of:

(1) The application of the coastwise shipping laws to trade between Puerto Rico and the mainland which is . . . confined to service by American-manned vessels under the U.S. flag.

(2) The limitation to foreign trade (essential routes) under the Merchant Marine Act of 1936 . . . of . . . operating and construction differential subsidies.¹⁹

Stated differently, shipping in U.S. flag vessels is assumed to be more expensive than shipping in foreign vessels, and U.S.-built ships cost more than foreign-built ships. So long as Puerto Rico is restricted to shipping in U.S. bottoms and purchasing vessels from U.S. shipyards, the island's shipping costs are higher than they would be without these regulations.

¹⁶ Puerto Rico is dependent on maritime transportation for approximately 99 percent of its external trade. About 80-85 percent of this trade is between Puerto Rico and the U.S. mainland.

¹⁷ *Agenda for a Socio-Economic Study of Puerto Rico, Part Two*, op. cit., p. 338.

¹⁸ Public Law 94-444; 90 Stat. 1476, 1485.

¹⁹ E.O. No. 12013, 42 F.R. 54931.

The issue is not, however, that simple. Thus, before possible modifications to maritime regulations can be discussed, the nature and effects of the shipping restrictions must be thoroughly examined.

Nature of the Jones Act

The Jones Act, which is Section 27 of the Merchant Marine Act of 1920, excludes foreign-built and foreign-operated ships from operating in the U.S. domestic trade.²⁰ The key provision of the act states:

No merchandise shall be transported by water . . . between points in the United States, including Districts, Territories, and possessions thereof embraced within the coastwise laws . . . in any other vessel than a vessel built in and documented under the laws of the United States and owned by persons who are citizens of the United States, or vessels to which the privilege of engaging the coastwise trade is extended . . .²¹

These restrictions have historically been justified in order to maintain a basic U.S. shipbuilding and ship operating capability for national defense purposes.²²

Because U.S. shipbuilding and crew costs are relatively high, the Federal Government provides direct subsidies for U.S. shipping in international trade that must compete with foreign flag vessels. Such subsidies are not available for the protected commerce between U.S. ports. The principal issue with regard to Puerto Rico is, therefore, whether similar subsidies should be provided for trade between the U.S. mainland and noncontiguous States and territories.

Removal of cabotage restrictions on freight shipping is not being sought by the Puerto Rican Government. The only exception advocated is for passenger ships.

Since service between Puerto Rico and the mainland must be provided under the American flag and is excluded from subsidy, passenger ship service has disappeared from the route. There is evidence that many vacationers would prefer to travel by ship and this would certainly boost our

tourism and hotel industry. The cabotage restriction might be lifted from passenger service, so that foreign ships could also enter this trade.²³

For freight shipping, the situation is different. The removal of cabotage restrictions in this area may pose several drawbacks for Puerto Rico: (1) injury to Puerto Rican shippers (the Puerto Rican Maritime Shipping Authority, which is allegedly about to be sold to a private concern, Sea-Land Service, Inc., and Seatrain which has recently reentered the Puerto Rican trade as part of an international service); (2) reduced employment, not only on Puerto Rican ships, but among the significant number of Puerto Rican crewmen on other U.S. flag vessels; and (3) diminished assurance that foreign vessels would be as available as domestic ships in a national emergency.

Furthermore, although the Puerto Rican Government sees U.S. shipping services as being "inordinately expensive," the opening up of competition to foreign vessels is not viewed as a panacea. As will be discussed later, open international competition could bring greater price instability. In addition, its cost effects are difficult to predict.

The preferable approach—from the Puerto Rican perspective—would be for the Federal Government to provide operating subsidies for coastal shipping, similar to those supplied to carriers in international trade. The operating differential subsidy would presumably compensate for the higher costs of U.S. flag service.²⁴

The justification for such subsidies depends on the size of the existing shipping cost disadvantages experienced by Puerto Rico under the Jones Act. Before the nature of the desired subsidies is examined further, a closer examination of those costs must be made.

Shipping Regulation Costs to Puerto Rico

Although the considerable difference between mainland wholesale prices and Puerto Rican retail prices is frequently cited as evidence of the cost of the Jones Act, this cost margin can only be explained in part by the cost of sea transportation. The price difference is also partially attributable to high distribution and marketing costs on the island.²⁵ Similarly, only a small fraction of the total cost of

²⁰ That Puerto Rico is one of the geographical areas covered by this provision is made clear by 46 U.S.C. 877. (Section 877 provides that the coastwise or "Cabotage" laws of the United States are extended to all island territories and possessions of the United States, except for the Virgin Islands. American Samoa has also been exempted from the provisions of the Jones Act. (See, Wolf Management Services, *Economic Development Program for American Samoa*, prepared for the U.S. Department of Commerce, New York, February, 1969, p. 121.)

²¹ 46 U.S.C. 883.

²² Some form of coastwise law has existed from the beginning of the American Republic. Under a law enacted in 1798, discriminatory tonnage duties were levied on foreign ships operating in the American coastal trades. Then in 1808, another law extended the restriction to a complete exclusion of foreign-flag shipping from participation in the domestic trade of the United States. The U.S. Cabotage restrictions are not unique. As of 1969, there were only six nations of the world that permitted foreign-flag vessels to engage in their coastal traffic: Great Britain, Germany, Norway, Sweden, Denmark, and Italy.

²³ *Agenda for a Socio-Economic Study, Part Two*, op. cit., p. 344. There is some doubt about whether such Mainland-Puerto Rican service would attract adequate patronage in light of the 4-6 days required for a round trip voyage. Point-to-point passenger service, other than short-haul ferry runs, is waning worldwide. It is unclear whether a point-to-point service to Puerto Rico would attain sufficient patronage in view of the worldwide trend. However, if foreign flag ships calling at Puerto Rican ports could stay longer than 24 hours (currently prohibited by U.S. Customs Service policy), this might be beneficial to the island. (MarAd/FMC Maritime Transportation Section, *Transportation Sector Study*.)

²⁴ *Agenda for a Socio-Economic Study, Part Two*, op. cit., pp. 345-347.

²⁵ See, Clapp and Mayne, *A Survey of Retail Selling Prices in Six Mainland Cities and Puerto Rico*, San Juan, 1974.

Puerto Rican exports to the mainland can be ascribed to the cost differential between U.S. and foreign shipping rates. But parts and fractions can add up, and there have been several attempts to estimate the cost of the Jones Act to Puerto Rico.

The usual starting point for examining the cost question is to look at operating cost differences between U.S. and foreign ships. In 1965, a Northwestern University study reported that foreign ships on the mainland-Puerto Rican routes would have operating costs 12.5 to 15 percent lower than those for American ships.²⁶ In 1970, the Federal Maritime Commission calculated that foreign containerships might even have a cost differential advantage of 18 to 20 percent.²⁷ In 1975, foreign ship life-cycle costs were more conservatively estimated to be from 10 to 15 percent less than those of U.S. flag vessels.²⁸

Since the early 1970's, there has been a reduction in the cost gap due to the quadrupling of fuel prices and increased cargo handling costs which affect all shipping.

Such costs are the same for U.S. and foreign flag operators and are thus unaffected by the Jones Act. As a result, the principal items for which U.S. flag operating costs are substantially higher—crew costs and insurance—have become a much smaller proportion of total costs of operating a ship.²⁹

The cost gap has also narrowed because of the devaluation of the dollar.

That a gap still remains is, however, generally agreed upon. Measurements of that cost differential are unfortunately not precise or uniform. Then too, estimates for any particular period are often influenced by international economic factors which may exert only temporary effects.

Furthermore, to the extent that estimates of freight shipping cost differentials are based on subsidy rates paid to U.S. shippers on routes similar to the Puerto Rico-mainland routes, only rough approximations can result.

To estimate the operating-cost differential of foreign-flag carriers, which might enter the Puerto Rican trade if the coastwise laws were suspended, the closest approximation could be derived from the Maritime Administration's computations (of subsidies to U.S. shippers) for Trade Route No. 4, the service between U.S. Atlantic Coast ports (Maine to Florida) and foreign ports in the Gulf of Mexico, Caribbean Sea, and the Guianas.³⁰

Subsidies to U.S. companies do not perfectly represent the cost difference between U.S. and foreign shippers on any routes. To transfer these cost calculations to Puerto Rican trade routes can produce further distortions.

In estimating the cost of Jones Act restrictions on Puerto Rico, comparisons with ship operating costs on other routes are not only inexact, but they also fail to answer the question of what would actually occur if the maritime regulations were lifted.³¹ Ship operating "costs" are not synonymous with shipping "rates." Because foreign ships can operate more cheaply does not necessarily mean that they would charge proportionately lower rates to Puerto Rican customers. If foreign vessels were allowed to participate in Puerto Rican-mainland trade, there is a general consensus that rates would be reduced in the short run. The consensus breaks down in judging by how much the rates would be reduced, and whether the reductions would continue over the long run.

Open competition might temporarily lower Puerto Rican-mainland shipping rates below even those currently being charged on other Caribbean Island-U.S. routes that are serviced by foreign ships. This could occur because of the small marginal costs for foreign shippers stopping in Puerto Rico.

A ship trading with other Caribbean Islands or the ports of Central America and the north coast of South America could easily deviate from its normal route . . . to deliver or pick up cargo at Puerto Rican ports. Geographically, Puerto Rico sits astride these trade routes and the added cost of calling at the Puerto Rican ports would be negligible.³²

On the other hand, some observers believe that over the long run, open shipping competition might not prevail. Extreme competition could ultimately result in some competing companies failing to cover their average costs. In turn, this situation could produce ". . . either monopoly or agreement on price maintenance."³³ It is assumed that such agreements would prevent any substantial rate reductions and

²⁶ "The coastwise laws, as applicable to Puerto Rico, have been suspended only twice since 1898. On each of these occasions, the circumstances were not such as to afford any reliable guide to the possible effects of a suspension of the coastwise laws under the conditions and circumstances prevailing today. During World War I, the coastwise laws were suspended because of the extraordinary scarcity of ships. This suspension of the coastwise laws did not produce adequate cargo space or hold down the level of water freight rates. The next suspension of the coastwise laws, as far as Puerto Rico was concerned, came in 1962 when Congress, finding that no American-flag ships were reasonably available from West Coast ports to Puerto Rico, enacted Public Law 87-877 to permit the shipment, during a 1-year period, of lumber on foreign-flag ships from U.S. ports to Puerto Rico. The quantity of lumber shipped, 4.5 million board feet, represented approximately one full shipload of cargo, a relatively insignificant amount to move over the period of 1 full year. No efforts were, therefore, made to continue the suspension of the law. One point, at least, is certain. The previous instances of suspension of the coastwise laws offer little guidance for future situations . . ." *Ibid.*, pp. 163-164.

²⁷ *Ibid.*, p. 166.

²⁸ *Agenda for a Socio-Economic Study of Puerto Rico, Part Two*, op. cit., p. 343.

²⁹ Clower and Harris, *Puerto Rican Shipping and the U.S. Maritime Laws: An Economic Appraisal*. The Transportation Center, Northwestern University, Evanston, Ill., October 1965, p. 38.

³⁰ Federal Maritime Commission, *Puerto Rican-Virgin Islands Trade Study*. Government Printing Office, Washington, D.C., 1970, p. 164.

³¹ Kaplan, Jacob J., *Economic Significance of the Jones Act*. Shipbuilders Council of America, Washington, D.C., April 1975, pp. 1, 21.

³² *Ibid.*, p. 20.

³³ *Puerto Rican-Virgin Island Trade Study*, op. cit., p. 164.

could possibly result in higher rates than those now existing under the Jones Act.

During the 1950's, Puerto Rican trade was dominated by two rate-making groups—the U.S. Atlantic and Gulf Conference, and the Pacific Coast-Puerto Rico Conference. The increased competition among U.S. lines following Puerto Rico's withdrawal from these Conferences in 1962 apparently benefitted the island.³⁴ At least the rate increases permitted by the Federal Maritime Commission in the years since 1962 have generally been lower than those set by the major shipping conferences around the world.³⁵ But the relatively slow rate increases in the Puerto Rican-mainland routes were partially attributable to the early adoption of container operations, and roll-on and roll-off (RO/RO) ships by U.S. carriers. The cost advantage of these technological advances has diminished with their increased use by foreign shippers.

Simply because Puerto Rico does not belong to a shipping conference does not necessarily mean that its shipping rates will continue to grow more slowly than those on conference-controlled international routes.

Evidence can be marshaled to predict either higher or lower long-run rates resulting from open competition in Puerto Rican-mainland trade. Actual proof would come only with actual competition. In the absence of such a test, the presumed cost of the Jones Act for Puerto Rico can be only roughly estimated as being the differential between U.S. flag vessel rates and those of comparable foreign ships. This dollar difference must also be looked at in the context of other factors such as reliability of service, and the employment of Puerto Rican ships and crews. In addition, the rates vary for freighters and tankers, for different kinds of freighters and cargoes, and for northbound and southbound voyages.³⁶ It also depends on changing international economic circumstances that affect shipping competition.

Future Options

As has been shown, the size of the rate differential fluctuates with the changes in a number of variables. On a general basis, however, U.S. vessel rates are higher than foreign vessel rates, and this price difference can be dealt with in several ways.

Options exist for: (1) maintaining the status quo; and (2) maintaining the Jones Act, but subsidizing operational costs. Most proposals for reducing or eliminating the assumed cost of the Jones Act for Puerto Rico can be subsumed under one of these two general approaches.

Maintenance of Status Quo.—The first major option is to maintain the existing system. The principal theme of the proponents of this option is that the Jones Act provides reliable service and a controlled cost environment which is advantageous to carrier and consumer alike. There is some basis for the assumption that American ships, with a vested interest in Puerto Rican trade, supply more regular and reliable service than would foreign carriers in a very highly competitive situation. But the controlled cost theme is more controversial.

Supporters of the Jones Act assert that competition among U.S. carriers is a cost-reducing factor. In addition, freight rates are kept low through rate regulation by the Federal Maritime Commission (FMC). Because of the regulated rates, and because the only competitors are high cost American lines, this competition has, however, only a limited moderating effect. On the other hand, shipping lines do have to submit cost data and justify their rates in adversary hearings where private sector representatives and the Government of Puerto Rico have been able to participate.

Despite a degree of competition and the need to justify rate increases, even proponents of the Jones Act admit that current U.S. tanker rates are comparatively high. Two very different types of shipping services are important in the mainland-Puerto Rico trade: (1) tankers to carry petroleum products refined on the island to east coast ports; and (2) regularly scheduled (liner) service between the island and mainland ports, primarily on the northeast coast. Because of a current international oversupply of tankers, foreign companies are willing to charge prices which are below their total costs. Since foreign tanker rates are presently way below American tanker rates, the use of foreign tankers might reduce the cost of Puerto Rican petroleum products to the United States.³⁷ For general cargo freighters, on the other hand, the rate differential is not that substantial, and the effects of higher U.S. freighter rates on island imports and exports may not be that large.

With regard to the effect of the rate differential on consumer prices on the island, the U.S.-Puerto Rico Commission on the status of Puerto Rico concluded that for FY 1964, full exemption from the U.S. coastal shipping laws would have reduced Puerto Rican import prices by 1.35 percent and the cost of private consumption expenditures by 0.67

³⁴ *Puerto Rican-Virgin Islands Trade Study*, op cit., pp. 158-159.

³⁵ *Economic Significance of the Jones Act*, op. cit., pp. 19-21.

³⁶ The bulk of shipping volume on the mainland-Puerto Rican route is on the southbound leg, so considerable excess capacity exists on northbound vessels.

³⁷ It is hazardous to use any words other than "might reduce" because so many factors influence the market price of petroleum products. These other factors—crude sources, crude prices, entitlements, and other DOE regulations—all enter into market pricing determinations. The existing facilities (refineries and petrochemical plants) in Puerto Rico obviously were aware of the U.S. flag carriage requirement at the time they decided to build there. While the transportation cost may have risen beyond planning expectations, so has the market price of the commodities risen. It is quite likely that the transportation cost as a percentage of market price, is lower today than at the time the facilities were planned.

percent, while increasing receipts from exports to the mainland by 1 percent.³⁸ A later study concluded that in 1973, the savings of eliminating Jones Act restrictions, if passed on to Puerto Rican consumers, would have represented only 0.2 percent of their expenditures. The data for FY 1975 would suggest possible savings in Puerto Rican consumer expenditures of 0.2-0.4 percent.³⁹

On the export side, it was estimated that total transportation charges in 1972 "... amounted to about 9.6 percent of the \$32 billion of merchandise exports."⁴⁰ For 1975, the equivalent figure was about 8.3 percent of the value of exports from the island.⁴¹ If, hypothetically, American shipping rates were assumed to be 12 percent higher than foreign rates, then the Jones Act would add only a little over 1 percent to the value of Puerto Rican exports.

Such a calculation may be a bit misleading, however, since most material contained in those exports was originally imported from the U.S. On some exports then, there is a double transportation cost. In addition, if the above-mentioned consumer price increases produce demands for proportionately higher wages, product costs again increase. A relatively accurate cost calculation, based on a good estimate of the average American foreign rate differential, would take into account a number of cost creation effects.

Supporters of the Jones Act assert that the cost to Puerto Rico is small, and is compensated for by the quality and reliability of service. The Puerto Ricans maintain on the other hand, that the cost is enough to significantly affect their cost-of-living and their export competitiveness. In spite of these positions, it is clear that every effort should be made to produce a more balanced trade between Puerto Rico and the U.S. mainland. In this way good productivity can be obtained from the expensive shipping assets employed and lower average rate levels achieved.

Subsidization of American Shippers.—The other option would involve ship operating subsidies to compensate for higher U.S. costs. Since Federal subsidies to American shippers in foreign trade are provided "... to serve the national interest of maintaining a modern merchant marine," and because restricting Puerto Rican trade to the U.S. ships serves the same purpose, "... it is equally justifiable that the operating cost differential be applicable also to noncontiguous domestic trade."⁴²

Accordingly, the Resident Commissioner from

Puerto Rico introduced legislation in the U.S. House of Representatives on August 5, 1977 to provide for an operating cost subsidy.⁴³ Section 2(5) of that bill contained the major provision:

... to reduce the cost of shipping to the non-contiguous States and territories by authorizing the payment by the United States to American shippers engaged in such shipping of an amount by which the rates of United States-flag vessels exceed the rates of foreign-flag vessels for comparable shipping, and by requiring that the amount charged for the transportation of goods be reduced by the amount of such payment.

No action was taken on this bill, but had it been enacted into law, it would have benefitted Puerto Rico, Alaska, Hawaii, and Guam. But in the case of the Commonwealth, at least, the beneficial effects of an operating subsidy would be eroded unless the aging ships on Puerto Rican routes can be replaced at a relatively low cost. The subsidy would only make up for rate differences between U.S. and foreign ships on similar international routes. The size of a subsidy based on the rate differential on international routes would not be increased to match growing rates on the Puerto Rican route.

The benefit of an operating differential subsidy would almost certainly be wiped out again in a few years if Puerto Rico were to receive no help in bridging the gap between the value of old vessels and the prices of new ones. Without such help, the trade would continue to be served with the old ships; without the benefit of technological progress in vessel design and cargo handling, expenses would continue to drive freight rates up (as in the present situation of PRMSA), even if the differential in vessel operating costs were covered by a subsidy.⁴⁴

The central problem with H.R. 8836 was that its language was poorly conceived. It would have subsidized a "rate" differential rather than a "cost" differential. Since costs are only one of several determinants of rate levels, the subsidy program could be very expensive since the operators would have a strong incentive to artificially maintain a rate gap.

Currently, Puerto Rico takes the position that subsidies should cover the difference in cost between: (a) shipment from Puerto Rico in U.S. flag vessels and inland transportation to market areas, and (b) comparable point-to-point surface transportation for shipment and sale of U.S. products on the mainland.

New legislation to reflect this view will most probably be introduced by the Puerto Rican Resident Commissioner in the near future.

³⁸ *Hearings before the U.S.-Puerto-Rico Commission on the Status of Puerto Rico, Volume III, Economic Factors*, S. Doc. 108 (89-2), 1966.

³⁹ *Economic Significance of the Jones Act*, op. cit., p. 39.

⁴⁰ *Agenda for a Socio-Economic Study of Puerto Rico, Part Two*, op. cit., p. 341.

⁴¹ *Transportation Sector Study*, U.S. Department of Transportation.

⁴² *Agenda for Socio-Economic Study of Puerto Rico, Part Two*, op. cit., p. 345.

⁴³ H.R. 8836, a Bill proposing a "Noncontiguous States and Territories Shipping Freight Rate Equalization Act," 95th Cong., 1st sess., 1977.

⁴⁴ *Agenda for Socio-Economic Study of Puerto Rico, Part Two*, op. cit., p. 345.

MINIMUM WAGE REGULATIONS⁴⁵

Despite Puerto Rico's rapid economic growth in the 1950's and 1960's, employment grew relatively slowly. The island's gross national product (GNP) grew from \$755 million in 1950 to \$7,914 million in 1977—a 949-percent increase. In real terms, this amounted to a 309 percent increase. Employment during the same period rose only from 596,000 in 1950 to 739,000 in 1977—a 24-percent increase.⁴⁶ The reasons for poor employment gains and enduring high unemployment in Puerto Rico are complex and varied. Federal minimum wage legislation may have played a role in damaging the competitiveness of certain labor-intensive industries, and contributed to high levels of unemployment.

Applicability of Federal Minimum Wage Laws to Puerto Rico

Puerto Rico was made fully subject to the Fair Labor Standards Act (FLSA) when the Act was enacted in 1938. In that year, the average hourly wage on the mainland was 63 cents, a level which was more than twice the newly established minimum wage of 25 cents. In Puerto Rico, average wages were below the newly created Federal minimum. Puerto Rican manufacturing wages averaged about 15 cents an hour, agricultural wages ranged from 5 to 15 cents an hour, and home needlework wages were less than 4 cents per hour.

Significant job losses followed the introduction of Federally mandated minimum wages on the island, the most serious being a drop in home needlework exports from \$20 million in 1937, to \$5 million in 1940.⁴⁷ To what extent the losses were due to minimum wage rates is problematical since the additional factor of competition for labor by more technically advanced industries offering higher wage rates was also operating at this time. Realizing the problems which may have been created, Congress passed a separate amendment in 1940 to allow minimum wages on the island to be set at a level below that of the mainland.⁴⁸ The law established tripartite committees—consisting of members from labor, management, and the public sector—to review wages and, after public hearings, recommend to the Wage and Hour Administrator the highest minimum wage for individual industries engaged in interstate

commerce.⁴⁹ Special attention was to be given to the following two, sometimes contradictory considerations:

- That wage increase will not substantially curtail employment in the industry, and
- that minimum wage levels will not give any industry in Puerto Rico an unfair competitive advantage over its mainland counterparts.

Subsequent FLSA amendments in 1961, 1966, and 1973 have tended to reduce the mainland-Puerto Rican wage gap. FLSA coverage was extended to some firms not engaged in interstate commerce, and the annual gross sales volume criterion for company coverage was reduced from \$1 million in 1961 to \$250,000 in 1966. Finally, the 1974 amendments required that minimum wages in Puerto Rico be increased by 15 cents per hour every May 1st until they reach the mainland level.⁵⁰

From the passage of the 1974 amendments to November 1977, the Wage and Hour Administration issued 17 wage orders providing for the payment of the \$2.30 mainland statutory level. By December 1977, over 63 percent of the 318,000 workers covered by the FLSA were subject to the \$2.30 rate. Another 29 percent of the workers were in classifications calling for a minimum wage of at least \$2.00.⁵¹ (See table 1.) In other words, as of December 1977, about 40 percent of the employed labor force in Puerto Rico had FLSA mandated wages of \$2.00 or more.

Table 1.—Cumulative Percentage Distribution of Non-government Plus Nontraditional Government Employees in Puerto Rico Covered by FLSA Minimum Wage Provisions

Minimum wage rate	December 31, 1977	Minimum wage rate	December 31, 1977
\$1.75	2.3	\$2.10	8.9
\$1.80	2.7	\$2.15	9.7
\$1.85	2.7	\$2.20	12.0
\$1.90	2.7	\$2.25	17.6
\$1.95	3.4	\$2.30	36.6
\$2.00	7.4	\$2.35	100.0
\$2.05	7.6	Total	100.0
Number of employees... 318,170			

Source: U.S. Department of Labor, Employment Standards Administration, Division of Evaluation and Research, July 26, 1977.

In the manufacturing sector, as of October 1977, nearly 95 percent of the employees were covered by FLSA minimum wages ranging from \$1.65 to \$2.30 per hour.⁵² (See table 2.)

⁴⁵ Since the U.S. Department of Labor has also prepared material on minimum wage regulations for its sector study, this section only provides an overview of the economic effects of minimum wages. See also, chapter IV of this report.

⁴⁶ 1977 *Informe Económico al Gobernador*, pp. A-4, A-26.

⁴⁷ Robert R. Nathan Associates, Inc., *Minimum Wage Issue in Puerto Rico*. Washington, D.C., May, 1973, p. 3.

⁴⁸ "Emergency Relief Appropriations Act," ch. 432, sections 3(c), 3(d), 3(e), and 3(f); 54 Stat. 611.

⁴⁹ 29 U.S.C.A. 208(c).

⁵⁰ For wage rates below \$1.40, the automatic increase was set at 12 cents per hour on every May 1st. (Sector study, "Employment, Wage Structure, and Migration," U.S. Department of Labor.)

⁵¹ *Ibid.*, p. 7.

⁵² *Agenda for A Socio-Economic Study of Puerto Rico, Part One*, op. cit., p. 22.

Table 2.—Employment and Fair Labor Standards Act Minimum Wages in Major Industries

Sector	FLSA minimum	Employment ¹ (Oct. 1976)
NONMANUFACTURING		
Agriculture:		
Sugarcane farms	\$1.98 to \$2.20	
Other farms	1.70 to 2.20	
Banking, insurance and finance	2.30	11,687
Business, professional and miscellaneous	2.30	780
Communications, utilities and transportation	2.30	5,862
Construction	2.25	8,150
Education	2.30	3,953
Hospital and related institutions	2.30	8,992
Hotels and motels	2.30	8,032
Laundry and cleaning	2.30	1,033
Restaurant and food service establishments	2.30	2,475
Retail trade	2.20 to 2.30	32,294
MANUFACTURING		
Textile and apparel hand-sewings	1.65	
Other apparel and textiles	1.95 to 2.30	41,331
Chemical, petroleum, and products	2.30	5,458
Electrical, instrument, and products	2.30	23,948
Food and kindred products	2.28 to 2.30	24,171
Furniture, fixtures, lumber, and wood products	2.30	3,737
Jewelry products ²	2.15 to 2.30	1,358
Leather and related products ³	2.10 to 2.30	1,699
Metal, machinery, transportation, and allied products	2.30	10,364
Paper, paper products, printing and publishing	2.30	4,364
Rubber and plastic products except footwear	2.30	1,753
Footwear	2.05 to 2.20	3,037
Stone, clay, and glass products and nonmetallic mining	2.28 to 2.30	5,333
Tobacco manufacturers	2.22 to 2.30	4,531

¹ Includes workers not covered by the FLSA.

² Includes silverware and platedware.

³ Excluding footwear.

Source: U.S. Department of Labor, Employment Standards Administration Wage and Hour Publication 1348, No. 15, December 1977; *Agenda for Socio-Economic Study of Puerto Rico*, pp. 227-228.

In May 1977, the FLSA was again amended. Higher statutory wage levels were established. For the mainland, the law called for a minimum wage of \$2.65 per hour beginning January 1, 1978; \$2.90 in 1979; \$3.10 in 1980, and \$3.35 in 1981.⁵³ For Puerto Rican industries which had reached the 1977 mainland statutory levels (\$2.30 for nonagricultural activities, \$2.20 for agricultural work), the same schedule of minimum wage increases applies. For Puerto Rican industries with 1977 minimum wage levels below 1977 mainland statutory levels, different schedules apply.⁵⁴ (See table 3.)

By 1981, when the mainland statutory level of \$3.35 per hour is reached, there should be only a small percentage of Puerto Rican workers (i.e., in nonqualifying enterprises) receiving wages below the U.S. minimum.⁵⁵

Table 3.—Schedule of Fair Labor Standards Act Minimum Wage Increases for Puerto Rico, 1978-81

Puerto Rican wage rates as of 12/31/77	Increase effective—				Total increase 78-81
	1/1/78	1/1/79	1/1/80	1/1/81	
\$1.65-\$1.84	\$0.20	\$0.25	\$0.25	\$0.30	\$0.75
\$1.85-\$1.99	.20	.25	.30	.30	1.05
\$2.00-\$2.29	.25	.30	.30	.30	1.15
\$2.30 or more	.35	.25	.20	.25	1.05

Wages, Employment, and Puerto Rico's Competitive Position

The gap between mainland and Puerto Rican average wages steadily narrowed in the decades up to 1970. Since 1970, however, the gap steadied. In the last several years it slightly widened. In 1950, when U.S. wages averaged \$1.50 per hour, Puerto Rican wages averaged only 42 cents, a ratio of 28 percent. In 1977, with U.S. average wages of \$5.60 per hour and Puerto Rican average wages of \$3.11, the ratio was 55 percent,⁵⁶ which was generally consistent with the several previous years. (See table 4.)

Table 4.—Comparison of Puerto Rican and U.S. Wages in Manufacturing

Year	Wage	Average hourly earnings for all manufacturing industries		
		U.S. minimum	Puerto Rico/United States (percentage)	Puerto Rico/United States (percentage)
1950	0.75	\$0.42	\$1.50	28
1955	1.00	.56	1.91	28
1960	1.00	.94	2.30	41
1965	1.25	1.26	2.64	48
1970	1.60	1.78	3.37	53
1975	2.10	2.59	4.40	53
1976	2.30	2.86	5.28	54
1977	2.30	3.11	5.60	67

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings*; Commonwealth of Puerto Rico, Bureau of Labor Statistics.

The rise in Puerto Rican wages prior to 1970 is not attributable to any single factor. Market demand for skilled workers has played a role, as have general worker demands for wage increases to keep pace with rising living costs. Greater productivity and healthy profit margins in some industries have facilitated the acceptance of those wage demands. Federally mandated minimum wage increases are not the only contributor to the generally diminishing

⁵⁶ In addition to the relative rise in wages, fringe benefits have also improved over the years. For example, the Commonwealth Government has enacted legislation requiring employers to provide a Christmas bonus (2 percent of annual wages), maternity pay (one-half salary for 4 weeks prior to childbirth and for 4 weeks of post-natal rest), dismissal pay (1 month's salary plus 1 week's salary for each year of service), and nonoccupational disability benefits (to compensate workers for loss of wages due to illness or accident not connected with employment). (U.S. Department of Labor, Employment Standard Administration, Wage and Hour Division, a series of economic reports on Puerto Rico's industries prepared for the industry committee, 1974-77.)

⁵³ 29 U.S.C.A. sec. 206 (a)(1).

⁵⁴ "Employment, Wage Structure, and Migration," *op. cit.*

⁵⁵ *Ibid.* Mandatory decrees prescribing minimum wage rates and fringe benefits are also established under the Minimum Wage Act of Puerto Rico by the Commonwealth Government. Decrees apply to workers covered and not covered by FLSA, but primarily for the latter.

gap between mainland and island earning levels. But it is commonly agreed that the FLSA has been a wage-increasing force.

FLSA amendments have continually increased the salary levels of employed persons who were previously paid below the new minimum wages. New minimum wage schedules have also resulted in a tendency to raise the salaries of employees previously paid above the minimum in order to preserve these workers' incentives.⁵⁷ This tendency has not produced salary boosts as large—in percentage terms—as the increase in minimum wages. Hence, the "spread" between average and minimum wages has narrowed, and the FLSA has probably produced a more equal distribution of workers' income.⁵⁸

For the individual employed worker enjoying a higher wage, and for the Puerto Rican society with greater wage equality, the FLSA has produced tangible benefits. With the strong extended family and community ties in Puerto Rico, some of this increased income has also been redistributed to the unemployed.⁵⁹ At the same time, however, higher wage levels through their impact on labor-intensive industries have tended to curb unskilled employment opportunities in these industries.

Businesses employ workers whose labor produces earnings at least equal to their wages. Businesses that must pay \$2.30 per hour, for example, will not hire workers who are not skilled enough to produce earnings of \$2.30 per hour or more. The higher the wage level, the fewer employment opportunities there are for the inexperienced and less skilled. This result is reflected in 1976 statistics in Puerto Rico: unemployment among the 14-24 age group was recorded at 35.9 percent, nearly double the annual total Commonwealth unemployment rate of 19.6 percent.

The most dramatic historical case of declining manufacturing employment in Puerto Rico occurred in the home needlework industry and was partly due to the introduction of the FLSA in 1938. Employment dropped from 45,000 in 1940 to less than 2,000 in 1967.⁶⁰ On the other hand, a different picture is afforded in two other labor-intensive industries, textiles and apparel, where much more moderate declines were registered. Even before the 1974 amendments, the absolute number of employees in these important industries was declining. Here again, it must be emphasized that the declines, such as they are, cannot be related squarely to minimum wages, although they probably were a factor. Other industries were growing in Puerto Rico at the same time and were competing for labor with higher wages

Table 5.—*Employment in Puerto Rican Apparel and Textile Industries*

Employment variables	1966	1970	1973	1976
Total manufacturing:				
Employment	119,335	136,737	152,867	142,500
Textile products	6,196	8,904	7,594	4,600
Apparel	33,447	36,819	40,721	37,500
Employment share in Puerto Rico (percentage of total manufacturing):				
Textile	5.2	6.5	5.0	3.2
Apparel	28.0	26.9	26.6	26.3
Employment share in United States (percentage of total manufacturing):				
Textile	4.9	5.0	5.1	5.1
Apparel	7.2	7.0	7.0	6.9

Source: *Employment, Hours, and Earnings in Manufacturing Establishments Promoted by EDA or PRIDCO*, September 1977; *Employment, Hours, and Earnings in Manufacturing Industries in Puerto Rico*.

which they were able to pay. (See table 5.) With respect to the decline in apparel's share of total Puerto Rican employment, it should be noted that the change is only minimal.

Whatever the impact of increasing wages has been on Puerto Rico's economy, it may in some cases be important because the cost of doing business on the island—excluding direct labor costs—is often higher than on the mainland because of higher energy rates, the need for shipping long distances, and other factors which vary by industry.

Federal and Commonwealth tax exemptions, plus the island's low wages (by U.S. standards) have been the chief counterweights to the other higher cost factors. But the low wage attraction to investors has decreased over time. Part of this is due to lower wages in foreign countries which are alternatives for U.S. investment. Even if Puerto Rico were not under FLSA, certain foreign wage rates would still be much too low to enable Puerto Rico to compete in certain industries. While capital-intensive industries will probably continue to grow, they will not be able to absorb an adequate part of a growing labor force. As noted in the Tobin Report:

The evidence strongly suggests that Puerto Rico's labor force and labor costs are no longer attracting an adequate rate of investment. In the past 5 years (1970-75), the sectors with the most rapid growth and highest investment rates have been sectors where labor costs make almost no difference. . . .

The shifting structure of industry reflects partly the shifting real comparative advantage of Puerto Rico. As the Puerto Rican labor force has become better trained and more productive, it has become too valuable a resource to use in these industries. But the persistence of high unemployment suggests that there is more to the story. Wages have outrun the improvement of labor skill.⁶¹

⁶¹ Committee to Study Puerto Rico's Finances, *Report to the Governor*, December 11, 1975, p. 21.

⁵⁷ Puerto Rico Manufacturers Association, May 20, 1977.

⁵⁸ "Employment, Wage Structure, and Migration," *op. cit.*

⁵⁹ Thomas Victorisz, *Dependent vs. Autonomous Export Development and the Wage Level in Puerto Rico*, prepared for the Interagency Strategy Committee of the Finance Council, October 1975, p. 9.

⁶⁰ 1971 *Informe Económico al Gobernador*, p. A-26.

Future Options

In the FLSA sections applicable to Puerto Rico, the U.S. Congress has determined that the island's minimum wages shall be set at a level which does not give any Puerto Rican industry a competitive advantage over its mainland counterparts. At the same time, the law requires that the established minimum wages shall not substantially curtail employment in Commonwealth industries. Frequently, these two objectives have been difficult to reconcile. Achievement of one often comes at the expense of the other. In pursuing the goal of increasing the island's income and standard of living, U.S. and Commonwealth officials have concentrated their efforts on raising wages to mainland levels.

Layoffs have occurred and the "employment curtailment" criterion has been violated. Employment in labor-intensive industries has consistently decreased, and unemployment among younger workers is at an extremely high level.

Concurrently, the competitive position of some labor-intensive Puerto Rican industries has declined. Not only are profit margins being squeezed, but recent data show a total of 227 establishments in the manufacturing sector, employing 17,243 workers, with operating losses.⁶² Thin and nonexistent profits appear to be concentrated in the labor-intensive firms.

Puerto Rico cannot compete on wages with its neighbors in the Caribbean or with the low-wage scales found in areas such as Hong Kong and Korea. With the island's relatively high living costs and its association with the U.S., Puerto Rico is now concentrating on attracting more capital-intensive industries. However, if Puerto Rican unemployment is to be reduced the island may have to rely on a mix of industries, including ones which are relatively labor intensive.

ENVIRONMENTAL REGULATIONS

Since 1969, with the enactment of the National Environmental Policy Act (NEPA),⁶³ a large number of Federal environmental statutes have been adopted by Congress.⁶⁴ In each of these statutes,

general guidelines and standards are set forth, and executive branch environmental agencies given the responsibility to promulgate regulations consistent with the intent of the laws.

Puerto Rico is subject to Federal environmental laws by virtue of its having been deemed a "State" in each instance. Puerto Rico is thus subject to full Federal jurisdiction over environmental matters.⁶⁵

Although the Commonwealth Government believes that "the protection of the environment and natural resources is in the public interest in a modern society,"⁶⁶ it is also "concerned about some aspects of the applicability of Federal environmental laws and regulations to Puerto Rico."⁶⁷ The Commonwealth Government therefore believes that:

The environmental laws and regulations of the United States should be modified so as to make them more responsive to physical and social conditions in Puerto Rico. In terms of physical characteristics, social priorities and economic factors there are many differences between the United States mainland and Puerto Rico.⁶⁸

Decisions about the kinds and locations of industries permitted in Puerto Rico must account for resulting air and water pollution, and consider the high added costs associated with actual pollution control as well as the large amount of research and reporting required by Federal environmental laws and regulations. The cost impact of these requirements may be particularly severe for an area such as Puerto Rico, given its different geographic location and level of economic development.

Air Pollution

Under the Clean Air Act of 1970, as amended, the States (Puerto Rico is designated as a State) must propose their own locally administered and enforced air quality plans, which are subject to approval by the Federal Environmental Protection Agency (EPA). If the States do not adopt such a plan, EPA will do it for them. Once approved, the State plan has the force of law. Puerto Rico has

⁶² In addition to the Federal jurisdiction, the Commonwealth jurisdiction is exercised pursuant to the Public Environmental Policy Act, Law No. 9 of June 18, 1970.

⁶³ *An Agenda for a Social-Economic Study of Puerto Rico, Part Two*, op. cit., p. 10.

⁶⁴ *Ibid.*

⁶⁵ *Ibid.*

and Public Law 92-396; 42 U.S.C. 1962 *et seq.*; (7) Ports and Waterways Safety Act (Public Law 92-340, 33 U.S.C. 1221 *et seq.*); (8) Marine Protection, Research, and Sanctuaries Act (Public Law 92-532, as amended by Public Law 93-472, Public Law 94-62, and Public Law 94-326; 33 U.S.C. 1401 *et seq.*); (9) Noise Control Act (Public Law 92-574, 42 U.S.C. 4901 *et seq.*); (10) Federal Environmental Pesticide Control Act (Public Law 92-516, 7 U.S.C. 136 *et seq.*); (11) Coastal Zone Management Act (Public Law 92-583, as amended by Public Law 94-370; 16 U.S.C. 1451 *et seq.*); (12) Energy Supply and Environmental Coordination Act (Public Law 93-319, 15 U.S.C. 791 *et seq.*); Safe Drinking Water Act (Public Law 93-523, 42 U.S.C. 300f *et seq.*); and Toxic Substances Control Act (Public Law 94-469, 15 U.S.C. 2601 *et seq.*).

⁶⁶ *Agenda for a Socio-Economic Study of Puerto Rico, Part Two*, op. cit., p. 222.

⁶⁷ Public Law 91-190, 42 U.S.C. 4321 *et seq.*

⁶⁸ The scope of environmental laws and regulations is illustrated by the following laws which are presently in force: (1) Environmental Quality Improvement Act (Public Law 91-224, 42 U.S.C. 4371 *et seq.*); (2) Environment Education Act (Public Law 91-516, 20 U.S.C. 1531 *et seq.*); (3) Clean Air Act (Public Law 91-604, as amended by Public Law 92-157, Public Law 93-15, Public Law 93-318, and Public Law 95-95; 42 U.S.C. 7401 *et seq.*); (4) Resource Conservation and Recovery Act (Public Law 94-272, as amended by Public Law 91-512, Public Law 93-611, and Public Law 94-580; 42 U.S.C. 6901 *et seq.*); (5) Federal Water Pollution Control Act (Public Law 92-500, 33 U.S.C. 1251 *et seq.*); (6) Water Resources Planning Act (Public Law 89-80, as amended by Public Law 92-27

such a plan which has been approved, with various modifications, by EPA.⁶⁹

The Commonwealth's Clean Air Plan includes the EPA designation system which is applied to various regions.⁷⁰ The entire island is considered as an "air quality control region," and certain acceptable pollution levels are established for various parts of the island on the basis of conditions existing at the time the plan was adopted.

The class designations⁷¹ and their meanings are as follows:

Class I.—applies to areas in which practically any change in air quality would be considered significant. This is generally referred to as the "pristine" zone.

Class II.—applies to areas in which deterioration normally accompanying moderate well-controlled growth would be considered insignificant.

Class III.—applies to those areas in which deterioration up to the national standards would be considered insignificant.

Class I areas consist mostly of parks and national wilderness areas, although facilities in adjacent zones can be affected if they emit pollution that carries over into Class I areas. Class II includes all areas (1) which are not designated as Class I, and (2) where "... air quality is presently cleaner than existing ambient air quality standards."⁷²

Class III areas are created by redesignating Class II areas. Downgrading an area to Class III requires "separate actions by State Governors, acting in consultation with their legislatures and in accordance with EPA-approved procedures..."⁷³ Included in these procedures is the requirement that legislative approval be obtained from "... general purpose units of local governments representing a majority

of the residents of the area..." to be redesignated.⁷⁴ Such redesignations are not meant to be easily obtained.

Class III areas allow for more industrialization than Class II areas. The EPA Administrator has stated that:

... a Class II increment should be compatible with moderate, well-controlled development in a nationwide context, and that large-scale development should be permitted only in conjunction with a conscious decision to redesignate the area as Class III.⁷⁵

In addition to the three classes, all of which exist in Puerto Rico, there are also "nonattainment areas" where national standards for individual pollutants have been exceeded.⁷⁶ Puerto Rico has two nonattainment areas: (1) the Catano Air Basin in San Juan, and (2) the Guayanilla Air Basin in a refinery area on the southern coast. In these areas no new industry is permitted unless (1) some existing source of pollution is eliminated, or (2) the EPA Administrator waives this requirement.⁷⁷

The waiver—or Clean Air Plan revision—possibility was granted by the 1977 amendments to the Clean Air Act of 1970. It was partially meant to benefit less developed areas, such as Puerto Rico, which have complained that their industrialization was being restricted by the trade-off requirements. This requirement can now be temporarily avoided, although only under strict conditions. The only revised Clean Air Plan that will be approved by the EPA Administrator is one which:

1. Identifies all nonattainment areas in each State for each air pollutant;
2. Assures attainment as expeditiously as practicable, but no later than December 31, 1982, for sulfur dioxide, carbon monoxide, particulates and oxides of nitrogen. Areas not attaining the standards for oxidants must attain the standards as soon as possible but no later than the end of 1987;
3. Requires, during the interim period before the mandatory attainment dates, "reasonable further progress" to attain the standards defined as equal reductions in total emissions every 2 years;
4. Includes a comprehensive, current inventory of actual emissions from all sources every 2 years; and
5. Identifies and quantifies the emissions the Administrator determines, by regulations, must be taken

⁶⁹ 40 Fed. Reg. 39862 (August 29, 1975); 40 Fed. Reg. 42194 (September 11, 1975); 41 Fed. Reg. 8968 (March 2, 1976); 41 Fed. Reg. 51017 (November 19, 1976).

⁷⁰ 40 CFR 52, subpart BBB.

⁷¹ 39 Fed. Reg. 42510. The regulations were proposed on August 27, 1974 (39 Fed. Reg. 31000), and the December 5 announcement adopted them. According to the Clean Air Amendments of 1967, sec. 163, the maximum allowable increases in sulfur dioxide and particulate matter over the baseline (the ambient concentration level existing at the time of classification) are as follows:

Pollutant	Maximum allowable increase (in micrograms per cubic meter)		
	Class I	Class II	Class III
Particulate matter:			
Annual geometric mean	5	19	37
24-hour maximum	10	37	75
Sulfur dioxide:			
Annual arithmetic mean	2	20	40
24-hour maximum	5	91	182
3-hour maximum	25	512	700

⁷² U.S. Congress Conference Report No. 95-564, (*House-Senate Conference Report on Clean Air Act Amendments of 1977*), pp. 50-63 (S.127).

⁷³ "The Clean Air Conference—Something for Everybody," *National Journal* (August 13, 1977), pp. 1261-1263.

⁷⁴ Sec. 164(2) Public Law 95-95.

⁷⁵ 39 F.R. 42510.

⁷⁶ The term "nonattainment area" means, for any air pollutant, an area which is shown by monitored data or which is calculated by air quality modeling (or other methods determined by the Administrator to be reliable) to exceed any national ambient air quality standard for such pollutant. (Sec. 171 of Clean Air Act Amendments of 1977, Public Law 95-95, 91 Stat. 746.)

⁷⁷ *Ibid.*, sec. 129.

into account for purposes of attaining the standards and permitting new growth.⁷⁸

The fact that a Clean Air Plan revision can be granted does not mean that it is obtainable even if the strict conditions of the 1977 amendments are met. First of all, any mitigating actions taken by the EPA Administrator (such as a variance or a waiver) pursuant to the Clean Air amendments are subject to NEPA and hence court challenge. This is because the granting of a waiver is deemed a Federal action affecting the environment. Such Federal actions are subject to court challenge. Secondly, 1982 and 1987 (dates for pollution attainment) are not that far away for purposes of industrial plant planning when lead times are considered. These lead times prior to actual plant construction are necessitated by corporate planning, filing of an environmental impact statement, Federal review, and possible time consuming court challenge if a waiver is granted.

Since modifications in the trade-off requirement are extremely difficult to make, future industrialization in Puerto Rico most likely must take place in areas where the levels of business infrastructure and manpower availability are more limited than those which exist in the nonattainment areas. On the other hand, a geographic distribution of industries has been a goal of the Puerto Rican Government. This goal is reflected in the fact that the Puerto Rican Industrial Incentives Act gives greater tax incentives to industries which located in "nonindustrialized" areas.

The cost of pollution control and monitoring equipment adds to operating expenses for many industries on the island. Pollution control also creates costs for the public sector. Although such costs are difficult to measure, they are proportionately higher for poorer regions like Puerto Rico which start with lower incomes and government revenue.

Water Pollution

Many of the same cost considerations related to clean air regulations also pertain to clean water regulations. But measures to limit water pollution appear to have greater effects on the public sector and on particular industries.

The rum industry, for example, has a major clean water problem. Rum producers in Puerto Rico have, traditionally, eliminated their wastes through ocean disposal. Under various Federal programs, permits to discharge these wastes are required. The rum industry wanted to continue its discharge practices and sought specific authority to do so under the Clean Water Act of 1977.⁷⁹ The exemption was not allowed and the Congress required that EPA con-

duct a study of the discharge problem. Presumably, some future findings will supply enough information on the effects of such discharges to determine whether they should be continued. EPA wants the discharges stopped, but it appears that the 1977 amendment will allow the rum industry additional time while the study is made.

The rum problem is dealt with (although not under that name) in section 44 of the 1977 Act which concerns "modification of secondary treatment requirements." Section 44 provides that certain discharges may be made into marine waters if the applicant can satisfy the EPA Administrator that specific requirements will be fulfilled. In the case of rum, these would include nontoxicity.

For Puerto Rico, section 44 is extremely important, for it applies to much more than rum discharges. Thermal discharges of the Water Resources Authority could also be approved, as could any other industrial discharge which could meet the tests outlined in the law. Being a small island with very little disposal area available, Puerto Rico uses the sea as its natural disposal site. Before the 1977 amendments, however, there was little provision for procedures through which to persuade the Administrator that certain types of polluting discharges should be allowed.

The Senate Report on the 1977 Clean Water Act noted:

The bill intends to give the Administrator of EPA a safety valve in the event that the courts find he does not have flexibility in administering the 1983 requirements for industries. It authorizes a case-by-case exemption for industries which demonstrate, to the satisfaction of the Administrator, that pollutants in their discharge are not toxic or harmful to the aquatic environment; that the pollutants discharged will not interfere with the attainment of the national water quality standard . . . ; that there are applicable water quality standards specific to the pollutant; that the new limitation will not be less than required by best practicable treatment; and that the exemption would not be available for pollutants designated as toxic or hazardous pursuant to the act or for which there is a primary drinking water standard under the Safe Drinking Water Act.

This approach allows the discharger to demonstrate no adverse effect of pollutants in his discharge and to have his requirement reduced.⁸⁰

Puerto Rico is specifically denoted by the Senate Report as one of the primary areas covered by this section.⁸¹

Another Puerto Rican concern related to waste discharge into the deep sea is the requirement for secondary treatment of sewage. The Commonwealth

⁷⁸ See House Report 294, pp. 13-14.

⁷⁹ Public Law 95-217.

⁸⁰ Senate Report No. 95-370, p. 41.

⁸¹ *Ibid.*, p. 46.

does not want to shoulder the expenses for secondary treatment plants when a large segment of the population does not even have primary sewage treatment.

... in 1972, the Puerto Rico Aqueduct and Sewers Authority provided sewer service to approximately 39 percent of the estimated population. About 16 percent of the population use individual septic tanks or cesspools, 45 percent ... use latrines, illegal discharges to storm and sanitary sewers, or inadequate means of disposal. The question is, how will Puerto Rico's environment be better served; by providing more efficient facilities to the 45 percent of the population using latrines or building secondary plants where ocean conditions are acceptable for the disposal of primary treatment effluents?⁸²

Unless deep sea discharges, which admittedly are expensive, are allowed, the Commonwealth Government must build new treatment plants in areas which "... have already reached the point where no more individual or commercial pollutants can be permitted without treatment."⁸³ With regard to alternate methods of treatment, however, the regulations to implement the 1977 Clean Water Act amendments exclude waivers for ocean disposal except for existing treatment plants.

The Commonwealth believes that such discharges fall within the environmental limits protecting public water and marine life required by section 44 of the Clean Water Act of 1977, and is seeking a permit to continue this disposal method. The granting of such a permit by the EPA would conform to what the Puerto Ricans feel are reasonable adaptations to particular local conditions.

Future Options

The vastness of environmental concerns and activities makes impossible a general review of relevant legislation as it affects a particular region.⁸⁴ How-

⁸² *Agenda for a Socio-Economic Study of Puerto Rico, Part One*, op. cit., pp. 10-11.

⁸³ *Ibid.*, p. 11.

⁸⁴ The magnitude of an environmental review is demonstrated by the recently filed Draft Environmental Impact Statement dealing with "Puerto Rico Coastal Management Program," filed by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management (filed March 23, 1978). Although it is more than 2 inches thick, it deals with only one segment of the environmental concerns of the Commonwealth.

ever, much of the existing environmental legislation, as it relates to Puerto Rico, will be affected by the 1977 Clean Water Act and the 1977 Clean Air Act Amendments. For the first time States have an opportunity to demonstrate that certain national standards should not be applied across the board. The water discharge provisions could have a particularly significant impact for Puerto Rico, given the potential for continued, and even new, deep ocean dumping.

The Commonwealth Government's position has been that environmental laws must take into consideration Puerto Rico's physical and economic conditions. The 1977 amendments to the clean air and clean water statutes demonstrate that many States share Puerto Rico's concern that particular local conditions are sometimes disregarded in national legislation. Although the only allowable long-term exceptions to these rules can occur when standard environmental goals can be achieved through non-standard means, the 1977 amendments do allow for a better matching of costs and benefits.

Environmental regulations in Puerto Rico do produce benefits as well as costs. The health and well-being of the Puerto Rican people, and also of the island's tourist industry, are enhanced by these safeguards. In balancing costs and benefits, however, the Federal Government could attempt to:

- Give favorable consideration, within available programs, to assisting the Puerto Rican public sector with environmental control costs, especially since both its existing pollution control equipment and financial resources are less adequate than those of the average State.
- Consider Puerto Rico's high energy costs and reliance on petroleum when applying environmental standards based on cost/benefit considerations for States with lower energy costs and alternate energy sources.
- Allow for the full study of alleged environmental degradation by Puerto Rican industries—such as the rum industry—and, if greater pollution control is deemed necessary, provide an implementation timetable that will not seriously upset the island's fragile economy.

Chapter VI.—Descriptions and Analyses of Key Federal Programs Applicable to Puerto Rico

DETAILED PROFILES OF KEY PROGRAMS APPLICABLE TO PUERTO RICO

Introduction

The 82 profiles contained in the volume review over 103 Federal-assistance programs. These programs are estimated to account for 90 percent of the total assistance applicable to Puerto Rico. The purpose of this profile series is to present a readable summary of each program which contains a concise statement of purpose, the basis for Puerto Rican eligibility, the allotment methods, the actual financial outlays of the last two fiscal years, the major administrative requirements for fundings, and the identification of any major legal or administrative barriers which might prevent optimal program participation by Puerto Rico.

Selection Criteria for Major Federal Program

For purposes of the profile series, a "key" Federal program is a grant, loan, loan guarantee, or direct payment program that contributed more than \$1 million to Puerto Rico in FY 1976 as shown in the Inventory in Appendix I.

Key programs that existed in FY 1976, but do not exist at present, have not been included. However, the FY 1976 key programs subsequently absorbed into newer programs are summarized in their new context. Some programs not included in the appendix I inventory have been included in the profile summaries, e.g., Antirecessionary Assistance, a Treasury Department program.

Although the appendix I inventory has been used to identify most of the programs summarized in this volume, the outlay figures for each program in the inventory and in the profile summary are not identical and, hence, not comparable. The appendix I

inventory outlays represent only the *preliminary figures* sent by the Federal agencies to the Community Services Administration for publication in the "Federal Outlays" booklet. The outlays presented in the program summaries have been obtained directly from the Federal program administrators and represent the *final outlay figures* for 1975, 1976, and in some instances 1977. For further details, see discussion on *Outlays* below.

Format Introduction

The key Federal programs are summarized in a standard form designed to explain the important points of each in a clear and simple fashion. Each profile includes the following subtitled sections:

- Title
- Summary of Purpose
- Statutory Objective
- Basis of Puerto Rican Eligibility
- Outlays
- Allotment Methodology
- Requirements for Funding
- Identifying Legal and Other Barriers
- Conclusions

The following is a complete description of the type of information contained in each of the above sections.

Title.—The formal program title and the popular or "nickname" (if one exists) head each program profile. If the program is listed in the Catalog of Federal Domestic Assistance (CFDA) published by the Office of Management and Budget, the program's CFDA number is included in brackets ([]) beside the title. If the program title is followed by an asterisk (*), this means that it accords Puerto Rico differential treatment, either favorable or unfavorable.

Summary of Purpose.—This section contains a

short description of the program's major activities and functions as it is presently operating. The summary identifies who may receive funds or benefit from the program, and whether Federal outlays must be matched by State and local funds. If there is no mention of a matching requirement in this section, no such requirement exists. The percentage of Federal/State-local share of each matching requirement is shown as follows: (90-10). The first number in the parentheses, i.e., 90, denotes the Federal share, in this instance 90 percent; the second number denotes State or local share, i.e., 10 percent. In other words, for every \$9 in Federal funds, the State or local government must contribute \$1.

When a significant consolidation of 1976 programs subsequently occurs, a separate note will be added. Normally, a number of categorical programs are merged into a single formula block grant program; for example, Library and Learning Resources (HEW), or Community Block Development Grants (HUD).

This summary is provided as an introduction for the reader who is not familiar with specific Federal programs.

Statutory Objective.—This section presents the congressional language contained in authorizing legislation for the program which details the legislative vision of the purpose for the program. However, the statutory language defining the program's purpose does not always represent the way the program functions at present. In the years subsequent to the initial enactment of some programs, certain authorized subprograms have never been funded, or have had their funding terminated.

As stated above, the primary functions of the program as it is constituted at present are described in the prior *Summary of Purpose* section.

Basis of Puerto Rican Eligibility.—This section indicates the statutory basis of Puerto Rican participation in the Federal program. However, specific limitations on the extent of Puerto Rican participation are noted in other sections and summarized in the section entitled *Identifying Legal and Other Barriers*. The date of legislation authorizing Puerto Rican participation is not included, unless that date is very recent.

Outlays.—The dollar figures in this section represent, for FY's 1975, 1976, and 1977, the program's funding for both the Nation as a whole, and for Puerto Rico alone. Where possible, the Transition Quarter (July 1–Oct. 30, 1976) has been excluded from the 1976 figures to make the figures for each fiscal year comparable.

In most cases the outlay figures represent obligations obtained directly from the program administra-

tors and their statistical units. Where possible, these outlay figures have been broken down by subprogram. These breakdowns highlight which subprograms are particularly important in Puerto Rico, and also help identify potential problem areas. For example, a zero dollar outlay in Puerto Rico in 4 out of 5 subprograms usually indicates some problem in administration of the program, or some misunderstanding, that prevents the operation of four-fifths of the program in Puerto Rico.

It should be emphasized that outlay figures obtained from program administrators will not necessarily agree with the figures for the program in the Appendix I Inventory for the following reasons:

(1) Program figures received from program administrators represent the final figures for FY's 1975, 1976, and sometimes 1977. Appendix I Inventory figures only represent preliminary figures sent by the Federal agencies to the Community Services Administration for publication in the Federal Outlay booklet. Since inventory figures are not final, it was determined that every effort be made to secure the final dollar figures from the program administrators.

(2) The Federal outlay booklet, and thus the appendix I inventory, do not give figures broken down by subprogram activities. The breakdowns were only obtainable from the agencies directly. These figures obtained by phone from the agencies may not always be accurate to the last dollar; however, they do indicate the rise and fall of the funding level nationwide, and in Puerto Rico alone, for all the programs and subprograms.

Lists of program expenditures of federally obligated funds from Puerto Rican or Federal authorities are not obtainable in a meaningful form. In a given fiscal year, expenditures onisland may represent the use of funds obligated to Puerto Rico over the prior 2 or 3 years. It is not presently possible to correlate the amount of funds obligated for a given fiscal year with an account of funds *actually spent* in Puerto Rico for that same fiscal period.

Allotment Methodology.—This section describes the legislative procedure used to determine the maximum appropriation allotted to each State and/or outlying territory. The appropriated funds can be distributed in the form of grants, loans, or direct payments. If the program awards grants, the national funds may be distributed in one of the following three ways:

(1) *By Formula.*—Formula allotments are made to the States and outlying areas on the basis of a statutory statistical formula, e.g., the number of children under 5 or widows over 65. In some cases, the financial need variable (usually per capita income in a State or Puerto Rico) is fixed for Puerto

Rico, but not for States. This normally reduces the amount of Puerto Rico's maximum allotment under the formula. In most cases, the maximum allotment for the island is not greater than the minimum allotment guaranteed mainland States.

(2) *By Discretion.*—Discretionary allotments normally do not guarantee any State or outlying area a minimum sum or percentage of yearly appropriated funds. Every State and outlying area must compete among themselves for the funds which are awarded in the discretion of the program administrator. The statute authorizing the discretionary program may provide a list of factors that must be considered, though the weight of each factor would not be fixed.

(3) *By Set-Aside.*—Puerto Rico and other outlying areas are often excluded from the normal need-based formula distribution process and subjected to a separate and distinct allocation formula called a set-aside.¹ The set-aside represents a statutorily determined percentage, usually 2 or 3 percent, that is put aside for allocation among the outlying areas (Puerto Rico, the Virgin Islands, Guam, American Samoa, Northern Marianas, and the Pacific Trust Territories) according to their respective needs. The set-aside establishes an absolute ceiling on funds obtainable by the outlying areas for the program. It is either distributed by formula among the outlying areas, or handled as a separate discretionary grant program in which the offshore areas must compete for funds. *Under a set-aside, the allotment available to Puerto Rico is normally less than the minimum allotment statutorily mandated for a State.*

If loans or loan guarantees are offered by the program, they are not distributed to the States and offshore areas by formula. They are awarded on a discretionary basis to individuals, organizations, and sometimes State and local governments.

Direct payment programs such as Medicare are not grants-in-aid programs and do not allot their funds by formula. These programs make payment directly to individuals or the State governments for costs incurred (Medicare), or for benefits accrued (social security retirement insurance benefits). These programs do not depend on yearly congressional appropriations for funds and States cannot increase their participation in most of these direct payment programs.

¹ The set-aside procedure was originally established in 1946 in sections 4 and 5 of the National School Lunch Act. The only statement of congressional policy toward the set-aside indicates that Congress thought the special limitation necessary with respect to Puerto Rico and the Virgin Islands. This was because, under the normal allocation formula based on need, these areas would receive proportionately larger grants than any of the States.

Requirements for Funding.—The criteria for application and the restraints on use of funds received are set forth in this section. Briefly, they include:

(1) Eligibility criteria that determines who may apply; States, local governments, public or private corporations, or individuals;

(2) Eligibility criteria that determines who may benefit;

(3) The necessary application procedure;

(4) The Federal matching requirement if one exists, and whether it may be waived under certain conditions;

(5) A breakdown of the program with an explanation of each subprogram's distinct purpose;

(6) Significant recommendations on the use of funds;

(7) If the program is renewable, the limits on (a) the number of years that it may be renewed, and/or (b) the amount of funds that may be awarded over time to a single applicant.

No guide to the step by step application process will be provided, except by statutory citation, since Puerto Rico already participates in all programs summarized. Many of the elements of this section will also appear in the *Allotment Methodology* section. This is because the programs vary greatly and, at times, inclusion of elements in this section in the *Allotment Methodology* section helps the summary flow more simply.

Identifying Legal and Other Barriers.—This section identifies the statutory limitations on Puerto Rican participation in the programs. The differential treatment may be expressed as a distinct allotment formula for Puerto Rico, as a set-aside for the island as well as for other outlying areas, or in the statutory exclusion of Puerto Rico from participation in a subprogram. Other barriers may be found to exist in the actual funding levels for the island over the past few years. Although Puerto Rico may have the legal right to participate in a program and all of its subprograms, the island may receive little, if any funds, for administrative or other reasons.

If no barriers of the type mentioned above are found to exist, the short phrase "No unusual barriers" will be inserted under this subsection heading. As previously noted, if barriers do exist, an asterisk (*) will be placed beside the *Title* of the program.

Conclusions.—If Puerto Rico is not accorded State-like treatment, there will be a short summary of the barriers to such treatment.

If Puerto Rico is accorded State-like treatment, this section will be deleted.

DEPARTMENT OF AGRICULTURE

Agricultural Cooperative Extension Programs [CFDA 10.500]

Summary of Purpose.—To assist research on the problems of small farmers and rural development and disseminate the results of this research in educational extension programs to farmers and other rural residents through matching grants (50-50) under the Smith-Lever Act and nonmatching grants under the Rural Development Act of 1972.

Statutory Objective.—Under the Smith-Lever Act of 1914,¹ a national agricultural extension service has been set up to spread useful information on agriculture and home economics.² In the case of particularly disadvantaged agricultural areas, where "... farm families [live] on farms [which are] either too small or too unproductive or both [and] ... are not able to make full use of current extension programs designed for families ...", special additional aid will be dispensed to achieve the Act's objectives.³

Through the Rural Development Act of 1972,⁴ the Agriculture Department will (1) provide public services and investments creating jobs in rural areas, (2) provide funds to colleges for research in rural development, and (3) expand research on the problems of the small farmer.⁵

Basis of Puerto Rican Eligibility.—Puerto Rico can participate in the Smith-Lever programs,⁶ and the Rural Development Act programs as a "State".⁷

Outlays (under both acts)

	Total	Puerto Rican
FY 1977 _____	\$242,596,000	\$4,438,000
FY 1976 _____	219,261,000	4,499,000
FY 1975 _____	218,898,000	4,209,000

Allotment Methodology.—(A) Under the Smith-Lever Act, a State is entitled to receive and must match (50-50):

(a) a fixed amount equal to the sums available under the program for FY 1962.⁸

¹ 38 Stat. 372, 7 USCA §§ 341-348.

² 7 USCA §341.

³ 7 USCA §347a.

⁴ Public Law 92-419, 86 Stat. 671.

⁵ 7 USCA § 2661(a)-(d).

⁶ 7 USCA § 342.

⁷ 7 USCA § 2668.

⁸ 7 USCA § 343(b).

