Economic Impacts of iGaming Expansion

US, Nationwide

Prepared for:

National Association Against iGaming

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Transmittal Letter

February 10, 2025

Shannon McCracken
Vice President
National Association Against iGaming
Via email: info@naaig.org

Dear Ms. McCracken:

On behalf of The Innovation Group, I am pleased to present our independent analysis of iGaming's potential impacts across multiple U.S. markets. For over three decades, The Innovation Group has provided analysis of the gaming and hospitality industries, supporting multibillion-dollar developments across more than 80 countries on 6 continents. Central to our work is an unwavering commitment to objectivity and data-driven research, regardless of our clients' positions on gaming policy.

As agreed at the outset of this engagement, our analysis was conducted independently, and our findings were not guaranteed to align with any predetermined conclusions. This approach reflects our core principle that reliable research must follow the evidence. The resulting report provides a comprehensive, fact-based assessment of iGaming markets, examining current markets, projected market sizes in states considering legislation, and anticipated impacts on those states' existing land-based casino operations, including distributed gaming facilities. We've also conducted a thorough evaluation of broader economic implications, analyzing effects on statewide employment, GDP, and productivity metrics, as well as social considerations such as problem gaming.

We believe this nonpartisan approach provides legislators and stakeholders with the detailed information needed to understand the implications of iGaming legalization more fully and to balance these findings in making policy decisions best for their states. While we understand this research will inform advocacy efforts, our analysis maintains objectivity, allowing decision-makers to evaluate both opportunities and challenges through a clear, empirical lens.

We appreciate the opportunity to support the National Association Against iGaming with this research, and we trust this report will serve as a valuable resource in upcoming policy discussions.

Sincerely,

Brian Wyman, Ph.D.
Executive Vice President
The Innovation Group

EXECUTIVE SUMMARY

The Innovation Group was retained to conduct an independent assessment of the impacts of iGaming on land-based gaming, state economies, and public health in states contemplating iGaming in 2025. The data are clear: iGaming harms casino gaming. In this report, we quantify the impacts on casinos and downstream impacts on the broader economy, so that policymakers can balance positive and negative impacts to make the best decision for their constituents.

Table 1: Economic Effects of iGaming

Positive Impacts on States	Negative Impacts on States
Online Gaming Tax Revenue	Reduced Taxes from Casino Gaming
	Reduced Casino Gaming Has Direct and Downstream Effects
	- Loss of Well-Paying Jobs
	- Less In-State Purchasing by Casino
	- Inability to Meet Fiscal Obligations to Local Community
	- Reduced Capacity to Invest in Physical Plant Expansion
	- Loss of Would-Be Jobs
	- Reduced Property Tax
	Mitigation of Increased Disordered Gambling
	- Public and Private Entities Treat Disordered Gambling
	- Savings Reductions

Source: The Innovation Group

Net Labor and Production Declines versus Tax

To summarize the fiscal cost-benefit of iGaming implementation in several states considering iGaming legislation, we present the following table, which shows the net tax gain – after the new iGaming taxes are reduced by direct losses in casino gaming tax and the direct, indirect, and induced effects on sales tax, hotel tax, payroll tax, state income tax, and others. Neither impacts of reduced community investment nor problem gambling increases are presented in this table.

Table 2: Economic Impacts of iGaming by State
(Based on Average of Two Methods Described Within, 20% iGaming Tax Rate)

	Positive Effects	Negative Effects		
State	Net Tax Gain ($m)	Job Losses	Labor Income Loss ($m)	Value Added (GDP) Loss ($m)
Colorado	$154.8	-1,739	($109.7)	($313.1)
Illinois	$81.9	-4,733	($292.9)	($831.7)
Indiana	$37.7	-2,149	($158.1)	($428.6)
Louisiana	($34.0)	-2,642	($163.6)	($410.5)
Maine	$36.4	-378	($22.0)	($59.7)
Maryland	$19.4	-1,451	($109.7)	($372.5)
Mississippi	$37.8	-1,906	($96.0)	($302.6)
New York	$140.8	-4,921	($449.3)	($1,170.7)
Ohio	$233.9	-2,818	($203.9)	($602.0)

Sources: IMPLAN, The Innovation Group

Discussion

The most cited positive economic benefit that states will experience from iGaming is increased tax revenue from online gaming market expansion. However, there are also substantial contra-indications to iGaming for a state. Reduced consumer spending in other forms of entertainment, most notably land-based gaming, results in job loss and declines in economic activity throughout the state economy. Additionally, disordered gambling increases are both a public health concern and a fiscal issue for an already overburdened healthcare system. In this report, we analyze these factors.

We begin by analyzing the land-based gaming reduction[1] that states have experienced (and will continue to experience) because of iGaming and the associated tax losses to the state, which partially offset the new taxes from iGaming. There are additional (and substantial) knock-on effects of this reduction in land-based gaming revenue, including:

- Employment reductions at land-based casinos
- Reduced spending at suppliers by land-based casinos
- Aversion by land-based casinos to continue to develop physical property, reducing would-be construction jobs and taxes on these property improvements
- Smaller contributions by casinos to local communities
- Reduced purse contributions in states where land-based gaming supports horseracing

[1] A critique of this approach will claim that some states did not actually *reduce* their land-based gaming revenue upon authorizing iGaming. However, iGaming states very clearly lag their non-iGaming counterparts (by double digits) in terms of growth over the last five years. So this is a "but-for" analysis, i.e., land-based gaming revenues would have been substantially higher in iGaming states but for the implementation of iGaming.

All of these have economic implications endowed with a multiplier effect – reduced labor income begets reduced community spending, which in turn begets reduced labor income at businesses in the community, and so on. This report contains an economic impact analysis that summarizes these effects using IMPLAN, a widely-trusted input-output modeling system that provides detailed economic impact analysis through a comprehensive database of industry relationships, with its methodologies and data being used by federal agencies, academic institutions, and private sector analysts for over 40 years to quantify the ripple effects of economic changes throughout regional and national economies.

Moreover, there is increasing evidence (if not *conclusive* evidence) that problem gambling is exacerbated by iGaming. In this engagement, we reviewed more than 20 research papers in problem gaming, and we summarize the results of several of these papers in this report. While we understand that much of the funding for problem gambling research comes from partisan groups on both sides of the aisle, and while we understand that we are in the industry's nascency, based on our analysis we believe that legislatures may wish to consider both the **public health** issues associated with problem gambling as well as the **costs of mitigation** of this issue, as many states are *already* woefully under-resourced to treat problem gambling. We will almost certainly underestimate this impact by looking at public reporting, as a substantial portion of problem gambling treatment comes from charitable organizations or through the private sector.

While iGaming provides an increased gaming tax base, with few exceptions the jobs it supports are largely out-of-state. Since licenses often go to casinos, who contract with nationwide (or global) providers to conduct the gaming and provide the online platform, iGaming jobs are typically confined to a small handful of roles at casinos to manage the function and a small number of "player development" employees ("hosts") to ensure the satisfaction of the online casino's biggest players.

Meanwhile, the positive impact of iGaming is twofold: (1) there is an increased tax base, though we quantify the areas in which iGaming taxes reduce taxes elsewhere, and (2) there is an opportunity to repatriate players who otherwise game online on gray market sites, providing additional consumer protections (and taxes, as in (1)).

If any of the online gaming spend is shifted from in-state entertainment besides casino gaming, it will have additional (negative) economic impacts in the state for which we have not accounted in this report. Alternatively, some iGaming revenue may come from depletion of savings, and there is evidence that this is happening, which begets questions about state citizens' overall economic health that are worth consideration. We discuss this in the section on problem gambling.

Summary of Results

The U.S. iGaming market has experienced significant growth since its inception, with seven states currently offering full iGaming operations. The market demonstrates substantial revenue potential, with existing states showing strong per capita spending patterns. The blended average across all operational states stands at $247.2 per capita, providing a robust baseline for projecting performance in new markets.

Table 3: 2024 iGaming Revenue per Capita 21+

State	Years of Operation	2024 iGaming NGR	2024 Population 21+	2024 Revenue Per Capita 21+
Connecticut	3	$428,517,140	2,768,483	$154.8
Delaware	11	$62,638,661	785,164	$79.8
Michigan	4	$2,198,379,380	7,576,288	$290.2
New Jersey	11	$2,185,772,907	7,113,622	$307.3
Pennsylvania	5	$2,181,669,450	9,939,120	$219.5
West Virginia	4	$244,601,218	1,357,021	$180.2
Total		**$7,301,578,756**	**29,539,698**	**$247.2**

Sources: Various State Gaming Regulatory Bodies, US Census

We adjust this $247.2 per capita based on state-specific population and GDP per capita forecasts to project the market opportunities across nine states currently contemplating iGaming legislation.

Table 4: Projected iGaming Market Size by State – 2029

State	Population (21+)	Spend per Capita	iGaming Revenue ($m)
Colorado	4,798,638	$266.6	$1,279.5
Illinois	9,491,938	$256.7	$2,436.2
Indiana	5,199,551	$269.8	$1,403.1
Louisiana	3,421,994	$256.1	$876.3
Maine	1,136,390	$269.9	$306.7
Maryland	4,920,395	$250.9	$1,234.7
Mississippi	2,182,012	$265.4	$579.1
New York	15,856,194	$253.9	$4,026.4
Ohio	9,016,083	$259.0	$2,334.8

Source: The Innovation Group

This clearly presents an opportunity for states to bolster their gaming tax receipts. The National Council of Legislators from Gaming States (NCLGS) has recommended that states implement legislation with an iGaming tax rate between 15% and 25%; at levels much higher than 25%, operators are less able to reinvest in areas such as compliance, player acquisition, player retention, and technological improvements that allow them to compete with the unregulated market. To this end, increasing the tax rate beyond 25% would cause us to adjust our market size forecasts downward, so for the analysis contained in this report, we assume a tax rate of 20%, the midpoint of the NCLGS range.

iGaming steals revenue from existing gaming operations. Analysis of current iGaming states shows that brick-and-mortar casino revenue underperforms by 16.5% following iGaming introduction (15.8% netting out macroeconomic factors). This figure derives from comparing the results of iGaming states, which saw an approximately 4.3% decline in land-based revenue, against those in non-iGaming states, which experienced approximately 12.2% growth over the last five years. We believe this 16% figure will grow over time, as today's young people, who are digital natives, become the core gambling industry consumer.

Table 5: Estimated iGaming Impact on Land-Based Casino Net Gaming Revenue

	Net Growth
Net Revenue Growth, iGaming States (2024 vs 2019)	-4.3%
Net Revenue Growth, Non-iGaming States (2024 vs 2019)	12.2%
Estimated Impact of iGaming on B&M Revenue (unnormalized)	**-16.5%**
… (normalized for macroeconomic differences: population & GDP)	***-15.8%***

Source: The Innovation Group

Viewed through a slightly different lens, iGaming revenue is comprised of around 78% new revenue, and 22% revenue shifting from land-based casinos – established businesses that support well-paying jobs, community engagement, continued infrastructure development, and of course a tax base of its own. By contrast, most iGaming jobs are headquartered out-of-state or even abroad.

These impacts translate into specific projected net gaming revenue losses for brick-and-mortar casinos in each state, detailed below.

Table 6: Projected Brick-and-Mortar Net Gaming Revenue Loss – 2029 ($m)

State	Expected Revenue Loss
Colorado	$201.7 - $286.4
Illinois	$278.7 - $545.3
Indiana	$314.1 - $403.5
Louisiana	$196.2 - $382.0
Maine	$29.2 - $68.7
Maryland	$276.4 - $342.6
Mississippi	$129.6 - $417.4
New York	$901.3 – $983.7
Ohio	$468.1 - $522.6

Source: The Innovation Group

We also considered distributed gaming operations. In some states, gaming devices are present in taverns or fraternal organizations, for example. To be clear, this analysis is based on far less data, and distributed gaming states take very different approaches to gaming. That said, a similar approach as above yields an estimated revenue decline of around 8.3% in West Virginia's distributed gaming operations, normalizing for macroeconomic conditions, following iGaming introduction.

