GOVERNMENT AND JUDICIARY RETIREMENT SYSTEMS ADMINISTRATION

ACTUARIAL STUDY

April 1988

TPF&C

a Towers Perrin company

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February 24, 1989

Sra. Edna I. Jimenez
Administrator
Administración de los Sistemas de Retiro
do los Empleados del Gobierno y la Judicatura
Ave. Ponce de Léon #437
esq. Matienzo Cintron, Parada 32-1/2
Hato Rey, Puerto Rico 00940

Dear Sra. Jimenez:

PENSION INFORMATION TO BE DISCLOSED IN ACCORDANCE WITH GASB STATEMENT NO. 5 (1988 UPDATE)

The attached exhibit presents the pension benefit obligation and market value of assets as of July 1, 1988.

The method employed was the projected unit credit actuarial cost method.

The significant actuarial assumptions were:

Investment Return:	9% per year
Projected Salary Increases:	6% per year
Post-retirement Benefit Increases:	0% per year
Mortality:	GA '51 Mortality Table set forward two years
Termination:	Medium Turnover Table
Disability:	65% of Third Railroad Table
Retirement Age:	Graded Scale of Retirement Ages
Proportion of Participants with Spouses:	80% of participants assumed to be married, with wives assumed to be four years younger than husbands.

Sincerely,

Douglas F. Downard /lmb

DFD:lmb

VIA FACSIMILE & COURIER

Exhibit

THE RETIREMENT SYSTEM OF THE GOVERNMENT OF PUERTO RICO AND ITS INSTRUMENTALITIES

Pension Benefit Obligation and Market Value of Assets as of July 1, 1988.

	Employees System	Judiciary System
-- Retirees, beneficiaries, and terminated employees	1,650,000,000	23,600,000
-- Current employees:		
- accumulated employee contributions	735,000,000	9,000,000
- employer-financed vested benefits	1,075,000,000	13,700,000
- employer-financed non-vested benefits	110,000,000	1,400,000
- total	1,920,000,000	24,100,000
-- Total pension benefit obligation	3,570,000,000	47,700,000
-- Net assets available for benefits	656,000,000	22,300,000
-- Unfunded pension benefit obligation	2,914,000,000	25,400,000

GOVERNMENT AND JUDICIARY
RETIREMENT SYSTEMS ADMINISTRATION

ACTUARIAL STUDY

April 1988

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SECTION I - INTRODUCTION

The following pages represent the final report of the actuarial services performed by Towers, Perrin, Forster & Crosby (TPF&C) for the Retirement System of the Government of Puerto Rico and its Instrumentalities (the System).

This report contains:

- The scope of the actuarial study requested from TPF&C, a brief description of the project phases and a complete assessment of the present status of the System.

- The major assumptions used as a basis for the study.

In the Appendices, the Summary of Plan Provisions is presented. It describes the requirements and benefits provided by the System and is used as a basis for the study.

SECTION II - RESULTS OF THE STUDY

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INTRODUCTION

The Retirement System of the Government of Puerto Rico and its Instrumentalities was created to afford government employees some kind of financial stability upon their retirement because of age, years of service or disability. During their years of service, government employees and employers make periodic contributions to the System towards this goal. Because of this, the financial stability of the System has to be defined based on its capacity to meet these benefit obligations in the future. Therefore, TPF&C was engaged to conduct a detailed study to analyze the financial ability of the System to meet these future obligations using proven projection methodology.

SCOPE OF THE STUDY

The scope of the actuarial study was to examine the future effects on the System of continuing the present level of contributions and disbursements, and clearly communicating this present status to the appropriate administrative officials. In addition, they were requested to provide the necessary disclosure information, as requested by the Government Accounting Standards Board, to be included as part of the System's financial statements.

Before entering into the specific results of the study, it is helpful to review the phases followed in the completion of the project, in order to gain a full understanding of the validity of the projection methodology used by TPF&C. Therefore, following is a brief description of the main events that took place during these phases.

DESCRIPTION OF PROJECT PHASES

The project was organized in three major phases as follows:

- Orientation and Study Planning - This initial phase, which took place between April and June 1987, involved interviews with senior staff of the System in order to gain an understanding of their expectations. After planning the organization of the study, a detailed Work Plan was developed. This Work Plan included, among other things, the objectives, scope and approach of the study. The Work Plan was reviewed and approved by the Steering Committee appointed by the System.

- Fact-Finding - The second phase commenced in July 1987 and involved many different data gathering tasks. With the goal of gaining a full understanding of the past and present status of the System, the project team reviewed prior actuarial reports and studies, collected the contribution and benefit provisions of the System, and gathered current data on the System's fund levels. In addition, plan participants' census data was received and pertinent statistical economic and demographic data was collected. These were used in setting the actuarial assumptions employed in the study.

- Analysis - The third phase, began in July 1987 as soon as fact-finding results were received. This phase provided an initial opportunity to assemble and analyze the information gathered to date. From the contribution and benefits information provided, the Summary of Plan Provisions was developed for both the Employees and Judiciary Retirement Systems. This document, which is provided as an appendix to this report, formed the basis of the actuarial valuation. The employee census data was installed on TPF&C's computer system and prepared as input to the valuation and forecast programs. On the other hand, the System's asset data was received and represented in tabular form. Once all the above information was received and analyzed, the actuarial assumptions to be used were developed. Before proceeding, the Steering Committee was consulted for their approval of the recommended actuarial assumptions. The final actuarial assumptions used for the study are summarized in Section III. The analysis phase continued with the actual valuation and forecast of contributions and disbursements.