(b) additional funds above the fixed amount shall be allotted as follows:

(1) 4 percent for Federal administrative, and technical expenses:

(2) 20 percent allotted to each State in equal proportions;

(3) 40 percent allocated to the States in proportion to the ratio of the rural population of each State to the total rural population of the United States;

(4) 36 percent allocated to the States in proportion to the ratio of the farm population in the State to the total farm population of the United States.⁹

(c) Additional special assistance is available for disadvantaged areas, in the form of nonmatching grants. The Secretary of Agriculture can allocate these special funds on a discretionary basis but no more than 10 percent of the sums available under this special-need section can be allotted to any one State.¹⁰

(B) Under the Rural Development Act, funds are allocated on a nonmatching basis:

(1) 4 percent for Federal administration and national coordination expenses,

(2) 10 percent to finance joint projects between States,

(3) 20 percent allocated equally among the States,

(4) 33 percent allocated to the States in proportion to the ratio of the rural population of each State to the total rural population of the United States,

(5) 33 percent allocated to the States in proportion to the ratio of the farm population of each State to the total farm population of the United States.¹¹

Requirements for Funding.—Both Smith-Lever and Rural Development Act programs shall be administered on a State and local level by land-grant colleges.¹²

Under the Smith-Lever Act programs the colleges must give classes and demonstrations in agriculture advances and home economics to government units and private citizens in the rural and farm communities.¹³

For additional special assistance, the families in the rural area must be disadvantaged as defined by 7 USCA § 347a(a). The special need programs are outlined in 7 USCA § 347a(c).

With the Rural Development Act programs, the colleges shall conduct research on agriculture and small farm agriculture¹⁴ and disseminate its research

⁹ 7 USCA § 343(c).

¹⁰ 7 USCA § 347(d).

¹¹ 7 USCA § 2663(b).

¹² 7 USCA § 341, 7 USCA § 2664(b).

¹³ 7 USCA § 342.

¹⁴ 7 USCA § 2662(b)-(c).

in classes and demonstration to the general rural population and all levels of State and local government.¹⁵

Each coordinating State land-grant college shall submit a plan for approach to the Agriculture Extension Service.¹⁶

Identifying Legal and Other Barriers.—The Puerto Rican government and universities have had trouble matching Smith-Level Act funds.

Conclusions.—Puerto Rico is accorded State-like treatment but it has problems matching Federal funds available under the Smith-Lever Act.

Business and Industrial Development Loans—Insured and Guaranteed [CFDA 10.422]

Summary of Purpose.—To assist rural residents, corporations, cooperatives, and governmental subdivisions to obtain quality loans either insured or guaranteed, (1) to start businesses or industries and (2) to expand employment and improve pollution controls in existing business and industrial enterprises.

Statutory Objective.— . . . [T]o make and insure loans to public, private, or cooperative organizations organized for profit, or nonprofit . . . or to individuals for the purpose of improving, developing or financing business, industry, and employment, and improving the economic and environmental climate in rural communities, including pollution abatement and control.¹

This purpose is achieved through bolstering the existing private credit structure through guarantee of quality loans which will provide lasting community benefits.²

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible for loans under this program as a "State."³

Outlays

Insured Loans and Loan Guarantees

	Total	Puerto Rico
FY 1977 _____	\$349,987,010	\$18,691,000
FY 1976 ¹ _____	437,498,000	14,963,000
FY 1975 _____	349,994,000	13,000,000

¹ Includes transition quarter.

¹⁵ 7 USCA § 2662(a).

¹⁶ The plan is formally labeled a "Memorandum of Understanding."
7 USCA § 2665(a).

¹⁷ USCA 1932(a).

¹⁸ 7 CFR 1980.401.

¹⁹ 7 CFR 1980.401(u).

NOTE: More than 90 percent of the above outlays represent loan guarantees.

Allotment Methodology.—There does not exist a distribution formula for insured loans or loan guarantees. Theoretically, there is no limit on the amount that can be loaned to any particular State.

Requirements for Funding.—Loans and loan guarantees may only be made to individuals, corporations and public bodies for projects in rural areas.⁴ All applicant/borrowers must be U.S. citizens, and if a corporation, 51 percent of its equity must be held by Americans.⁵ All loans and loans guaranteed must comply with the requirements of the Equal Credit Opportunity Act,⁶ the Clean Air Act, and the Water Pollution Control Act.⁷

Loans and loan guarantees for projects in rural areas may be used by private entrepreneurs to start businesses and industries and to expand, modernize, as well as repair existing businesses and industries. Loans may also be extended to finance installation of pollution control equipment, to provide housing to prevent loss of jobs in areas, and to market agricultural and dairy goods.⁸

Loans and loan guarantees may not be used to finance agricultural production, the transfer of existing business, or the manufacture of goods not in sufficient demand.⁹

Loan guarantees, which form the bulk of the program at present, are Federal guarantees of loans between a private lender and a rural borrower. The Farmers Home Administration (FmHA) can issue a loan guarantee for 90 percent of the value of the loan.¹⁰ The FmHA guarantee authority, however, is not to be used "for marginal or substandard loans or to 'bail out' lenders having such loans."¹¹ A loan guarantee borrower need not prove his inability to obtain credit from other sources.¹²

Insured loans are direct loans granted by the FmHA from the Rural Development Insurance Fund.¹³ The insured loan borrower must show an inability to obtain credit from other sources.¹⁴

Identifying Legal and Other Barriers.—No unusual barriers.

⁴ Rural areas are defined as areas not within the outer boundary of any city with 50,000 or more persons, nor next to an urbanizing area with a population density of more than 100 persons per square mile.
7 CFR 1980.405.

⁵ CFR 1958.403.

⁶ 7 CFR 1980.434.

⁷ 7 CFR 1980.435.

⁸ 7 CFR 1980.411.

⁹ 7 CFR 1980.412(a)-(f), 7 USCA § 1932d(1)-(3).

¹⁰ 7 CFR 1980.420.

¹¹ 7 CFR 1980.401(b).

¹² 7 USCA § 1932(a) ". . . such loans . . . may be guaranteed . . . without regard to subsections (a) and (c) of section 1983 of this title."

¹³ Pools of insured loans are sold to the Federal Financing Board as Certificates of Beneficial Ownership. Source: Catalog of Federal Loan Guarantee Programs, House Subcommittee on Economic Stabilization of House Banking, Finance and Urban Affairs Committee, 95th Congress, 1st Session, September 1977, pp. 4-6.

¹⁴ 7 CFR 1980.411.

Farm Ownership Loans—Insured and Guaranteed [CFDA 10.402]

Summary of Purpose.—To make loans available to farmers and ranchers unable to obtain credit elsewhere so that they may become owner-operators of family farms.

Statutory Objective.—Loans may be made or insured . . . for (1) acquiring, enlarging, or improving farms, (2) recreational uses and facilities, (3) enterprise needed to supplement farm income, (4) refinancing existing indebtedness, and (5) loan closing costs . . . In making or insuring loans "for farm purchases, the Secretary shall give preference to persons who are married or have dependent families and, wherever practicable, to persons who are able to make initial loan payments, or who are owners of livestock and farm implements . . ." ¹

Basis of Puerto Rican Eligibility.—Puerto Rican farmers are eligible for loan guarantees and insured loans under this program. ²

Outlays

	Total	Puerto Rico
FY 1977 _____	\$451,240,000	\$5,231,900
FY 1976 _____	438,004,000	7,554,410
FY 1975 _____	344,977,000	2,937,040

Allotment Methodology.—No distribution formula exists and Puerto Rico is not limited to a set number or value of loans.

Requirements for Funding.—An applicant for both insured loans and loan guarantees ³ under this Farmers Home Administration (FmHA) program must (1) be a United States citizen, (2) have farm experience, (3) operate a "family" farm, and (4) be unable to obtain sufficient credit elsewhere at reasonable terms and rates. ⁴ The applicant must also possess (1) the legal capacity to incur a debt obligation and (2) managerial competence, ability, and industry. ⁵

¹ USCA § 1923.

² 7 USCA § 1922.

³ Two types of loans are authorized under this program: Guaranteed and Insured. Under a loan guarantee, the FmHA guarantees repayment to private lenders. The insured loan is in fact a direct loan given by FmHA to the farmer. Source: Catalog of Federal Loan Guarantee Programs, compiled by the Subcommittee on Economic Stabilization of the House Committee on Banking, Finance and Urban Affairs, September 1977, pp. 20-22.

⁴ 7 USCA § 1922.

⁵ 7 CFR 1980.180(b), 7 CFR 1904.180(c).

No insured loan may be made that exceeds \$250,000 ⁶ nor can a loan guarantee be extended that exceeds \$100,000.

Insured loans and loan guarantees may be used to purchase land, easement, and rights-of-way; to construct or relocate an essential modest dwelling; to construct water and sewage systems; to refinance secured and unsecured debts; and to purchase any stock in a cooperative lending agency that is necessary to obtain the loans. ⁷ Loan guarantee payments may be made for periods up to 40 years. ⁸

Most farm-ownership loans are insured loans. On a national level, of a total loan value of \$451 million for FY 1977, only \$717,000 went for loan guarantees. ⁹

Identifying Legal and Other Barriers.—No unusual barriers.

Farm Operating Loans—Insured and Guaranteed [CFDA 10.406]

Summary of Purpose.—To make loans available to farmers, ranchers, and youths in 4-H clubs unable to obtain sufficient credit elsewhere so that they may successfully operate their farms. Loans are also available for pollution control abatement in farm areas.

Statutory Objective.— . . . [T]o make loans . . . to farmers and ranchers . . . who (1) are citizens of the United States, (2) have a farm background and training or farming experience . . . sufficient to assure reasonable prospects of success in the proposed farming operation, (3) are or will become operators of not larger than family farms, and are unable to obtain sufficient credit elsewhere to finance their actual needs at reasonable rates and terms . . . ¹

Loans . . . to youths who are rural residents to enable them to operate enterprises in connection with their participation in 4-H clubs, Future Farmers of America, and similar organizations . . . ²

Loans may also be made to eligible applicants . . . for pollution abatement and control projects in rural areas. ³

Basis of Puerto Rican Eligibility.—Puerto Rican Farmers and rural residents can apply for both insured and guaranteed loans ⁴ under the Farmers Home Administration (FmHA) program.

⁶ 7 CFR 1904.180(c)(3).

⁷ 7 CFR 1980.180(c)(1), (2), (4)-(7).

⁸ 7 CFR 1980.180(d)(3).

⁹ Source: FmHA, Management Information Service.

¹ 7 USCA § 1941(a).

² *Ibid.* at (b).

³ 7 USCA § 1942(c).

⁴ 7 USCA 1941(a).

Outlays

(Insured and Guaranteed)

	Total	Puerto Rico
FY 1977	\$542,343,000	\$3,855,640
FY 1976	539,217,000	2,057,640
FY 1975	550,787,000	1,070,540

Allotment Methodology.—No allotment formula exists for insured loans or loan guarantees. There is no limit on the value of total loans to Puerto Rico.

Requirements for Funding.—For both insured loans and loan guarantees,⁵ applicants must (1) be a United States citizen; (2) have the legal capacity to borrow and become liable; (3) have a farm background and experience; (4) have managerial competence, ability and industry to carry out the proposed enterprise; (5) be unable to obtain sufficient credit elsewhere at reasonable rates and terms; and (6) operate a "family" farm and rely upon it for a larger portion of his earnings.⁶

No insured loan may be made, nor a loan guarantee extended, for a loan whose principal balance exceeds \$50,000. Neither type of farm operating loan may be used to purchase real estate.⁷ Both insured loans and loan guarantees may be used for purchases, expenses, and repairs for the farm, forestry, recreation, or nonfarm enterprises.⁸ Insured loans, however, cannot be used to supplement a loan guarantee, nor in most cases to refinance a loan guarantee.⁹

Most farm operating loans are insured loans. The guarantee loan program is relatively new. It started in FY 1976 and out of loan totals for FY 1977 of \$542,343,000, only \$4,617,000 were loan guarantees.¹⁰

Identifying Legal and Other Barriers.—No unusual barriers.

Food Distribution Programs, e.g., Food Distribution to Schools [CFDA 10.550]

Summary of Purpose.—To supplement numerous existing cash formula grant type food assistance pro-

⁵ A loan guarantee is an FmHA guarantee of a loan between a private lender and the farmer. An insured loan is a direct loan by FmHA to the farmer. Source: Catalog of Federal Loan Guarantee Programs, compiled by the Subcommittee on Banking, Finance and Urban Affairs, September 1977, pp. 16-20.

⁶ 7 CFR 1980.175(b)(1)-(7). Criteria for joint loans to families that share farming duties, to youths in 4-H clubs, and other special uses detailed in 7 CFR 1980.175(c).

⁷ 7 USCA § 1943, 7 CFR 1980.175(d)(2). 7 CFR 1904.175(c). Real estate improvements, though, are sometimes possible, 7 CFR 1980.175(d)(1)(ix).

⁸ 7 CFR 1980.175(d)(1), 7 CFR 1904.175(c).

⁹ 7 CFR 1904.175(c)(1)-(3).

¹⁰ Source: FmHA, Management Information Service.

grams intended to improve the diets of school children, the elderly, and needy persons with donations of food supplies.

Most nutrition programs administered by the Food Nutrition Service of the Department of Agriculture are eligible for food supplies from Government reserves.

Statutory Objective.—The program is intended to "encourage the domestic consumption of [agricultural] commodities or products . . . by increasing their utilization through benefits, indemnities, donations or by other means, among persons in low income groups as determined by the Secretary of Agriculture . . ." ¹ In order "to prevent the waste of commodities whether in private stocks or acquired through price support operations . . . the Commodity Credit Corporation is authorized . . . in the case of food commodities to donate such commodities . . . to such State, Federal, or private agency or agencies . . . in the assistance of needy persons . . ." ²

Specific food assistance programs have specific sections incorporating the Commodity Distribution Program into their programs.³

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible for food donations under the numerous statutory authorizations.⁴

Outlays

(I) Food Donations to School Lunch Programs

	Total	Puerto Rico
FY 1977 (est.)	\$499,792,000	\$12,948,000
FY 1976	373,054,000	10,219,000
FY 1975	255,498,000	6,933,000

(II) Food Donations to Institutions

	Total	Puerto Rico
FY 1977 (est.)	17,442,000	358,000
FY 1976	11,911,000	535,000
FY 1975	20,282,000	230,000

Allotment Methodology.—The Department of Agriculture has power under several statutes to acquire commodities for price support or surplus removal. All food distribution, however, is handled by the Food Nutrition Service (FNS). FNS distributes

¹ 7 USCA § 612c(2).

² 7 USCA § 1431(3).

³ For example, Nutrition for the Elderly Program authorized by the Older American Act of 1965, Public Law 89-73, 79 Stat. 218, incorporates the commodity donation in 42 USCA § 3045(f). See also, National School Lunch Act, as amended, 42 USCA § 1755.

⁴ For example, Section 416 of the Agricultural Act of 1949, as amended, 7 USCA § 1431; Also see, 7 CFR 250.3(c).

commodities to fulfill the goals of several overlapping nutritional programs.⁵

No matching funds are required and the Federal Government will pay the costs of packaging, handling, processing, transporting, and reprocessing those commodities donated.⁶

A list of criteria for State agencies to be eligible to conduct the distribution is contained in the regulation, 7 CFR 250.5. A list of private or public local agencies eligible for food donations is contained in 7 CFR 250.8.

Needy persons who already participate in the food stamp program are not eligible for donated commodities under the food distribution to needy families.⁷

Identifying Legal and Other Barriers.—No unusual barriers.

Food Stamps* [CFDA 10.551]

Summary of Purpose.—To improve the diets of low income families through a Federal subsidy program for those families so that they may buy an adequate amount of nutritious food at regular retail stores. Participating families purchase foods using stamps whose cost is determined by household size and income. The difference between the value of the stamps and their cost is the "bonus" which is completely paid by the Federal Government. State administrative expenses for this program are partially reimbursed by the Federal Government on a 50-50 basis.

NOTE: By 1977 amendment, the cash purchase requirement will soon be eliminated and eligible families will receive an amount equal to the "bonus."

Statutory Objective.—It is hereby declared to be the policy of Congress, in order to promote the general welfare, that the Nation's abundance of food should be utilized cooperatively by the States, the Federal Government, local governmental units, and other agencies to safeguard the health and well-being of the Nation's population and raise levels of nutrition among low-income households. The Congress hereby finds that the limited food purchasing power of low-income households contributes to hunger and malnutrition among members of such households. The Congress further finds that increased utilization of food in establishing and maintaining adequate national levels of nutrition will promote the distribution in a beneficial manner of our agricultural econ-

omy, as well as result in more orderly marketing and distribution of food. To alleviate such hunger and malnutrition, a food stamp program is herein authorized which will permit low-income households to purchase a nutritionally adequate diet through normal channels of trade.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State", for purposes of the food stamp program.²

Outlays

(I) Bonus Value of Food Stamps

	Total	Puerto Rican
FY 1977 _____	\$5,058,061,000	\$601,789,804
FY 1976 _____	5,326,505,000	583,834,400
FY 1975 _____	4,385,501,000	284,363,166

(II) Federal Share of State Administration Costs for the Food Stamp Program

FY 1977 _____	293,000,000	21,400,000
FY 1976 _____	251,100,000	17,500,000
FY 1975 _____	165,400,000	8,700,000

Allotment Methodology.—(I) At present, the food stamp program gives a low-income family greater buying power in the supermarkets. Each family (household) that qualifies under the income eligibility criteria for the given State may buy food stamps at a price that varies with family income. The amount of food stamps (coupon allotment) desired may be bought for the price calculated (the purchase requirement) under the semiannually revised schedule.³ The difference between the price paid and the value of the stamp received is the bonus value.

There exists one set of eligibility and purchase requirements for the 48 continental States and the District of Columbia, and a unique set of such requirements for Alaska, Hawaii, Puerto Rico, Guam, and the Virgin Islands.⁴ By statute, the coupon allotment schedules for Puerto Rico and the territories can never be more generous than those in the 50 States.⁵

The allowable household income eligibility stand-

⁵ See, 7 CFR 250.1(b) for list of acts authorizing commodity donation. Prominent programs included in that list are National School Lunch, School Breakfast, Summer Food for Children, Nutrition for the Elderly and Disaster Relief programs.

⁶ 7 CFR 250.4(e).

⁷ 7 CFR 250.4(a).

¹ Food Stamp Act of 1977, § 2, Public Law 95-113, 91 Stat. 958, September 29, 1977, 7 USCA § 2011.

² 7 USCA § 2012(j). Congress included Puerto Rico in the program through a 1971 amendment, Public Law 91-671, § 2(c), 84 Stat. 2048.

³ 7 USCA 2016(a).

⁴ USCA § 2014(a).

⁵ *Id.* at (b).

ards are nearly the same for Puerto Rico and the mainland, as is shown below:⁶

Household size	Maximum allowable monthly income standards—48 States and D.C.	Maximum allowable monthly income standards—Puerto Rico
1	\$262	\$262
2	344	344
3	460	467
4	580	593
5	687	707
6	827	847
7	913	933
8	1,047	1,067
Each additional member	+133	+133

As for the monthly purchase requirement schedules, they also are nearly identical in bonus benefits. A family of four with \$200 of income a month can buy \$174 worth of food stamps in New York for \$53 and can buy \$178 worth of food stamps in Puerto Rico for the same amount, \$53. The schedules for FY 1978 are set out below.⁷

(II) Under a 1977 amendment to the food stamp program, the purchase requirement will be eliminated, once regulations are approved.⁸ Each eligible household will receive food stamps probably equal to the present bonus value of the stamps. A family of four with a monthly income of \$50 will now probably receive \$164 in food stamps rather than pay-

⁶ *Ibid.*

⁸ Public Law 95-113, 91 Stat. 968, § 8, 7 USCA § 2017. Though this amendment was effective in October 1977, it will not be implemented until there are regulations. 7 USCA § 2011, note.

⁶ 42 F.R. 58156, 7 CFR 271, appendices A and B.

Monthly coupon allotments and purchase requirements—Puerto Rico

Monthly net income	For a household of—							
	1 person	2 persons	3 persons	4 persons	5 persons	6 persons	7 persons	8 persons
	The monthly coupon allotment is—							
	\$54	\$98	\$140	\$178	\$212	\$254	\$260	\$320
And the monthly purchase requirement is—								
\$0 to \$19.99	0	0	0	0	0	0	0	0
\$20 to \$29.99	\$1	\$1	0	0	0	0	0	0
\$30 to \$39.99	4	4	\$4	\$4	\$5	\$5	\$5	\$5
\$40 to \$49.99	6	7	7	7	8	8	8	8
\$50 to \$59.99	8	10	10	10	11	11	12	12
\$60 to \$69.99	10	12	13	13	14	14	15	16
\$70 to \$79.99	12	15	16	16	17	17	18	19
\$80 to \$89.99	14	18	19	19	20	21	21	22
\$90 to \$99.99	16	21	21	22	23	24	25	26
\$100 to \$109.99	18	23	24	25	26	27	28	29
\$110 to \$119.99	21	26	27	28	29	31	32	33
\$120 to \$129.99	24	29	30	31	33	34	35	36
\$130 to \$139.99	27	32	33	34	36	37	38	39
\$140 to \$149.99	30	35	36	37	39	40	41	42
\$150 to \$169.99	33	38	40	41	42	43	44	45
\$170 to \$189.99	39	44	46	47	48	49	50	51
\$190 to \$209.99	44	50	52	53	54	55	56	57
\$210 to \$229.99	44	56	58	59	60	61	62	63
\$230 to \$249.99	44	62	64	65	66	67	68	69
\$250 to \$269.99	44	68	70	71	72	73	74	75
\$270 to \$289.99		74	76	77	78	79	80	81
\$290 to \$309.99		78	82	83	84	85	86	87
\$310 to \$329.99		78	88	89	90	91	92	93
\$330 to \$359.99		78	94	95	96	97	98	99
\$360 to \$389.99			103	104	105	106	107	108
\$390 to \$419.99			112	113	114	115	116	117
\$420 to \$449.99			121	122	123	124	125	126
\$450 to \$479.99			122	131	132	133	134	135
\$480 to \$509.99				140	141	142	143	144
\$510 to \$539.99				149	150	151	152	153
\$540 to \$569.99				154	159	160	161	162
\$570 to \$599.99				154	168	169	170	171
\$600 to \$629.99					177	178	179	180
\$630 to \$659.99					184	187	188	189
\$660 to \$689.99					184	196	197	198
\$690 to \$719.99					184	205	206	207
\$720 to \$749.99						214	215	216
\$750 to \$779.99						222	224	225
\$780 to \$809.99						222	233	234
\$810 to \$839.99						222	242	243
\$840 to \$869.99						222	244	252
\$870 to \$899.99							244	261
\$900 to \$929.99							244	270
\$930 to \$959.99							244	279
\$960 to \$989.99								280
\$990 to \$1,019.99								280
\$1,020 to \$1,049.99								280
\$1,050 to \$1,079.99								280

Monthly coupon allotments and purchase requirements—48 States and the District of Columbia

Monthly net income	For a household of—							
	1 person	2 persons	3 persons	4 persons	5 persons	6 persons	7 persons	8 persons
	The monthly coupon allotment is—							
	\$52	\$96	\$138	\$174	\$200	\$248	\$274	\$314
	And the monthly purchase requirement is—							
\$0 to \$19.99	0	0	0	0	0	0	0	0
\$20 to \$29.99	\$1	\$1	0	0	0	0	0	0
\$30 to \$39.99	4	4	\$4	\$4	\$5	\$5	\$5	\$5
\$40 to \$49.99	6	7	7	7	8	8	8	8
\$50 to \$59.99	8	10	10	10	11	11	12	12
\$60 to \$69.99	10	12	13	13	14	14	15	16
\$70 to \$79.99	12	15	16	16	17	17	18	19
\$80 to \$89.99	14	18	19	19	20	21	21	22
\$90 to \$99.99	16	21	21	22	23	24	25	26
\$100 to \$109.99	18	23	24	25	26	27	28	29
\$110 to \$119.99	21	26	27	28	29	31	32	33
\$120 to \$129.99	24	29	30	31	33	34	35	36
\$130 to \$139.99	27	32	33	34	36	37	38	39
\$140 to \$149.99	30	35	36	37	39	40	41	42
\$150 to \$159.99	33	38	40	41	42	43	44	45
\$170 to \$189.99	39	44	46	47	48	49	50	51
\$190 to \$209.99	40	50	52	53	54	55	56	57
\$210 to \$229.99	42	56	58	59	60	61	62	63
\$230 to \$249.99	42	62	64	65	66	67	68	69
\$250 to \$269.99	42	68	70	71	72	73	74	75
\$270 to \$289.99		74	76	77	78	79	80	81
\$290 to \$309.99		78	82	83	84	85	86	87
\$310 to \$329.99		76	88	89	90	91	92	93
\$330 to \$359.99		76	94	95	96	97	98	99
\$360 to \$389.99			103	104	105	106	107	108
\$390 to \$419.99			112	113	114	115	116	117
\$420 to \$449.99			120	122	123	124	125	126
\$450 to \$479.99			120	131	132	133	134	135
\$480 to \$509.99				140	141	142	143	144
\$510 to \$539.99				149	150	151	152	153
\$540 to \$569.99				150	159	160	161	162
\$570 to \$599.99				150	168	169	170	171
\$600 to \$629.99					177	178	179	180
\$630 to \$659.99					178	187	188	189
\$660 to \$689.99						196	197	198
\$690 to \$719.99						205	206	207
\$720 to \$749.99						214	215	216
\$750 to \$779.99						216	224	225
\$780 to \$809.99						216	233	234
\$810 to \$839.99						216	238	243
\$840 to \$869.99							238	252
\$870 to \$899.99							238	261
\$900 to \$929.99							238	270
\$930 to \$959.99								274
\$960 to \$989.99								274
\$990 to \$1,019.99								274
\$1,020 to \$1,049.99								274

ing \$10 for \$174 worth of stamps. The Federal Government will still promulgate different food stamp allotment schedules for Puerto Rico and the States.

There does not exist a ceiling on the total amount of Federal funds for any State's or territory's food stamp program. The Federal Government through the Food and Nutrition Service of the Agriculture Department subsidizes the entire cost of the bonus value of the stamps and will cover half of the State administration costs for the program.⁹

Requirements for Funding.—The food stamp program must be administered by a State welfare agency pursuant to a State plan. The State agency will be reimbursed by the Federal Government for half of

the cost of its administrative duties which include (1) "certifying" that households are eligible, (2) accepting, storing, and protecting food stamps received from the Federal Government; and (3) issuing the stamps to eligible households.¹⁰

Those eligible for food stamps include welfare recipients, those with incomes below the poverty level, and, on a temporary basis, victims of disaster.¹¹ Those households receiving food stamps cannot receive Federal food donations under the food distribution program.¹² All able-bodied food stamp recipients must look for work or face the termination of their food stamp eligibility.¹³ The recipients can

⁹ 7 USCA § 2024.

¹⁰ 7 USCA § 2014(a)-(c), § 5(h), Public Law 95-113, 91 Stat. 964, 42 USCA § 5142.

¹¹ 7 USCA § 2013(b), as amended by Public Law 95-113.

¹² 7 USCA § 2015(d) as amended by Public Law 95-113, § 6(d), 91 Stat. 965.

¹³ 7 USCA § 2025. The 50-50 administrative matching grant may be increased to 60-40 for States that have a low "allotment error" rate. See the recent amendment, § 16(c), Public Law 95-113, 91 Stat. 976, now codified in 7 USCA § 2025(c).

satisfy this requirement by registering under WIN or the Federal-State unemployment compensation system.

Recipients may use the stamps (coupons) for the purchase of nutritious food at participating retail and wholesale food stores.¹⁴

Identifying Legal and Other Barriers.—Although the Puerto Ricans do not receive the same value of food stamp coupons as those on the mainland, the difference in value received is nominal. At the moment, the food stamp program is the largest Federal assistance program in Puerto Rico. When the recent amendments take effect and eliminate the purchasing requirement, many more Puerto Ricans will be able to take advantage of this program.

Conclusions.—The food stamp program stands out as one of the few major welfare programs that operates in Puerto Rico without a ceiling on annual Federal funds. It is a Federal program entirely funded by the Federal Government (except for administration expense which is on a matching (50-50) basis). While the Puerto Rican Government feels constrained by a \$72 million ceiling to pay AFDC and AABD recipients very low cash payments, it can pay full amounts to its citizens in the form of food stamps. When the purchase requirement is eliminated many more Puerto Rican families will be able to take advantage of the program, while some families will be dropped because of more restrictive upper limits on income.

Low to Moderate Income Rural Housing Loans Insured, Guaranteed, and Interest Credit (Rural Housing-Section 502 Loans [CFDA 10.410])

Summary of Purpose.—To make loans to farmers and other rural residents who do not have money and cannot obtain credit at reasonable rates in order to acquire decent, safe, and sanitary housing and related farm facilities.

Statutory Objective.— . . . [T]o extend financial assistance . . . (1) to owners of farms . . . to enable them to construct, improve, alter, repair, or replace dwellings and other farm buildings . . . and to purchase buildings and land constituting a minimum adequate site, in order to provide them, their tenants, lessees, sharecroppers, and laborers with decent, safe, and sanitary living conditions and adequate farm buildings . . . and (2) to owners of other real estate in rural areas for the construction, improvement, alteration or repair of dwellings, related facilities, and farm buildings, and to rural residents for such purposes and for the purchase of buildings and the pur-

chase of land . . . to provide dwellings . . . for their own use and buildings adequate for their farm operations and (3) to elderly persons who are or will be the owners of land in rural areas . . . in order to provide them with adequate dwellings and related facilities for their own use . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rican farmers and rural residents are eligible for loans under this program.²

Outlays

(I) Insured Loans

	Total	Puerto Rico
FY 1977	\$1,083,113,000	\$3,926,000
FY 1976	930,813,000	3,197,000
FY 1975	741,043,000	1,263,000

(II) Interest Credit Loans

FY 1977	1,485,677,000	81,532,000
FY 1976	1,355,823,000	44,193,000
FY 1975	1,185,601,000	21,356,000

(III) The Guarantee Loan program barely operated in FY 1976 and FY 1977.

Allotment Methodology.—No allotment formula exists for insured loans or the interest credit loans. There is no statutory limit on the value of loans destined for Puerto Rico.

Requirements for Funding.—Under the Section 502 Rural Housing program for low to moderate income persons, there are insured loans programs, revamped loan guarantee programs,³ and subsidized interest rate loan programs labeled "interest credit" loans for very poor people. The guarantee loan program operated only during FY 1976 and FY 1977. It was terminated and a new guarantee program was enacted to replace it in the Housing and Community Development Act of 1977.⁴ FmHA is presently writing new regulations for the guarantee program.

The insured loan and interest credit loan require that an applicant-borrower show that he is a farmer in a rural area or rural resident⁵ without decent,

¹ 42 USCA 1471(a).

² *Ibid.* at (a)(1).

³ A "loan guarantee" is an FmHA guarantee of a loan between a private lender and the rural resident. An "insured loan" is a direct loan by FmHA to the rural resident. Source: Catalog of Federal Loan Guarantee Programs, compiled by the Subcommittee on Economic Stabilization of the House Committee on Banking, Finance and Urban Affairs, September 1977, pp. 30-33.

⁴ Title II, sections 501-509, Public Law 95-128, 91 Stat. 1111.

⁵ 42 USCA § 1490. An area with less than 20,000 not contained in a standard metropolitan statistical area.

¹⁴ 7 USCA §§ 2018, 2016, as amended by Public Law 95-113, § 9, 91 Stat. 968.

safe housing and without the resources or credit necessary to build such a house.⁶ He must be a citizen of the United States or an alien with a valid permanent residence visa. The applicant-borrower must also demonstrate the ability to carry out the building project and must possess the legal capacity to incur debt obligations.⁷ A preference will be given to veterans and the families of deceased servicemen.⁸

Loans may be used to build modest houses and related farm facilities and to refinance a debt incurred in building a necessary dwelling.⁹

Loans for repayments may be stretched over a period of 33 years.

Of the loans extended under section 502, at least 60 percent must be interest credit loans that benefit the poorest persons.¹⁰ For the subsidized interest credit loans, the interest will be adjusted to as low as 1 percent so that the borrower will not need to pay more than 20 percent of his adjusted annual income for annual loan repayments.¹¹

For an applicant to qualify for the interest credit loan, he must have an adjusted annual income of less than \$10,000, a net worth of less than \$5,000 and the intent to use the loan to finance the building of a home which he shall personally occupy.¹²

Identifying Legal and Other Barriers.—No unusual barriers.

National School Lunch Program—Cash [CFDA 10.555]

Summary of Purpose.—To assist States through formula grants (both matching [25–75] and non-matching) and food donations in providing school lunches for all school children.

Statutory Objective.— . . . as a measure of national security, to safeguard the health and well-being of the Nation's children and to encourage the domestic consumption of nutritious agricultural commodities and other food, by assisting the States, through grants-in-aid and other means, in providing an adequate supply of foods and other facilities for the establishment, maintenance, operation, and expansion of nonprofit school lunch programs.¹

¹ 42 USCA § 1471(c). Lacking resources has been defined as a middle-income below \$15,600 and a low-income below \$10,000. FmHA Instruction 444.1 exhibits C and D.

² FmHA Instruction 444.1, part IV, section 502 Rural Housing Loan Policies, Procedures and Authorizations.

³ 42 USCA § 1479.

⁴ General uses are detailed in 42 USCA § 1471; specific uses are explained in FmHA 444.1, part VI; the modest housing limitation is contained in 42 USCA § 1487(a)(1).

⁵ This has been mandated by an amendment to 42 USCA § 1472(c) enacted in the recent Housing and Community Development Act of 1977, Public Law 95-128, section 509.

⁶ FmHA instruction 444.1 exhibit E, part VII(A).

⁷ *Id.* at part IV(A).

⁸ 42 USCA § 1751.

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible for funds under this program as a "State."²

Outlays

(I) State Administered Program, Section 4 (General Assistance)

	Total	Puerto Rico
FY 1977 (est.) —	\$560,700,000	\$10,200,000
FY 1976 —	509,000,000	9,200,000
FY 1975 —	549,400,000	8,500,000

Section 11 (Free or Reduced Price Lunches)

FY 1977 (est.) —	1,102,000,000	141,300,000
FY 1976 —	973,600,000	37,000,000
FY 1975 —	828,100,000	30,200,000

(II) Lunch Program Operated by Agriculture Department for Private Schools,² Section 4 (General Assistance)

FY 1977 —	5,000,000	—
FY 1976 —	4,300,000	—
FY 1975 —	4,350,000	—

Section 11 (Free or Reduced Price Lunches)

FY 1977 —	7,600,000	—
FY 1976 —	5,000,000	—
FY 1975 —	4,000,000	—

¹ Includes reimbursement of \$17.5 million retroactive to Nov. 15, 1974.

² NOTE: Where State law prohibits State aid to private parochial schools, the Agriculture Department administers the lunch program. In Puerto Rico, there does not exist such a prohibition; hence, there is no Department-administered program.

Allotment Methodology.—The allotment formula depends upon the type of aid: (1) cash for general food assistance (section 4); (2) cash for special food assistance (free or reduced price meals, section 11); and (3) donated food.

(I) Section 4

Food assistance payments for regular school meals shall equal the product of the number of meals multiplied by the "national average payment per lunch" (a figure determined by the Secretary as necessary each fiscal year). This payment, however, shall not

² The 1962 amendments under Public Law 87-823, 76 Stat. 944, to 42 USCA §§ 1753 and 1754 deleted a 3-percent limitation on aid to Puerto Rico. See also, 7 CFR 210.2(r).

be less than 10 cents per meal and shall not be less than the amount paid by the designated State agency to participating schools in FY 1972.³ There is a matching requirement for this type of aid.⁴

(II) Section 11

Special assistance payments for free and reduced price meals shall equal:⁵

(a) the product of the number of free meals multiplied by the "special assistance factor" for free lunches (never less than 45 cents), plus

(b) the product of the number of reduced price meals multiplied by the special assistance factor for reduced price meals (never less than 10 cents).

There is no matching requirement for this type of aid.⁶

(III) Food Donation

The Department of Agriculture can donate food under the provisions of the Child Nutrition Act of 1966.⁷ If the cash value of the donated commodities at the time of delivery should equal less than 90 percent of the value of those commodities on February 15 of the fiscal year, then the Secretary shall pay the difference in value in cash to the State agency administering the program.⁸ The level of commodity assistance shall not be less in value than 10 cents per lunch⁹ and there is no matching requirement for this portion of the program.¹⁰

Requirements for Funding.—A single State educational agency is required to submit a State plan to the Child Nutrition Division (CND) of the Food Nutrition Service (FNS) of the Agriculture Department.¹¹ It should also submit a statement of its policy for determining those whom are eligible for free and reduced price meals.¹²

To receive general food assistance payments from the Federal Government, the State agency must meet a 25-75 matching requirement, i.e., for each Federal dollar the State must supply \$3. The reasonable value of donated services, supplies, facilities and equipment can be used to meet the matching requirements.¹³ However, this matching requirement will be decreased by the percentage by which the State per

capita income falls below the average per capita income of the country.¹⁴ Ten percent of the State matching funds must come from State revenues appropriated or specifically utilized for lunch program purposes other than salaries and administrative expenses at the State level.¹⁵

If the State fails to meet the matching requirement the State must return to the Agriculture Department, upon demand by the Secretary of Agriculture, the percentage of Federal funds equal to the percentage of State matching funds never accumulated.¹⁶

There is no matching requirement for the free and reduced price lunch programs and the food donation program.

The Secretary of Agriculture sets the eligibility criteria for those who can participate in the free or reduced price lunch programs. Each fiscal year the Secretary shall set a poverty income level. A child would qualify for a free lunch if his family did not have an income more than 25 percent above the poverty income level. A child would qualify for a reduced price lunch if his family did not have an income more than 95 percent above the poverty income level.¹⁷

Identifying Legal and Other Barriers.—No unusual barriers.

Payments to Agricultural Experiment Stations (The Hatch Act) [CFDA 10.203]

Summary of Purpose.—To support agricultural research at State agricultural experiment stations through matching formula grants (50-50).

Statutory Objective.—It is the policy of Congress to continue the agricultural research at State agricultural experiment stations . . . to promote the efficient production, marketing, distribution and utilization of products of the farm as essential to the health and welfare of our peoples . . . to assure agriculture a position in research equal to that of industry . . .²

"It shall be the object and duty of the State agricultural experiment stations . . . to conduct original and other researches, investigations, and experiments bearing directly on and contributing to the establishment and maintenance of a permanent and effective agricultural industry in the United States."³

Basis of Puerto Rican Eligibility.—Puerto Rico is treated as a "State" for purposes of this statute.⁴

³ 42 USCA § 1753.

⁴ 42 USCA § 1756.

⁵ 42 USCA § 1759(a).

⁶ *Id.* at (d), also 42 USCA § 1756.

⁷ Public Law 89-642, 80 Stat. 885.

⁸ 42 USCA § 1755(b).

⁹ 42 USCA § 1755(e).

¹⁰ 42 USCA § 1755(d).

¹¹ 7 CFR 210.4(a).

¹² 7 CFR 210.8(a).

¹³ 42 USCA § 1756.

¹⁴ 42 USCA § 1756, 7 CFR 210.5(a).

¹⁵ *Ibid.*

¹⁶ 7 CFR 210.6(i).

¹⁷ 42 USCA § 1758(b)(1). See also 7 CFR 245.1.

¹ Public Law 92-318, 7 USCA 361 *et seq.*

² 7 USCA § 361a.

³ 7 USCA § 361b.

⁴ " . . . the term 'State' . . . includes . . . Puerto Rico . . ." 7 USCA § 361a.

Outlays

(I) Fixed plus Formula Allotments

	Total	Puerto Rico
FY 1977	\$72,263,000	\$2,089,000
FY 1976	63,489,000	1,846,000
FY 1975	57,780,000	1,702,000

(II) Regional Research Funds

FY 1977	21,657,000	410,000
FY 1976	18,419,000	356,000
FY 1975	16,482,000	30,000

Allotment Methodology.—(I) Fixed Allotments—the minimum to be received by each State:

(a) Each State is entitled to a fixed amount equal to the amount that it received for this program in FY 1955.⁵

(b) Funds made available separately in FY 1955 under the title of "Regional Research Fund, Office of Experimental Stations," shall continue to be made available for the support of cooperative regional projects. They shall be known, however, as "Regional Research Funds, State Agricultural Experiment Stations."⁶

(II) Additional Allotments—over and above the fixed allotment. Sums allotted in excess of the 1955 levels are distributed as follows:

(a) 20 percent shall be allotted equally to each State.⁷

(b) Not less than 26 percent allotted in proportion to the ratio of the rural population of the State to the total rural population.⁸

(c) Not less than 26 percent allotted in proportion to the ratio of the farm population of the State to the total farm population.⁹

(d) Not less than 20 percent of any sums shall be used by State agriculture experiment stations for advertising marketing research projects approved by the Department of Agriculture.¹⁰

(e) Three percent shall be made available to the Secretary of Agriculture for the administration of this program.¹¹

⁵ 7 USCA § 361c(b)(1). Where the total appropriation is less than that of FY 1955, the amount is divided in proportion to allotments made in FY 1955.

⁶ *Ibid.*

⁷ 7 USCA § 361c(c)(4).

⁸ *Id.* at (c)(2).

⁹ *Ibid.*

¹⁰ *Id.* at (c)(4).

¹¹ *Id.* at (c)(5).

Requirements for Funding.—(1) Allotments in excess of \$90,000, exclusive of regional research funds, State agricultural experiment stations, may not be made unless the State matches the excess dollar for dollar. If the State fails to make available matching funds for the excess over \$90,000, the remainder of such amount (the excess) shall be withheld by the Secretary of Agriculture.¹²

(2) Not more than 25 percent of the sums allotted over the fixed amount shall be allotted to the States for cooperative research in which two or more State agricultural experiment stations are cooperating to solve problems that concern more than one State. The funds available for these purposes, together with the other funds in the regional research fund, State agricultural experiment stations, shall be only used for such cooperative regional projects as are recommended by a committee of 9 persons elected by and representing the directors of the State agricultural experiment stations, and approved by the Secretary of Agriculture.¹³

(3) Unused appropriated funds cannot be carried into the new fiscal year and will be deducted from the subsequent year's allocation.¹⁴

Identification of Legal and Other Barriers.—No unusual barriers.

Rural Electric Loans—Insured and Guaranteed [CFDA 10.850]

Summary of Purpose.—To help finance electrification projects in rural areas by towns, villages, power companies, and rural electrical cooperatives that have difficulty obtaining private loans through direct, insured loans, and loan guarantees by the Rural Electrification Administration (REA).

Statutory Objective.— . . . [T]o make loans . . . for rural electrification and the furnishing of electric energy to persons in rural areas who are not receiving central station service . . .¹

. . . [T]hat adequate funds should be made available to rural electric . . . systems through direct, insured and guaranteed loans at interest rates that will allow them . . . to achieve the financial strength needed to enable them to satisfy their credit needs from their own financial organizations and other sources at reasonable rates and terms consistent with . . . [their] ability to pay . . .²

Basis of Puerto Rican Eligibility.—Puerto Rico can participate fully in both insured and guaranteed loan programs as a "State."³

¹² 7 USCA § 361c(d).

¹³ *Id.* at (c)(3).

¹⁴ *Id.* at (b).

¹ 7 USCA § 902.

² 7 USCA § 930.

³ 7 USCA § 913.

Outlays

(I) Insured Loans Extended

	Total	Puerto Rico
FY 1977	\$850,000,000	\$20,540,000
FY 1976	750,000,000	9,402,000
FY 1975	700,000,000	—

(II) Loan Guarantees Extended

FY 1977	3,985,520,000	—
FY 1976	1,241,553,000	—
FY 1975	2,180,776,000	—

Allotment Methodology.—Of the amount of funds available for direct, or insured loans for electrical plants, transmission lines, and plumbing equipment: (1) 25 percent of the funds will be allocated to each State in proportion equal to the number of farmers without central station electric service in the State to the total number of farmers without such electric service in the United States. Allotments not used within the first 6 months of the fiscal year need not follow the formula. Such unused allotments may be made available to any State, though no State may receive more than 25 percent of this sum.⁴

(2) 75 percent of the funds will be available without allotment, though no State may receive more than 25 percent of this sum.⁵

(3) Unused appropriated funds may be used and freely distributed in subsequent fiscal years, though no more than 25 percent of these sums may be allocated to any particular State.⁶

Loan guarantees are not allocated by any distribution formula. They are Federal Government pledges to back loans between private lenders and borrowers.⁷

Requirements for Funding.—Insured and guaranteed loans are only available to rural areas defined as communities with less than 1,500 persons.⁸

Insured loans are direct loans from the REA for periods not to exceed 35 years. These insured loans are offered at a standard interest rate of 5 percent per annum and at a special rate of 2 percent per annum. The hardship requirements for the special low interest rate are enumerated in the statute.⁹

Recipients of insured loans may be required to seek concurrent loans from private lenders if such loans are obtainable at reasonable rates.¹⁰

⁴ USCA § 903(c).

⁵ *Id.* at (d).

⁶ *Id.* at (e).

⁷ 7 USCA § 936.

⁸ 7 USCA § 913.

⁹ 7 USCA § 935(b).

¹⁰ 7 USCA § 937.

Identifying Legal and Other Barriers.—Under the major loan guarantee portion of this program, Puerto Rico has not received any loan guarantee.

Conclusions.—Puerto Rico is accorded State-like treatment but there is no island participation in the loan guarantee portion of the program. The interest rate on a loan guarantee is higher (currently 8½ percent) than on an insured loan (5 percent). A loan guarantee application by the Puerto Rican Water Resources Authority was not approved by FmHA because of insufficient benefits accruing to rural residents.

Rural Telephone Loans—Insured and Guaranteed [CFDA 10.851]

Summary of Purpose.—To provide Government loans at reasonable rates and loan guarantees of private loans made at reasonable rates to persons and public bodies in rural areas in order that they may improve, expand, and operate a telephone system for all residents of the area.

Statutory Objective.—It is declared to be the policy of Congress that adequate telephone service be made generally available in rural areas through the improvement and expansion of existing telephone facilities and the construction and operation of such additional facilities as are required to assure the availability of adequate telephone service to the widest practicable number of rural users of such service.¹

... [R]ural . . . telephone systems should be encouraged and assisted to develop their own resources and ability to achieve the financial strength needed to enable them to satisfy their credit needs from their own financial organizations and other sources at reasonable rates . . .²

Basis of Puerto Rican Eligibility.—Puerto Rico is entitled to State-like treatment.³

Outlays

(I) Insured Loans

	Total	Puerto Rico
FY 1977	\$145,901,000	—
FY 1976	250,061,000	\$25,000,000
FY 1975	199,939,000	—

(II) Guarantees Extended

FY 1977	0	—
FY 1976	181,615,000	—
FY 1975	200,000,000	—

¹ 7 USCA § 921.

² 7 USCA § 930.

³ 7 USCA § 913.

Allotment Methodology.—An allotment formula for insured loans by the Rural Electrification Administration (REA) limits the amount of loans to any State during the first 6 months of any fiscal year. After that period, telephone loans may be made to any State without regard to the formula limits.

When the formula does control during the first 6-month period of the fiscal year, only 25 percent of the funds appropriated are actually subject to formula allocation. This 25-percent portion is allocated to each State in the proportion of the number of rural residents without adequate telephone service to the total number of rural residents in the United States without adequate telephone service.⁴ The remaining 75 percent of the funds appropriated as well as unused funds appropriated in prior years may be allocated in any manner. The only limitation on these funds, however, is that no State may receive more than 25 percent of all funds.⁵ Yet, this limitation may be overridden in the discretion of REA administrators.⁶

Loan guarantees are not allocated by any distribution formula and can be granted without concern for geographical distribution. Loan guarantees pledge Federal credit to back private loans between private lenders and rural residents that are at reasonable rates. The Federal Government does not lend money directly under this guarantee arrangement.⁷

Requirements for Funding.—Insured loans and loan guarantees are only available to rural telephone systems in communities with less than 1,500 persons.⁸

The period for insured loans made by REA may not exceed 35 years. The insured loans made directly from REA funds are offered at a standard interest rate of 5 percent per annum and at a special interest rate of 2 percent per annum. To qualify for the lower interest rate, the telephone borrower must have the depressed economic situation of less than 3 telephone subscribers per mile.⁹

When insured loans are extended, the telephone borrower must assure that it will extend telephone service to all the residents within its legal operating area.¹⁰ The REA may extend loans to refinance outstanding indebtedness if this will help extend and improve telephone service. Refinancing, however, may not constitute more than 40 percent of any loan made to a telephone borrower.¹¹

Telephone borrowers must assure REA that the

security it pledges is reasonably adequate, that it will repay within the agreed time, and that there will not be a duplication of telephone service as a result of the project.¹²

Identifying Legal and Other Barriers.—Very few insured loans have been made to the island and no loan guarantees have been extended. Until 1978, when the Puerto Rico Communications Authority received approval for a \$60.5 million insured loan no Puerto Rican telephone company had applied for a Federal REA loan guarantee. The apparent lack of adequate financial security for loans to Puerto Rican telephone companies hinders the extension of loan guarantees. REA officials state that loan security conditions for the telephone industry differ markedly from such security conditions on the mainland.

Conclusions.—Puerto Rico is accorded State-like treatment but the island has an erratic participation record.

School Breakfast Program¹ [CFDA 10.553]

Summary of Purpose.—To enable private and public nonprofit schools and child care centers to initiate breakfast programs to feed all children, but particularly children from very poor families. The Federal assistance grants-in-aid will pay a portion of the costs of the breakfast program, and in cases of severe need by poor children, 100 percent of the costs.

Statutory Objective.— . . . [T]o assist the States through grants-in-aid and other means to initiate, maintain, or expand nonprofit breakfast programs . . .²

. . . [I]t is the purpose and intent of the Congress that the school breakfast program be made available in all schools where it is needed to provide adequate nutrition for children in attendance . . .³

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" and is eligible for funds under this program.⁴

Outlays

(I) State Administered Program

	Total	Puerto Rico
FY 1977 _____	\$148,000,000	\$7,263,011
FY 1976 _____	112,600,000	4,991,832
FY 1975 _____	86,200,000	834,590

¹² *Id.*

¹ Child Nutrition Act of 1966, §§ 4, 10, Public Law 89-542, 80 Stat. 886, 889, 42 USCA §§ 1773, 1779.

² 42 USCA § 1773(a).

³ 42 USCA § 1773(g).

⁴ 42 USCA § 1784(a). See also 7 CFR 220.2(y).

⁴ USCA § 903(c).

⁵ *Id.* at (c), (d), (e).

⁶ 7 USCA § 922. "When it is determined by the Administrator to be necessary in order to furnish or improve telephone service in rural areas, such loans may be made for the improvement, expansion, construction, acquisition, and operation of telephone lines, facilities, or systems without regard to their geographical location."

⁷ 7 USCA § 936.

⁸ 7 USCA § 924(b).

⁹ 7 USCA § 935(b).

¹⁰ 7 USCA § 922.

¹¹ *Id.*

(II) Agriculture Department Administered Program for Private Schools¹

	Total	Puerto Rico
FY 1977	2,600,000	-----
FY 1976	1,000,000	-----
FY 1975	500,000	-----

1 Where State law prohibits State aid to private parochial schools, the Agriculture Department will run the program. Such a prohibition does not exist in Puerto Rican law; therefore, there is no Agriculture Department-operated school breakfast program on the island.

Allotment Methodology.—The formula for the grant varies with the type of meal provided: regular, reduced-price, or free.⁵

(1) Regular breakfasts receive grants equal to the product of the number of breakfasts multiplied by the “national average payment per breakfast” factor which can never drop below 8 cents per meal;

(2) Reduced-price breakfasts receive grants equal to the product of the number of reduced-price breakfasts served children eligible for reduced-price breakfasts multiplied by the “national average payment per reduced-price breakfast” factor which can never drop below 15 cents per meal;

(3) Free breakfasts receive grants equal to the product of the number of free breakfasts served to children eligible for free breakfasts multiplied by the “national average per free breakfast” factor which can never be less than 20 cents and normally no higher than 45 cents. In severe cases, the statute gives the Secretary of Agriculture the discretion to pay 100 percent of the costs of a free meal.⁶

In addition to the above three formulas, the statute sets the overall minimum payments to each State at the amounts paid it in FY 1972.

A child's eligibility for free or reduced-price meals is determined by his family's income level: whether it falls below the poverty income level set by the Secretary of Agriculture and the State agency administering the program.⁷

Requirements for Funding.—A State agency is required to submit (1) the State plan that it filed under the School Lunch Act,⁸ (2) an application for the program, and (3) a statement of its policy for determining those whom are eligible for free or reduced-price meals⁹ to the Child Nutrition Division (CND) of the Food Nutrition Service (FNS) at the Department of Agriculture.

National eligibility standards for free and reduced-price meals under the national lunch, school breakfast and special milk programs¹⁰ are set by the Secretary of Agriculture.¹¹

The State in its required policy statement on eligibility may follow the Secretary's poverty income guideline or may set its own poverty guideline higher than those of the Secretary. There is a limit, however, on the State-determined poverty guidelines. A child's family income may not be more than 25 percent above the Secretary's guidelines for free meals and not more than 95 percent above the Secretary's guidelines for reduced-price meals.¹²

The State must give priority to areas where poor economic conditions exist, where children must travel long distances to school, or where there is a special need to improve the nutrition and dietary practices of particular groups of children.

Identification of Legal and Other Barriers.—No unusual barriers.

Conclusions.—State-like treatment.

Special Supplemental Food to Women, Infants and Children (WIC) [CFDA 10.557]

Summary of Purpose.—To supply supplemental nutritious food, through the use of cash grants, to those pregnant and lactating women and preschool age children identified by local health authorities as being impoverished and dangerously undernourished. This program shall provide assistance to those qualified regardless of the benefits that they receive under food stamp, food distribution, or other supplemental food programs.

Statutory Objective.—The Congress finds that substantial numbers of pregnant women, infants, and young children are at special risk in respect to their physical and mental health by reason of poor or inadequate nutrition or health care, or both. It is, therefore, the purpose of the program authorized by this section to provide supplemental nutritious food as an adjunct to good health care during such critical times of growth and development in order to prevent the occurrence of health problems.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible for assistance as a “State.”²

¹⁰ Child Nutrition Act of 1966, §§ 3, 10, 80 Stat. 885, 889, as amended, 42 USCA §§ 1722, 1779.

¹¹ 42 USCA § 1773(e) which refers to 42 USCA § 1758(b)(1) which mandates that the Secretary must set poverty income levels each year.

¹² 7 CFR 245.1(a).

¹ 42 USCA § 1786(a).

² 42 USCA § 1784(a).

⁵ 42 USCA § 1773(b).

⁶ 42 USCA § 1773(d).

⁷ 42 USCA §§ 1773(e), 1758(b)(1).

⁸ CFR 210.4(a).

⁹ CFR 210.7(a).

Outlays

	Total	Puerto Rico
FY 1977 (est.)	\$259,738,000	\$9,277,964
FY 1976	148,531,000	7,549,629
FY 1975	83,288,000	2,012,746

Allotment Methodology.—The Food Nutrition Service of the Agriculture Department will make cash grants to State health departments who in turn provide funds to (1) local health agencies or (2) welfare agencies or (3) private nonprofit agencies in the State which serve local health and welfare needs to enable such local agencies to make "supplemental foods" ³ available to pregnant or lactating women and to infants determined by professionals to be "nutritional risks." ⁴ This program will be carried out in addition to the food stamp and food distribution programs and operate side by side with existing supplemental food programs. ⁵

Requirements for Funding.—A State health agency must submit a State plan and budget for administrative costs to the FNS for its approval. Local agencies that qualify under the State plan must also submit a budget of administrative costs along with an application to the FNS.

Not more than 20 percent of total funds may be used for administrative expenses. The FNS, however, will grant additional administrative startup costs to get a local program functioning at its projected case load level. ⁶

Those mothers and children who are eligible to participate shall be determined by (1) competent professional authority or (2) their residence in an area determined to have significant numbers of infants and pregnant women at nutritional risk. ⁷

Identifying Legal and Other Barriers.—According to FNS administrators of the program, the Puerto Rican WIC program has a "problem with accountability." The FNS is auditing the books of the WIC program in Puerto Rico to correct this administrative problem.

Conclusions.—Puerto Rico is accorded State-like treatment. Past administrative problems dealing with accounting methods will be dealt with on the basis of a corrective action plan submitted to the U.S. Food and Nutrition Service by the Puerto Rican Department of Health.

³ "Supplemental foods" are highly qualified protein foods of particular need to pregnant women and growing young children. 42 USCA § 1786(g)(3).

⁴ *Id.* at (g)(1).

⁵ 42 USCA § 1786(b)(1).

⁶ 42 USCA § 1786(d).

⁷ *Id.* at (e).

Sugar Act Payments

NOTE: Over the past 4 years, the Sugar Act Payments program has gone through three changes. (I) The old program expired. (II) It was replaced in the fall of 1977 by an interim program. (III) The new program was suspended after 2 months of operation. The following is a description of the 3 phases in chronological order.

(I) Sugar Act Program that Expired in 1974.—Payments through FY 1976 were made under the Sugar Act of 1948 ¹ which expired December 31, 1974. Under the 1948 Act, the Government paid sugarbeet and sugarcane growers a subsidy that varied from 8 cents to 3 cents per pound of raw sugar. ² Although the subsidy program expired in 1974, the Agriculture Department through its Agricultural Stabilization and Conservation Service (ASCS), continued to make subsidy payments on the 1974-75 crop through FY 1976.

Summary of Purpose of Expired Act.—To maintain the farm incomes of those who grow sugar crops; to assure growers and their fieldworkers a fair share of the returns to the sugar industry; to prevent the employment of child labor in fieldwork on sugar crops through direct and indirect formula payments.

Basis of Puerto Rican Eligibility—Expired Act.—Puerto Rican growers were eligible for the subsidies under this act. ³

Outlays

	Total	Puerto Rico
FY 1976	\$10,275,000	\$3,370,000
FY 1975	77,084,000	3,269,000

Requirements for Funding—Expired Act.—1. Fieldworkers must be paid in full for work done on sugarcane and sugarbeets at rates not less than those determined to be fair and reasonable as announced by the Department of Agriculture. ⁴

2. Growers must not permit children under the age of 14 to work on sugarbeets or sugarcane. ⁵

(II) Interim Sugar Price Support Program in Effect during Fall 1977.—Price subsidies for sugar were reenacted by Congress in the Food and Agriculture Act of 1977, signed Sept. 29, 1977. ⁶ Until

¹ 61 Stat. 922, 7 USCA §§ 1131-1137.

² A subsidy was paid of 8 cents per pound of raw sugar on the first 350 tons produced on any farm. The subsidy paid growers decreased inversely with an increase of sugar tonnage to a minimum of 3 cents per pound of raw sugar. 42 USCA § 1134(a).

³ 7 USCA § 1137.

⁴ 7 USCA § 1131(c)(1).

⁵ *Id.* at (a).

⁶ Public Law 95-113, 91 Stat. 913.

the new price subsidy system can be formally implemented by the ASCS, Congress has authorized a temporary sugar price subsidy program through ASCS that duplicates the price subsidy system of the 1977 act.⁷ The temporary program will be administered for the 1977 sugar crop year by ASCS and will continue until superseded by the 1977 act. Regulation for the temporary programs were published in the Federal Register.⁸

The permanent program should be very similar to the temporary program which is described below.

Summary of Purpose—Interim Program.—To maintain a viable domestic sugar industry through direct subsidy payments to sugar processors when they receive less than 13.5 cents per pound. The processors in turn pay support prices to sugar growers.

Basis of Puerto Rican Eligibility—Interim Program.—Puerto Rican sugar processors are eligible for payments.⁹

Allotment Methodology — Interim Program.—Prices will be supported at average levels estimated by the Secretary of Agriculture to be equivalent to 52.5 percent of the parity prices for the sugar commodities as of July 1, 1977. Price supports will be paid by the Commodity Credit Corporation (CCC) to sugar processors when such processors receive less than 13.5 cents per pound.

Eligible processors will receive payments on the quantity of refined beet sugar or cane sugar marketed from the 1977 crop on or after the effective date of the regulations of the temporary program.¹⁰

Requirements for Funding—Interim Program.—Price support paid to processors is made upon the condition that the processors pay the producers the applicable support price for the raw sugar.¹¹

Price support levels for producers of sugarcane in Puerto Rico will be the general support price per net ton of sugarcane to be determined in accordance with the provisions of the Puerto Rican Law No. 426, also known as the Puerto Rican Sugar Law, and the rules issued thereunder by the Sugar Board of Puerto Rico.¹²

(III) Complete Suspension of Sugar Act Payment, Creation of Sugar "Loans"

The sugar subsidy program described above was

suspended Nov. 8, 1977 by President Carter. In place of payments to sugar processors, the President has imposed an ad valorem tax on imported sugar and has increased the existing tariff by 50 percent. The sugar processor may obtain loans that surprisingly function like payments from the Federal Government's Commodity Credit Corporation (CCC). The CCC will extend loans for 11 or 12 months to the processors who offer their sugar stocks as collateral. The loan is redeemable at any time and the sugar processor will probably redeem the loan if the market price rises above 13.5 cents per pound. If the market price remains below 13.5 cents per pound the loan is forgiven. The CCC keeps the sugar and the sugar processor keeps the money. The loan, in essence, has been converted to a direct payment equalling the difference between the market price and the support price of 13.5 cents per pound. Although the loans are based on parity prices, a deduction is made for transportation costs from the sugar mill to the normal refinery market. Puerto Rican sugar is subject to the highest deduction and, consequently, the Puerto Rican support price is the lowest of any U.S. sugar producing area, as evidenced following:

Location	Sugar Loan Support
Louisiana	15.04
Florida	14.98
Hawaii	14.66
Puerto Rico	13.44

Summer Food Service Program for Children¹ [CFDA 10.559]

Summary of Purpose.—To assist States through formula grants-in-aid and other means to set up nonprofit food service programs in schools and day care centers for school age children during the summer months in the poorer areas of the country. All meals in this program must be served free.

Statutory Purpose.— . . . [T]o assist States through grants-in-aid and other means, to initiate, maintain, and expand nonprofit food service programs for children in service institutions . . .²

Service institutions eligible to participate . . . shall be limited to those which conduct a regularly scheduled program for children from areas in which poor economic conditions exist . . .³

Basis of Puerto Rican Eligibility.—Puerto Rico is

¹ § 13 of the National School Lunch Act as amended by Public Law 94-105 (1975), 89 Stat. 516-518.

² 42 USCA § 1761(a)(1).

³ *Id.* at (a)(12).

⁷ The permanent sugar price subsidy program was established by section 902 of the Food and Agriculture Act of 1977, which amends section 201 of the Agricultural Act of 1949, as amended, Public Law 81-439, 7 USCA § 1446. The temporary price subsidy program has been sanctioned by the discretionary power vested in the Secretary of Agriculture under sections 301-303 and section 401 of the Agricultural Act of 1949, 7 USCA §§ 1447 *et seq.*; 1421 *et seq.*

⁸ F.R. 54556-54559, 7 CFR 1435 *et seq.*

⁹ CFR 1435.4(b)(6).

¹⁰ F.R. 54556 (1977).

¹¹ *Id.*

¹² 42 F.R. 54557, 7 CFR 1435.4(b)(6).

classified as a "State" and is fully eligible to participate.⁴

Outlays

(I) State Administered Program

	Total	Puerto Rico
FY 1977 (est.)	\$110,600,000	\$3,130,620
FY 1976	61,000,000	1,591,298
FY 1975	23,700,000	372,800

(II) Agriculture Department Administered Program for Private Schools¹

FY 1977 (est.)	18,200,000	—
FY 1976	42,000,000	—
FY 1975	30,300,000	—

¹ Where State law prohibits State aid to private parochial schools, the Agriculture Department will operate the summer food program. In Puerto Rico, no such law exists and, thus there is no Department of Agriculture-run program on the island.

Allotment Methodology.—Under the reimbursement formula for meals served under this program, the full costs of serving meals will be paid by the Federal Government subject to the following limitations:

(a) Not more than 75.5 cents will be paid for all costs (except administrative costs) for each lunch or supper served. Not more than 6 cents will be paid for administrative costs of each lunch or supper served.

(b) Not more than 42 cents will be paid for all costs (except administrative costs) for each breakfast served and not more than 3 cents for administrative costs of each breakfast served.

(c) Not more than 19.75 cents will be paid for each meal supplement served and not more than 1.5 cents for administrative costs of each meal supplement served.⁵

The Federal Government can also provide startup costs to the school or day care center equal to 10 percent of the Federal funds given to the institution during the preceding summer.⁶

The Federal Government will pay the State for its administrative costs equal to 2 percent of the funds distributed to the State. However, this disbursement shall never be less than \$10,000 unless less than

⁴ 42 USCA § 1761(a)(3), a 1975 amendment to the National School Lunch Act, Public Law 94-105, granted Puerto Rico a status equal to that of the 50 States.

⁵ 42 USCA § 176(b). All the above cost limits will be annually adjusted according to the Consumer Price Index for food away from home.

⁶ *Id.* at (f).