Table 7: Impact of iGaming on Distributed Gaming Revenue

State	2019 Distributed GGR ($m)	FY2024 Distributed GGR ($m)	Distributed GGR Growth	GDP & Population Growth	Net Growth
Georgia	$821.3	$1,405.1	71.1%	20.2%	50.9%
Louisiana	$623.8	$749.8	20.2%	4.9%	15.3%
Montana	$420.0	$554.1	31.9%	23.9%	8.0%
Oregon	$966.5	$1,190.6	23.2%	14.0%	9.2%
South Dakota	$230.2	$330.7	43.6%	13.0%	30.7%
Total - Non-iGaming States	**$3,061.8**	**$4,230.1**	**38.2%**	**15.5%**	**22.6%**
West Virginia	$398.1	$488.4	22.7%	8.4%	14.3%
Impact of iGaming on Distributed Gaming Revenue					**-8.3%**

Sources: Various State Gaming Regulatory Bodies, US Bureau of Labor Statistics, US Census

These revenue (and visitation) impacts will result in casino job losses. And revenue impacts and job losses extend beyond gaming floors, flowing through all business areas in resort operations. In the report, we estimate direct business losses in ancillary areas of casinos/resorts, e.g. food and beverage and hotel. We then deliver our forecasts of the direct job and revenue impacts in each business area to IMPLAN, a widely-trusted input-output modeling system that provides detailed economic impact analysis to quantify the ripple effects of economic changes throughout regional and national economies. IMPLAN's outputs include extending these direct effects to both indirect (i.e., at suppliers) and induced (i.e., throughout the broader economy) effects.

We show the lost casino/resort jobs in column 1 of the table below, followed by the indirect and induced jobs and statewide totals in columns 2 and 3 respectively.

Table 8: Employment Impacts from iGaming by State (Based on Average of Two Methods Described Within)

State	Direct Jobs Lost	Indirect and Induced Jobs Lost	Total Jobs Lost
Colorado	-981	-757	-1,739
Illinois	-2,775	-1,957	-4,733
Indiana	-1,034	-1,115	-2,149
Louisiana	-1,320	-1,322	-2,642
Maine	-203	-174	-378
Maryland	-734	-716	-1,451
Mississippi	-1,088	-818	-1,906
New York	-2,657	-2,264	-4,921
Ohio	-1,220	-1,597	-2,818

Sources: IMPLAN, The Innovation Group

Another area that IMPLAN assesses is taxes. States will realize direct gaming-related tax gains, but these are mitigated by non-gaming tax losses associated with job losses and reduced spending in the greater state economy. For example, job losses result in payroll tax loss and reduced state income taxes. The table below shows the net tax impact each state can expect to realize.

Table 9: Tax Impacts from iGaming by State
(Based on Average of Two Methods Described Within, 20% iGaming Tax Rate)

State	Gaming Tax[2] ($m)	Non-Gaming Tax Losses[3] ($m)	Net Taxes ($m)
Colorado	$217.2	($62.4)	$154.8
Illinois	$278.2	($196.3)	$81.9
Indiana	$171.2	($133.5)	$37.7
Louisiana	$93.2	($127.2)	($34.0)
Maine	$42.0	($5.6)	$36.4
Maryland	$107.6	($88.2)	$19.4
Mississippi	$82.9	($45.1)	$37.8
New York	$315.2	($174.4)	$140.8
Ohio	$303.5	($69.6)	$233.9

Sources: IMPLAN, The Innovation Group

Two critical categories of costs remain unquantified in these calculations:

First, reduced casino gaming has significant implications for community investment. As casino revenues decline, their capacity to fulfill commitments to local communities diminishes. This includes reduced support for infrastructure development, community programs, and local initiatives that have historically benefited from casino partnerships.

Second, the public health and social costs associated with increased problem gambling are not reflected in these figures. Research indicates that the convenience and 24/7 accessibility of iGaming may exacerbate gambling disorders, leading to both direct treatment costs and broader societal impacts such as family disruption and depleted savings. Many states are already under-resourced to address existing problem gambling needs, and the introduction of iGaming would likely increase these pressures. The burden of mitigation of disordered gambling is borne both privately and publicly, again lowering states' overall tax benefit.

To summarize, the following table (republished from above) shows the net tax gain – after the new iGaming taxes are reduced by direct losses in casino gaming tax and the direct, indirect, and

[2] Gaming tax is computed as (gaming tax from iGaming) less (lost gaming tax from brick-and-mortar declines)
[3] Non-gaming taxes are the IMPLAN output reflecting direct, indirect, and induced tax impacts from non-casino areas of the economy and include state, county, and local hotel tax, sales tax, payroll tax, and income tax.

induced effects on sales tax, hotel tax, payroll tax, state income tax, and others. Neither impacts of reduced community investment nor problem gambling increases are presented in this table.

Table 10: Economic Impacts of iGaming by State
(Based on Average of Two Methods Described Within, 20% iGaming Tax Rate)

State	Net Tax Gain ($m)	Job Losses	Labor Income Loss ($m)	Value Added (GDP) Loss ($m)
Colorado	$154.8	-1,739	($109.7)	($313.1)
Illinois	$81.9	-4,733	($292.9)	($831.7)
Indiana	$37.7	-2,149	($158.1)	($428.6)
Louisiana	($34.0)	-2,642	($163.6)	($410.5)
Maine	$36.4	-378	($22.0)	($59.7)
Maryland	$19.4	-1,451	($109.7)	($372.5)
Mississippi	$37.8	-1,906	($96.0)	($302.6)
New York	$140.8	-4,921	($449.3)	($1,170.7)
Ohio	$233.9	-2,818	($203.9)	($602.0)

Sources: IMPLAN, The Innovation Group

THE IMPACTS OF iGAMING

This section examines the revenue implications of introducing iGaming into existing gaming markets. Our analysis assesses both the potential revenue from online gaming operations and its effects on traditional casino revenue, including impacts on associated businesses like restaurants and hotels. We also consider potential effects on future casino development and rates of problem gambling.

In the following subsections, we calculate the direct effects of legal iGaming on brick-and-mortar gaming. We investigate iGaming's impacts on brick-and-mortar casino and distributed gaming revenues and jobs, including the direct effects on the ancillary business associated with brick-and-mortar gaming. These direct effects will serve as inputs into IMPLAN for the purpose of projecting the total impact of legal iGaming on state economies.

Drawing from data in states where online gambling is already legal, we provide comprehensive forecasts for nine states currently considering legislation to help stakeholders understand the outcomes that may result from iGaming expansion.

Economic Impact Analysis

The economic impact of an industry consists of three layers of impacts:

1. Direct effects
2. Indirect effects
3. Induced effects

The **direct effect** is the economic activity that occurs within the industry itself. The direct effect for casino operations represents the expenditures made by the facility in the form of employee compensation and purchases of goods and services (direct expenditures), which ultimately derive from patron spending on the casino floor, and patron spending on non-gaming amenities is an additional direct effect.

Indirect effects are the impact of the direct expenditures on other business sectors: for example, the advertising firm who handles a casino's local media marketing. Indirect effects reflect the economic spin-off that is made possible by the direct purchases of a casino. Firms providing goods and services to a casino have incomes partially attributable to the casino.

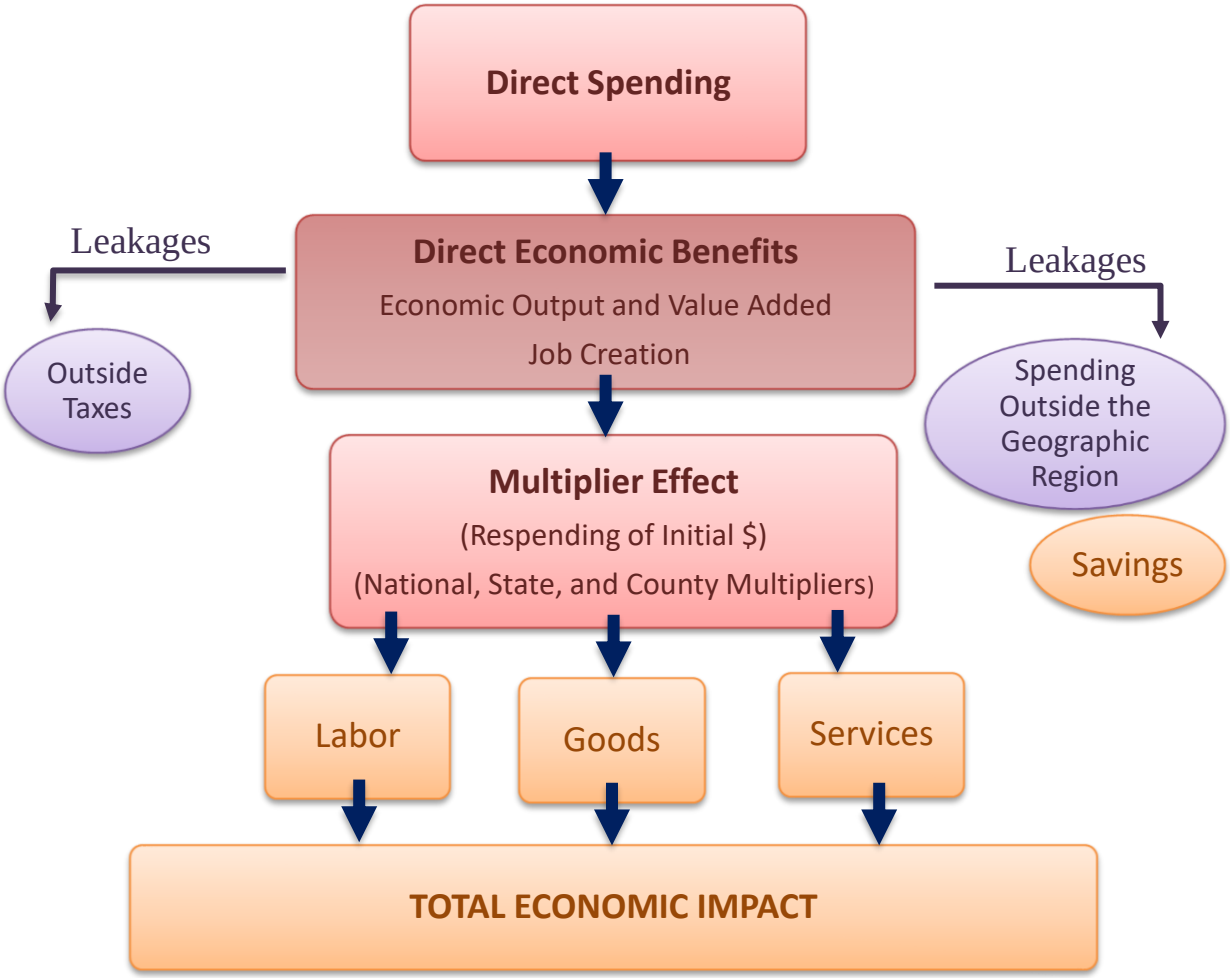
Finally, the **induced effects** result from the spending of labor income: for example, casino employees using their income to purchase consumer goods locally. As household incomes are affected by direct employment and spending, this money is recirculated through household spending patterns causing further local economic activity.

The **total** economic impact of an industry is the sum of the three components.

