

The Economic Implications of iGaming Legalization in Maryland

March 2024

Executive Summary

This Sage Policy Group, Inc. (Sage) analysis measures the economic impacts—the jobs, the employee earnings, and the sales at Maryland-based businesses—of iGaming legalization in Maryland. Specifically, the analysis quantifies and contextualizes the economic changes that would occur due to 1) the decline in revenues at brick and mortar casinos due to iGaming, 2) the loss of activity as spending that otherwise would have remained in Maryland flows to out-of-state iGaming platform opportunities, and 3) potential declines in capital investment and agglomeration effects attributable to diminished development activity and visitation to brick and mortar casinos.

The models used in this report show that the legalization of iGaming stands to meaningfully diminish the size of Maryland’s economy and that, under certain scenarios, the fiscal contribution of legal iGaming would be negative. While positive fiscal impacts are more likely with higher tax rates, those higher tax rates would also render it less likely that legalized, taxable iGaming would fully displace illegal iGaming activities. There is a body of research indicating that if the established tax rate is too high, many licensees will simply depart the marketplace.

During recent testimony in front of the House of Delegates’ Ways and Means Committee, one iGaming advocate representing a casino operator suggested that a 15 percent tax rate would be appropriate. We estimate that under such a scenario, Maryland would lose nearly 6,200 jobs (many of them union jobs), \$354 million in associated labor income, and nearly \$1.1 billion in local economic activity per annum. The state and local fiscal impact would be negative \$36 million per annum at steady state. None of these computations consider the costs of more widespread problem gaming.

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INTRODUCTION

In February 2024, Sage Policy Group, Inc. (Sage) authored a memo on behalf of the Anne Arundel County Chamber of Commerce highlighting issues implicated by the potential legalization of iGaming in Maryland. Sage economist Anirban Basu testified before members of the House Ways and Means Committee regarding these initial findings on Monday, February 26th. Subsequently, the Chamber asked Sage to take its analysis further by quantifying the likely economic impacts of iGaming legalization.

Accordingly, this report examines the economic implications for jobs, employee earnings, and sales at Maryland-based businesses were iGaming to be legalized.¹ The study team used IMPLAN economic modeling software, an industry-standard platform for input-output analysis, to produce many of the estimates in this analysis. Additional information regarding how to interpret findings can be found in Appendix A on page 11.

To fashion inputs for its custom IMPLAN model, the study team used data from The Innovation Group's November 2023 report entitled "iGaming in Maryland" (the IG Report),² the Maryland State Lottery and Gaming Control Agency, the American Gaming Association, and other sources as well as a set of simple assumptions, each of which is plainly stated in this report.

This report does not account for the economic or fiscal implications of any accompanying social dysfunction, including in the form of disordered, problem gaming. Rather, it focuses on more predictable economic impacts on various economic actors and events, including the state's six brick and mortar casinos (B&M gaming), jobseekers, capital investments, and overall economic activity. Changes modeled and/or discussed in this analysis include those stemming from: 1) the decline in revenues at B&M casinos because of iGaming (i.e., cannibalization); 2) the loss of activity as business revenues flow to out-of-state iGaming platform operators; and 3) potential declines in capital investments and agglomeration effects (e.g., co-location of visitor amenities) attributable to diminished development activity and visitation to B&M casinos.

A critical difference between B&M gaming and iGaming is that the former, regardless of where the casino owner is headquartered, requires that significant numbers of Marylanders be employed to facilitate casino activity. By contrast, jobs supported by iGaming activity: a) already exist in most cases since iGaming has been legalized in other states and associated platforms are already operational; b) would primarily be located outside of Maryland, especially if local licensees partner with large national iGaming brands like FanDuel or DraftKings; and 3) would be unlikely to scale with revenues at the same rate as B&M employment levels given the presence of economies of scale in digital settings that do not exist in brick and mortar contexts.

¹ iGaming, in the context of this report, refers to online and mobile slot machines and table games.

² "iGaming in Maryland." The Innovation Group, prepared for the Maryland Lottery and Gaming Control Agency. November 2023.