\$50,000 has been distributed pursuant to the above formulas.⁷

Requirements for Funding.—The program may only be operated in those poorer areas in which a third of the children are eligible for free or reduced price meals under the school lunch and breakfast programs.⁸

A State agency shall be designed by the Governor to administer the summer food program. It shall submit a State plan to the Child Nutrition Division (CND) of the Food Nutrition Service of Agriculture. The plan shall contain the information requested in 7 CFR 225.8.

Identifying Legal and Other Barriers.—No unusual barriers.

Water and Waste Disposal Program—Grants and Loans [CFDA 10.418]

Summary of Purpose.—To provide drinking water and waste disposal systems for small rural communities with less than 10,000 people through the use of matching grants (50-50) and direct loans (formally labeled "insured" loans).

Statutory Objective.—The Farmers Home Administration (FmHA) is authorized "... to make or insure loans ..." to towns, villages and unincorporated areas for the "... conservation, development, use, and control of water, and the installation or improvement of drainage or waste disposal facilities ..." all primarily serving farmers ranchers, farm tenants, farm laborers and other rural residents, and to furnish financed assistance or other aid in planning projects for such purposes.¹

The FmHA is also authorized to make grants to towns and villages "... to finance specific projects for work for the development, storage, treatment, purification, or distribution of water or the collection, treatment, or disposal of waste in rural areas."²

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible for grants and loans under this program.³

Outlays

Grants

	Total	Puerto Rico
FY 1977	\$250,000,000	\$705,000
FY 1976	146,888,000	3,267,000
FY 1975	156,859,000	1,550,000

¹ *Id.* at (k).

² 42 USCA § 1761(a)(2)-(a)(3). Concerning eligibility criteria for free and reduced price lunch and breakfast meals, see 42 USCA 1758(b)(1).

³ USCA § 1926(a)(1), section 306 of the Consolidated Farm and Rural Development Act, Public Law 92-419.

⁴ 7 USCA § 1926(a)(2).

⁵ *Id.* at (a)(7).

Extended Loans ⁴

	Total	Puerto Rico
FY 1977	750,000,000	16,433,000
FY 1976	442,642,000	19,144,000
FY 1975	469,987,000	1,156,000

Allotment Methodology and Requirements for Funding.—Loans and grants may only be made to sparsely populated rural towns, villages, and unincorporated areas with populations of less than 10,000 persons not within or adjacent to urban or urbanizing areas.⁵ The grants commonly fund 50 percent of the project costs which means the rural area must match at least half of the cost of the project.⁶ However, the FmHA may authorize grants to cover 100 percent of the costs of producing comprehensive plans for water and waste disposal projects applications for grants or loans.⁷

Grants will only be made to reduce the average owned residential user charges for water and sewage to a reasonable level. The FmHA will most readily authorize grants for those areas most in need as evidenced by a debt service portion of such user charges that exceeds one percent of the median income for the area served.⁸ To reduce the debt service portion to one percent or less, the FmHA may grant more than 50 percent of the project costs if there are unusual conditions.⁹

"Insured" ¹⁰ loans will only be extended to rural towns and villages if (1) they are unable to finance the proposed project from their own resources or through commercial credit at reasonable rates and terms; and (2) these towns and villages have the legal authority to carry out the project.¹¹ In addition, the project must meet the standards of the regulation of all Federal, State, and local agencies having jurisdiction.¹²

Grant funds may only be used for water purification plants, sanitary sewers, storm sewers, and solid waste disposal plants.¹³ Loans may be used for more projects of similar nature as listed in 7 CFR 1823.3.

⁴ Two types of loans are authorized under this program: guaranteed and insured. The guarantee loan program has never been implemented; under it, the FmHA would guarantee repayment to private lenders. The insured loan program is a misnomer for a direct Federal loan program made by FmHA which in turn is sold to the Federal Financing Bank in the Treasury Department. Source: Catalog of Federal Loan Guarantee Programs, compiled by the Subcommittee on Economic Stabilization of the House Committee on Banking, Finance and Urban Affairs, September 1977, pp. 63-64.

⁵ 7 USCA § 1926(a)(7), 7 CFR 1823.2(a).

⁶ 7 USCA § 1926(a)(2), 7 CFR 1823.472(a).

⁷ 7 USCA § 1926(a)(6), 7 CFR 1823.201-211.

⁸ 7 CFR 1823.472(b)(1).

⁹ *Id.* at (b)(2).

¹⁰ See note 4.

¹¹ 7 CFR 1823.2(a).

¹² 7 CFR 1823.23.

¹³ 7 CFR 1823.427(c)(1).

Identifying Legal and Other Barriers.—No unusual barriers.

DEPARTMENT OF COMMERCE

Economic Development—Business Development Assistance, Direct Loans and Loan Guarantees (Section 202 Loans) [CFDA 11.301]

Summary of Purpose.—To promote business development in economically distressed areas by extension of direct loans and loan guarantees for fixed asset purchases and working capital to private businesses willing to establish or expand operations in those areas. Most loans will only cover part of costs (65 percent to 90 percent); the remainder must come from the borrower and State agencies.

Statutory Objective.— . . . [T]o aid in financing, within a redevelopment area, the purchase or development of land and facilities (including machinery and equipment) for industrial or commercial usage, including the construction of new buildings, and the alteration, conversion, or enlargement of existing buildings . . .¹

. . . [T]o aid in financing any industrial or commercial activity within a redevelopment area by (A) making working capital loans, (B) guaranteeing working capital loans made to private borrowers by private lending institutions . . .²

Basis of Puerto Rican Eligibility.—Puerto Rico qualifies as a "State" and may participate in this loan program.³

Outlays

Direct Fixed Asset Loans

	Total	Puerto Rico
FY 1977	\$14,100,000	\$434,000
FY 1976	36,700,000	2,500,000
FY 1975	9,700,000	—

Guaranteed Fixed Asset Loans

FY 1977	6,850,000	—
FY 1976	2,084,000	—
FY 1975	2,550,000	—

¹ 42 USCA § 3142(a)(1).

² *Id.* at (a)(3).

³ 42 USCA § 3216.

Direct Working Capital Loans

	Total	Puerto Rico
FY 1977	27,230,000	-----
FY 1976	6,550,000	-----
FY 1975	738,000	-----

Guaranteed Working Capital Loans

FY 1977	8,235,000	-----
FY 1976	30,092,000	-----
FY 1975	65,056,000	-----

Lease Guarantee Loans (never implemented)

Allotment Methodology.—Program funds are disbursed at the discretion of the administrator, upon application by an eligible applicant.

Requirement for Funding.—Private business enterprises, private or public nonprofit organizations, States and their political subdivisions are eligible to receive loans if they are located within a redevelopment area⁴ or an economic development center.⁵

The Economic Development Administration (EDA) can extend direct loans and loan guarantees under this program for purchase of fixed assets⁷ and receipt of working capital.⁸ Under the statute, EDA may also guarantee lease payments but this aspect of the program has never been implemented.⁹ EDA may extend loan guarantees for both fixed assets and working capital to businesses in communities that have suffered a major loss of jobs due to import competition. Section 273 of the Trade Act of 1974 makes these "trade-impacted" communities eligible for business development assistance loans that will save jobs.¹⁰ These communities so adversely affected are eligible for these loans even though they may not be located within a designated redevelopment area, economic development district or center. No more than 20 percent of loan guarantees, however, may be extended to a single State.¹¹

⁴ Redevelopment areas are areas with high unemployment, low average family income levels, or an actual or threatened major loss of jobs through a large factory closing. The appellation does not arise spontaneously; the Secretary of Commerce must officially designate an area as one. 42 USCA § 3161(a).

⁵ An Economic Development Center is an area with a multicounty Economic Development District that is eligible for special assistance under an approved district overall economic development program (OEDP) 42 USCA § 3171(a)(2), (e). The district coordinates programs in the region and provides planning and technical services that the small communities within it cannot afford.

⁶ See 13 CFR 3062(c) and 13 CFR 306.4.

⁷ Fixed assets include buildings, equipment, machinery, and land. 42 USCA § 3142(a)(1), 13 CFR 306.3(a)(1).

⁸ Defined in 13 CFR 306.3(b), authority in 42 USCA § 3142(a)(3)-(A)-(B).

⁹ 42 USCA § 3142(a)(3)(C).

¹⁰ 19 USCA § 2373(a), (d). Section 273, title II of the Trade Act of 1974, Public Law 93-618, 88 Stat. 1978, 2037-2038.

¹¹ *Id.* at (d)(3).

Qualified applicants must use the loans in projects that will provide long-term benefits in terms of more jobs and higher income. The projects cannot only temporarily alleviate unemployment.¹² Loans may not be used to help businesses move from one location to another, though this is not meant to preclude expansion of an existing business in a new area.¹⁸ EDA prefers to extend loan guarantees but will give direct loans if no private lender can be found.¹⁴ EDA will seek to limit its participation in any project to \$10,000 per job created or saved, and EDA will actively encourage other lenders and stock equity to pay for the remaining costs.¹⁵ All projects must be approved by the appropriate State agency.¹⁶ In addition, no project will be assisted that would increase the production of goods, materials, or commodities for which there has not been sufficient demand in the first place.¹⁷

The term for a direct loan or a loan guarantee may be as long as 25 years, but in the case of fixed asset loans no longer than the useful life of the asset.¹⁸ A direct fixed asset loan may cover no more than 65 percent of the cost of the project. The remainder must come from a State or local government agency (at least 5 percent) and from equity raised on the market through stock offerings (at least 15 percent).¹⁹ The 5-percent State participation may be waived if the project is located in a particularly economically distressed area.²⁰ The direct working capital loan may cover 100 percent of the funds needed.²¹

A loan guarantee for fixed assets and working capital may insure up to 90 percent of the outstanding unpaid balance of the private loan.²² During periods of high interest rates, EDA has authority to subsidize the private loans so that the borrower only pays the prevailing interest rate for direct government loans. This authority has not been used to date.²³

Identifying Legal and Other Barriers.—Puerto Rico has not received a single loan for working capital during the past 3 fiscal years. The bulk of funds for the business development assistance program are funneled through working capital loans. These loans require no form of matching; they cover 100 percent of the funds needed. These loans should be easier to obtain than fixed asset loans.

Conclusions.—Puerto Rico is accorded State-like treatment but has not received loans for working capital.

¹² 42 USCA § 3142(b)(3).

¹³ *Id.* at (b)(1).

¹⁴ *Id.* at (b)(4).

¹⁵ 13 CFR 306.20.

¹⁶ See 13 CFR 306.6.

¹⁷ 42 USCA § 3212.

¹⁸ 42 USCA § 3142.

¹⁹ 42 USCA § 3142(b)(9).

²⁰ *Id.* at b(9)(B).

²¹ 42 USCA § 3142(a)(3).

²² 42 USCA § 3142(a)(1)(C), (a)(3)(B).

²³ 42 USCA § 3142(a)(2).

Economic Development—Grants and Loans for Public Works and Development Facilities (Title I) [CFDA 11.300]

Summary of Purpose.—To revitalize areas chronically depressed by high unemployment or with low family income levels through the use of matching grants (50-50, 80-20) to finance public work projects that will lay the infrastructure needed to attract new industry.

Statutory Objective.—It is the intention of this program that, to overcome the problems of unemployment and underemployment, "the Federal Government, in cooperation with the States, should help areas and regions of substantial and persistent unemployment and underemployment to take effective steps in planning and financing their public works and economic development; that Federal financial assistance, including grants for public works and development facilities to communities, industries, enterprises, and individuals in areas needing development should enable such areas to help themselves achieve lasting improvement and enhance the domestic prosperity by the establishment of stable and diversified assistance is preceded by and consistent with sound, long range economic planning; and that under the provisions of this chapter new employment opportunities should be created by developing and expanding new and existing public works and other facilities and resources rather than by merely transferring jobs for one area of the United States to another."¹

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible as a "State" for assistance under this program.²

Outlays

Public Works Project Grants

	Total	Puerto Rico
FY 1977 _____	\$104,437,212	_____
FY 1976 _____	97,603,171	\$2,312,487
FY 1975 _____	104,659,671	2,944,500

Public Works Impact Project Grants

FY 1977 _____	26,530,673	_____
FY 1976 _____	15,255,221	_____
FY 1975 _____	15,409,833	_____

Supplements and 10-Percent Bonus Grants

	Total	Puerto Rico
FY 1977 _____	22,295,551	_____
FY 1976 _____	21,961,459	1,399,200
FY 1975 _____	17,905,076	125,500

Public Works Loans

FY 1977 _____	145,000	_____
FY 1976 _____	364,000	_____
FY 1975 _____	1,220,000	_____

Allotment Methodology.—Program funds are disbursed at the discretion of the administrator, upon application by an eligible applicant. However, not more than 15 percent of the total amount appropriated each year by Congress for this program may be allocated to any one State.³

Requirements for Funding.—"States," local subdivisions thereof, private or public nonprofit organizations, or associations representing a redevelopment area⁴ or a designated economic development center⁵ are eligible to receive grants and loans.⁶

A direct grant for a public works project may cover from 50 percent to 80 percent of the project's costs. The public works projects that would immediately employ many local unemployed persons.⁷ A minimum of 15 percent of the yearly appropriations for title I grants must go to Public Works Impact Projects (PWIP); the maximum is set at 35 percent.⁸

Where a State has trouble supplying the matching share for the EDA grant (normally 50 percent), EDA may authorize a supplementary grant to raise the EDA share to as much as 80 percent of the costs of the project. The matching requirement may be completely waived for a project located in a redevelopment area that cannot raise more funds through taxing or borrowing.⁹

A project in a redevelopment area within an economic development district covered by an overall economic development plan (OEDP)¹⁰ may receive an additional supplementary grant equal to 10 percent of the project costs but in most cases, the total

¹ 42 USCA 3133, 13 CFR 305.51.

² Redevelopment Areas, so designated by the Secretary of Commerce, are areas with high unemployment, predicted high unemployment or low average family incomes. 42 USCA 3161(a)(1)-(2).

³ Economic Development District, so designated by the Secretary of Commerce, embraces one or more redevelopment areas and functions as a conduit for regional planning that will integrate the revitalization of the redevelopment area with that of the whole region. 42 USCA 3171(a)(1).

⁴ 13 CFR 305.2.

⁵ 42 USCA 3131(a)(1)(D), 13 CFR 305.4.

⁶ 42 USCA 3135.

⁷ 42 USCA 3131(c), See also, 13 CFR 305.5.

⁸ See 42 USCA 3142(b)(10).

⁹ 42 USCA 3121.

¹⁰ 42 USCA 3216.

Federal share of the costs cannot exceed 80 percent.¹¹

Loans for public work projects are presently only a theoretical option. The loan applicant has a very tough burden from any other Federal agency or private lender.¹² Consequently, it has become much harder for EDA to give loans than to make grants for projects. Very few loans have been extended over the past 5 years, and this trend shall continue.

Grant projects must assist to create long term employment opportunities and primarily benefit the chronically unemployed.¹³ Public works projects may include roadbuilding or water-sewage construction but not utility construction if the end product would compete with a privately owned utility company.¹⁴

In addition, no project will be authorized that would increase the production of goods, materials, or commodities where there has not been sufficient demand for them in the first place.¹⁵ Neither will EDA approve projects which merely transfer an industry or jobs from one area to another.¹⁶

Identifying Legal and Other Barriers.—No unusual barriers.

Economic Development—Special Economic Adjustment Assistance (Title IX) [CFDA 11.307]*

Summary of Purpose.—To provide economic adjustment assistance by matching grants (75-25) to help States and local areas attack actual or threatened long term unemployment problems caused by the closing of a major plant, large drop in business as a result of foreign trade competition, or natural disaster.

Statutory Objective.— . . . [T]o help State and local areas meet special needs arising from actual or threatened unemployment arising from economic dislocation including unemployment arising from actions of the Federal Government and from compliance with environmental requirements which remove economic activities from a locality, and economic adjustment problems resulting from severe changes in economic conditions . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rico and its political subdivisions can participate in this economic adjustment program.²

¹¹ See 42 USCA 3171(a)(4), 13 CFR 305.6.

¹² 42 USCA 3141(a)(2).

¹³ For a list of criteria and goals for potential projects see 42 USCA 3131(a)(1), 13 CFR 305.3(a)(1) and 13 CFR 305.4.

¹⁴ 13 CFR 305.53.

¹⁵ 42 USCA 3212.

¹⁶ 42 USCA 3121.

¹ 42 USCA § 3241.

² 42 USCA § 3216.

Outlays

Adjustment Grants—Development and Implementation

	Total	Puerto Rico
FY 1977 _____	\$75,900,000	_____
FY 1976 _____	95,919,000	\$3,185,000
FY 1975 _____	38,749,000	_____

NOTE: More than 90 percent of the total funds in any year are used for implementation grants.

Allotment Methodology.—Program funds are disbursed on a discretionary basis, upon application of an eligible State or local government applicant. Private entities cannot apply for grants but may receive money from the State or local government applicant.³

EDA may make an award of a grant to those States or their political subdivisions that have or will experience a large increase in unemployment due to plant closures caused by foreign trade competitors, loss of general business, actions of the Federal Government, or compliance with Federal regulations.⁴

Requirements for Funding.—EDA awards two types of adjustment grants: Development grants and implementation grants. The development grant is a planning grant and a prerequisite for receipt of an implementation grant which, in turn, is designed to carry out the plan development under the latter grant.

Development grants, the first step in the two step special economic adjustment process, must map out a strategy consistent with the goals and objectives of section 302 of the Public Works and Economic Development Act of 1965.⁵

Implementation grants are designed to fund economic adjustment projects. The various uses of these grants are defined in the regulations and include public works, business development, technical assistance, and relocation of individuals and businesses.⁶

The grants, once obtained by a State or its political subdivision, may be disbursed as a grant or extended as a loan or loan guarantee to private and public entities. However, the grant funds cannot be redistributed to profitmaking private entities.⁷

Identification of Legal and Other Barriers.—The special funds for threatened long term unemployment

³ 42 USCA § 3242, 13 CFR 308.2.

⁴ 42 USCA § 3243(a)(1), 13 CFR 308.4(a). Circumstances increasing the likelihood of an award are listed in 13 CFR 308.4(b).

⁵ Public Law 89-136 and amendments, 42 USCA § 2151a. For planning requirements of development grants, see 13 CFR 308.6(a)(1)-(7).

⁶ See 42 USCA § 3243(a)(1)(B); for more extensive description of uses, see 13 CFR 308.6(a)(1)-(7).

⁷ 42 USCA § 3243(a)(2)(A), 13 CFR 308.5(c).

situations have been sent to Puerto Rico only on an erratic basis.

Conclusions.—Puerto Rico is accorded State-like treatment by statute but it has not received an annual flow of title IX funds although it has many chronic unemployment situations in the making. The title IX program is a discretionary program with limited funds. No State can get more than one or two projects a year funded by title IX. In Puerto Rico's case, it has made applications only for two projects. One project for \$785,000 for the former Ramey Air Force Base was submitted by the Puerto Rican Ports Authority; the other, a \$2.4 million project for the city of Ponce, was submitted by the Puerto Rican Industrial Development Company (PRIDCO).

Economic Development—Technical Assistance (Title III) [CFDA 11.303]

Summary of Purpose.—To enable State and local governments and development organizations to plan economic development strategies and programs for areas of high unemployment and low average income through the offer of grants (75-25) to develop planning capability and technical services by the Economic Development Administration (EDA).

Statutory Objective.— . . . [T]o provide technical assistance which would be useful in alleviating or preventing conditions of excessive unemployment or underemployment . . . to . . . redevelopment areas . . . and . . . to other areas which . . . have substantial need. . .¹

. . . [T]o make grants to defray . . . administrative expenses² . . . to make grants . . . for any demonstration project within a redevelopment area . . . designed to foster regional productivity and growth . . .³

. . . [T]o establish and conduct a continuing program of study, training, and research to (A) assist in determining the causes of unemployment, underemployment, underdevelopment, and chronic depression . . . (B) assist in the formulation and implementation of . . . solutions . . .⁴

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible as a "State" for assistance under these title III programs.⁵

¹ 42 USCA § 3151(a).

² *Id.* at (b).

³ *Id.* at (f).

⁴ *Id.* at (c).

⁵ 42 USCA § 3216.

Outlays

Value of Technical Assistance Services Offered by EDA [Section 301(a)]

	Total	Puerto Rico
FY 1977 _____	\$13,410,000	\$170,000
FY 1976 _____	17,429,000	85,000
FY 1975 _____	9,450,000	211,000

Planning Grants [§ 301(b)], Demonstration Grants [§ 301(f)], Development Grants [§ 302(a)], and District Grants [§ 302(b)]

FY 1977 _____	22,966,000	130,000
FY 1976 _____	28,757,000	185,200
FY 1975 _____	12,133,000	---

Research Grants [Section 301(c)]

FY 1977 _____	3,866,000	---
FY 1976 _____	2,453,000	---
FY 1975 _____	925,000	---

Allotment Methodology.—Grants and services are disbursed or directed in the discretion of the EDA administrator upon application of an eligible applicant.

Requirements for Funding.—Under section 301 of the Public Works and Economic Development Act of 1965⁶ (the Act), as amended, there are a number of grant-in-aid and technical services programs provided by EDA. States and local governments, private profit and nonprofit corporations, and development organizations and associations are eligible for the technical services of EDA or its selected subcontractor. These technical assistance services will aid development project planning of those applicants located in a redevelopment area⁷ or an area that will suffer imminent, major economic reverses.⁸ All the above entities are eligible to receive grants under section 301 except for profit corporations.

Technical assistance services send EDA or EDA-subcontracted planning personnel to the applicant.⁹ The technical assistance service at times is provided

⁶ Public Law 89-136, 42 USCA § 3151.

⁷ Redevelopment areas are areas with high unemployment, predicted high unemployment or low average family incomes, and have been so designated by the Secretary of Commerce. 42 USCA § 3161(a)(1)-(2).

⁸ 42 USCA § 3151(a)(1)-(2), 13 CFR 307.4.

⁹ See 42 USCA § 3151(a), 13 CFR 307.3(1), 7-9, 14-15; For permissible use of services, see 13 CFR 307.3(a).

free of charge, but may require repayment as determined by EDA.¹⁰

EDA planning grants and economic growth studies grants are offered to create a planning expertise within the applicant organization. Planning grants are authorized to cover part of the administrative costs of hiring planners so that State and local organizations can develop a planning capability.¹¹ The planning grant is subject to a matching requirement (75-25).¹² The economic growth study grant funds a feasibility study on the need and potential for economic growth.¹³

Demonstration grants are also disbursed under section 301 only to applicants from redevelopment areas to fund projects that will foster regional productivity and growth and prevent outmigration.¹⁴

A research grant program is funded to support long-term studies on the causes and possible solutions for chronic unemployment.¹⁵ Results of this research as well as any other technical information and market research on the problems of unemployment and underemployment are disseminated to all those interested under another part of section 301.¹⁶

Another set of grant and technical service programs have been set up under section 302 of the Act. These programs have aims similar to some of the section 301 programs but have a limited audience. The developmental planning grants are directed to States and their political subdivisions; they are designed to strengthen the economic development planning capabilities of those States and subdivisions.¹⁷ These grants are subject to a matching requirement (75-25).¹⁸ A delineation of the uses of this grant is set out in 13 CFR 307.52(a)-(b). Note that these grants are available in addition to those available under section 301(b) and "may not supplant that assistance."¹⁹

The district grants under section 302 are grants to economic development districts²⁰ so that they, in turn, may (1) provide direct professional guidance to local governments within the district and (2) enable them to comply with the review procedures required under title IV of the Intergovernmental Cooperation Act of 1968.²¹

Identification of Legal and Other Barriers.—No unusual barriers.

¹⁰ 42 USCA § 3151(a)(2), 13 CFR 307.14.

¹¹ 42 USCA § 3151(b), 13 CFR 307.22.

¹² 13 CFR § 307.25(b).

¹³ 42 USCA § 3151(a), 13 CFR 307.23.

¹⁴ 42 USCA § 3151(f).

¹⁵ 42 USCA § 3151(c), 13 CFR 307.41-44.

¹⁶ 42 USCA § 3151(d).

¹⁷ 42 USCA § 3151(a), 13 CFR 307.51.

¹⁸ 12 CFR 307.56.

¹⁹ 13 CFR 307.56(b).

²⁰ An Economic Development District encompasses a multicounty area and serves as a conduit for regional planning and technical assistance service for the small communities within it that could not afford it alone. 42 USCA § 3171(a)(1).

²¹ 42 USCA § 3151a(b), 13 CFR 307.52(b).

COMMUNITY SERVICES ADMINISTRATION (FORMERLY OFFICE OF ECONOMIC OPPORTUNITY)

Community Action Program [CFDA 49.002]

Summary of Purpose.—To provide funding to local Community Action Agencies (CAP's) for their administrative expenses in carrying out the poverty programs authorized under title II of the Economic Opportunity Act of 1964.¹ Funds for this program are distributed on a matching formula basis (60-40).

Statutory Objective.—... [T]o stimulate a better focusing of all available local, State, private, and Federal resources upon the goal of enabling low-income families, and low-income individuals of all ages, in rural and urban areas, to attain the skills, knowledge, and motivations, and secure the opportunities needed for them to become fully self-sufficient...²

Basis of Puerto Rican Eligibility.—Puerto Rico has been treated as a "State" since 1972.³

Outlays

	Total	Puerto Rico
FY 1977	\$334,930,000	\$13,200,000
FY 1976	307,488,000	6,320,000
FY 1975	350,800,000	13,193,000

Allotment Methodology.—The formula for the community action program and all title II programs authorized under the Economic Opportunity Act of 1964, as amended, distributes money in the following manner:⁴

(a) Not more than 2 percent set aside for Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands, allocated among them according to their respective needs;

(b) Not more than 20 percent placed in a Community Services Administration (CSA) discretionary reserve for allocation among the States without formula;

(c) The remainder allotted to each State by a formula based upon (1) the relative number of public assistance recipients, (2) the relative number of unemployed, and (3) the relative number of related

¹ Public Law 88-452, 78 Stat. 508.

² 42 USCA § 2781(a).

³ 42 USCA § 2812(a) as amended by Public Law 92-424, § 12(a).

⁴ 42 USCA § 2812(a).

children living with families with incomes below the poverty line.

No State shall receive an allotment in any year less than its FY 1974 allotment.

The matching requirement is presently set at 60-40 for CAP's receiving \$300,000 or more yearly in financial assistance, and 70-30 for CAA's receiving less than \$300,000 yearly.⁵

Requirements for Funding.—Community action agencies (CAP's) can be State, local government, or private organizations designated by the State to plan, conduct, coordinate, and evaluate the special poverty programs authorized under the 1964 act, as amended.⁶ The directives on the organization and administration of such stress its grass roots nature and seek to keep poor people of all ages closely involved in the CAP's day to day business.⁷ The general activities in which CAP's should involve themselves include activities designed to:⁸ (1) get jobs for poor people; (2) get them an adequate education; (3) get them better housing; (4) provide family planning services; (5) provide a referral service so that poor people can take advantage of existing programs aimed at helping them.

Specific programs that CAP's are allowed to run include:⁹ (1) family planning services; (2) senior opportunities and services; (3) emergency food and medical services; (4) emergency energy conservation services; (5) rural housing development and rehabilitation; (6) summer youth recreation; and (7) environmental action (authorized but never funded).

Identifying Legal and Other Barriers.—No unusual barriers.

Older Persons Opportunities and Services (Senior Opportunities and Services) [CFDA 49.010]*

Summary of Purpose.—To fund senior citizens' programs run by Community Action Agencies (CAP's) that identify and meet the needs of low-income persons age 60 years and over in the areas of health, welfare, employment, housing, transportation, and legal services. Federal funds are awarded on a matching formula basis (60-40).

Statutory Objective.— . . . [T]o identify and meet the needs of older, poor persons above the age of 60 . . . and to assure them greater self-sufficiency.¹

¹ *Id.* at (c). There is an attempt in Congress to change the matching requirement to a more generous 80-20. See the Community Services Administration Reauthorization Bill, H.R. 7577, H. Rept. 95-151, S. 2090, S. Rept. 95-892, May 1978.

² 42 USCA § 2790(a).

³ 42 USCA §§ 2790(a), 2791. For a list of specific functions, see 42 USCA § 2795(b).

⁴ 42 USCA § 2803(a).

⁵ See 42 USCA § 2809(a).

⁶ 42 USCA § 2809(a)(17).

Basis of Puerto Rican Eligibility.—Puerto Rico participates in this program as a "State."²

Outlays

	Total	Puerto Rico
FY 1977 _____	\$12,051,000	\$2,840,000
FY 1976 _____	10,071,000	2,644,000
FY 1975 _____	10,246,000	2,840,000

Allotment Methodology.—The older persons or senior persons programs share in a general title II allotment formula.³ The formula distributes funds to the States in the following manner:⁴

(1) Not more than 2 percent among the territories of Guam, the Virgin Islands, American Samoa, and the Trust Territories of the Pacific;

(2) Not more than 20 percent put into a Community Services Administration discretionary reserve;

(3) The remainder to be allotted among the States on the basis of (1) the relative number of public assistance recipients in each State, (2) the relative number of unemployed in each State, and (3) the relative number of related children living with families with incomes below the poverty level in each State.

Under this formula, no State shall receive less money in any year than it did in FY 1974.

Separate allotments of funds may be made for senior opportunities and services (or any other special program mentioned in 42 USCA § 2809(a)). The separate allotment can be determined by a separate formula employing different, more appropriate variables reflecting the needs of each State. However, this program or any other special program cannot allocate by special formula more than 12½ percent of its funds to any one State.⁵

The matching requirement is presently set at 60-40 for programs operated by CAP's with more than \$300,000 in funding, and 70-30 for programs operated by CAP's with less than \$300,000 in funding.⁶

Requirements for Funding.—A Community Action Agency (CAP) should set up programs for senior citizens that (1) provide a referral service that matches needs to existing Federal assistance programs in the health, welfare, housing, transportation, and employment fields; (2) create new programs to fill unmet needs; (3) modify existing programs so

² 42 USCA § 2812(a).

³ Title II of the Economic Opportunity Act of 1964, Public Law 88-452, 78 Stat. 508.

⁴ 42 USCA § 2812(a).

⁵ 42 USCA § 2812(b).

⁶ *Id.* at (c).

that more older citizens can use them; and (4) develop all-season recreation and service centers for them.

CAP's are local organizations, either private or public, designated by the State under the community action program [FDA 49.002].⁷ CAP's are responsible for administering all programs under Title II of the Economic Opportunity Act of 1964, as amended.

Identifying Legal and Other Barriers.—Puerto Rico receives State-like treatment under the senior opportunities and services program. In FY 1977, 23.5 percent of total national funds were allotted to Puerto Rico through the use of discretionary funds and unused allotments from other States. The allotment formula described above applies to all title II program funds and sets a minimum amount that Puerto Rico, as a "State," must receive. Apparently, when the island's status was changed in 1972 from set aside territory to "State," no extra funds were appropriated for title II. When looking for funds to give Puerto Rico at least the minimum amount, CSA administrators found a large amount of uncommitted funds in this program and allotted them to the island.

Conclusions.—Puerto Rico, entitled to "State-like" treatment, receives very favorable treatment, i.e., almost 24 percent of total national funds. However, Puerto Rico's large share here must be considered in the light of other title II programs authorized by the Economic Opportunity Act of 1964 that do not operate or barely operate in Puerto Rico. These other title II programs have not had much money available for Puerto Rico. When Puerto Rico was reclassified as a "State" in 1972, extra funds were not appropriated. Puerto Rico could only take advantage of "loose" funds not previously committed or not used and ready for reallocation. Most of the available "loose" funds have come from the senior opportunities and services program.

DEPARTMENT OF ENERGY

Biomedical and Environmental Research [CFDA 24.024]*

NOTE: This is a research grants program sponsored by the Department of Energy (DOE) and its predecessor, the Energy Research and Development Administration (ERDA). The program authorizes grants to numerous organizations for projects in nuclear, geothermal, and solar energy.

DOE has funded a single institution in Puerto Rico under the program. The institution is the Center for Energy and Environmental Research (CEER)

* USCA § 2790.

founded in the 1950's under the Eisenhower Administration's Atoms for Peace program. The Center originally provided training to Latin American scientists in nuclear science, but has since switched to the study of environmental sciences and has phased out its study of nuclear sciences.

The research program provides grants on a competitive (discretionary) basis. An exception has been made for the Center in Puerto Rico which is currently in a period of transition between being the federally-owned Puerto Rico Nuclear Center operated under contract by the UPR, to becoming a regular unit of the UPR. The Center has been receiving and will continue to receive until 1980 a special, direct noncompetitive grant. The special grant is designed to support the Center while it develops sufficient research capabilities to compete for further grants after 1980.

Summary of Purpose.—To provide competitive grant funding for research in the area of energy conservation.

Statutory Objectives.— . . . [To] insure the continued conduct of research and development and training activities in the fields (of nuclear energy and environmental science) . . . by private or public institutions or persons, and to assist in the acquisition of an ever-expanding fund of theoretical and practical knowledge in such fields.¹

. . . [To] insure the continued conduct of research and development and related activities in areas or fields deemed by . . . [DOE] to be pertinent to the acquisition of an expanded fund of scientific, technical, and practical knowledge in energy matters.²

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible for research grants under the program as a part of the United States.³

Outlays

	Total	Puerto Rico
FY 1977	\$204,800,000	\$2,174,000
FY 1976	171,371,000	2,648,000
FY 1975	147,886,000	2,741,000

NOTE: In early 1978, DOE approved a \$6,300,000 grant to the Center in Puerto Rico for research in solar energy.⁴

Allotment Methodology.—Until 1980, the Center for Energy and Environmental Research (CEER)

¹ 42 USCA § 2051(a).

² 42 USCA § 5817(a).

³ 42 USCA § 2014bb.

⁴ *New York Times*, March 2, 1978, p. A-13.

in Puerto Rico will receive a special, noncompetitive direct grant. All other eligible institutions must submit their research grant proposals on the same competitive basis.

Requirements for Funding.—The requirements are set by contract for each project grant.

Conclusions.—Until 1980, Puerto Rico will receive a direct, noncompetitive grant under this program designed to nurture the Center for Energy and Environmental Research so that it can develop into a complete research facility.

ENVIRONMENTAL PROTECTION AGENCY

Construction Grants for Wastewater Treatment Works (§ 201 (CFDA 66.418)*

Summary of Purpose.—To provide matching grants (75–25, 85–15) to State and local authorities for the construction of wastewater treatment plants that conform to Federal and State water quality standards.

Statutory Objective.— . . . [T]o require and to assist the development and implementation of waste treatment management plans and practices . . .¹

. . . [T]o make grants to any State, municipality, or intermunicipal or interstate agency for the construction of publicly owned treatment works.²

Basis of Puerto Rican Eligibility.—Puerto Rico may participate as a “State” in this Environmental Protection Agency (EPA) project grant program.³

Outlays

	Total	Puerto Rico
FY 1978 _____	\$4,500,000,000	\$52,803,000
FY 1977 ¹ _____	1,480,000,000	14,779,000
FY 1976 _____	9,000,000,000	84,911,000
FY 1975 _____	6,000,000,000	40,833,000

¹The EPA appropriation for FY 1977 never passed in Congress. The FY 1977 outlays emerged from an emergency supplemental authorization that was much lower than expected.

Allotment Methodology.—Funds will be allotted each fiscal year among the States in accordance to the ratio that the estimated cost of constructing all

needed, publicly owned treatment plants bears to the estimated cost of construction of all such plants in all States.⁴ For FY's 1978 through 1981, the allotment ratio is set at the percentages published in table 3 of House Committee Print 95–30.⁵ Under this allotment formula, Puerto Rico receives 1.1734 percent of national funds.

No State, except Guam, the Virgin Islands, or American Samoa, may receive less than one-half of one percent of the annual national allotments.⁶ A State's allotment is available for 2 years.⁷

Wastewater treatment grants normally require a 75–25 match for planning, design, and construction projects.⁸ The Federal share will be increased to 85 percent of costs (85–15) if the proposed wastewater plant will use “innovative or alternative wastewater treatment processes and techniques.”⁹ If the innovative technique should fail to yield adequate results and become more costly to operate and maintain, EPA will fund 100 percent of the cost of modification or replacement of such a facility.¹⁰

Requirements for Funding.—With their applications, States, cities, and other political subdivisions must submit plans, specifications, and cost estimates to EPA.¹¹ Each proposed wastewater treatment plant must conform to the areawide waste treatment management plan developed under 33 USCA §1288 and applicable State plan developed under 33 USCA §1313(e).¹² The project must be certified by the State water pollution control agency as a high priority project.¹³

The project must use the best practicable waste treatment methods available and serve the future expected need.¹⁴ The plant itself must be designed to blend with the surroundings and, if possible, provide some recreational use.¹⁵

The applicant for a wastewater treatment plant grant must set up a system of proportional user charges. The statute requires industrial users to repay a share of the Federal investment in a public

⁴ 33 USCA § 1285(a). The ratios are calculated on the basis of need and population and are revised every 2 years, 33 USCA § 1375(b).

⁵ Table 3 of House Public Works and Transportation committee print No. 95–30 is contained in the Conference Report to Public Law 95–217, House Conference Report 95–830, 95th Congress, 1st Session, p. 63.

⁶ 33 USCA § 1285(e). Guam, the Virgin Islands, and American Samoa cannot separately receive more than 0.33 percent of 1 percent of allotted funds.

⁷ *Id.* at (b) (1).

⁸ 33 USCA § 1282(a) (1).

⁹ *Id.* at (a) (2). Innovative processes and techniques include efforts designed to reclaim and recycle wastewater. See 33 USCA § 1281(g)–(5).

¹⁰ 33 USCA § 1282(a) (3).

¹¹ 33 USCA § 1283(a).

¹² 33 USCA § 1284(a).

¹³ *Ibid.* A whole set of water pollution guidelines are contained in 33 USCA § 1311(b).

¹⁴ 33 USCA § 1281(g) (2).

¹⁵ *Id.* at (g) (6).

¹ 33 USCA § 1281(a).

² *Id.* at (g) (1).

³ 33 USCA § 1362(3).

system in proportion to their use of the facilities. The operating agency can keep as much as 50 percent of the user charge revenues up to the local matching share; the rest must go to EPA.¹⁶

From the State allotment, each State may use 2 percent of \$400,000, whichever is greater, for administration costs.¹⁷ Another small percentage of the allotment (2 percent or 3 percent) must be used to fund the innovative plants that receive the more favorable 85-15 matching requirement.¹⁸

If all the grants received for a single project exceed the actual costs, the excess can be used to fund the construction of a sewage treatment collection system, i.e., sewer lines.¹⁹

Identifying Legal and Other Barriers.—Under the EPA timetable for the control of water pollution, prior to 1978, Puerto Rico and all States had been required to install secondary as well as primary wastewater treatment capacity in all plants by 1977.²⁰ Puerto Rico and a few coastal mainland States argued for years that they needed only to build plants with primary treatment capacity. Treatment plants in these States discharged directly into the ocean and secondary treatment of that discharge was useless and expensive. Puerto Rico, in particular, wished to have the freedom to build additional, vitally needed primary treatment plants with grants normally designated for the construction of secondary treatment capacity.

Due to the lobbying efforts of California, Hawaii, Washington State, and Puerto Rico, Congress in 1977 amended the authorizing statute to allow a waiver of the secondary treatment requirement for effluents discharged deep into the ocean from existing plants.²¹ This "deep ocean discharge waiver" permits EPA to modify or eliminate the secondary treatment requirement contained in 33 USCA §1311 (b) (1) (B).

Conclusions.—Puerto Rico receives State-like treatment under this EPA program but, along with other coastal States, has felt itself overburdened with the secondary treatment capacity requirement. By recent amendment, Puerto Rico and all coastal States can petition EPA for a waiver of the secondary treatment requirement for those existing plants that discharge in the deep ocean. While this amendment will enable Puerto Rico and coastal States to avoid the cost of secondary treatment for existing plants, it does not enable them to direct these EPA funds to build new ocean discharge primary treatment plants.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE— EDUCATION PROGRAMS

Basic Educational Opportunity Grant Program [CFDA 13.539]

Summary of Purpose.—To enable a poor student to attend undergraduate school by making a grant not to exceed \$1,800 per academic year minus an expected family contribution (derived by formula).

Statutory Objective.— . . . [T]o assist in making available the benefits of postsecondary education to qualified students in institutions of higher education by (1) providing basic educational opportunity grants . . . to all eligible students . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rican students and institutions can participate in this grant program.²

Outlays

	Total	Puerto Rico
School year 1976-77	\$1,518,000,000	\$86,000,000
School year 1975-76	936,500,000	57,151,000
School year 1974-75	356,500,000	24,839,000

Allotment Methodology.—Grants are disbursed on a discretionary basis to eligible students by the Commissioner of Education or undergraduate institutions acting as their agents upon the students' applications.

Each student may receive a maximum of \$1,800 per academic year minus the expected family contribution.³

Institutions that sign an agreement with the Commissioner of Education to act as agent and to calculate and dispense grants to their students are eligible to receive an administrative payment of \$10 per eligible student processed.⁴

Requirements for Funding.—An undergraduate student may receive no more than \$1,800 per academic year. The particular amount that each student should receive is determined in the light of the expected contribution of the student's family.⁵ No grant can exceed 50 percent of the costs of undergraduate education nor contribute to a student more money than actually needed for school costs.⁶ Grants

¹⁶ 33 USCA § 1284(b) (1)-(3).

¹⁷ 33 USCA § 1285(g) (1).

¹⁸ 33 USCA § 1285(i).

¹⁹ See 33 USCA § 1281a.

²⁰ 33 USCA § 1311(b).

²¹ § 44 of Public Law 95-217, 91 Stat. 1584, 33 USCA § 1311(h).

¹ 20 USCA § 1070.

² 20 USCA § 1141(b), 45 CFR 190.2(p).

³ 20 USCA § 1070(a) (2) (A) (i). Funding formula for full- and part-time students is contained in 45 CFR 190.26-64.

⁴ 20 USCA § 1070(a) (d) (1).

⁵ The family contribution formula is annually revised and applies to students dependent upon or independent of their parents. See 20 USCA § 1070a(a) (3).

⁶ 20 USCA § 1070a(a) (2) (B).

may not be extended to students who attend college on a less than halftime basis,⁷ nor may grants be made for more than 4 academic years in most cases.⁸

Identifying Legal and Other Barriers.—No unusual barriers.

Bilingual Education [CFDA 13.403]*

Summary of Purpose.—To provide funds for bilingual education programs that teach English to children of limited English-speaking ability through the use of their native language.

Note: Public Law 95-561, "The Education Amendments of 1978," amended Title VII, Bilingual Education program, to enable Puerto Rico to teach Spanish to migrants returning to the island from the mainland who have limited Spanish-speaking ability.

Statutory Objective.— . . . [T]he Congress declares it to be the policy of the United States, in order to establish equal educational opportunity for all children (A) to encourage the establishment and operation, where appropriate, of educational programs using bilingual educational practices, techniques, and methods, and (B) for that purpose, to provide financial assistance to local educational agencies, and to State educational agencies for certain purposes, in order to enable such local educational agencies to develop and carry out such programs in elementary and secondary schools, including activities at the preschool level, which are designed to meet the educational needs of such children of limited English-speaking ability, instruction designed to enable them, while using their native language, to achieve competence in the English language.¹

Basis of Puerto Rican Eligibility.—Puerto Rico participates as a "State" in this program.²

Outlays

(I) Basic Program

	Total	Puerto Rico
FY 1977	\$74,188,000	\$560,690
FY 1976	59,362,000	269,000

(II) Training and Support Program

FY 1977	11,566,000	72,133
FY 1976	10,232,000	190,457

Allotment Methodology.—Grants are awarded to local school districts (and other public educational entities) on a competitive basis guided by "criteria of assistance."³ There are four types of grants under this program and the variables of the "criteria of assistance" vary with each. Below is listed each type of grant with its own weighted list of criteria:

(I) Basic Program Grants ⁴	Percentage
Need for Assistance	20
Approach	50
Administration	15
Evaluation	15
(II) Support Services Grants ⁵	
Need for Assistance	20
Approach	50
Administration	15
Evaluation	15
(III) Training Program Grants ⁶	
Need	15
Soundness	10
Competent Personnel	20
How Promising	10
Field Experience	10
Bilingual	10
Evaluation	5
Coordination w/other Bilingual Programs	5
Administration	5
(IV) Technical Assistance by State Educational Agencies— Coordination Grants ⁷ (not weighted)	
Prior Technical Assistance Offered by State	
Effectiveness of Prior Assistance	
Adequate Staffing by Qualified Personnel	
Need	
How Promising	

Any school district (local educational agency) receiving a basic grant to set up a classroom program for children must devote at least 15 percent of the grant to training and support.⁸ In addition, not more than 15 percent of the annual State allotment can be funneled into training grants.⁹ Any State educational agency applying for technical assistance coordination grants cannot receive more than 5 percent of the total amount of the grants to school districts in the State during the preceding year.¹⁰

* 20 USCA § 1070a(a)(2)(A)(ii).

⁷ 20 USCA § 1070a(a)(4)(A). Grants will be extended for 5 years if noncredit remedial courses extend the normal 4-year period by as much as a year.

¹ 20 USCA § 880b(a).

² 20 USCA § 881(i).

³ See 20 USCA § 880b-7(c), 45 CFR 123.15, 25, 26, 34, 54.

⁴ 45 CFR 123.15.

⁵ 45 CFR 123.26.

⁶ 45 CFR 123.34.

⁷ 45 CFR 123.54.

⁸ 20 USCA § 880b-7(b)(2)(B).

⁹ 20 USCA § 880b-9(a)(4).

¹⁰ 20 USCA § 880b-7(b)(3)(B).

Requirements for Funding.—As presently constituted, the bilingual education program seeks to teach English to children who do not speak English. The Office of Bilingual Education at HEW will make grant awards to local educational agencies (school districts), alone or jointly with colleges and junior colleges.¹¹ These public educational organizations can apply for (I) basic grants to fund the classroom teaching of children; (II) training grants used to train the personnel used to teach under the basic grant; and (III) support grants designed to develop resource centers to be used by basic grant recipients.¹² State educational agencies can apply for the technical assistance coordination grants used to help basic grant recipients in the State run their bilingual programs.¹³ The applications must detail the target population, the exact program planned and the quality of personnel to be used in the projects.¹⁴ This program can operate classes in religious private schools.¹⁵

Originally, all projects funded under this program required teaching English to children with limited English-speaking ability and *could not* teach another language to children who do speak English.¹⁶ In accordance with the amendment of Public Law 95-561,¹⁷ Puerto Rico may be allowed to set up a bilingual education program to teach Spanish to Puerto Ricans returning to the mainland.

Identifying Legal and Other Barriers.—Over the past few years, Puerto Rico has not taken much advantage of the bilingual program. Only two projects operate in Puerto Rico and HEW is still awaiting an application for an islandwide project. The reluctance to make an application to HEW reflects the confusion which exists over the purpose of a bilingual education program in Puerto Rico. The program is designed for the mainland and the major objective is to teach English to children who do not speak it. In Puerto Rico, Spanish is the predominant language and the task of teaching English is carried out in the local public schools. The Puerto Ricans prefer to use the bilingual funds to teach Spanish to the children of returning migrants who speak little Spanish. With the recent amendment to title VII (Public Law 95-561) the Congress will have made a *special exception* for Puerto Rico. Under the amendment, Puerto Rico will be allowed to use program funds to teach Spanish as well as to teach English.

¹¹ *Id.* at (b)(1).

¹² *See, id.* at (a)(1)-(3).

¹³ *See*, 20 USCA § 880b-7(a)(4), (b)(3).

¹⁴ *See, id.*, at (b)(1)-(2).

¹⁵ *Id.* at (b)(2)(C)(ii).

¹⁶ 20 USCA § 880b-1(a)(4)(B).

¹⁷ "Education Amendments of 1978," Public Law 95-61, § 721(d), also *see* House Education and Labor Committee Report No. 95-1137, p. 307.

Conclusions.—At present, the bilingual education program is underutilized by Puerto Rico due to the program's past restriction on the teaching of Spanish. This restriction has been removed by an amendment to the program, granting Puerto Rico *alone* a special exception.

Child Development—Headstart [CFDA 13.600]

Summary of Purpose.—To provide comprehensive educational, health, nutrition, and social services to preschool, economically disadvantaged children from low-income families through matching grants (80-20) to local public or nonprofit private agencies.

Statutory Objective.—It is the objective of the program to "provide financial assistance to (local agencies) for the planning, conduct, administration, and evaluation of a Headstart program focused primarily upon children from low-income families who have not reached the age of compulsory school attendance which (1) will provide such comprehensive health, nutritional, educational, social, and other services as will aid the children in attaining their full potential, and (2) will provide for direct participation of the parents of such children in the development, conduct, and overall program direction at the local level."¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of this program.²

Outlays

(Formula: Allotment plus Discretionary Reserve)

	Total	Puerto Rico
FY 1977	\$472,858,000	\$16,351,000
FY 1976	432,598,000	15,964,000
FY 1975	434,788,000	15,315,000

Allotment Methodology.—Of the funds appropriated for the Headstart program each year:

(a) Not more than 2 percent can be set aside for Guam, American Samoa, the Virgin Islands and the Pacific Trust Territories, to be distributed among them according to their respective needs;

(b) Not more than 20 percent can be reserved for HEW to be disbursed on a discretionary basis;

(c) The remainder is to be allotted among the States (including Puerto Rico) on the basis of:

(1) the relative number of welfare recipients in each State as compared to all States, and

¹ 42 USCA § 2928.

² 42 USCA § 2706(1).

(2) the relative number of related children living with poverty-level income families in each State as compared to all States.

No State, however, shall receive less than the allotment amount it received in FY 1975.³

The matching requirement for Headstart funds is 80-20 unless that requirement poses too great a burden to the recipient. In that case, the matching requirement may be eased or eliminated by HEW.⁴

A State's allotment will be reduced if State and local funding for the Headstart programs in the State is reduced. Federal aid should not replace local moneys; instead, it should provide additional funds for extra services.⁵

Requirements for Funding.—Local public and nonprofit private agencies must submit an application to HEW in order to get a designation as a Headstart agency.⁶ Once it has been designated, the local agency must submit its plans for programs to the State's Governor.⁷

There is a matching requirement (80-20) which the local Headstart agency can satisfy in cash or in kind, although HEW may waive this requirement. Also, the statute requires that no less than 10 percent of the enrollment openings be offered to handicapped children.⁸ The Headstart program is designed for very young children from poverty-stricken families and, of course, no fee is charged those families. However, a reasonable number of children from families that are not poor are allowed to participate for a fee.⁹

There exists limitations on funding. As mentioned previously, State and local funding levels to any given Headstart project must not decrease or else Federal aid to the project will also be cut. In addition, development and administration costs for any project cannot exceed 15 percent of the total cost of the project.¹⁰

A series of research and development sideline projects are funded by grants from the discretionary reserve. Those projects funded by the reserve include training, technical assistance, research, demonstration, and pilot projects and cost-of-living increases.¹¹

Identifying Legal and Other Barriers.—No unusual barriers.

Conclusions.—Puerto Rico is accorded State-like treatment. It may increase the level of Headstart aid

³ 42 USCA § 2928b(a).

⁴ 42 USCA § 2928b(b).

⁵ 42 USCA § 2928b(c).

⁶ 42 USCA § 2928c(a). The prerequisites for designation as a local Headstart agency are set out in 42 USCA § 2928d.

⁷ USCA § 2928e.

⁸ 42 USCA § 2928b(d).

⁹ For child eligibility criteria and possible fee schedule, see 42 USCA § 2928g and 45 CFR 1301.1.

¹⁰ 42 USCA § 2928f(b).

¹¹ For training projects, see 42 USCA § 2928j; for demonstration and pilot projects, see 42 USCA § 2928k.

by petitioning HEW for funds from the discretionary reserve for training, demonstration projects, and pilot projects.

College Work Study* (Title IV, Part C, Higher Education Act of 1965) **[CFDA 13.663]**

Summary of Purpose.—To help colleges, universities, and vocational schools provide jobs for needy graduate and undergraduate students who must earn money to meet part of their educational expenses through matching grants (80-20). Puerto Rico participates under a set-aside formula for Puerto Rico.

Statutory Objective.—... [T]o stimulate and promote the part-time employment of students, particularly students with great financial need, in eligible institutions, who are in need of the earnings from such employment to pursue courses of study at such institutions.¹

Basis of Puerto Rican Eligibility.—Puerto Rico may participate in this program, but is not a "State" for purposes of fund allotment. Puerto Rican institutions of higher education must share with institutions of other territories in a set-aside reserve.²

Outlays

	Total	Puerto Rico
FY 1978	\$389,117,000	\$6,169,000
FY 1977	389,298,000	6,682,000
FY 1976	299,573,000	5,560,000
FY 1975	269,698,000	5,027,000

Allotment Methodology.—Of the funds appropriated by Congress each fiscal year:

(1) Two percent shall be set-aside for Puerto Rico, Guam, American Samoa, the Trust Territory of the Pacific, and the Virgin Islands and shall be distributed among them "according to their respective needs;"³

(2) 90 percent shall be allotted among the States:

(a) 30 percent among the States in proportion to the ratio of the number of full-time college students to the total of such students in all States;

(b) 30 percent among the States in proportion to the ratio of the number of high school gradu-

¹ 42 USCA § 2751(a).

² Puerto Rico may participate as a "State" under 20 USCA § 1141-(b) but cannot receive funds as a "State" under the allotment formula, see 42 USCA § 2752(a)(e).

³ 42 USCA § 2752(a).

ates of the State to the total high school graduates in all States; and

(c) 30 percent among the States in proportion to the ratio of the number of related children under 18 years of age living in families with annual incomes below \$3,000 in the State to the total of such children in all States.⁴

(3) The remaining 8 percent to be reserved for equitable allotment among the States to support the purposes of this program. If this amount is not expended, it may be used through the succeeding fiscal year.⁵

Requirements for Funding.—Colleges, universities, and vocational schools must make applications for allotted funds and sign an agreement with the Office of Education under which they will receive grants to assist work-study programs.⁶

Cash grants must be matched (80–20) though the matching requirements may be waived.⁷

Four percent of funds received by an institution may be used for administration expense.⁸

The work-study program is designed to work in conjunction with the National Direct Student Loan Program and the supplemental education opportunity grants in an effort to aid needy students. An institution that operates a work-study program under agreement from HEW must make an effort to make these part-time jobs available to all needy students on campus.⁹ Needy students eligible for work-study jobs are enrolled students in good academic standing and who are U.S. nationals. The institution must provide jobs oncampus or offcampus at public or private nonprofit agencies (e.g., a hospital). The minimum wage to be paid students on these jobs will be the prevailing Federal minimum wage.¹⁰

Ten percent of funds or \$15,000, whichever is less, may be used by each institution in the program to establish or expand work-study job possibilities for students at public or private nonprofit agencies.¹¹

Identifying Legal and Other Barriers.—Puerto Rico is excluded from the formula allotment under which it would most likely receive more funding.

Conclusion.—Puerto Rico participates in this program, but is not accorded State-like treatment due to statutory limitation in the form of a set-aside formula.

⁴ *Ibid.* at (b)(1)–(3).

⁵ *Ibid.*, at (c)–(d). This 8 percent must first be used to bring up the allotment of any State to the FY 1972 level, thereby ensuring that no State receives less money than it did in FY 1972, or at least not less in terms of percentage than it did in 1972.

⁶ Details of the agreement are spelled out in 42 USCA § 2754, 45 CFR 175.8.

⁷ 42 USCA § 2754(a)(6).

⁸ *Ibid.*, at (a)(2).

⁹ *Ibid.* at (a)(7).

¹⁰ 42 USCA § 2754(a)(3); for a full explanation of student prerequisites, see 45 CFR 175.10.

¹¹ 42 USCA § 2756a, see 45 CFR 175.31–42.

Educationally Deprived Children—Local Educational Agencies (LEA)* (Title I, Part A, Subpart 1, Elementary and Secondary Education Act) [CFDA 13.428]

Summary of Purpose.—By grant to expand and improve educational programs for educationally disadvantaged children in low-income areas who are enrolled in public and private elementary and secondary schools.

Statutory Objective.—In recognition of the special educational needs of children of low-income families and the impact that concentrations of low-income families have on the ability of local educational agencies to support adequate educational programs, the Congress hereby declares it to be the policy of the United States to provide financial assistance . . . to local educational agencies serving areas with concentrations of children from low-income families to expand and improve their educational programs by various means . . . which contribute particularly to meeting the special educational needs of educationally deprived children.¹

Basis of Puerto Rican Eligibility.—Puerto Rico participates in this program as a “State” though it receives funds under an allotment formula applicable to it alone.²

Outlays.—There are 5 programs operating under title I: (1) Local Educational Agencies (LEA), (2) Handicapped Children, (3) Neglected and Delinquent Children in Institutions, (4) Migrant Children, and (5) Special Incentive Grants. The LEA program claims more than 75 percent of the title I funds appropriated by Congress.

Title I Outlays (all five programs)

	Total	Puerto Rico
FY 1978	\$2,285,000,000	\$55,699,000
FY 1977	2,050,000,000	48,008,000
FY 1976	1,900,000,000	39,174,000
FY 1975	1,876,000,000	29,410,052

LEA Outlays (A subcategory of Title I)

	Total	Puerto Rico
FY 1978	1,926,727,000	52,996,000
FY 1977	1,721,130,000	46,812,000
FY 1976	1,625,413,000	36,873,000
FY 1975	1,587,169,000	27,367,000

¹ 20 USCA § 241a.

² 20 USCA § 244(8) on separate allotments, see 20 USCA § 241c(a)–(3)(C).

Allotment Methodology.—(I) States (excluding Puerto Rico)

Each State may receive a maximum allotment equal to the sum of:

- (A) (1) The number of children aged 5 to 17, inclusive, from families below the poverty line,
- (2) *plus*, two-thirds the number of children aged 5-17, inclusive, from families receiving Social Security funds under the aid to families with dependent children (AFDC) program,
- (3) *plus* the number of children aged 5-17, inclusive, in public or private residential institutions for neglected or delinquent children, multiplied by 40 percent of the average per pupil expenditure in the State. The figure used for State average pupil expenditure (APE), however, may not exceed 120 percent of the United States average per pupil nor fall below 80 percent of the U.S. average.⁷

(II) Puerto Rico

For the island, the number of eligible children is multiplied by the ratio which Puerto Rico's average pupil expenditure bears to the lowest State average pupil expenditure, and that product is then multiplied by 32 percent of the U.S. average pupil expenditure. Notably, however, while the Puerto Rican figure can never exceed 120 percent of the U.S. average per pupil expenditure figure, there is no minimum. Unlike the States, Puerto Rican average per pupil expenditure can drop below 80 percent of the average U.S. figure.⁸

In addition, a severe limitation has been placed by Congress on those funds allotted by formula to Puerto Rico. Those formula amounts were cut by 50 percent in FY 1975 and 25 percent in FY's 1976, 1977, and 1978.⁹ FY 1979 will be the first year in which the island will receive its formula share.

(III) Outlying Areas

Guam, the Virgin Islands, American Samoa, the Trust Territories of the Pacific Islands, Indian Schools, and overseas Defense Department schools share in 1-percent set-aside each fiscal year from the total appropriations for LEA.⁶

Requirements for Funding.—In order to participate in this title I program, a State must submit an application and a State annual plan through its State

educational agency. The State can use 1 percent or \$150,000, whichever is greater, for administrative expenses.⁷

Local educational agencies and school districts that have at least 10 educationally deprived children can apply to the State educational agency.⁸ So that Federal funds do not merely supplant local moneys in the school budget, the local districts cannot decrease their own average expenditure per pupil.⁹

This program is targeted at deprived children and the projects proposed at the local level must help those few and not the general student body.¹⁰

Identifying Legal and Other Barriers.—As shown above, Puerto Rico has an allocation formula separate from that for a State. The Puerto Rican formula relies on an adjusted average Puerto Rican expenditure per pupil figure that can never exceed 120 percent of the average national figure. However, unlike a State, the island average figure may drop below 80 percent of the national average figure. An 80 percent "floor" exists for the States. This is not State-like treatment.

Also, in the FY's 1975-78, the Puerto Rican allotment has been cut from 50 to 25 percent by a 1974 amendment to the ESEA. Under the State formula, Puerto Rico has a greater number of deprived children than most States. In 1974, when Congress redefined Puerto Rico as a "State" rather than an outlying area, it was apparent that the formula would generate many more funds for the island than it received under the set-aside. Therefore, Congress imposed the graduated cuts ranging from 50 to 25 percent in order to ease the transition.

A special incentives grant program operates concurrently with LEA and all the other title I programs. It provides extra money to States that reach more deprived children. Until the recent enactment of the "Education Amendments of 1978" Puerto Rico was excluded from this grant program.¹¹

Conclusions.—The educationally deprived children (LEA) program is designed for the children of poor families. When Puerto Rico was finally elevated from "outlying territory" to "State" status, the Congress pointedly sought to limit the amount of funds that the island's poorer children would receive. The Congress imposed an arbitrary 25 to 50 percent cut in the formula amounts that Puerto Rico was to receive. Those limitations have almost expired but Puerto Rico is still left without a floor for its average per pupil expenditure.

⁷ 20 USCA § 241g(b).

⁸ An eligible local school district is defined in 20 USCA § 241c(b), 45 CFR 116a.3. The application to the State and the uses of the funds sought are detailed in 20 USCA § 241e(a) and 45 CFR 116.30-36.

⁹ 20 USCA § 241g(c)(2), 45 CFR 116.40.

¹⁰ 45 CFR 116a.22(b)(5). For the types of projects that may be proposed, see 45 CFR 116a.22 in its entirety.

¹¹ See 20 USCA § 214d.

⁶ 20 USCA § 241c(a)(2), for the formula for counting the number of children, see 20 USCA § 241c(c).

⁷ 20 USCA 2711(a)(2)(c).

⁸ § 843d of Public Law 93-380, 88 Stat. 484, 20 USCA § 241c (note).

⁹ 20 USCA § 241c(a)(1).

The conditions regarding Puerto Rico in this program appear contradictory. Although the LEA program was designed for the educationally deprived children of poor families it is specifically because there are so many children in Puerto Rico who fall in this category that Congress has decided to limit the amount of funds allocated to the island in this program. As a consequence fewer resources than needed are allocated to the island.

Educational Innovation and Support (Title IV, Part C, Elementary and Secondary Education Act of 1965, as Amended) [CFDA 13.571]

Summary of Purpose.—By direct grant to fund educational programs in public and private (non-profit) elementary and secondary schools for (1) supplementary educational centers for preschool, special, vocational, or compensatory programs; (2) demonstration projects designed to improve health and nutrition for children in low-income areas; (3) strengthening State and local departments of education; and (4) lowering high-school dropout rates.

NOTE: By 1974, amendment to the Elementary and Secondary Education Act (ESEA),¹ four pre-existing HEW programs were consolidated in title IV, Part C of ESEA. Those programs were (1) the title III, ESEA supplementary educational center program excepting the testing, counseling, and guidance programs in that title, (2) the title V, ESEA program for strengthening State and local educational agencies, (3) the § 807, ESEA program for dropout prevention, and (4) the § 808, ESEA program for demonstration projects to improve school nutrition and health services for children of low-income families.

Statutory Objective.—... [T]o carry out a program for making grants . . . (1) for supplementary educational centers and services to stimulate and assist in the provision of vitally needed educational services . . . not available in sufficient quantity or quality, and to stimulate and assist in the development and establishment of exemplary elementary and secondary school programs . . . to serve as models for regular school programs; (2) for the support of demonstration projects . . . to improve nutrition and health services in public and private elementary and secondary schools serving . . . children from low income families . . . (3) for strengthening the leadership resources of State and local educational agencies, . . . (4) for . . . the use of innovative methods, systems, materials, or programs which

show promise of reducing the number of such children who do not complete their secondary school education.²

Outlays

Categorical Grants (before consolidation) for FY 1975.

	Total	Puerto Rico
Supplementary Education Center, Guidance, Counseling and Testing	\$103,235,000	\$1,525,000
Strengthening State Department of Education	32,443,000	553,000
Dropout Prevention		
School Nutritional Health	1,339,000	

Consolidated Grants

FY 1978	194,000,000	3,055,000
FY 1977	194,000,000	3,072,000
FY 1976 ¹	184,522,000	2,709,000

¹ 1976 figures are one-half categorical and one-half consolidated grants.

Allotment Methodology.—The annual congressional appropriation for Part C Education Innovation and Support is disbursed as follows:

(1) 1 percent or less to the territories of Guam, American Samoa, the Virgin Islands, the Trust Territories of the Pacific Islands, and overseas Defense Department schools;

(2) the remaining 99 percent or more to the States in the ratio of the number of children aged 5 to 17, inclusive, in each State to the number of such children in all the States. Funds allotted to any State that go unused may be reallocated to other States in proportion to the original allotments to such States.³

Those funds received by a State must be distributed among school districts according to their respective public and private school enrollments. The State, through its State education agency, may disburse extra funds to those school districts "whose tax effort for education is substantially greater than the State average tax effort for education, but whose per pupil expenditure . . . is no greater than the average per pupil expenditure in the State."⁴ Also, the State may distribute extra funds to those school districts located in lower income, sparsely populated, or non-English speaking areas.

The conversion of the four categorical programs into a consolidated, block grant-type program does

¹ The Elementary and Secondary Act of 1965, Public Law 89-10, 79 Stat. 27, was amended by § 431 of the Educational Amendments Act of 1974, Public Law 93-380, 88 Stat. 484, 543, 20 USCA § 1831.