Determining the direct economic impact is a critical first step in conducting a valid economic impact analysis. Once the direct expenditures are identified, the indirect and induced effects are

calculated using multipliers derived from an input-output model[4] of the economy. The IMPLAN input-output model identifies the relationships between various industries. The model is then used to estimate the effects of expenditures by one industry on other industries so that the total impact can be determined. Industry multipliers are developed based on U.S. Census data. IMPLAN accounts closely follow the accounting conventions used in the "Input-Output Study of the U.S. Economy" by the Bureau of Economic Analysis.

The following flow-chart shows how the economic impact model operates.



In the sections that follow, we will compute the direct impacts for such an economic impact model. We will then compute the multiplier effects and aggregate the total economic impact at the end of this report.

[4] IMPLAN Online software and data were utilized for this study.

Revenue Models

In this section, we discuss the impact of iGaming on gaming business revenues. Our models include projections of iGaming revenue and cannibalization effects on land-based gaming revenue (including traditional casinos and distributed gaming locations), as well as impacts on non-gaming amenities (including food & beverage revenue and hotel revenue). We present our methodology and include direct impact revenue projections for states currently contemplating iGaming legislation.

iGaming Revenue

To assess each state's iGaming revenue potential, we developed a spend-per-capita model using data from states with legal iGaming. In the following table, we see that existing iGaming states have produced a blended 2024 iGaming revenue per adult of $247.2[5].

Table 11: 2024 Net iGaming Revenue per Capita 21+

State	Years of Operation	2024 iGaming NGR	2024 Population 21+	2024 iGaming NGR Per Capita 21+
Connecticut	3	$428,517,140	2,768,483	$154.8
Delaware	11	$62,638,661	785,164	$79.8
Michigan	4	$2,198,379,380	7,576,288	$290.2
New Jersey	11	$2,185,772,907	7,113,622	$307.3
Pennsylvania	5	$2,181,669,450	9,939,120	$219.5
West Virginia	4	$244,601,218	1,357,021	$180.2
Total		**$7,301,578,756**	**29,539,698**	**$247.2**

Sources: Various State Gaming Regulatory Bodies, US Census

To estimate would-be iGaming states' spends per capita, we begin with this blended average from above. We then project that figure forward using each state's own 5-year continuous annual growth rate of per capita GDP, which represents the growth rate of economic output of the state and is a proxy for income and discretionary spend growth. We then adjust these forward-looking figures to reflect a "ramp-up" to market stability, multiplying our final per capita revenue estimates by forecasts of adult population.

To illustrate this process, we project iGaming revenues for the state of Colorado below. Our models assume 2025 passage and rapid market deployment, so we use 2026 as our first full year of operation and ramping to market maturity by 2029. For all impact analyses in the remainder of the paper, we use 2029 as our base year for measuring the magnitude of the impacts of iGaming.

[5] This revenue figure represents Net iGaming Revenue per capita for all iGaming states except WV, which reports Gross iGaming Revenues only.

Table 12: iGaming Revenue Forecast - Colorado

Year	Ramp (% of maturity)	Population 21+	Spend per Capita	iGaming Revenue ($m)
2026	60%	4,626,472	$152.9	$707.2
2027	75%	4,683,163	$194.0	$908.6
2028	90%	4,740,549	$236.4	$1,120.5
2029	100%	4,798,638	$266.6	$1,279.5
2030	100%	4,857,438	$270.7	$1,314.9
2031	100%	4,916,959	$274.8	$1,351.4
2032	100%	4,977,210	$279.0	$1,388.8

Source: The Innovation Group

In the table below, we present stabilized market sizes for each state in our sample using 2029, the estimated first full year of market maturity.

Table 13: Projected iGaming Market Size by State - 2029

State	Population	Spend per Capita	iGaming Revenue ($m)
Colorado	4,798,638	$266.6	$1,279.5
Illinois	9,491,938	$256.7	$2,436.2
Indiana	5,199,551	$269.8	$1,403.1
Louisiana	3,421,994	$256.1	$876.3
Maine	1,136,390	$269.9	$306.7
Maryland	4,920,395	$250.9	$1,234.7
Mississippi	2,182,012	$265.4	$579.1
New York	15,856,194	$253.9	$4,026.4
Ohio	9,016,083	$259.0	$2,334.8

Source: The Innovation Group

An important aspect of this work is assessing the degree to which the introduction of iGaming 'cannibalizes' land-based gaming revenue[6]. To this end, we use two approaches to measure how impactful online gaming has been on land-based gaming in legal iGaming states.

Brick-and-Mortar Cannibalization – Approach One (Percent of Land-based)

We analyzed and compared the performance of brick-and-mortar casinos in states with and without iGaming between 2019 and 2024. We normalized for macro-economic differences

[6] Where available, we use Net Gaming Revenue as opposed to Gross Gaming Revenue, as the former more accurately reflects dollars that leave consumer's pockets. States that only report GGR include WV, IA, LA, ME, MO, MS.

between the states by accounting for population and economic growth (measured by GDP), thereby isolating the impact of iGaming.[7]

As to the choice of base year (2019) and comparison year (2024), we believe that it is imperative to choose comparison periods on both sides of the pandemic, since even in New Jersey, which launched iGaming in 2013, substantial iGaming growth happened during the pandemic – New Jersey grew from $483 million in iGaming revenue in 2019 to $1.4 billion in 2021. To ensure the robustness of this model, we compared the would-be results if we had chosen an alternative base year prior to 2019 and/or a comparison year from 2021-2023, and the results in this study are substantially unchanged.

To select the non-iGaming states comparison set, we attempted to select a generally stable set of markets without major changes in the land-based gaming footprint. We excluded Nevada, due to the large effect that tourism has on the state's land-based gaming revenue, and we excluded markets with a large proportion of their revenue coming from tribal gaming, which is usually unreported. Those we selected, their 2019 vs 2024 land-based casino performance, and their combined population and GDP growth rate, are displayed in the table below. Using multiple states as a comparison group helps to reduce the impact of any idiosyncratic impacts we might see in one state or another.

[7] There is some debate about whether normalizing by GDP alone or by both population and GDP is more appropriate. Rather than conduct this debate, which we have discussed at length with economists, in this report, we simply note that whether we choose to normalize by GDP alone, GDP and population, or neither, the impact results in this study are substantially the same.

Table 14: Non-iGaming State Land-Based Casino Revenue Growth, Net of GDP & Pop. Growth

State	2019 B&M Revenue ($m)	2024 B&M Revenue ($m)	Revenue Growth	GDP & Population Growth	Net Growth
Colorado	$833.7	$1,110.7	33.2%	21.8%	11.4%
Iowa	$1,467.5	$1,693.7	15.4%	9.1%	6.3%
Indiana	$2,059.6	$2,258.4	9.6%	16.5%	-6.8%
Kansas	$416.2	$415.0	-0.3%	12.8%	-13.0%
Louisiana	$2,453.8	$2,296.3	-6.4%	4.9%	-11.3%
Maryland	$1,756.8	$1,974.8	12.4%	12.2%	0.2%
Maine	$118.8	$161.9	36.3%	18.5%	17.8%
Missouri	$1,729.5	$1,879.1	8.6%	12.6%	-4.0%
Mississippi	$2,201.9	$2,431.8	10.4%	9.3%	1.1%
New York	$2,537.1	$2,913.4	14.8%	11.0%	3.8%
Ohio	$1,941.5	$2,511.6	29.4%	9.2%	20.1%
Total	**$17,516.3**	**$19,646.6**	**12.2%**	**11.8%**	**0.3%**

Sources: Various State Gaming Regulatory Bodies, US Bureau of Labor Statistics, US Census

In other words, states without iGaming grew land-based revenues 0.3% in excess of the "expected" growth due to population and GDP. Against this 0.3% normative growth, we look at the states that did have iGaming. By contrast, in the iGaming states, we see that in the table below that land-based casinos declined in revenue overall, and underperformed the "expected growth" due to population and GDP by 15.5%.

Table 15: iGaming State Land-Based Casino Revenue Growth, Net of GDP & Pop. Growth

State	2019 B&M Revenue ($m)	2024 B&M Revenue ($m)	Revenue Growth	GDP & Population Growth	Net Growth
Connecticut	$982.3	$845.7	-13.9%	9.6%	-23.5%
Delaware	$366.0	$416.7	13.8%	13.2%	0.6%
Michigan	$2,977.0	$2,482.2	-16.6%	9.8%	-26.4%
New Jersey	$2,335.9	$2,368.0	1.4%	17.4%	-16.0%
Pennsylvania	$3,266.7	$3,384.8	3.6%	8.9%	-5.3%
West Virginia	$607.2	$586.5	-3.4%	8.4%	-11.8%
Total	**$10,535.1**	**$10,083.9**	**-4.3%**	**11.2%**	**-15.5%**

Sources: Various State Gaming Regulatory Bodies, US Bureau of Labor Statistics, US Census

Comparing the +0.3% net growth from non-iGaming states to the -15.5% net growth from iGaming states, we arrive at a cannibalization effect of approximately 15.8%.

Table 16: Estimated iGaming Impact[8] on Land-Based Casino Revenue

	Net Growth
Net Revenue Growth (normalized), iGaming States (2024 vs 2019)	-15.5%
Net Revenue Growth (normalized), Non-iGaming States (2024 vs 2019)	0.3%
Estimated Impact of iGaming on B&M Revenue	**-15.8%**

Source: The Innovation Group

To project impacted casino revenues in other states, we calculate brick-and-mortar revenue per capita in the current year and grow it by the state's 5-year compound annual GDP growth rate, multiplying it by the state's adult population (likewise grown by the state's 5-year compound annual population growth rate), producing the projected market size in the absence of iGaming. We then project brick-and-mortar market size with the impacts of iGaming by decreasing the revenue by our brick-and-mortar impact figure of 15.8%. The table below displays 2029 expected brick-and-mortar market sizes with and without the impact of iGaming, including the expected revenue loss to iGaming.

Table 17: Impacted Brick-and-Mortar Market Size by State – 2029 ($m), Approach One

State	B&M Revenue, Expected with No iGaming	B&M Revenue, Expected with iGaming	Expected Revenue Loss due to iGaming
Colorado	$1,273.3	$1,071.6	$201.7
Illinois	$1,758.8	$1,480.2	$278.7
Indiana	$2,546.5	$2,143.0	$403.5
Louisiana	$2,411.2	$2,029.1	$382.0
Maine	$184.1	$154.9	$29.2
Maryland[9]	$2,162.3	$1,819.7	$342.6
Mississippi	$2,634.5	$2,217.1	$417.4
New York[10]	$6,208.7	$5,225.0	$983.7
Ohio[11]	$2,954.6	$2,486.5	$468.1

Source: The Innovation Group

[8] The most notable omission from the non-iGaming state set is Massachusetts. We omitted Massachusetts because of Encore Boston Harbor's opening during 2019. The most discussion-worthy choice in the iGaming states was to use total market casino revenue from Pennsylvania, which had 5 properties open between 2019 and 2024. Both choices were conservative, i.e., the calculated impact of iGaming would have been larger had we included Massachusetts or had we evaluated Pennsylvania on a same-store basis.

[9] Maryland revenues include electronic bingo revenues of approximately $51 million

[10] New York revenues assume the introduction of three new downstate casinos in the coming years. We include projected revenues of approximately $2.9 billion, taken from Spectrum Gaming Group's "Gaming Market Study: State of New York" report (Section D. Scenario 4.)