ASSESSMENT OF THE PRESENT STATUS OF THE SYSTEM

Once the assumptions were developed and approved by the Steering Committee, a projection was made on how the plan assets will increase or decrease over the next fifty years for both the Employees and Judiciary Retirement Systems, assuming populations will remain stable or increase 0.6% per year. The relationship among benefit disbursements from the System, and income from assets and contributions to the System under three economic scenarios (optimistic, pessimistic and most probable) was also examined.

Under the current benefit provisions and contribution rates, the Employees Retirement System is projected to reach insolvency (zero assets) between the years 2008 and 2014, as the following table illustrates:

Scenario	Year of Insolvency: Stable Population	Year of Insolvency: 0.6% Population Growth
Pessimistic (8% interest)	2008	2010
Most Probable (9% interest)	2009	2012
Optimistic (10% interest)	2011	2014

As per the results of the study, whether or not population grows, benefit payments will outpace contributions and investment income by no later than 2004, leading to a rapid decline of the assets during the years immediately following.

The Judiciary Retirement System is projected to remain solvent for the next fifty years under all scenarios.

After the results from the preceding categories were presented to the System, additional calculations were requested to investigate the effects of post retirement cost-of-living adjustments and of different contribution, disbursement and investment return scenarios on the Employees Retirement System.

Assuming an annual cost-of-living increase of 3.5% for all benefits in payment status, a projection was made of how the assets of the System would behave over the next fifty years under the same population and economic scenarios as before. Under the scenarios, the System is projected to reach insolvency between the years 2004 and 2007 as the following table illustrates:

Scenario	Year of Insolvency: Stable Population	Year of Insolvency: 0.6% Population Growth
Pessimistic (8% interest)	2004	2005
Most Probable (9% interest)	2005	2006
Optimistic (10% interest)	2006	2007

This present status of the System was communicated to the appropriate officials through meetings and written reports. However, the Government Accounting Standards Board requires that it also be clearly disclosed in the System's financial statements.

GOVERNMENT ACCOUNTING STANDARDS BOARD DISCLOSURE

In November 1986, the Government Accounting Standards Board (GASB) set new requirements for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in notes to the financial statements and required supplementary information. These requirements are set forth in GASB Statement No. 5 and are effective for fiscal years beginning after December 15, 1986.

The required disclosure according to GASB Statement No. 5 is as follows:

- The pension benefit obligation, net assets available for benefits, and the unfunded pension benefit obligation.

- The significant assumptions used to determine the pension benefit obligation.

The pension benefit obligation and market value of assets for the Retirement System as of July 1, 1987 are:

	Employees System	Judiciary System
Retirees, beneficiaries, - and terminated employees	$1,474,200,000	$23,100,000
Current employees		
- accumulated employee contributions	677,300,000	8,400,000
- employer-financed vested benefits	976,200,000	12,700,000
- employer-financed nonvested benefits	98,800,000	1,200,000
- total:	1,752,300,000	22,300,000
Total pension benefit obligation	3,226,500,000	45,400,000
Net assets available for benefits	618,600,000	21,300,000
Unfunded pension benefit obligation	$2,607,900,000	$24,100,000

The significant actuarial assumptions used in the current valuation were:

- Investment return — 9% per year
- Projected salary increases — 6% per year
- Postretirement benefit increases — 0% per year

SECTION III - PROJECTION ASSUMPTIONS

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INTRODUCTION

The following pages present the assumptions employed by TPF&C to develop the projections which are the basis of the actuarial study of the System. These assumptions reflect extensive research and in-depth analysis of the background material provided and information gathered during interviews with senior personnel knowledgeable about the System's operations.

These pages offer only summaries of the analyses. They distill numerous statistical calculations and computer simulations into lay terms intended to facilitate managerial decision making.

The assumptions outlined in this memorandum were used in:

- Assessing the present status of the System
- Presenting GASB Statement No. 5 disclosure information.

These assumptions were also used in the additional calculations made to determine the effect of different future contribution scenarios or postretirement cost-of-living adjustments.

APPROACH

The projection of how the assets of the System will increase or decrease over the next fifty or sixty years requires making important assumptions about:

- Price inflation (CPI)
- Yield on long-term bonds
- Investment returns for other asset classes
- Government-specific salary increases and growth of the active employee population
- Other demographic and nonecomomic factors.

The assumptions presented focus on a "most probable" scenario. Page 20 presents two alternative scenarios that involve lower (pessimistic) and higher (optimistic) investment returns than those in the "most probable" scenario.

MOST PROBABLE SCENARIO

- INTEREST RATES

  The first step in rationalizing and developing actuarial assumptions should be to forecast expected inflation over the given projection period. Other economic assumptions may then be built on this initial foundation.

  Inflation in Puerto Rico, as measured by the Consumer Price Index for Wage Earner's Families, has historically averaged between 3-1/2% and 4-1/2% a year. Interestingly, this range is somewhat lower than the Consumer Price Index in the U.S., which has averaged between 4-1/2% and 5% a year over the same period.

  This forecast scenario assumes the local (Puerto Rico) inflation of 4-1/2% a year will continue into the distant future and that U.S. inflation will average 5% a year.

  -- Investment Returns

  The interest rate for the projections makes the following assumptions about bond returns:

  - Long-Term Government Bonds

    Analysis of long-term U.S. government bonds shows that the real rate of return has historically been low (and many times negative). Nonetheless, yields above historical values were projected in order to reflect continued high demand to finance fiscal deficits. Consequently, an annual real return of 3% was employed that, added to U.S. inflation, will result in an annualized rate of return of 8% a year.