² 20 USCA § 1831(a).

³ 20 USCA § 1802(a)-(b).

⁴ 20 USCA § 1803(a)(4).

not reduce the aggregate of Federal funds that each State previously received under the four programs.⁵ The difference, however, exists at the local level; school districts have complete discretion with the funds received and may allot them among the four programs as they see fit.⁶

Requirements for Funding.—A State in order to receive funds for this program must establish an "advisory council," formulate and submit to the Office of Education a State plan, and designate a State educational agency to administer the program within the State.⁷ The State may use 5 percent of the funds that it receives for administrative expenses,⁸ at least 15 percent for special programs for children who are handicapped or with specific learning disabilities,⁹ and no more than 15 percent for strengthening State and local educational agencies.¹⁰

For local school district agencies to receive funds, they must apply to the State educational agency. These agencies have almost complete discretion to distribute the funds to the four subprograms as they see fit.¹¹ Private schools that are run on a nonprofit basis are also eligible for funds.¹²

Federal aid should not displace local funds already in use. Therefore, all State and local school district agencies must give assurances that the non-Federal funds, used for these programs in prior years, will not be decreased.¹³

For more detailed explanation of the projects and programs permitted under educational innovation and support, see the statute section [20 U.S.C.A. § 1831(a)] and the regulations [45 CFR 134b.2].

Identifying Legal and Other Barriers.—No unusual barriers.

Guaranteed Student Loan Program (Title IV, Part B, Higher Education Act of 1965) [CFDA 13.460]

Summary of Purpose.—To enable undergraduate and graduate students to borrow directly for their education from private banks and savings and loan associations by the extension of a Federal loan guarantee for these loans.

Statutory Objective.— . . . [T]o encourage States and nonprofit private institutions and organizations to establish adequate loan insurance programs for students in eligible institutions, . . . to provide a

Federal program of student loan insurance for students or lenders who do not have access to a State or private nonprofit program of student loan insurance to pay a portion of the interest on loans to qualified students . . . to guarantee a portion of each loan insured under a program of a State or of a nonprofit private institution or organization . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rican students are eligible for Federal loan guarantees for their private educational loans. Puerto Rico is a "State" for purposes of this program.²

Outlays

(Value of Federal Loan Guarantees extended)

(I) Federally Insured Student Loans Programs

	Total	Puerto Rico
FY 1977	\$500,379,000	\$6,045,000
FY 1976 ¹	739,884,000	11,534,000
FY 1975	661,292,000	9,002,000

(II) State Guarantee Agency Program

FY 1977	1,080,346,000	6,000
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¹ Includes transition quarter.

(III) Direct State Loan Program never operated in Puerto Rico and in 1976 ceased operating anywhere in the United States.

Allotment Methodology.—Eligible students attending colleges, universities, and other eligible institutions may apply for loans from private banks, savings and loan associations, and credit unions that will be guaranteed by the State, a private nonprofit agency, or the Federal Government. These loan guarantee applications are accepted on a discretionary basis, subject to a loan guarantee ceiling agreed upon by private lender.

Under this guarantee program, no undergraduate student may borrow more than \$2,500 per year, nor \$7,500 for his entire undergraduate career. No graduate student may borrow more than \$5,000 per year, nor \$15,000 for his entire graduate study program (an amount that includes undergraduate loans).³

If the student loan is guaranteed by a State or a private nonprofit agency under the State guarantee

⁵ USCA § 1801(a)(2).

⁶ 20 USCA § 1803(a)(5).

⁷ 20 USCA § 1803(a). For composition and purpose of advisory council, see 20 USCA § 1803(b). For detailed requirements of an annual State plan, see 45 CFR 134.10-21.

⁸ 20 USCA § 1803(a)(8)(A).

⁹ 20 USCA § 1803(a)(8)(B).

¹⁰ 20 USCA § 1803(a)(8)(C).

¹¹ USCA § 1803(a)(5).

¹² 20 USCA § 1806, for more details, see 45 CFR 134.89-109.

¹³ 20 USCA § 1803(a)(11).

¹ 20 USCA § 1071(a).

² 20 USCA § 114(b)A. All Puerto Rican colleges and universities are able to participate since they are all located in a "State." *Id.* at § 1085(a)-(b). All Puerto Rican banks and savings and loan associations are qualified lenders because they are subject to Federal or State regulations. *Id.* at § 1085(g)(1).

³ 20 USCA § 1075(a)(1)-(2), 45 CFR 177.54.

agency program, the Federal Government will re-insure the loan for 80 percent of its value.⁴ If the student loan is guaranteed under the federally-insured student loan program, the Federal Government will reimburse the private lender for 100 percent of the default loss.⁵

The actual ceiling on the value of student loans covered by Federal guarantees is set in separate agreements between the lenders, the State and private nonprofit agencies, on the one hand, and the Federal Government on the other.⁶

Requirements for Funding.—Students are eligible for loans guaranteed under this program if they are U.S. nationals or permanent residents who have graduated from high school and attend an eligible college, university, or vocational school on at least a halftime basis.⁷ The interest rate of such loans may never exceed 7 percent per annum.⁸ Interest charges accumulate from the date of loan extension. Whatever the interest rate charged, most students are eligible for a Federal interest subsidy payment to reduce the interest costs.⁹

Eligible institutions of higher education include accredited colleges, universities, nursing schools, and vocational, technical, trade, business, and correspondence schools in the United States, or those abroad that have large numbers of U.S. nationals.¹⁰

Eligible private lenders include banks, savings and loan associations, and credit unions subject to State or Federal regulation.¹¹ Those lenders that have a guaranteed student loan default rate greater than 15 percent for a 2-year period will no longer be able to participate in the loan program.¹²

Identifying Legal and Other Barriers.—The State guarantee agency program barely operates in Puerto Rico. Only \$6,000 in loans were processed in Puerto Rico in FY 1977 through a private, nonprofit guarantee agency named United Student Aid. Whether this is significant is not known. The federally-insured student loan program pays 100 percent on default losses while the other program only pays 80 percent of the losses.

⁴ 20 USCA § 1078(c)(1)(A)(7). State or private entities that have a low student loan default rate can qualify for 100-percent reimbursement by the Federal Government until the default rate exceeds 5 percent. See *id.* at § 1078(c)(1)B. For a full description of this program, see 45 CFR 177.31–36.

⁵ 20 USCA § 1080(a). For full description of program, see 45 CFR 177.51–67.

⁶ For federally insured student loan program agreements, see 20 USCA § 1079(a), 45 CFR 177.52. For State guarantee agency program agreements, see 20 USCA § 1072(a), 45 CFR 177.32, 35.

⁷ 20 USCA § 1077(a)(1), 45 CFR 177.11(r).

⁸ 20 USCA §§ 1077(b), 1078(d).

⁹ 20 USCA § 1078(a). Students qualify if their adjusted family income is less than \$25,000 per year. See 45 CFR 177.21–22.

¹⁰ 20 USCA § 1085(a), (b), (c).

¹¹ *Id.* at (g)(1)–(2).

¹² *Id.* at (g)(3)–(4).

Handicapped Preschool and School Program (Part B, Education of the Handicapped Act) [CFDA 13.449]

Summary of Purpose.—To assist States in providing special education in the public and private school systems to all handicapped children by use of grants that do not have the effect of reducing State or local funding for such education. Part of funds must be matched (50–50).

Statutory Objective.— . . . [T]o assure that all handicapped children have available to them . . . a free appropriate public education which emphasizes special education and related services designed to meet their unique needs, to assure that the rights of handicapped children and their parents or guardians are protected, to assist States and localities to provide for the education of all handicapped children, and to assess and assure the effectiveness of efforts to educate handicapped children.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible for formula allocation of funds as a “State.”²

Outlays

	Total	Puerto Rico
FY 1977	\$200,000,000	\$2,899,000
FY 1976	100,000,000	1,567,000
FY 1975	99,000,000	1,342,000

Allotment Methodology.—There are two types of grants under this program. For handicapped children aged 5–21, there exists the Assistance to States for Education of the Handicapped Grants. For younger handicapped children aged 3–5, there is a new grant program beginning in FY 1978 named Incentive Grants.

Assistance to States for Education of the Handicapped Grants.—The amount of funds available to a State equals the number of handicapped children aged 3–21 in the State who are receiving special education and related services, multiplied by a variable percentage of the average per pupil expenditure in public elementary and secondary schools in the United States. The percentage increases year by year as follows:

FY 1978—5 percent
FY 1979—10 percent
FY 1980—20 percent

¹ Section 1(c) of Public Law 91–230, Education of the Handicapped Act, as amended by section 3(a) of Public Law 42–142, Education for All Handicapped Children Act, 20 USCA § 1401 note.

² For “State” reference, see 20 USCA § 1401(6). For eligibility in formula allotments, see 20 USCA § 1411(a)(2).

FY 1981—30 percent
FY 1982 and after—40 percent³

If, under this formula, a State would receive less than it did in FY 1977, it will receive at least an amount equal to the FY 1977 allocation.⁴

As a ceiling, no State can receive funds for the portion of its handicapped child population that exceeds 12 percent of all children aged 5-17 in the State.⁵

Of the funds received by the State in FY 1978, 50 percent is to be used for State administrative expenses and State support and direct services. The other 50 percent is to be allocated to local educational agencies. In FY 1979 and thereafter, only 25 percent is to be retained by the State and the remaining 75 percent is to be disbursed to local educational agencies.⁶

Those funds retained by the State must be matched (50-50) from July 1, 1978, but funds for local educational agencies need not be matched.⁷ Those funds to be disbursed to local schools are allocated on the basis of ratio of the local handicapped child population to that of the entire State's handicapped child population.⁸

Incentive Grants.—The Incentive Grants provide special education and related services to handicapped children aged 3-5. The amount of the grant equals \$300 multiplied by the number of handicapped children 3-5 counted during the current school year.⁹

Requirement for Funding.—Both assistance to States grants and incentive grants require a State plan formulated by a State educational agency.¹⁰ Local educational agencies must apply to the State educational agency for funds.¹¹ Local educational agencies must use funds for "excess costs" and cannot use Federal funds to replace State or local funds. In other words, they must spend as much on handicapped children as on normal children and Federal funds may not be used to reduce the level of spending per handicapped child.¹² This "excess cost" requirement does not apply to funds allotted to States for administrative support and direct services.¹³

Handicapped children placed in private schools by public agencies or by their parents are also eligible for funds.¹⁴

³ 20 USCA § 1411(a)(1).

⁴ *Ibid.*

⁵ This, as well as other limitations, is contained in 20 USCA § 1411(a)(5), 45 CFR 121a.702.

⁶ 20 USCA § 1411(b)(1) and (c)(1).

⁷ 20 USCA § 1411(c)(2)(13), 45 CFR 121a.371.

⁸ 20 USCA § 1411(d), 45 CFR 121a.371.

⁹ 20 USCA § 1419(a).

¹⁰ 20 USCA § 1412(2). The contents of a State plan are detailed in 20 USCA § 1413 and 45 CFR 121a. 120-151.

¹¹ 20 USCA § 1414(a), for details of application, see 45 CFR 121a. 180-240.

¹² 20 USCA § 1414(a)(1). "Excess cost" defined in 20 USCA § 1402(2). Also see 45 CFR 121a. 182-184.

¹³ 20 USCA § 1411(c)(3), 45 CFR 121a.372.

¹⁴ 20 USCA § 1413(a)(4)(A)(B), also see 45 CFR 121a.-460.

Identifying Legal and Other Barriers.—No unusual barriers.

Libraries and Learning Resources (Title IV, Part B, Elementary and Secondary Education Act as Amended) [CFDA 13.570]

Summary of Purpose.—By direct grant to fund educational programs of (1) library expansion and textbook purchase; (2) testing, guidance, and counseling; and, (3) purchase of instructional equipment and minor remodeling for public and private (non-profit) elementary and secondary schools.

NOTE: By 1974 amendment to the Elementary and Secondary Education Act (ESEA),¹ three pre-existing HEW programs were combined in title IV, part B of ESEA. They were (1) the title II, ESEA school library resources, textbook, and institutional materials program; (2) title III, ESEA testing, guidance, and counseling program; and, (3) the title III program for purchase of instructional equipment and minor remodeling of the National Defense Education Act of 1958.²

Statutory Objective.— . . . [A] program for making grants to the States . . . (1) for the acquisition of school library resources, textbooks, and other printed and published instructional materials for the use of children and teachers in public and private elementary and secondary schools; (2) for the acquisition of instructional equipment . . . and for minor remodeling . . . (3) for a program of testing . . . counseling and guidance services . . .³

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible for funds under this school program as a "State."⁴

Outlays

Categorical Grants (before consolidation) for FY 1975

	Total	Puerto Rico
School Library Resources, Textbooks	\$87,688,000	\$1,440,000
Guidance, Counseling, Testing, and Supple- mental Education Center	103,235,000	1,525,000
Instructional Equipment and Minor Remodeling	19,657,000	279,000

¹ The 1965 Elementary and Secondary Education Act, Public Law 89-10, 79 Stat. 27, was amended by § 421 of the 1974 Educational Amendments Act, Public Law 93-380, 88 Stat. 484, 542, 20 USCA § 1821.

² Public Law 85-864, 72 Stat. 1580.

³ 20 USCA § 1821(a).

⁴ 20 USCA § 1802(a)(2).

Consolidated Grants

	Total	Puerto Rico
FY 1978	154,000,000	2,555,000
FY 1977	154,330,000	2,413,000
FY 1976 ¹	147,330,000	2,225,000

¹ 1976 figures are one-half categorical and one-half consolidated grants.

Allotment Methodology.—The annual congressional appropriation for part B libraries and learning resources support is disbursed as follows:

(1) one percent or less to the territories of Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands, as well as to Indian and overseas Defense Department schools.

(2) the remaining 99 percent or more to the States in the ratio of the number of children aged 5 to 17, inclusive, in each State to the number of such children in all the States. Funds allotted to any State that go unused may be reallocated to other States in proportion to the original allotments to such States.⁵

Those funds received by a State must be distributed among school districts according to their respective public and private school enrollments. The State, through its State education agency, may disburse extra funds to those school districts "whose tax effort for education is substantially greater than the State average tax effort for education, but whose per pupil expenditure . . . is no greater than the average per pupil expenditure in the State."⁶ Also, the State may distribute extra funds to those school districts located in lower income, sparsely populated, or non-English speaking areas.

The conversion of the three categorical programs into a consolidated, block grant-type program does not reduce the aggregate of Federal funds that each State previously received under the three programs.⁷ The difference, however, exists at the local level; school districts have complete discretion with the funds received and may allot them among the three programs as they see fit.⁸

Requirements for Funding.—To receive funds, a State must establish an advisory council, submit an annual State plan, and designate a State educational agency to operate the program.⁹ The State may use 5 percent of the funds that it receives for administrative expenses.¹⁰

For local school district agencies to receive funds,

⁵ 20 USCA § 1802(a)-(b).

⁶ 20 USCA § 1803(a)(4).

⁷ 20 USCA § 1801(a)(2).

⁸ 20 USCA § 1803(a)(5).

⁹ For requirements of State plan, see 20 USCA § 1803(a). The composition and purpose of the advisory council is contained in 20 USCA § 1803(b).

¹⁰ *Ibid.* § 1803(a)(8)(A).

they must apply to the State educational agency. These local agencies have almost complete discretion to distribute the funds to the three subprograms as they see fit.¹¹ Private schools that are run on a nonprofit basis are eligible for funds.¹²

Federal aid should not displace local funds already in use. Therefore, all State and local school district agencies must give assurances that the non-Federal funds used for these programs in prior years will not be decreased.¹³

For definitions of books and equipment obtainable under this consolidated program, see the statute section [20 U.S.C.A. § 1821(a)] and the regulations [45 CFR 134.2, 134a.2].

Identifying Legal and Other Barriers.—No unusual problems.

Conclusion.—State-like treatment.

National Direct (Defense) Student Loans (Title IV, Part E, Higher Education Act of 1965) [CFDA 13.471]

Summary of Purpose.—To help establish at colleges and universities revolving student loan funds for a long term, low interest, deferred repayment loan program for needy graduate and undergraduate students so that they may meet their educational expenses through the extension of Federal funds (90-10).

Statutory Objectives.— . . . [A] program of stimulating and assisting in the establishment and maintenance of funds at institutions of higher education for the making of low-interest loans to students in need thereof to pursue their courses of study in such institutions.¹

Basis of Puerto Rican Eligibility.—Puerto Rican schools are eligible for funds under the National Direct Student Loan Program.²

Outlays

(Federal contribution, Cancellation reimbursements, and Loans for Matching Requirement)

	Total	Puerto Rico
FY 1978	\$310,353,000	\$3,368,000
FY 1977	320,999,000	2,971,000
FY 1976	320,766,000	2,896,000
FY 1975	285,999,000	2,896,000

¹¹ 20 USCA § 1803(a)(5). There is a first year of operation limitation on 50 percent of the funds.

¹² 20 USCA § 1806, also see 45 CFR 134.89-109.

¹³ 20 USCA § 1803(a)(11).

¹ 20 USCA § 1087aa.

² 20 USCA § 1141(b).

Allotment Methodology.—Of the sums appropriated each year, 90 percent will be allotted to each State on the basis of the proportion of the number of fulltime students in institutions of higher education in the State to the national total number of such students.³

No State, however, shall receive less than its allotment under the national defense student loan program in FY 1972.⁴ The deficiency shall be made up by the remaining 10 percent of the congressionally appropriated funds for the year.⁵

Federal contributions to the revolving student loan fund of a college must be matched by the institution, 90-10.⁶ Each college or university that sets up the revolving loan fund is also entitled to Federal funds to cover administrative expenses equal to 4 percent of loans extended by it.⁷

Requirements for Funding.—As stated before, the Federal contribution to the revolving student loan fund at any institution of higher education must be matched by the institution \$1 for every \$9 of Federal aid. Nonetheless, the Federal Government may waive the matching requirement and loan the required amount at reasonable rates and terms.⁸ The Federal contribution to the student loan fund is not a loan nor a grant, but has the effect of a grant.⁹ It may be lent, and once repaid by the students, lent again.

Under Federal regulations, certain student loan debts will be forgiven (canceled) for student borrowers who go into the military or teaching in low-income areas; both the principal and interest will be forgiven.¹⁰ These forgiven loan debts diminish the institution's student loan fund. The amount lost will be reimbursed by the Federal Government.¹¹

To participate in this program, an institution of higher education¹² must make an application for the funds allotted to its State and sign an agreement with the Office of Education.¹³ Loans may be made to undergraduate and graduate students attending school on at least a halftime basis and in good

standing.¹⁴ Undergraduate students cannot borrow more than \$5,000 for their course of study. Graduate students cannot borrow more than \$10,000 for both graduate and undergraduate studies.¹⁵ The interest on such loans is 3 percent per year after termination of studies.¹⁶

Identifying Legal and Other Barriers.—No unusual barriers.

School Assistance in Federally Affected Areas (SAFA) Maintenance and Operations Assistance [CFDA 13.478]

Summary of Purpose.—To compensate local public schools located near Federal installations for the cost of educating children of persons working or living on those Federal enclaves and for the tax base lost by reason of Federal ownership of property in the school districts.

Statutory Objective.—In recognition of the responsibility of the United States for the impact which certain Federal activities have on . . . [local school districts] . . . in which such activities are carried on, the Congress hereby declares it to be the policy of the United States to provide financial assistance . . . for those local . . . [school districts] . . . upon which the United States has placed financial burdens . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rico is a "State" for purposes of this Federal program.²

Outlays

(Sections 2, 3, 4, and 5 of Title I, Public Law 81-874)

	Total	Puerto Rico
FY 1976	\$645,829,000	\$3,921,000
FY 1975	561,567,000	849,000

Allotment Methodology.—There are 5 compensation subprograms under the SAFA maintenance and operations programs. They are listed below with their respective allotment formulas.

(I) Section 2 authorizes Federal payments to school districts (labeled local educational agencies (LEA) for statutory purposes) within which the Federal Government owns land with an assessed value greater than 10 percent of the total assessed

³ 20 USCA § 1087bb(a)(1).

⁴ The Defense loan program authorized by Title II of the National Defense Education Act of 1958, Public Law 85-864, 72 Stat. 1580, 20 USCA §§ 421-429 was terminated on July 1, 1972, and has been succeeded by the direct loan program, § 137(d)(1) of Public Law 92-318, 86 Stat. 235.

⁵ 20 USCA § 1087bb(a)(1). If there are insufficient funds in the remaining 10 percent to raise the value of the allotment to the 1972 level, then those funds shall be apportioned so that no State will receive less than a uniform minimum percentage of its FY 1972 allotment.

⁶ 20 USCA § 1087cc(a)(2)(B).

⁷ 20 USCA § 1087cc(b) and § 1088b(a).

⁸ 20 USCA § 427, 45 CFR 144.61-64.

⁹ See, 20 USCA § 1087ff.

¹⁰ 20 USCA § 1087ee; also see 45 CFR 144.51-59.

¹¹ 20 USCA § 1087ee(b), 45 CFR 144.59.

¹² Four-year, junior, and community colleges and universities that are accredited are included in the definition of institutions of higher education, 20 USCA § 1141(a).

¹³ 20 USCA § 1087bb(b); for details of agreement, see 20 USCA § 1087cc, 45 CFR 144.5-8.

¹⁴ 20 USCA § 1087dd(b).

¹⁵ *Id.* at (a)(2).

¹⁶ *Id.* at (c)(1)(D).

¹ 20 USCA § 236.

² 20 USCA § 244(8).

land value. The tax base lost as a result of Federal acquisition must place a continuing financial burden on the district. The amount of compensation for each district is to be set by the Office of Education in its discretion, but may not exceed the tax collectible on similar, privately-held lands.³

(II) Section 3 authorizes Federal contributions to local public school districts for the additional children of parents working or living on Federal installations who are sent to local public schools. The local school districts are paid for the number of such children in "average daily attendance" at their schools provided there are at least 400 such children or that they equal at least 3 percent of the total number of children in attendance. The amount paid per extra child enrolled varies from 100 to 40 percent of the local contribution per pupil. The local-contribution rate is used rather than the expenditure-per-pupil rate in order to account for the State contribution per pupil and not duplicate the State's contribution.⁴ There is also a 150-percent contribution rate for handicapped children.⁵ The Federal Government may make contributions to school districts in Puerto Rico due to unusual geographic factors which affect current expenditures.⁶

(III) Section 4 provides payments to local school districts who have experienced a sudden and substantial increase in student enrollment (at least a 5-percent jump in one year) due to the attendance of children of persons who live or work on Federal property. The Office of Education shall pay to a local school district an amount equal to the number of such children multiplied by the current expenditure per child in the district. The amounts received under section 4 may replace those funds received under section 3.⁷

(IV) Section 5 covers the possibility of low appropriations for sections 2, 3, and 4. If congressional appropriations for a given year are insufficient to provide full payments under sections 2, 3, and 4, then the deficiencies will be paid according to a priority list established by section 5. This provision does not provide for an across-the-board pro rata reduction for all payments.⁸

(V) Section 6 provides money to Federal military installations to set up and operate schools for children on the base. These "dependent schools" are established in States or territories that, by law, prohibit children of military personnel from attending

local free public schools.⁹ Dependent schools are enclaves without much contact with the Puerto Rican economy and can be viewed as part of the Federal Government military expenditures. *Outlays under section 6 are not included in the outlay statistics of this summary.*

Requirements for Funding.—All local school districts that seek funds for extra pupils or lost taxable land under sections 2, 3, and 4 shall make an application to the Office of Education.¹⁰

Identifying Legal and Other Barriers.—Puerto Rico receives payments under sections 3 in accordance with the adjustments under section 5. This program is a passive type that develops only in reaction to the placement of Federal enclaves on the island. This is not a development aid program but only a compensation program. There are no barriers to Puerto Rican participation in this program.

Strengthening Developing Institutions (Title III, Higher Education Act of 1965) [CFDA 13.454]

Summary of Purpose.—To assist newer, struggling colleges that cater to low-income students to raise the quality of the higher education that they offer through basic development grants (1 year) and advanced development grants (3–5 years).

Statutory Objective.—The Commission shall carry out a program of special assistance to strengthen the academic quality of developing institutions which have the desire and potential to make a substantial contribution to the higher education resources of the Nation but which are struggling for survival and are isolated from the main currents of academic life.¹

Basis of Puerto Rican Eligibility.—Puerto Rican institutions of higher learning are eligible to apply for grants.²

Outlays

Basic Institutional Development Program Grants

	Total	Puerto Rico
FY 1977	\$52,000,000	\$1,616,000
FY 1976	52,000,000	1,285,000
FY 1975	52,000,000	1,445,000

Advanced Institutional Development Program Grants

FY 1977	\$58,000,000	—
FY 1976	58,000,000	—
FY 1975	58,000,000	—

³ 20 USCA § 237(a).

⁴ 20 USCA § 238; for definition of children of Federal workers, see *ibid.* at (a)–(b); for school district eligibility, see *ibid.* at (c); for amount payable for each child sent to school, see *ibid.* at (d)(1); for determination of local contribution rate, see 45 CFR 115.31.

⁵ 20 USCA § 238(d)(2)(C)(i).

⁶ 20 USCA § 238(d)(3)(A)(ii).

⁷ 20 USCA § 239(a).

⁸ 20 USCA § 240(c).

⁹ 20 USCA § 241(a).

¹⁰ 20 USCA § 240(a)(1), 45 CFR 115.10.

¹ 20 USCA § 1051(a).

² 20 USCA § 1141(b).

Allotment Methodology.—Both basic and institutional development program grants are disbursed at the discretion of the Office of Education, upon application by individual colleges and universities.³ The authorizing legislation, however, mandates that 76 percent of funds appropriated by Congress each year must go to those developing institutions which plan to award at least one bachelor's degree during the year. The remaining 25 percent may only be made available to those developing institutions that do not plan to award a degree during such year; e.g., junior colleges.⁴

For an institution to qualify for title III funds as "developing institution," it must be a legally authorized institution (college, junior college, or community college) which has been accredited for at least 5 years prior to the year in which it applies for funds.⁵ *Institutions in Puerto Rico may qualify for an exemption from the 5-year accreditation rule for they serve to substantially increase higher education for Spanish-speaking people. Under a waiver for this reason, a Puerto Rican college need only hold accreditation for 2 years prior to its application.*⁶

Requirements for Funding.—Under both basic and advanced development program grants, the developing institution must apply to the Office of Education.⁷

The basic development program seeks to upgrade a developing institution through the formation of cooperative arrangements between the struggling colleges and other stronger colleges and universities. These cooperative arrangements may include the exchange of faculty, faculty and administrative staff improvement programs such as internships, introduction of new curricula and curricular materials, and the joint use of libraries and laboratories.⁸

Basic grants may also be used to award a national teaching fellowship to a junior member of some other college or to award a professor emeritus grant.⁹

Basic development program grants are extended for a 1-year period. They are more likely to be awarded to an applicant that provides a successful education to many low-income students or demonstrates promise for moving into the mainstream of higher education.¹⁰

³ 20 USCA § 1052(b).

⁴ 20 USCA § 1051(b)(2)-(3).

⁵ 20 USCA § 1052(a)(1). The Office of Education has set out qualitative and quantitative factors that it weighs when it looks at an institution seeking recognition as a "developing institution." See 45 CFR 169.12-13.

⁶ 20 USCA § 1052(a)(2).

⁷ 20 USCA § 1054(b)-(c). Basic grant application requirements are set out in 45 CFR 169.26; Advanced grant application requirements in 45 CFR 169.36.

⁸ 20 USCA § 1054(b)(1).

⁹ For national teaching fellowships, see 20 USCA § 1054(b)(2), 45 CFR 169.24. For professor emeritus grant, see 45 CFR 169.25.

¹⁰ Factors that increase the chance that a college will receive an award are listed in 45 CFR 169.28.

In the advanced development program, grants are awarded for a 3- to 5-year period. This grant requires much more planning and documentation embodied in an institutional plan.¹¹

The advanced grants should be used (1) to serve the educational needs of low-income students by giving them the skills required to get jobs that will provide upward mobility; (2) to structure the institution so it may relate more directly to emerging career fields; and, (3) for curriculum development.¹²

Identifying Legal and Other Barriers.—According to the expenditure figures of the Office of Education, *no Puerto Rican colleges or universities have applied for the longer term advanced development grants.* However, 11 Puerto Rican institutions at present take advantage of the basic development grants, and they reapply annually for those grants.

Conclusion.—Puerto Rico has been awarded State-like treatment, but its participation in the program depends upon the individual initiatives of the eligible colleges and universities; i.e., they must make applications, particularly for the advanced grants.

Supplemental Educational Opportunity Grants (SEOG) (Title IV, Part A-2, Higher Education Act of 1965) [CFDA 13.418]

Summary of Purpose.—To assist colleges and universities through grants so that they may give scholarships to exceptionally needy graduate students who otherwise could not continue their education.

Statutory Objective.—... [T]o provide through institutions of higher education, supplemental grants to assist in making available the benefits of post-secondary education to qualified students who, for lack of financial means, would be unable to obtain such benefits without such a grant.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible for allotments as a "State" under this program.²

Outlays

	Total	Puerto Rico
FY 1978	\$249,690,000	\$3,724,000
FY 1977	240,090,000	3,832,000
FY 1976	240,293,000	4,009,000
FY 1975	210,297,000	2,969,000

¹ 45 CFR 169.34.

² 20 USCA § 1054(b), 45 CFR 169.33. The emphasis on training low-income people who are underrepresented in professional and career fields is restated in the preferential consideration of applicants regulation, 45 CFR 169.35.

³ 20 USCA § 1070b.

⁴ 20 USCA § 1141(b).

Allotment Methodology.—The funds appropriated by Congress each fiscal year are allotted as follows:

(1) Of the sums appropriated for initial grants (first year grants to students):

- (a) 90 percent to be allotted among the States in proportion to the ratio of the full-time students enrolled in institutions of higher education in each State to the total of such students in all the States;
- (b) 10 percent shall be apportioned to the States so that no State receives less than it did in FY 1972 in terms of amount, or if funds are insufficient, in terms of its percentage of the FY 1972 allotment; and,
- (c) funds allotted to one State that are not used shall be reallocated to other States according to the percentage of the allotments actually used by each of those States.³

(2) The sums appropriated for continuing grants (second, third, or fourth year of grants to students will be apportioned among the States so that each State receives the same percentage of the total of its approved requests for funds for continuing grants.⁴

If funds allotted to a State are not sufficient to honor all approved institution requests for funds, the funds shall be distributed on a pro rata basis to those institutions.⁵

Requirements for Funding.—Institutions of higher education⁶ that wish to participate in the Supplemental Grant program must file an application, one that can also be used simultaneously to apply for the National Direct Student Loan program and the College Work-Study.⁷ These three programs are designed to complement each other so as to help the poorest students finance their education.

Once the applications are accepted, the schools must sign an agreement with the Office of Education that will delegate much of the program's responsibilities to the individual schools. Schools that participate in this program are entitled to use 4 percent of the funds for administrative expense.⁸

Students eligible for supplemental grants must be U.S. citizens and nationals enrolled on at least a part-time basis at a participating school, in good academic standing and in extreme financial need.⁹ Stu-

dents may receive from \$200 to \$1,500 per year, but no more than \$4,000 for a 4-year period of undergraduate study, nor more than \$5,000 for a 5-year period of undergraduate study.¹⁰

Schools that participate must promise to maintain their present scholarship and loan programs so that the Federal aid will not replace existing private aid programs, and instead increase net aid to students.¹¹

Identifying Legal and Other Barriers.—No unusual barriers.

Upward Bound* [CFDA 13.492]

Summary of Purpose.—A remedial program funded by grants for promising, though inadequately prepared, high school students from low-income families so that they may develop the academic skills necessary for admittance to college.

Statutory Objective.— . . . [T]o carry out a program designed to identify qualified students from low-income families, to prepare them for a program of postsecondary education, and to provide special services for such students who are pursuing programs of postsecondary education.¹

. . . [T]o generate skills and motivation necessary for success in education beyond high school and . . . in which enrollees from low-income backgrounds and with inadequate secondary school preparation participate on a substantially full-time basis during all or part of the program . . .²

Basis of Puerto Rican Eligibility.—Puerto Rican schools are eligible for funds under this program.³

Outlays

(I) Regular Upward Bound Program

	Total	Puerto Rico
FY 1977 _____	\$40,789,000	\$351,000
FY 1976 _____	38,095,000	356,000
FY 1975 _____	38,328,000	386,000

(II) Upward Bound for Veterans

FY 1977 _____	2,781,000	87,000
FY 1976 _____	2,924,000	86,000
FY 1975 _____	3,066,000	44,000

(III) Demonstration Projects—Upward Bound

FY 1977 _____	659,000	—
FY 1976 _____	669,000	—
FY 1975 _____	967,000	—

³ 20 USCA § 1070b-3, 45 CFR 176.3.

⁴ 20 USCA §§ 1070b(b)(2), 1070b-3(a)(1)(B)(2), 45 CFR 176.3(c)-(d).

⁵ 20 USCA § 1070b-3(a)(2), 45 CFR 176.4.

⁶ Colleges, universities, and vocational schools that are accredited, see 45 CFR 176.2(n), 20 USCA §§ 1087-1(b), 1088b.

⁷ 20 USCA § 1070b-3(b), for coordination of the 3 programs, see 45 CFR 176.5, 6, 14.

⁸ 20 USCA § 1070b-2(b).

⁹ *Id.* at (a). 45 CFR 176.9. Definition of needy contained in 45 CFR 176.12.

¹⁰ 20 USCA § 1070b-1(a)-(b).

¹¹ 20 USCA § 1088c.

¹² 20 USCA § 1070d(a).

¹³ 20 USCA § 1070d-1(b)(2).

¹⁴ 20 USCA § 1141(b).

Allotment Methodology.—Funds are distributed on a discretionary basis to eligible schools upon their application to the Office of Education.

Requirements for Funding.—The Upward Bound program is designed to give precollege tutoring to promising high school students and veterans who would not apply nor gain acceptance to a college or university. The program is targeted at young people, aged 14 to 27, from low-income families in the 10th or 11th grade.⁴ Any veteran of the U.S. Armed Forces is also eligible for a separate Upward Bound program.⁵

Schools must make applications to HEW which awards grants on a discretionary basis. In their application, they must propose to set up a full time summer program designed to instill basic skills into students and plant a basic motivation within those students to carry on their education. The school must also propose a counseling and guidance program for the following academic year so that participating students can wend their way through the college application process.⁶ HEW makes awards among competing applicant schools on the basis of (1) the number of youths who would enroll, (2) the comprehensiveness of the applicant's plan, (3) the quality of the staff, and (4) the reasonableness of the budget.⁷

Schools that may apply for Upward Bound awards include colleges, universities, public and private agencies, and, in some cases, high schools.⁸ Schools in Puerto Rico must fulfill a general requirement in their program; they must provide English language training to all students with limited English-speaking ability.⁹

Veterans Program.—Schools may bid on an award for the veteran's version of the Upward Bound program. A veteran's service qualifies him for participation in these special programs. The veteran program may be more intensive than the regular program because it will be a high school equivalency program for those who have not graduated from high school and have not been in a classroom for years.¹⁰

Demonstration Projects.—Upward Bound also provides for a limited number of national demonstration projects. These projects are awarded on the basis of an applicant's experimental design which can be readily replicated, if successful, on a nationwide basis.¹¹

⁴ 20 USCA § 1070d-1(b) (2), 45 CFR 155.4.

⁵ 45 CFR 155.4(g).

⁶ Requirements for the full-time summer program and part-time academic year program are contained in 45 CFR 155.5 and 155.9. Contents of an application by a school are explained in 45 CFR 155.7.

⁷ 45 CFR 155.8.

⁸ 20 USCA § 1070d-1(a).

⁹ 20 USCA § 1070d-1(d).

¹⁰ 45 CFR 155.5(e).

¹¹ See 45 CFR 155.8(h), 155.10.

Identifying Legal and Other Barriers.—Though Puerto Rico is accorded State-like treatment in Upward Bound, no demonstration projects have been awarded to Puerto Rican schools over the last 3 fiscal years.

Conclusions.—Puerto Rico is accorded State-like treatment and participates in 2 of the 3 subprograms. The island has not received a demonstration grant in 3 fiscal years, but the total funds for demonstration projects forms but a small percentage of the total Upward Bound national budget. Demonstration grants signify experimentation, and from this perspective, it seems unfortunate that innovative tutoring programs have not been proposed, or if proposed, accepted by HEW.

Vocational Education—Basic Grants to States* [CFDA 13.493]

Summary of Purpose.—To assist the States through matching grants (50-50) to develop and maintain vocational education programs for students of both sexes.

Statutory Objective.— . . . [T]o authorize Federal grants to States to assist them (1) to extend, improve, and, where necessary, maintain existing programs of vocational education; (2) to develop new programs of vocational education; (3) to develop and carry out such programs of vocational education within each State so as to overcome sex discrimination and sex stereotyping in vocational education programs . . . (4) to provide part-time employment for youths who need the earnings from such employment to continue their vocational training on a full-time basis . . . [so that all] will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is defined as a "State" and is eligible for allotments under the Vocational Educational Basic Grant program.²

Outlays

All Vocational Education Act Programs

	Total	Puerto Rico
FY 1976	\$528,088,000	\$8,598,000
FY 1975	530,102,000	8,628,000

¹ 20 USCA § 2301.

² 20 USCA § 2461(8).

Basic Grants (Part A—Subpart 2)

	Total	Puerto Rico
FY 1976 _____	422,629,000	6,631,000
FY 1975 _____	427,854,000	6,716,000

Allotment Methodology.—Funds appropriated for basic grants (subpart 2) and program improvement and supportive services (subpart 3) ⁸ shall be distributed annually in the following manner:

I. Five percent shall be set aside for the National Occupational Information Coordinating Committee and for programs of national significance (part B, subpart 2 of the Vocational Education Act).

II. No more than 1 percent shall be set aside for American Indians.

III. From the remainder of the appropriations, each State shall receive allotments according to the following formula:

(a) 50 percent shall be distributed to the State in an amount equal to:

- (1) the product of the State's population aged 15 to 19, inclusive, and the State allotment ratio,
- (2) divided by the product of the national population aged 15 to 19 inclusive, and the national allotment ratio (0.50).

The "allotment ratio" for any State equals 1 less the product of 0.50, and the ratio of State per capita income to national per capita income. In no case, however, can the allotment ratio exceed 0.60 nor fall below 0.40. For Puerto Rico, allotment ratio is set at 0.60.⁴

(b) 20 percent shall be distributed to the States in an amount equal to:

- (1) the product of the State's population aged 20 to 24, inclusive, and the State's allotment ratio,
- (2) divided by the product of the national population aged 15 to 19, inclusive, and the national allotment ratio (0.50).

(c) 15 percent shall be distributed to the States in an amount equal to:

- (1) the product of the State's population aged 23 to 65, inclusive, and the State's allotment ratio,

- (2) divided by the product of the national population aged 23 to 65, inclusive, and the national allotment ratio (0.50).

(d) 15 percent shall be allotted to each State in an amount equal to the ratio of the amounts already allotted to it under (a) through (c) above to the corresponding amounts allotted nationally for (a) through (c).

No State shall receive less than \$200,000 or its FY 1976 allotment, whichever is higher.⁵

Those funds received under part III, *supra*, must be split 80 percent to basic grants (subpart 2) and 20 percent to subpart 3.⁶

Funds used by the States for basic grants must be matched dollar for dollar (50-50).⁷

Requirements for Funding.—In order to participate, the State board of vocational education must submit to HEW (1) a general application; (2) a 5-year State plan; and, (3) an annual program plan.⁸ These 3 documents may be used in a general application for all Federal vocational education programs.⁹

For each fiscal year, at least 10 percent of the State's allotment must be put toward the vocational education of the handicapped. Another 20 percent must be used for vocational education of the "disadvantaged" including those with limited English-speaking ability.¹⁰

With basic grants, a State may fund any of the following activities in accordance with an approved 5-year State plan:¹¹

- (1) Vocational Education Programs (45 CFR 104.511).
- (2) Work Study (45 CFR 104.521).
- (3) Energy Education (45 CFR 104.541).
- (4) Construction of area vocational school facilities (45 CFR 104.551).
- (5) Cooperative vocational education (45 CFR 104.531).
- (6) Student Stipends (45 CFR 104.571).
- (7) Placement Services (45 CFR 104.581).
- (8) Industrial Arts Programs (45 CFR 104.591).
- (9) Support Services for Women (45 CFR 104.611).
- (10) Day-care services for children of vocational students (45 CFR 104.611).
- (11) Construction and operation of residential vocational schools (45 CFR 104.631).

⁵ 20 USCA § 2303(b)(1), (d).

⁶ 20 USCA § 2303(e).

⁷ 20 USCA § 2311(a)(1)(A).

⁸ For General Application, see 20 USCA 2306, for 5-Year Plan, see 20 USCA § 2307, for Annual Program Plan, see 20 USCA § 2308.

⁹ Other vocational education programs under the Vocational Education Act of 1963 include program improvement and support services, special programs for the disadvantaged, and consumer and homemaking education.

¹⁰ 20 USCA § 2310.

¹¹ 20 USCA § 2330.

⁸ Subparts 2 and 3 of part A, the Vocational Education Act of 1963, Public Law 88-210, as amended by Public Law 94-482, 90 Stat. 2169.

⁴ Allotment formula set out in 20 USCA § 2303(a)(2); "Allotment ratio" defined in 20 USCA § 2303(c)(1).

- (12) State and local administration expenses (45 CFR 104.306-307).
- (13) Contracts with private vocational schools for training (45 CFR 104.514).

Identifying Legal and Other Barriers.—Though defined as a "State," Puerto Rico's share of funds is determined by the set "allotment ratio" used to compute the island's allotment. The allotment ratio is set at 0.60, the highest ratio possible. On the mainland, the ratio reflects the State per capita income level. A ratio of 0.40 signifies high per capita income in a State, while a ratio of 0.60 indicates low per capita income. Perhaps if the allotment formula were applied to Puerto Rico, the ratio would rise above 0.60. By statute, Puerto Rico has been given the highest ratio possible, 0.60, and, as a consequence, receives as large a share of the funds as possible under the formula.

Conclusion.—Puerto Rico has been granted most-favored State-like treatment in the allotment formula. Although the factor of low per capita income in the formula has been ignored, the allotment ratio has been set at 0.60 for the island and Puerto Rico receives as much money as is possible under the formula.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE— HEALTH PROGRAMS

Community Health Center (CHC) Services Grants [CFDA 13.224]

Summary of Purpose.—To assist the planning, development, and operation of community health centers (CHC's) which would provide comprehensive sickness and preventive health care in medically underserved areas by the extension of grants to public and nonprofit private corporations. Matching requirements vary with each grant recipient.

NOTE: The Community Health Center's Services program is heir to the Comprehensive Health Planning and Services program. Public Law 94-63, the Public Health Service Amendments Act of 1975, repealed the Comprehensive Health program¹ and created the CHC program.²

Statutory Objective.— . . . [T]o make grants to public and nonprofit private entities for projects to plan and develop community health centers which will serve medically underserved populations.³

. . . [T]o make grants for the costs of operation of

¹ § 314(e) of the Public Health Service Act, 42 USCA § 246(e). Repealed by § 501(b) of Public Law 94-63, 89 Stat. 346.

² § 330 of the Public Health Service Act, 42 USCA § 254c.

³ 42 USCA § 254c(c)(1).

public and nonprofit private community health centers which serve medically underserved populations.⁴

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of this program.⁵

Outlays

	Total	Puerto Rico
FY 1977	\$213,328,000	\$3,800,000
FY 1976*	241,597,000	3,300,000
FY 1975	197,243,000	3,000,000

* Transition quarter figures included.

Allotment Methodology.—Public and nonprofit private health clinics and hospitals can apply to HEW for three types of grants: (1) planning and development, (2) operations, and (3) community health projects. All three types of grants are awarded upon application on a discretionary basis.⁶

The amount of money awarded for each grant is determined on the basis of estimated direct and indirect costs. The matching requirement is determined for each individual grant on the basis of the financial capacity of the grant recipient.⁷

Requirements for Funding.—For all three grants, application must be made to HEW by a public or nonprofit private entity. The application must contain many assurances that a host of health services will be provided that will serve all the normal family health needs of the community.⁸

(I) *Planning and Development grants.*—Applications for these grants must comply with 42 U.S.C.A. § 254c(e) (1) and serve a medically needy population as outlined in 42 CFR 51c.203. No health entity may receive more than two of these grants.⁹

(II) *Operation grants.*—Applications for these grants must comply with 42 U.S.C.A. 254c(e) (2) and grant recipients must provide full health services for CHC's as set forth in 42 CFR 51c.303. There is no limit on the number of grants that may be received by a single health clinic or hospital.

(III) *Community Health Project grants.*—These grants provide initial funding to health clinics that cannot provide the assurance required for Opera-

⁴ 42 USCA § 254c(d)(1)(A).

⁵ 42 USCA § 201(f).

⁶ 42 USCA § 254c(c)(3), (d)(4).

⁷ For amount of grant, see 42 CFR 51c.106(a); for determination of matching requirement, see 42 CFR 51c.106(a)(2)(i).

⁸ The specific services required are delineated in 42 USCA § 254c(a) and (b) definitions of "community health center," "primary health services" and "supplementary health services." The "environmental health services" are defined in 42 CFR 51c.102(d).

⁹ 42 USCA § 254c(c) 2.

tion grants [the assurances listed in 42 U.S.C.A. § 254c(e) (2)]. The applicant only need comply with the application requirements of 42 U.S.C.A. § 254c(e) (1) and provide as many of the Operation grant assurances as possible.¹⁰ This grant money may not be extended more than twice to the same health clinic or hospital.¹¹

For all three grants, guidelines for allowable expenditures by grant recipients sanction acquisition and modernization of buildings, training of personnel, and management expenses.¹²

As for CHC charges for services, the CHC must promise to set reasonable fee schedules and to collect from those patients able to pay. Also, the CHC must promise to collect from the Federal bureau for services rendered to patients eligible for medicaid and medicare prepayments.

Identifying Legal and Other Barriers.—No unusual barriers.

Comprehensive Public Health Services— Formula Grants to States (Section 314(d) Grants [CFDA 13.210]

Summary of Purpose.—To provide funds to States by formula grants for State public health services, particularly mental health services.

Statutory Objective.— . . . [T]o make grants to State health and mental health authorities to assist in meeting the costs of providing comprehensive public health services.¹

Basis of Puerto Rican Eligibility.—Puerto Rican Government mental and public health agencies are eligible for grants under this program.²

Outlays

	Total	Puerto Rico
FY 1978	\$89,100,000	\$2,098,000
FY 1977	89,100,000	2,171,600
FY 1976	111,375,000	2,504,000
FY 1975	89,100,000	2,168,000

Allotment Methodology.—Funds appropriated by Congress are allotted by HEW among the States on the basis of population and financial need.³ A precise distribution formula is set by regulations after

consultation with State health authorities.⁴ The present formula established by HEW sets the maximum State allotment as follows:⁵

(1) An amount equal to the number of persons in the State multiplied by \$3, but no more than \$300,000; plus,

(2) 50 percent of the remainder disbursed on the basis of population and the other 50 percent disbursed on the basis of population weighted by financial need (determined on the basis of per capita personal income). However, no State shall receive less than \$250,000.

Of each State's allotment, 15 percent or \$60,000, whichever is greater, shall go to a State mental health authority.⁶ The remainder of the allotment shall go to State health authorities. At least 70 percent of the State mental health grants and the State health grants must go toward provision of community services.⁷

There exists a closely related program of grants-in-aid to combat hypertension. Authority for this program exists in the same statute section and the allotment formula is set out in the regulations.⁸

Requirements for Funding.—Only State mental health and health agencies can apply for these formula grants. Each health agency must make an application that assures HEW that the services it will provide will comply with the State plan developed under section 314(a)⁹ or by a State health coordinating council.¹⁰ The information required in an application is detailed in 42 U.S.C.A. § 246(d) (2).

Identifying Legal and Other Barriers.—No unusual barriers.

Crippled Children's Services (CC) [CFDA 13.211]

Summary of Purpose.—To provide financial support to States for medical services for crippled children in low-income areas and rural areas through formula matching grants (50-50) and project grants (no matching).

Statutory Objective.—For the purpose of enabling each State to extend and improve (especially in rural areas and in areas suffering from severe economic distress), as far as practicable under the conditions in such State . . . (2) services for locating, and for medical, surgical, corrective, and other services; and care for and facilities for diagnosis, hospitalization,

⁴ 42 USCA § 246(g) (1).

⁵ 42 CFR 51.103(a).

⁶ CFR § 246(d) (6) (A), 42 CFR 51.104(a).

⁷ 42 USCA § 246(d) (6) (B).

⁸ For statutory authority, see 42 USCA § 246(d) (7) (B), as amended by the Special Health Revenue Sharing Act of 1975, Public Law 94-63, section 102, 89 Stat. 306. For allotment formula, see 42 CFR 51.103(b).

⁹ 42 USCA § 246(a) (2). This is a project grant program established to help States plan for current and future health needs.

¹⁰ 42 USCA § 300m-3(c) (2).

¹⁰ 42 USCA § 254c(d) (1) (B); more stringent rules are set out in the regulations. 42 CFR 51c.403.

¹¹ 42 USCA § 254c(d) (3).

¹² 42 CFR 51c.107.

¹ 42 USCA § 246(d) (1).

² 42 USCA § 246(g) (4) (B).

³ 42 USCA § 246(d) (4).

and aftercare for, children who are crippled or who are suffering from conditions leading to crippling . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of this program.²

Outlays

Entire Program

	Total	Puerto Rico
FY 1977	\$91,500,000	\$2,623,900
FY 1976	76,500,000	1,925,300
FY 1975	64,900,000	1,484,300

Breakdown of Program Fund A (must be matched)

FY 1977	45,750,000	854,300
FY 1976	38,250,000	642,800
FY 1975	32,450,000	542,400

Fund B (need not be matched) (I) Formula Grants

FY 1977	30,362,500	1,769,600
FY 1976	24,937,500	1,282,500
FY 1975	20,587,500	941,900

(II) Special Project Grants

FY 1977	15,187,500	-----
FY 1976	13,312,500	-----
FY 1975	11,862,500	-----

Allotment Methodology.—Under this Title V, Social Security Act program, one half of the amounts available known as Fund A, are apportioned among the States in accordance with the statutory formula:³

(a) \$70,000 to each State,

(b) the remainder of Fund A disbursed according to the ratio of the number of children under age 21 bears to the total number of such children in the United States.

The other half of the appropriation available, known as Fund B, is distributed by the following scheme:⁴

(a) An amount determined on a discretionary basis by HEW shall go to States and universities for special projects for crippled children who are mentally retarded;

(b) an amount not less than 75 percent of Fund B shall be distributed by formula among the States

according to the need of each State for more financial assistance to carry out its State plan. HEW shall determine need after taking into consideration the number of children under age 21 in each State and the per capita income of each State. Children in rural areas should be given twice the weight of children in urban areas and apportionment should vary inversely with State per capita income; and,

(c) an amount determined on a discretionary basis not greater than 25 percent for special projects of regional or national significance which may contribute to the advancement of services for crippled children.

Requirements for Funding.—Formula grants from Funds A and B are available to State crippled children's agencies. Those grants from Fund A must be matched, while those from Fund B need not be matched.⁵ A State agency must submit an application that includes a State plan.⁶

HEW will terminate formula grant funding if the State plan is not revised periodically to meet new needs, or if it is not administered properly.⁷

Project grants from Fund B are available to State agencies, and to nonprofit colleges and universities. These project grants will fund proposals directed toward significant improvement of health services for care of crippled children in the region or nationwide. Project grant application requirements for State agencies are set out in 42 CFR 51a.204-205 and for colleges and universities in 42 CFR 51a.405. There is no matching requirement for these grants.⁸

Identifying Legal and Other Barriers.—The Fund B formula grant has a rural bias; rural live births are weighted twice as heavily as urban births in the formula. Depending on the classification of Puerto Rico as an urban or crowded rural State, this formula can increase or decrease the flow of Fund B moneys to the island under this program that do not require matching.

Also, Puerto Rico does not receive Fund B moneys for project grants. In the past no Puerto Rican college, university, or State agency has applied for a grant under this program.

Conclusion.—State-like treatment, but no funds received for experimental activities under Fund B project grants.

Drug Abuse Community Services Programs [CFDA 13.235]

Summary of Purpose.—To help States support community drug abuse clinics and local research

¹ 42 USCA § 701.

² 42 USCA § 1301(a) (1).

³ 42 USCA § 704.

⁴ 42 USCA § 704(2), 42 CFR 51a.123(b).

⁵ 42 USCA § 706(a).

⁶ For State plan requirements, see 42 USCA § 705(a); See also 42 CFR 51a.108-109. This is a general State plan that can be used for all Title V, Social Security Act programs.

⁷ 42 USCA § 707.

⁸ 42 USCA § 706(c).

efforts through funds provided under contract by HEW and State drug abuse agencies. The Federal grants under this program have been converted into contracts and new grants have not been awarded.

Statutory Objective.—The Secretary shall (1) make grants . . . and enter into contracts with public and private agencies . . . to provide training seminars . . . for the development of drug abuse prevention, treatment, and rehabilitation programs for employees in the private and public sectors; (2) . . . to provide . . . vocational rehabilitation, counseling, education, and services for [those employees] . . . in treatment . . . (3) . . . to establish . . . drug abuse prevention, treatment, and rehabilitation programs within State and local criminal justice system; (4) . . . for the purpose of determining the causes of drug abuse . . . (5) . . . for improved drug maintenance techniques or programs . . . (6) . . . to establish, conduct, and evaluate drug abuse prevention and treatment programs.¹

Basis of Puerto Rican Eligibility.—Puerto Rico may participate in this program as a "State."²

Outlays

Grants and Contracts

	Total	Puerto Rico
FY 1977*	\$134,915,000	\$1,942,000
FY 1976	123,436,000	1,572,000
FY 1975	104,490,000	650,000

* Grants no longer awarded. All moneys represent Federal contracts with State drug abuse agencies.

Allotment Methodology.—Under the old grant program, States were awarded funds on the basis of need. No allotment formula existed and the amount of funds destined for any State was calculated solely in the discretion of the administrator, the National Institute on Drug Abuse (NIDA) in HEW.

In the past 2 years, the grants have been converted into contracts. Grants that originally funded 300 "slots" (patients) for a year have been converted to contracts to pay for 300 slots. The amount payable per slot is increased year to year in the discretion of NIDA.

Requirements for Funding.—NIDA contracts with a single State drug abuse agency which in turn distributes the Federal funds to local drug abuse centers upon their application to the State.

¹ USCA § 1177(a).

² 21 USCA § 1177(c) (2), reference to 21 USCA § 1176(a).

The local drug abuse community service centers negotiate with the State agency in charge of the drug abuse formula grant program.³

The contract between NIDA and a State varies from contract to contract. Matching requirements can be set at 80 percent in one State and 75 percent in another. The restrictions and requirements of a State contract are, apparently, the result of negotiations between NIDA and State drug abuse agency officials.⁴

Identifying Legal and Other Barriers.—No unusual barriers.

Drug Abuse Prevention Formula Grants [CFDA 13.269]

Summary of Purpose.—To assist the States in planning and conducting drug abuse programs in education, treatment, rehabilitation, and research through the allotment of Federal grants.

Statutory Objective.— . . . [T]o focus the comprehensive resources of the Federal Government and bring them to bear on drug abuse with the immediate objective of significantly reducing the incidence of drug abuse in the United States within the shortest possible period of time, and to develop a comprehensive, coordinated long-term Federal strategy to combat drug abuse.¹

. . . [To provide Federal moneys for] a State plan for planning, establishing, conducting, and coordinating projects for the development of more effective drug abuse prevention functions in the State. . . .²

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible for grants under this program as a "State".³

Outlays

	Total	Puerto Rico
FY 1977	\$40,000,000	\$1,167,000
FY 1976	35,000,000	1,254,000
FY 1975	35,000,000	596,000

Allotment Methodology.—No precise formula for allotment of funds is established in the statute. The statute states that Alcohol, Drug Abuse, and Mental Health Administration (ADMHA) shall announce each year an allotment formula for the States that

³ 21 USCA § 1176(e). The State plan must provide for coordination of efforts with local drug abuse community clinics.

⁴ The only statutory limitation involves the use of funds as detailed in 21 USCA § 1177(a).

¹ 21 USCA § 1102.

² 21 USCA § 1176(e).

³ 21 USCA § 1176(a).

takes account of relative population, financial need, and a State's need for more effective drug abuse education and treatment programs.⁴

In essence, the allotment formula is established each year in the discretion of ADMHA. The only limit on the result of this formula exists in the requirement that no State can receive less than the product of \$100,000 multiplied by the amount actually appropriated over the amount authorized to be appropriated. This minimum allotment will be increased to States by 50 percent for States that demonstrate more need.⁵

Those amounts allotted to States, but not spent within 18 months, can be reallocated to other States in the discretion of ADMHA.⁶

Requirements for Funding.—States that wish to apply for grants must develop and submit to ADMHA a State plan that will detail plans for drug abuse programs in education, research, treatment, and rehabilitation. The State must designate a single State agency to prepare and administer the State plan.⁷

Grant moneys may be used to prepare a State plan, carry out projects under it, and evaluate the results. State administrative expenses for implementing the plan may not exceed \$50,000 or 10 percent of the funds allotted the State, whichever is less.⁸

Federal funds used in this drug abuse effort cannot supplant State and local funds already allotted for the same effort. The Federal grants must supplement and increase the total level of funding for such drug abuse efforts in the State.⁹

Identifying Legal and Other Barriers.—No unusual barriers.

Conclusion.—The allotment formula is changed each year in the discretion of the administrators at ADMHA. Each year different weights are given to the various factors of population and need. The annual revision of the formula should be a focal point of concern and activity by the Puerto Rican medical community.

Family Planning Services Project Grants (Title X, Public Health Service Act) [CFDA 13.217]

Summary of Purpose.—To assist in the organization and operation by project grant of family planning clinics to serve primarily low-income people.

⁴ 21 USCA § 1176(c)(1)(A).

⁵ *Ibid.* For determinants of extra "demonstrated need," see 21 USCA § 1176(c)(1)(B)(iii).

⁶ 21 USCA § 1176(c)(2).

⁷ For State plan requirements, see 21 USCA § 1176(e).

⁸ 21 USCA § 1176(b)(1)–(3).

⁹ 21 USCA § 1176(e)(11).

Statutory Objective.— . . . [T]o assist in making comprehensive voluntary family planning services readily available to all persons desiring such services . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible for project grants under this program as a "State".²

Outlays

	Total	Puerto Rico
FY 1977 -----	\$107,500,000	\$734,000
FY 1976 -----	94,500,000	1,452,000
FY 1975 -----	94,500,000	1,439,000

Allotment Methodology.—HEW disburses funds on a discretionary basis to eligible public and non-profit private entities upon their application. The factors that HEW must consider when reviewing an application are (1) the number of patients that will be served, (2) the need for family planning services in the area, (3) the financial need of the clinic applicant, and (4) the ability of the clinic applicant to make effective, rapid use of the grants.³

If HEW does award a grant, it can equal between 90 percent and 100 percent of the costs of the project. For those clinics funded before FY 1976, the Federal share on new grants can never fall below the percent of the costs covered by HEW grants in FY 1975.⁴

Requirements for Funding.—Public and non-profit private agencies can apply directly to HEW for project grants. The application must include a number of assurances including the promise that priority will be given to persons from low-income families and that those low-income persons will not be charged for services.⁵

Title X of the Public Health Service Act also authorizes other grants programs in the family planning area which have not been included in the outlay figures. These grant programs are:

- (1) Training Grants and Contracts, 42 USCA § 300a-1,
- (2) Research Grants, 42 USCA § 300a-2,
- (3) Informational and Educational Material Development Grants, 42 USCA § 300a-3.

¹ Section 2 of the Family Planning and Population Research Act of 1970, Public Law 91-572, 84 Stat. 1504, 42 USCA § 300 note.

² 42 USCA § 300a(c), 42 CFR 59.2(b).

³ 42 USCA § 300(b), 42 CFR 59.6(a).

⁴ 42 USCA § 300a-4(a), 42 CFR 59.6(b).

⁵ For the entire list of assurances, see 42 CFR 59.5(a); for details of the applications, see Public Health Service, Health Services Administration booklet: Programs Guidelines for Project Grants for Family Planning Services under Section 1001, Public Health Service Act, HEW Publication No. (HSA) 77-5607.

In addition, Title V of the Social Security Act authorizes family planning services in its general Maternal and Child Health Service Program.

Identifying Legal and Other Barriers.—No unusual barriers.

Grants for State and Community Programs on Aging (Title III) [CFDA 13.633]

Summary of Purpose.—To assist State and community programs for the aging so that they may plan and implement services through the extension of formula matching grants (75-25 and 90-10, depending on use of funds).

Statutory Objective.— . . . [T]o encourage and assist State and local agencies to concentrate resources in order to develop greater capacity and foster the development of comprehensive and coordinated service systems to serve older persons by entering into cooperative arrangements with each other and with providers of social services and, where necessary, to reorganize or reassign functions, in order to (1) secure and maintain maximum independence and dignity in a home environment for older persons capable of self-care with appropriate supportive services; and (2) remove individual and social barriers to economic and personal independence for older persons.¹

Basis of Puerto Rican Eligibility.—Puerto Rico participates in this program as a "State".²

Outlays

(I) Area Planning and Social Service Grants (§ 303)

	Total	Puerto Rico
FY 1977	\$120,780,000	\$1,067,000
FY 1976	93,000,000	810,000
FY 1975	82,000,000	802,000

(II) State Administration Grants (§ 306)

FY 1977	17,000,000	200,000
FY 1976	17,035,000	200,000
FY 1975	15,000,000	160,000

Allotment Methodology.—Each participating State receives funds according to the following formula:³

The State is allotted a ratio of the total appropriation in proportion to the State population 60 years

and older to the total population 60 years and older in the Nation. However,

(a) No State (except Guam, American Samoa, the Virgin Islands, and the Pacific Trust Territories) can be allotted less than one-half of one percent of the total appropriation;

(b) Guam, American Samoa, the Virgin Islands, and the Pacific Trust Territories cannot be allotted less than one-quarter of one percent of the total appropriation;

(c) In any event, no State shall receive less than it did for FY 1973.

The formula uses the latest available census data to calculate the population in each State, age 60 and older.⁴ Allotments not used by the States may be reallocated to States that show a need and an ability to use the extra funds.⁵

The State allotment for area grants will be reduced, however, if the amount of State and local funds for the program decreases absolutely from the previous year.⁶

State Administration Grants.—State administration grants are for the State agency that plans, coordinates, evaluates, and administers the State plan. The formula stated above applies, except that:⁷

(a) A State, the District of Columbia and Puerto Rico must receive at least \$200,000;

(b) Guam, American Samoa, the Virgin Islands, and the Pacific Trust Territories must receive at least \$62,500; and

(c) In any event, no State or territory can receive less than it did in FY 1975 for State administration grants.⁸

Population figures used in the formula will represent the latest available census data.

A State may also petition for more funds if it can prove it needs them to effectively carry out its State plan. However, a State cannot fire its employees and then assert a need for more funds to rehire them.⁹

Requirements for Funding.—In order to qualify for both State and area grants, a State must designate a State agency to develop a State plan. The State plan must be approved by HEW and the designated State agency must coordinate all activities carried out under this plan for this program for the aged. The designated State agency must also divide the State into planning and service areas and designate an area agency to develop and implement an area plan.¹⁰

⁴ 42 USCA § 3023(b)(4).

⁵ 42 USCA § 3023(c).

⁶ 42 USCA § 3027(c).

⁷ 42 USCA § 3026(b)(1).

⁸ 42 USCA § 3026(b)(3).

⁹ For all the requirements and restrictions on this petition for more funds, see 42 USCA § 3026(b)(2)(A)-(E).

¹⁰ 42 USCA § 3024(a)-(b).

¹ 42 USCA § 3021.

² 42 USCA § 3002(3).

³ 42 USCA § 3023(b)(2).

The requirements of a State plan are set out in 42 USCA § 3025(a) and 45 CFR 1321.12. The requirements of an area plan are set forth in 42 USCA § 3024(c) and 45 CFR 1321.78. The area plan must be approved by the State agency.

Under the area grant, the designated area agency must administer the area plan and develop comprehensive and coordinated systems for the delivery of social services to the aged. For the State grant, the designated State agency must administer the State plan, evaluate the results, train personnel at the State and local levels and run demonstration projects of statewide significance.¹¹

Both State grants and area grants must be matched (75-25) but social service projects in areas covered by an area plan are privileged with a lower matching requirement (90-10).¹² Whatever the amount required in State and local matching funds, 25 percent of that amount must come from State and local public sources.¹³

For area grants, there are some restrictions on the distribution of funds to the area agencies. Of the amount allotted to the State for area grants, (1) no more than 15 percent can go toward the costs of administering area plans, and (2) no more than 20 percent can go toward the cost of social services in areas not covered by an area plan.¹⁴

Numerous programs for the aged have been set up under related legislation. Those programs include (1) the Nutrition Program for the Elderly, (2) model projects for the elderly, (3) multipurpose senior centers, (4) training projects and (5) research and development projects.

Identifying Legal and Other Barriers.—No unusual barriers.