[11] Ohio revenues include charitable electronic bingo revenues of approximately $250 million

Brick-and-Mortar Cannibalization – Approach Two (Percent of iGaming)

An alternative approach to estimating brick-and-mortar revenue lost due to iGaming is to consider the impacts as a percentage of the iGaming revenue total, rather than as a percentage of the land-based revenue total. This approach has the benefit of reducing modeled impacts in states that have a high land-based casino revenue per capita because of out-of-state visitors, since most of the iGaming revenue – and hence, most of the cannibalized land-based gaming revenue – will come from state residents. Mississippi, for example, hosts many out-of-state visitors in Biloxi and Tunica, and a substantial portion of western Louisiana revenue comes from Texas.

While we don't believe that the two approaches strictly bookend the range of possibilities, the two approaches produce a useful range of impacts for consideration.

To quantify cannibalization via this second approach, we look at the underperformance of iGaming state land-based casino revenues as above and record them as a percentage of the state's iGaming revenue. The following table displays 2024 projected brick-and-mortar revenues, 2024 actual brick-and-mortar revenues, and the difference between these figures ('iGaming Impact'). This figure is compared to the size of the 2024 iGaming market across iGaming states, where on average we find that 22.4% of 2024 iGaming revenues are taken from the brick-and-mortar market.

Table 18: Brick-and-Mortar Loss as a Percentage of iGaming ($m)

State	2019 B&M Revenue	GDP & Population Growth, 2019-2024	2024 B&M Revenue, Expected	2024 B&M Revenue, Actual	iGaming Impact	2024 Revenue, iGaming	B&M Loss as % of iGaming
Connecticut	$982.3	9.6%	$1,076.8	$845.7	$231.1	$428.5	53.9%
Delaware	$366.0	13.2%	$414.3	$416.7	($2.4)	$62.6	-3.8%
Michigan	$2,977.0	9.8%	$3,269.1	$2,482.2	$786.9	$2,198.4	35.8%
New Jersey	$2,335.9	17.4%	$2,741.9	$2,368.0	$373.9	$2,185.8	17.1%
Pennsylvania	$3,266.7	8.9%	$3,557.3	$3,384.8	$172.5	$2,181.7	7.9%
West Virginia	$607.2	8.4%	$657.9	$586.5	$71.4	$244.6	29.2%
Total	**$10,535.1**	**11.2%**	**$11,718.4**	**$10,083.9**	**$1,634.4**	**$7,301.6**	**22.4%**

Source: State Regulatory Bodies, US Census, US BEA, The Innovation Group

We apply this 22.4% figure to iGaming market sizes by state to determine the expected brick-and-mortar revenue loss by state. Unlike our first method, this approach results in brick-and-mortar revenue losses that vary as a percentage of expected brick-and-mortar revenue. For example, revenue losses of $286 million in Colorado represent 22% of expected brick-and-mortar gaming revenue of $1.3 billion, but revenue losses of $130 million in Mississippi represent only 5% of expected brick-and-mortar gaming revenue.

Table 19: Impacted Brick-and-mortar Market Size by State – 2029 ($m), Approach 2: Percent of iGaming

State	iGaming Revenue ($m)	B&M Revenue, Expected with No iGaming	B&M Revenue, Expected with iGaming	Expected Revenue Loss due to iGaming
Colorado	$1,279.5	$1,273.3	$986.9	$286.4
Illinois	$2,436.2	$1,758.8	$1,213.5	$545.3
Indiana	$1,403.1	$2,546.5	$2,232.4	$314.1
Louisiana	$876.3	$2,411.2	$2,215.0	$196.2
Maine	$306.7	$184.1	$115.4	$68.7
Maryland	$1,234.7	$2,162.3	$1,885.9	$276.4
Mississippi	$579.1	$2,634.5	$2,504.9	$129.6
New York	$4,026.4	$6,208.7	$5,307.4	$901.3
Ohio	$2,334.8	$2,954.6	$2,431.9	$522.6

Source: The Innovation Group

Below, we summarize projected brick-and-mortar revenue losses for each state that result from our two methodologies. In following sections, we use changes in gaming revenue to estimate impacts in other ancillary brick-and-mortar casino businesses, and as such, we report two sets of numbers, the first corresponding to our cannibalization model that takes a fixed fraction of brick-and-mortar revenue ("Approach One"), and the second corresponding to our model that takes a fixed fraction of iGaming revenue ("Approach Two").

Table 20: Projected B&M Revenue Loss – 2029 ($m), Approach 1 & 2 Comparison

State	Expected Revenue Loss, Approach One (Pct of Land-based)	Expected Revenue Loss, Approach Two (Pct of iGaming)	Range
Colorado	$201.7	$286.4	$201.7 - $286.4
Illinois	$278.7	$545.3	$278.7 - $545.3
Indiana	$403.5	$314.1	$314.1 - $403.5
Louisiana	$382.0	$196.2	$196.2 - $382.0
Maine	$29.2	$68.7	$29.2 - $68.7
Maryland	$342.6	$276.4	$276.4 - $342.6
Mississippi	$417.4	$129.6	$129.6 - $417.4
New York	$983.7	$901.3	$901.3 – $983.7
Ohio	$468.1	$522.6	$468.1 - $522.6

Distributed Gaming Revenue

In addition to forecasting the impact of iGaming on traditional land-based casinos, we also project the impact of iGaming on distributed gaming products, particularly in Louisiana and Illinois. This analysis is challenging, as West Virginia is the only iGaming state to have meaningful distributed gaming. Limited Video Lottery has operated in West Virginia for more than a decade; iGaming was implemented in July 2020. Pennsylvania, by contrast, has relatively few distributed devices.

It is tempting to hand-wave and say that distributed device revenue is likely impacted similarly to casino revenue. However, the attraction of the bars, restaurants, hotels, or fraternal clubs which often house these devices provide a non-gaming reason to visit, so perhaps the impact is lesser. Or, perhaps the impact is greater, since there are no table games or traditional resort amenities to make visiting in person more attractive than gaming from home. Additionally, distributed games operate in Illinois and West Virginia without any player tracking or loyalty rewards (for regulatory and legislative reasons), putting operators at a distinct disadvantage to their highly sophisticated and often multinational online gaming counterparts.

We attempt to shed light on this with available data. We recapitulate our prior study of iGaming's impact on Brick-and-mortar casinos, only this time utilizing distributed gaming revenue data in our baseline comparison set, and with West Virginia in our iGaming-impacted set. The choice of non-iGaming states here was challenging. The only state we removed from the analysis was Illinois, as its growth was substantial and largely due to 2019 legislation that allowed for expansion of distributed gaming. This approach yields the following results:

Table 21: Impact of iGaming on Distributed Gaming Revenue[12]

State	2019 Distributed GGR	FY2024 Distributed GGR	Distributed GGR Growth	GDP & Population Growth	Net Growth
Georgia	$821.3	$1,405.1	71.1%	20.2%	50.9%
Louisiana	$623.8	$749.8	20.2%	4.9%	15.3%
Montana	$420.0	$554.1	31.9%	23.9%	8.0%
Oregon	$966.5	$1,190.6	23.2%	14.0%	9.2%
South Dakota	$230.2	$330.7	43.6%	13.0%	30.7%
Total - Non-iGaming	**$3,061.8**	**$4,230.1**	**38.2%**	**15.5%**	**22.6%**
West Virginia	$398.1	$488.4	22.7%	8.4%	14.3%
Impact of iGaming on Distributed Gaming Revenue					**-8.3%**

Sources: Various State Gaming Regulatory Bodies, US Bureau of Labor Statistics, US Census

As you can see in the table above, distributed gaming revenues in states without iGaming grew 22.6% in excess of GDP and population growth between 2019 and FY2024. In contrast, West

[12] Gross gaming revenue, since net gaming revenue is generally not reported.

Virginia grew only 14.3% net of GDP and Population, implying that the presence of iGaming decreased distributed gaming revenues in West Virginia by about 8.3%.

To project distributed gaming revenues in the absence of iGaming, we multiply forecasted distributed gaming spend per adult in each state (grown with GDP), by the forecasted adult population of that state. To project revenues impacted by iGaming, we decrease the revenue estimate by the impact figure produced above, 8.3%. In the following tables, we present our distributed gaming revenue projections for Louisiana and Illinois.

Table 22: Distributed Gaming GGR Loss – Louisiana ($m)

Year	Distributed Gaming GGR, Expected with No iGaming	Distributed Gaming GGR, Expected with iGaming	Expected Distributed Gaming GGR Loss Due to iGaming
2029	$792.9	$726.9	$66.0
2030	$799.5	$733.0	$66.6
2031	$806.2	$739.1	$67.1
2032	$813.0	$745.3	$67.7

Source: The Innovation Group

Table 23: Distributed Gaming GGR Loss – Illinois ($m)

Year	Distributed Gaming GGR, Expected with No iGaming	Distributed Gaming GGR, Expected with iGaming	Expected Distributed Gaming GGR Loss Due to iGaming
2029	$3,115.9	$2,856.5	$259.4
2030	$3,144.5	$2,882.7	$261.8
2031	$3,173.3	$2,909.1	$264.2
2032	$3,202.4	$2,935.8	$266.6

Source: The Innovation Group

Non-Gaming Amenity Revenues

Gaming revenue loss due to iGaming may plausibly derive from two effects: reducing overall casino visitation, or reducing the level of spend in the casino on visits. Based on our experience, we believe that reduction in casino visitation is far more likely than changing a guest's at-casino behavior, which is relatively entrenched. Additionally, the visitation impact will likely be more dramatic at the lower end of the database; VIP guests have personal relationships with hosts and generally receive personalized treatment and experiential reinvestment in the form of food and beverage comps, hotel rooms, spa treatments, and entertainment tickets. Even if the VIP offers from online casinos were comparable, there is a high social and systemic "switching cost" for players, so we expect the casinos to weather the cannibalization from iGaming relatively well in the VIP segment. Thus, the reduced visitation comprising the 16% revenue cannibalization figure is likely to come from visits of lower-than-average win per visit, which means that the visitation reduction could actually exceed 16%. In general we believe that 16%-20% visitation reduction is a reasonable estimated range for planning purposes.

Based on this reduced visitation, we will consider impacts to two of a resort property's major amenities: hotel and food and beverage offerings.

Hotel Considerations

Hotel impacts will depend on the nature of each individual hotel. Casinos with hotels on the property are able to issue complimentary ("comp") rooms for players, and comp decisions are arrived at via a complicated hotel "yielding" process. In this process, for a given night, a cash rate for hotel rooms is determined using factors including rack rates in the competitive hotel market, existing bookings for that night, and call-in/website demand for that night. Casino guests are offered complimentary rooms if the casino expects the guest's casino contribution to exceed the value of selling the room at the cash rate. A decision on whether a guest can be awarded a complimentary room for a given date can change day-to-day as market conditions change.

The reason this process is relevant to hotel impact is that if there are ample casino guests that both desire a comp room and qualify for a comp room, then reducing overall property visitation may not affect the hotel's ability to fill rooms with qualified gaming guests at all. On the other hand, if there is *not* a sufficient qualified casino population looking for comp rooms, then the resort may end up not filling the rooms. Likewise, a reduction in demand for casino product is likely to lead to a reduction in cash demand for casino rooms. Ultimately, this thinking will help us arrive at a range of impacts, both in terms of hotel cash revenue, which will impact room taxes, and in terms of the labor required to run the hotel.

Comp Room Hotel Impacts: Based on the discussion above, we believe that comp hotel impacts could range from 0% to 16%, depending on the hotel in question.

Cash Room Hotel Impacts: Cash demand for hotel rooms comes from a variety of segments. We see free and independent travelers, meeting- and convention-goers, corporate travelers, and other group business (e.g., Social, Military, Educational, Religious, and Fraternal Groups or the 'SMERF' segment). On weekdays, cash rooms may make up 40%-50% of room demand, and on weekends, cash rooms can be closer to 20% of room demand. These figures are highly dependent on the area's tourism market and convention market, the supply of hotels in the area, and the amenities and approach of the casino resort, but on a blended basis, approximately 30%-35% of hotel room nights are typically cash rooms. We expect iGaming to have a modest impact on this demand and assume only a 6.5%-7.5% impact on hotel cash demand.