- Long-Term Corporate Bonds

Again, projected real yields are higher than historical values, reflecting globalization of supply/demand for credit and bondholder sensitivity to the risk of future inflation increases. Furthermore, to the extent that the portfolio includes corporate bonds and depending on their quality, an additional 1% may be added to corporate bond returns (over long-term U.S. bonds) to reflect the credit risk premium. Consequently, a yield of 9% a year for corporate bonds was assumed.

-- <u>Stocks</u>

Analysis of the S&P 500 Composite Index indicates that over the last forty years, the real rate of return on stocks has averaged between 6% and 7% a year. Consequently, a rate of return of 11% a year was assumed, although implicit in this assumption is that S&P 500 returns will be slightly below long-term historical levels.

-- Mortgages

A significant portion of the System's investments reflect mortgage loans made available to System participants. It is understood, however, that the System expects these mortgages to be "laid-off" into secondary markets, with the System investing the resulting positive cash flow in more conventional instruments.

-- Employee Loans

The System also makes loans to employees, currently at 1.3 times the average prime rate for the last three months (now about 10%). Despite the significant administration and opportunity cost of the loans (which would indicate a higher rate of 12-1/2% to 16%), members of the System's administration believe the current rate basis will continue.

-- Other

A significant portion of the present portfolio is given over to certificates of deposit, presently yielding between 6.98% and 7.3% a year. Since the certificate yield may be viewed as short-term, and thus likely to be less than longer-term instruments (such as bonds), an ongoing rate of 7% a year was projected.

-- Composite Rate of Return

It is also understood that the System's investments are restricted to the extent that not more than 20% of the portfolio may be placed in equities (i.e. stocks). If this restriction continues (as the "most probable" scenario assumes it will), then not more than 20% of the investment return can be weighted by the higher investment income likely in the stock market. Assuming that the remaining assets were invested in high-quality government or corporate bonds (or investments with similar returns), the total portfolio rate of return would probably be on the order of 9.4% (20% x 11% + 80% x 9%).

However, the actual anticipated rate of return should also be weighted by the need for liquidity in the portfolio (since current disbursements exceed current contributions), so actually being able to anticipate this return is unlikely. Therefore, a net rate of return of 9%, or a real return of 4% above U.S. inflation was assumed.

- SALARY INCREASES

An analysis of pay scale increases given to System employees since 1948 was made. The projection assumes that long-term pay scale increases will continue at 4-1/2% a year. Some component must also be added for merit and promotional increases. Unfortunately, no data is immediately available to set this component, but experience is that such increases are usually on the order of 1/2% to 1-1/2% a year. A small component of wage increases, say, 1/2%, should also be added to reflect productivity increases for general members of the workforce. Thus, the forecast uses a long-term salary increase assumption of 6%.

- MORTALITY

No specific table of mortality rates is available for the System's employees, although the Area de Planificación Económica y Social developed a table of crude rates. These crude rates were compared with the 1951 Group Annuity Table (GA '51). The analyses showed that the predicted mortality for the general population in Puerto Rico is somewhat higher than represented by the GA '51 table, with rates approximately equal to the latter plus a four-year adjustment. Because the System's participants would typically exhibit a better mortality rate than the overall Puerto Rican population (because of the higher socioeconomic standard of the group), but likely worse than the GA '51 table, the latter table, with a two-year age adjustment for both males and females was employed. The proposed rates would generate approximately 540 expected deaths a year, very similar to the current experience of the group (reported as 535 death claims expected for the 1986-1987 fiscal year). Again, in accordance with the System's current experience, it was assumed that 3% of active life mortalities would be occupational deaths.

- TERMINATIONS

No age-specific statistics on the rate at which employees leave Puerto Rican government employment before death, disability, or retirement is known. However, it is known that approximately 2,000 - 2,500 contribution refunds are processed each year for employees who sever their employment before completing ten years of credited service. Thus, the TPF&C Medium Turnover Table was adopted, that, on the basis of the current population, would produce nonvested terminations in accordance with past experience.

- DISABILITY

Once again, no age-specific statistics on rates of disability for employees covered by the System is known, although approximately 650 disability claims (350 occupational; 300 nonoccupational) were approved during the fiscal year 1985-1986. The most thorough study of disability experience continues to be the 1944 Railroad Retirement Board study. Therefore, 65% of that rate basis was used for the forecast. These rates would generate approximately 640 expected disabilities a year, which is commensurate with the System's past experience. Further, we would assume an equal number of occupational and nonoccupational disabilities each year.

- NEW ENTRANTS (POPULATION INCREASES)

A forecast prepared by the Area de Planificación Económica y Social shows the Puerto Rican population increasing over the next twenty years at the rate of .6% a year. The projections for the System assume that the total number of active System employees will increase at a similar rate until the year 2005; thereafter, the number of employees will assume to remain stable. A second set of projections was made, assuming a stable population throughout the period (i.e., that new entrants into the group each year will equal exits, and the number of employees will remain constant).

- RETIREMENT AGE

Not all employees retire at the same age, in part because the rules on age and service combinations needed for full normal retirement pensions vary.

It is understood, however, that most employees (except police and firefighters) retire with merit pensions. Presumably, employees who do not have the requisite number of years of service delay retirement to, say, age 58, when a full pension is payable with fewer years of credited service.