Conclusions.—Puerto Rico is accorded State-like treatment. It may petition for more funds under 42 USCA § 3023(c) if it can demonstrate need and the ability to effectively use the extra aid.

Health Facilities Construction-Formula Grants (Successor to Hill-Burton Hospital Construction Program) [CFDA 13.220]

Summary of Purpose.—To provide funds to public and private hospitals and other medical facilities for new construction and modernization by extension of formula matching grants (2-1).

NOTE: The Health Facilities Construction program, the successor to the Hill-Burton Hospital Con-

struction program, was enacted by a 1974 amendment to the Public Health Service Act.¹ The new statute expanded the scope of medical facilities eligible for construction grants and loans beyond hospitals. However, almost no funds (and no formula grants) have been disbursed under this program because no regulations have been developed.

Statutory Objective.—... [T]o provide assistance, through allotments . . . and loans and loan guarantees and interest subsidies . . . for projects for—(1) modernization of medical facilities; (2) construction of new outpatient medical facilities; (3) construction of new inpatient medical facilities in areas which have experienced . . . recent rapid population growth; and (4) conversion of existing medical facilities for the provision of new health services, and to provide assistance . . . for construction and modernization projects designed to prevent or eliminate safety hazards in medical facilities or to avoid noncompliance by such facilities with licensure and accreditation standards.²

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible for formula grants and loans under this program.³

Outlays

Outlays Under Hill-Burton Program (phased out September 1976)

	Total	Puerto Rico
FY 1977		
FY 1976*	\$225,473,000	\$7,291,000
FY 1975	86,010,091	

*Includes Transition Quarter.

No funds have been disbursed under the new program for formula grants, loans or loan guarantees because no regulations have been developed or approved for formula grants or loans. Only the special project grants program, designed to grant funds to public hospitals so that they may correct safety hazards and accreditation, has disbursed funds (\$11 million for obligations nationwide over a 3-year period 1976-78). *No project grants have been awarded to Puerto Rican hospitals.*

Allotment Methodology.—Formula grants will be disbursed according to an allotment formula estab-

¹¹ For more information on the State agency functions in this program, see 45 CFR 1321.47-63. For functions of the area agency, see 45 CFR 1321.66.

¹² For area grants matching requirements, see 42 USCA 3023c; for State grants matching requirements, see 42 USCA § 3026(a)(1).

¹³ 42 USCA § 3027(b).

¹⁴ 42 USCA § 3023(c)(1)-(2).

¹ Section 4, National Health Planning and Resources Development Act of 1974, Public Law 93-641, 88 Stat. 2258, which added Title XVI (Health Resources Development) to the Public Health Service Act, 42 USCA § 3000 *et seq.*

² 42 USCA § 3000.

³ 42 USCA § 3008-3(1).

lished in regulations (not yet written). Whatever the allotment formula, it must take account of the factors of population, financial need, and need for medical facilities. In no case, however, may any State receive less than \$1 million per fiscal year.⁴

If congressional appropriations do not satisfy the minimum allotments determined by formula, all State allotments will be reduced proportionately. Funds allotted in any fiscal year may be used for the following two fiscal years.⁵

Of the State allotment each year, (1) no more than 20 percent of that amount can be made available for construction of new inpatient health care facilities in rapidly growing areas; (2) not less than 25 percent of that amount can be spent on outpatient facilities for medically underserved populations (at least half must go to rural outpatient facilities)⁶; and (3) 22 percent must be used for special project grants to public hospitals and institutions so that safety hazards and accreditation standard violations can be eliminated.⁷

For all formula grants, there will be a 2-1 matching requirement for each construction project unless the project is located in a poverty area, in which case there is no matching requirement.⁸ Modernization construction grants cannot exceed \$20,000.⁹ For special project grants, awards cannot exceed 75 percent of costs (3-1) except that the matching requirement is waived for projects located in poverty areas.¹⁰

Requirements for Funding.—Prior to the filing of any individual application for construction grants, the State must submit a State medical facilities plan to HEW which notes all potential projects and sets a priority for them. The State medical facilities plan must be consistent with the State health plan and be approved by the Statewide Health Coordination Council set up under the 1974 amendments.¹¹

Individual applications by public and nonprofit private medical groups for construction modernization and special projects must be submitted through the State health agency to HEW. The application must have included some certificate of need by the State health agency as well as a number of assurances.¹²

Under Title XVI of the Public Health Service Act,

⁴ 42 USCA § 300p(a), (b)(1).

⁵ 42 USCA § 300p(b), (1)-(2).

⁶ 42 USCA § 300p-1(c).

⁷ 42 USCA § 300r(d).

⁸ 42 USCA § 300s-3(2).

⁹ *Id.* at (2)(A).

¹⁰ 42 USCA § 300r(c).

¹¹ For details of requirements of purposes of a State medical facilities plan, see 42 USCA § 300o-2; for a listing of the types of priority projects, see 42 USCA § 300o-1(1).

¹² For the exact specifications and assurances to be included in an application, see 42 USCA § 300o-3(b).

there is also authority for a loan and loan guarantee program that may cover up to 90 percent of costs in nonpoverty areas, and 100 percent of costs in poverty areas.¹³ Funds for these subprograms, however, have not been released.

Identifying Legal and Other Barriers.—No unusual barriers.

Conclusions.—There is State-like treatment accorded Puerto Rico by statute, but Puerto Rican participation remains theoretical until funds are disbursed.

Health Planning—Health Systems Agencies (HSA's) [CFDA 13.294] (Formerly Comprehensive Health Planning) [CFDA 13.207]

Summary of Purpose.—By grant to provide funds to local agencies (Health Systems Agencies or HSA's) to promote effective planning and coordination of health services and hospital construction for all local residents. No matching required but more funds awarded if some funds matched.

NOTE: This health planning program is the successor to the Comprehensive Health Planning—Areawide Grants program. The earlier program was absorbed by a 1974 amendment¹ to the Public Health Service Act and combined with Comprehensive Health Planning Grants to States, Regional Medical, and Hill-Burton hospital construction programs. The 1974 Act merged those program under title XV for planning and title XVI for construction.

Statutory Objective.—In recognition of the magnitude of the problems [of health services planning and delivery] . . . and the urgency placed on their solution, it is the purpose of this act to facilitate the development of recommendations for a national health planning policy, to augment areawide and State planning for health services, manpower and facilities, and to authorize financial assistance for the development of resources to further that policy.²

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" and the island's single Health Systems Agency (HSA), which was conditionally designated in 1975, was denied permanent designation in April 1978. The State Health Planning and Development Agency has assumed responsibility for a part of the HSA functions.³

¹³ 42 USCA § 300q.

¹ Section 3, National Health Planning and Resources Development Act of 1974, Public Law 93-641, 88 Stat. 2225, which added Title XV (Health Planning and Development) to the Public Health Service Act, 42 USCA § 300k *et seq.*

² 42 USCA § 300k(b).

³ 42 USCA § 300n(1).

Outlays

HSA Planning Grants

	Total	Puerto Rico
FY 1978 (est.)	\$107,000,000	\$1,318,000
FY 1977	97,000,000	1,290,000
FY 1976	64,090,000	839,000
FY 1975	Not in existence	Not in existence

Allotment Methodology.—For a “fully designated HSA,”⁴ the Federal Government awards an amount equal to the product of 50 cents and the population of the HSA area, but not more than \$3,750,000 to any single HSA grant recipient. If the HSA provides matchings funds, the Federal Government may award an extra amount to the HSA equal to the local matching contribution, but never exceeding the product of the HSA area population and 25 cents.⁵ There exists a strong restriction on the possible private source of matching funds. No construction firm, medical contractor, or other “interested” party may contribute matching funds to the HSA.⁶

For “conditionally designated” HSA’s, the amounts are not allotted by formula. Instead, they are disbursed on a discretionary basis and are smaller than for “designated” HSA’s.⁷

Whenever the formula grant amounts exceed congressional appropriations for a given fiscal year, all grants will be reduced proportionately. No HSA, however, will receive less than \$175,000.⁸

A grant program authorized under 42 U.S.C.A. § 300t, Area Health Services Development Fund grants, which might have given HSA money to contract out work has never been funded by Congress.

Requirements for Funding.—The HSA is the planning unit for a health services area. There are over 205 HSA’s in the country. Puerto Rico no longer has a single HSA. Part of the HSA functions⁹ have been assumed by the Puerto Rico Health Planning and Development Agency. The total functions normally include:

- (1) to inventory the areas health resources such as hospitals and clinics;
- (2) to determine the status of health care delivery in the areas;

⁴ For difference between “designated” and “conditionally designated” HSA’s, see 42 USCA § 300l-4(b).

⁵ 42 USCA § 300l-5(b)(1)-(2).

⁶ 42 USCA § 300l-5(b)(2)(B).

⁷ 42 USCA § 300l-5(b)(1).

⁸ 42 USCA § 300l-5(c)(2).

⁹ For a thorough description of the functions of an HSA, see 42 USCA § 300l-2.

(3) to develop a detailed health services plan (HSP) and an annual implementation plan (AIP);

(4) to review and approve applications by hospitals and clinics for Federal funds under the many Public Health Services Act programs, community mental health centers programs, and alcohol abuse and alcoholism act programs;

(5) to recommend medical construction projects to the State health agency;

(6) to prevent unnecessary duplication of expensive medical equipment within the area.

The HSA will be a public or nonprofit private corporation with a governing board.¹⁰ To receive HEW funds, the HSA must sign an agreement with HEW. Before it can obtain HEW approval, it must also submit a detailed health services plan (HSP) and an annual implementation plan (AIP) that has been approved by the State health agency and the State Health Coordinating Council.¹¹

There are other closely related health programs authorized by the 1974 National Health Planning and Resources Development Act. For State health agencies, there are State health planning and development agency grants.¹² A small demonstration grant program exists to check the effectiveness of State regulation of medical costs which is administered by the Social Security Administration.¹³ In a concern over duplication of medical facilities, the old Hill-Burton hospital construction program was revamped and new construction can only proceed with the concurrence of HSA, State health agency, and State coordination council.¹⁴

Identifying Legal and Other Barriers.—No unusual barriers.

Maternal and Child Health Services (MCH)* [CFDA 13.232]

Summary of Purpose.—To assist States in reducing infant mortality and providing better health care to mothers and children in low-income areas and rural areas by extension of formula matching grants (50-50) and project grants (no matching).

Statutory Objective.—For the purpose of enabling each State to extend and improve (especially in rural areas and in areas suffering from severe economic distress), as far as practicable under the conditions in such State . . . , services for reducing infant mortality and otherwise promoting the health of mothers and children. . . .¹

¹⁰ For legal structure and governing setup, see 42 USCA § 300 1-1(b).

¹¹ For State health agency, see 42 USCA § 300m-2(a)(2)-(3); for State Health Coordinating Council, see 42 USCA § 300m-3(c)(1)-(2).

¹² 42 USCA § 300m-4.

¹³ 42 USCA § 300m-5.

¹⁴ Title XVI, Public Health Service Act, 42 USCA § 300 et seq.

¹ 42 USCA § 701.

Basis of Puerto Rican Eligibility.—Puerto Rico is defined as a "State" for purposes of this program.²

Outlays

Entire MCH Program

	Total	Puerto Rico
FY 1977	\$192,500,000	\$6,739,400
FY 1976	180,774,000	5,636,000
FY 1975	176,134,000	4,852,000

Breakdown of MCH Program Fund A (require matching funds)

FY 1977	101,250,000	2,236,100
FY 1976	95,638,000	1,816,600
FY 1975	88,075,500	1,616,400

Fund B (no need for matching funds) (I) Formula Grants

FY 1977	83,150,000	4,503,300
FY 1976	81,234,500	3,819,200
FY 1975	75,872,000	2,978,400

(II) Project Grants

FY 1977	18,100,000	
FY 1976	14,403,500	
FY 1975	12,727,500	

By 1973 amendment to Title V of the Social Security Act,³ many separate (categorical) discretionary programs were combined and are now funded by the formula set out below under Allotment Methodology. These programs included special project grants for maternity and infant care, school and preschool child health care, and child dental care. Separate funding for these programs was terminated at the end of FY 1974. Under the new formula grant scheme, some States (Puerto Rico included) lost funds in comparison to the aggregate of the categorical funds received before 1974.⁴ Congress enacted section 516 to ensure that no State received less under the formula than the total it received in FY 1973 for the aggregate of the categorical pro-

grams absorbed by the formula. Under section 516, Puerto Rico has received the following amounts:

Section 516 Funds

	Total	Puerto Rico
FY 1977	\$22,464,000	
FY 1976	27,140,000	\$1,031,802
FY 1975	25,006,000	1,846,000

Allotment Methodology.—Under this Title V, Social Security Act program for maternal and child health care, one half of the amounts available, known as "Fund A," is apportioned among the States in accordance with the statutory formula below:⁵

(a) \$70,000 to each State,

(b) the remainder of Fund A distributed according to a ratio of the number of live births in each State to the total number of such births in the United States in the latest calendar year for which statistics are available.

The other half of the maternal and child health care appropriation, known as "Fund B," is disbursed according to the following scheme:⁶

(a) Project grants shall be awarded to States and universities on a discretionary basis for special projects on mentally retarded children. These grants shall not claim more than 25 percent of Fund B moneys.

(b) An amount not less than 75 percent of Fund B shall be distributed by formula grant among the States according to the need of each State for more financial assistance to carry out its State plan. HEW shall determine need by taking into consideration the number of live births and the per capita income in the State. Rural live births shall be given twice as much weight as urban births, and apportionments shall vary inversely with State per capita income.

(c) Project grants shall be awarded on a discretionary basis from not more than 25 percent of Fund B moneys for projects of regional or national significance conducted by States, or colleges and universities.

Requirements for Funding.—Formula grants from Funds A and B are available to State health agencies. Those grants from Fund A must be matched, while those from Fund B need not be matched.⁷ A State agency must submit an application that in-

² 42 USCA § 1301(a)(1).

³ Section 4(c) of Public Law 93-53, 87 Stat. 134, 42 USCA § 716.

⁴ 42 USCA § 716.

⁵ 42 USCA § 703(1).

⁶ 42 USCA § 703(2), 42 CFR 51a.123(c).

⁷ 42 USCA § 706(a).

cludes a State plan.⁸ HEW will terminate formula grant funding if the State plan is not revised periodically to meet new needs or if it is not administered properly.⁹

Project grants from Fund B are available to State agencies, and nonprofit colleges and universities. These grants will fund proposed projects directed toward improvement of maternal health care and services in the region or nationwide. Project grant application requirements for State agencies are set out in 42 CFR 51a.204-205 and for colleges and universities in 42 CFR 51a.405. No matching requirement exists for these grants.¹⁰

Identifying Legal and Other Barriers.—The Fund B formula grant has a rural bias; rural births are weighted twice as heavily as urban births in the formula. Depending on the classification of Puerto Rico as an urban or heavily populated rural State, this formula can increase or decrease the flow of Fund B moneys to the island, funds that do not require matching funds.

Puerto Rico has not received Fund B moneys for special project grants. Project grants are intended to fund research efforts in the field of maternal and child health care. Puerto Rican universities, apparently, have not taken advantage of this form of research assistance.

Conclusion.—State-like treatment, but no funds received for experimental activities under Fund B project grants.

Mental Health—Community Mental Health Centers—Construction and Operation* [CFDA 13.240]

Summary of Purpose.—To provide funds for construction, organization, and staffing of community mental health centers (CMHC) through project grants subject to decreasing-percentage matching requirements.

Statutory Objective.— . . . Federal funds should continue to be made available for the purposes of initiating new and continuing existing community mental health centers, and for the monitoring of the performance of all federally funded centers to ensure their responsiveness to community needs and national goals relating to community mental health care.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of this program.²

⁸ For State plan requirements, see 42 USCA § 705(a); see also 42 CFR 51a.108-109. This State plan can be used for most Title V, Social Security Act programs.

⁹ 42 USCA § 707.

¹⁰ 42 USCA § 706(c).

¹ Section 302 of Title III, Community Mental Health Centers Amendments of 1975, Public Law 94-63, 89 Stat. 308, 42 USCA § 2689 note.

² 42 USCA § 2689r(1).

Outlays

(I) Planning Grants

	Total	Puerto Rico
FY 1977	\$1,746,000	*\$199,913
FY 1976	1,482,000	
FY 1975	Not in existence	Not in existence

(II) Initial Operation Grants

FY 1977	70,858,000	741,123
FY 1976	25,637,000	1,525,000
FY 1975	Not in existence	Not in existence

(III) Consultation and Education Grants

FY 1977	7,212,000	
FY 1976	3,875,000	100,000
FY 1975	Not in existence	Not in existence

(IV) Financial Distress Grants

FY 1977	6,207,000	
FY 1976	3,861,000	
FY 1975	Not in existence	Not in existence

(V) Conversion Grants

FY 1977	20,634,000	
FY 1976	17,882,000	29,000
FY 1975	Not in existence	Not in existence

(VI) Staffing Grants (Phasing out)

FY 1977	78,891,000	1,099,000
FY 1976	135,363,000	1,743,000
FY 1975	172,053,000	1,540,000

(VII) Construction Grants

FY 1977		
FY 1976		
FY 1975	14,250,000	226,676

(VIII) Children's Services—Part F (Phasing out)

FY 1977	14,847,000	281,526
FY 1976	26,844,000	1,570,433
FY 1975	26,848,000	

* Grants awarded but returned by Puerto Rico.

Allotment Methodology.—There are various grants awarded by HEW to Community Mental Health Centers (CMHC), and they are listed below:

(I) Planning Grants (\$202).—Grants for planning CMHC programs are awarded to public and nonprofit private entities on a discretionary basis.

Special consideration will be given applicants from poverty areas. No planning grant may exceed \$75,000.³

(II) *Initial Operation Grants* (§203).—Grants for initial operation, awarded on a discretionary basis, will pay part of the costs of the first 8 years of CMHC operation. Each grant lasts 1 year and may be renewed for 8 consecutive years. The amount awarded equals the lesser of the following two results:⁴

(a) those CMHC costs not covered by State and local agencies, insurance companies, or patient fees, or

(b) a percentage of the cost of operation:

<i>Federal share of costs of operation</i>		
<i>Year of operation</i>	<i>Normal Percentages CMHC</i>	<i>Percentages CMHC</i>
1	80	90
2	65	90
3	50	80
4	35	70
5	30	60
6	30	50
7	25	40
8	25	30

(III) *Consultation and Education Grants* (§204).—Grants for consultation and education services, awarded on a discretionary basis, so that CMHC can provide the types of services defined in 42 USCA §2689(b)(1)(D). The amount awarded equals a percentage of total costs that depends upon (1) population in the immediate area of the CMHC (catchment area), (2) the amount received in payment for services, and (3) the year of operation.⁵

(IV) *Financial Distress Grants* (§211).—These grants are awarded on a discretionary basis to CMHC's that can no longer receive initial operation or staffing grants. In order to receive this type of grant, a CMHC must demonstrate significant financial need and possibility of a significant reduction in services to the community. The amounts awarded in any year shall be the lesser of the following two results:⁶

(a) Costs not covered by State or local agencies, insurance companies, or patient fees, or,

(b) the product of (1) 90 percent of the Federal

share of the last staffing or initial operation grant and (2) the CMHC's projected costs of operation.

(V) *Conversion Grants* (§205).—Conversion grants are awarded on a discretionary basis to cover "projected operating deficits."⁷ They are add-on grants to the initial operation and financial distress grants so that CMHC's can add more of the essential 12 services required under 42 USCA 2689(b)(1).

(VI) *Staffing Grants (Phased out.)*—Staffing grants were eliminated in the 1975 reorganization of the CMHC Act and replaced with the more broad purposed initial operation grants. CMHC's that had been awarded staffing grants before 1975 have been allowed to complete the 8-year cycle. No new staffing grants, however, have been awarded since 1975.⁸

(VII) *Facilities (Construction) Grants* (§221).—Funds for construction grants are disbursed on the basis of (1) population, (2) the need for CMHC's, and (3) financial need. The exact weight of these factors will be set by HEW regulation.⁹ No State, however, shall receive less than \$100,000. Unused State allotments may be carried over by the State for use in the next fiscal year. Five percent of the State allotment or \$50,000, whichever is less, may be used for State administrative expenses.¹⁰

Of the funds received by States, they must be matched at least 1 dollar to every 2 Federal dollars. In other words, the maximum Federal share of the costs of any project under this construction grant can never exceed 66⅔ percent, except in poverty areas where the Federal share may reach 90 percent of costs. As for Puerto Rico, however, the maximum Federal share is set at 66⅔ percent.¹¹ The States other than Puerto Rico have the maximum Federal share for their States calculated on the basis of per capita income in relation to the average national per capita income.¹²

IMPORTANT NOTE: The Construction Grant program has not received congressional appropriation for the past 2 fiscal years. This may be an indication of the congressional opinion that there is an oversupply of medical facilities in the country.

(VIII) *Children's Services—Part F (Phased Out.)*—This categorical program was absorbed by the CMHC Act in 1975. Now, all CMHC's are required to provide mental health services for children.¹³

Those entities that received Children's Services grants before 1975 are still eligible to receive those

³ 42 USCA § 2689a.

⁴ 42 USCA § 2689b.

⁵ See the formula in 42 USCA § 2689c(b).

⁶ 42 USCA § 2689g(d).

⁷ 42 USCA § 2689d(b).

⁸ § 220 of the Community Mental Health Centers Act as amended by Public Law 91-211, title II, 84 Stat. 56, which was eliminated in 1975 by § 303, Public Law 94-63, 89 Stat. 309.

⁹ 42 USCA § 2689o(a).

¹⁰ 42 USCA § 2689t(d)(1).

¹¹ For maximum Federal shares, see 42 USCA § 2689i(b)(2)-(b)(4).

¹² 42 USCA § 2689i(b)(4).

¹³ 42 USCA § 2689(b)(1)(D).

funds for a few more years. Nevertheless, no new grants have been awarded since 1975.

Requirements for Funding.—The State mental health agency must develop a State plan.¹⁴ Once the plan has been approved by HEW, the agency may submit applications for establishing CMHC's. Individual centers, public and nonprofit private entities may then make application for grants.¹⁵

Entities that apply for grants must endeavor to provide the mental health services delineated in 42 USCA §2689(b)(1) such as inpatient, outpatient, children, and elderly mental health services.

As mentioned above, some grants require matching funds: initial operation, financial distress, and construction grants.

Identifying Legal and Other Barriers.—The construction grants program, though dormant at present, sets Puerto Rico's matching requirement at 33⅓ percent of costs, Federal share being 66⅔ percent. Other States, however, have the matching requirement set higher or lower depending on per capita income in the State.

The set Federal share for Puerto Rico ignores the lower per capita income of people on the island.

Conclusions.—State-like treatment in all grant programs except the construction grant program. In that exception, the State matching formula based on per capita income of State residents does not apply to Puerto Rico. Puerto Rico has a set matching requirement (2-1) and pays more for medical construction.

Mental Health Training Grants Clinical and Research [CFDA 13.244]

Summary of Purpose.—To provide grants to State and nonprofit private agencies (1) for support of doctor and nurse training programs in the mental health field and (2) for support of research scientist training programs in this field.

Statutory Objective.—The Surgeon General shall conduct in the Service, and encourage, cooperate with, and render assistance to other appropriate public authorities, scientific institutions, and scientists in the conduct of, and promote the coordination of, research, investigations, experiments, demonstrations, and studies relating to the causes, diagnosis, treatment, control and prevention of . . . mental diseases . . .¹

. . . [T]he Surgeon General is authorized (1) to provide clinical training and instruction and to establish and maintain clinical traineeship . . . (2) to make grants to State and local agencies, laboratories . . . for investigations, experiments, demonstrations, studies, and research projects with respect to the development of improved methods of diagnosing mental illness, and of care, treatment, and rehabilitation of the mentally ill . . .²

Basis of Puerto Rican Eligibility.—Puerto Rico may receive funds under this program as a "State."³

Outlays

Total Program

	Total	Puerto Rico
FY 1977	\$81,514,000	\$952,389
FY 1976	82,022,000	1,050,000
FY 1975	87,871,000	866,000

Breakdown of Program

A. Clinical and Service-Related Training Grants

FY 1977	69,827,000	952,000
FY 1976	70,080,000	1,050,000
FY 1975	75,395,000	866,000

B. Research Training Grants

FY 1977	11,687,000	
FY 1976	11,942,000	
FY 1975	12,476,000	

Allotment Methodology.—A. *Training Grants.*—The National Institute of Mental Health (NIMH) disburses funds on a discretionary basis upon application by a public or nonprofit private educational institution. These funds are institutional training grants to be used to support clinical and service-related training programs for doctors, nurses, and other medical personnel in the mental health field. Included in these institutional training grants are funds to pay the living costs of students in the training program (stipends).⁴

B. *Research Training Grants.*—NIMH also awards (1) institutional research training grants to State agencies, public and nonprofit private agencies to train scientific researchers in the mental health

¹⁴ For contents of a State plan, see 42 USCA § 2689t(a).

¹⁵ For construction grant applications, see 42 USCA § 2689j(a); for initial operation, consultation and education, and conversion grants applications; see 42 USCA § 2689(c). The requirements of a planning grant are set out in 42 USCA § 2689a, for financial distress grants, in 42 USCA § 2689g(a).

¹ 42 USCA § 241.

² 42 USCA § 242a(a).

³ 42 USCA § 201(f).

⁴ 42 USCA § 242a(a)(1), 42 CFR 64.1(a).

⁵ 42 USCA § 242a(a)(2), 42 CFR 52.10, .12.

field,⁵ and (2) fellowships to individuals who participate in these research training programs.⁶

Requirements for Funding.—State agencies such as hospitals and universities, and nonprofit private agencies such as colleges, universities, and research foundations must apply to NIMH for institutional training grants and research training grants.⁷ Research trainees must apply individually for fellowships.⁸

Identifying Legal and Other Barriers.—Puerto Rico does not receive research training grant moneys because it apparently does not possess the highest levels of skills and experience necessary to run such a mental health training program for researchers.

Migrant Health Grants [CFDA 13.246]

Summary of Purpose.—To support the planning, development, and delivery of high-quality health care services in rural areas for migrant farmworkers and their families.

Statutory Objective.— . . . [To] make grants to public and nonprofit private entities for projects to plan and develop migrant health centers which will serve migratory agricultural workers, seasonal agricultural workers, and the members of the families of such migratory and seasonal workers.¹

Basis of Puerto Rican Eligibility.—Puerto Rico may participate as a "State."²

Outlays

	Total	Puerto Rico
FY 1977 _____	\$30,000,000	\$1,403,000
FY 1976 _____	25,000,000	1,114,000
FY 1975 _____	23,750,000	742,703

Allotment Methodology.—Grants for migrant health projects are disbursed on a discretionary basis by the HEW-Public Health Service administrator in response to applications by public and nonprofit entities. The grants are divided into grants to regions with many migrants ("high impact areas")³ and those with some, but less than 6,000 migrants.

⁵ 42 USCA § 242(a)(2), 42 CFR 52.10, .12.

⁶ For fellowships for students, see 42 CFR 61.3; for "service fellowships" for experienced scientists working temporarily on such research projects, see 42 CFR 61.32.

⁷ For training grant, see 42 CFR 64.2; for research grant, see 42 CFR 52.12-14.

⁸ 42 CFR 61.5.

¹ 42 USCA § 247d(c)(1)(A). In a major overhaul of the migrant health program, Section 401 of Public Law 94-63, 89 Stat. 304, 334, amended § 319 of the Public Service Act.

² 42 USCA § 201(f).

³ A "high impact area" has no less than 6,000 migrant and seasonal agricultural workers for at least 2 months of the year. Families of such workers are included in the 6,000 minimum. 42 USCA § 247d(a)(5).

The grants programs are:

- I. A. Grants for planning and developing migrant health centers in high impact areas 42 U.S.C.A. § 247d(c)(1)(A);
- B. Grants for operating costs of migrant health centers in high impact areas 42 U.S.C.A. § 247d(d)(1)(A);
- C. Grants for operating costs of public or private entities that "intend to become migrant health centers" in high impact areas 42 U.S.C.A. § 247d(d)(1)(B); and,
- D. Technical assistance grants to migrant health centers and those entities that intend to become migrant health centers 42 U.S.C.A. § 247d(g).
- II. A. Grants for planning and developing migrant health programs at existing health facilities in areas with less than 6,000 migrants 42 U.S.C.A. § 247d(c)(1)(B); and,
- B. Grants for operating costs of migrant health programs in areas with less than 6,000 migrants 42 U.S.C.A. § 247d(d)(1)(C).
- III. HEW Public Health Service may enter into contracts with public and private entities to assist the States in implementing and enforcing health standards in migrant labor camps (particularly sanitary and pesticide standards) 42 U.S.C.A. § 247d(e).

All grants and contracts above are awarded on a discretionary basis.⁴ Only the funds for migrant health programs in areas sparsely populated by migrants have ceilings.⁵

Requirements for Funding.—In order for public and nonprofit private agencies to receive funds, they must make application to HEW-Public Health Service. Those agencies awarded grants must make a separate application each year for renewal of the grants.⁶ The application must provide the assurances of care detailed in 42 U.S.C.A. § 247d(f)(2).

HEW-Public Health Service will give priority consideration to agencies in "high impact areas"⁷ and those agencies, community based, that represent the migrant population to be served.⁸

Identifying Legal and Other Barriers.—No unusual barriers.

⁴ 42 USCA § 247d(c)(3), (d)(3). 42 CFR 56.106.

⁵ They cannot receive more than 25 percent or 30 percent of the funds appropriated for this entire program. See 42 USCA § 247d(h) for the historical limits imposed in FY's 1976 and 1977.

⁶ 42 CFR 56.106(c).

⁷ 42 USCA § 247d(b).

⁸ 42 USCA § 247d(f)(3).

Rehabilitation Services and Facilities— Basic Support Program (Title I, § 110)* [CFDA 13.624]

Summary of Purpose.—To help States provide job training and placement for mentally and physically handicapped persons through formula matching grants (80-20).

Statutory Objective.— . . . [T]o authorize grants to assist States to meet the current and future needs of handicapped individuals, so that such individuals may prepare for and engage in gainful employment to the extent of their capabilities.¹

. . . [T]o assist [States] . . . in meeting the costs of vocational rehabilitation services provided in accordance with State plans . . .²

Basis of Puerto Rican Eligibility.—Puerto Rico qualifies as a "State" for purposes of this program.³

Outlays

	Total	Puerto Rico
FY 1977 (est.)	\$740,248,000	\$20,977,000
FY 1976	720,309,000	20,445,000
FY 1975	680,000,000	17,285,000

Allotment Formula.—A State allotment is calculated on the basis of the following formula:⁴

A percentage of the total appropriation for basic support in proportion to:

- (1) (a) population of the State *multiplied by*
(b) the square of its "allotment percentage,"
over
- (2) the sum of all such products in (1) for all the States.

No State (besides Guam, American Samoa, the Virgin Islands, and the Pacific Trust Territories) shall receive less than:⁵

- (1) One-quarter of one percent of the amount appropriated for basic support for the given fiscal year, or
- (2) \$2,000,000, *whichever is greater*.

All participating States must receive at least what they were allotted in FY 1975.

The "allotment percentage" is defined as:⁶

- (1) 100 percent *minus*,

¹ 29 USCA § 720(a).

² 29 USCA § 720(b)(1).

³ 29 USCA § 706(13).

⁴ 29 USCA § 730(a).

⁵ *Ibid.*

⁶ 29 USCA § 730(b).

- (2) a percentage in proportion to the per capita income of the State *over* national per capita income.⁷

The allotment percentage cannot exceed 75 percent nor drop below 33⅓ percent. For Puerto Rico, the Virgin Islands, American Samoa, the District of Columbia, and the Pacific Trust Territories, the allotment percentage is fixed at 75 percent.⁸

The matching requirement for basic support grants is (80-20)⁹ except for rehabilitation facility construction grants. The matching requirement for construction basic support grants is determined by the applicable Hill-Burton Federal matching percentage for Puerto Rico; i.e., 66⅔-33⅓ percent.¹⁰

Requirements for Funding.—An annual State plan¹¹ must be submitted by the State agency designated by the State to administer the program. The State plan coordinates a number of vocational rehabilitation grant programs for the handicapped set up by Title I of the Rehabilitation Act of 1973¹² under Basic Support (Part B), Innovation and Expansion (Part C). The type of vocational rehabilitation provided includes (1) counseling and placement, (2) training services, (3) subsistence maintenance cost, and (4) construction of new vocational rehabilitation centers.¹³

As mentioned above, the matching requirement for most basic support grants is (80-20); for construction grants it is (66⅔ to 33⅓).

Identifying Legal and Other Barriers.—Puerto Rico has been accorded State-like treatment. Its allotment percentage is set at the highest possible figure, 75 percent, and the island receives as high an allotment per capita as any State. Nonetheless, the allotment percentage might even be higher if there were no 75-percent ceiling.

Conclusions.—An allotment formula variable, the "allotment percentage," has been set for Puerto Rico. It has been fixed at the ceiling for that variable and Puerto Rico receives as much per capita as any mainland State.

Regardless of the benefits Puerto Rico receives, no amount of money can solve the problem of jobs for the handicapped. In an economy with a high unemployment for persons without physical or mental disabilities, it is extremely hard to find jobs for handicapped persons.

⁷ 29 USCA § 707(a), 45 CFR 1361.85(a)(2).

⁸ 29 USCA § 707(a)(1)(B).

⁹ 29 USCA § 706(5).

¹⁰ 29 USCA § 706(5); § 771(b)(3), 42 USCA § 2910(b)(3).

¹¹ The State plan requirements are set out in 29 USCA § 721 and 45 CFR 1361.30.

¹² Public Law 93-112, 87 Stat. 355.

¹³ For a list of services, see 29 USCA § 723, 45 CFR 1361.71.

**DEPARTMENT OF HEALTH,
EDUCATION, AND WELFARE—
SOCIAL SECURITY**

Medicare—Title XVIII Social Security Act

**(I) Hospital Insurance—Part A
[CFDA 13.800]**

**(II) Supplementary Medical Insurance—
Part B [CFDA 13.801]**

NOTE: The Medicare program covers the cost of inpatient hospital care and outpatient doctor care for those individuals covered by one of the Social Security insurance programs (retirement, survivors, or disability). A Medicare beneficiary need not be poor to qualify for medical insurance coverage; he only needs to have worked and contributed to the Social Security system and to have qualified for benefit payments. Medicare is an insurance program, not a welfare program. This contrasts with Medicaid, a payment program for the medical costs incurred by welfare recipients covered by Aid to Families With Dependent Children (AFDC), Supplementary Security Income (SSI), and Aid to the Aged, Blind, and Disabled (AABD).

Medicare has two separate components. Inpatient hospital costs are covered by Hospital Insurance (Part A), and outpatient medical services are paid for under Supplementary Medical Insurance (Part B). The two components are set forth below in separate profile descriptions.

(I) Medicare-Hospital Insurance (Title XVIII, Part A) [CFDA 13.800]

Summary of Purpose.—To cover inpatient hospital medical costs of those entitled to Social Security retirement, survivors, or disability benefits by direct payment to those individuals or the hospitals that provide the medical care.

Statutory Objective.— . . . [To provide] basic protection against the costs of hospital services . . . for (1) individuals who are 65 or over and are entitled to retirement benefits . . . and (2) individuals under age 65 who have been entitled for not less than 24 consecutive months to benefits . . . on the basis of a disability.¹

Basis of Puerto Rican Eligibility.—Eligible Puerto Rican citizens may receive direct payments under Part A of the Medicare program,² as individuals in any State.

¹ 42 USCA § 1395c.

² 42 USCA § 1301(a)(1).

Outlays

	Total	Puerto Rico
FY 1976 _____	\$12,747,264,000	\$41,837,000
FY 1975 _____	10,483,111,000	32,017,000
FY 1974 _____	8,087,888,000	26,934,000

Allotment Methodology.—There is no formula or allotment procedure. This is a direct payment insurance program to eligible individuals for inpatient hospital care. Those eligible include:

(1) Those 65 or over who are entitled to Social Security retirement or survivors insurance benefits;³

(2) those under 65, entitled to Social Security disability benefits, who have been paid those benefits for more than 21 consecutive months;⁴

(3) those older than 65 in 1968 who were not eligible for Medicare hospital insurance under the above criteria, and are residents of the United States;⁵

(4) those under age 65 with chronic kidney disease;⁶

(5) those not eligible under the above criteria who wish to voluntarily enroll and pay a premium for the Medicare hospital insurance (Part A) coverage. These voluntary enrollees must be (a) 65 or over; (b) legal residents of the United States; and (c) enrolled in Medicare Supplementary Medical Insurance (Part B).⁷ Premiums for Part A are set at \$54 per months at present, and will rise to \$63 per month in July 1978.

Medicare Part A does not pay all hospital costs. For limits of insurance coverage, see 42 U.S.C.A. § 1395d.

Requirements for Funding.—Individuals covered by Social Security retirement, survivor's and disability insurance and by railroad retirement insurance are automatically enrolled in Medicare Part A. Others who are eligible must go to a local Social Security office and enroll.

Medicare will make payments for inpatient hospital care in approved hospitals.⁸

Identifying Legal and Other Barriers.—If an individual does not qualify for Social Security benefits, he cannot qualify for Medicare Hospital Insurance unless he pays a monthly premium. The monthly

³ 42 USCA § 1395c, 45 CFR 405.102.

⁴ *Id.*; 45 CFR 405.105.

⁵ 45 CFR 405.103.

⁶ 45 CFR 405.104.

⁷ 42 USCA § 1395i-2(a).

⁸ For a list of inpatient hospital services covered by Medicare, see 45 CFR 405 Subpart A; for the requirements of a Medicare approval for a hospital, see 42 USCA §§ 1395cc(a)(1), 1395f(a).

premium is very high, \$54 per month. In addition, those ineligible for Medicare Hospital Insurance except through the payment of a premium must also enroll in Supplementary Medical Insurance (Part B) and pay the premium for that.

These expensive requirements for those normally ineligible does not present that much of a problem for low income or poverty-stricken individuals. These needy persons, normally enrolled in the AFDC or SSI Welfare programs, have their hospital medical expenses paid by the State under the Medicaid program. The inability of those welfare recipients to pay the Medicare premiums does not prevent them from receiving Medicaid.

The situation is different in Puerto Rico. Those who have never worked and contributed to the Social Security system, do not qualify for Social Security benefits, and hence, do not qualify for Medicare, cannot necessarily fall back on the Puerto Rican Medicaid program for welfare recipients. The Medicaid program operates on the island under a \$30 million ceiling with a high matching requirement. No similar ceiling exists for State Medicaid programs. The \$30 million ceiling limits the amount of medical insurance coverage for welfare recipients who have no other source of medical insurance. Although the Puerto Rican Government operates its own free medical clinic and hospital program, it does not have enough facilities or funds to reach all the poor who cannot qualify for the Federal programs. For more on *Medicaid*, see Medicaid profile in this series.

Conclusions.—Puerto Rico is accorded State-like treatment. Those Puerto Ricans who qualify for Social Security insurance benefits under the retirement, survivor's, and disability programs can take advantage of Medicare Hospital Insurance.

However, those who do not qualify must either (1) pay a high monthly premium or (2) if poor, get Medicaid treatment under the State Medicaid program for those recipients of AFDC, SSI, or AABD payments. Those too poor to pay the premiums must rely on Medicaid. Puerto Rico has a large population that must rely upon Medicaid but the island's Medicaid program operates under a handicap. Unlike the other States, Puerto Rico cannot spend more than \$30 million annually on Medicaid. No mainland State operates under a ceiling. For more on Medicaid, please see the profile on that program.

(II) Medicare—Supplementary Medical Insurance (Title XVIII, Part B) [CFDA 13.801]

Summary of Purpose.—To cover the cost of outpatient medical care (including doctor bills) by

direct payment to individuals enrolled in Part B of the Medicare program.

Statutory Objective.— . . . [A] voluntary insurance program to provide medical insurance benefits . . . for aged and disabled individuals who elect to enroll under such program, to be financed from premium payments by enrollees together with contributions from funds appropriated by the Federal Government.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a State for purposes of Supplementary Medical Insurance.²

Outlays

	Total	Puerto Rico
FY 1976	\$4,804,027,000	\$19,396,000
FY 1975	4,016,409,000	11,702,000
FY 1974	3,107,427,000	11,101,000

Allotment Methodology.—There is no formula or allotment procedure. This is a direct payment insurance program to individuals who have (1) elected such Supplementary Medical (Part B) coverage and (2) paid the monthly premium.

Requirements for Funding.—This is a direct payment insurance program to individuals who have (1) elected such Supplementary Medical (Part B) coverage and (2) paid the monthly premium. Those eligible to enroll in Part B include (1) any person entitled to Part A Hospital Insurance or (2) any person not covered by Part A but 65 years old or older and a legal resident of the United States for 5 continuous years immediately preceding the month in which his application for enrollment was made.³ Those individuals covered by Part A, unless they live in Puerto Rico, are automatically enrolled in Part B.⁴ Congress created this exception in deference to the Puerto Rican Government-operated medical program. The automatic enrollment of Puerto Rican Part A beneficiaries in the Part B program may have hurt the island's Government medical program. Given a choice, very few Puerto Ricans have enrolled in the Supplementary Part B program. This may also be due to the mandatory monthly premiums that must be paid for Part B coverage.

All individuals enrolled in Part B must pay a monthly premium, currently \$7.70.⁵ These monthly

¹ 42 USCA § 1395j.

² 42 USCA § 1301(a)(1).

³ 42 USCA § 1395o.

⁴ 42 USCA § 1395p(f).

⁵ 42 USCA § 1395r, 45 CFR 405.901-962.

premiums entitle one to reimbursement for medical treatment and doctor services outside a hospital, but not necessarily reimbursement for all costs.⁶

Identifying Legal or Other Barriers.—Supplementary Medical Insurance is an “elective” (optional) Medicare component. Whether one is covered by Part A Hospital Insurance or not, he must pay a monthly premium. Puerto Rico is accorded State-like treatment plus some special consideration. Those participating in the Hospital Insurance program are not automatically enrolled in Part B. This exception was enacted by Congress in response to the traditional low enrollment rate in Puerto Rico.⁷ Under this exception, Puerto Ricans must affirmatively apply for enrollment. The traditional and continual low enrollment rate may be engendered by the extensive free medical care program operated by the Puerto Rican Government. Under Part B, Puerto Ricans must pay a premium; whereas there is no payment necessary for the island’s free clinics and hospitals.

Those not enrolled in Part B may pay their own way or use the free Puerto Rican Government clinics and hospitals.

Conclusions.—Puerto Rico is accorded State-like treatment but enrollment by Puerto Ricans in the Part B program remains quite low. This low enrollment is partly the result of (1) the large number of Puerto Ricans excluded from Part A Hospital insurance, (2) the mandatory monthly premium for all those enrolled in Part B, (3) the special exception enacted by Congress that does not permit the automatic enrollment of Part A beneficiaries in Part B, and (4) the availability of free Puerto Rican Government medical care in clinics.

Social Security—Disability Insurance [CFDA 13.802]

Summary of Purpose.—To supply a continuing stream of income to those who can no longer work because of physical or mental injury or disease. This program only pays those who have worked and contributed to the Social Security System, and is not a welfare program.

Statutory Objective.—The program is intended to ensure that “Every individual who is insured for disability insurance benefits . . . has not attained the age of 65, has filed application for disability insurance benefits, and is under a disability . . . shall be entitled to a disability insurance benefit . . .”¹

Basis of Puerto Rican Eligibility.—Puerto Rican

citizens are fully eligible to participate in this program.²

Outlays

(I) Cash Disability Benefits Paid

	Total	Puerto Rico
FY 1976 _____	\$9,331,998,000	\$192,900,000
FY 1975 _____	7,789,998,000	152,500,000
FY 1974 _____	6,282,998,000	112,500,000

(II) Reimbursement to States for cost of certifying disability of applicants

FY 1976 _____	229,440,000	3,472,000
FY 1975 _____	211,566,000	3,202,000
FY 1974 _____	154,201,000	2,334,000

Allotment Methodology.—There is no formula or allotment procedure. This is a direct payment program for workers who can no longer work due to injury or sickness.

Requirements for Funding.—To receive disability benefits, a worker must (1) have worked and contributed to the Social Security system,³ and (2) be suffering from an injury or sickness that satisfies the legal definition of “disability.”⁴ There are no requirements to be fulfilled by the State. The State, however, may enter into an agreement with the Secretary of HEW to designate an agency to make determinations of disability.⁵ The State will be reimbursed for the cost of carrying out such an agreement.⁶ At its option, the State agency may also participate in a program of “vocational rehabilitation” for which a State plan would be required.⁷

Identifying Legal and Other Barriers.—Before 1951, Puerto Rico was excluded from the Social Security programs. As a result of having been “locked out” of the system during that period, there are many Puerto Ricans who cannot qualify for present benefits. In addition, a large percentage of the Puerto Rican work force has labored in agricultural sectors (a section not covered by Social Security until recently) and therefore was unable to contribute to the Social Security system.

Of those who have paid into the system for a

² 42 USCA § 410(h), (i). Puerto Ricans have been eligible to participate in the Disability Insurance program since 1951.

³ For a definition of “insured status,” see 42 USCA § 423(c)(1), 20 CFR 404.118.

⁴ For the definition of physical or mental disability, see 42 USCA § 423(d), 20 CFR 404.1501 *et seq.*

⁵ 42 USCA § 421(a)-(b).

⁶ 42 USCA § 421(e).

⁷ 42 USCA § 422.

⁶ See 42 USCA § 1395k, 45 CFR 405.230-239.

⁷ Automatic enrollment and the exception for the island was enacted in 1972 in § 206 of Public Law 92-603, 86 Stat. 1378.

¹ 42 USCA § 423(a)(1).

long enough period of time (obtaining "insured status"), a large number of them are denied disability status for psychosomatic illnesses that do not fall within the legal definition of disability. In FY 1975, 10,796 Puerto Rican workers were certified as disabled and put on the Social Security disability rolls, thus increasing the total number of disabled workers on the rolls to 55,217. In the same year, 8,070 Puerto Ricans were denied disability benefits and 6,324 of these people were denied benefits on medical grounds. As much as 70 percent of recent disability claims have been made for psychiatric illnesses. As shown by the 1975 figures, not many psychiatric claims are converted into disability status and benefits. Nevertheless, of those receiving disability payments, at least a third receive them for some mental disorder.

Social Security—Retirement Income* [CFDA 13.803]

Summary of Purpose.—To provide retirement benefits for a worker age 62 or older, who has retired. The amount of the benefit paid is determined by the amount contributed by the worker during his years of employment. This is not a welfare program.

Statutory Objective.—The program is intended to ensure that "Every individual who is a fully insured individual . . . has attained age 62, and has filed application for old-age insurance benefits or was entitled to disability insurance benefits for the month preceding the month in which he attained the age of 65, shall be entitled to an old-age insurance benefit for each month, beginning with the first month after August 1950 in which such individual becomes so entitled to such insurance benefits and ending with the month preceding the month in which he dies."¹

Basis of Puerto Rican Eligibility.—Puerto Rican citizens have been eligible for Retirement Insurance benefits since 1950.² However, those Puerto Ricans age 72 or over are not eligible for special Prouty benefits.

Outlays

	Total	Puerto Rico
FY 1976	\$45,273,293,000	\$289,600,000
FY 1975	40,947,988,000	252,700,000
FY 1974	35,623,456,000	223,800,000

Allotment Methodology.—There is no formula or allotment procedure. This is a direct payment pro-

gram for workers who contributed to the Social Security system, are retired, and 62 years of age or older.³ Retirement insurance will cover the retired worker, his spouse, and dependent children.

Requirements for Funding.—Citizens and nationals living and working within Puerto Rico are eligible to participate. There are no requirements to be fulfilled by the Puerto Rican Government.

Identifying Legal and Other Barriers.—No unusual barriers.

Conclusions.—Puerto Rico is accorded State-like treatment and the Retirement Insurance program involves large transfers of Federal funds to Puerto Ricans. Nevertheless, Puerto Ricans can only receive retirement benefits if they have worked. Puerto Ricans only became eligible for retirement benefits in 1950. There are probably many older persons in Puerto Rico who do not qualify for benefits because (1) they never worked or (2) did not work for a sufficiently long period of time after 1950. Some of these ineligible persons would normally qualify for benefits under the Social Security program for those aged 72 or over (Prouty Amendment).⁴ However, Puerto Rico has been excluded from the Prouty assistance program and elderly Puerto Ricans over age 72 not covered by Social Security Retirement are also not covered by the Prouty Amendment.⁵

Both Retirement and Prouty benefits are entirely paid by the Federal Government and there exists no ceiling on the amount of payments to any State or Puerto Rico (except in the case of Prouty benefits).

Social Security—Survivors Insurance [CFDA 13.805]

Summary of Purpose.—To replace lost income by making benefit payments to the surviving spouse and dependents of a deceased worker who contributed to the Social Security program.

Statutory Objective.—This program is intended to ensure that "the widow . . . and every surviving divorced wife of an individual who died a fully insured individual, if such widow or such surviving divorced wife is not married, has attained age 60, or has attained age 50 but has not attained age 60 and is under a disability . . . has filed application for widow's insurance benefits, or was entitled to wife's insurance benefits . . . or was entitled to mother's insurance benefits for the month preceding the

¹ 42 USCA § 414(a).

² The Prouty Amendment benefits assure some regular income to persons (1) who were age 72 or older in 1968, or (2) who have since attained age 72 and have contributed to the Social Security system for at least three quarters. The Prouty benefit program has been designed to cover older persons who had little or no opportunity to earn social security protection during their working years. 42 USCA §§ 427, 428.

³ 42 USCA § 428(e).

¹ 42 USCA § 402(a).

² 42 USCA § 410(b), (c).

month in which she attained age 65, and is not entitled to old-age insurance benefits or is entitled to old-age insurance benefits each of which is less than the primary insurance amount of such deceased individual, shall be entitled to a widow's insurance benefit . . ."¹

Basis of Puerto Rican Eligibility.—Puerto Rico has been classified as a "State" for purposes of the Survivors Insurance program since 1950 and those Puerto Ricans who worked and contributed to the Social Security system have their survivors covered by this program.²

Outlays

(Cash benefits paid)

	Total	Puerto Rico
FY 1976 ____	\$17,388,703,000	\$121,742,000
FY 1975 ____	14,477,008,000	104,500,000
FY 1974 ____	12,594,540,000	90,500,000

Allotment Methodology.—There is no formula or allotment procedure. This is a direct payment program for the survivors of workers who contributed to the Social Security system.³

Requirements for Funding.—The dependents of the deceased workers who contributed to the Social Security system for a sufficient period of time (i.e., attained "insured status")⁴ are directly eligible and must apply to the Social Security Administration for benefits. There are no requirements to be fulfilled by the Puerto Rican Government.

Identifying Legal and Other Barriers.—No unusual barriers.

Conclusions.—Puerto Rico is accorded State-like treatment for this income-maintenance program for the dependents of a deceased worker. This is a direct payment program where benefits are calculated according to the amount that the deceased worker contributed to the Social Security system. Congress has not imposed a ceiling on the amount of payments to any State or Puerto Rico and there is no matching requirement.

For those Puerto Ricans who qualify as survivors of a "fully insured" worker, the program operates for their benefit. In Puerto Rico, however, there are many families who could never qualify because no one has achieved "fully insured" status. Either no

one has worked or no one has worked for a long enough period of time because of the very high unemployment rate since 1950.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE— WELFARE PROGRAMS

Child Welfare Services* (Title IV B) (Social Security Act) [CFDA 13.707]

Summary of Purpose.—By formula matching grants (66⅔ to 33⅓) to support State and local welfare programs that provide substitute or supplemental parental care for and supervision for needy or neglected children.

Statutory Objective.—This program was enacted for "the purpose of enabling the United States, through the Secretary, to cooperate with State public welfare agencies in establishing, extending, and strengthening child welfare services . . ."¹

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible to participate in this program² as a "State" on a most favorable State basis.

Outlays

	Total	Puerto Rico
FY 1978 ____	\$56,500,000	\$1,534,000
FY 1977 ____	56,500,000	1,505,000
FY 1976 ____	52,493,000	1,340,000
FY 1975 ____	49,807,000	1,143,000

Allotment Methodology.—Of the total funds appropriated each year:³

(a) \$70,000 is allotted to each State;

(b) the remainder is allotted to each State in an amount which bears the same ratio to the total remainder as the *product* of the State population under age 21 and the "allotment percentage" bears to the sum of the corresponding products of all the States.

The "allotment percentage" is defined as 100 percent minus the "State percentage." The "State percentage" shall be that percentage which bears the same ratio to 50 per centum as the per capita income of such State bears to the per capita income of the United States.⁴ The "allotment percentage" may not be less than 30 percent nor more than 70 percent. For Puerto Rico, the Virgin Islands, and Guam, the

¹ 42 USCA § 402(e)(1). The program serves similar objectives for surviving widowers, *id.* at (f)(1); for parents of the deceased, *id.* at (h)(1); for children of the deceased, *id.* at (d)(1).

² 42 USCA § 410(h), (i).

³ See 42 USCA § 402(d)-(g).

⁴ 42 USCA § 414(a).

¹ 42 USCA § 620.

² 42 USCA § 623(a)(2), (b)(2); 45 CFR 220.70(e).

³ 42 USCA § 621.

⁴ 42 USCA § 623(a).

"allotment percentage" is fixed at 70 percent. The 70 percent allotment percentage assures the most money possible under the above formula.

The Federal matching requirement varies with State per capita income levels. For any State, the "Federal share" equals 100 percent minus "that percentage which bears the same ratio to 50 per centum as the per capita income of such State bears to the per capita income of the United States."⁵ The Federal share may not exceed 66⅔ percent (66⅔ to 33⅓) nor drop below 33⅓ percent (33⅓ to 66⅔). For Puerto Rico, Guam, and the Virgin Islands, however, the "Federal share" is fixed at 66⅔ percent (66⅔ to 33⅓), the most favorable matching level.

Unused State allotments may be reallocated on a discretionary basis to States that demonstrate a need for and ability to use extra money. Though discretionary, HEW must reallocate in light of population under age 21, and State per capita income.⁶

Requirements for Funding.—The Child Welfare Services (CWS) program is designed to provide substitute or supplemental parental care to poor or neglected children through the provision of day care services, foster care, or adoption. The CWS is handled by the same State agency in Puerto Rico as the Aid to Families with Dependent Children (AFDC).⁷ Coordination between the two programs is mandated in the authorizing legislation. Please note that the CWS program encompasses more children than those served by AFDC.⁸

To qualify for CWS, a designated State agency must adopt a State plan and have the plan approved by HEW. The State plan must contain a basic plan and an annual budget. The plan must contain a number of assurances including an assurance that a list of priorities will be established so that those children in greatest need of care will receive it.⁹

CWS funds may be split among the various possible services to children as the State agency sees fit. The types of services available to poor neglected children are listed in 45 CFR 220.62(d).

Under title IV B there exists a separate general research and training fund for child welfare purposes.¹⁰ This is a general research fund upon which many different HEW offices can draw.

Identifying Legal and Other Barriers.—Puerto Rico's allotment is tied to a fixed allotment percentage, whereas a State's allotment varies with State per capita income as reflected in a vacillating allot-

ment percentage. The island's fixed allotment percentage, though, guarantees Puerto Rico the highest allotment possible for Puerto Rico. The allotment percentage is fixed at the ceiling, 70 percent. Of course, if there were not a ceiling of 70 percent, Puerto Rico's figure might rise to 75 percent, 80 percent, or higher.

Conclusions.—Puerto Rico is accorded the most favorable State-like treatment.

Medical Assistance Program* (Medicaid—Title XIX) [CFDA 13.714]

Summary of Purpose.—To provide financial assistance to States by formula matching grants (varies from 50–50 to 83–17) so that they may provide medical care to welfare recipients (AFDC, SSI, and AABD) and to others defined as "medically needy."

NOTE: Medicaid is the medical care adjunct to the welfare income maintenance programs (AFDC, AABD, and SSI) but it does not involve direct payments to welfare recipients for medical expenses. The Medicaid program is run by the State and payments are made by the States to doctors and hospitals, not to patients.

Statutory Objective.—... [T]o furnish (1) medical assistance on behalf of families with dependent children and of aged, blind, or disabled individuals, whose income and resources are insufficient to meet the costs of necessary medical services, and (2) rehabilitation and other services to help such families and individuals attain or retain capability for independence or self-care, ...¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a State for the Medicaid program,² but its participation is restricted by a \$30 million ceiling.

Outlays

(Adjusted Federal Share)

(I) Medicaid Payments for Services

	Total	Puerto Rico
FY 1976	\$7,893,389,000	\$27,569,000
FY 1975	6,739,689,000	25,046,000
FY 1974	5,563,464,000	27,508,000

(II) State and Local Administration and Training

	Total	Puerto Rico
FY 1976	418,556,000	2,431,000
FY 1975	316,685,000	2,330,000
FY 1974	269,764,000	2,492,000

⁵ 42 USCA § 623(b).

⁶ 42 USCA § 624; see also 45 CFR 220.84.

⁷ Title IV A, Social Security Act, 42 USCA § 601 et seq.

⁸ 45 CFR 220.40(4)–(5).

⁹ For the requirements for a State plan, see 42 USCA § 622(a)(1) and also 45 CFR 220.40(b), 71(b); for annual budget requirements, see 45 CFR 220.71(c).

¹⁰ 42 USCA § 626.

¹ 42 USCA § 1396.

² 42 USCA § 1301(a)(1).

Allotment Methodology.—The States are reimbursed on a “claim basis” for a portion of their medical service costs. Payments are made to the States on a quarterly basis and consist of:³

(a) an amount equal to the “Federal Medical Assistance Percentage” of the total spent under the State Medicaid plan for medical assistance to AFDC, AABD, and SSI welfare recipients;

(b) an amount equal to 75 percent of the costs of training and compensating medical professional staffs and support staffs;

(c) an amount equal to 90 percent of the cost of installing mechanized claims processing and information retrieval systems; and design, development and installation of cost-determination systems for State-owned general hospitals;

(d) an amount equal to 75 percent of the cost of approved patient notification systems;

(e) an amount equal to 100 percent of the costs of compensation or training of health or safety inspectors;

(f) an amount equal to 90 percent of the costs of family planning services and supplies; and

(g) an amount equal to 50 percent of the remaining administrative costs.

The “Federal Medical Assistance Percentage” may differ for each State and is determined by the following formula:⁴

(a) 100 percent *minus* a percentage ratio of 45 percent in proportion to the square of State per capita income over the square of the total per capita income of all the States;

(b) However, the “Federal Medical Assistance Percentage” may never exceed 83 percent nor fall below 50 percent;

(c) As for Puerto Rico, Guam, and the Virgin Islands, the “Federal Medical Assistance Percentage” is set at 50 percent (i.e., a 50–50 matching requirement). The annual Puerto Rican allotment under the above Medicaid formula is restricted by a \$30 million ceiling.⁵ In addition, the “Federal Medical Assistance Percentage” for any State will be reduced by a third when applied to the costs of extended inpatient hospital care unless a doctor certifies the need for such long-term hospital care.⁶

Requirements for Funding.—A single State agency must be designated to develop and administer the State Medicaid plan.⁷ Those eligible for State Medicaid payments include those eligible for AFDC, AABD, and SSI welfare payments and those deter-

mined by the State to be “medically needy.” For most States, those considered “medically needy” cannot have incomes greater than 133 percent of the State AFDC monthly payment.⁸ Nonetheless, Puerto Rico has been granted the discretion to define as “medically needy” those who earn more than 133 percent of the State AFDC payments.⁹ This latitude allowed the Puerto Rican Government is important in view of the very low AFDC payments on the island; without the latitude, most Puerto Ricans not already on welfare would never qualify for Medicaid under the 133-percent rule.

Patients covered by Medicaid are free to use any approved doctors, hospitals, or pharmacies for medical treatment. This guarantee, commonly referred to as “free choice,” does not apply to Puerto Rico, Guam, or the Virgin Islands.¹⁰ Puerto Rico has built an extensive free public hospital and public clinic health system. If the “free choice” provision were in effect for the island, the Medicaid patients might choose private hospitals and divert Medicaid funds to them. Through this statutory exception, Puerto Rico receives all Medicaid funds for its free public health system.

Identifying Legal or Other Barriers.—As with most other programs for welfare recipients, the Medicaid program in Puerto Rico is hamstrung by a \$30 million ceiling on Federal reimbursement and a high matching requirement (50–50). Most States are not subject to a Federal ceiling and very poor States can have the Federal matching requirement reach percentages as favorable as 83–17.

The \$30 million ceiling for annual Medicaid payments has been in effect since 1972. In the past, Puerto Rico has attempted to get Congress to raise or eliminate the ceiling, but failed to do so. Most recently, a bill (H.R. 9434) to (1) raise the ceiling to \$60 million and (2) make the variable “Federal Medical Assistance Percentage” applicable to Puerto Rico, failed to be passed by the 95th Congress.

Conclusions.—As the Medicaid program is presently constituted, Puerto Rico does not receive State-like treatment. Its Medicaid program operates under a \$30 million ceiling and is subject to the highest possible matching requirement (50–50). At the same time, however, Puerto Rico has received two favorable exceptions in the operation of its Medicaid program. First, the “free choice” provision does not apply to Puerto Rico, apparently at the urging of the Commonwealth. Second, Puerto Rico can stretch the definition of “medically needy” to include those who earn more than 133 percent of the island’s AFDC payment rate since the AFDC payment

³ 42 USCA § 1369b(a).

⁴ 42 USCA § 1396d(b).

⁵ 42 USCA § 1308(c).

⁶ 42 USCA § 1396b(g)(1).

⁷ The requirements of a State Medicaid Plan are set forth in 42 USCA § 1396a(a).

⁸ 42 USCA § 1396b(f)(1)(B)(i).

⁹ *Id.* at (f)(1)(B)(ii); 42 USCA § 1396a(a)(10)(C).

¹⁰ 42 USCA § 1396a(a)(23).

schedule in Puerto Rico is so low (it too is subject to a Federal ceiling), the Puerto Rican definition of "medically needy" should rightly include those who earn much more than an AFDC monthly payment amount.

The Puerto Rican Government has set up a large free public health care system. The Congress has ensured that every Medicaid penny will be spent on that system. At the same time, Congress imposes a ceiling on Medicaid payments to the island. Fortunately, those needy islanders are not directly affected by the ceiling. For the poorest in Puerto Rico, medical care is free. The AFDC or AABD welfare recipient does not receive less medical treatment because of the Medicaid ceiling. Since that recipient must go to a public hospital, the health care is free and the ceiling only means that less of the total medical bill will be paid by the Federal Government.

Public Assistance—Maintenance Assistance (State Aid) (I) Aid to Families with Dependent Children (AFDC—Title IV-A) (II) Aid to Aged, Blind, and Disabled (AABD—Old Title XVI) [CFDA 13.761]*

NOTE: This set of programs provides welfare payments (income maintenance payments) for (1) poor children and their families who do not have breadwinners and (2) needy adults who cannot earn enough income due to their age (65 or over) blindness, or a disability. These programs originated during the Depression and have been designed to pay welfare to those individuals not covered by Social Security insurance. Welfare payments under AFDC and AABD have never been uniform throughout the country. The programs have been only partially funded by the Federal Government; the matching requirement varies from 50-50 to 83-17. Payments to the needy have varied greatly from State to State. In the case of Puerto Rico, the payments under both AFDC and AABD have been very low because until November 1978 when Congress amended the programs, it had imposed (1) a \$24 million per year ceiling on total Federal payments under the combined programs and (2) a rigid 50-50 matching requirement on whatever money the island does receive.

In 1972, Congress repealed the AABD program for all "States" except Puerto Rico, Guam, and the Virgin Islands. It replaced it with the Supplementary Security Income program (SSI) which provides much higher benefits to the aged, blind, and disabled. These benefits do not vary from State to State and are 100 percent subsidized by the Federal Government. Puerto Rico was, and still is, excluded from this program and operates under the old AABD program. The right of Congress to exclude Puerto Rican

citizens from the SSI program has been recently affirmed by the Supreme Court.

The following is a profile summary of (I) AFDC and (II) AABD as they operate in Puerto Rico today.

(I) Aid to Families with Dependent Children (AFDC—Title IV-A)

Summary of Purpose.—To fund on a formula matching grants basis (varies from 50-50 to 83-17) welfare payments to a fatherless or motherless household with needy dependent children to enable the remaining parent or relative to care for those children in their own homes. States have the option of extending AFDC to families of unemployed fathers; Puerto Rico has not so opted. Until November 1978, Congress imposed an absolute ceiling of \$24 million on payments to Puerto Rico to cover the combined costs of both this program (AFDC) and the Aid to the Aged, Blind, and Disabled (AABD) program. No such ceiling exists for the States.

Amendments enacted by the 95th Congress increased the ceiling level to \$72 million and changed the Federal matching rate from 50 percent to 75 percent, until September 30, 1979.

Statutory Objective.— . . . (To encourage) the care of dependent children in their own homes or in the homes of relatives by enabling each State to furnish financial assistance and rehabilitation and other services . . . to needy dependent children and the parents or relatives with whom they are living to help maintain and strengthen family life and to help such parents or relatives to attain or retain capability for maximum self-support and personal independence consistent with the maintenance of continuing parental care and protection . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of AFDC,² but its participation is restricted by a \$72 million ceiling on Federal payments under both AFDC and AABD and by a higher matching requirement (75-25).³

Outlays

(A) AFDC—Maintenance Assistance Payments

	Total	Puerto Rico
FY 1976	\$5,257,847,000	\$12,086,000
FY 1975	4,625,481,000	13,217,000

¹ 42 USCA § 601.