Food and Beverage Considerations

Food and beverage outlets are critical parts of any resort operation. Resorts use their amenities program to engage visitors for longer than a slot session, extending trips to the property, and engaging family members while guests are on the gaming floor.

Comp F&B Impacts: From a comp perspective, we expect a modest reduction in comp revenue. Comp F&B revenue comes in a few forms:

- Casino beverage, consisting of comp drinks to players on the floor. We believe these will reduce in proportion to visitation, so 16%-20%.
- Discretionary comps: We believe that discretionary comps to VIPs will persist. If there is a VIP reduction on property, this may trigger increased use of discretionary comps to solidify the remaining VIP segment. We anticipate little to no reduction here.

- Points redemptions for F&B: Since points are earned in proportion to gaming revenue, and we don't expect the mix of points redemptions to change, we anticipate these reducing by 16%-20% as well.

Cash F&B Impacts: Our belief is that cash F&B revenue will reduce roughly in proportion with visitation reductions to the property, since we believe that generally visitors will not change their on-property behavior once they decide to visit. As above, we believe that a 16%-20% reduction in cash F&B revenue is a reasonable estimate.

Non-Gaming Amenity Revenue Impacts

To project non-gaming amenity revenue impacts resulting from decreases in brick-and-mortar casino revenue, we assume the following revenue split across all casino markets in our sample, relying on our internal models of casino revenue:

- 85.0% Gaming Revenue
- 8.0% F&B Revenue
- 4.5% Hotel Revenue
- 2.5% Other Revenue

We begin with these breakdowns, estimate intra-departmental revenue mix (cash vs. comp, etc.), and combine with the relative impacts on the different revenue streams discussed above to arrive at overall revenue losses across the resorts. The following table summarizes the share of each category, and the losses we expect to see in each category.

Table 24: Estimated Revenue Splits and Losses by Business Area

	Revenue Split (%)	Approximate Losses (%)	Category Revenue Loss Ratio (%Losses: %GGR Losses)
Gaming	**85.0%**	**15.8%**	1.0
F&B	**8.0%**	**17.2%**	1.1
Comp Casino Beverage	*16.0%*	*18.6%*	1.2
Discretionary Comp	*8.0%*	*0.0%*	-
Points Redemption	*16.0%*	*18.6%*	1.2
Cash F&B	*60.0%*	*18.6%*	1.2
Hotel	**4.5%**	**6.9%**	0.4
Comp Hotel	*65.0%*	*7.9%*	0.5
Cash Hotel	*35.0%*	*5.0%*	0.3
Other	**2.5%**	**18.6%**	1.2

Source: The Innovation Group

The following table presents revenue projections by business area for each state's casino market in 2029 ***in the absence of iGaming***.

Table 25: Projected Revenue Without iGaming by Business Area by State – 2029 ($m)

	Colorado	Illinois[13]	Indiana	Louisiana[14]	Maine	Maryland	Mississippi	New York	Ohio
Gaming	**$1,273.3**	**$1,758.8**	**$2,546.5**	**$2,411.2**	**$184.1**	**$2,162.3**	**$2,634.5**	**$6,208.7**	**$2,954.6**
F&B	**$119.8**	**$165.5**	**$239.7**	**$226.9**	**$17.3**	**$203.5**	**$248.0**	**$584.3**	**$278.1**
Comp Casino Beverage	$19.2	$26.5	$38.3	$36.3	$2.8	$32.6	$39.7	$93.5	$44.5
Discretionary Comp	$9.6	$13.2	$19.2	$18.2	$1.4	$16.3	$19.8	$46.7	$22.2
Points Redemption	$19.2	$26.5	$38.3	$36.3	$2.8	$32.6	$39.7	$93.5	$44.5
Cash F&B	$71.9	$99.3	$143.8	$136.2	$10.4	$122.1	$148.8	$350.6	$166.8
Hotel	**$67.4**	**$93.1**	**$134.8**	**$127.6**	**$9.7**	**$114.5**	**$139.5**	**$328.7**	**$156.4**
Comp Hotel	$43.8	$60.5	$87.6	$83.0	$6.3	$74.4	$90.7	$213.7	$101.7
Cash Hotel	$23.6	$32.6	$47.2	$44.7	$3.4	$40.1	$48.8	$115.0	$54.7
Other	**$37.4**	**$51.7**	**$74.9**	**$70.9**	**$5.4**	**$63.6**	**$77.5**	**$182.6**	**$86.9**
Total	**$1,498.0**	**$2,069.2**	**$2,995.9**	**$2,836.7**	**$216.6**	**$2,543.8**	**$3,099.4**	**$7,304.3**	**$3,476.0**

Source: The Innovation Group

Using these projected revenues, we apply our projections of losses by category to derive total revenue losses assuming iGaming is introduced in each state. For example, we expect Colorado gaming revenue to drop by 15.8% as a result of iGaming, and apply this figure to the revenue we'd expect in iGaming's absence ($1,273 billion) to arrive at gaming revenue losses of $201.7 million. The following table shows the gaming and associated nongaming revenue declines using the Percent of Land-based Revenue (Approach 1) method of computing gaming revenue impact.

Table 26: Projected Losses by Business Area by State – 2029 ($m) – Approach 1: Percent of Land-based

	Colorado	Illinois	Indiana	Louisiana	Maine	Maryland	Mississippi	New York	Ohio
Gaming	**($201.7)**	**($278.7)**	**($403.5)**	**($382.0)**	**($29.2)**	**($342.6)**	**($417.4)**	**($983.7)**	**($468.1)**
F&B	**($20.6)**	**($28.5)**	**($41.2)**	**($39.0)**	**($3.0)**	**($35.0)**	**($42.6)**	**($100.5)**	**($47.8)**
Comp Casino Beverage	($3.6)	($4.9)	($7.1)	($6.8)	($0.5)	($6.1)	($7.4)	($17.4)	($8.3)
Discretionary Comp	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Points Redemption	($3.6)	($4.9)	($7.1)	($6.8)	($0.5)	($6.1)	($7.4)	($17.4)	($8.3)
Cash F&B	($13.4)	($18.5)	($26.8)	($25.4)	($1.9)	($22.8)	($27.7)	($65.3)	($31.1)
Hotel	**($4.6)**	**($6.4)**	**($9.3)**	**($8.8)**	**($0.7)**	**($7.9)**	**($9.6)**	**($22.6)**	**($10.8)**
Comp Hotel	($3.5)	($4.8)	($6.9)	($6.5)	($0.5)	($5.9)	($7.1)	($16.8)	($8.0)
Cash Hotel	($1.2)	($1.6)	($2.4)	($2.2)	($0.2)	($2.0)	($2.4)	($5.8)	($2.7)
Other	**($7.0)**	**($9.6)**	**($14.0)**	**($13.2)**	**($1.0)**	**($11.9)**	**($14.4)**	**($34.0)**	**($16.2)**
Total	**($234.0)**	**($323.2)**	**($467.9)**	**($443.0)**	**($33.8)**	**($397.3)**	**($484.1)**	**($1,140.8)**	**($542.9)**

Source: The Innovation Group

[13] Illinois Gaming revenue presented in this table is exclusive of revenue losses from distributed gaming.
[14] See above

The following two tables display the expected revenue losses for the Approach 2 (Percent of iGaming) method of computing gaming revenue impact and applying the "Category Revenue Loss Ratio" from the table above. For example, food and beverage percentage losses are expected to be approximately 1.1 times the percent loss in gaming revenue, hotel percentage losses are expected to be approximately 0.4 times the percentage loss in gaming revenue, as in the column above labeled "Loss Multiple on Gaming Revenue".

Table 27: Projected Loss Fraction by Business Area by State – 2029 – Approach 2: Percent of iGaming

	Colorado	Illinois	Indiana	Louisiana	Maine	Maryland	Mississippi	New York	Ohio
Gaming	**22.5%**	**31.0%**	**12.3%**	**8.1%**	**37.3%**	**12.8%**	**4.9%**	**14.5%**	**17.7%**
F&B	**24.4%**	**33.7%**	**13.4%**	**8.8%**	**40.5%**	**13.9%**	**5.3%**	**15.8%**	**19.2%**
Comp Casino Beverage	*26.5%*	*36.5%*	*14.5%*	*9.6%*	*43.9%*	*15.0%*	*5.8%*	*17.1%*	*20.8%*
Discretionary Comp	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Points Redemption	*26.5%*	*36.5%*	*14.5%*	*9.6%*	*43.9%*	*15.0%*	*5.8%*	*17.1%*	*20.8%*
Cash F&B	*26.5%*	*36.5%*	*14.5%*	*9.6%*	*43.9%*	*15.0%*	*5.8%*	*17.1%*	*20.8%*
Hotel	**9.8%**	**13.5%**	**5.4%**	**3.5%**	**16.2%**	**5.6%**	**2.1%**	**6.3%**	**7.7%**
Comp Hotel	*11.2%*	*15.4%*	*6.1%*	*4.0%*	*18.6%*	*6.4%*	*2.4%*	*7.2%*	*8.8%*
Cash Hotel	*7.1%*	*9.8%*	*3.9%*	*2.6%*	*11.8%*	*4.0%*	*1.6%*	*4.6%*	*5.6%*
Other	**26.5%**	**36.5%**	**14.5%**	**9.6%**	**43.9%**	**15.0%**	**5.8%**	**17.1%**	**20.8%**

Source: The Innovation Group

Table 28: Projected Losses by Business Area by State – 2029 ($m) – Approach 2: Percent of iGaming

	Colorado	Illinois	Indiana	Louisiana	Maine	Maryland	Mississippi	New York	Ohio
Gaming	**($286.4)**	**($545.3)**	**($314.1)**	**($196.2)**	**($68.7)**	**($276.4)**	**($129.6)**	**($901.3)**	**($522.6)**
F&B	**($29.3)**	**($55.7)**	**($32.1)**	**($20.0)**	**($7.0)**	**($28.2)**	**($13.2)**	**($92.1)**	**($53.4)**
Comp Casino Beverage	($5.1)	($9.7)	($5.6)	($3.5)	($1.2)	($4.9)	($2.3)	($16.0)	($9.3)
Discretionary Comp	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Points Redemption	($5.1)	($9.7)	($5.6)	($3.5)	($1.2)	($4.9)	($2.3)	($16.0)	($9.3)
Cash F&B	($19.0)	($36.2)	($20.9)	($13.0)	($4.6)	($18.4)	($8.6)	($59.9)	($34.7)
Hotel	**($6.6)**	**($12.5)**	**($7.2)**	**($4.5)**	**($1.6)**	**($6.4)**	**($3.0)**	**($20.7)**	**($12.0)**
Comp Hotel	($4.9)	($9.3)	($5.4)	($3.4)	($1.2)	($4.7)	($2.2)	($15.4)	($8.9)
Cash Hotel	($1.7)	($3.2)	($1.8)	($1.2)	($0.4)	($1.6)	($0.8)	($5.3)	($3.1)
Other	**($9.9)**	**($18.9)**	**($10.9)**	**($6.8)**	**($2.4)**	**($9.6)**	**($4.5)**	**($31.2)**	**($18.1)**
Total	**($332.2)**	**($632.5)**	**($364.2)**	**($227.5)**	**($79.6)**	**($320.5)**	**($150.3)**	**($1,045.3)**	**($606.1)**

Source: The Innovation Group

Labor Impacts

In this section, we discuss the impact of iGaming on gaming business jobs. Our models include projections of additional iGaming jobs and the job loss implications of cannibalization effects on land-based gaming revenue (including traditional casinos and distributed gaming locations), and non-gaming amenities. We present our methodology and include direct job loss projections for eight states currently contemplating iGaming legislation. We note that these job impacts represent losses in direct jobs only (i.e. those in the gaming industry). In the final section of this report, we project the total job losses that result from iGaming by accounting for additional job impacts throughout the economy.

iGaming Jobs

The introduction of iGaming operations in a state creates new employment opportunities across various operational roles. We utilize Michigan as a case study to forecast the number of iGaming jobs that will come to a state. Michigan, with 15 licenses, represents one of the larger states with regard to iGaming (and sports).