Police and firefighters may retire at age 50 with 25 years of service. Retirement is mandatory at age 62 for this group.

In the Judiciary, a normal retirement pension is available at age 60 with 10 years of credited service. However, longer-service individuals may retire as early as age 55.

These differences lead to the use of the following table of retirement decrements:

	Percentage of Employees at the Given Age Retiring During Year		
Age	Employees	Police/ Firefighters	Judiciary
70	100%	%	100%
69	5		5
68	5		5
67	5		5
66	5		5
65	50		5
64	4		4
63	4		4
62	4	100%	4
61	4	5	4
60	4	5	80
59	4	5	2
58	50	50	2
57	2	4	2
56	2	4	2
55	80	80	2
54	0	2	0
53	0	2	0
52	0	2	0
51	0	2	0
50	0	80	0

- PROPORTION OF PARTICIPANTS WITH SPOUSES

Analysis of the marital status of active participants indicates that 67% of the System's covered employees are married. The active tape, of course, includes many individuals who, though now single, will probably marry before they retire, die or become disabled. Consequently, it was assumed that 80% of the participants will be married at date of retirement, death or disability. The analysis also suggests that wives are, on average, four years younger than their husbands, and the projections assume this age differential.

- NUMBER OF EMPLOYEES ELECTING HIGHER CONTRIBUTIONS

Although most employees can make lower (4-1/2% a year) contributions to the System during their employment, they have the option at retirement of receiving a higher (supplementation) benefit in exchange for retroactively making contributions, with interest, to the System. No statistics exist on the number of employees who have actually made this election in the past, although it is known that many of the more highly compensated employees do so at retirement. The election favors the employee since the value of the higher benefit provided exceeds the value of the retroactive contributions. Lacking any statistics to the contrary, it was assumed that 15% of all employees will make this election in the future.

- EMPLOYER CONTRIBUTIONS

Current employer contributions to the System (as percentages of covered pay) are:

Central Government: 8%
Public Corporations: 8%
Municipalities: 7%
Judiciary: 20%

It is assumed that these contribution levels will remain the same in the future.

PESSIMISTIC SCENARIO

The pessimistic scenario assumes that the actual long-term investment return on the System's assets is 8%, one percent lower than the most probable scenario assumes. All other assumptions remain unchanged.

OPTIMISTIC SCENARIO

The optimistic scenario assumes that the actual long-term investment return on the System's assets is 10%, one percent higher than the most probable scenario assumes. All other assumptions remain unchanged.

SUMMARY OF ACTUARIAL ASSUMPTIONS

Interest Rates	• Most Probable Scenario 9% a year • Pessimistic Scenario 8% a year • Optimistic Scenario 10% a year
Salary Increases	6% a year
Mortality	GA '51 Mortality Table set forward two years (see table).
Termination	TPF&C Medium Turnover Table commensurate with anticipated experience (see table).
Disability	65% of Third Railroad Retirement Table Rates (see table)
New Entrants	Covered group assumed to increase .6% a year to 2005, and stable thereafter; alternate scenario of stable population growth from inception.
Retirement Age	Graded scale of retirement ages commensurate with anticipated experience.
Proportion of Participants with Spouses	80% of participants assumed to be married, with wives assumed to be four years younger than husbands.
Number of Employees Electing Higher Contributions	15% of retiring employees assumed to pay retroactive contributions at retirement.
Employer Contributions (as percentage of covered earnings)	Central Government: 8% a year Public Corporations: 8% a year Municipalities: 7% a year Judiciary: 20% a year

TABLE OF MORTALITY, DISABILITY AND TERMINATION ASSUMPTIONS

	Annual Rate per 1,000 Participants					
	Mortality		Disability		Termination	
Age	Male	Female	Male	Female	Male	Female
15-19	0.595	0.517	1.560	2.340	85.0	85.0
20-24	0.724	0.595	1.560	2.340	62.0	62.0
25-29	0.935	0.724	1.560	2.340	45.0	45.0
30-34	1.281	0.935	1.586	2.382	36.5	36.5
35-39	1.849	1.281	1.729	2.594	30.0	30.0
40-44	3.147	1.849	2.067	3.101	25.0	25.0
45-49	5.807	3.147	3.237	4.856	14.0	14.0
50-54	9.563	5.807	6.013	9.022	6.0	6.0
55-59	14.379	9.563	12.084	18.129	1.0	1.0
60-64	22.067	14.379	20.046	30.069	0.0	0.0
65-69	35.943	22.067	21.320	31.980	-	-
70-74	57.077	35.943	21.320	31.980	-	-
75-79	90.946	57.077	21.320	31.980	-	-

M - GA '51
D - 65% 3RR
T - Medium

COMMONWEALTH OF PUERTO RICO

EMPLOYEES RETIREMENT SYSTEM OF THE GOVERNMENT OF PUERTO RICO AND ITS INSTRUMENTALITIES

SUMMARY OF PLAN PROVISIONS

PLAN PROVISIONS AS OF JULY 1, 1987

General Note: Participants may elect to coordinate coverage under the Plan with Federal Social Security by selecting the lower of two contribution options. These options are described in detail at the end of this Summary. Those participants selecting Option (i), the Coordination Plan, are subject to a benefit recalculation at age 65. Those selecting Option (ii), the Supplementation Plan, will continue to receive the pre-age 65 benefits for life. At any time up to retirement, participants may change from Option (i) to (ii) by making a contribution including interest to the System, retroactive to the earlier of July 1, 1968 or the date of plan entry, that will bring their career Accumulated Contributions to the Option (ii) level.