² 42 USCA § 1301(a)(1).

³ For ceiling limit, see 42 USCA § 1108(a); for invariable matching requirement, see 42 USCA § 1118(a).

(B) AFDC—Federal Share of State and Local Administrative Costs for Maintenance Assistance

	Total	Puerto Rico
FY 1976	518,892,000	2,405,000
FY 1975	516,210,000	2,753,000

Allotment Methodology.—(A) *Maintenance Cash Payments Formula*

(I) Each State, other than Puerto Rico, the Virgin Islands, and Guam, receives an amount equal to the sum of the following proportion of the total spent during each quarter.⁴

- (a) Five-sixths of the average monthly grant per AFDC recipient up to \$18,
- (b) plus, the "Federal percentage" of that part of the average monthly grant per recipient between \$18 and \$32, and that part of the child foster care grant per child recipient under \$100.

The "Federal percentage" is the 100 percent less the "State percentage." The "State percentage" bears an inverse relationship to State per capita income:

... the State percentage shall be that percentage which bears the same ratio to 50 per centum as the square of the per capita income of such State bears to the square of the per capita income of the United States ...⁵

The "Federal percentage", however, cannot exceed 65 percent nor drop below 50 percent.

In addition, no ceiling has been placed on the total amount that can go to any State.

(II) Puerto Rico, Guam, and the Virgin Islands may be reimbursed for one-half of their average monthly payments per recipient up to \$18.⁶ Nevertheless, payments to Puerto Rico under this formula plus payments under AABD cannot exceed \$72 million.⁷

(B) *Federal Share of State and Local Administrative Costs For the Maintenance Assistance Program Formula*

All States and Puerto Rico will be reimbursed for half of the administrative costs for the AFDC program.⁸ This is, in essence, a 50-50 matching requirement.

The AFDC program also reimburses the State and Puerto Rico for part of the costs of providing social

services to AFDC recipients.⁹ The Federal Government shares the cost on 75-25 matching basis. This aspect of the AFDC is handled in the profile entitled *Public Assistance—Social Services*, CFDA 10.754 and will not be fully described here. It should be noted, though, that the Puerto Rican payments under this social services portion of AFDC are limited by the \$24 million mentioned previously.

Requirements for Funding.—A State plan must be developed by a designated State agency for AFDC and Child Welfare Services, parts A and B of title IV of the Social Security Act. The State plan must provide the multitude of services and assurances contained in 42 U.S.C.A. § 602.¹⁰

A child eligible for AFDC payments is one under the age of 18 (or 21 if in school) who is "deprived of parental support or care by reason of the death, continued absence from the home, or physical or mental incapacity of a parent" and is living with his remaining parent or with relatives.¹¹

Those living with such a dependent child are also eligible for AFDC payments.¹²

Families with unemployed fathers may be eligible for AFDC payments at the option of the State;¹³ Puerto Rico has not so chosen in its AFDC State plan.

AFDC recipients are also eligible for a number of varied services that are provided under (1) AFDC service and training matching grants (75-25 or 60-40) and (2) title XX social service set-asides for Puerto Rico. These social services are covered in the profile entitled *Public Assistance—Social Services*, CFDA 13.754.

Identifying Legal and Other Barriers.—The previous \$24 million limit on total payments under both AFDC and AABD as well as the highest possible matching requirement (50-50) severely restricted the AFDC program on the island. Puerto Rican average payments per recipient have been much lower than those on the mainland. As a consequence of such low funding, the Puerto Rican agency in charge of AFDC has not sought new recipients and pays very little to any given recipient. Apparently because of a lack of local matching funds Puerto Rico has not spent up to its old \$24 million limit.

⁹ 42 USCA § 603(a)(3)(A). Since the creation of title XX of the Social Security Act in 1975, there have been two versions of 42 USCA § 603(a)(3)(A). The older version remains in effect for Puerto Rico, Guam, and the Virgin Islands, while the newer version applies to the States of the Union. For purposes of this profile, the differences between the two versions are not important. See 42 USCA § 1397 note (supp. 1977).

¹⁰ The types of services that must be provided are detailed in 45 CFR 220.18-24.

¹¹ See 42 USCA § 606(b).

¹² See 42 USCA § 606(a).

¹³ 42 USCA § 607(b).

⁴ 42 USCA § 603(a)(1).

⁵ 42 USCA § 1301(a)(8)(A).

⁶ 42 USCA § 603(a)(2).

⁷ 42 USCA § 1108(a).

⁸ 42 USCA § 603(a)(3)(B).

Conclusions.—Puerto Rico is not accorded State-like treatment. It cannot award AFDC and AABD recipients more than \$72 million a year in Federal funding. No such limit exists on payments by States to AFDC recipients. (In the States the AABD program has been repealed and replaced by the Supplementary Security Income (SSI) program). Also, whatever Federal funds Puerto Rico uses for welfare (maintenance) payments must be matched with 25 percent local funds instead of only 17 percent which is normally allowed to low-income States.

(II) Aid to the Aged, Blind and Disabled (AABD)* (Old Title XVI, Social Security Act)

NOTE: The Aid to the Aged, Blind, and Disabled program (title XVI) was enacted in 1962 as an alternative to the separate adult categorical assistance programs to the Aged (title I), the Blind (title X) and the Permanently and Totally Disabled (title XIV). Puerto Rico elected this option and has operated this combined adult income maintenance program under title XVI. In 1972, the AABD was repealed for all "States" except Puerto Rico, Guam, and the Virgin Islands. A new title XVI¹ was enacted, Supplemental Security Income (SSI), and this program provides for higher Federal grants to needy recipients.

Summary of Purpose.—To help "States" provide needy adults who are disabled, blind, or over age 65 with money for food, shelter, medical services, and other living costs through matching formula grants (50-50). This program is designed to cover needy adults who are not eligible for or receive very little from Social Security retirement, survivors, and disability insurance. Federal cash payments under AABD are subject to the \$72 million ceiling imposed on all AABD and AFDC Federal outlays for income maintenance and social services in Puerto Rico.

Statutory Objective.— . . . [T]o furnish financial assistance to needy individuals who are 65 years of age or over, are blind, or are 18 years of age or over and permanently and totally disabled . . . to furnish medical assistance on behalf of individuals who are 65 years of age or over and who are not recipients of aid to the aged, blind, or disabled but whose income and resources are insufficient to meet the costs of necessary medical services . . . to furnish rehabilitation and other services to help individuals referred to [above] . . . to attain or retain capability for self-support or self-care . . .²

Basis of Puerto Rican Eligibility.—Puerto Rico participates in AABD on a limited basis as a "State."³ Only Puerto Rico, Guam, and the Virgin Islands participate in this old title XVI program. The rest of the States participate in the SSI program under the new title XVI of the Social Security Act.⁴

Outlays

(I) Aid to the Aged

	Total	Puerto Rico
FY 1976 _____	\$2,357,029	\$2,040,559
FY 1975 _____	2,312,731	1,999,819

(II) Aid to the Blind

FY 1976 _____	38,794	32,913
FY 1975 _____	41,460	36,437

(III) Aid to the Permanently Totally Disabled

FY 1976 _____	1,500,904	1,395,227
FY 1975 _____	1,461,977	1,368,966

(IV) Federal Share of State and Local Administrative Costs for AABD Maintenance Assistance

FY 1976 _____	2,946,334	1,725,895
FY 1975 _____	4,474,536	1,976,011

To indicate the magnitude of the SSI program (which excludes Puerto Rico), the national outlays under the program for 1975 and 1976 are given below:

SSI Direct Payments to Aged, Blind, and Disabled

	Total
FY 1976 _____	\$4,437,063,000
FY 1975 _____	4,080,723,000

Allotment Methodology.—AABD no longer applies to the 50 States. Before the 1974 repeal of AABD for all States except Puerto Rico, Guam, and the Virgin Islands, the States received an allotment under one formula, and Puerto Rico, Guam, and the Virgin Islands received money under another formula. Since AABD was canceled for most States, only the Puerto Rican formula for AABD is set forth. For comparison, the SSI allotment formula

¹ § 303(b), Public Law 92-603, 86 Stat. 1484, 42 USCA §§ 301 note, 1381 note (supp. 1977).

² 42 USCA § 1381 note—(supp. 1977).

³ 42 USCA § 1301(a)(1).

⁴ *Id.*; 42 USCA § 1381 *et seq.*

(SSI being the successor to the Stateside AABD program) is also described below.

(I) AABD—Income Maintenance Formula

For Puerto Rico, Guam, and the Virgin Islands, the following formula applies:⁶

Each State receives an amount equal to:

(a) One-half of the sum spent for AABD under the State plan up to \$37.50 per recipient per month, *plus*,

(b) the larger of the following amounts:

- (1) one-half of the portion of the average monthly payment per AABD recipient between \$37.50 and \$45.00, *or*, all medical and remedial care expenses under \$45 per recipient plus \$37.50 for such recipient; *or*
- (2) 15 percent of the total spent on AABD in the form of medical or remedial care up to an average monthly expenditure of \$7.50 per recipient.

(II) AABD—Administration Costs

Puerto Rico, Guam, and the Virgin Islands are reimbursed for half of the administration costs for the AABD income maintenance program.⁶ The above formula allotment for Puerto Rico is restricted by the \$72 million ceiling that has been imposed on all maintenance assistance and administration costs under AABD and AFDC.⁷ Until its amendment in November 1978, this ceiling had not been increased since FY 1972.⁸

(III) SSI—New Title XVI, Social Security Act⁹

SSI sets up national eligibility standards and a national minimum payment for recipients that is covered 100 percent by the Federal Government. If a State wishes to award more than the Federal minimum, it may enter into an agreement with the Federal Government and have it distribute the State supplement along with the Federal minimum payment. HEW makes direct payments to the aged, blind, and disabled under SSI and these benefit payments are much higher than those under AABD. For example, the Federal minimum payment to a single eligible person is \$140 per month.¹⁰ This minimum payment requires no matching funds. It

can be increased by a "State supplementation."¹¹ In addition, it should be noted that there is no ceiling imposed on the Federal Government on the amount of benefits that can be paid to recipients in any State.

Requirements for Funding.—Each State must develop a State plan for AABD which designates a single State agency to administer the program and which conforms to all the requirements of the statute.¹² The plan must be approved by HEW.

The plan must specify who the State considers eligible for welfare payments and medical assistance and the schedule of payment amounts. AABD is a State-administered program that the Federal Government partially funds.

SSI, on the other hand, is a Federal program that sets eligibility requirements nationwide,¹³ and requires those eligible to apply directly to the Social Security Administration.¹⁴ Benefits are paid by the Federal Government directly to the recipient. If the State wishes to supplement the Federal minimum benefit, it must enter into an agreement with the Social Security Administration.¹⁵ The State supplement will be distributed in the same check as the Federal minimum payment.

Identifying Legal and Other Barriers.—When one looks for barriers or differential treatment in the AABD program for Puerto Rico, one must compare it to the SSI program, the successor to AABD for the States. AABD offers Puerto Rico lower payments per recipient than SSI, and those AABD payments must be matched (72-25), whereas SSI payments at the Federal minimum level need not be matched. AABD is also subject to the \$72 million ceiling on all income maintenance payments and administration costs under AABD and AFDC. No ceiling exists for Federal payments under SSI.

Both AABD and SSI are designed for those needy individuals who do not qualify for Social Security insurance payments or do not receive enough to live on from Social Security insurance. AABD has always been run by a State agency and payments to the same type of recipient vary from State to State. Congress set national eligibility standards and payment rates under SSI. There are no exceptions to these national standards or minimum rates. If Congress had included Puerto Rico, the national standards and rates might have applied to Puerto Rico. Before 1974, Puerto Rico received less per AABD recipient than most States. Congress continues this differential policy by excluding the island entirely

⁶ 42 USCA § 1383 note (supp. 1977 § 1383(a)(2)).

⁷ 42 USCA § 1383 note (supp. 1977—§ 1383(a)(4)(C)).

⁸ 42 USCA § 1308(a)(1).

⁹ The ceiling for the island was last raised by Public Law 90-248, title II, § 248(a)(1), 81 Stat. 918 in 1968. The 1968 amendment raised the ceiling from \$9.8 million to \$24 million in increments over a 5-year period.

¹⁰ Public Law 92-603, title III, § 301, 86 Stat. 1465, 42 USCA § 1381 *et seq.* Enacted in 1972, became effective in 1974 for all States except Puerto Rico, Guam, and the Virgin Islands. Public Law 92-603, title III, § 303(a), (b), 86 Stat. 1484.

¹¹ 42 USCA § 1382(b), 20 CFR 416.410. For the Federal minimum payments for all types of eligible recipients, see 20 CFR 416.401-435.

¹² For rules on State supplements to SSI benefits, see 42 USCA § 1382e, 20 CFR 416.2001-2090.

¹³ 42 USCA § 1382 note (supp. 1977—§ 1382(a)).

¹⁴ For national eligibility criteria, see 20 CFR 416.201-244.

¹⁵ 20 CFR 416.300, 310.

¹⁶ For agreement and requirements for State supplementary payments to SSI, see 20 CFR 416.2001-2090.

from SSI rather than including it in SSI with some limitations on benefits.

The right of Congress to exclude Puerto Rico from SSI has been recently affirmed by the Supreme Court.¹⁶ Many Puerto Ricans have never contributed, or rarely contributed, to the Social Security retirement or disability insurance funds and, hence, do not qualify for insurance payments. The very high unemployment rate assures that a high percentage of Puerto Ricans will never contribute to nor receive payments from the Social Security insurance programs. AABD and AFDC can partially cover this income gap, but SSI can provide much more for needy adults.

Conclusions.—AABD and SSI are “means tested” programs; an eligible individual must have very little available cash income. Both programs cover persons not adequately covered by the Social Security insurance programs. Puerto Rico, excluded from SSI, must rely on the older AABD program with its lower benefits for recipients, 75-25 matching requirement and absolute funding ceiling. Congress has specifically denied the higher benefits under SSI for Puerto Rico and did not increase the benefits under AABD (or AFDC) during the FY 1972 to FY 1978 period.

Public Assistance—Social Services [CFDA 13.754]* (Forerunner of Title XX Social Services) [CFDA 13.771-772]

NOTE: Public Assistance—Social Services consists of support services rather than cash payments for current or potential recipients of Aid to Families With Dependent Children (AFDC) and Aid to the Aged, Blind, and Disabled (AABD). Until 1975, Public Assistance—Social Services operated nationwide as an adjunct to the Public Assistance—Income Maintenance program. In 1975, Congress repealed this program for all “States” except Puerto Rico, Guam, and the Virgin Islands and created a more extensive Social Services program for all current or potential welfare recipients in a new title XX of the Social Security Act.¹ Title XX provides formula grants to States for services to AFDC, supplemental Security Income (SSI), Medicaid recipients, and to those with very low income. Puerto Rico, along with the other outlying areas, was excluded from the title XX formula allotment. Nonetheless, if the States do not intend to use their allotment, the excess (up to a \$15 million ceiling annually) may be used by

Puerto Rico to fund the social services it already operates under AFDC and AABD.

Summary of Purpose.—To award States funds on a matching basis (75-25 or 60-40) for providing social services to current or potential AFDC and AABD recipients. AFDC social services have been curtailed for all “States” except Puerto Rico and the outlying areas, and replaced with title XX Social Services that authorizes more extensive services on a matching formula basis (75-25). Puerto Rico, although not defined as a “State” for purposes of title XX, does receive a variable set-aside (as much as \$15 million per year) from title XX. These extra title XX funds may be used for the same purposes as AFDC and AABD social services funds.

Statutory Objective.—(I) *AFDC-AABD Social Services.* . . . [To provide funds] for the proper and efficient administration of the State plan . . . for services . . . to help [welfare recipients] attain or retain capability for self-support or self-care or . . . other services . . . likely to prevent or reduce dependency . . . or the training . . . of personnel employed or preparing for employment by the State agency or by the local agency administering the plan . . .²

(II) *Title XX.*—For the purpose of encouraging each State . . . to furnish services directed at the goal of (1) achieving or maintaining self-sufficiency, including reduction or prevention of dependency, (2) achieving or maintaining self-sufficiency, including reduction or prevention of dependency, (3) preventing or remedying neglect, abuse, or exploitation of children and adults unable to protect their own interests, or preserving, rehabilitating, or reuniting families, (4) preventing or reducing inappropriate institutional care by providing for community-based care, home-based care, or other forms of less intensive care, or (5) securing referral or admission for institutional care when other forms of care are not appropriate, or providing services to individuals in institution.³

Basis of Puerto Rican Eligibility.—Puerto Rico is a “State” for purposes of AFDC and AABD social services; however, the Federal payments under public assistance—social services is restricted by the \$72 million ceiling on all payments under AFDC and AABD for income maintenance and services.⁴

Puerto Rico is not classified as a “State” for purposes of title XX,⁵ but it may receive money from title XX if the participating States “certify” that they

¹⁶ *Califano v. Gautier-Torres*, No. 77-88, decided by the U.S. Supreme Court, Feb. 27, 1978.

¹ The Social Services Amendments of 1974, § 2, Public Law 93-647, 88 Stat. 2337, 42 USCA § 1397 *et seq.* signed Jan. 4, 1975. Title XX restricts AFDC social services for all States except Puerto Rico and the outlying areas and substitutes its own more extensive services. See, 42 USCA § 603(a)(3) (supp. 1977).

² 42 USCA § 1383 note [supp. 1977—§ 1383(a)(4)(A)] which applies to AABD. Similar statutory objective stated for AFDC social services in 42 USCA § 603(a)(3)(A) that applies to Puerto Rico.

³ 42 USCA § 1397.

⁴ 42 USCA § 1038(a)(1). For “State” status, see 42 USCA § 1301 (a)(1); for restriction, see 42 USCA § 1308(a)(1).

⁵ 42 USCA § 1397f.

will not use their entire allotment. This title XX excess may be reallocated to Puerto Rico, although the island may not receive more than \$15 million annually.⁶

Outlays

(Expenditures)

(I) AFDC Social Services Funds—Title IV A

	Total	Puerto Rico
FY 1977 (est.)	\$26,000,000	\$964,000
FY 1976	26,974,000	1,028,000
FY 1975	35,944,000	547,000

(II) AABD Social Service Funds—Old Title XVI

FY 1977 (est.)	2,500,000	919,000
FY 1976	2,474,000	889,000
FY 1975	8,167,000	1,358,000

(III) Title XX Special Allotment to Puerto Rico

	Total	Puerto Rico	
		AFDC	AABD
FY 1977 (est.)	\$2,325,332,000	\$8,798,000	\$4,354,000
FY 1976 (est.)	2,226,428,000	7,771,000	977,000
FY 1975	Not in existence	Not in existence	

NOTE 1: Title XX funds used for AFDC in Puerto Rico must be matched 60-40. Title XX funds used for AABD must be matched 75-25.

NOTE 2: In both 1976 and 1977, Puerto Rico was allotted \$15 million. Due to very late availability, however, never more than \$13 million was ever spent in each year.

Allotment Methodology.—(I) AFDC and AABD Social Services.—The social services provided under the AFDC program are funded on a matching basis (75-25 for States; 60-40 for Puerto Rico) if those services expedite "the proper and efficient administration" of the State services plan.⁷ There is one AFDC social service statute section enacted for Puerto Rico, Guam, and the Virgin Islands and another section enacted for the States in 1975.⁸ AABD social services are funded on the exact same basis as its AFDC counterpart, except that the

matching is set at 75-25.⁹ Only Puerto Rico, Guam, and the Virgin Islands are included in AABD social services. The States, once included, are now covered by Supplementary Security Income (SSI) to which title XX is the social service adjunct.

The Puerto Rican expenditures under AFDC and AABD social services are subject to the same \$72 million Federal ceiling that encompasses both income maintenance programs of AFDC and AABD.¹⁰ In addition, those Federal funds must be matched 60-40. The title XX program has a \$2.5 billion national ceiling that has not yet been reached and the States need only match their allotment 75-25.¹¹

(II) Title XX Funds—Special Puerto Rican Allotment.—Though Puerto Rico is not defined as a "State" in title XX, it does receive some funds from that program. Of the funds appropriated each year (up to the \$2.5 billion limit), each State receives an allotment in proportion to its population. Each State must "certify" whether or not it will use all of its allotment. If the States certify that they have unneeded funds, that excess may be reallocated to Puerto Rico (up to a \$15 million limit), Guam, (up to a \$500,000 limit), and the Virgin Islands (up to a \$500,000 limit).¹² Those title XX funds that are used for AFDC social services must be matched 60-40 whereas those title XX funds employed in AABD social services must be matched 75-25.¹³

Over the past 2 fiscal years, Puerto Rico has received each year its maximum allotment of \$15 million. Unfortunately, Puerto Rico has never spent more than \$13 million of the \$15 million available for either fiscal year. The State "certification" procedure took too long and consequently the Puerto Rican allotment arrived too late in the year to be completely spent within the remainder of the given fiscal year.

Requirements for Funding.—Public Assistance—Social Service moneys are disbursed to fund those services that permit AFDC and AABD welfare recipients to take care of themselves, to stabilize their families, and to get jobs. These services include family counseling, day care, family planning, foster care, transportation, homemaker and chore, and protective services.¹⁴ The AFDC and AABD also fund

⁶ 42 USCA § 1383(a)(4).

¹⁰ 42 USCA § 1308(a)(1-).

¹¹ For \$2.5 billion ceiling, see 42 USCA § 1397a(a)(2)(A); for 75-25 matching requirement, see 42 USCA § 1397a(a)(1).

¹² 42 USCA § 1397a(a)(2)(A)-(D).

¹³ Under title XX, States must match on a 75-25 basis. Since title XX rules do not apply to Puerto Rico, neither does its matching requirement. The title XX funds allotted to Puerto Rico are governed by the rules of the AFDC and AABD social services programs. Funds allocated to AFDC social services must be matched at the AFDC social service rate: 60-40. 45 CFR 220.61(f)(1). Funds disbursed for AABD social services must be matched at the AABD social services rate: 75-25. 45 CFR 222.90(a).

¹⁴ For a list of AFDC services, see 45 CFR 220.15-24; for AABD services, see 45 CFR 222.40-61.

⁸ 42 USCA § 1397a(a)(2)(D). Congress placed a \$2.5 billion ceiling on title XX funds but that ceiling has not been reached to date. 42 USCA § 1397a(a)(2)(A).

⁷ 42 USCA § 603(a)(3)(A). For higher matching requirements for Puerto Rico, see 45 CFR 220.61(f)(1).

⁹ Public Law 93-647 which created title XX, also created a coexisting version of 42 USCA § 603(a)(3) for the States covered by title XX. AFDC social services and title XX social services provide the same type of services. Public Law 93-647, in essence, shifted the functions for the States from AFDC to title XX, while retaining some training and staff development for AFDC.

staff development and training for the State and local agencies administering the two programs.¹⁵ Title XX moneys fund services similar though more complex than those mentioned above for AFDC, SSI, Child Welfare and Medicaid recipients or potential recipients.¹⁶

The Public Assistance—Social Services program requires two State plans; one required for the AFDC income maintenance program and the other required for the AABD income maintenance program. The plans must be developed by a designated State agency.

As stated above, part of the Public Assistance—Social Service funds come from AFDC and AABD. Those moneys are restricted by the \$24 million ceiling and the matching requirements (60–40 AFDC, 75–25 AABD). The other portion of Public Assistance—Social Service funds flows from the title XX special allotment subject to a \$15 million ceiling and the above set of matching requirements. In contrast, those social services in States funded under the regular title XX allocation are not subject to any jurisdictional ceiling besides the \$2.5 billion ceiling placed on the entire program.

Identifying Legal and Other Barriers.—The barriers are evident when one contrasts the AFDC–AABD Social Service program as it operates in Puerto Rico with the title XX program as it operates on the mainland. The entire Puerto Rican social service program is limited by the \$72 million ceiling on AFDC and AABD funds and by the \$15 million ceiling on the title XX special allotment for Puerto Rico. While the AFDC/AABD figure has been a steady figure, the \$15 million remains contingent upon “excess” funds not used by the State. So far Puerto Rico has received its maximum special allotment each year. Nonetheless, title XX funds are subject to the \$2.5 billion ceiling and the States may someday gobble up all their allotted funds, leaving very little for Puerto Rico.

On the contrary, no mainland State receiving title XX funds has had a ceiling imposed on the welfare funds destined for its residents under AFDC, SSI, and Medicaid. The State’s allotment is only subject to the \$2.5 billion ceiling that Congress imposed on the entire title XX program.

As a consequence of the exclusion, the Puerto Rican AFDC and AABD programs do not handle as many persons as they should. For lack of funds, the island administrative agency in charge of those two programs is severely understaffed. In addition, the special \$15 million received from title XX each year cannot be spent within the legal time limit. HEW may only forward those funds to the island after the

States “certify” that they do not need part of their allotment. The certification process took a long time and, as a result, Puerto Rico did not receive its special allotment until April of each year (3 months before the end of its fiscal year).

Conclusions.—Congress has purposely restricted participation in the national income maintenance program (SSI) and its social service adjunct (title XX). The SSI program for the aged, blind, and disabled sets national eligibility standards and national payment rates. Title XX increased the amount of Federal moneys for social services and training to welfare recipients and very low income persons.

Puerto Rico is excluded from these two national welfare programs and confined to the lesser funded predecessors of those programs. There is a low ceiling on the total amount of funds that can flow to Puerto Rico for any AFDC or AABD purpose and this ceiling, in spite of inflation, was not raised during the FY 1972 to FY 1978 period.

Special Program for the Aging—Nutrition Program for the Elderly¹ (Title VII) [CFDA 13.635]

Summary of Purpose.—To provide those Americans age 60 and over with low cost, nutritious meals, and supportive services. All funds must be matched (90–10).

Statutory Objective.— . . . to provide older Americans, particularly those with low incomes, with low cost, nutritionally sound meals served in strategically located centers, such as schools, churches, community centers, senior centers . . . where they can obtain other social and rehabilitative services . . . such as a program (that) would reduce the isolation of old age . . .²

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a “State” for purposes of this Act.³

Outlays

	Total	Puerto Rico
FY 1978	\$250,000,000	\$2,169,000
FY 1977	203,525,000	1,798,000
FY 1976	123,439,000	1,088,000
FY 1975	124,450,000	1,137,000

Allotment Methodology.—Each State will receive an amount of the total appropriation equal to the ratio of the State population age 60 and older over

¹⁵ 42 USCA § 603(a)(3)(A)(iii); 45 CFR 220.10; 45 CFR 222.8. Due to title XX, AFDC social services have been modified for the States (except Puerto Rico, Guam, and the Virgin Islands) solely to include staff development and training.

¹⁶ See 45 CFR 228.39–47.

¹ Public Law 89–73, as amended, 42 USCA § 3045.

² 42 USCA § 3045.

³ 42 USCA § 3045b(a)(1)(B), §§ 3002(3), 3045b(a)(1)(B).

the total national population age 60 and older.⁴ No State, however, shall receive less than one-half of one percent of the total sum appropriated for the fiscal year.⁵

Requirements for Funding.—A State must submit a State plan in accordance with 42 U.S.C.A. § 3045(d). The plan must be administered by a single State agency designated by the Governor. The State agency would make grants in cash or in kind to public and private nonprofit institutions, organizations, agencies, or political subdivisions of a State so that they may carry out the nutrition services to the elderly.

Federal grants are available to fund 90 percent of the costs of projects which give low-cost food service to the elderly in accordance with the criteria specified in 42 U.S.C.A. § 3045e. States may match in cash or in kind from non-Federal sources.⁶

Recipients of grants must have programs that provide nutritious hot meals at least 5 days a week to persons age 60 and over at a site in close proximity to the majority of the elderly persons in the program. The recipient must assure that the maximum number of eligible elderly individuals have the opportunity to participate in such a nutrition project.⁷

Identifying Legal and Other Barriers.—No unusual barriers.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Work Incentive Program (WIN)* Title IV-C [CFDA 13.748; 17.226]

Summary of Purpose.—To enable persons on welfare (AFDC) to secure jobs that will take them off welfare. This program, funded by formula matching grants (90-10), provides manpower services (job training) and support services (medical care, counseling, day care services for children) for the indigent participants.

NOTE: The manpower services portion of the program is funded by the Department of Labor and normally run by State employment service agencies. The support services portion is funded by HEW and run by a State or local welfare agency. Until FY 1978, the Federal Government split the funds between manpower and support. All Labor Department funds had to be used for manpower and all HEW funds had to go toward support. In 1978, a

⁴ 42 USCA § 3045b(a)(1). "The number of persons age 60 and over shall be determined by the Commissions on the basis of the most satisfactory data available."

⁵ 42 USCA § 3045b(a)(1)(A).

⁶ 42 USCA § 3045b(e).

⁷ 42 USCA § 3045e.

new "unified funding approach" has been implemented by Labor and HEW under which the discretionary authority to split the WIN funds between manpower and services has been delegated to each State.

Statutory Objective.— . . . [T]o require the establishment of a program utilizing all available manpower services, including those authorized under other provisions of law, under which individuals receiving aid to families with dependent children will be furnished incentives, opportunities, and necessary services in order for (1) the employment of such individuals in the regular economy, (2) the training of such individuals for work in the regular economy, and (3) the participation of such individuals to independence and useful roles in their communities. It is expected that the individuals participating in the program . . . will acquire a sense of dignity, self-worth, and confidence which will flow from being recognized as a wage-earning member of society and that the example of a working adult in these families will have beneficial effects on the children in such families.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is a "State" for purposes of the WIN Program.² Congress, however, put a \$2 million ceiling on the amount of WIN support services aid that HEW can offer.³ No ceiling has been placed on Labor funds for manpower services.

Outlays	Total	
	Manpower (Labor)	Support (HEW)
FY 1977	\$235,038,000	\$116,758,000
FY 1976	228,002,000	107,563,000
FY 1975	129,924,000	70,760,000
Puerto Rico		
	Manpower (Labor)	Support (HEW)
FY 1977	\$1,099,000	\$1,196,000
FY 1976	2,986,000	1,181,000
FY 1975	1,220,000	715,000

NOTE: Effective in FY 1978, under the "unified funding approach," funds awarded by HEW and

¹ 42 U.S.C.A. § 630. The WIN program is authorized under title IV, part C of the Social Security Act.

² 42 U.S.C.A. § 1301(a)(1). This ceiling covers HEW WIN funds and family planning services under AFDC.

³ 42 U.S.C.A. § 1308(b)(1).

Labor may be mixed and the amount spent on Manpower and Support portions of the WIN program may be set by each State.

There is a \$2 million ceiling imposed upon the funds that flow from HEW for WIN and for AFDC family planning services. This ceiling persists though the "unified funding approach" has been implemented. The split of HEW-WIN funds for 1976 and 1977 in Puerto Rico has been as follows:

	WIN Support	Family Planning
FY 1977	\$1,196,000	\$803,844
FY 1976	1,181,000	819,000

There is no ceiling imposed for the island with respect to Department of Labor-WIN funds.

Allotment Methodology.—(I) The funds appropriated for the Department of Labor portion of the WIN program are allocated in the following manner.⁴

(1) Not less than 50 percent of those funds is allocated among the States so that each State receives an amount of the whole equal to the ratio of the average number of AFDC recipients registered for jobseeking under 42 U.S.C.A. § 602(a)(19)(A) in the State over the average number of AFDC recipients so registered nationwide;

(2) the remainder is allotted among the States by Labor on a discretionary basis.

Of the funds appropriated by Labor for WIN, not less than 33⅓ percent shall be expended on the manpower training program of on-the-job training and public service employment.⁵ These WIN funds must be matched (90-10).⁶

(II) HEW funds for WIN are authorized under the Aid to Families with Dependent Children (AFDC) statute and were originally designated to fund only support services.⁷ Under the "unified funding approach," WIN funds from HEW no longer have to finance only support services. The State allotment for HEW-WIN funds is based on a formula similar to the Labor Department allotment formula. The regulations state that a State allotment under HEW shall equal the Labor Department allotment in terms of percentage for their respective total WIN appropriations.⁸ This formula is another manifestation of the "unified funding approach." However, those HEW funds destined for Puerto are subject to a \$2 million Federal ceiling and must be matched (90-10) in cash or in kind.⁹

All WIN cash assistance, both HEW and Labor components, will be reduced if less than 15 percent of the State AFDC recipients, who should register for job possibilities with the State unemployment agency, have been officially "certified" to participate in WIN. WIN allotments for each State will "be reduced by one percentage point for each percentage point by which the number of individuals certified . . . as ready for employment or training under the WIN program falls below 15 percent of the average number of individuals in the State who are required to be registered during such fiscal year."¹⁰

Requirements for Funding.—Most able-bodied AFDC recipients over the age of 16 must register with the State unemployment agency. This set of registered individuals forms the pool of potential WIN participants. The AFDC recipients register for manpower services with the State unemployment agency and support services with the State welfare agency.¹¹ If the registered AFDC recipient is deemed employable, she is placed in an available job or is trained for a potential job by the State unemployment agency. At the same time, she is made eligible for child care, counseling, medical care, and other support services to enable registrants to accept employment or carry on training.

A series of job and job-training programs are authorized under WIN. There is training offered in (1) an on-the-job training program, (2) an institutional work experience training program, and (3) an intensive manpower services program. Those registrants who can be placed in private sector jobs shall be placed. Those who cannot be placed shall be placed in public-service employment.¹² Not all those registered will receive jobs or job-training opportunities. Of those registered, unemployed fathers have priority in WIN job and job-training programs.¹³ Note, however, that the AFDC program for unemployed fathers does not operate in Puerto Rico.

Those State and local government agencies, as well as nonprofit private organizations, that provide public service employment will be reimbursed for 100 percent of the costs for providing such employment in the first year, for 75 percent the second year, and for 50 percent the third year.¹⁴ Private employers who offer jobs to WIN participants are not reimbursed in cash but do receive a 20-percent tax credit

¹⁰ 45 C.F.R. 224.15(e); 42 U.S.C.A. § 603(c). Most able-bodied AFDC recipients over age 16 are required to register at the State unemployment office for WIN job placement or job training. However, if a registered AFDC recipient is not certified, she does not have to accept any WIN job offered her. Under this statutory provision, the State need only certify 15 percent of the registrants in any given year. For most WIN job and job-training programs, a person must be certified to participate.

¹¹ For manpower services, see 42 U.S.C.A. § 602(a)(19)(A); for support services, see 42 U.S.C.A. § 602(a)(19)(G).

¹² 42 U.S.C.A. § 632(b); 45 C.F.R. 224.40-43. The requirements for job or job-training offers are set down in 45 C.F.R. 224.34.

¹³ 42 U.S.C.A. § 633(a).

¹⁴ 42 U.S.C.A. § 633(e)(2).

⁴ 42 U.S.C.A. § 631(c)(2); 45 C.F.R. 224.14(a)-(b).

⁵ 42 U.S.C.A. § 631(b); 45 C.F.R. 224.14(c).

⁶ 42 U.S.C.A. § 635(a).

⁷ 42 U.S.C.A. § 602(a)(19)(G).

⁸ 42 Fed. Reg. 128, July 5, 1977.

⁹ For Federal ceiling on HEW cash assistance to Puerto Rico for WIN, see 42 U.S.C.A. § 1308(d); for matching requirement on HEW WIN assistance, see 42 U.S.C.A. § 603(d); 45 C.F.R. 224.16.

against their Federal tax liability for the first 12 months of wages or salary paid to WIN workers.¹⁵ This incentive, however, is not effective in Puerto Rico where private employers pay no Federal tax and therefore cannot use a Federal tax credit.

The State unemployment and welfare agencies shall develop an annual State WIN Plan that must be approved both by HEW and Labor Departments.¹⁶

Identifying Legal and Other Barriers.—The WIN program displays two congressionally imposed limitations on Puerto Rican participation, one intentional and the other most likely unintentional. Under 42 U.S.C.A. § 1308(d), there exists an absolute Federal ceiling on cash assistance from HEW for the WIN program of \$2 million. No ceiling exists for Labor Department WIN funds. This limitation is typical for Puerto Rico in the Social Security program area.

The probable unintentional limitation abides in the 20-percent Federal tax credit for private companies that employ WIN participants. Puerto Rican companies do not pay Federal taxes on earnings; hence, the tax credit is useless to them and does not provide an incentive to those companies to employ the WIN participants.

In addition, another barriers exists as a consequence of Puerto Rican Government policy. The WIN program draws participants solely from the AFDC program. Those not eligible for AFDC funds are not eligible for WIN help. The AFDC program, as presently constituted, gives each State the option of including those indigent families with unemployed fathers.¹⁷

Budget constraints forced Puerto Rico to exclude the poor families with unemployed fathers from AFDC payments, because this category required a higher proportion of matching funds. However, all children in families with low incomes qualify for AFDC payments regardless of the employment status of their parents.

Conclusions.—Puerto Rico has not been accorded State-like treatment. A ceiling of \$2 million has been imposed on part of its WIN funding from HEW. Also, an incentive for private employers to hire WIN people, a 20-percent Federal tax credit, exerts no influence on the island because no Federal taxes are paid.

Community Development Block Grants

(I) Entitlements [CFDA 14.218]

(II) Discretionary Grants [CFDA 14.219]

NOTE: Under the Housing and Community Development Act of 1974,¹ the Congress consolidated

a number of urban assistance programs under a new Community Development Block Grant (CDBG) program.² Through this program Congress intends to give State and local governments the discretionary authority to allocate funds among the various urban programs which previously were funded separately. The programs absorbed by CDBG include:

- (1) Urban Renewal, Title I, Housing Act of 1949;
- (2) Model Cities, Title I, Demonstration Cities and Metropolitan Development Act of 1966;
- (3) Water and Sewer Facilities, § 702, Housing and Urban Development Act of 1965;
- (4) Neighborhood Facilities, § 703, Housing and Urban Development Act of 1965;
- (5) Public Facilities Loans, Title II, Housing Amendment of 1955;
- (6) Open Space Land, Title VII, Housing Act of 1961;
- (7) Rehabilitation Loans, § 312, Housing Act of 1964.

Summary of Purpose.—To develop and reinvigorate urban communities by expanding the housing supply and economic opportunities for low to moderate income persons. This is achieved by the extension of (1) nonmatching formula grants ("Entitlements") and (2) discretionary grants to metropolitan and nonmetropolitan areas.

Statutory Objective.—The primary objective . . . is the development of viable urban communities, by providing decent housing and a suitable living environment and expanding economic opportunities, principally for persons of low and moderate income.³

Basis of Puerto Rican Eligibility.—Puerto Rico may participate in this program as a "State."⁴

Outlays

(I) Entitlements

	Total	Puerto Rico
FY 1977 _____	\$2,674,000,000	\$53,357,000
FY 1976 _____	2,617,000,000	33,483,000
FY 1975 _____	2,418,000,000	26,075,000

(II) Discretionary Grants

FY 1977 _____	474,000,000	20,356,000
FY 1976 _____	389,000,000	15,717,000
FY 1975 _____	282,000,000	11,968,000

¹⁵ 26 U.S.C.A. §§ 50A(a)(1), 50B(a).

¹⁶ 42 U.S.C.A. § 633(b), 45 C.F.R. 224.11-12.

¹⁷ 42 U.S.C.A. § 607(b).

¹ Public Law 93-383, 88 Stat. 633.

² 42 U.S.C.A. § 5301(c)-(d).

³ 42 U.S.C.A. § 5301(c).

⁴ 42 U.S.C.A. § 5302(a)(2).

(III) Urgent Need Discretionary Fund*

	Total	Puerto Rico
FY 1977 _____	100,000,000	_____
FY 1976 _____	50,000,000	_____
FY 1975 _____	50,000,000	_____

* Funds allocated to complete projects started under categorical grants.

Allotment Methodology.—(I) Of the funds appropriated each year for the Community Development Block Grant Program under 42 U.S.C.A. § 5303(a):⁵

(a) Three percent shall be allocated to a Special Discretionary Reserve that will fund experimental projects, disaster areas, the territories of Guam, the Virgin Islands, American Samoa, and the Trust Territories of the Pacific, and communities not receiving enough under the formula allotment described below;⁶

(b) Of the remaining amount, 80 percent shall be distributed to *metropolitan areas*. Each city or urban county shall receive an "entitlement" according to the following formula:⁷

(1) *Entitlements*: An amount equal to the greater of the following two ratios:

(a) the average of the ratios involving population, extent of poverty, and the extent of housing overcrowding of the given metropolitan area and in all metropolitan areas; or

(b) the average of ratios involving the extent of growth lag, of poverty, and the age of housing in the given metropolitan area and in all metropolitan areas.

Metropolitan areas that received more money under the categorical programs prior to 1974 than they would receive under the entitlements formula shall receive the greater amounts from the Hold Harmless fund authorized for metropolitan areas.⁸ The amount of extra funds authorized areas from the Hold Harmless fund shall decrease each year and the Hold Harmless fund shall cease to exist in FY 1980.⁹

⁵ § 103(a) of the Housing and Community Development Act of 1974, Public Law 93-383, 88 Stat. 633, as amended in 1977 by Public Law 95-128, title I, 91 Stat. 111.

⁶ 42 U.S.C.A. § 5307(a) as amended by § 107, Public Law 95-128, 91 Stat. 1123.

⁷ 42 U.S.C.A. § 5306(b)(1)-(2), as amended in 1977.

⁸ 42 U.S.C.A. § 5306(g)(1). The Hold Harmless fund consists of unused allotments and discretionary funds authorized under 42 U.S.C.A. § 5303(a)(2). See 42 U.S.C.A. § 5306(d)(1).

⁹ *Id.* at (g)(2), as amended.

2. *Discretionary Grants.*—Any amounts remaining after the Hold Harmless allocations shall be allocated to the States or to small towns and cities according to the same ratio formula cited above.¹⁰

(c) The remaining 20 percent shall be allocated to nonmetropolitan areas. *Entitlements* will be disbursed among these areas according to the same ratio formulas cited above for metropolitan areas.¹¹ From the remaining unused allotments and other discretionary funds [42 U.S.C.A. § 503(a)(2)], the *Hold Harmless* supplement will be satisfied.¹² The remainder shall be the *Discretionary* fund.

(II) There exists another discretionary fund (Urgent Need Fund) to allocate more money to those communities hurt by the conversion from the categorical to the consolidated block grant program.¹³ Puerto Rico has not received Urgent Need Funds because it has not lost money in the conversion from categorical to block grant.

(III) A new urban program was created by the 1977 Housing and Community Development Act to aid the decaying central cities hurt by middle class population loss.¹⁴ This is a project grant subprogram funded on a discretionary basis. Grants will be awarded on the basis of the following factors:¹⁵

(a) the comparative degree of physical and economic distress;

(b) demonstrated performance of the city in carrying out housing and community development programs;

(c) impact of proposed project on low and moderate income persons;

(d) nature and extent of financial participation by private entities in the proposed project;

(e) extent of financial assistance made available by the State;

(f) financial participation by other public agencies;

(g) impact on physical or economic deterioration of community;

(h) unique opportunity provided by project;

(i) feasibility; and

(j) loss to community of Hold Harmless funds.

(IV) Loan guarantees may also be extended by HUD to communities as part of the overall community development effort.¹⁶

¹⁰ 42 U.S.C.A. § 5306(d)(2).

¹¹ 42 U.S.C.A. § 5306(f)(1).

¹² 42 U.S.C.A. § 5306(h)(1).

¹³ 42 U.S.C.A. § 503(b).

¹⁴ § 119, Public Law 95-128, 91 Stat. 1125, 42 U.S.C.A. § 5318.

¹⁵ 42 U.S.C.A. § 5318(b), (e), 24 C.F.R. 570, 455.

¹⁶ See, 42 U.S.C.A. § 5308.

Requirements for Funding.—Cities and towns must apply for both the Entitlement and the Discretionary grants. The applications must include a 3-year Community Development Plan and a Housing Assistance Plan.¹⁷ These plans are important due to the nature of a block grant. The local officials can direct the moneys received under block grant to any acceptable project within the scope of the block-grant program. The list of acceptable community development projects is contained in 42 U.S.C.A. § 5305(a). By 1977 amendment, block-grant funds may not be used for economic development programs.¹⁸ Also, all projects funded by block grants must give maximum benefit to low-income as well as moderate-income families.¹⁹

Cities and towns within each State directly receive Entitlement funds and compete for Discretionary funds.²⁰

Identifying Legal and Other Barriers.—Puerto Rico is accorded State-like treatment and receives increasing amounts of funds under both the Entitlements and Discretionary portions of the program.

Comprehensive Planning Assistance, Section 701 [CFDA 14.203]

Summary of Purpose.—To aid State and local governments to develop comprehensive plans for housing, land use, public facilities, transportation, and other governmental functions through the extension of matching grants (66⅔ to 33⅓%).

Statutory Objective.— . . . [T]o assist State and local governments in solving planning problems, including those resulting from the increasing concentration of population in metropolitan and other urban areas and the out-migration from the lack of coordinated development of resources and services in rural areas; to facilitate comprehensive planning for urban and rural development, including coordinated transportation systems, on a continuing basis by such governments; and to encourage such governments to establish and improve planning staffs and techniques on an areawide basis, and to engage private consultants where their professional services are deemed appropriate by the assisted governments . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of this program.²

¹⁷ 42 U.S.C.A. § 5304(a)(1)-(4).

¹⁸ § 105, Public Law 95-128, 91 Stat. 116.

¹⁹ 42 U.S.C.A. § 5304(b)(2).

²⁰ 42 U.S.C.A. § 5302(a)(1).

¹ 40 U.S.C.A. § 461(a).

² 40 U.S.C.A. § 460.

Outlays

	Total	Puerto Rico
FY 1977	\$63,057,000	\$650,000
FY 1976	76,351,000	758,000
FY 1975	103,624,000	1,065,000

Allotment Methodology.—Funds are disbursed to States and their political subdivisions on a discretionary basis upon application to HUD.³ Section 701 grants cannot fund more than two-thirds the cost of a planning project.⁴

Requirements for Funding.—A State and most permutations of its political subdivisions may make applications for section 701 funds.⁵ Planning efforts to improve most government functions are acceptable, particularly if they lead to comprehensive planning on a unified Statewide basis.⁶

Identifying Legal and Other Barriers.—No unusual barriers. The decrease in the Puerto Rican allotment between 1975 and 1977 is not peculiar to the island. The allotments for all States have decreased over the same period.

Condominium Mortgage Insurance, § 234

(I) Construction or Rehabilitation of Condominium Projects [CFDA 14.122]

(II) Purchase of Individual Units in Condominiums [CFDA 14.133]

Summary of Purpose.—To finance a family's purchase of a condominium unit through the extension of an FHA insured mortgage (\$60,000 or less) that assures lower interest payments and a low downpayment.

Statutory Objective.— . . . [T]o provide an additional means of increasing the supply of privately owned dwelling units where, under the laws of the State in which the property is located, real property title and ownership are established with respect to a one-family unit which is part of a multifamily project.¹

Basis of Puerto Rican Eligibility

Puerto Rico as a "State" for purposes of the program.²

³ 40 U.S.C.A. § 461(d).

⁴ 40 U.S.C.A. § 461(e). In 1974, Congress amended the matching requirement to raise the Federal share from 66⅔ percent to 80 percent. See, 40 U.S.C.A. § 461(n). However, HUD, using its discretionary power, has decided to keep the maximum Federal share at 66⅔ percent. See 24 C.F.R. 600.10(a).

⁵ For a list of eligible applicants, see 40 U.S.C.A. § 461(a)(1), 24 C.F.R. 600.25.

⁶ 40 U.S.C.A. § 461(b)(f).

¹ 12 U.S.C.A. § 1715y(a).

² 12 U.S.C.A. § 1715y(b).

Outlays

	Total	Puerto Rico
CY 1977 _____	\$71,797,000	¹ \$2,632,000
CY 1976 _____	47,351,000	1,475,000
CY 1975 _____	46,802,000	1,571,000

¹ Puerto Rico's 1977 figure only accounts for the first 9 months of the calendar year.

Allotment Methodology.—Two programs operate under section 234. One is an FHA mortgage insurance program for condominium builders under section 234(d) and the other is on individual home-buyer's FHA insured mortgage under section 234(c). Below is a description of both.

(I) *Condominium Builders' Mortgages*—Section 234(d). The FHA will extend blanket insured mortgages to condominium builders for the construction or rehabilitation of condominium projects that they intend to sell to individuals.³ Builders or developers can obtain FHA insured mortgages to cover most of the costs of construction or rehabilitation subject to the following restrictions on the value of the mortgage:

- (a) Not more than 90 percent of the projected replacement cost of the completed building;⁴ and,
- (b) not more than \$60,000 per family unit built.⁵

(II) *Condominium Home Buyer Mortgages*—Section 234(c).—A family may apply for, and receive, an FHA insured mortgage up to \$60,000 to finance the purchase of a condominium unit in a building constructed or rehabilitated under an FHA mortgage.⁶ The family may get the mortgage for a period of 35 years or three-quarters of the unit's economic life, whichever is less. A downpayment in cash is required equal to 3 percent of the first \$25,000 of appraised property value and 5 percent of that property value in excess of \$25,000.⁷

Requirements for Funding.—Families from all income levels are eligible for these condominium mortgages. Similarly, all types of investors, developers, and builders are eligible for the blanket mortgages under section 234(d).

For the extensive regulations for the section 234(c) program for home buyers, see 24 C.F.R. 234 subpart A, and 12 U.S.C.A. §§ 1715p, 1715u. As for the builders' program under section 234(d), see the regulations in 24 C.F.R. 234 subparts B and

C as well as the provisions of the Rental Housing Insurance program.⁸

Identifying Legal and Other Barriers.—No unusual barriers.

Home Mortgage Insurance (§ 203) [CFDA 14.117-.121]

NOTE: The Federal Housing Administration's mortgage insurance program under § 203 of the National Housing Act has been designed to make more money from the private lending market available to families interested in buying homes at lower interest rates and with lower downpayments. The FHA achieves this goal by insuring the private lender (a bank or savings and loan association) against loss on its loans (mortgages) to home buyers. If the home buyers should default on the mortgage repayments, the FHA will pay the difference. In exchange for the assurances, the FHA imposes a ceiling on the allowable interest rate; currently, the ceiling rate is 8½ percent plus ½ percent for the mortgage home insurance premium.

Through the § 203 Home Mortgage Insurance programs, the FHA has expanded the credit market for home mortgages and lowered the interest rate on, and downpayments for, those mortgages. There are a series of § 203 programs for which distinct outlay figures are not available for either the Nation or Puerto Rico. What follows are short summaries of all those programs including:

- (I) (a) Home Mortgage Insurance, § 203(b) [CFDA 14.117];
(b) Mortgage Insurance—Homes for Certified Veterans § 203(b) [CFDA 14.118];
- (II) Mortgage Insurance—Homes for Disaster Victims § 203(h) [CFDA 14.119];
- (III) Mortgage Insurance—Homes in Outlying Areas § 203(i) [CFDA 14.121]; and
- (IV) Low and Moderate Priced Homes for Those Forced to Relocate, § 221(d)(2) [CFDA 14.120].

Summary of Purpose.—To help individuals obtain low interest loans to buy homes through the extension of Federal mortgage insurance coverage to the lender.

Statutory Objective.—The Secretary is authorized, upon application by the mortgagee, to insure as hereinafter provided any mortgage offered to him which is eligible for insurance as hereinafter provided, and, upon such terms as the Secretary may prescribe, to make commitments for the insuring of

³ 12 U.S.C.A. § 1715y(d).

⁴ 12 U.S.C.A. § 1715y(e)(2).

⁵ *Ibid.* at (e)(3)-(4).

⁶ 12 U.S.C.A. § 1715y(c).

⁷ *Ibid.*

⁸ Rental, Housing Insurance, § 207(d), (e), (g), (h), (i), (j), (k), (l), and (n) of the National Housing Act, 12 U.S.C.A. § 1713, C.F.D.A. 14.134.

such mortgages prior to the date of their execution or disbursement thereon.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is a "State" for the purposes of these FHA mortgage insurance programs.²

Outlays

(A) § 203(b), (h), (i) Mortgage Insurance Issued

	Total	Puerto Rico
FY 1977 _____	\$8,245,765,000	\$116,045,674
FY 1976 _____	6,019,195,000	53,402,000
FY 1975 _____	5,190,100,000	67,266,000

(B) § 221(d) (2) Low and Moderate Priced Homes for Those Relocated

CY 1977 _____	551,474,000	_____
CY 1976 _____	490,656,000	_____
CY 1975 _____	520,974,000	66,950

Allotment Methodology.—This program is a direct insurance program for home buyers and their lenders. The applications are filed with local HUD officers by the prospective lenders. The FHA insurance is awarded on a discretionary basis after consideration of the home buyer's credit record, steady income, and cash available to make the closing costs.

Requirements for Funding.—(I) *Home Mortgage Insurance and Home Mortgage Insurance for Certified Veterans.*—The FHA will insure the purchase of existing or proposed houses for one to four families as well as the refinance of indebtedness on existing housing. The maximum amount of FHA insurance available for a mortgage is \$60,000 for a single family house; \$65,000 for a two- or three-family house; and \$75,000 for a four-family house. Operating under these ceilings, the amount of a mortgage insured in a particular case and hence, the amount of downpayment necessary, will equal 97 percent of the first \$25,000 of appraised house value plus 95 percent of the value in excess of \$25,000. If the home buyer is a certified veteran, the veteran can insure a single family house for 100 percent of its value under \$25,000 minus \$200 for a downpayment and 95 percent of its value over \$25,000. If the mortgage will cover a house under construction or less than a year old, the FHA will insure no more than 90 percent of its value.³

If a homeowner seeks to refinance an existing mortgage debt, the FHA insured mortgage will not cover more than the greater of the following sums:

- (1) 90 percent of the house value; or
- (2) the sum of the unpaid balance of the old mortgage and the costs of repairs or improvements and for obtaining the loan.⁴

The present maximum interest rate on mortgages insured by FHA is 8½ percent plus ½ percent of FHA insurance premium.⁵ The term of an FHA-insured mortgage may last as long as 30 years and, in special cases, 35 years if the structure was built according to FHA or VA rules and inspected by the FHA or the VA.⁶

(II) *Home Mortgage Insurance for Disaster Victims § 203(h).*—The FHA will insure a mortgage loans extended to a victim of a major disaster so he may build or rebuild a single family house. The FHA will insure 100 percent of a mortgage up to \$14,400. Before any person can apply for mortgages insured under § 203(h), the President must designate the region a "major disaster area."⁷ The other FHA mortgage terms under § 203(b), apply to this type of mortgage. The mortgage may be extended for 10 to 30 years, and in some cases, 35 years. The interest rate may not exceed 8½ percent and the FHA insurance premium is set at ½ percent.

(III) *Mortgage Insurance—Homes in Outlying Areas § 203(i).*—Under this program, FHA mortgage insurance can be extended to persons in rural areas that seek to purchase an existing or proposed single family house. Farmers cannot take advantage of this program unless their farm has five or more acres adjoining a public highway. The FHA can insure a loan up to 75 percent of \$60,000 (\$45,000) but no more than: (1) 97 percent of the appraised value of the proposed house less than a year old; (2) 90 percent on a house more than a year old that was not previously approved for mortgage insurance; (3) 85 percent for a house that the buyer intends to rent to others.⁸ The maximum allowable interest rate is 8½ percent, the premium ½ percent and the term of the mortgage may be from 10 to 30 years, and in some cases 35 years.

(IV) *Low and Moderate Priced Homes for Those Forced To Relocate, § 221(d)(2).*—This FHA insurance program is designed to assure mortgage credit on reasonable terms to low- and moderate-income families and those families forced to relocate by Government action (eminent domain) or as a re-

¹ 12 U.S.C.A. § 1709(a).

² 12 U.S.C.A. § 1707(d).

³ 12 U.S.C.A. § 1709(b)(2) as amended by §§ 303(a), 304(a) of the Housing and Community Development Act of 1977, Public Law 95-128, 91 Stat. 1111, 1132; See also, 24 C.F.R. 203.18-19.

⁴ *Ibid.*

⁵ 12 U.S.C.A. § 1709-1, 24 C.F.R. 203.20.

⁶ 24 C.F.R. 203.17(c)-(d).

⁷ 12 U.S.C.A. § 1709(h).

⁸ 12 U.S.C.A. § 1709(i) as amended by § 303(g) of Public Law 95-128, 91 Stat. 1111, 1133.

sult of a major disaster. The FHA will insure mortgages according to the following schedule:⁹

	Maximum amount for family of 4 or less	Maximum amount for family of 5 or more	Increased maximum allowed by discretion
Single-family house	\$31,000	\$36,000	\$36,000
Two-family house	35,000	35,000	45,000
Three-family house	48,600	48,600	57,600
Four-family house	59,400	59,400	68,400

For a particular home buyer, the FHA mortgage limit is set at: (1) 97 percent of the value of the property for a low- or moderate-income family; and (2) 100 percent for a displaced family minus \$200. In effect, this means a 3-percent downpayment for low and moderate income families and a \$200 downpayment for a displaced family.

If a homeowner wishes to repair or rehabilitate a house, the FHA will insure the total cost of repair and rehabilitation up to 85 percent of the appraised value of the house. If a homeowner wishes to refinance an existing mortgage, he may receive an FHA insured mortgage up to the amount required up to the present mortgage balance plus the costs of repair or rehabilitation.

The interest rate maximum is currently set at 8½ percent, the FHA premium rate at ½ percent, and the terms of the mortgage may last from 10 to 30 years.

This § 221(d)(2) program has been included along with the § 203 program because of its similarity to those programs and its large national volume (though not in Puerto Rico).

Identifying Legal and Other Barriers.—Puerto Rico receives State-like treatment and there are no problems with the program peculiar to the island. The only problems with these FHA mortgage insurance programs exist on a national level in the statutory ceilings on the amount insurable. Real estate and housing prices have increased at a fast pace and Congress has not been quick enough to amend the statutes and increase the ceiling. Congress has just amended these programs in the 1977 Housing and Community Development Act; it increased the ceiling and decreased the downpayment required.

Subsidy Programs

NOTE: The Federal Housing Administration (FHA) operates a number of housing subsidy programs with the aims of (1) lowering the monthly rent payments for lower income apartment dwellers and (2) decreasing the interest rate paid by home-

owners on mortgages. Many of these programs couple the subsidy payments with an FHA mortgage guarantee to assure apartment dwellers and homeowners the lowest possible monthly payments on their respective rents and mortgages. The following subsidy programs have been important in Puerto Rico and will be summarized:

- (I) Section 8—Housing Assistance Payments Program for Lower Income Families [CFDA 14.156].
- (II) Revised Section 235—Interest Reduction Payments for Lower Income Homeowners [CFDA 14.104, 105, 106].
- (III) Section 236—Interest Reduction Payments for Multifamily Rental or Cooperative Housing [CFDA 14.103].
- (IV) Lower Rent Public Housing—1937 Housing Act [CFDA 14.146].
- (V) Rent Supplements—§ 101 [CFDA 14.149].

(I) Section 8—Housing Assistance Payments Program for Lower Income Families [CFDA 14.156]

Summary of Purpose.—To lower the rents for low income families in apartment buildings by making Federal payments to cover part of the interest costs on the apartment building mortgage. The Federal payment is made to the mortgage lender and does not require matching funds.

Statutory Objective.—For the purpose of aiding lower income families in obtaining a decent place to live and of promoting economically mixed housing, assistance payments may be made with respect to existing, newly constructed, and substantially rehabilitated housing . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rico is a "State" for purposes of this subsidy program.²

Outlays

(I) Section 8 Reserved Funds for Subsidies

	Total	Puerto Rico
FY 1977	\$1,049,096,000	(Not available)
FY 1976	1,214,918,000	\$23,487,000
FY 1975	270,899,000	(Not available)

(II) Operating Subsidies for Section 8 Building (§ 9) [Not available]

⁹ 12 U.S.C.A. § 17151(d)(2) as amended by § 303(c) of Public Law 95-128, 91 Stat. 1111, 1113.

¹ 42 U.S.C.A. § 1437f.

² 42 U.S.C.A. § 1437a(f).

Allotment Methodology.—This is a direct payment program for which there is no State allotment procedure. The payments are made to the owners of apartment buildings, both private developers and public housing agencies (PHA). The FHA payments are made according to a contract between the FHA and the apartment owner which spells out the formula for subsidy payments.

The contract sets the maximum amount of rent that the owner may collect for each apartment unit. The subsidy payment for each unit equals the difference between 15 percent of a very-low-income family's monthly income (or 25 percent of a low-income family's income)⁸ and the maximum monthly rent set in the contract.

The Section 8 payments cover the cost of building the apartment complex as reflected in the monthly mortgage payments made by the owner. Maintenance and service costs are not included in this calculation and the Congress has authorized an additional subsidy to cover the owner's operating costs.⁴ The operating subsidy payments equal the difference between the cost of operating a well-run apartment house and the amount of the collected rents that can be allocated to operations (i.e., maintenance and service).⁵

Requirements for Funding.—Apartment owners can receive subsidies for apartments rented by low-income and very-low-income families as well as by the elderly (62 years of age or over) and the handicapped. The FHA may pay subsidies on all units in the building but mandates that 30 percent of those families assisted be very-low-income families.⁶

If the local government has a Local Housing Assistance Plan developed pursuant to 42 U.S.C.A. § 1439, it may criticize the proposed FHA contract with the apartment owner if the result would not conform with the plan's idea of housing development.

There exists a vast number of regulations on the Section 8 program as listed below:

- (1) Section 8—New Construction 24 C.F.R. 880;
- (2) Section 8—Substantially Rehabilitated Housing 24 C.F.R. 881;
- (3) Section 8—Existing Housing 24 C.F.R. 882;
- (4) Section 8—Determination of Income Eligibility 24 C.F.R. 889;
- (5) Section 9—Operating Subsidies 24 C.F.R. 890.

⁸ A very-low-income family earns less than 50 percent of the median income of the area and a low-income family earns between 50 and 80 percent of the median income of the area. 42 U.S.C.A. § 1437f(f).

⁴ Section 9 of the Housing Act of 1973, 42 U.S.C.A. § 1437g.

⁵ In Puerto Rico, there is no formula and the operating subsidy is decided on a case-by-case basis. 24 C.F.R. 890.103.

⁶ 42 U.S.C.A. § 1437f(c)(5)–(7).

Identification of Legal and Other Barriers.—Puerto Rico is given State-like treatment and the Section 8 program is a very large grant program that does not require matching funds.

(II) Revised Section 235—Interest Reduction Payments for Lower Income Homeowners [CFDA 14.104, 105, 106]

NOTE: This program provides subsidy payments to lenders (banks and savings and loan associations) on behalf of low income families who have taken out mortgages with those lenders. The § 235 program at one time provided large subsidies ("deep" subsidies) that reduced the mortgage interest paid by the homeowner to 1 percent. That program, however, was halted in 1973 by the President. A revised § 235 program was authorized by Congress in the Housing and Community Development Act of 1974 and was instituted in 1976.

Summary of Purpose.—To reduce the cost of homeownership for low-income families by the extension of FHA mortgage guarantees and the payment of subsidies to reduce the monthly mortgage interest costs.

Statutory Objective.—For the purpose of assisting lower income families in acquiring homeownership or in acquiring membership in a cooperative association operating a housing project, the Secretary is authorized to make, and to contract to make, periodic assistance payments on behalf of such homeowners and cooperative members.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of this program.²

Outlays

(Revised Section 235)

	Total	Puerto Rico
CY 1977 _____	\$174,000,000	\$3,074,000*
CY 1976 _____	26,000,000	576,650
CY 1975 _____	moratorium	moratorium

* Funds for first 9 months of 1977 in Puerto Rico.

Allotment Methodology.—Under this program, FHA pays a lender a part of the interest owed by a homeowner on his mortgage from the lender. The program will subsidize low-income families seeking to buy single homes or cooperative apartments. All

¹ 12 U.S.C.A. § 1715z(a).

² 12 U.S.C.A. §§ 1715z(i)(2), 1707(d).

those low-income families that participate in this program also receive FHA guarantees on their mortgages. This FHA guarantee will cover up to \$32,000 for a family of four (\$38,000 in high cost areas) and up to \$38,000 for a family of five or more (\$44,000 in high cost areas).⁸ No more than 40 percent of the houses in a subdivision may receive insured mortgages under section 235 unless more units need the aid pursuant to a sound, local redevelopment plan.⁴ The maximum interest rate on FHA insured loans is currently set by the FHA at 8¾ percent.⁵

A family with an income less than 95 percent of the area's median income qualifies for the interest subsidy.⁶ The subsidy calculated for each family equals the difference between the monthly payment (mortgage plus interest) and 20 percent of the family's monthly income.⁷ The interest rate for a family can be reduced by subsidy to as low as 5 percent.

Requirements for Funding.—Those eligible for this program include low-income families, the elderly (62 years of age or over) and the handicapped. Prospective home buyers who wish to purchase a house or condominium unit may participate in this program under section 235(i).⁸ Nonprofit private or public organizations that wish to buy an existing subdivision or apartment complex and substantially rehabilitate them in order to sell to low-income families qualify for section 235 mortgage insurance and subsidies under section 235(j).⁹

A cash downpayment must be made by the home buyer in this program equal to 3 percent of the first \$25,000 and 5 percent of any amount over \$25,000.¹⁰

The section 235 program as revised will not finance the purchase of buildings built or rehabilitated before October 17, 1975.