There are several distribution models for iGaming, but a common one is that the state issues iGaming licenses to casinos within the state, and those casinos can contract with an operator to manage online gaming for them. This is a key point: job creation in iGaming is almost exclusively with the operators. In-state job creation tends to be limited to: (1) 1-2 in-house team members in charge of "managing iGaming" for the casino; (2) VIP hosts to take big players to live events; and (3) live dealers, only if the operator is required to host its live dealers in-state. Other marketing, compliance, accounting, legal, etc. is likely to be absorbed at the casino without meaningful staff expansion. The actual number of jobs will vary by the size of the property and the business model they choose to implement (developing their own online casino, vs, partnering with a FanDuel or DraftKings, for example).

On average, we expect to see approximately 6 additional iGaming jobs per license. To project the number of iGaming employees in a given state, we examined the relationship between the adult population and the number iGaming licenses operating in the state. Taking the adult-population weighted-average, we find that there are approximately 1.6 iGaming licenses per million adults in a state.

Table 29: iGaming Licenses per Million Adults by State

State	2024 Population 21+	iGaming Licenses	iGaming Licenses per Million Adults
Connecticut	2,768,483	2	0.7
Delaware	785,164	1	1.3
Michigan	7,576,288	15	2.0
New Jersey	7,113,622	9	1.3
Pennsylvania	9,939,120	12	1.2
West Virginia	1,357,021	9	6.6
Total	**29,539,698**	**48**	**1.6**

Source: The Innovation Group, ESRI, Various State Regulatory Bodies

With an average headcount of 6 employees per iGaming license, this implies approximately 10 employees per million adults in a given state. Below, we project iGaming employees for our states of interest by scaling this 10 employee figure by the adult population of the state

Table 30: Projected iGaming Jobs by State

State	Projected iGaming Employees
Colorado	45
Illinois	94
Indiana	50
Louisiana	94
Maine	11
Maryland	47
Mississippi	22
New York	153
Ohio	88

Land-based Gaming Jobs

To project job loss as a result of declines in land-based revenue, we take two complimentary approaches.

Given most states do not report employee headcount, we first must estimate baseline 2024 employee headcount before we project out to 2029. Using data from Indiana (presented below), we know that gaming positions, which are near-universally reported, have a predictable relationship with headcount. For every gaming position, there are approximately 0.53 employees when hotel employees are included. For casinos without hotels, the ratio is closer to 0.40. This relationship holds across different states, including Maryland and Louisiana.

Table 31: Employees per Gaming Position FY2024 - Indiana

Casino Property	Employees	Gaming Positions	Employees per Position	Hotel Rooms
Ameristar	713	1,434	0.50	288
Bally's Evansville	532	1,122	0.47	338
Belterra Casino	596	1,006	0.59	608
Blue Chip	581	1,500	0.39	486
French Lick	1,568	904	1.73	757
Hollywood Lawrenceburg	674	1,625	0.41	463
Hoosier Park	643	1,470	0.44	0
Horseshoe Hammond	889	2,181	0.41	0
Caesars Southern IN	875	1,557	0.56	503
Horseshoe Indianapolis	813	2,132	0.38	0
Hard Rock Northern Indiana	1,389	2,313	0.60	0
Rising Star	295	743	0.40	294
Total	**9,568**	**17,987**	**0.53**	**3,737**
Total, no Hotel*	2,345	5,783	0.41	0

Source: Indiana Gaming Commission, *Excluding HRNI as an outlier

In order to project the number of jobs in the absence of iGaming, we first need to know how changes in revenue impact changes in headcount. To accomplish this, we studied employment and revenue trends in Illinois, which reports casino headcount. During the period from 2007 to 2018, gross gaming revenue in Illinois decreased from $1.7 billion to about $815 million, or a decline of about 53.3%. Over the same period, casino employee headcount fell from around 7,250 to about 4,250, or a decline of about 41.5%. This implies that for every 100% move in gaming revenue, we would expect to see a concomitant move of about 78% in employee headcount.

Table 32: Illinois Employment Impact of GGR

Year	Employment	Total GGR
2007	7,266	$1,743,225,000
2008	6,654	$1,384,795,000
2009	6,017	$1,308,964,000
2010	5,991	$1,227,503,000
2011	5,609	$1,154,422,000
2012	5,470	$1,079,840,000
2013	5,216	$1,001,420,029
2014	5,066	$915,739,032
2015	4,995	$887,898,914
2016	4,623	$864,347,228
2017	4,456	$851,292,665
2018	4,247	$814,385,468
2018/2007	-41.5%	-53.3%
Employment Impact/Total GGR Impact		**77.98%**

Source: Illinois Gaming Board

To estimate the number of jobs in the absence of iGaming, we measure the percentage difference between our 2029 brick-and-mortar revenue estimate and our 2024 actual revenue data, and multiply that percentage by our employment impact of GGR figure of 78% to develop a scaling factor for 2024 employee headcount. It implies, for example, that our 15.8% decrease in brick-and-mortar revenue ought to be accompanied by a decrease in employee headcount by about 12.4%.

With these two factors, we are able to make reasonably accurate estimates of employee headcount as a function of both gaming positions and changes in gaming revenue. However, rather than rely solely on these empirical relationships, the Innovation Group also makes use of its internal labor model to project headcount reductions by business area.

Our labor model contains information on the portion of the total labor force made up by each business area, as well as the fraction of each department that is variable. To estimate the job impacts of revenue declines from iGaming, we built models of the average casino hotel and noted the fraction of employees engaged in Gaming and Overhead, F&B, Hotel, and Other Departments, as well as the portion of each department that was variable, finally, we estimated the reduction in variable labor by assuming that it would fall along with revenue losses in the given category.

Gaming and Overhead Labor: Variable labor in gaming operations encompasses table game dealers, slot attendants, cage cashiers, count room personnel, and floor supervisors whose schedules are adjusted based on gaming volume and peak periods. Support departments like security and surveillance also include variable staffing components that fluctuate with casino activity. Our analysis of staffing patterns indicates that approximately 76% of gaming and overhead department positions are variable. Fixed labor in these departments typically includes senior management, compliance officers, technical support staff, and core security personnel who are required regardless of daily gaming volume.

F&B Labor: Variable labor related to F&B includes bussers, waitstaff, bartenders, cleaners/laborers, and cooks. The number of staff required in these positions is dependent on the volume of visitation to the F&B outlets. Our models of staffing estimate that 80-90% of headcount and wages in food and beverage are variable

Hotel Labor: Fixed labor in a hotel includes maintenance personnel, the hotel manager, a group sales team, and others. Variable labor, which depends on how many guests are checking in and out, includes front desk agents, bellmen, housekeeping, and room attendants. The mix between variable labor and fixed labor largely depends on the scale of the hotel and the level of service, but our models suggest that around 70-75% of FTEs are variable labor and about 65% of the hotel wages are variable labor.

Table 33: Labor Mix, Reduction in Variable Labor, B&M Casinos – Approach One

	Portion of Labor Force	Variable % of Department	Reduction in Variable Labor
Gaming and Overhead Depts	50.0%	76.0%	15.8%
F&B	35.0%	85.0%	17.2%
Hotel	14.0%	73.0%	6.9%
Other (Revenue Generating)	1.0%	0.0%	18.6%

Source: The Innovation Group

Notably, for any given casino property, the combined job reduction from this labor mix and our 15.8% revenue decline is approximately 11.8%, which is in line with what we'd expect from our analysis of GGR's impact on employment in the state of Illinois (approximately 12.4%).

The following table displays the reductions in variable labor for our second cannibalization method. Reductions in variable labor for a given category are equal to the revenue decline in the variable category (e.g. if gaming revenue in Maryland drops by 8%, so too does the variable labor associated with Gaming).

Table 34: Reductions in Variable Labor, B&M Casinos - Approach Two

	Colorado	Illinois	Indiana	Louisiana	Maine	Maryland	Mississippi	New York	Ohio
Gaming and Overhead Depts	22.5%	31.0%	12.3%	8.1%	37.3%	12.8%	4.9%	14.5%	17.7%
F&B	24.4%	33.7%	13.4%	8.8%	40.5%	13.9%	5.3%	15.8%	19.2%
Hotel	9.8%	13.5%	5.4%	3.5%	16.2%	5.6%	2.1%	6.3%	7.7%
Other (Revenue Generating)	26.5%	36.5%	14.5%	9.6%	43.9%	15.0%	5.8%	17.1%	20.8%

Source: The Innovation Group

For distributed gaming jobs, our labor mix reflects decreases only in gaming and overhead employees, which we model as reducing in line with GGR decreases. This may be conservative, however. Margins are thin in the distributed business, and one Illinois operator claims to have reduced machines in nearly 10% of its properties as a result of a 1% increase in gaming tax.

Table 35: Labor Mix, Reduction in Variable Labor, Distributed Gaming Locations

	Portion of Labor Force	Variable % of Department	Reduction in Variable Labor
Gaming and Overhead Depts	100.0%	76.0%	8.3%

Source: The Innovation Group

Labor Summary

The following table displays our projections for direct job losses due to iGaming introduction in each state. We note that these impacts only represent the changes in employment in the gaming sector of the economy. In the final section of the report, we project total job losses, accounting for the impacts of changes in spending and employment throughout the economy.

Table 36: Direct Gaming Job Impacts by Category by State – Using Approach 1: Percent of Land-based

	Colorado	Illinois	Indiana	Louisiana	Maine	Maryland	Mississippi	New York	Ohio
iGaming Jobs Gained	45	94	50	94	11	47	22	153	88
B&M Jobs Lost	-431	-406	-620	-669	-65	-440	-861	-1,491	-629
Distributed Gaming Jobs Lost		-1,690		-419					
F&B Jobs Lost	-367	-345	-527	-568	-55	-374	-732	-1,267	-534
Hotel Jobs Lost	-50	-47	-72	-78	-8	-51	-101	-174	-73
Direct Gaming Jobs Change	**-803**	**-2,394**	**-1,169**	**-1,640**	**-117**	**-818**	**-1,672**	**-2,779**	**-1,148**

Source: The Innovation Group

Table 37: Direct Gaming Job Impacts by Category by State – Using Approach 2: Percent of iGaming

	Colorado	Illinois	Indiana	Louisiana	Maine	Maryland	Mississippi	New York	Ohio
iGaming Jobs Gained	45	94	50	94	11	47	22	153	88
B&M Jobs Lost	-612	-794	-483	-343	-153	-355	-267	-1,366	-702
Distributed Gaming Jobs Lost		-1,690		-419					
F&B Jobs Lost	-520	-675	-410	-292	-130	-301	-227	-1,161	-597
Hotel Jobs Lost	-72	-93	-56	-40	-18	-41	-31	-160	-82
Direct Gaming Jobs Change	**-1,159**	**-3,157**	**-899**	**-1,000**	**-290**	**-651**	**-504**	**-2,534**	**-1,292**

Source: The Innovation Group

Tax Impacts

In this section, we project the direct tax losses associated to reductions in brick-and-mortar gaming. The following table presents tax rates for each direct impact business category by state.