1. Effective Date: January 1, 1952. Most recent amendment adopted and effective July 1, 1987.

2. Eligibility: All regular full time employees of the Government of Puerto Rico who have completed 12 months of service with no intervening breaks in service of more than 3 consecutive months, and who are not contributing to other Retirement Systems. Employees include those in the following categories:

- Police of Puerto Rico
- Justices of the Peace of Puerto Rico
- Members and employees of the Legislature
- Officers and employees of the Government of Puerto Rico, public enterprises and municipalities
- Members of the Employees Association of the Commonwealth of Puerto Rico
- Irregular employees fulfilling the requirements of a regular employee

Participation is mandatory, except for members of the Legislature, Government Secretaries, Heads of Agencies and Public Instrumentalities, Assistants to the Governor, the Controller of Puerto Rico, gubernatorial Board and Committee appointees and Experimental Service Station employees.

3. Definitions:

(a) Compensation: Annual salary, excluding bonus and overtime pay.

(b) Final Average Compensation: The average of the highest annual rates of Compensation during any three years of Credited Service.

(c) Maximum Compensation: The highest annual salary received during term of Government service.

(d) Regular Interest: The annually compounded interest rate prescribed by the Board of Trustees.

(e) Accumulated Contributions: The sum of all participant contributions, credited and compounded with Regular Interest.

(f) Actuarial Equivalent: The amount of pension payable at a commencement date other than normal retirement or payable to a survivor which may be funded by the total contributions accrued toward a pension payable at normal retirement of the participant. The equivalence is calculated based on annuity and mortality tables adopted by the Board of Trustees and based on the actual experience of the System with the recommendations of the actuary.

(g) Credited Service: The years and months of plan participation, during which contributions have been made, beginning on the later of date of hire or Effective Date and ending on date of separation from service. For the purposes of calculating Credited Service, the following schedule shall apply:

Service during a Fiscal Year	Credited Service
9 months or more	1 year
6 - 9 months	3/4 year
3 - 6 months	1/2 year
Less than 3 months	None

Employees with 15 or more days of service in one month shall be credited with one month of Credited Service.

In general, Credited Service may be earned for any period of employment during which no contributions were made if Accumulated Contributions for such periods are paid to the System. The same rule holds for rehired employees who previously received a refund of Accumulated Contributions at separation.

4. Normal Retirement Pension:

(a) Participants Eligible: All participants attaining:

(i) Benefit (1) - Merit Pension: Age 55 and 30 years of Credited Service

(ii) Benefit (2) - Merit Pension: 30 years of Credited Service

(iii) Benefit (3): Age 58 and 10 years of Credited Service

(iv) Benefit (4): Age 50 with 8 years of service as a Mayor

(v) Benefit (5): Age 50 and 25 years of Credited Service as a member of the Police or Firefighters

(b) Pension Benefit: Corresponding to eligibility above:

(i) Benefit (1): 75% of Final Average Compensation.

(ii) Benefit (2): 65% of Final Average Compensation.

Note: Except for Police, Firefighters and those selecting contribution Option (ii), benefits (1) and (2) recalculated at age 65 as follows:

1 1/2% of Final Average Compensation up to $6,600 times Credited Service plus

(1) 75% of Final Average Compensation in excess of $6,600
(2) 65% of Final Average Compensation in excess of $6,600.

(iii) Benefit (3): 1 1/2% of Final Average Compensation times Credited Service to 20 years, plus 2% of Final Average Compensation times Credited Service in excess of 20 years. If annual benefit according to formula is less than $1,500, the lesser of $180 or an amount needed to increase the annual benefit to $1,500 shall be added to the benefit.

Maximum: 75% of Final Average Compensation.

Note: Except for Police, Firefighters, Mayors and those selecting contribution Option (ii), benefit (3) recalculated at age 65 as follows:

1% of Final Average Compensation up to $6,600 times Credited Service to 20 years, plus 1 1/2% of Final Average Compensation up to $6,600 times Credited Service in excess of 20 years, plus 1 1/2% of Final Average Compensation in excess of $6,600 times Credited Service to 20 years, plus 2% of Final Average Compensation in excess of $6,600 times Credited Service in excess of 20 years, plus $180 or the portion thereof which was added to the benefit computed prior to age 65.

Minimum for recalculated benefits (1), (2) and (3): The amount which, when added to the Social Security benefit, is not less than the pre-age 65 benefit.

(iv) Benefit (4): 5% of Maximum Salary times Credited Service as a Mayor up to 10 years, plus 1 1/2% of Maximum Salary times non-mayoral Credited Service up to 20 years, plus 2% of Maximum Salary times non-mayoral Credited Service in excess of 20 years.

Maximum: 90% of Maximum Salary.

(v) Benefit (5): 1 1/2% of Final Average Compensation times Credited Service to 20 years, plus 2% of Final Average Compensation times Credited Service in excess of 20 years. If annual benefit according to formula is less than $1,500, the lesser of $180 or an amount needed to increase the annual benefit to $1,500 shall be added to the benefit.

Maximum: 75% of Final Average Compensation.

Minimum for all benefits described above: $200 per month.

5. Early Retirement Pension:

(a) Participants Eligible:

(i) Benefit (1): No provision.

(ii) Benefit (2): No provision.

(iii) Benefit (3): All participants attaining age 55 and 25 years of Credited Service.

(iv) Benefit (4): No provision.

(iv) Benefit (5): No provision.