THE ECONOMIC IMPACTS OF CANNIBALIZED B&M GAMING ACTIVITY

As determined by the IG Report, B&M casino revenues from in-person gaming fell 8 percent between 2019 and 2022 in states that legalized iGaming while increasing 2 percent in states that did not. This equates to a 10.2 percent reduction in same-venue revenues with iGaming introduction. As of 2022, a 10.2 percent reduction in B&M revenues in Maryland would translate into an approximately \$200 million decline.

The IG Report projects that cannibalization of B&M gaming by iGaming would result in a loss of \$218.5 million in B&M revenues by 2029, which according to IG is the year that steady state operations are attained. That foregone revenue would climb to an estimated \$222.5 million by 2032.

These lost revenues would lead to sizable declines in economic activity supported by B&M Casinos. According to Sage’s customized model, by 2032 there will be an estimated 1,826 fewer statewide jobs because of that lost in-person gaming activity, jobs that would have been associated with an estimated \$100 million in employee compensation. Total statewide business sales (a proxy for economic output) would decline by approximately \$355 million under that scenario.

Exhibit 1: Economic Impacts of Lost B&M Gaming Revenues

	Jobs	Labor Income (Millions \$2024)	Economic Output (Millions \$2024)
<i>2029</i>			
Direct effects	-1,011	-\$50.4	-\$222.1
Indirect effects	-454	-\$29.3	-\$70.9
Induced effects	-328	-\$18.5	-\$55.3
Total	-1,793	-\$98.2	-\$348.4
<i>2030</i>			
Direct effects	-1,017	-\$50.7	-\$223.5
Indirect effects	-457	-\$29.5	-\$71.4
Induced effects	-330	-\$18.6	-\$55.6
Total	-1,804	-\$98.8	-\$350.4
<i>2031</i>			
Direct effects	-1,023	-\$51.0	-\$224.8
Indirect effects	-460	-\$29.7	-\$71.8
Induced effects	-332	-\$18.7	-\$56.0
Total	-1,815	-\$99.3	-\$352.5
<i>2032</i>			
Direct effects	-1,029	-\$51.3	-\$226.2
Indirect effects	-463	-\$29.8	-\$72.2
Induced effects	-334	-\$18.8	-\$56.3
Total	-1,826	-\$100.0	-\$354.7

Source: Sage, IMPLAN

*Totals may not add due to rounding

REDUCED SPENDING AT OTHER INSTATE BUSINESSES

The IG Report estimates that by 2032 iGaming gross revenues would total approximately \$921 million, or \$188.62 per Marylander aged 21+. Approximately \$223 million of those revenues are projected to come from cannibalized B&M gaming activity, meaning that an additional \$699 million would be spent on gaming under a scenario whereby iGaming is legalized. Put another way, Marylanders are projected to spend nearly \$700 million on iGaming in 2032 that otherwise would not be spent on gambling.

We conclude that economic leakage would result in 4,000 fewer jobs located in Maryland and a \$224 million reduction in statewide labor income by 2032. Total business sales would decline by approximately \$680 million/annum at that time.

Importantly, some portion of this \$700 million would leak from Maryland’s economy even in the absence of iGaming. For instance, instead of iGaming, someone may take an out of state vacation or purchase something online from a retailer primarily located in another state.

The model used in this portion of the analysis accounts for the leakage that would otherwise occur; IMPLAN’s household income activities include parameters for the typical spending of a Maryland household by income level, including out-of-state leakage. In this context, the net change in spending going toward gaming activities is modeled as a proportionate decrease in household income to account for the loss of spending in other categories.

Because this is modeled as a change in household income, it produces only induced impacts—those stemming from consumer spending. We conclude that economic leakage would result in 4,000 fewer jobs located in Maryland and a \$224 million reduction in statewide labor income by 2032. Total business sales would decline by approximately \$680 million/annum at that time.

Exhibit 2: Annual Economic Impacts of non-B&M-related Economic Leakage

Induced Effects Only	Jobs	Labor Income (Millions \$2024)	Economic Output (Millions \$2024)
<i>Statewide Impact</i>			
2029	-3,932	-\$220.3	-\$668.7
2030	-3,955	-\$221.6	-\$672.7
2031	-3,979	-\$222.9	-\$676.7
2032	-4,002	-\$224.2	-\$680.7

Source: Sage, IMPLAN

*Totals may not add due to rounding

ECONOMIC IMPACTS FROM CHANGES IN GOVERNMENT SPENDING

Depending on the iGaming tax rate, which has yet to be determined, there will be a net change in gaming taxes collected by State and local governments. By the time steady-state iGaming activity is attained in 2029, the IG Report projects a \$7.8 million net loss in gaming tax revenues for a 10 percent iGaming tax rate, a \$37.4 million net increase for a 15 percent iGaming tax rate, and all the way up to a \$308.9 million net increase for a 45 percent tax rate.