Table 38: Tax Rates by Category by State

Tax Type	Based on	Colorado	Illinois	Indiana	Louisiana	Maine	Maryland	Mississippi	New York	Ohio
Gaming Tax[15]	Lost Casino Gaming Revenue	15.9%	28.7%	30.5%	21.5%	39.5%	45.0%	12.0%	52.0%	33.0%
Gaming Tax	Lost Distributed Gaming Revenue	-	35.0%	-	30.3%	-	-	-	-	-
Sales Tax	Lost Cash F&B, Other Revenue	7.1%	8.3%	7.0%	4.5%	8.0%	6.0%	7.0%	8.3%	5.8%
Sales, Hotel Tax	Lost Cash Hotel Revenue	14.7%	19.5%	12.0%	5.5%	9.0%	8.0%	9.0%	14.2%	8.8%

Source: Various State Regulatory Agencies

To calculate the direct effects of lost brick-and-mortar tax revenue, we multiply the change in revenue in the given business category by the appropriate tax rate. The following table provides

[15] We use the blended tax rate from each state, as some properties will not be taxed in the top tax bracket.

an example using Colorado. Brick-and-mortar gaming revenue is taxed at an effective rate of ~15.9%, and Colorado is projected to lose about $201.7 million across all casinos in the state. At a rate of 15.9%, this results in direct tax losses from brick-and-mortar gaming of $32.1 million. We repeat the process for F&B, Other and Hotel revenues at the appropriate rate and sum them to find the direct tax losses associated with the introduction of iGaming. While we compute direct tax losses associated with non-gaming revenue items here for illustrative purposes, our final economic impact will use the non-gaming tax forecasts from IMPLAN.

Table 39: Tax Calculation Example – Colorado

	Tax Rate	Direct Revenue Changes ($m)	Direct Tax Losses ($m)
Brick-and-Mortar Gaming	15.9%	($201.7)	($32.1)
Food and Beverage, Other	7.1%	($20.4)	($1.4)
Hotel	14.7%	($1.2)	($0.2)
Direct Casino Tax Losses		**($223.3)**	**($33.7)**

Source: The Innovation Group

In the following tables, we present the expected direct casino tax losses associated with the introduction of iGaming and add the anticipated direct tax gains from iGaming. To calculate iGaming tax revenues, we assume a rate of 20%, as this was the average of the 15% to 25% tax rate range recommended by the National Conference of Legislators from Gaming States' working group on iGaming model legislation.

For both methods of forecasting cannibalization, we present total direct tax impacts as a result of iGaming introduction. These direct tax impacts will be expanded to include indirect and induced tax impacts and compared to job losses, wage declines, and GDP contraction later in this report.

Table 40: Net Direct Tax Change by Category by State – 2029 ($m)- Using Approach 1: Percent of Land-based

	Colorado	Illinois	Indiana	Louisiana	Maine	Maryland	Mississippi	New York	Ohio[16]
iGaming Tax	$255.9	$487.2	$280.6	$175.3	$61.3	$246.9	$115.8	$805.3	$467.0
Direct Casino Tax Losses	($33.7)	($173.4)	($126.2)	($104.0)	($11.8)	($156.4)	($53.3)	($520.5)	($157.4)
Lost B&M Gaming Tax	*($32.1)*	*($80.0)*	*($123.1)*	*($82.1)*	*($11.5)*	*($154.2)*	*($50.1)*	*($511.5)*	*($154.5)*
Lost Dist. Gaming Tax		*($90.8)*		*($20.0)*					
Lost F&B, Other Tax	*($1.4)*	*($2.3)*	*($2.9)*	*($1.7)*	*($0.2)*	*($2.1)*	*($3.0)*	*($8.2)*	*($2.7)*
Lost Hotel Tax	*($0.2)*	*($0.3)*	*($0.3)*	*($0.1)*	*($0.0)*	*($0.2)*	*($0.2)*	*($0.8)*	*($0.2)*
Direct Tax Impacts	**$222.2**	**$313.8**	**$154.4**	**$71.3**	**$49.6**	**$90.5**	**$62.6**	**$284.7**	**$309.5**

Source: The Innovation Group

[16] It should be noted that Ohio VLT operators contribute approximately 9% of net terminal revenue (which itself makes up approximately 55% of Ohio net gaming revenue) to racing purses in the state. With an average gaming

Table 41: Net Direct Tax Change by Category by State – 2029 ($m) – Using Approach 2: Percent of iGaming

	Colorado	Illinois	Indiana	Louisiana	Maine	Maryland	Mississippi	New York	Ohio
iGaming Tax	$255.9	$487.2	$280.6	$175.3	$61.3	$246.9	$115.8	$805.3	$467.0
Direct Casino Tax Losses	($47.8)	($252.5)	($98.2)	($63.1)	($27.7)	($126.2)	($16.5)	($476.9)	($175.8)
Lost B&M Gaming Tax	*($45.5)*	*($156.5)*	*($95.8)*	*($42.2)*	*($27.1)*	*($124.4)*	*($15.6)*	*($468.7)*	*($172.5)*
Lost Dist. Gaming Tax		*($90.8)*		*($20.0)*					
Lost F&B, Other Tax	*($2.1)*	*($4.5)*	*($2.2)*	*($0.9)*	*($0.6)*	*($1.7)*	*($0.9)*	*($7.5)*	*($3.1)*
Lost Hotel Tax	*($0.2)*	*($0.6)*	*($0.2)*	*($0.1)*	*($0.0)*	*($0.1)*	*($0.1)*	*($0.7)*	*($0.3)*
Direct Tax Impacts	**$208.1**	**$234.8**	**$182.4**	**$112.1**	**$33.6**	**$120.8**	**$99.3**	**$328.3**	**$291.2**

Source: The Innovation Group

revenue loss of approximately $495m, this implies a loss to racing pursues of approximately $24.5m in addition to the tax losses stated here

ECONOMIC IMPACT PROJECTIONS

In this section, we project the impact of iGaming's introduction on states that are currently contemplating iGaming legislation.

Economic Impact Modeling

The IMPLAN tools utilized to model direct effects vary according to the type of data collected for each input segment. There are multiple types of economic activity changes that IMPLAN is designed to model for, but the most commonly used activity is an industry change, as the business generating a change in revenue, labor, or employment is often known and attributable to a specific industry sector. When using the Industry Change function, the direct effect values are entered into IMPLAN using the appropriate sector, and IMPLAN calculates the multiplier effects resulting from that direct spending. We use this function to model the statewide economic impacts resulting from the direct impacts of iGaming on land-based casino properties.

Interpreting Results

The IMPLAN analysis expresses impacts (direct, indirect, and induced) for the following four economic variables:

Employment is measured in IMPLAN and by the U.S. Census as headcount, in other words the number of full and part-time workers supported by an economic activity.

Labor Income (LI) is compensation to all workers both employees and owners in terms of wages and salaries as well as benefits and payroll taxes. Profits from self-employed businesses can also be included in this category as compensation to the owner. These are known as employment compensation (EC) and proprietor income (PI) in IMPLAN. $LI = EC + PI$

Value-Added (VA) measures the industry or event's contribution to Gross Domestic Product (GDP). It consists of labor income (as described above), taxes on production and imports (TOPI), and other property income (OPI, such as corporate profits, rent payments, and royalties). It is the difference between a business or industry's total sales and the cost of all input materials or intermediate expenditures. $VA = LI + TOPI + OPI$

Output is the total value of industry production; it consists of value-added plus intermediate expenditures (IE). Output is frequently the total price paid by consumers for a good or service. $Output = VA + IE$

Value-Added is the most appropriate measure of economic impact because it excludes intermediate inputs, which are the goods and services (including energy, raw materials, semi-finished goods, and services purchased from all sources) used in the production process to produce ***other*** goods or services rather than for ***final*** consumption.

State Models

The introduction of iGaming in the states modeled below will result in economic effects that will occur annually. In our models, we present impacts from the year 2029, when all the markets are fully mature. Direct inputs for the industry were derived from our projections discussed above and are presented in the first table in each state's section.

Colorado

Table 42: Direct Gaming Industry Impacts of iGaming – Colorado

	Approach 1: Percent of Land-based		Approach 2: Percent of iGaming	
Direct Impact Category	**Revenue ($m)**	**Employment**	**Revenue ($m)**	**Employment**
Brick-and-mortar Gaming Losses	($201.7)	-386	($286.4)	-567
Food & Beverage, Other Losses	($13.4)	-367	($19.0)	-520
Hotel Losses	($8.2)	-50	($11.6)	-72
Total Direct Losses	**($223.3)**	**-803**	**($317.0)**	**-1,159**

Sources: IMPLAN, The Innovation Group

Table 43: Statewide Economic Impacts of iGaming – Colorado

	Approach 1: Percent of Land-based				Approach 2: Percent of iGaming			
Impact Type	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**
Direct Effect	-803	($48.0)	($186.3)	($241.4)	-1,159	($68.1)	($264.5)	($342.7)
Indirect Effect	-287	($21.7)	($33.0)	($59.3)	-408	($30.8)	($46.8)	($84.2)
Induced Effect	-339	($21.0)	($39.5)	($66.3)	-481	($29.9)	($56.1)	($94.1)
Total	**-1,429**	**($90.7)**	**($258.8)**	**($367.0)**	**-2,048**	**($128.8)**	**($367.4)**	**($521.0)**

Sources: IMPLAN, The Innovation Group

Table 44: Tax Impacts of iGaming – Colorado

Category	**Approach 1**	**Approach 2**	**Average**
Direct Tax Impact, Gaming ($m)	$223.9	$210.4	$217.1
State Tax Losses, All Other Industries ($m)	($51.5)	($73.2)	($62.4)
Net State Taxes ($m)	**$172.3**	**$137.3**	**$154.8**
Net Value Added (GDP) ($m)	($258.8)	($367.4)	($313.1)

Sources: IMPLAN, The Innovation Group

On average, we project that the introduction of iGaming in Colorado will lead to approximately $155 million in net tax revenue, 1,739 lost jobs, $110 million in lost labor income, and $313 million in lost value added throughout the economy.

Colorado Impacts Summary

Positive

- +$155m Net Tax Receipts

Negative

- Jobs Lost: 1,429 – 2,048
- Labor Income Lost: $91m - $129m
- Economic Output Lost: $367m - $521m
- GDP Lost: $259m – $367m
- Potential increase in disordered gambling
- Reduced physical development and community reinvestment from casinos

Illinois

Table 45: Direct Gaming Industry Impacts of iGaming – Illinois

	Approach 1: Percent of Land-based		Approach 2: Percent of iGaming	
Direct Impact Category	**Revenue ($m)**	**Employment**	**Revenue ($m)**	**Employment**
Brick-and-mortar Gaming Losses	($538.1)	-2,002	($804.8)	-2,390
Food & Beverage, Other Losses	($18.5)	-345	($36.2)	-675
Hotel Losses	($11.3)	-47	($22.1)	-93
Total Direct Losses	**($567.9)**	**-2,394**	**($863.0)**	**-3,157**

Sources: IMPLAN, The Innovation Group

Table 46: Statewide Economic Impacts of iGaming – Illinois

	Approach 1: Percent of Land-based				Approach 2: Percent of iGaming			
Impact Type	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**
Direct Effect	-2,394	($115.6)	($467.9)	($616.1)	-3,158	($177.1)	($707.9)	($935.2)
Indirect Effect	-686	($58.7)	($91.5)	($153.7)	-1,048	($89.7)	($139.9)	($235.3)
Induced Effect	-862	($57.2)	($101.3)	($168.7)	-1,318	($87.5)	($154.9)	($258.1)
Total	**-3,941**	**($231.5)**	**($660.7)**	**($938.5)**	**-5,524**	**($354.3)**	**($1,002.7)**	**($1,428.5)**

Sources: IMPLAN, The Innovation Group

Table 47: Tax Impacts of iGaming – Illinois

Category	**Approach 1**	**Approach 2**	**Average**
Direct Tax Impact, Gaming ($m)	$316.5	$239.9	$278.2
State Tax Losses, All Other Industries ($m)	($156.4)	($236.2)	($196.3)
Net State Taxes ($m)	**$160.1**	**$3.7**	**$81.9**
Net Value Added (GDP) ($m)	($660.7)	($1,002.7)	($831.7)

Sources: IMPLAN, The Innovation Group

On average, we project that the introduction of iGaming in Illinois will lead to approximately $82 million in net tax revenue, 4,733 lost jobs, $293 million in lost labor income, and $832 million in lost value added throughout the economy. Distributed gaming losses account for approximately 38% of the revenue-related economic impacts in Illinois, and approximately 62% of the job-loss impacts.