Identifying Legal and Other Barriers.—The Revised Section 235 Program operates in Puerto Rico in the same manner it does on the mainland. The revised program requirements, however, reduce the possible subsidy to homeowners and raise the required annual income level for a family to qualify for an FHA insured mortgage. Before 1973, the subsidy could reduce the effective interest rate for a low income family to 1 percent; today the interest

rate cannot be reduced below 5 percent.¹¹ Those eligible under this program must have a low income but not too low.¹² According to the June 1977 *Agenda*, those who are eligible must earn from \$9,000 to \$11,000 annually. This income minimum apparently is too high a figure for Puerto Rico.¹³

Similarly, the 45 percent limit on the portion of a subdivision that may receive section 235 subsidies appears as a more severe limitation in Puerto Rico than on the mainland. Most families could use some amount of a subsidy payment and this provision prevents most from receiving the subsidy.

(III) Section 236—Interest Reduction Payments for Multifamily Rental or Cooperative Housing [CFDA 14.103]

Summary of Purpose.—To lower the monthly rent payment required for low-income families by the extension of an FHA insured mortgage to the apartment complex owner and the payment of subsidies to reduce mortgage interest payments and monthly rent payments.

Statutory Objective.—For the purpose of reducing rentals for lower income families, the Secretary is authorized to make, and to contract to make, periodic interest reduction payments on behalf of the owner of rental housing projects designed for occupancy by lower income families, which shall be accomplished through payments to mortgagees holding mortgages meeting the special requirements specified in this section.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is a "State" for purposes of Section 236.²

Outlays

	Total	Puerto Rico
FY 1977 _____	\$585,000,000	
FY 1976 _____	500,200,000	(Not available)
FY 1975 _____	391,900,000	

NOTE: Since January 1973, no new subsidy commitments have been made by FHA.

Allotment Methodology.—This program provides private builders, developers, and owners with FHA insured mortgages to build or purchase apartment

⁸ 12 U.S.C.A. § 1715z(b)(2), as amended by the Housing and Community Development Act of 1977, Public Law 95-128, 91 Stat. 1111, 1132, § 303(f).

⁴ 12 U.S.C. 17-15z(h) enacted in Public Law 95-128, 91 Stat. 1132, § 303(f).

⁵ Under authority granted in 12 U.S.C.A. § 1709-1.

⁶ 12 U.S.C.A. § 1715z(h)(2).

⁷ 12 U.S.C.A. § 1715z(c).

⁸ 12 U.S.C.A. § 1715z(i), CFDA 14.105.

⁹ 12 U.S.C.A. § 1715z(f), CFDA 14.104, 106.

¹⁰ 12 U.S.C.A. § 1715z(i)(3)(C).

¹¹ An Agenda for A Socio-Economic Study of Puerto Rico, part II, p. 105, Commonwealth of Puerto Rico, Office of the Governor, June 1977.

¹² 24 C.F.R. 235.10(b).

¹³ Supra, note 11.

¹ 12 U.S.C.A. § 1715z-1(a).

² 12 U.S.C.A. § 1707(d).

complexes which they intend to rent to lower income families, as well as the elderly and the handicapped.

Developers or owners who intend to build or purchase apartment complexes and rent them to low-income families are eligible to receive mortgage interest reduction subsidies sufficient to reduce the interest rate paid by the developers or owners to 1 percent.³ Public housing agencies are not eligible for these interest subsidies.

Those owners of apartment complexes receiving interest subsidies must comply with a host of regulations including one that sets the maximum fair market rent for each apartment unit. Tenants in the building cannot pay more than 25 percent of their monthly income for rent. Those tenants who would pay more than 25 percent to meet the rent receive a rent subsidy from the Federal Government equal to the difference between the rent and 25 percent of the tenant's monthly income.⁴ By statute, at least 20 percent of the tenants in the building must have low enough income to qualify for the rent subsidies.⁵ Of those receiving rent subsidies, 20 percent must be either handicapped or elderly.⁶

Section 236 also makes provision for an "operating" subsidy to cover maintenance and service costs. The operating subsidy is paid to the apartment owner and equals the cost of utilities and property taxes.⁷

Requirements for Funding.—Section 236 is a private apartment project version of section 8. The interest and rent subsidies are intended to reduce the rent for all low-income families as well as the elderly and the handicapped living in the apartment complex.

The underlying mortgage for which section 236 subsidizes the interest is insured by the FHA under another program.⁸

NOTE: Since January 1973, no new subsidy commitments have been issued and the Federal payments made since then reflect obligations under prior contracts.

Identifying Legal and Other Barriers.—No unusual barriers.

(IV) Lower Rent Public Housing— Housing Act of 1937 [CFDA 14.146]

Summary of Purpose.—To aid Public Housing Agencies (PHA's) in the development and maintenance of safe, decent, and sanitary housing projects

³ 42 U.S.C.A. § 1715z-1(c).

⁴ 42 U.S.C.A. § 1715z-1(f)(1)-(2).

⁵ Ibid. A tenant who qualifies for a rent subsidy has an income less than 80 percent of the area's median income.

⁶ 42 U.S.C.A. § 1715z-1(i)(4).

⁷ 42 U.S.C.A. § 1715z-1(f)(3).

⁸ § 221 of the National Housing Act, 42 U.S.C.A. § 1715L as explained in 24 C.F.R. 236.1.

for low-income families through the extension of loans and grants.

Statutory Objective.—The Secretary may make annual contributions to public housing agencies to assist in achieving and maintaining the low-income character of their projects. The Secretary shall embody the provisions for such annual contributions in a contract guaranteeing their payment.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of this program.²

Outlays

(Reserved Funds)

	Total	Puerto Rico
FY 1977 _____		\$31,900,000
FY 1976 _____	Not available	31,729,000
FY 1975 _____		32,727,000

Allotment Methodology.—To help Public Housing Agencies (PHA's) build or purchase housing projects for low-income tenants, HUD will make housing assistance payments (subsidies) to PHA's for those projects. The amount of the subsidy will be calculated according to HUD regulations. The debt service cannot exceed the annual amount of principal and interest owed by the PHA on the given project.³ The operating (maintenance and utility) subsidy for a project cannot exceed the amount believed to be needed by a "well run" PHA project.⁴

There does not exist a matching requirement for these subsidies but HUD does require a PHA to make some contribution to the local government in lieu of property taxes.⁵

Requirements for Funding.—The PHA low-income housing projects subsidized by this program are designed for low-income families, the elderly (62 years of age or over) and the handicapped.⁶ The PHA accepting the HUD subsidies signs a contract with HUD guaranteeing the subsidy payments provided certain conditions are met that preserve the "low-income character" of the project.⁷ The families renting units in these projects may not have their rents set at more than 25 percent of their monthly income (no more than 5 percent in certain cases).⁸

¹ 42 U.S.C.A. § 1437c(a).

² 42 U.S.C.A. § 1437a(7).

³ 42 U.S.C.A. § 1437c(a)-(b).

⁴ 42 U.S.C.A. § 1437g(a).

⁵ 42 U.S.C.A. § 1437d(d).

⁶ 42 U.S.C.A. § 1437a(2).

⁷ 42 U.S.C.A. § 1437d(a). The rules on tenant selection are set out in 42 U.S.C.A. 1437d(c).

⁸ See definition of "low-income" housing, 42 U.S.C.A. § 1437a(1).

HUD subsidy contracts cannot extend for more than 40 years.

Identifying Legal and Other Barriers.—No unusual barriers.

(V) Section 101, Rent Supplements [CFDA 14.149]

Summary of Purpose.—To make rent supplement payments to nonprofit apartment owners on behalf of low-income tenants.

Statutory Objective.—The Secretary . . . is authorized to make, and contract to make, annual payments to a 'housing owner' on behalf of 'qualified tenants,' . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of this program.²

Outlays

	Total	Puerto Rico
FY 1977 _____	\$251,200,000	
FY 1976 _____	210,300,000	Not available
FY 1975 _____	174,700,000	

NOTE: No new rent supplement contracts have been negotiated since January 1973. The outlays above represent subsidies promised under previous contracts. These contracts can run for as long a period as 40 years.

Allotment Methodology.—Although no new apartment projects are eligible for rent supplements, those projects already receiving subsidies under a HUD contract do so under a formula. A subsidy will be paid for each apartment unit occupied by a low-income family, the elderly, or the handicapped. For such an apartment, the subsidy will equal the difference between the fair market rental value of the unit and 25 percent of the occupant's monthly income.³ In addition, HUD, will pay the apartment project owner an operation subsidy for each subsidized unit that covers the maintenance and utility costs of a model, well-run apartment project of similar size.⁴

Requirements for Funding.—Only apartment complexes owned by private, nonprofit groups are eligible

for rent supplements for their low-income tenants. In addition, apartment complexes eligible for rent supplements must be financed by an FHA insured mortgage.⁵ Tenants eligible for rent supplements include low-income families, the elderly, the handicapped, disaster victims, and those living in substandard housing.⁶

The rent supplements are paid under a HUD contract and may not be made for more than 40 percent of the apartment complex's units.⁷ The contract may have a duration of 40 years.⁸

Identifying Legal and Other Barriers.—No unusual barriers.

Title I Insurance for Property Improvement Loans (Title I, Section 2) [CFDA 14.142]

Summary of Purpose.—To provide Federal Housing Administration (FHA) insurance for private loans used (1) to finance the repair, alteration, or improvement of existing houses or apartment buildings, or (2) the construction of a new, nonresidential building.

Statutory Objective.—The FHA may insure private lenders against loss for loans extended "for the purpose of (1) financing alterations, repairs, and improvements upon or in connection with existing structures or mobile homes, and the building of new structures upon urban, suburban, or rural real property . . . by the owners thereof or by the lessees of such real property . . . and for the purpose of financing the preservation of historic structures . . ."¹

Basis of Puerto Rican Eligibility.—Puerto Rican residents are eligible for FHA insured loans under this program.²

Outlays

	Total	Puerto Rico
FY 1977 _____	\$1,148,771,000	\$11,576,000
FY 1976 _____	942,255,000	10,629,000
FY 1975 _____	720,819,000	5,946,000

Allotment Methodology.—This FHA program provides direct insurance for private lenders, i.e., banks and savings and loan associations. Those eligible to borrow under this program (an owner of

¹ 12 U.S.C.A. § 1701s(a).

² All participants in this program must also apply for and receive an FHA insured mortgage, e.g., § 221(d)(3) of the National Housing Act, 12 U.S.C.A. § 1715L(d)(3). Puerto Rico qualifies as a "State" under § 221(d)(3), therefore, it qualifies as a State for Rent Supplements; see 12 U.S.C.A. §§ 17101S(b), 1707(d), 1715L(c).

³ 12 U.S.C.A. § 1701s(d).

⁴ 12 U.S.C.A. § 1701s(e)(4).

⁵ 12 U.S.C.A. § 1701s(b), 24 C.F.R. 215.10, 15.

⁶ 12 U.S.C.A. § 1701s(c).

⁷ 24 C.F.R. 215.40. No more than 40 percent for projects under § 236 FHA insured loans; no more than 20 percent for projects under FHA insured mortgage issued under § 202 of the Housing Act of 1959, 12 U.S.C.A. § 1701q, Homes for the Elderly and Handicapped.

⁸ 12 U.S.C.A. § 1701s(a).

¹ 12 U.S.C.A. § 1703(a).

² 12 U.S.C.A. § 1706d.

the property to be improved or a long term rent lessee of that property) apply directly to the private lender for an FHA insured improvement loan. The eligible borrower may apply for four types of loans under this program:

(1) Class 1(a) loan—for the repair, alteration, or improvement of an existing structure or the real property surrounding it;

(2) Class 1(b) loan—for the repairs, alterations, or improvement of an existing structure used or to be used as an apartment house for two or more families provided the structure is not owned by a corporation;

(3) Class 2(a) loan—for the construction of a new nonresidential building;

(4) Class 2(b) loan—for the construction of a new nonresidential building for agricultural purposes.

Requirement for Funding.—Those property owners who wish to repair, alter, or improve their existing houses can apply for a class 1(a), class 2(a) or class 2(b) loan that will be insured up to \$15,000 for as long as 15 years and 32 days. The maximum insurable loan for apartments with two or more families (a class 2(b) loan) is \$5,000 per family apartment up to a \$25,000 limit. Refinancing is also available but the amount involved must fall within the above limits.³

The interest rate on these loans may not exceed 12 percent per annum and there is an insurance charge (premium) equal to ½ of 1 percent per year.⁴

Loans may be used by homeowners and renters to make improvements that substantially protect or enhance "the basic livability or utility of the property."⁵ Borrowers may use the money to install permanent appliances but not to build a swimming pool. Installation of fire safety or solar energy systems is considered a very worthy use of these funds. Lending institutions participating in this FHA program are only reimbursed for 90 percent of the net loss in the event of default. In addition, no single lender can amass more than 10 percent of FHA's total insurance contract in a given year.

Identifying Legal and Other Barriers.—No unusual barriers.

DEPARTMENT OF LABOR

Comprehensive Employment and Training Act (CETA) [CFDA 17.232]

(I) Title I (Comprehensive Manpower Training Services)

³ 12 U.S.C.A. § 1703(b), as amended by § 306 of Public Law 95-128, 91 Stat. 1111, 1134; 24 C.F.R. 201.3.

⁴ For interest maximum, see 24 C.F.R. 201.4(a); for insurance charge, see 24 C.F.R. 201.13.

⁵ 24 C.F.R. 201.6(b); for a list of permissible uses, see 24 C.F.R. 201.6(c)-(g).

(II) Title II (Public Service Employment)

(III) Title III (Youth Employment and Training)

(IV) Title VI (Emergency Jobs Program)

The Comprehensive Employment and Training Act of 1973, as amended,¹ authorizes a series of job training and employment programs to the chronically unemployed. These programs provide on-the-job training, classroom instruction, and jobs in both the private and public sector. In a congressional statement of purpose on CETA, it is declared:

It is the purpose of . . . [CETA] . . . to provide job training and employment opportunity for economically disadvantaged, unemployed, and underemployed persons, and to assure that training and other services lead to maximum employment opportunities and enhance self-sufficiency by establishing a flexible and decentralized system of Federal, State, and local programs.²

The following profiles describe the CETA program, title by title.

(I) CETA—Title I—Comprehensive Manpower Services

Summary of Purpose.—To provide funds to "prime sponsors" (the States and their political subdivisions) in order that they may provide job training and find jobs for those unemployed, underemployed, or economically disadvantaged.

Statutory Objective.— . . . [T]o establish a program to provide comprehensive manpower services throughout the Nation. Such programs shall include the development and creation of job opportunities and the training, education, and other services needed to enable individuals to secure and retain employment at their maximum capacity.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of Title I.²

Outlays

	Total	Puerto Rico
FY 1978 _____	\$1,743,294,000	\$41,024,000
FY 1977 _____	1,746,551,000	40,445,000
FY 1976* _____	1,927,842,000	44,101,000
FY 1975 _____	1,557,460,000	35,384,000

* Includes transition quarter.

Allotment Methodology.—The funds are allotted according to the following formula:³

¹ Public Law 93-203, 87 Stat. 839, 29 U.S.C.A. § 801 *et seq.*

² 29 U.S.C.A. § 801.

³ 29 U.S.C.A. § 811.

⁴ 29 U.S.C.A. § 981(a)(9).

⁵ 29 U.S.C.A. § 813.

(I) 80 percent of the yearly appropriation is allotted to "prime sponsors" in the following manner:

(a) 50 percent on the basis of the ratio between the State's manpower allotment in the previous year over the total of such allotments nationwide that year;

(b) 37½ percent in proportion to the number of unemployed persons in the State;

(c) 12½ percent in proportion to the number of adults in low-income families.

Of the above amounts, at least \$2 million must be allotted among Guam, the Virgin Islands, American Samoa, and the Trust Territories of the Pacific "in accordance with their respective needs."⁴

No "prime sponsor" in a State shall receive in excess of 150 percent nor less than 50 percent of the amount it received the preceding year.⁵

(II) One percent shall be allocated according to the formula in (I)(a)–(c) for State administrative expenses.⁶

(III) No more than 5 percent is allotted for the discretionary encouragement of voluntary combinations of local governments as sponsors of comprehensive manpower programs.⁷

(IV) 5 percent for supplemental vocational education assistance, but not to increase by more than 20 percent the total funds available under title I to any prime sponsor.⁸

(V) 4 percent for State services to prime sponsors in the State as required under 29 U.S.C.A. § 816.⁹

(VI) The remainder to be distributed on a discretionary basis with preference for (1) prime sponsors receiving less than 90 percent of the preceding year's funds; and (2) prime sponsors who have proved effective in training and placing the unemployed.¹⁰

Requirements for Funding.—Those entities eligible to receive CETA title I funds include: (1) States; (2) local governments serving a population of 100,000 or more; and (3) a consortium of local governments.¹¹ People eligible for training under title I include: (1) the unemployed; (2) the economically disadvantaged; (3) the underemployed; and (4) veterans.¹²

"Prime sponsors" must apply for CETA funds and develop a comprehensive manpower plan that

complies with all the purposes of, and regulations for, title I.¹³ Prime sponsors must provide job training services to eligible persons so that they may hopefully obtain a job in the private sector. Public and private employers may be used to provide "on-the-job training" or "work experience" for participants in the hope that the skills acquired will propel them into the private sector.¹⁴ Participants, while training, receive a basic allowance in lieu of wages.¹⁵

Identifying Legal and Other Barriers.—No unusual barriers.

CETA—Title II—Public Service Employment

Summary of Purpose.—To provide temporary jobs in government for the unemployed in regions with high unemployment rates (6.5 percent or greater).

Statutory Objective.— . . . [T]o provide unemployed and underemployed persons with transitional employment in jobs providing needed public services in areas qualifying for assistance and, wherever feasible, related training and manpower services to enable such persons to move into employment or training not supported under this [Title] . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rico is a "State" for purposes of title II.²

Outlays

	Total	Puerto Rico
FY 1977–78	\$1,540,000,000	\$39,441,000
FY 1976 ¹	1,778,645,000	57,426,000
FY 1975	342,902,000	15,332,000

¹ Includes transition quarter.

Allotment Methodology.—The funds for title II are distributed according to the following formula:³

(A) 80 percent in accordance with the number of unemployed residing in areas of substantial unemployment as compared to the national total of unemployed residing in all areas of substantial unemployment.⁴

(B) The remainder shall be disbursed on a discretionary basis.

¹³ 29 U.S.C.A. § 815(a). For the extra steps required of States acting as prime sponsors, see 29 U.S.C.A. § 816(b).

¹⁴ For a list of the types of manpower training programs authorized, see 29 C.F.R. 95.35.

¹⁵ 29 U.S.C.A. § 821, 29 C.F.R. 95.34.

¹ 29 U.S.C.A. § 841.

² 29 U.S.C.A. § 981(a)(9).

³ 29 U.S.C.A. § 842.

⁴ An area of substantial unemployment has an unemployment rate greater than 6.5 percent. 29 C.F.R. 94.4(c).

⁴ *Id.* at (a)(2)(D).

⁵ *Id.* at (a)(4).

⁶ *Id.* at (d).

⁷ *Id.* at (b).

⁸ *Id.* at (c). See 29 C.F.R. 95.50–59.

⁹ *Id.* at (e).

¹⁰ *Id.* at (f).

¹¹ 29 U.S.C.A. § 812, 29 C.F.R. 95.3(a).

¹² 29 C.F.R. 95.32.

Any governmental unit receiving money for title II programs must use at least 85 percent for wages and employee benefits for persons employed under the program, i.e., not more than 15 percent for administration.⁵

Requirements for Funding.—All governmental units eligible for title I funds are eligible for title II funds; however, the Congress prefers the funds to go to the smallest unit of government in an area of substantial unemployment.⁶

State and local governments that wish to use Federal CETA funds to employ people in public service jobs must make an application to the Department of Labor.⁷ The application must contain a number of assurances and guarantee that the CETA money is funding new jobs that would not be otherwise funded.⁸

Identifying Legal or Other Barriers.—No unusual barriers.

CETA Title III—Youth Employment and Training Programs

- (I) SUMMER JOBS
- (II) YOUTH COMMUNITY CONSERVATION AND IMPROVEMENT
- (III) YOUTH EMPLOYMENT AND TRAINING

NOTE: Title III contains a number of job programs for special groups such as youths, Indians, older people, and criminals.¹ For Puerto Rico, only the youth job programs have been important and they are summarized below.

Summary of Purpose.—To aid the States in providing job training and jobs to unemployed youths from low-income families through formula grants.

Statutory Objective.— . . . [T]o establish a variety of employment, training, and demonstration programs to explore methods of dealing with the structural unemployment problems of the Nation's youth . . . It is explicitly not the purpose of this part to provide makework opportunities for unemployed youth; instead, it is the purpose to provide youth, and particularly economically disadvantaged youth, with opportunities to learn and earn that will lead to meaningful employment opportunities after they have completed the program.²

The Secretary may provide financial assistance in urban and rural areas including areas having large

concentrations or proportions of low-income, unemployed persons, and rural areas having substantial outmigration to urban areas, for comprehensive work and training programs, and necessary supportive and followup services, including . . . (3) jobs . . . for economically disadvantaged youths during the summer months . . .³

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of the youth employment programs.⁴

Outlays

(I) Summer Jobs for Economically Disadvantaged Youths

	Total	Puerto Rico
FY 1978 _____	\$914,587,000	\$17,190,000
FY 1977 _____	619,643,000	14,623,000
FY 1976 _____	588,660,000	12,954,000
FY 1975 _____	473,350,000	11,342,000

(II) Youth Community Conservation and Improvement Projects

FY 1978 _____	453,833,000	11,558,000
FY 1977 _____	Not in existence	Not in existence

(III) Youth Employment and Training Programs

FY 1978 _____	88,550,000	1,986,000
FY 1977 _____	Not in existence	Not in existence

Allotment Methodology.—(I) *Summer Job Program.*

Funds available under 29 U.S.C.A. § 874(a) shall be allotted in the following manner:⁵

(A) For "prime sponsors" under Title I who apply for summer job funds. The money for prime sponsors is allocated according to the following formula:

(1) 50 percent allotted on the basis of each prime sponsor's proportion of the previous year's funds.

(2) 32½ percent allotted based on the ratio of number of unemployed persons in the prime sponsor's areas and the number of unemployed nationally,

(3) 12½ percent allotted according to the proportion of adults in low-income families in the prime sponsor's area as compared to the national total of such adults.

⁵ 29 U.S.C.A. § 843(b).

⁶ 29 C.F.R. 96.3, 29 U.S.C.A. § 844(a).

⁷ Assurances listed in 29 U.S.C.A. § 845(c).

⁸ 29 U.S.C.A. § 848(a)(1).

¹ 29 U.S.C.A. § 871(a).

² 29 U.S.C.A. § 891, added to title III by the Youth Employment and Demonstration Projects Act of 1977, Public Law 95-93, 91 Stat. 632.

³ 29 U.S.C.A. § 874(a).

⁴ 29 U.S.C.A. § 981(a)(9).

⁵ 29 C.F.R. 97.2(a).

(B) There is a separate formula for Indians.

(C) There is a separate allocation for Guam, the Virgin Islands, American Samoa, and the Trust Territories of the Pacific.

(II) Youth Community Conservation and Improvement Projects.

The funds appropriated for this program are distributed in the following manner: ⁶

(A) 75 percent allotted on the basis of the relative number of unemployed persons within each State as compared to all States;

(B) 2 percent for Indian youths,

(C) 2 percent for youths from migrant families,

(D) the remainder shall be allotted on a discretionary basis.

(III) Youth Employment and Training Programs.

Of the funds appropriated each year for this program:

(A) 75 percent shall be allotted to the States for use by title I "prime sponsors" according to the following formula: ⁷

(1) 37.5 percent allotted according to the relative number of unemployed persons within each State as compared with the total number of unemployed in the Nation,

(2) 37.5 percent allotted according to the relative number of unemployed persons residing in areas of substantial unemployment [a 6.5 percent or greater unemployment rate] within each State as compared to the total number of unemployed in all such areas in the Nation,

(3) 25 percent allocated in accordance with the relative number of persons in low-income families in each State as compared to the total of such persons in the Nation.

(B) 5 percent available to State Governors for special statewide youth services;

(C) 2 percent allocated to Indians;

(D) 2 percent allocated to youths from migrant farmworker families;

(E) The remainder disbursed on a discretionary basis.

Of the amounts allotted to each "prime sponsor," at least 22 percent must be used for in-school training of youths for jobs and for successful completion of high school.⁸

Requirement for Funding.—(I) Summer Jobs Program

"Prime sponsors" who receive title I money can

apply for grants under this summer jobs program.⁹ Youths age 14 to 21 from economically disadvantaged families may participate in the summer program.¹⁰ The prime sponsor should offer the same types of job training and jobs that it offers under title I.¹¹

(II) Youth Community Conservation and Improvement Project

The objective of this program is to provide employment, work experience, and skill training in community service jobs for unemployed youths age 16 to 19. Youths under this program can be employed for periods up to 12 months to rehabilitate and maintain public grounds and buildings.¹²

Prime sponsors under title I may apply for funds under the program. The application and the eventual contract between the sponsor and the Department of Labor must contain a number of assurances contained in 29 U.S.C.A. §§ 893d, 893e.

(III) Youth Employment and Training Program

This program provides special funds for a concentrated attack on structural unemployment problems for youths age 16 to 21.¹³ This program is designed to supplement and not to replace title I efforts in the job training area.

The program will provide these youths with training, support services, and job opportunities in community improvement projects.¹⁴

Prime sponsors under title I can apply for funds under this program.¹⁵ A significant amount of funds must be spent on programs carried out inside high schools. The purpose of this high-school-based effort is to teach job skills, provide part-time jobs, and to encourage the young participants to finish school and earn a high school diploma.¹⁶

Identifying Legal and Other Barriers.—No unusual barriers.

CETA Title VI—Emergency Jobs Program

Summary of Purpose.—To make formula grants to the States for the purpose of creating public service jobs for the long-term unemployed (15 weeks or more without a job).

Statutory Objective.— . . . [T]o make financial assistance available for the purpose of providing transitional employment for unemployed and under-

⁹ The application procedure and contents of an application are detailed in 29 C.F.R. 97.7-9.

¹⁰ 29 C.F.R. 97.15.

¹¹ 29 C.F.R. 97.16, 95.33.

¹² 29 U.S.C.A. §§ 893a(3)-(4), 893g.

¹³ For purpose, see 29 U.S.C.A. § 894, for definitions of eligible youths, see 29 U.S.C.A. § 894d(a).

¹⁴ For a list of all the possible activities, see 29 U.S.C.A. § 894a(a).

¹⁵ The application must contain a number of assurances contained in 29 U.S.C.A. § 894e(a).

¹⁶ 29 U.S.C.A. § 894e(c), also 29 U.S.C.A. § 894b(d).

⁶ 29 U.S.C.A. § 891b.

⁷ 29 U.S.C.A. § 894b(a)(1), (b)(1).

⁸ 29 U.S.C.A. § 894b(d).

employed persons in jobs providing needed public services and training and manpower services to such employment which are otherwise unavailable, and enabling such persons to move into employment not supported under this [program] . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rico is considered a "State" for purposes of this program.²

Outlays

	Total	Puerto Rico
FY 1977-78* ____	\$6,850,812,000	\$181,261,000
FY 1976** _____	1,623,007,000	45,727,000
FY 1975 _____	873,988,000	28,267,000

* 2-year appropriation that cannot be broken down by year.

** Includes transition quarter.

Allotment Methodology.—The funds appropriated each year are distributed in the following manner:³

(A) 2 percent for Indians.

(B) Not less than 90 percent to local "prime sponsors" under the title I program. The funds for these sponsors shall be distributed:

(1) 50 percent in proportion to the relative number of unemployed persons in the area of each prime sponsor as compared to the total number of such unemployed persons who live in the combined areas of all prime sponsors;

(2) 25 percent in proportion to the number of unemployed persons who live in areas of substantial unemployment⁴ within the jurisdiction of each prime sponsor as compared to the total number of unemployed in all areas of substantial unemployment.

(3) 25 percent on the basis of the relative "excess" number of unemployed within the jurisdiction of each sponsor as compared to the total "excess" number of unemployed persons who reside within the jurisdictions of all sponsors. "Excess" denotes an unemployment rate greater than 4.5 percent.

(C) The remainder can be allocated by the Department of Labor on a discretionary basis.⁵

Requirements for Funding.—Prime sponsors under title I can apply for funds under this program to

provide jobs to the unemployed and underemployed.⁶ The sponsors must provide public service jobs for the participants that will last at least 12 months.⁷ At least 85 percent of the funds received by a sponsor must be used for wages and employment benefits, i.e., no more than 15 percent for administration costs.⁸

Prime sponsors must reserve enough money each year to keep persons employed under this program in June 1976 in their jobs.⁹ These people must not be let go unless they find jobs elsewhere. Where vacancies occur in these "reserved" jobs, they shall be filled by:¹⁰

(1) 50 percent by long-term unemployed persons on welfare or such persons who have exhausted their unemployment benefits after 15 weeks,¹¹ and

(2) 50 percent by unemployed public health and safety personnel for public health and safety jobs.

Identifying Legal or Other Barriers.—No unusual barriers.

Employment Service Operating Grants to States (Title III) [CFDA 17.207]

Summary of Purpose.—To provide funds through formula grants to State Employment Services that seek to match unemployed jobseekers with available jobs.

Statutory Objective.— . . . [T]o promote and develop a national system of employment offices for men, women, and juniors who are legally qualified to engage in gainful occupations. . . . coordinating the public employment offices throughout the country and in increasing their usefulness by developing and prescribing minimum standards of efficiency, assisting them in meeting problems peculiar to their localities, promoting uniformity in their administrative and statistical procedure, furnishing and publishing information as to opportunities for employment and other information of value in the operation of the system, and maintaining a system for clearing labor between the several States.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of this program.²

⁶ The Congress has stated a preference to employ those who have been out of work for more than 15 weeks. 29 U.S.C.A. § 962(d).

⁷ 29 U.S.C.A. § 965.

⁸ 29 U.S.C.A. § 962(b).

⁹ 29 U.S.C.A. § 967(a).

¹⁰ 29 U.S.C.A. § 967(c).

¹¹ 29 U.S.C.A. § 968(a).

¹ 29 U.S.C.A. § 49b(a).

² *Id.* at (b).

¹ 29 U.S.C.A. § 962(a).

² 29 U.S.C.A. § 981(a)(9).

³ 29 U.S.C.A. § 963(a).

⁴ Areas of substantial unemployment have unemployment rates greater than 6.5 percent. 29 U.S.C.A. § 844(c).

⁵ 29 U.S.C.A. § 963(b).

Outlays

	Total	Puerto Rico
FY 1977	\$591,545,000	\$4,857,000
FY 1976	506,708,000	3,844,000
FY 1975	466,737,000	3,943,000

Allotment Methodology.—Employment Service (ES) funds are distributed according to a resource allocation formula (RAF) worked out each year by the Federal Employment Service. This discretionary formula seeks to award funds on an equitable basis to the States. Before 1975, the RAF awarded funds to each State on the basis of promised performance, i.e., promised job placements. The RAF now disburses funds on the basis of actual placement performance. Actual placement performance is currently measured by (1) the number of placements made, (2) the types of people placed, and (3) the types of jobs filled.³

Requirements for Funding.—Under the Wagner-Peyser Act of June 1933,⁴ the Federal Employment Service program has been set up to serve as a labor exchange that matches worker skills with job requirements. State Employment Service Agencies receiving Federal funds must perform the following tasks: (1) interview job seekers, (2) find job openings, (3) match jobseekers and prospective employers, (4) provide job counseling, and (5) provide labor market information.

Each State electing to participate in this program must accept the provisions of the Wagner-Peyser Act and designate a State agency to cooperate with the Federal Employment Service.⁵

The State legislature must pass an unemployment compensation law that complies with the Federal Unemployment Tax Act.⁶ The State agency must formulate a State plan that includes specific programs for the handicapped who seek work.⁷ Also, the State agency must forward to the Federal Government annual reports of its progress.⁸

Identifying Legal and Other Barriers.—No unusual barriers.

Job Corps (Title IV, CETA) [CFDA 17.211]

Summary of Purpose.—To set up employment training centers (Job Corps Centers) for low-income youths that will provide basic education, vocational

training, food, and health care for those participants so that each may have the best chance of securing a job.

Statutory Objective.—... [T]o assist young persons who need and can benefit from an unusually intensive program, operated in a group setting, to become more responsive, employable, and productive citizens; and to do so in a way that contributes, where feasible, to the development of National, State, and community resources, and to the development and dissemination of techniques for working with the disadvantages that can be widely utilized by public and private institutions and agencies."¹

Basis of Puerto Rican Eligibility.—Puerto Rico participates in the Job Corps program as a "State."²

NOTE: The States do not receive much money under this program because it is entirely run by the Department of Labor. The figures below represent the amount spent by the Department of Labor to set up and run Job Corps Centers in the Nation and in Puerto Rico.

Outlays.

	Total	Puerto Rico
FY 1976	\$91,269,000	\$1,543,000
FY 1975	167,419,000	1,393,000

There are very small sums paid by the Federal Government to the States for their recruitment of Job Corps participants and placement of them in permanent jobs.

Allotment Methodology.—There is no allotment formula. The Congress authorizes funds and maximum amounts expendable per trainee.³ The Department of Labor contracts with local government and private entities to build and operate Job Corps Centers and to carry out the basic education and training programs for the participants (the Job Corps members).⁴

Requirements for Funding.—Low-income youths age 14 to 22 who are permanent residents of the United States may participate in the Job Corps program.⁵ Fifty percent of the Job Corps enrollees should be female.⁶ No participant can remain in the Job Corps for more than 2 years.⁷ While in the Job

³ Employment and Training Administration Handbook 340.

⁴ June 6, 1933, c. 49, 48 Stat. 117, as amended.

⁵ 29 U.S.C.A. § 49c.

⁶ 42 U.S.C.A. § 503, 29 U.S.C.A. § 49d(b).

⁷ 29 U.S.C.A. § 49g.

⁸ 29 U.S.C.A. § 49h.

¹ 29 U.S.C.A. § 911.

² 29 U.S.C.A. § 981(a)(9).

³ 29 U.S.C.A. § 927(c).

⁴ 29 U.S.C.A. § 917; 29 C.F.R. 97a.21-25. For more information on State and local community participation in the Job Corps program, see 29 U.S.C.A. § 925 for States and 29 U.S.C.A. § 921 for local communities.

⁵ 29 U.S.C.A. § 913.

⁶ 29 U.S.C.A. § 927(b).

⁷ 29 U.S.C.A. § 916(a).

Corps, participants may receive cash allowances for subsistence, clothing, transportation, and other necessary expenses.⁸

Each Job Corps Center must provide basic education and training programs as well as health care for participants.⁹

Identifying Legal and Other Barriers.—No unusual barriers.

Migrant and Seasonal Farm Workers (§ 303, CETA) [CFDA 17.230]

Summary of Purpose.—To offer migrant farm workers (1) alternatives to farmwork or (2) opportunities to improve their standard of living if they choose to remain farmworkers through discretionary project grants. Unlike most job training programs, this migrant program must tend to the farmworkers' families as well as to the farmworkers themselves.

Statutory Objective.—The Congress finds and declares that (1) chronic seasonal unemployment and underemployment in the agricultural industry, substantially affected by recent advances in technology and mechanization, constitute a substantial portion of the Nation's rural manpower problem and substantially affects the entire national economy; (2) because of the special nature of certain farmworker manpower problems such programs can best be administered at the national level.¹

Basis of Puerto Rican Eligibility.—Puerto Rico participates in this program as a "State."²

Outlays

	Total	Puerto Rico
FY 1976	\$71,734,000	\$2,997,000

NOTE: Prior to FY 1976, migrant funds were reported under CETA title III and separate identification of program funds has not been possible.

Allotment Methodology.—Project grants awarded to State and local government units and to universities on a discretionary basis.

Requirements for Funding.—Prime sponsors under CETA title I³ and universities may bid for competitive project grants under this program. Twenty per-

¹ 29 U.S.C.A. § 919(a).

² For details of the programs, see 29 C.F.R. 97a.52 for education, 29 C.F.R. 97a.53 for vocational training, 29 C.F.R. 97a.61-70 for health care.

³ 29 U.S.C.A. § 873.

⁴ 29 U.S.C.A. § 981(a) (9).

⁵ Prime sponsors can be State or local government units eligible for Title I CETA job funds. Also see 29 C.F.R. 97.205.

cent of program funds will be set aside for special experimental projects and the remainder shall be awarded to sponsors in an "equitable" manner.⁴ However, no State can normally receive less than 90 percent of the State planning estimate as calculated by the Labor Department.⁵ The competitive bidding process in each State for grants is detailed in 29 C.F.R. 97.210-219.

The prime sponsors that receive money must provide an assortment of job training and education programs as well as health services.⁶ Persons eligible for this program must be from poor migrant or seasonal farmworker families.⁷ During the program, these persons are eligible for training allowances.⁸

Identifying Legal and Other Barriers.—No unusual barriers.

Unemployment Insurance Grants to States (UI) [CFDA 17.225]

- (I) Regular Unemployment Insurance (RUI) Grants for Administration
- (II) Extended Benefits (EB)
- (III) Federal Supplemental Benefits (FSB)
- (IV) Special Unemployment Assistance (SUA)

NOTE: All States operate their own unemployment compensation program (commonly referred to as UI, Unemployment Insurance). The State UI program has four components: (1) the regular unemployment insurance (RUI) program, (2) the Extended Benefits (EB) program, (3) the Federal Supplementary Benefits (FSB) program, and (4) the Special Unemployment Assistance (SUA) program. The Federal Government will reimburse the States for the administrative expenses of their RUI program. In addition, the Federal Government will provide matching grants to States in the Extended Benefit (EB) program and nonmatching grants in the Federal Supplementary Benefits (FSB) program to increase the length of unemployment benefits coverage when there is high unemployment. EB and FSB can add an additional 26 weeks to the State RUI benefit period (normally 26 weeks). For workers not covered by State Unemployment Insurance such as farmers and migrant workers, the Federal Government has used the Special Unemployment Assistance program to pay 100 percent of the cost of benefits for these workers uncovered by RUI. The SUA program has been terminated as well as the FSB program. The EB program is suspended during periods of low unemployment rates. A full description of each program is contained below.

⁴ 29 C.F.R. 97.204.

⁵ *Id.* at (c)(2); nonetheless, this lower limit may be ignored by the Labor Department.

⁶ See 29 C.F.R. 97.233.

⁷ 29 C.F.R. 97.232.

⁸ 29 C.F.R. 97.255.

(I) Regular Unemployment Insurance-Administration (RUI)

Summary of Purpose.—To reimburse the States for the necessary expenses for the administration of their unemployment (insurance) compensation laws through grants.

Statutory Objective.—... [F]or the purpose of assisting the States in the administration of their unemployment compensation laws . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rico received funds from this program as a "State".²

Outlays

(Administration Expense Reimbursement)

	Total	Puerto Rico
FY 1977	\$925,229,000	\$12,400,000
FY 1976	847,809,000	10,548,000
FY 1975	648,297,000	8,358,000

Allotment Methodology.—Each State that runs a Labor Department approved Unemployment Compensation program shall be reimbursed for the necessary expenses and costs for the administration of that program.³ The size of each State's reimbursement is determined by:⁴

- (1) The population of the State;
- (2) an estimate of the number of persons covered by the Unemployment Compensation program;
- (3) other factors considered relevant by the Labor Department.

These funds are drawn from the Federal Unemployment Trust Fund.⁵

Requirements for Funding.—Each State participating in this program must enact a RUI program consistent with the various provisions of title III of the Social Security Act⁶ and the Federal Unemployment Tax Act.⁷

Under the system set up by the Federal Unemployment Tax Act, employers pay to the Federal Government an excise tax on each employee's wage paid equal to 3.2 percent of the first \$6,000 in wages minus the employer's contribution to the State Un-

employment Compensation Fund (never more than 2.7 percent of the first \$6,000 in wages).⁸

Most State UI programs tax employers on the first \$4,200 of employee salaries at a maximum 2.7 percent rate. Puerto Rico, however, taxes the total salary of employees at a higher 3.0 percent rate. In addition, most States pay RUI benefits for as long as 26 weeks. Puerto Rico pays RUI for no more than 20 weeks.⁹ These differences are not mandated by Federal law and are entirely in the province of the State legislatures and unemployment compensation officials.

The Federal funds reimburse the States for all salaries and other employee expenses paid to run the State RUI program and public employment offices.¹⁰

Identifying Legal and Other Barriers.—No unusual barriers.

(II) Extended Benefits (EB)

Summary of Purpose.—To enable States, during periods of high unemployment, to continue paying unemployment benefits for an additional 13 weeks to people who have exhausted their right to regular unemployment compensation (RUI). These Extended Benefits (EB) are funded on a 50-50 matching basis.

Statutory Objective.—... [A] State law shall provide that payment of extended compensation shall be made, for any week of unemployment which begins in the individual's eligibility period, to individuals who have exhausted all rights to regular compensation under the State law and who have no rights to regular compensation with respect to such week under such law or any other State unemployment compensation law or to compensation under any other Federal law . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rico is treated as a "State" under this program.²

Outlays	Total	Puerto Rico
CY 1977	\$900,000,000	\$14,600,000
CY 1976	1,100,000,000	16,000,000
CY 1975	1,400,000,000	14,000,000

Allotment Methodology.—Each State shall establish an EB fund for each individual who has ex-

¹ 42 U.S.C.A. § 501.

² 42 U.S.C.A. § 1301(a)(1), 26 U.S.C.A. § 3306(j)(1)-(2).

³ For definition of "necessary expenses," see 43 U.S.C.A. § 1101(c)(1)(B).

⁴ 42 U.S.C.A. § 502(a).

⁵ 42 U.S.C.A. § 1101(c)(1)(A).

⁶ 42 U.S.C.A. § 503.

⁷ 26 U.S.C.A. § 3304.

⁸ 26 U.S.C.A. §§ 3301, 3302(a), 3306(b).

⁹ Department of Labor Draft for Puerto Rican Interagency Study, 2d ed., pp. 23-31.

¹⁰ 42 U.S.C.A. §§ 1101(c)(1)(B), 1103(c).

¹ 402, Public Law 91-373, as amended, 84 Stat. 708, Federal-State Extended Unemployment Compensation Act of 1970, 26 U.S.C.A. § 3304 note.

² § 203(8), Public Law 91-373, as amended, 26 U.S.C.A. § 3304 note.

hausted RUI equal to the cost of the following amounts: ³

- (1) 50 percent of the RUI payable to each individual who has exhausted RUI and is eligible for EB;
- (2) 13 times the average weekly benefit amount for the individual;
- (3) 39 times the weekly benefit for the individual minus RUI paid.

Half the amount of EB per eligible individual calculated (using the formula above) shall be paid each State by the Federal Government.⁴

Requirements for Funding.—EB is a special program for periods of high employment. It is triggered by a *national* unemployment rate (seasonally adjusted) of 4.5 percent or more for 13 consecutive weeks, or a *State* unemployment rate of 4 percent or more for 13 consecutive weeks that is 120 percent greater than the unemployment rate for the same 13 consecutive week period in the preceding 2 years. The EB program is suspended whenever the unemployment rate drops below 4.5 percent for the Nation, or 4 percent for the State for more than 13 weeks.⁵

The extended benefit period on the mainland is 13 weeks and in Puerto Rico it is 10 weeks. The shorter Puerto Rican EB period results from a shorter Puerto Rican RUI period of 20 weeks (versus 26 weeks on the mainland).

Identifying Legal and Other Barriers.—No unusual barriers.

(III) Federal Supplemental Benefits (FSB)

Summary of Purpose.—An emergency Federal program to pay the States to continue benefit payments for an additional 13 weeks to those who have exhausted regular unemployment benefits (RUI) and extended benefits (EB). The Federal Government shouldered 100 percent of the costs of this program.

NOTE: The FSB expired on January 31, 1978.

Statutory Objective.—Any State, . . . which desires to do so, may enter into and participate in an agreement with the Secretary under this Act; if such State law contains . . . a requirement that extended compensation be payable thereunder as provided in the Federal-State Extended Unemployment Compensation Act of 1970. . . . Any such agreement shall provide that the State agency of the State will make

³ § 202(b)(A)(B)(C), Public Law 91-373, as amended, 26 U.S.C.A. § 3304 note.

⁴ For more on this 50-50 matching requirement, see § 204(a), Public Law 91-373, 26 U.S.C.A. § 3304 note.

⁵ See § 203(d), Public Law 91-373 as amended, 26 U.S.C.A. § 3304 note.

payments of emergency compensation (1) to individuals who have exhausted all rights to regular compensation . . . [and] all rights to extended compensation . . .”¹

Basis of Puerto Rican Eligibility.—Puerto Rico participated in this program is a “State.”²

Outlays	Total	Puerto Rico
CY 1977 _____	\$1,200,000,000	\$26,800,000
CY 1976 _____	2,800,000,000	46,000,000
CY 1975 _____	2,400,000,000	35,000,000

Allotment Methodology.—The Federal Government paid the States 100 percent of the cost of continuing benefit payments to persons who had exhausted RUI and EB payments.³ The FSB amount payable equaled the amount paid under RUI to each eligible person.⁴ FSB was not paid for more than 13 weeks to an individual.⁵

The FSB was triggered in a State by (1) the EB trigger (set at 4.5 percent unemployment rate) and (2) a higher 5-percent rate in the State for a period of 13 consecutive weeks. FSB was terminated in a State when the unemployment rate dropped below 5 percent for more than 13 weeks.⁶

Identifying Legal and Other Barriers.—While the program existed, Puerto Rico did not encounter any unusual barriers.

(IV) Special Unemployment Assistance (SUA)—Transitional Benefits

Summary of Purpose.—To provide funds to States during periods of high unemployment so that they may make unemployment benefit payments to persons not covered and, hence, not eligible for RUI, EB, and FSB. These program costs are entirely paid by the Federal Government.

NOTE: SUA expired on June 30, 1978¹ but the same benefits will continue to be paid under the Transitional Benefit program.²

¹ § 102(a)-(b), Emergency Unemployment Compensation Act of 1974, Public Law 93-572. As amended, 26 U.S.C.A. § 3304 note.

² § 105(a)(1) of the Emergency Unemployment Compensation Act of 1974, Public Law 93-572 as amended, 26 U.S.C.A. § 3304 note, in reference to § 205(8) of the Federal-State Extended Unemployment Compensation Act of 1970, Public Law 91-373 as amended.

³ § 103(a), Emergency Unemployment Compensation Act of 1974, Public Law 93-572 as amended, 26 U.S.C.A. § 3304 note.

⁴ § 102(d)-(e), Emergency Unemployment Compensation Act of 1974, Public Law 93-572, 26 U.S.C.A. § 3304 note.

⁵ *Id.* at (e)(2).

⁶ *Id.* at (b)(2).

¹ § 208, Public Law 93-567, 88 Stat. 1850-53, as amended.

² § 121, Unemployment Compensation Amendments of 1976, Public Law 94-566, 90 Stat. 2673, enacted Oct. 20, 1976.

Statutory Objective.—I. SUA.— . . . [T]o establish a temporary Federal program of special unemployment assistance for workers who are unemployed during a period of aggravated unemployment and who are not otherwise eligible for unemployment allowance under any other law.³

II. *Transitional Benefits.*—If any State . . . provides for the payment of compensation for any week of unemployment beginning on or after January 1, 1978, on the basis of previously uncovered services, the Secretary shall pay to the unemployment fund of such State an amount equal to the Federal reimbursement for any compensation paid for a week of unemployment beginning on or after January 1, 1978, to any individual whose base period wages include wages for previously uncovered services.⁴

Basis of Puerto Rican Eligibility.—Puerto Rico participated in SUA as a "State."⁵ Though SUA expires at the end of June 1978, it is succeeded by a similar program, Transitional Benefits, that also classifies Puerto Rico as a "State."⁶

Outlays	Total	Puerto Rico
FY 1977	\$784,473,000	\$24,068,000
FY 1976	906,978,000	17,251,851
FY 1975	185,502,000	3,772,000

Allotment Methodology.—SUA benefits to eligible persons equaled RUI benefits for those persons covered by the State Unemployment Compensation laws for as long as 39 weeks.⁷ The Federal Government paid for 100 percent of the costs of this program.⁸

The SUA program terminated on June 30, 1978, and has been succeeded by the Transitional Benefits program. Any State that extends its RUI program to cover persons not previously covered (such as farmworkers) shall be reimbursed for a percentage of the cost of the benefits paid. In essence, this is a variable matching requirement. The reimbursement rate will vary with each person paid a benefit. The reimbursement rate shall equal the percentage of the RUI paid which has not been covered by previous payments into the Unemployment Tax system of the State.⁹ The Transitional Benefits program is a self-extinguishing program that will lapse after all employees recently included in the RUI system accumulate enough base-periods to be fully eligible for RUI.

Requirements for Funding.—All individuals who had received SUA or can receive Transitional Benefits are ineligible for RUI, EB, and FSB.¹⁰ The SUA benefits were paid only during periods of high unemployment as indicated by 3 consecutive months of an unemployment rate of 6 percent in the Nation or 6.5 percent in the State.¹¹ The Transitional Benefit program is not triggered by a high unemployment rate. It pays the States to cover farmworkers and other previously uncovered employees and assumes the risk for the States if those employees become unemployed and draw on RUI before they have accumulated enough time credit (or base period) in the RUI system.

Identifying Legal and Other Barriers.—No unusual barriers.

DEPARTMENT OF TRANSPORTATION

Highway Planning Construction (Federal-Aid Highway Program) [CFDA 20.205]*

Summary of Purpose.—To help States build primary and secondary State highways through the extension of formula matching grants (70-30 for most construction projects, 90-10 or 100-0 in a few other projects). The Interstate Highway program, which offers matching grants (90-10), overlaps with this program; however, Puerto Rico is not eligible for Interstate Highway funds.

Statutory Objective.—It is hereby declared to be in the national interest to accelerate the construction of the Federal-aid highway systems, including the National System of Interstate and Defense Highways, since many of such highways, or portions thereof, are in fact inadequate to meet the needs of local or interstate commerce, for the national and civil defense.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is eligible as a "State" for Federal funds to build primary and secondary roads² but is not eligible for Interstate Federal funds to build "Interstate" highways.³

Outlays	Total	Puerto Rico
FY 1977	\$5,500,000,000	\$11,300,000
FY 1976	5,900,000,000	18,700,000
FY 1975	4,400,000,000	12,900,000

* § 201, Public Law 93-567, Dec. 31, 1974, 88 Stat. 1850-53, as amended, 26 U.S.C.A. § 3304 note.

¹ § 121(a), Public Law 94-566, 26 U.S.C.A. § 3304 note.

² § 210(2), Public Law 93-567, as amended, 26 U.S.C.A. § 3304 note.

³ § 121(g)(1), Unemployment Compensation Amendments of 1976, Public Law 94-566, 90 Stat. 2673, 26 U.S.C.A. § 3304 note.

⁴ *Id.* at §§ 205(a), 206(a).

⁵ *Id.* at § 202.

⁶ § 121(a), (c)(1), Public Law 94-566, 26 U.S.C.A. § 3304 note.

¹⁰ An extensive definition of those individuals eligible for SUA is contained in § 203, Public Law 93-567, 26 U.S.C.A. § 3304 note.

¹¹ § 204, Public Law 93-567, 26 U.S.C.A. § 3304 note.

¹² 23 U.S.C.A. § 101(b).

² 23 U.S.C.A. § 101(a).

³ 23 U.S.C.A. § 103(c)(1).

Allotment Methodology.—Of the annually appropriated funds available to the States for the Federal-aid highway system (as distinguished from the Interstate Highway system), each State receives amounts determined by the following formula:

(A) For Federal-aid *primary road*, the funds are allotted: ⁴

(1) Two-thirds of the primary road amount distributed:

- (a) $\frac{1}{3}$ in the ratio of State rural areas to rural areas in all States,
- (b) $\frac{1}{3}$ in the ratio of State rural population to national rural population,
- (c) $\frac{1}{3}$ in the ratio of State rural delivery route mileage to total national rural delivery into mileage.

(2) One-third of the primary road amount distributed in the ratio of State urban population to national urban population.

No State other than the District of Columbia shall receive less than $\frac{1}{2}$ of 1 percent of primary road appropriations.

(B) For Federal-aid *secondary highways*, funds are allotted: ⁵

(1) $\frac{1}{3}$ in the ratio of State area to total area in all States,

(2) $\frac{1}{3}$ in the ratio of State rural population to total rural population in all States,

(3) $\frac{1}{3}$ in the ratio of State rural delivery route mileage to total rural delivery route mileage in all States.

No State other than the District of Columbia shall receive less than $\frac{1}{2}$ of 1 percent of each year's secondary road funds.

(C) For Federal-aid *urban highways*, funds are disbursed to each State in the ratio of State urban population to total urban population in all States. No State shall receive less than 1 percent of these funds.⁶ To help plan ways to use the urban highway funds, the Department of Transportation (DOT) will provide funds to Metropolitan Planning Organizations (MPO).⁷ Each MPO will receive funds in the ratio of its urban area population to that of population of all urban areas.⁸

Funds obtained by a State under the primary, secondary, and urban highway formulas can be transferred among the three highway categories. However, primary and secondary highway funds cannot

be increased by more than 40 percent by such transfers and urban highway funds cannot be increased by more than 20 percent by such transfers.⁹

Requirements for Funding.—Highway construction projects under the three Federal-aid categories—primary, secondary, and urban—must be approved by DOT. The State highway agency must submit to DOT all plans, surveys, specifications, and estimates.¹⁰ All projects must be covered by a "project agreement" between the State highway agency and DOT.¹¹ The State must give public notice and hold public hearings on all proposed projects.¹²

Most Federal-aid funds for highways must be matched 70-30. The Federal share will be increased by the percentage of untaxable land in the State, but the Federal share will never exceed 95 percent.¹³ Highway construction on the Federal-aid system need not be matched if it removes hazardous railroad-highway crossings.¹⁴ Interstate highway funds need only be matched at 90-10 but that highway program does not apply to Puerto Rico.¹⁵

Federal-aid highway funds are available for 3 years after the year of allocation.¹⁶ Such funds can be used for construction but *not for maintenance* of a Federal-aid highway.¹⁷ In contrast, the Interstate Highway program pays for some highway maintenance but there are, of course, no interstates in Puerto Rico to maintain.¹⁸

All States accepting Federal-aid highway money must enforce the 55 mile per hour speed limit.¹⁹

Identifying Legal and Other Barriers.—Puerto Rico receives State-like treatment in the Federal-aid highway program but is excluded from the Interstate Highway program. The matching rate on the Interstate program is more favorable (90-10) than on the Federal-aid program (70-30). In addition, the Interstate program pays part of the costs of highway maintenance while the other program does not.

Conclusions.—Puerto Rico receives State-like treatment under the Federal-aid highway program; however, the island is excluded from the Interstate Highway program.²⁰ The benefits to a State under the Interstate program are much greater than under the Federal-aid program. Whether Puerto Rico should receive funds for an Interstate highway con-

⁴ 23 U.S.C.A. § 104(b)(1).

⁵ *Id.* at (b)(2).

⁶ *Id.* at (b)(6).

⁷ 23 U.S.C.A. § 134; *See also* 23 U.S.C.A. § 150.

⁸ 23 U.S.C.A. § 104(f)(2).

⁹ *See* 23 U.S.C.A. § 104(c)(d).

¹⁰ 23 U.S.C.A. §§ 105(a), 106.

¹¹ 23 U.S.C.A. § 121(c).

¹² 23 U.S.C.A. § 128(a).

¹³ 23 U.S.C.A. § 120(a).

¹⁴ 23 U.S.C.A. § 120(d).

¹⁵ 23 U.S.C.A. § 120(c).

¹⁶ 23 U.S.C.A. § 118(b).

¹⁷ 23 U.S.C.A. § 116.

¹⁸ 23 U.S.C.A. § 107(b)(5)(B).

¹⁹ 23 U.S.C.A. § 154.

²⁰ Originally only the contiguous 48 States of the continental United States were eligible for Interstate funds. Once Hawaii and Alaska were admitted to the Union as States, the Congress made both eligible for Interstate funds in 1960. *See* § 17(b) of Public Law 86-624, 74 Stat. 411, and Public Law 86-70, 73 Stat. 144.

struction program or a program similar to it with generous matching (90-10) is a pure policy question for Congress. Congress has so far decided to include the islands of Hawaii in the program but to exclude the island of Puerto Rico.

State and Community Highway Safety (§ 402) [CFDA 20.600]

Summary of Purpose.—To help State and local governments establish and maintain highway safety education and construction programs which operate according to national standards through the extension of formula matching grants (70-30).

Statutory Objective.—Each State shall have a highway safety program approved by the Secretary, designed to reduce traffic accidents and deaths, injuries, and property damage resulting therefrom.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of this program.²

Outlays

I. National Highway Traffic Safety Administration (NHTSA) Funds

	Total	Puerto Rico
FY 1977	\$94,000,495,000	\$1,284,000
FY 1976	98,000,746,000	1,071,000
FY 1975	74,000,506,000	761,072

II. Federal Highway Administration (FHWA) Funds

FY 1977	15,000,425,000	144,000
FY 1976	16,000,956,000	235,000
FY 1975	13,000,477,000	201,000

Allotment Methodology.—Program funds are disbursed to the States by formula. The resulting allotment is divided between the National Highway Traffic Safety Administration (NHTSA) and the Federal Highway Administration (FHWA).³

The funds appropriated for this program are allocated among the States in the following manner:⁴

- (1) 75 percent in proportion to the State population as compared to the population of all States;

- (2) 25 percent in proportion to the public road mileage in each State as compared to the public road mileage in all States.

No "State" can receive less than 7 percent of total appropriated funds except Guam, the Virgin Islands, and American Samoa (which can receive as little as 1/3 of 1 percent).⁵ If any State does not develop an approved State highway safety program, its yearly allotment may be cut by as much as 50 percent.⁶

All Federal funds must be matched, the present matching rate is set at 70 to 30.⁷

Requirements for Funding.—Each State must submit each year a Highway Safety Plan to the Department of Transportation that covers activities under both NHTSA and FHWA. The program must be administered by a State agency responsible to the Governor. At least 40 percent of the Federal funds received should be devoted to local highway safety projects.⁸

Funds granted by NHTSA should be used for driver education, traffic control, vehicle inspections, etc. FHWA funds are used for highway safety design construction, pedestrian safety, and traffic engineering.⁹

Identifying Legal and Other Barriers.—No unusual barriers.

Urban Mass Transportation Capital and Operating Assistance Formula Grants (Section 5) [20.507]

Summary of Purpose.—To assist State and local governments to build and operate mass transit systems by extension of formula matching grants (80-20 for capital expenses, 50-50 for operating expenses).

Statutory Objective.—(1) To assist in the development of improved mass transportation facilities, equipment, techniques, and methods, with the cooperation of mass transportation companies both public and private;

- (2) to encourage the planning and establishment of areawide urban mass transportation systems needed for economical and desirable urban development, with the cooperation of mass transportation companies both public and private; and

- (3) to provide assistance to State and local governments and their instrumentalities in financing such systems, to be operated by public or private mass

¹ *Ibid.*

² *Ibid.*

³ 23 U.S.C.A. § 120(a)(A).

⁴ 23 U.S.C.A. § 402(b)(1). However, the 40 percent requirement may be waived if that percentage is too high in the given "State". See, *Ibid.* at (b)(2).

⁵ 23 U.S.C.A. § 402(a)(g).

¹ 23 U.S.C.A. § 402(a).

² 23 U.S.C.A. § 401.

³ The split administration office program is explained in 23 U.S.C.A. § 401 note.

⁴ 23 U.S.C.A. § 402(c).

transportation companies as determined by local needs.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of this program.²

Outlays

I. Capital Grants

	Total	Puerto Rico
FY 1977 _____	\$39,444,000	\$1,300,000
FY 1976 _____	25,515,000	-----
FY 1975 _____	9,062,000	-----

II. Operation Expense Grants

FY 1977 _____	571,771,000	6,100,000
FY 1976 _____	364,475,000	4,952,000
FY 1975 _____	142,521,000	2,954,000

Allotment Methodology.—Funds are made available to each "urbanized area"³ according to the following formula:⁴

(1) 50 percent to be distributed according to the ratio that the population of each "urbanized area" bears to the total population of all the "urbanized areas" in all the States;

(2) 50 percent to be distributed according to the ratio for each "urbanized area" determined on the basis of population weighed by a factor of density.

"Urbanized areas" with more than 200,000 people shall have a "designated recipient" selected by the Governor. The "designated recipient" will directly receive the allotment and dispense it in the area. "Urbanized areas" with less than 200,000 will have their allotments channeled through the Governor who will act as a "designated recipient" on their behalf.⁵

The funds allotted each year are available, if not spent during the year of the grant, for an additional 2 years.⁶

Funds used for capital projects must be matched 80-20, i.e., UMTA will cover up to 80 percent of the "net project costs." Those funds intended to cover the costs of operating expenses must be matched 50-50.⁷

¹ 49 U.S.C.A. § 1601.

² 49 U.S.C.A. § 1608(c)(1).

³ An "urbanized area" is designated by the U.S. Bureau of Census within boundaries fixed by State and local officials. 49 U.S.C.A. § 1604(a)(3).

⁴ 49 U.S.C.A. § 1604(b)(1).

⁵ 49 U.S.C.A. § 1604(b)(2)-(3).

⁶ 49 U.S.C.A. § 1604(c)(2).

⁷ 49 U.S.C.A. § 1604(e).

Requirements for Funding.—All projects carried out with funds under this program shall be based on a comprehensive area transportation plan worked out by State and local government officials.⁸ All project proposals must be submitted to both the Governor and UMTA for their respective comments.⁹

Public hearings must be held to consider the economic and social effects of each proposed project, as well as the environmental impact of such a project. Once these hearings are held, the Governor shall certify to UMTA that this has been done.¹⁰

Transit projects funded under this program must offer half-fare tickets to the elderly and the handicapped during nonrush-hour periods.¹¹

Identifying Legal and Other Barriers.—No unusual barriers.

Urban Mass Transportation Capital Improvement Grants (Section 3—Capital Grants) [CFDA 20.500]

Summary of Purpose.—To fund State and local government mass transit projects through matching grants (80-20) for land purchases, construction, and improvements.

Statutory Objective.—(1) To assist in the development of improved mass transportation facilities, equipment, techniques, and methods, with the cooperation of mass transportation companies both public and private;

(2) to encourage the planning and establishment of areawide urban mass transportation systems needed for economical and desirable urban development, with the cooperation of mass transportation companies both public and private; and

(3) to provide assistance to State and local governments and their instrumentalities in financing such systems, to be operated by public or private mass transportation companies as determined by local needs.¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of this program.²

Outlays	Total	Puerto Rico
FY 1977 _____	\$1,250,000,000	-----
FY 1976 _____	1,092,191,000	\$918,000
FY 1975 _____	1,196,601,000	17,400,000

⁸ 49 U.S.C.A. § 1604(g)(1).

⁹ *Ibid.* at (g)(3).

¹⁰ *Ibid.* at (i).

¹¹ *Ibid.* at (m).

¹ 49 U.S.C.A. § 1601.

² 49 U.S.C.A. § 1608(c)(1).

Allotment Methodology.—State and local governments may apply to the Urban Mass Transportation Administration (UMTA) for grants which are awarded on a discretionary basis.³

This program is designed to finance land purchase and construction for urban mass transportation system, i.e., capital expenditures. UMTA funds used for such capital purposes must be matched 80-20.⁴ By 1974 amendment, the State and local governments may apply one-half of the Federal funds received for operating expenses to improve and continue the mass transportation service.⁵ UMTA funds applied to operating expenses must be matched 50-50.⁶

Requirements for Funding.—This UMTA project grant program is designed to help cities and States build mass transportation systems in urban areas in need of such systems or improved systems. UMTA funds awarded here can be used to buy land, materials, buses, and trains, and to construct the system.

Any project proposal submitted by a State or local public agency to UMTA must comply with an area-wide comprehensive urban transportation plan.⁷ With an eye toward the comprehensive plan, the public agency must consider the economic and social impact of the proposal. The public agency must also encourage private sector participation in the project.⁸

All proposals for mass transportation programs must provide the public with notice and a hearing.⁹

The matching requirement is based upon "net project costs." Net project costs represent that portion of a project's costs that cannot be financed by mass transit passenger revenues. The Federal share of a project will cover, at most, 80 percent of the "net project cost."¹⁰

Identifying Legal and Other Barriers.—Puerto Rico did not receive section 3 funds in FY 1977 because Puerto Rico did not make requests for project funds during that year.

DEPARTMENT OF TREASURY OFFICE OF REVENUE SHARING

Antirecessional Financial Assistance* (Title II—Countercyclical Aid)

Summary of Purpose.—A program of direct emergency Federal assistance for State and local governments hardest hit by the recession to fund basic governmental services threatened by budget cuts.

* 49 U.S.C.A. § 1602(a).

* 49 U.S.C.A. § 1603(a).

* 49 U.S.C.A. § 1602(b) as added in 1974 by Public Law 93-500.

* *Ibid.*, 49 U.S.C.A. § 1604(e).

* 49 U.S.C.A. § 1602(a)(2).