(b) Pension Benefit: Corresponding to eligibility above:

(i) Benefit (1): No provision.

(ii) Benefit (2): No provision.

(iii) Benefit (3): Accrued Normal Retirement benefit to early retirement, actuarially reduced for each year payment commences before attainment of age 58.

Except for Police, Firefighters and those selecting contribution Option (ii), benefit (3) recalculated at age 65 as described in 4(b)(iii).

(iv) Benefit (4): No provision.

(iv) Benefit (5): No provision.

6. Postponed Retirement Pension:

(a) Participants Eligible: Except for Police and Firefighters, participants may remain in service until any age. For Police and Firefighters, separation from service is compulsory at age 62.

(b) Pension Benefit: Benefits described in 4, based on Final Average Earnings (or final Salary) and Credited Service at postponed retirement date. Payment commences on postponed retirement date. If a member of the Police or Firefighters reaches mandatory retirement without earning 10 years of Credited Service, he shall receive a full refund of all Accumulated Contributions.

7. <u>Vested Pension</u>:

(a) <u>Participants Eligible</u>: All participants attaining:

(i) <u>Benefit (1)</u>: No provision.

(ii) <u>Benefit (2)</u>: No provision.

(iii) <u>Benefit (3)</u>:

(A) 10 years of Credited Service

(B) 25 years of Credited Service

(iv) <u>Benefit (4)</u>: 8 years of service as a Mayor.

(v) <u>Benefit (5)</u>: No provision.

(b) <u>Vested Pension Benefits</u>: Corresponding to eligibility above:

(i) <u>Benefit (1)</u>: No provision.

(ii) <u>Benefit (2)</u>: No provision.

(iii) <u>Benefit (3)</u>: Accrued Normal Retirement benefit to termination date. Payments commence upon attainment of:

(A) Age 58. If annual benefit according to formula is less than $1,500, the lesser of $180 multiplied by the ratio of Credited Service to 25 years of Credited Service, or an amount needed to increase the annual benefit to $1,500 shall be added to the benefit.

(B) Age 55 (age 50 for Police and Firefighters).

(iv) <u>Benefit (4)</u>: Accrued Normal Retirement benefit to termination date. Payments commence upon attainment of age 50.

(v) <u>Benefit (5)</u>: No provision.

No benefit is payable if the participant receives a refund of his Accumulated Contributions.

8. Disability Pension:

(a) Occupational Disability:

(i) Participants Eligible:

(A) Benefit (1): Any participant certified as disabled and unable to perform the duties of any position in Government service by two physicians appointed by Plan Administrator; receiving compensation under the Workmen's Accident Compensation Act.

(B) Benefit (2): (Law no. 127 of June 27, 1958) Members of the Police or Firefighters, Internal Revenue, Justice Department, or Penal and Correctional agencies certified as disabled in the line of duty and unable to perform the duties of any other position in Government service by the Plan Administrator.

(ii) Disability Benefit:

(A) Benefit (1): 50% of final Salary at date of separation from service. Benefit recalculated at age 65 as benefit (3) under 4(a)(iii).

(B) Benefit (2): 100% of final Salary at date of separation of service.

(b) Nonoccupational Disability:

(i) Participants Eligible: Any participant certified as permanently and totally disabled by two physicians appointed by Plan Administrator; attained 10 years of Credited Service and has not yet attained age 65.

(ii) Disability Benefit: 30% of Final Average Earnings at date of separation from service, plus 1% of Final Average Earnings times Credited Service in excess of 10 years. Benefit recalculated at age 65 as benefit (3) under 4(a)(iii).

Maximum: 50% of Final Average Earnings at date of separation from service.

Note: If participant engages in employment, both types of disability pension shall be reduced an amount by which the disability pension plus employment income exceeds Compensation at the date of disability.

9. Preretirement Death Benefit:

(a) Occupational:

(i) Beneficiaries Eligible:

(A) Benefit (1): The spouse, children or designated beneficiary of a participant who dies from an employment-related cause under the Workmen's Accident Compensation Act.

(B) Benefit (2): (Law no. 127 of June 27, 1958) The spouse, children or designated beneficiary of members of the Police or Firefighters, Internal Revenue, Justice Department, or Penal and Correctional agencies who die in the line of duty.

(ii) Benefits Payable:

(A) Benefit (1):

Spouse's Benefit: 50% of participant's final Compensation at date of death, payable as an annuity until death or remarriage.

Children's Benefit: An annuity for each child of $10 per month ($20 if full orphan) payable to child's age 18 (age 25 if student).

Maximum Family Benefit: 75% of participant's final Salary at date of death.

If no spouse nor children: Benefit payable to designated beneficiary equal to a refund of Accumulated Contributions, plus a lump sum benefit of 100% of final Compensation at date of death.

(B) Benefit (2):

Spouse's Benefit: 50% of final Salary at date of death, payable as an annuity.

Children's Benefit: 50% of final Salary at date of death, payable as an annuity and shared in equal amounts.

If no spouse nor children: Full benefit of 100% of final Salary is payable to designated beneficiary (divided equally if more than one).

Upon death of any beneficiary, the share of the deceased beneficiary will be redistributed among the remaining beneficiaries.

(b) Nonoccupational:

(i) Beneficiaries Eligible:

(A) Benefit (1): All participants

(B) Benefit (2): (Law no. 8 of February 18, 1976) Members of the Police.