Critically, the IG Report’s analysis does not account for the effects of tax rates on iGaming activity. In other words, it assumes the same level of taxable iGaming activity at a 10 percent tax rate as at a 45 percent tax rate. This is likely an analytical limitation attributable to the inherent difficulty of forecasting marginal demand and one that Innovation Group researchers recognize: “We acknowledge that tax rate is not independent of market size, though we present it as such for illustrative purposes in the [table included in the IG Report]. Indeed, in several European sports betting markets with exorbitant taxes, operators abandoned the market altogether.”³

What that means is that a high tax rate will result in significantly smaller iGaming market size, which in turn constrains public sector revenue generation. By contrast, a lower rate would be associated with more taxable iGaming activity, but less tax impact for every dollar spent on iGaming. It is almost certain that the estimated iGaming revenues for the higher tax rates in the IG Report’s analysis are overstated.

Based on the combination of lost spending in the broader Maryland economy and expanded spending on public education, there will be between 2,774 (at 45% iGaming tax rate) and 6,747 (10% tax rate) fewer statewide jobs in 2029 if iGaming is legalized. Those lost jobs will be associated with an approximately \$90 million (45% tax rate) to \$400 million (10% tax rate) decline in employee compensation.

Alterations in economic activity presented in the two previous sections of this report are associated with changes in tax collections. Those would countervail some of the net increase in gaming tax revenues that would occur under iGaming legalization. According to output from the IMPLAN model used to produce Sage’s economic impact estimates, 2029 tax collections would decline by approximately \$74 million due to the approximately \$1 billion diminution in economic activity attributable to reduced B&M gaming and general consumer spending activity.

³ Page 31, “iGaming in Maryland.” The Innovation Group, prepared for the Maryland Lottery and Gaming Control Agency. November 2023.

The following exhibit reflects how State and local tax revenues would change as a consequence of iGaming legalization in Maryland. The chart suggests that the higher the tax rate on iGaming, the higher the contribution to public coffers. It is important to note, however, that this presumes that the level of iGaming activity is not impacted by the iGaming tax rate. In other words, the analytical limitation in the IG Report discussed above is reflected in Exhibit 3. Correspondingly, tax revenues at higher iGaming tax rates are overstated, possibly by large amounts.

Exhibit 3: Net Change in Tax Revenue Due to iGaming Legalization by Tax Rate

iGaming Tax Rate	Net Gaming Taxes	Net Taxes from Economic Activity	Total Net Change
10%	-\$7.8	-\$73.6	-\$81.4
15%	\$37.4	-\$73.6	-\$36.2
20%	\$82.7	-\$73.6	\$9.1
25%	\$127.9	-\$73.6	\$54.3
30%	\$173.1	-\$73.6	\$99.5
35%	\$218.4	-\$73.6	\$144.8
40%	\$263.6	-\$73.6	\$190.0
45%	\$308.9	-\$73.6	\$235.3

Source: Sage, Innovation Group Report

Still, to the extent that public revenues are bolstered and not offset by increased spending necessitated by problem gambling and associated issues, additional public spending will be supported by iGaming. For purposes of this analysis, Sage economists presumed that the entirety of expanded revenue will be invested toward public education. There are economic impacts associated with this spending that must also be considered.

Based on the combination of lost spending in the broader Maryland economy and expanded spending on public education, there will be between 2,774 (at 45% iGaming tax rate) and 6,747 (10% tax rate) fewer statewide jobs in 2029 if iGaming is legalized. Those lost jobs will be associated with an approximately \$90 million (45% tax rate) to \$400 million (10% tax rate) decline in employee compensation. The decline in economic activity would range from greater than \$1.1 billion to \$660 million per annum as indicated in Exhibit 4.