* 49 U.S.C.A. § 1603(a).

* 49 U.S.C.A. § 1602(d).

* 49 U.S.C.A. § 1603(a).

Statutory Objective.—... [E]fforts by the Federal Government to stimulate the economic recovery will be substantially enhanced by a program of emergency Federal Government assistance to State and local governments to help prevent those governments from taking budget-related actions which undermine the Federal Government efforts to stimulate economic recovery.¹

Basis of Puerto Rican Eligibility.—This aid program disbursed its first funds to the States (excluding Puerto Rico) in FY 1977. By amendment in 1977, Puerto Rico and U.S. territories were made eligible for aid,² by sharing a 1-percent set-aside of the total funds available for distribution.

Outlays	Total	Puerto Rico
FY 1978		
(1st quarter) —	\$424,351,000	\$3,699,000
FY 1977 —	1,698,815,000	8,742,000

Allotment Methodology.—Under a set-aside provision in the recent amendment to the Antirecessional Financial Aid Act,³ Puerto Rico, Guam, American Samoa, and the Virgin Islands share in an amount equal to 1 percent of the amount disbursed to the States of the Union each quarter.⁴ The amount is divided among the territories on the basis of population; therefore, Puerto Rico does receive most of the set-aside funds.⁵

The amount that the States originally funded under the 1976 act receive varies with the unemployment rate and automatically terminates when the national unemployment rate drops below 6 percent.⁶ The amount disbursed nationally each quarter equals \$125 million, plus the amount of \$30 million multiplied by the number of whole-one-tenth percentage points that the national unemployment rate exceeds 6 percent in the previous quarter.⁷

Requirements for Funding.—Funds are distributed to the Governor of Puerto Rico which, in his discretion, and in accordance with the laws and procedures applicable to the expenditures of Puerto Rico's own revenue may be distributed to local governments.⁸ Those funds cannot be used for capital

¹ § 201 of the Public Works Act of 1976, Public Law 94-369, 90 Stat. 1012, 42 U.S.C.A. § 6721(7).

² See § 216 of the Public Works Act of 1976, as amended by Public Law 95-30, 91 Stat. 164, 42 U.S.C.A. § 6736(a).

³ *Ibid.*

⁴ *Ibid.*

⁵ *Id.* at (b). Also, note that payments are made to the Governor of Puerto Rico and not directly to the local governments. See 42 U.S.C.A. § 6736(c).

⁶ 42 U.S.C.A. § 6722(d).

⁷ *Id.* at (b).

⁸ 42 U.S.C.A. § 6736(c).

construction but only for maintenance of basic governmental services that would otherwise be terminated.⁹ All wages on construction projects must equal "those prevailing on similar projects in the locality . . . in accordance with the Davis-Bacon Act (40 U.S.C. §§ 276a to 276a-5)."¹⁰ Each government unit receiving money must file a Statement of Assurance with the Office of Revenue Sharing in order to be eligible for the money.¹¹

Identifying Legal and Other Barriers.—Puerto Rico is not treated as a "State" in this program. The Congress has justified this disparate treatment because it apparently believes that the data needed to operate the normal allocation formula¹² does not exist in or is not reliable for Puerto Rico and other territories. A detailed discussion of this program is contained in chapter III.

Under the present set-aside formulas, whatever aid that Puerto Rico does receive is dependent upon national unemployment figures. Even if Puerto Rico were integrated into the regular allocation system, its receipts would still be tied to the national rather than the local unemployment rate.

Conclusions.—Puerto Rico receives a portion of a set-aside and is not accorded State-like treatment.

SMALL BUSINESS ADMINISTRATION

Economic Opportunity Loans for Small Businesses—(EOL) [CFDA 59.003]

Summary of Purpose.—To make loans and loan guarantees available to small businesses (1) located in low-income areas, or (2) owned by low-income persons so that they may establish, preserve, and strengthen themselves.

Statutory Objective.—[T]o make, participate (on an immediate basis) in, or guarantee loans, . . . to any small business concern, or to any qualified person seeking to establish such a concern . . . located in urban or rural areas with high proportions of unemployed or low-income individuals, or owned by low-income individuals . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of this program.²

⁹ 42 U.S.C.A. § 6724.

¹⁰ 42 U.S.C.A. § 6728.

¹¹ For contents of Statement of Assurance, see 42 U.S.C.A. § 6725. Necessity for such a Statement is mentioned in 42 U.S.C.A. § 6730(a).

¹² Allocation formula for eligible State and local governments is contained in 42 U.S.C.A. § 6723.

¹ 15 U.S.C.A. § 636(i)(1).

² 15 U.S.C.A. § 633(a).

Outlays

(I) Loan Guarantees (Deferred Participation)

	Total	Puerto Rico
FY 1977	\$44,700,000	\$6,000,000
FY 1976	28,300,000	11,300,000
FY 1975	19,000,000	900,000

(II) Direct Loans

FY 1977	59,600,000	4,900,000
FY 1976	53,800,000	4,600,000
FY 1975	53,900,000	5,300,000

(III) Immediate Participation Loans

FY 1977	400,000	100,000
FY 1976	200,000	—
FY 1975	700,000	400,000

Allotment Methodology.—Small businesses and potential entrepreneurs make applications to the SBA for Economic Opportunity Loans (EOL). EOL's are awarded on a discretionary basis; the only limitation on that discretion mandates that at least 50 percent of the loans and loan guarantees go to businesses in very poor urban areas.³

Requirements for Funding.—The SBA may make loans or loan guarantees to (1) small businesses in very poor areas seeking to get started or to expand; or (2) low-income persons seeking to set up a business. The total EOL assistance to any single business-borrower cannot exceed \$100,000. The SBA may require as a condition for any EOL loan that the business-borrower take an approved management training course "of sufficient scope and duration to provide reasonable opportunity for individuals served to develop entrepreneurial and managerial self-sufficiency."⁴

EOL loans will only be extended to applicants who show that credit is not otherwise obtainable at reasonable rates and that they can reasonably assure repayment.⁵

Interest rates on such loans will equal the average market interest rate on U.S. Treasury obligations plus an additional charge for administrative expenses. The interest rates on loans to businesses located in "redevelopment areas" designated by the Economic Development Administration (EDA) of the Department of Commerce shall not exceed the interest rate

³ 15 U.S.C.A. § 636(i)(6).

⁴ 15 U.S.C.A. § 636(i)(1), 13 C.F.R. 119.21

⁵ *Id.* at (i)(5).

on EDA loans under the Public Works and Development Facilities Loan Program [CFDA 11.300].⁶

Loans may be extended for up to 10 years for working capital and 15 years for realty acquisition. Loan guarantees may only cover 90 percent of the value of the already negotiated loan between the borrower and private lender.⁷

No application for a loan will be accepted if the proposed project involves relocation and will increase unemployment in the original location.⁸

Identifying Legal and Other Barriers.—No unusual barriers.

Physical Disaster Loans (§ 7b Loans) [CFDA 59.008]

Summary of Purpose.—To provide low interest loans to businesses and farms substantially injured by natural disasters or civil disorders without regard to available private sources of loans.

Statutory Objective.— . . . [T]o make such loans (either directly or in cooperation with banks or other lending institutions through agreements to participate on an immediate or deferred basis) as the Administration [SBA] may determine to be necessary or appropriate because of floods, riots or civil disorders, or other catastrophes . . .¹

Basis of Puerto Rican Eligibility.—Puerto Rico is classified as a "State" for purposes of this program.²

Outlays

(I) Loan Guarantees (Deferred Participation)

	Total	Puerto Rico
FY 1977	\$1,600,000	----
FY 1976	1,800,000	----
FY 1975	4,100,000	----

(II) Direct Loans

FY 1977	352,600,000	\$500,000
FY 1976	175,200,000	26,200,000
FY 1975	236,200,000	10,800,000

(III) Immediate Participation Loans

FY 1977	4,600,000	----
FY 1976	11,600,000	----
FY 1975	5,200,000	----

⁶ 15 U.S.C.A. § 636(i)(5)(D).

⁷ 13 C.F.R. 119.31.

⁸ *Id.* at (i)(7).

¹ 15 U.S.C.A. § 636(b)(1).

² 15 U.S.C.A. § 633(a).

Allotment Methodology.—Disaster loans are made to small businesses and farms on a need basis. No allotment formula exists.

Requirements for Funding.—Small businesses and farms may receive low-interest disaster loans to rebuild if they have suffered substantial economic injury from floods, riots, or civil disorders. If the small business or farm is located in a region officially declared a major disaster area, SBA disaster loans are available regardless of other potential sources of loaned funds. If the business or farm is located in an area *not* officially declared a disaster area, it must show the unavailability of farm credit from other sources.³ Loans may be made for up to a 30-year term, which may be extended 5 years if necessary for orderly liquidation of the loans. The interest rate on direct loans under \$25,000 shall be 3 percent.⁴ The interest on any other disaster loan shall not exceed the Federal interest rate on obligations in effect at the time the disaster occurred. Loan guarantees shall not cover more than 90 percent of the value of the loan between the borrower and private lender.

A "small business" is defined as any independently owned and operated business or farm that is not dominant in its field of operation.⁵ Disaster loans are available to small businesses as well as homeowners, churches, and schools.

As an experiment, the SBA will loan homeowners struck by disaster an additional \$2,000 to pay for better insulation in the new or reconstructed homes.

Identifying Legal or Other Barriers.—No unusual barriers.

Small Business Loans—(§ 7a Loans) [CFDA 59.012]

Summary of Purpose.—To aid small businesses which are unable to obtain financing in the private credit market through the extension of direct loans and loans guarantees.

Statutory Objective.—It is the declared policy of the Congress that the Government should aid, counsel, assist, and protect, insofar as is possible, the interests of small business concerns in order to preserve free competitive enterprise . . .¹

The Administration [SBA] is empowered to make loans to enable small business concerns to finance plant construction, conversion, or expansion, including the acquisition of land; or to finance residential or commercial construction or rehabilitation for sale . . .²

³ 15 U.S.C.A. § 636(b)(2).

⁴ *Id.* at (b)(2)(E).

⁵ 15 U.S.C.A. § 632.

¹ 15 U.S.C.A. § 631(a).

² 15 U.S.C.A. § 636(a).

Basis of Puerto Rican Eligibility.—Puerto Rico may participate in this program as a "State."³

Outlays

(I) Loan Guarantees (Deferred Participation)

	Total	Puerto Rico
FY 1977	\$2,302,600,000	\$26,200,000
FY 1976	1,550,700,000	13,900,000
FY 1975	1,102,700,000	5,700,000

(II) Direct Loans

FY 1977	194,700,000	2,600,000
FY 1976	118,100,000	2,000,000
FY 1975	114,100,000	2,100,000

(III) Immediate Participation Loans

FY 1977	12,600,000	—
FY 1976	3,500,000	—
FY 1975	30,400,000	400,000

Allotment Methodology.—No allotment formula exists for this program. The amount of loans extended is limited only by the annual national program budget. The Small Business Administration (SBA) may make three types of loans to small businesses: (1) direct loans, (2) loan guarantees referred to as "deferred basis loans," and (3) immediate participation loans.

Requirements for Funding.—No SBA § 7a loan will be extended unless the small business-applicant demonstrates that no other source of credit on reasonable terms exists. A potential small business-applicant must be able to assure repayment. Direct loans may cover 100 percent of financial needs but the loan guarantee may only cover 90 percent of the private loan negotiated between the small business

and a private lender. No small business shall be eligible for more than \$500,000 in SBA loans, nor more than \$350,000 in immediate participation loans.⁴

According to statute, the SBA must first offer an applicant a loan guarantee (deferred participation loan), and if that is not practicable, offer the applicant an immediate participation loan. If neither of the two participation loans are available to the applicant, the SBA should then use its own funds to make a direct loan.⁵ In reality, very few immediate participation loans were made in Puerto Rico and most loans made were of the loan guarantee variety.

The SBA shall charge an interest rate on these loans equal to the average annual interest rate on all Federal obligations the preceding year. The normal term of such a loan is 10 years except it may be as long as 20 years for loans used to purchase real estate or to construct facilities.⁶ In addition, any loan can be extended an additional 10 years at the discretion of the SBA.⁷

Small businesses are defined as independently owned and operated businesses or farms that are not dominant in their field of operation.⁸ The SBA encourages small business concerns to pool their resources and apply for joint loans with a total loan limit of \$250,000 multiplied by each participant in the pool.⁹ Such loan pool entities will be exempt from Federal antitrust laws.¹⁰

Identifying Legal and Other Barriers.—Puerto Rico receives State-like treatment under this program. It takes advantage of all loan subprograms except the immediate participation loan subprogram. That loan subprogram forms only a small part of the national program and appears to be the least favorable subprogram from the standpoint of prospective private lenders and small business borrowers. Direct loans provide the most favorable interest and terms to Puerto Rican small businesses followed by loan guarantees.

⁴ 15 U.S.C.A. § 636(a)(1).

⁵ *Id.* at (a)(2).

⁶ *Id.* at (a)(4).

⁷ *Id.* at (c).

⁸ 15 U.S.C.A. § 632.

⁹ 15 U.S.C.A. § 636(a)(5)–(6).

¹⁰ *Id.*

³ 15 U.S.C.A. § 633(a).

Appendix I

Inventory of Federal Programs Applicable to Puerto Rico, Fiscal Years 1970-77

INTRODUCTION

The purpose of this appendix is to provide a Federal program reference document which identifies specific Federal program outlays to Puerto Rico from FY 1970 to FY 1977, FY 1977 being the last year for which aggregate information is available. This identification is useful in that it sets forth, in a single format, a list of specific Federal assistance programs that have operated in Puerto Rico at some time between FY 1970 to FY 1977, with outlay figures for each year.

The programs and their total amounts which are referenced have been compiled from the Federal Outlays Booklet which is published annually by the Community Services Administration (CSA). In most cases the outlay figures represent obligations. Outlay figures which are reported by agencies on other bases are denoted by a capital letter in parentheses placed after the program name.¹

Program entries have been organized under agency and subagency divisions. The agency and subagency divisions used in the 1977 Catalogue of Federal Domestic Assistance (CFDA) have been used in this inventory. Those programs that terminated operation in Puerto Rico before 1977 have been placed under subagency divisions that they most likely would have operated under if they were functioning today.

¹ Outlays reported by cost are denoted with a (C); by expenditure with an (E); by the face value of the loan by an (F); and, if by other methods, with a (P).

This inventory does not represent a definitive listing of all Federal obligations and expenditures in Puerto Rico. Nor does it represent a listing of all programs for which Puerto Rico is eligible and in which it actually participates. There are three reasons for the inconclusiveness of this listing.

First, *defense expenditures are not included*. Second, *the definition of Federal assistance employed limits entries in the Federal Outlays document*.² Under this definition, grants-in-aid (formula, set-aside, and discretionary) and loans and loan guarantees are included; but *the following are excluded: all Federal administrative expenses (such as salaries), consolidated working funds, trust funds, payments for services rendered, and aid that is not disbursed at State and local levels*. Third, *the procedure for compiling the CSA document is far from complete*. This results from the nature of the compilation procedure used. The booklet is compiled each year from preliminary—not final—figures which are supplied to CSA by each agency. There is thus no procedure for requiring detailed program information. If Puerto Rico did not participate in a program, or if no outlay took place (or if none was reported for that year) the program will never appear in the data.

² The Office of Management and Budget (OMB) definition has been used for compiling this attachment. This definition defines Federal assistance as "the flow of resources in support of State and local government functions which serve a national purpose, (including) resources channeled to quasi-governmental and private nonprofit institutions where the use is primarily to provide new, or to augment existing government services. *Special Analysis, Budget of the United States, Fiscal year 1969*, at 158.

SUMMARY TABLE OF INVENTORY STATISTICS

BY DEPARTMENT

Puerto Rico Federal Outlays

[In thousands of dollars]

Departments and agencies	1970		1971		1972		1973	
	Loans and loan guarantees	Grants	Loans and loan guarantees	Grants	Loans and loan guarantees	Grants	Loans and loan guarantees	Grants
Department of Agriculture	[13,260]	18,909	[19,157]	18,825	[21,179]	79,450	[50,243]	95,613
Department of Commerce	[2,344]	7,975	[5,606]	8,278	[4,051]	1,305	[409]	2,583
Department of Health, Education, and Welfare	[1,144]	322,396	[1,357]	336,788	[2,425]	414,994	[5,702]	687,762
Department of Housing and Urban Development	[35,137]	25,185	[61,355]	15,606	[4,607]	21,646	[12,361]	6,119
Department of Interior		5,483		1,799		2,278		3,615
Department of Justice		2,981		5,066		7,111		7,984
Department of Labor		17,615		39,801		82,767		50,743
Department of Transportation		20,169		16,584		15,173		18,062
Energy Research and Development Administration				3,882		2,757		3,821
Equal Employment Opportunity Commission								
General Services Administration	[21]		[677]					
National Foundation of Arts and Humanities		35		87		153		184
Community Services Administration		8,057		7,729		4,521		22,931
Department of Railroad Retirement Board				88				154
Small Business Administration	[9,322]		[31,030]		[14,593]		[18,439]	
Veterans Administration	[39,170]	82,736	[30,320]	102,567		115,003	[42,510]	139,838
Water Resources Council		64		95		91		76
Environmental Protection Agency				18,748		4,307		1,089
ACTION						1,564		958
Annual totals	[100,398]	511,605	[149,502]	575,893	[46,855]	753,120	[129,664]	1,041,532
Departments and agencies	1974		1975		1976		1977	
	Loans and loan guarantees	Grants	Loans and loan guarantees	Grants	Loans and loan guarantees	Grants	Loans and loan guarantees	Grants
Department of Agriculture	[44,073]	107,648	[42,622]	354,293	[124,204]	670,808	[177,344]	746,639
Department of Commerce		4,551		4,291	[2,770]	9,463	[504]	286,963
Department of Health, Education, and Welfare	[5,626]	594,385	[5,913]	729,999	[5,873]	915,135	[6,754]	1,097,529
Department of Housing and Urban Development	[13,607]	26,557	[7,052]	27,138	[6,067]	34,331	[8,868]	94,213
Department of Interior		3,546		2,604		1,815		3,267
Department of Justice		8,480		7,704		8,922		8,411
Department of Labor		61,269		124,759		139,864		221,355
Department of Transportation		39,709		34,842		82,127		49,868
Energy Research and Development Administration		3,935		4,298		3,119		2,596
Equal Employment Opportunity Commission				35		84		75
General Services Administration	39		[59]		[2]		[3,891]	
National Foundation of Arts and Humanities		337		391		323		691
Community Services Administration		13,142		18,744		9,551		17,935
Department of Railroad Retirement Board		180		200		288		408
Small Business Administration	[23,714]		[22,706]		[60,506]		[39,622]	
Veterans Administration		160,361		195,956	90,576	222,824	110,076	220,374
Water Resources Council		76		104		104		58
Environmental Protection Agency		21,226		32,925		39,972		86,638
ACTION		143		265		1,614		1,965
Annual totals	[87,059]	1,045,545	[78,352]	1,538,557	[289,996]	2,140,344	[347,059]	2,838,985

NOTE: Figures in brackets represent loans and loan quantities.

DETAILED INVENTORY STATISTICS

BY PROGRAM

Inventory of Federal Programs in Puerto Rico, Fiscal Years 1970-77

[In thousands of dollars]

Departments' and agencies' programs	1970	1971	1972	1973	1974	1975	1976	1977
DEPARTMENT OF AGRICULTURE								
Agricultural Research Service:								
Agricultural Research—Basic and Applied Research	1	507	101	680	784	856	1	1
Animal and Plant Health Inspection Service:								
Plant and Animal Disease and Pest Control	1	1,248	868	1,723	2,192	1,817	1,336	2,863
Assistance to State for Intrastate Meat and Poultry Inspection	1	1	1	1	1	1	8	6
Meat and Poultry Inspection	1	264	1	1,103	1,076	1,158	1,243	1,381
Agricultural Stabilization and Conservation Service:								
Agricultural Conservation Program (E)	793	743	1	1	1	865	472	526
Conservation Technical Assistance	717	674	800	1	1	1	1	1
Emergency Conservation Measures (E)	1	179	214	1	1	1	571	450
Forestry Incentives Program	1	1	1	1	1	1	2	8
Sugar Act Program (E)	7,649	6,158	4,267	3,813	3,223	3,269	3,370	1
Commodity Inventory Operation (F)	2,717	1,290	1,097	2,223	3,100	593	69	302
Dairy and Beekeeper Indemnity Payments (E)	1	1	1	1	9	2	1	2
Agricultural Marketing Service:								
Agricultural Product Grading (C)	1	1	1	444	523	537	636	639
Purchase of Commodities (E)	1	1	1	41	1	1	4	3
Cooperative State Research Service:								
Payments to Agricultural Experiment Stations								
Under Hatch Act	1,534	1,668	1,754	1,850	1,873	2,032	2,202	2,499
Rural Development Research	1	1	1	1	34	34	34	34
Farmers Home Administration:								
Emergency Disaster Loans	[4]	[226]	[19]	[8,054]	[3,176]	[11,137]	[927]	[56]
Farm Operating Loans	[1,196]	[859]	[746]	[700]	[1,317]	[1,078]	[1,451]	[3,855]
Farm Ownership Loans	[1,291]	[622]	[629]	[1,324]	[3,128]	[2,861]	[5,635]	[4,851]
Nonfarm Enterprise Loans	[55]	[35]	1	1	[29]	[76]	[103]	[381]
Low- to Moderate-Income Housing Loans	[9,027]	[16,371]	[18,941]	[38,319]	[22,706]	[22,619]	[47,390]	[85,459]
Rural Housing Site Loans	1	[90]	[200]	1	1	[116]	1	1
Very Low-Income Housing Repair Loans	[289]	[278]	[100]	[192]	[417]	[479]	[480]	[739]
Business and Industrial Development Loans	1	1	1	1	[150]	[3,000]	[16,763]	[18,691]
Business and Industrial Development Grants	1	1	1	1	1	473	404	340
Water and Waste Disposal Systems for Rural Communities Loans	1	[209]	1	[1,648]	[75]	[1,156]	[17,009]	[17,433]
Water and Waste Disposal Systems/Grants	1	231	62	164	1	1,056	2,570	715
Water System Loans	[511]	1	[366]	1	1	1	1	1
Water System Development Grants	199	103	348	1	1	1	1	1
Sewer System Loans	[820]	[424]	[137]	1	1	1	1	1
Sewer System Development Grants	403	253	233	1	1	1	1	1
Recreation Facility Loans	1	[8]	1	1	[235]	[5]	[12]	[41]
Soil and Water Loans to Individuals	[67]	[35]	[41]	[6]	[6]	[5]	[32]	[63]
Community Facilities Loans	1	1	1	1	1	[90]	1	[5,935]
Rural Community Fire Protection Grants	1	1	1	1	1	1	[12]	[14]
Extension Service:								
Cooperative Extension Service	3,070	3,550	3,812	3,937	4,012	4,209	4,499	4,438
Food and Nutrition Service:								
Food Distribution (D)	1	871	42,435	55,655	57,702	14,707	8,131	18,064
Food Stamp Bonus Coupons	1	1	1	1	1	280,483	593,113	616,758
Other Food Stamp Program Costs	1	1	1	1	1	1	1	20,283
School Breakfast Program	1	1	288	313	799	3,684	4,157	7,137
Nonfood Assistance for Schools' Food Service Programs	1	1	264	138	284	296	404	338
National School Lunch Program	811	1	21,493	21,425	29,566	32,908	37,872	53,749
Special Supplemental Food Program for Women, Infants, and Children	1	1	1	1	241	2,156	6,015	9,273
Special Food Service for Children	208	1	280	194	111	740	1	1
Special Milk	1	1	1	1	1	1	1	176
Summer Food Service Program for Children	1	1	1	1	1	1	1,054	2,435

1 No figure for given year in Federal Outlay booklet.

2 Figure under \$500.00.

Inventory of Federal Programs in Puerto Rico, Fiscal Years 1970-77—Continued

[In thousands of dollars]

Departments' and agencies' programs	1970	1971	1972	1973	1974	1975	1976	1977
Forest Service:								
Cooperation in Forest Management and Processing	1	1	1	1	1	1	31	37
Cooperation in Forest Tree Planning	1	1	1	1	1	1	3	4
Forest Protection and Utilization	520	545	560	561	802	902	1,000	1,127
Forest Roads and Trails	27	49	44	42	24	31	29	29
Payments to States, National Forest Fund	2	2	2	2	3	3	2	1
Youth Conservation Corps—Grant to States	1	1	1	1	1	24	40	56
Rural Development Service:								
Rural Electrification Loans and Loan Guarantees	1	1	1	1	[12,834]	1	[9,402]	[20,540]
Rural Telephone Loans and Loan Guarantees	1	1	1	1	1	1	[25,000]	1
Soil Conservation Service:								
Resource Conservation and Development	1	3	7	16	48	38	9	25
River Basin Surveys and Investigations	1	1	28	8	17	7	4	5
Soil and Water Conservation	1	1	7	835	919	1,032	1,088	1,145
Land and Inventory Monitoring	1	1	1	1	1	1	1	55
Soil Survey	144	151	165	160	161	155	154	149
Watershed Planning	1	1	8	41	39	119	134	141
Watershed Protection and Flood Prevention	115	336	313	244	106	107	136	892
DEPARTMENT OF COMMERCE								
Domestic and International Business Administration:								
Business Assistance, Services, and Information	1	1	1	63	77	79	91	101
Economic Development Administration:								
Economic Development—Grants and Loans for Public Works and Development Facilities	7,512	7,551	462	1,401	3,109	3,070	3,731	1
Economic Development—Local Public Works	1	1	1	1	1	1	1	284,129
Economic Development—Business Development Assistance	[2,344]	[5,606]	[4,051]	[409]	1	1	[2,770]	[434]
Economic Development—Drought Assistance	1	1	1	1	1	1	1	500
Economic Development—Support for Planning Organizations	1	1	39	38	39	1	43	43
Economic Development—State and Local Economic Development Planning	1	1	1	1	1	1	1	100
Economic Development—Technical Assistance	399	177	240	156	728	211	85	170
Economic Development—Public Works; Impact Projects	1	1	448	390	202	1	1	1
Economic Development—Special Economic Development and Adjustment Assistance Program	1	1	1	1	1	1	3,185	1
Grants to States for Supplemental and Basic Funding of Titles I, II, III, IV, and IX Activities	1	1	1	1	1	482	713	699
Job Opportunities Program—Title X	1	1	1	1	1	1	755	1
Fishery Vessel Mortgage and Loan Insurance	1	1	1	1	1	1	1	[70]
National Oceanic and Atmospheric Administration:								
River and Flood Forecast and Warning Services	2	11	15	20	36	33	37	57
Weather Forecasts and Warning Services	449	539	549	348	360	235	353	421
Commercial Fisheries Research and Development	1	1	1	1	1	1	135	215
Coastal Zone Management Development	1	1	1	1	1	1	1	393
Sea Grants Support	1	1	1	1	1	1	1	29
Office of Minority Business Enterprise:								
Minority Business Enterprise—Coordination, Management, and Technical Assistance	1	1	1	167	1	145	294	111
United States Travel Service:								
Promotion of Travel from Abroad—Matching Funds	1	1	1	1	1	36	41	15
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE								
Public Health Service:								
Comprehensive Health Planning Grants to States	705	224	318	343	316	395	237	1
Health Planning—Health Systems Agencies	1	1	1	1	1	1	1	1,237
Comprehensive Public Health Services—Formula Grants	1,275	2,053	2,092	3,832	2,366	2,139	1,981	2,145
Comprehensive Public Health Services—Project Grant	1	201	374	68	1	1	1	1
Health Services Development—Project Grant	341	1	1	75	2,500	3,218	3,874	5,435
Biomedical Research Support	1	1	1	1	1	1	1	32
Crippled Children's Services	1,426	1	3,678	3,125	538	1,492	1,925	2,644
Family Planning Projects	1	1	1	3,499	2,718	1,026	876	733
Maternity and Infant Care Projects	4,915	1	3,202	3,703	2,811	1	1	1
Health Facilities Construction Grants HRA	362	630	406	5,768	1,607	194	5,710	1
Health Manpower Educational Initiatives Awards	1	1	1	1	1	1	1	147
Health Services Research and Development—Grants and Contracts	20	1	1	1	1,204	673	1	1
Maternal and Child Health Research	1	3,103	845	1	106	1	1	1
Maternal and Child Health Services	1,469	3,104	1	100	2,519	4,852	5,636	6,905
Maternal and Child Health Training	1	1	1	1	1	1	1	106
Drug Abuse Community Service Programs	1	1	1	1	1	1	1,572	1

1 No figure for given year in Federal Outlay booklet.

2 Figure under \$500.00.

Inventory of Federal Programs in Puerto Rico, Fiscal Years 1970-77—Continued

[In thousands of dollars]

Departments ¹ and agencies ² programs	1970	1971	1972	1973	1974	1975	1976	1977
Public Health Service—Continued								
Drug Abuse Prevention Formula Grants	1	1	1	1	1	1	1,254	1,167
Drug Abuse Training Grants	1	1	1	1	1	1	1	134
Mental Health—Hospital Improvement Grants	1	1	1	1	100	25	1	1
Mental Health—Hospital Staff Development Grants	1	1	1	1	24	45	1	1
Mental Health Children's Services	1	1	1	1	1	1	1	507
Narcotic Addict Rehabilitation Act Contracts	1	1	1	1	1	1,246	1	1
Community Mental Health Centers Staffing ADMHA	639	560	2,300	898	1,669	1,737	968	1,100
Community Mental Health Centers—Comprehensive Services Support	1	1	1	1	1	1	1	741
Mental Health Research Grants (ADMHA)	259	1	242	307	255	305	95	97
Mental Health Clinical or Service Related Training Grants	427	190	556	509	828	795	1,050	952
Migrant Health Grants	317	1	388	581	254	743	1,114	1,628
Alcohol Community Service Programs	1	1	1	1	1	1	466	1
Alcohol Demonstration Programs	1	1	1	1	1	314	1	679
Drug Abuse Demonstration Programs	1	1	1	1	1	1	258	165
Alcohol Formula Grants	1	1	1	497	4,727	1,552	960	1,055
Special Alcoholism Project—Implementation Uniform Act	1	1	1	1	1	1	1	361
Family Planning Services—Training Grants and Contracts	1	1	1	1	293	1	1	1
Urban Rat Control	1	1	1	1	264	433	451	527
Disease Control Project Grants	1	1	1	1	450	346	718	503
Alcohol Clinical or Service Related Training Programs	1	1	1	1	1	1	75	74
Drug Abuse Education Programs	1	1	1	109	1	1	110	1
Allied Health Traineeships	1	1	1	6	1	8	1	1
Allied Health Professions—Special Project Grants	1	1	1	70	1	86	66	204
Laboratory Animal Sciences and Primate Research (NIH)	1	1	1	1	1	1	354	374
Job Opportunity Program	1	1	1	1	1	1	9,522	1
Training in Expanded Auxiliary Management	1	1	1	1	236	219	515	100
Clinical Research	1	1	1	500	318	467	392	357
General Research Support	380	1	176	49	83	92	100	1
Graduate Training in Public Health	1	1	106	1	1	1	553	551
Health Professions—Capitation Grants	1	1	1	1,741	1,871	1,524	1	1,203
Health Professional Scholarships	1	1	1	305	141	91	57	15
Health Professions—Student Loans	1	1	1	[261]	[46]	[271]	[200]	[171]
Patient Care and Special Health Services	1	249	334	1	1	1	1	1
Preventive Health Services	1	1	1	1	1	1	1	604
Professional Nurse Traineeships	1	1	1	18	107	111	1	1
Nurse Training Improvement—Special Project	1	1	1	2	260	147	106	1
Nursing Research Project Grants	1	1	1	141	1	1	1	1
Nursing Capitation Grants	1	1	1	1	285	252	1	1
Nursing Scholarships	1	1	1	191	98	62	1	1
Nursing Student Loans	1	1	1	[300]	[79]	[227]	[199]	[197]
Nursing School Construction—Assistance Direct Grants, Loan Guarantees, and Interest Subsidies	1	1	1	1	1	[791]	1	1
Schools of Public Health—Grants	1	1	1	238	763	233	210	204
State Health Planning and Development Agencies	1	1	1	1	1	1	1	331
Minority Biomedical Support	1	1	1	165	146	353	380	500
Family Medicine—Training Grants	1	1	1	1	1	1	215	161
Health Manpower Education Initiative Awards	1	1	1	277	684	1	1	1
Health Manpower Institutional Support	1,527	1,470	1	1	1	1	1	1
Health Manpower Student Assistance	176	870	1	1	1	1	1	1
Health Professions—Financial Distress Grants	1	1	1	1	105	1	179	1
Health Professions—Special Project	1	1	1	214	447	400	544	251
Health Professions—Startup—Assistance	1	1	1	1	1	1	280	316
Cancer Cause and Prevention Research	1	1	1	1	1	16	1	1
Cancer Detection and Diagnosis Research	1	1	1	1	1	8	1	24
Cancer Treatment Research	1	1	1	1	1	167	177	307
Cancer Research Grants	1	1	198	83	111	1	1	1
Cancer Centers Support	1	1	1	1	1	1	822	727
Cancer Research Manpower	1	1	1	1	1	222	182	186
Cancer Clinical Training	1	1	1	35	169	1	1	1
Cancer Graduate Training	1	1	1	55	305	1	1	1
Cancer Task Force	1	1	1	1	14	1	1	1
Cancer Control	1	1	1	1	1	56	212	206
Office of Education:								
Adult Education—Grants to States	648	6,671	787	984	821	1,037	1	1,406
Adult Education—Special Projects	1	300	30	198	1	1	1	1
Bilingual Education	1	105	88	85	406	556	1	633
Career Education	1	1	1	1	1	1	1	62
College Library Resources	74	198	285	110	89	1	1	104
College Teacher Graduate Fellowships	1	32	17	7	13	1	1	1
Construction of Public Libraries	77	123	132	24	1	228	1	1
Cuban Education—Student Loans	1	[145]	[147]	[99]	[77]	[17]	1	1
Ethnic Heritage Studies Programs	1	1	1	1	1	1	1	38
Educational Broadcasting Facilities (Public Broadcasting)	1	1	1	1	395	1	1	1

¹ No figure for given year in Federal Outlay booklet.

² Figure under \$500.00.

Inventory of Federal Programs in Puerto Rico, Fiscal Years 1970-77—Continued

[In thousands of dollars]

Departments' and agencies' programs	1970	1971	1972	1973	1974	1975	1976	1977
Office of Education—Continued								
Educationally Deprived Children	23,608	821	1	1	1	1	1	1
Educationally Deprived Children—Handicapped	1	1	359	524	571	571	571	630
Educationally Deprived Children—Local Educational Agencies	1	1	1	1	1	27,367	36,873	47,004
Educationally Deprived Children—Migrants	1	1	1	1	1	516	676	489
Educationally Deprived Children—State Administration	1	1	272	289	315	291	388	563
Educationally Deprived Children in State Administered Institutions Serving Neglected or Delinquent Children	1	1	329	491	654	654	654	1,073
Educational Opportunity Center	1	1	1	1	1	1	1	117
Follow Through	1	897	6	543	622	90	743	743
Foreign Language and Area Studies—Fellowships	1	1	1	1	39	1	1	1
Fund for Improvement of Postsecondary Education	1	1	1	1	1	1	1	27
Handicapped Early Childhood Assistance	1	1	1	1	60	129	1	1
Handicapped Preschool and School Programs	569	1	652	652	728	546	1,063	374
Handicapped Teacher Education Preparation	199	1	239	393	394	250	700	299
Higher Education—Land-Grant Colleges and Universities	256	229	228	225	218	218	218	245
Higher Education—Strengthening Developing Institutions	552	575	678	700	1,255	1,315	1,185	1,616
Higher Education Academic Facilities Public Community Colleges and Technical Institutes	1	1	151	1	1	472	1	1
Higher Education Academic Facilities—State Administration	1	1	34	34	1	1	1	1
Higher Education—Academic Facility Construction—Interest	861	272	286	485	1	1	305	349
Higher Education Act Insured Loans	[92]	[146]	[388]	[868]	[3,078]	[1,676]	[2,503]	[2,827]
Higher Education Work—Study	743	2,365	2,028	3,448	4,894	5,679	6,981	6,231
Library Services—Grants for Public Libraries	523	484	674	456	1	1	692	837
Library Services—Interlibrary Cooperation	1	1	46	48	1	1	46	1
Metric Education	1	1	1	1	1	1	1	41
National Direct Student Loan Cancellations (F)	1	1	1	[41]	[36]	[35]	1	[189]
National Direct Student Loans (F)	[1,052]	[1,066]	[1,890]	[4,133]	[2,310]	[2,896]	[2,971]	[3,370]
Public Services Provided Educational Institutions Grants and Fellowships	1	1	1	1	1	1	1	31
School Assistance in Federally Affected Areas—Construction	58	1	63	38	2	1	1	1
School Assistance in Federally Affected Areas—Maintenance and Operation	7,071	404	616	489	467	363	1,139	12,365
School Library Resources, Textbooks, and Other Instructional Materials	1	1,635	1,842	1,847	1,828	1,440	695	1
Special Services for Disadvantaged Students in Higher Education	277	125	64	205	625	658	88	1,204
Strengthening Instruction Through Equipment and Minor Remodeling	422	671	604	19	417	279	132	1
Strengthening State Departments of Education—Grants to States	265	265	321	327	345	553	314	1
Educational Personnel Development—Urban/Rural School Development	1	1	1	1	1	182	160	1
Talent Search	1	64	157	225	110	110	29	157
Teacher Corps—Operations and Training	52	253	766	82	809	1	404	218
Upward Bound	1	150	160	354	341	386	100	351
Vocational Education—Basic Grants to States	6,136	1	6,942	6,489	6,724	6,716	6,631	6,059
Vocational Education—Consumer and Homemaking	278	395	463	433	505	565	643	545
Vocational Education—Cooperative Education	381	252	531	536	536	536	536	402
Vocational Education—Research	1	332	326	152	270	259	141	214
Vocational Education—Special Needs	372	1	362	338	326	314	314	266
Vocational Education—State Advisory Councils	1	37	44	42	59	65	65	74
Vocational Education—Innovation	177	268	495	397	497	497	494	385
Vocational Education—Work Study	1	92	98	90	114	136	136	101
Women's Educational Equity	1	1	1	1	1	1	1	70
Higher Education—Cooperative Education	1	1	20	95	158	110	108	111
Higher Education Instructional Equipment	1	60	107	1	121	1	86	70
Supplemental Education Center—Special Projects	1	1	420	1	1	243	127	1
Supplementary Educational Centers and Services, Guidance, Counseling, and Testing	2,584	3,069	2,712	2,706	2,706	1,525	994	1
Special Programs for Children with Specific Learning Disabilities	1	1	125	1	1	128	1	130
Emergency School Aid Act—Special Programs	1	1	1	428	1,500	986	1	1,130
Right to Read—Elimination of Illiteracy	1	1	1	1	35	101	1	91
Basic Educational Opportunity Grant Program	1	1	1	1	14,179	12,765	55,472	98,258
Supplementary Educational Opportunity Grants	1,348	2,119	1,386	2,436	2,936	4,083	3,832	3,726
Higher Education—Veterans' Cost of Instruction Program	1	1	1	206	210	1	1	152
Grants to States for State Student Incentives	1	1	1	1	1	1	360	550
University Community Service—Special Projects	1	1	1	1	1	1	11	3
University Community Services—Grants to States	62	80	80	30	123	10	98	98

1 No figure for given year in Federal Outlay booklet.

2 Figure under \$500.00.

Inventory of Federal Programs in Puerto Rico, Fiscal Years 1970-77—Continued

(In thousands of dollars)

Departments' and agencies' programs	1970	1971	1972	1973	1974	1975	1976	1977
Office of Education:—Continued								
Library and Learning Resources	846	1,635	1,842	1	1	1	1,113	1
Educational Innovation and Support	1	1	1	1	1	1	1,401	1
Educational Research and Development	1	1	1	20	11	1	47	1
Office of Human Development:								
Child Development—Head Start	7,779	6,710	5,095	4,958	1	15,852	15,639	16,562
Child Development—Technical Assistance, OS	1	1	1	1	1	1	148	1
Child Development—Child Welfare Research and Demonstration Grants	15	1	1	1	1	120	120	213
Child Development—Child Abuse Prevention and Treatment	1	1	1	1	1	1	1	113
Runaway Youth	1	1	1	1	1	68	68	66
Youth Development and Delinquency Prevention	1	1	150	175	150	276	1	1
Juvenile Delinquency Prevention	156	50	1	1	1	1	1	1
Juvenile Delinquency Planning Grants	156	50	1	1	1	1	1	1
Rehabilitation Services and Facilities—Basic Sup- port	5,648	14,626	14,770	16,728	17,890	17,597	20,646	17,597
Rehabilitation Services for Social Security Disability Benefits	1	100	168	1	1	1	1	1
Rehabilitation Services Projects	1	1	616	1	1	1	1	1
Services for Developmentally Disabled	1	1	176	1	1	1	1	1
Rehabilitation Training	381	400	273	1	1	253	275	340
Rehabilitation Services Innovation	1	10	1	1	1	1	1	221
Development Disabilities—Basic Support	1	1	624	403	602	574	615	673
Services for Mentally Retarded	1	59	1	1	1	1	1	1
Development Disabilities—Special Projects	1	1	176	151	188	280	286	270
Special Programs for Aging	1	1	1	962	2,775	2,086	1	1
Programs for the Aging—State Agency Activities and Area Planning and Social Service Pro- grams	1	1	1	1	1	1	1,010	1,267
Aging—Grants to State for Community Services	200	418	403	1	1	1	1	1
Program for the Aging—Training	1	1	6	1	1	1	30	53
Grants to States for Public Assistance—Old Age	1	1	2,099	1	1	1	1	1
Special Programs for the Aging—Nutrition Pro- gram for the Elderly	1	1	1	1	1	1	1,088	1,798
Aging—Grants to States for Area-wide Projects	1	1	259	1	1	1	1	1
Aging—Grants to States for Planning Operation	1	1	85	1	1	1	1	1
Aging—Multidisciplinary Centers	1	1	1	1	1	1	1	56
Aging—Title III—Model Projects	1	1	1	1	1	1	1	25
Aging—Title V—Senior Centers	1	1	1	1	1	1	1	117
Social and Rehabilitation Service:								
Child and Welfare Services	1,096	1,108	1	1,029	1,078	1,142	1,340	1,505
Medical Assistance Program	21,000	1,056	19,430	40,000	30,000	30,000	30,000	30,000
Public Assistance—State and Local Training	1	55	6,937	1	1	1	38	1
Work Incentives Program (WIN)—Child Care— Employment Related Supportive Services	128	25	583	1	1,152	1,250	1,153	1,196
Public Assistance—Social Services	1	1	3,753	1,974	1,831	2,622	16,874	17,475
Public Assistance—Maintenance Assistance (State Aid)	1	1	1	22,414	22,346	22,005	16,183	22,380
Training Grants in the Field of Child Welfare	141	1	1	1	1	1	40	71
Child Support Enforcement Administration of Title IV-D (Runaway Fathers)	1	1	1	1	1	1	131	889
Social Security Administration:								
Medicare—Hospital Insurance	13,922	1	21,098	163,335	25,524	37,235	40,188	49,847
Medicare Supplementary Medical Insurance	7,349	1	11,425	44,748	10,443	13,286	16,627	21,787
Social Security Disability Insurance	33,312	43,789	55,954	80,930	103,176	136,201	176,650	221,527
Social Security Retirement Insurance	1	1	1	181,836	211,676	245,921	275,668	321,067
Social Security Special Benefits for Persons Aged 72 and over (Prouty Amendment)	147,732	176,900	207,339	1	1	1	1	1
Social Security Survivors' Insurance	1	1	1	70,486	82,736	98,339	121,742	137,958
Old Age Assistance Payments	1,992	2,523	2,099	1	1	1	1	1
Aid to the Blind Payments	70	53	53	1	1	1	1	1
Aid to Permanently and Totally Disabled	1,258	1,428	1,209	1	1	1	1	1
Aid to Families with Dependent Children	14,327	15,185	14,433	1	1	1	1	1
Special Benefits for Disabled Coal Miners	1	11	12	24	32	46	36	44
Social Security Payments to States for Certified Provider Service	104	125	145	159	183	195	213	232
Social Security Payments to States for Determina- tion of Disability	706	888	1,109	1,241	2,334	3,202	3,472	3,847
Vocational Rehabilitation Services of Social Secu- rity Disability Beneficiaries	190	100	168	262	487	900	1	2,017
Public Health Service II:								
Heart and Vascular Diseases Research	1	1	1	1	1	518	490	295
Heart and Lung Research—Graduate Training Grants	1	1	1	52	64	1	1	1
Heart and Lung Research—Research Grants	1	1	1	107	134	1	1	1
Caries Research	1	1	1	1	1	97	135	35
Allergic and Immunological Diseases	1	1	1	1	1	1	1	33
Arthritis, Bone and Skin Diseases Research	1	1	1	42	107	1	1	49
Arthritis, Bone and Skin Disease—Fellowships	1	1	1	54	29	1	1	1
Diabetes, Endocrinology, and Metabolism Research	1	1	1	1	1	61	39	26

1 No figure for given year in Federal Outlay booklet.

2 Figure under \$500.00.

Inventory of Federal Programs in Puerto Rico, Fiscal Years 1970-77—Continued

[In thousands of dollars]

Departments' and agencies' programs	1970	1971	1972	1973	1974	1975	1976	1977
Public Health Service II:—Continued								
Digestive Diseases and Nutrition Research	1	1	1	1	1	61	41	29
Eye Research Grants	1	1	1	52	10	1	1	1
Eye Research—Training Grants	1	1	1	51	70	1	1	1
Neurological Disorders Research	1	1	1	1	1	342	31	31
Neuro-Disease and Stroke—Graduate Training Grants	1	1	1	67	79	1	1	1
Neuro-Disease and Stroke—Research Grants	1	1	1	123	171	1	1	1
Neuro-Disease and Stroke—Fellowships	1	1	1	30	1	1	1	1
Fundamental Neurosciences Research	1	1	1	1	1	124	135	164
Pharmacology—Toxicology Research	1	1	1	1	1	76	25	89
National Institute of Neurological Diseases and Blindness	996	306	498	1	1	1	1	1
National Institute of Arthritis and Metabolic Diseases	1	41	152	1	1	1	1	1
National Heart and Lung Institute	1	1	519	1	1	1	1	1
National Institute of Allergy and Infectious Diseases	1	1	27	1	1	1	1	1
National Eye Institute	1	1	49	1	1	1	1	1
Cellular and Molecular Basis of Disease Research	1	1	1	1	1	3	1	1
Retinal and Choroidal Diseases Research	1	1	1	1	1	54	82	1
Sensory-Motor Disorders and Rehabilitation Research	1	1	1	1	1	1	1	17
Cataract Research	1	1	1	1	1	59	56	37
National Center for Educational Statistics	1	1	1	1	1	1	2	8
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT								
Housing—Federal Housing Commissioner:								
Mortgage Insurance—Construction or Rehabilitation of Condominium Projects (F)	1	1	[157]	[3,450]	[6,469]	[11,483]	1	1
Home Mortgage Insurance, HPMC Housing Production and Mortgage Credit (F)	[172,856]	[185,739]	[149,940]	[139,817]	[130,292]	[61,098]	[51,259]	[75,339]
Mortgage Insurance—Hospitals (F)	1	1	1	1	[13,760]	1	1	1
Mortgage Insurance—Rental Housing (F)	1	1	[53,791]	[8,643]	[3,057]	1	1	1
Mortgage Insurance—Condominium Homes	1	1	1	1	1	1	1	3,258
Mortgage Insurance—Cooperative Housing (F)	1	[10,408]	1	1	1	1	1	1
Mortgage Insurance—Lower Income Family Homes	1	1	1	1	1	1	1	118
Mortgage Insurance—Nursing Homes (F)	1	[1,875]	1	1	1	1	1	1
Mortgage Insurance—Rental Housing for the Elderly	1	1	1	1	1	1	1	7,761
Mortgage Insurance—Rental Housing for Low and Moderate Income Families, Market Interest Rate (F)	[9,783]	[16,405]	[1,499]	[8,218]	[6,272]	1	1	[8,868]
Property Improvement Loan Insurance for Improving All Existing Structures and Building of New Nonresidential Structures	[4,941]	[3,772]	[3,108]	[4,143]	[7,335]	[7,052]	[6,067]	[16,289]
Mortgage Insurance for Remainder of Multifamily Program (F)	[20,413]	[41,178]	1	1	1	1	1	1
Mobile Home Loan Insurance	1	1	1	1	1	1	1	3
Community Planning and Development:								
Comprehensive Planning Assistance	6,675	1	1,300	930	863	1,065	758	650
Community Development Block Grants/Entitlement Grants	1	1	1	1	1	26,073	33,573	53,357
Community Development Block Grants	1	1	1	1	1	1	1	16,153
Neighborhood Facilities	395	235	288	156	1	1	1	1
Model Cities	7,114	7,114	7,114	3,744	1,460	1	1	1
Low Rent Public Housing	1	1	566	737	23,481	1	1	1
Urban Renewal	9,464	7,330	9,466	1	23,481	1	1	1
Basic Water and Sewer Facilities	1,537	927	1,257	1	1	1	1	1
Open Space Land Undeveloped	1	1	848	1	1	1	1	1
Office of Policy Development and Research:								
General Research and Technology Activity	1	1	807	552	753	1	1	1
DEPARTMENT OF INTERIOR								
Bureau of Outdoor Recreation:								
Outdoor Recreation—Acquisition, Development, and Planning	1	1	1	1	1	793	610	1,156
Outdoor Recreation—Technical Assistance	274	507	651	1,671	1,486	1	1	1
Job Opportunities Program	1	1	1	1	1	1	400	1
Bureau of Reclamation:								
Federal Reclamation Projects	1	1	1	1	1	1	9	1
U.S. Fish and Wildlife Service:								
Conservation Law Enforcement Training	1	1	1	38	1	1	1	1
Fish Restoration	12	13	134	192	213	1	202	164
Wildlife Research Information	1	1	1	1	1	1	1	1
Wildlife Restoration	13	18	143	188	298	19	263	203
Resources Management	1	1	1	1	35	1	16	75
Mines and Minerals	1	1	1	1	31	22	1	1
Parks and Forests	11	5	7	8	16	446	1	1

1 No figure for given year in Federal Outlay booklet.

2 Figure under \$500.00.

Inventory of Federal Programs in Puerto Rico, Fiscal Years 1970-77—Continued

[In thousands of dollars]

Departments' and agencies' programs	1970	1971	1972	1973	1974	1975	1976	1977
Geological Survey:								
Geological Mineral and Water Resources—Investigation and Topological Mapping	886	952	1,090	1,359	1,337	1,155	1,132	1,402
Historic Preservation	1	68	1	1	1	1	182	157
Office of Water Research and Technology:								
Water Resources Research—Assistance to State Institutes	100	100	200	100	103	110	1	1
Water Resources	118	136	53	59	27	59	1	1
Water Supply and Water Pollution Control	353	1	1	1	1	1	1	1
Office of Water Research and Technology	1	1	1	1	1	1	1	110
Construction Grants for Waste Treatment	3,716	1	1	1	1	1	1	1
DEPARTMENT OF JUSTICE								
Law Enforcement Assistance Administration:								
Grants for Law Enforcement Assistance	2,981	5,066	7,111	7,984	8,480	7,704	1	1
Law Enforcement Assistance—Comprehensive Planning Grants	1	1	1	1	1	1	806	859
Law Enforcement Assistance—Discretionary Grants	1	1	1	1	1	1	1,167	1,833
Law Enforcement Assistance—Improving and Strengthening Law Enforcement and Criminal Justice	1	1	1	1	1	1	6,068	4,652
Law Enforcement Assistance—Technical Assistance	1	1	1	1	1	1	20	1
Law Enforcement Education Program Student Financial Aid	1	1	1	1	1	1	282	291
Law Enforcement Assistance—Juvenile and Delinquency Prevention—Allocation to States	1	1	1	1	1	1	549	776
Law Enforcement Assistance Administration—JJDP Special Emphasis Prevention and Treatment	1	1	1	1	1	1	30	1
DEPARTMENT OF LABOR								
Employment and Training Administration:								
Apprenticeship Outreach	1	1	1	1	1	1	1	1
Employment Service (Administration)	1	1	1	611	1	1	4,087	6,054
Manpower Training and Employment Service	1	1,494	7,500	1	1	1	1	1
Public Service Career	797	355	1,567	731	13	1	1	1
Job Corps	736	864	1,054	2,332	1	1,393	1,543	1,654
MDTA—Institutional Training	3,951	4,834	3,383	3,347	2,552	1	1	1
Placement Services—Administration	226	5,013	3,949	3,244	4,078	1	1	1
Unemployment Insurance Grants to States	282	6,934	11,153	1	9,942	18,754	12,268	13,348
Federal Unemployment Benefits and Allowances	1	1	1	10,811	1	1	1	36,427
Neighborhood Youth Corps	6,575	11,577	14,443	14,419	1	1	1	1
Extended Unemployment Compensation Account	1	1	6,897	1	1	1	1	1
Work Incentives Program	2,970	555	1,283	62,732	6,123	1,220	2,986	1,099
Operation Main Stream	1	541	266	266	1	1	1	1
Job Opportunities in the Private Sector	1,288	6,359	3,086	1,604	1	1	1	1
National On-the-Job Training	764	4	161	149	1	1	1	1
Public Employment Program	1	1	27,948	10,449	1	1	1	1
Migrant and Seasonal Farm Workers	1	1	1	1	1	1	2,997	2,258
Economic Opportunity Program	26	1,271	1	1	1	1	1	1
Comprehensive Employment and Training	1	1	1	1	38,471	1	114,833	138,799
CETA Title I, Comprehensive Manpower Services	1	1	1	1	1	47,113	1	1
CETA Title II, Public Employment Program	1	1	1	1	1	25,623	1	1
CETA Title III, Special Education Responses	1	1	1	1	1	1,977	1	1
Youth Employment and Training Programs	1	1	1	1	1	1	1	528
CETA Title IV, Emergency Job Program	1	1	1	1	1	28,230	1	1
District Relief (CWF)	1	1	1	1	1	110	1	1
Occupational Safety and Health Administration:								
Occupational Safety and Health Operational Grants	1	1	1	8	1	1	1	1
Program Planning Grants	1	1	77	18	1	29	24	1
Statistical Operation Grants	1	1	1	22	29	24	20	13
Food Stamps (CWF)	1	1	1	1	61	286	526	399
DEPARTMENT OF TRANSPORTATION								
United States Coast Guard:								
State Boating Safety Assistance	1	1	1	1	1	1	47	52
Coast Guard, Marine, Harbor and Shore Service	3,594	3,383	4,097	4,055	4,318	5,113	5,971	7,654
Aviation Administration:								
Grants-in-Aid for Airports	743	4,816	421	600	252	1,482	1	1
Airport Facilities and Equipment	105	47	147	29	1	1	1	1
Federal Highway Administration:								
Highway Research, Planning, and Construction	13,572	7,125	8,240	11,947	15,172	25,719	22,129	34,048
Highway Studies	1,094	143	155	1	278	572	50	1
Highway Beautification—Control of Outdoor Advertising and Control of Junkyards	1	1	1	16	14	38	555	50
Urban Mass Transportation Administration:								
Urban Mass Transportation—Capital Improvement Grants	345	199	469	1	641	738	51,337	6,958

1 No figure for given year in Federal Outlay booklet.

2 Figure under \$500.00.

Inventory of Federal Programs in Puerto Rico, Fiscal Years 1970-77—Continued

[In thousands of dollars]

Departments' and agencies' programs	1970	1971	1972	1973	1974	1975	1976	1977
Urban Mass Transportation Administration—Continued								
Transportation Planning, Research, and Development	1	1	76	1	1	1	1	1
National Highway Traffic Safety Administration:								
State and Community Highway Safety	1	1	667	792	972	666	2,000	1,091
Traffic and Highway Safety	716	871	877	589	1	487	26	15
Office of Pipeline Safety Operations:								
Gas Pipeline Safety	1	1	24	26	1	27	12	20
Energy Research and Development Administration (ERDA):								
Research and Development in Nuclear, Solar, Geothermal, and Advanced Energy Systems, and Physical Biomedical, and Environmental Sciences	1	1,082	749	956	2,499	2,741	2,648	2,174
Cost of Work for Others	1	157	315	763	1,391	1,469	140	58
Solar Energy Development	1	1	1	1	1	53	331	214
General Technology Support	1	1	1	1	1	1	1	100
Physical Research	1	203	103	41	35	35	1	1
Civilian Reactor Development Program	1	151	57	52	10	1	1	1
Nuclear Education and Training	1	2,289	1,533	2,009	1	1	1	1
Waste Management	1	1	1	1	1	1	1	50
Equal Employment Opportunity Commission:								
Employment Discrimination—State and Local Antidiscrimination Agency Contracts	1	1	1	1	1	35	84	75
DEPARTMENT: GENERAL SERVICES ADMINISTRATION								
Donation of Federal Surplus Personal Property	[21]	[65]	1	1	[39]	[59]	[2]	[23]
Disposal of Federal Surplus Real Property	1	[612]	1	1	1	1	1	[3,868]
DEPARTMENT: NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES								
National Endowment for the Arts:								
Centers of Research	1	1	1	1	1	1	1	25
Promotion of the Arts—Dance	1	1	1	1	1	1	21	1
Promotion of the Arts—Education	1	1	1	1	1	1	15	20
Promotion of the Arts—Music	1	1	1	1	1	1	40	40
Promotion of the Arts—Federal-State Partnership	1	1	1	1	1	1	205	215
Grants for Progress on the Arts	33	75	126	173	244	376	1	1
Payments for Progress on the Arts	1	1	1	1	1	1	1	1
Expansion Arts Programs	1	1	1	1	1	1	1	13
Promotion of the Arts—Museums	1	1	1	1	1	1	15	1
National Endowment for the Humanities:								
Grants for Progress on the Humanities	1	10	27	1	91	1	1	1
Payments for Progress on the Humanities	2	2	1	11	2	14	1	1
Promotion of the Humanities—Fellowships for Independent Study and Research	1	1	1	1	1	1	10	1
Promotion of the Humanities—Fellowships in Residence for College Teachers	1	1	1	1	1	1	15	1
Promotion of the Humanities—Summer Stipends	1	1	1	1	1	1	2	3
Promotion of the Humanities—State-Based Program	1	1	1	1	1	1	1	375
DEPARTMENT: COMMUNITY SERVICES ADMINISTRATION								
Community Action	5,714	4,124	2,548	7,100	9,428	13,193	6,320	13,200
Comprehensive Health Services	1	1	750	4,894	1	1	1	1
Health Alcoholic Counseling	1	1	87	356	1	1	1	1
Drug Rehabilitation	1	1	1	401	1	1	1	1
Emergency Foods and Medical Services	1	1	1	3,738	850	1	1	1
Job Opportunity	1	1	1	1	1	1	587	1
Family Planning	1	1	1	300	1	1	1	1
Community Food and Nutrition	1	1	1	1	1	300	1	260
Manpower Development and Training	1	83	1	1	1	1	1	1
Migrant and Seasonal Farm Workers Assistance	1	1	1	250	290	250	1	1
Older Persons Opportunities and Services	1	1	499	3,002	256	2,840	2,644	2,540
Neighborhood Health Centers	1	1,174	1	800	1	1	1	1
Community Economic Development	840	1	1	1	500	1	1	1
Legal Services	476	1,408	637	2,090	1,818	1,771	1	1
Emergency Energy Conservation Services	1	1	1	1	1	1	1	1,151
Vista-Volunteers in Service to America	1,027	940	1	1	1	1	1	1
Summer Youth Recreation	1	1	1	1	1	390	1	390
State Economic Opportunity Offices	1	1	1	1	1	1	1	94
DEPARTMENT: SMALL BUSINESS ADMINISTRATION								
Economic Opportunity Loans for Small Businesses (F)	[2,779]	[3,998]	[7,224]	[5,678]	[6,858]	[6,143]	[5,607]	[10,733]
Physical Disaster Loans (F)	[121]	[18,628]	[1,408]	[1,200]	1	[8,115]	[39,174]	[5]
Small Business Investment Companies (F)	1	[100]	1	1	1	[500]	[500]	1

¹ No figure for given year in Federal Outlay booklet.

² Figure under \$500.00.

Inventory of Federal Programs in Puerto Rico, Fiscal Years 1970-77—Continued

[In thousands of dollars]

Departments' and agencies' programs	1970	1971	1972	1973	1974	1975	1976	1977
Small Business Financial Assistance (F)	[6,422]	[8,304]	[5,961]	[11,108]	[15,282]	[7,790]	¹	[14,644]
Small Business Loans	¹	¹	¹	¹	¹	¹	[1,632]	[27,853]
State and Local Development Company Loans (F) ..	¹	¹	¹	[453]	[1,574]	[158]	[581]	[1,031]
DEPARTMENT: VETERANS ADMINISTRATION								
Department of Medicine and Surgery:								
Rehabilitative Engineering Research (Prosthetics) ..	425	305	234	270	362	404	422	567
Veterans' Hospitalization	15,742	19,163	21,754	25,635	30,443	36,138	44,000	52,509
Grants to States for Remodeling of State Home Hospital/Domiciliary Facilities	204	280	142	184	189	3	¹	336
Department of Veterans Benefits:								
Automobiles and Adaptive Equipment for Certain Disabled Veterans and Members of the Armed Forces	¹	¹	¹	¹	¹	¹	224	93
Burial Allowance for Veterans (C)	¹	257	290	326	259	346	336	334
Compensation for Service-Connected Deaths for Veteran Dependents	200	¹	¹	¹	¹	¹	554	511
Life Insurance for Veterans and Indemnities	1,134	1,181	1,406	1,087	1,309	1,489	1,156	1,556
Pension for Nonservice-Connected Disability for Veterans	13,856	14,857	16,323	17,357	19,562	22,290	25,056	29,789
Pension to Veterans Widows or Widowers and Children (C)	6,007	6,712	7,653	8,233	8,883	10,189	11,517	13,102
Specialty Adapted Housing for Disabled Veterans ..	¹	¹	¹	¹	¹	¹	72	73
Veterans Compensation for Service-Connected Disability (C)	31,568	39,757	43,136	50,385	55,089	67,982	72,203	79,656
Veterans Dependency and Indemnity Compensation for Service-Connected Death (C)	4,045	4,438	4,720	5,044	5,184	5,998	5,831	6,471
Veterans Educational Assistance	8,242	13,587	16,562	27,964	35,090	45,292	54,962	28,755
Veterans Housing—Direct Loans and Advances ..	¹	¹	[5]	[22]	[1]	[6]	[25]	[15]
Veterans Housing—Guaranteed and Insured Loans (F)	[39,170]	[30,320]	¹	[42,510]	¹	¹	[90,576]	[110,076]
Vocational Rehabilitation for Disabled Veterans ..	390	577	868	682	918	1,003	1,139	1,245
Dependents Educational Assistance	923	1,453	1,915	2,671	3,073	4,822	5,352	5,362
WATER RESOURCES COUNCIL								
Water Resources Planning	64	95	91	76	76	104	104	58
DEPARTMENT: ENVIRONMENTAL PROTECTION AGENCY								
Office of Air and Waste Management:								
Abatement and Control	¹	¹	648	¹	527	¹	171	385
Air Pollution Control Program Grants	¹	¹	¹	692	226	313	¹	¹
Air Pollution Control—Technical Assistance	¹	¹	¹	¹	¹	¹	23	¹
Office of Water and Hazardous Materials:								
Construction Grants for Wastewater Treatment Works	¹	18,748	3,275	¹	20,473	30,592	38,041	85,232
Solid Waste Research Grants	¹	¹	¹	35	¹	¹	¹	¹
Water Pollution Control—Research and Development	¹	¹	90	¹	¹	¹	¹	¹
Water Pollution Control—State and Interstate Program Grants	¹	¹	289	362	¹	624	951	¹
Water Pollution Control Training Grants	¹	¹	5	¹	¹	¹	¹	¹
Water Pollution Control State and Area-wide Water Quality Management Planning Agency	¹	¹	¹	¹	¹	1,396	711	¹
State Public Water System Supervision Program Grants	¹	¹	¹	¹	¹	¹	75	21
ACTION								
The Foster Grandparent Program	¹	¹	446	361	114	249	252	392
Retired Senior Volunteer Program	¹	¹	34	59	¹	¹	43	59
Volunteers in Service to America	¹	¹	125	22	18	16	669	270
University Year for Action	¹	¹	¹	¹	¹	¹	90	¹
The Senior Companion Program	¹	¹	¹	¹	¹	¹	103	153
Minigrant Program	¹	¹	¹	¹	¹	¹	4	¹
Action Cooperation Volunteer Program	¹	¹	¹	¹	¹	¹	7	618
Peace Corps and Others	¹	¹	959	516	11	¹	446	452
DEPARTMENT: RAILROAD RETIREMENT BOARD								
Railroad Retirement Account	¹	¹	¹	¹	¹	¹	247	348
Social Insurance—Railroad Workers, Retirement (E) ..	¹	88	¹	154	180	200	¹	¹
Railroad Unemployment Insurance Account	¹	¹	¹	¹	¹	¹	41	60

¹ No figure for given year in Federal Outlay booklet.² Figure under \$500.00.

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