(ii) Benefits Payable:

(A) Benefit (1): Benefit payable to designated beneficiary equal to a refund of Accumulated Contributions, plus a lump sum benefit of 100% of final Compensation at date of death.

(B) Benefit (2): Benefit payable to surviving spouse and dependent children based on Accumulated Contributions (minimum: $1,500 annually) in the form of an annuity. Benefit shall be reduced in an amount equal to benefits received from any other sources.

10. Postretirement Death Benefit:

(a) Beneficiaries Eligible: Beneficiaries of any participant who is:

(i) Benefit (1): Single with no minor children, or receiving a life annuity as normal form of payment.

(ii) Benefit (2): Married or with minor children, and receiving a joint and survivor annuity as normal form of payment. Except for Police and Firefighters, survinig spouse must have attained age 60 in order to receive benefit.

(iii) Benefit (3): Receiving an occupational annuity under Law no. 127 of June 27, 1958 as described in 8(a), and who dies as a result of the disability.

(b) Benefit: Corresponding to eligibility above:

(i) Benefit (1): Refund of Accumulated Contributions at retirement in excess of total pension payments received prior to date of death, payable to designated beneficiary. Minimum benefit - $500.

(ii) Benefit (2): Lump sum benefit of $500.

(iii) Benefit (3): Benefit of 100% of final Salary at date of disability, payable to designated beneficiaries as an annuity.

11. Employee Contributions: Contributions may be made at one of two levels:

(a) Option (i) - Coordination Plan: 4 1/2 % of Compensation up to $6,600 plus 7% of Compensation in excess of $6,600.

(b) Option (ii) - Supplementation Plan: 7% of all Compensation. This is the only choice available to Police, Firefighters and Mayors.

12. Employer Contributions: The amounts contributed by the Government to the System concurrently with employee contributions, expressed as a percentage of Compensation.

13. <u>Forms of Payment</u>:

(a) <u>Normal Form</u>: 30% (60% for Police and those retired under Law no. 127 of June 27, 1958 who die for reasons unrelated to their disability) joint and survivor annuity, payable to spouse or children under age 18 (age 25 if students); life annuity if single.

<u>Minimum for survivors of Police and retirees under Law no. 127 of June 27, 1958</u>: $180 per month.

(b) <u>Optional Forms</u>: Reversionary annuity.

14. <u>Christmas Gift</u>: All pensioners and beneficiaries are entitled to a Christmas Gift of $150 per family group, payable in December of each year.

COMMONWEALTH OF PUERTO RICO

PUERTO RICO JUDICIARY RETIREMENT SYSTEM

SUMMARY OF PLAN PROVISIONS

PLAN PROVISIONS AS OF JULY 1, 1987

1. Effective Date of Plan: July 1, 1954. Most recent amendment adopted July 24, 1985 and effective retroactively to July 1, 1985.

2. Eligibility: All persons holding a position as Justice of the Supreme Court, Judge of the Superior Court or the District Court, or Municipal Judges of the Commonwealth of Puerto Rico.

3. Definitions:

   (a) Salary: Annual compensation received by a judge for his services in that capacity.

   (b) Final Average Earnings: The average of the annual salaries in the last three consecutive years of Credited Service, ending on the earliest of termination, early retirement or normal retirement date.

   (c) Credited Service: The years and months (where fractional months are counted as full months of service) of plan participation, beginning on Date Credit Begins and ending on date of separation from service. All intervening periods of resignation or expiration of the appointed or elective term are excluded. Periods for which no contributions have been made or for which contributions were refunded are also excluded. However, credit will be granted for refund periods if the participant returns any refunded Accumulated Contributions to the plan.

   (d) Actuarial Equivalent: The amount of pension payable at a commencement date other than normal retirement or payable to a survivor which may be funded by the total contributions accrued toward a pension payable at normal retirement of the participant. The equivalence is calculated based on annuity and mortality tables adopted by the Board of Trustees and based on the actual experience of the System with the recommendations of the actuary.

(e) Interest Credit: The annual rate of 2 1/2%, or any other rate recommended by the Board of Trustees, based on the experience of the System.

(f) Accumulated Contributions: The sum of all participant contributions, credited and compounded with Interest Credit.

(g) Date Credit Begins:

(i) Participants with eight or more years of Credited Service as a judge: Credit begins on the earlier of the day of appointment as a judge or the day first employed by the Government of Puerto Rico.

(ii) Participants with less than eight years of Credited Service as a judge: Credit begins on the day of appointment as a judge.

4. Normal Retirement Pension:

(a) Participants Eligible: All participants on the date coinciding with the attainment of:

(i) Benefit (1): Age 60 and 10 years of Credited Service; serving as judge with a fixed term of duration.

(ii) Benefit (2): Age 60 and 10 years of Credited Service; serving as judge without a fixed term of duration.

(iii) Benefit (3):

(A) 30 years of Credited Service before age 60, 8 of which were in service as a judge or

(B) Age and Credited Service according to the following table with the last 8 years in service as a judge:

Age	Credited Service
62	20
61	21
60	22
59	23
58	24
57	25
56	26
55	27

(b) Pension Benefit: Corresponding to eligibility above:

(i) Benefit (1): 25% of Final Average Earnings, plus 4 1/6% of Final Average Earnings times Credited Service in excess of 10 years.

Maximum: 75% of Final Average Earnings.

(ii) Benefit (2): The sum of (A) and (B), but in no event to exceed (C):

(A) If served as a judge for 8 years (not necessarily consecutive): 50% of final Salary

If served as a judge for less than 8 years: 25% of final Salary

(B) 4 1/6% of final Salary times Credited Service in excess of 10 years.