Exhibit 4: Net Economic Impacts of iGaming Legalization by iGaming Tax Rate, 2029

iGaming Tax Rate	Jobs	Labor Income (Millions \$2024)	Economic Output (Millions \$2024)
10%	-6,747	-\$397.7	-\$1,139.8
15%	-6,180	-\$353.7	-\$1,071.7
20%	-5,611	-\$309.7	-\$1,003.4
25%	-5,044	-\$265.7	-\$935.3
30%	-4,477	-\$221.8	-\$867.2
35%	-3,909	-\$177.7	-\$799.0
40%	-3,342	-\$133.8	-\$730.9
45%	-2,774	-\$89.7	-\$662.6

Source: Sage, Innovation Group Report

ADDITIONAL CONSIDERATIONS

LOST UNION JOBS

Irrespective of the tax rate, iGaming legalization will result in significant declines in Maryland based employment as local spending power heads elsewhere. Many of the jobs that will either cease to exist due to cannibalization of B&M gaming activity or not be created due to decreased investment in B&M casinos will be union positions. B&M casino employees are members of several unions including SEATU, UFCW, and UNITE HERE — the largest union of gaming workers in America. This is economically consequential since union jobs pay approximately 18 percent more than nonunion positions according to data from the Bureau of Labor Statistics. More broadly, much of the suppression of employment would occur in occupational categories that provide living wage opportunities for those having acquired a high school degree or less.

DIMINISHED CAPITAL INVESTMENT AND INDUSTRY CLUSTERING

By diminishing in-person gaming activity, iGaming legalization will limit capital investment at Maryland's casinos. These enterprises are associated with assessed real estate value approaching \$1.7 billion and collectively pay more than \$20 million in State and local property taxes each year. Obvious examples of foregone capital expenditures include affiliated synergistic hotels, outdoor patios, and additional space for restaurants.

Reduced visitation to the state's casinos associated with the substitution of iGaming will also produce likely deleterious impacts on entertainment districts that have arisen or are emerging around Maryland's six casinos. For instance, in Baltimore, Horseshoe Casino serves as a centerpiece and catalyst for the Warner Street Entertainment District. The district features a Topgolf and a soon-to-be-operational concert venue. Similarly, Live! Casino and Hotel attracts activity to establishments in and around the Arundel Mills shopping complex, which continues to operate at a much higher occupancy rate (greater than 95%) than many other shopping malls. Hollywood Casino is critical for the leisure and hospitality sector in Perryville and played a critical role in the attraction of a Great Wolf Lodge to the region. The casino is also a critical factor in the development of a new \$60 million athletic entertainment facility under construction on a property adjacent to the casino.

PROBLEM GAMING

Problem gambling and related issues like bankruptcy, divorce, and suicide have economic costs that are real but difficult to incorporate into a model. As the IG Report notes, iGaming legalization would likely cause a higher rate of problem gambling for Marylanders.

This is an emerging issue in the Mid-Atlantic. For instance, Pennsylvania and New Jersey experienced a rise in calls to their respective gaming helplines following iGaming legalization. "These higher

incidences, if accurate, certainly make sense, since there are many decision points and hurdles between going from a place of residence to a physical casino. There is considerably less friction to open up an online casino on a mobile phone or tablet.”⁴

During recent testimony in front of the House of Delegates’ Ways and Means Committee, one iGaming advocate representing a casino operator suggested that a 15 percent tax rate would be appropriate. We estimate that under such a scenario, Maryland would lose nearly 6,200 jobs (many of them union jobs), \$354 million in associated labor income, and nearly \$1.1 billion in local economic activity per annum.

While this analysis does not account for the potential impacts of increased problem gambling, higher occurrence of harmful behaviors is an important consideration for both social and economic reasons. For instance, NERA Economic Consulting, in a November 2023 report entitled “Economic Assessment of iGambling in New Jersey,” estimated that iGaming could be associated with \$350 million in annual social costs.⁵ If iGaming is legalized in Maryland, the public sector will presumably have to expend additional resources to respond to associated issues.