(C) 75% of final Salary.

(iii) Benefit (3): 75% of Final Average Earnings.

5. Early Retirement Pension:

(a) Participants Eligible: All participants on the date coinciding with the attainment of:

(i) Benefit (1): 22 years of Credited Service before age 60; serving as judge with a fixed term of duration.

(ii) Benefit (2): 22 years of Credited Service before age 60; serving as judge without a fixed term of duration.

(iii) Benefit (3):

(A) 30 years of Credited Service before age 60, 8 of which were in service as a judge.

(B) 20 years of Credited Service with the last 8 years in service as a judge.

(b) Pension Benefit: Corresponding to eligibility above:

(i) Benefit (1): Accrued Normal Retirement Benefit, based on Final Average Earnings and Credited Service at early retirement, actuarially reduced for each year payment commences before age 60.

(ii) Benefit (2): Accrued Normal Retirement Benefit, based on final Salary and Credited Service at early retirement, with no reduction for early commencement of payment.

(iii) Benefit (3): Accrued Normal Retirement Benefit, based on Final Average Earnings at early retirement, adjusted as follows, according to eligibility:

(A) No reduction for early commencement of payment.

(B) Actuarially reduced for each year payment commences before earliest age at which unreduced benefit is first payable, in accordance with 4(a)(iii).

6. Postponed Retirement Pension:

(a) Participants Eligible: Participants may remain in service until any age. There is no mandatory retirement provision.

(b) Pension Benefit: The benefits described in 4 above, based on Final Average Earnings (or final Salary) and Credited Service at postponed retirement date. Payment commences on postponed retirement date.

Any participant not fulfilling eligibility requirements for a pension at separation from service receives a full refund of all Accumulated Contributions.

7. Vested Pension:

(a) Participants Eligible: All participants who terminate employment after completing 10 or more years of Credited Service.

(b) Vested Pension Benefit: Accrued Normal Retirement Benefit to termination date. Payments commence upon attainment of age 60.

No benefit is payable if the participant receives a refund of his Accumulated Contributions.

8. Disability Pension:

(a) Occupational Disability:

(i) Participants Eligible: Any participant certified as incapable or unable to discharge duties as judge by two physicians appointed by Plan Administrator and receiving compensation under the Workmen's Accident Compensation Act.

(ii) Disability Benefit: 50% of final Salary at date of separation from service, reduced by any payments received from the State Insurance Fund under the Workmen's Accident Compensation Act.

(b) Nonoccupational Disability:

(i) Participants Eligible: Any participant certified as permanently and totally disabled by two physicians appointed by Plan Administrator, and who has attained 10 years of Credited Service but has not yet attained age 60.

(ii) Disability Benefit: 30% of Final Average Earnings at date of disability, plus 1% of Final Average Earnings times Credited Service in excess of 10 years.

Maximum: 50% of Final Average Earnings at date of disability.

Note: If participant engages in employment, both types of disability pension shall be reduced an amount by which the disability pension plus employment income exceeds Salary at the date of disability.

9. Preretirement Death Benefit:

(a) Occupational:

(i) Beneficiaries Eligible: The spouse and children, or designated beneficiary of a participant who dies from an employment-related cause under the Workmen's Accident Compensation Act.

(ii) Spouse's Benefit: 50% of participant's final Salary at date of death, payable as an annuity until death or remarriage.

(iii) Children's Benefit: An annuity for each child of $10 per month ($20 if full orphan) payable to child's age 18 or until completion of studies.

Maximum Family Benefit: 75% of participant's final Salary at date of death.

(iv) If no spouse nor children: Benefit payable to designated beneficiary equal to a refund of all Accumulated Contributions, plus a lump sum benefit of 100% of final Salary at date of death.

(b) Nonoccupational:

(i) Beneficiaries Eligible: Beneficiaries of any participant who is:

(A) Benefit (1): Ineligible for survivor benefit 9(b)(ii)(B).

(B) Benefit (2): Married or with children under age 21, and has reached attainment of age 60 and 22 years of Credited Service.

(ii) Benefits: Corresponding to eligibility above:

(A) Benefit (1): Benefit payable to designated beneficiary equal to a refund of Accumulated Contributions, plus a lump sum benefit of 100% of final Salary at date of death.

(B) Benefit (2): Benefit equal to 60% of the pension that would have been payable had the participant retired on the date of death.

10. Postretirement Death Benefit:

(a) Beneficiaries Eligible:

(A) Benefit (1): Single with no minor children, or receiving a life annuity as normal form of payment.

(B) Benefit (2): Married, or with eligible dependents, and receiving joint and survivor annuity as normal form of payment.

(b) Benefits: Corresponding to eligibility above:

(A) Benefit (1): Refund of Accumulated Contributions at retirement in excess of total pension payments received prior to date of death, payable to designated beneficiary. Minimum benefit - $500.

(B) Benefit (2): Lump sum benefit of $500 payable to designated beneficiary in addition to survivor portion of annuity.

11. Employee Contributions: All participants are required to make contributions to the Plan equal to 7 1/2% of Salary throughout active service.

12. Employer Contributions: The amounts contributed by the Government which, when combined with participant contributions, interest and other income to the System, are adequate to meet the benefit and administrative costs of the System.

13. Forms of Payment:

(a) Normal Form: 60% joint and survivor annuity, payable to spouse and children under age 21; life annuity if single.

(b) Optional Forms: Reversionary annuity.