ANALYTICAL CONCLUSIONS AND POLICY IMPLICATIONS

The legalization of iGaming stands to meaningfully diminish the size of Maryland’s economy. We conclude that under certain scenarios, the fiscal contribution of legal iGaming would be negative. While positive fiscal impacts are more likely with higher tax rates, those higher tax rates would also render it less likely that legalized, taxable iGaming would fully displace illegal iGaming activities. There is a body of research indicating that if the established tax rate is too high, many licensees will simply depart the marketplace.

During recent testimony in front of the House of Delegates’ Ways and Means Committee, one iGaming advocate representing a casino operator suggested that a 15 percent tax rate would be appropriate. We estimate that under such a scenario, Maryland would lose nearly 6,200 jobs (many of them union jobs), \$354 million in associated labor income, and nearly \$1.1 billion in local economic activity per annum. The State fiscal impact would be -\$36 million per annum at steady state. None of these computations consider the costs of more widespread disordered, problem gaming.

⁴ Page 33, “iGaming in Maryland.” The Innovation Group, prepared for the Maryland Lottery and Gaming Control Agency. November 2023.

⁵ “Economic Assessment of iGambling in New Jersey.” NERA Economic Consulting, prepared for The Campaign for Fairer Gambling. November 9, 2023.

About Sage Policy Group

Sage Policy Group is an economic and policy consulting firm headquartered in Baltimore, MD. Dr. Anirban Basu, Sage's chairman and CEO, founded the firm in 2004. Sage has created a client base that encompasses more than forty states and seven countries and includes Fortune 500 companies, NFL teams, aquariums and zoos, state and local governments, insurance companies, banks, brokerage houses, major medical systems, trade organizations, and law firms, among others.

The company is especially well known for its analytical capabilities in economic and fiscal impact estimation, economic development, forecasting, legislative analyses, litigation support, environmental economics, and industry outlooks.

In addition to leading Sage, Dr. Basu has emerged as one of the nation's most recognizable economists. He chaired the Maryland Economic Development Commission from 2014 to 2021 and currently chairs the Baltimore County Economic Advisory Committee. Dr. Basu's lectures in economics are delivered to audiences across the U.S. and abroad. He has lectured at Johns Hopkins University, Towson University, the University of Baltimore, and Goucher College.

Appendix A: How to Interpret Economic Impact Estimates

To quantify the economic impacts of iGaming in Maryland, Sage used IMPLAN economic modeling software and its embodied multipliers to generate estimates of employment, labor income, and output. Below is an abbreviated glossary of terms that may prove helpful in interpreting analytical findings.

EMPLOYMENT

As defined by IMPLAN, a job that lasts twelve months equals one job, two jobs that last six months equal one job, three jobs that last four months equal one job, etc. Based on this, **job-years** represents a useful term. For instance, an endeavor that supports 200 jobs for a six-month period would be considered to support 100 jobs measured in job-years. Note that IMPLAN jobs are not quite the same thing as full-time equivalents (FTEs). Each of IMPLAN's 536 unique industries has a different conversion rate between jobs and FTEs, although for almost every industry one job is equal to less than one FTE.

OUTPUT (BUSINESS ACTIVITY, ECONOMIC ACTIVITY)

Output equals the value of industry production or service provision. It might be easier to conceptualize this as total business sales or economic activity. For retail industries, it is the gross margin (not gross sales). For manufacturing, output is the quantity of total sales plus/minus the change in inventories. For the service sector, output is directly equal to sales. This is summarized by the following equation:

$$\text{Output} = (\text{Manufacturing sales} \pm \text{change in inventories}) + (\text{service sector sales}) + (\text{gross margin for wholesale and retail trade})$$

LABOR INCOME

Worker compensation is comprised of wages, benefits, and proprietor income (money accruing to owners of businesses).

$$\text{Worker Compensation} = \text{all forms of employee compensation (wages/benefits)} + \text{proprietor income}$$

DIRECT EFFECTS

Direct effects are impacts tightly aligned with the endeavor under consideration. In this instance, direct effects are produced by B&M gaming activity as well as broader consumer spending effects.

INDIRECT EFFECTS

Indirect effects stem from business-to-business spending activity within the study area that occurs as a result of the direct effects. These can also be considered broader supply chain effects. This is a form of **secondary** effect.

INDUCED EFFECTS

Induced effects relate to household spending that occurs due to expanded levels of labor/household income. This is also a form of **secondary** effect.