Illinois Impacts Summary

Positive

- +$82m Net Tax Receipts

Negative

- Jobs Lost: 3,941 – 5,524
- Labor Income Lost: $232m - $354m
- Economic Output Lost: $939m - $1,429m
- GDP Lost: $661m – $1,003m
- Potential increase in disordered gambling
- Reduced physical development and community reinvestment from casinos

Indiana

Table 48: Direct Gaming Industry Impacts of iGaming – Indiana

	Approach 1: Percent of Land-based		Approach 2: Percent of iGaming	
Direct Impact Category	**Revenue ($m)**	**Employment**	**Revenue ($m)**	**Employment**
Brick-and-mortar Gaming Losses	($403.5)	-570	($314.1)	-432
Food & Beverage, Other Losses	($26.8)	-527	($20.9)	-410
Hotel Losses	($16.3)	-72	($12.7)	-56
Total Direct Losses	**($446.6)**	**-1,169**	**($347.6)**	**-899**

Sources: IMPLAN, The Innovation Group

Table 49: Statewide Economic Impacts of iGaming – Indiana

	Approach 1: Percent of Land-based				Approach 2: Percent of iGaming			
Impact Type	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**
Direct Effect	-1,169	($102.2)	($353.2)	($482.7)	-898	($79.6)	($275.0)	($375.8)
Indirect Effect	-606	($38.1)	($61.5)	($112.9)	-472	($29.7)	($47.9)	($87.9)
Induced Effect	-648	($37.5)	($67.2)	($115.5)	-504	($29.2)	($52.3)	($89.9)
Total	**-2,423**	**($177.8)**	**($482.0)**	**($711.2)**	**-1,874**	**($138.4)**	**($375.2)**	**($553.7)**

Sources: IMPLAN, The Innovation Group

Table 50: Tax Impacts of iGaming – Indiana

Category	**Approach 1**	**Approach 2**	**Average**
Direct Tax Impact, Gaming ($m)	$157.6	$184.8	$171.2
State Tax Losses, All Other Industries ($m)	($150.1)	($116.9)	($133.5)
Net State Taxes ($m)	**$7.4**	**$67.9**	**$37.7**
Net Value Added (GDP) ($m)	($482.0)	($375.2)	($428.6)

Sources: IMPLAN, The Innovation Group

On average, we project that the introduction of iGaming in Indiana will lead to approximately $38 million in net tax revenue, 2,149 lost jobs, $158 million in lost labor income, and $429 million in lost value added throughout the economy.

Indiana Impacts Summary

Positive

- +$38m Net Tax Receipts

Negative

- Jobs Lost: 1,874 – 2,423
- Labor Income Lost: $138m - $178m
- Economic Output Lost: $554m - $711m
- GDP Lost: $375m – $482m
- Potential increase in disordered gambling
- Reduced physical development and community reinvestment from casinos

Louisiana

Table 51: Direct Gaming Industry Impacts of iGaming – Louisiana

	Approach 1: Percent of Land-based		Approach 2: Percent of iGaming	
Direct Impact Category	**Revenue ($m)**	**Employment**	**Revenue ($m)**	**Employment**
Brick-and-mortar Gaming Losses	($448.0)	-993	($262.2)	-668
Food & Beverage, Other Losses	($25.4)	-568	($13.0)	-292
Hotel Losses	($15.5)	-78	($7.9)	-40
Total Direct Losses	**($488.9)**	**-1,640**	**($283.1)**	**-1,000**

Sources: IMPLAN, The Innovation Group

Table 52: Statewide Economic Impacts of iGaming – Louisiana

	Approach 1: Percent of Land-based				Approach 2: Percent of iGaming			
Impact Type	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**
Direct Effect	-1,640	($118.2)	($362.9)	($529.0)	-1,000	($68.3)	($210.9)	($306.6)
Indirect Effect	-866	($49.2)	($79.0)	($152.3)	-501	($28.5)	($45.7)	($88.1)
Induced Effect	-809	($40.0)	($77.6)	($136.8)	-468	($23.1)	($44.9)	($79.2)
Total	**-3,315**	**($207.4)**	**($519.5)**	**($818.2)**	**-1,969**	**($119.9)**	**($301.5)**	**($473.9)**

Sources: IMPLAN, The Innovation Group

Table 53: Tax Impacts of iGaming – Louisiana

Category	**Approach 1**	**Approach 2**	**Average**
Direct Tax Impact, Gaming ($m)	$73.1	$113.1	$93.1
State Tax Losses, All Other Industries ($m)	($160.6)	($93.7)	($127.2)
Net State Taxes ($m)	**($87.5)**	**$19.4**	**($34.0)**
Net Value Added (GDP) ($m)	($519.5)	($301.5)	($410.5)

Sources: IMPLAN, The Innovation Group

On average, we project that the introduction of iGaming in Louisiana will lead to approximately $34 million in lost tax revenue, 2,642 lost jobs, $164 million in lost labor income, and $411 million in lost value added throughout the economy. Distributed gaming losses account for approximately 18% of the revenue-related economic impacts, and approximately 33% of the job-loss impacts.

Louisiana Impacts Summary

Positive

Negative

- -$34m Net Tax Receipts
- Jobs Lost: 1,969 – 3,315
- Labor Income Lost: $120m - $207m
- Economic Output Lost: $474m - $818m
- GDP Lost: $302m – $520m
- Potential increase in disordered gambling
- Reduced physical development and community reinvestment from casinos

Maine

Table 54: Direct Gaming Industry Impacts of iGaming – Maine

	Approach 1: Percent of Land-based		Approach 2: Percent of iGaming	
Direct Impact Category	**Revenue ($m)**	**Employment**	**Revenue ($m)**	**Employment**
Brick-and-mortar Gaming Losses	($29.2)	-54	($68.7)	-142
Food & Beverage, Other Losses	($1.9)	-55	($4.6)	-130
Hotel Losses	($1.2)	-8	($2.8)	-18
Total Direct Losses	**($32.3)**	**-117**	**($76.0)**	**-290**

Sources: IMPLAN, The Innovation Group

Table 55: Statewide Economic Impacts of iGaming – Maine

	Approach 1: Percent of Land-based				Approach 2: Percent of iGaming			
Impact Type	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**
Direct Effect	-117	($7.2)	($25.0)	($34.9)	-290	($16.8)	($58.9)	($82.1)
Indirect Effect	-53	($3.1)	($5.0)	($9.3)	-124	($7.3)	($11.8)	($22.0)
Induced Effect	-51	($2.9)	($5.5)	($9.2)	-121	($6.8)	($13.0)	($21.7)
Total	**-221**	**($13.1)**	**($35.6)**	**($53.5)**	**-534**	**($30.9)**	**($83.8)**	**($125.9)**

Sources: IMPLAN, The Innovation Group

Table 56: Tax Impacts of iGaming – Maine

Category	**Approach 1**	**Approach 2**	**Average**
Direct Tax Impact, Gaming ($m)	$49.8	$34.2	$42.0
State Tax Losses, All Other Industries ($m)	($3.4)	($7.9)	($5.6)
Net State Taxes ($m)	**$46.5**	**$26.3**	**$36.4**
Net Value Added (GDP) ($m)	($35.6)	($83.8)	($59.7)

Sources: IMPLAN, The Innovation Group

On average, we project that the introduction of iGaming in Maine will lead to approximately $36 million in net tax revenue, 378 lost jobs, $22 million in lost labor income, and $60 million in lost value added throughout the economy.

Maine Impacts Summary

Positive

- +$36m Net Tax Receipts

Negative

- Jobs Lost: 221 – 534
- Labor Income Lost: $13m - $31m
- Economic Output Lost: $54m - $126m
- GDP Lost: $36m – $84m
- Potential increase in disordered gambling
- Reduced physical development and community reinvestment from casinos

Maryland

Table 57: Direct Gaming Industry Impacts of iGaming – Maryland

	Approach 1: Percent of Land-based		Approach 2: Percent of iGaming	
Direct Impact Category	**Revenue ($m)**	**Employment**	**Revenue ($m)**	**Employment**
Brick-and-mortar Gaming Losses	($342.6)	-393	($276.4)	-308
Food & Beverage, Other Losses	($22.8)	-374	($18.4)	-301
Hotel Losses	($13.9)	-51	($11.2)	-41
Total Direct Losses	**($379.2)**	**-818**	**($305.9)**	**-651**

Sources: IMPLAN, The Innovation Group

Table 58: Statewide Economic Impacts of iGaming – Maryland

	Approach 1: Percent of Land-based				Approach 2: Percent of iGaming			
Impact Type	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**
Direct Effect	-818	($69.9)	($320.1)	($409.9)	-650	($56.4)	($258.3)	($330.7)
Indirect Effect	-408	($28.5)	($48.1)	($82.0)	-329	($23.0)	($38.8)	($66.2)
Induced Effect	-385	($23.1)	($44.1)	($71.6)	-311	($18.6)	($35.6)	($57.8)
Total	**-1,611**	**($121.4)**	**($412.3)**	**($563.6)**	**-1,290**	**($97.9)**	**($332.7)**	**($454.7)**

Sources: IMPLAN, The Innovation Group

Table 59: Tax Impacts of iGaming – Maryland

Category	**Approach 1**	**Approach 2**	**Average**
Direct Tax Impact, Gaming ($m)	$92.8	$122.6	$107.7
State Tax Losses, All Other Industries ($m)	($97.7)	($78.8)	($88.2)
Net State Taxes ($m)	**($4.9)**	**$43.8**	**$19.4**
Net Value Added (GDP) ($m)	($412.3)	($332.7)	($372.5)

Sources: IMPLAN, The Innovation Group

On average, we project that the introduction of iGaming in Maryland will lead to approximately $19 million in net tax revenue, 1,451 lost jobs, $110 million in lost labor income, and $373 million in lost value added throughout the economy.

Maryland Impacts Summary

Positive

- +$19m Net Tax Receipts

Negative

- Jobs Lost: 1,290 – 1,611
- Labor Income Lost: $98m - $121m
- Economic Output Lost: $455m - $564m
- GDP Lost: $333m – $412m
- Potential increase in disordered gambling
- Reduced physical development and community reinvestment from casinos

Mississippi

Table 60: Direct Gaming Industry Impacts of iGaming – Mississippi

	Approach 1: Percent of Land-based		Approach 2: Percent of iGaming	
Direct Impact Category	**Revenue ($m)**	**Employment**	**Revenue ($m)**	**Employment**
Brick-and-mortar Gaming Losses	($417.4)	-840	($129.6)	-246
Food & Beverage, Other Losses	($27.7)	-732	($8.6)	-227
Hotel Losses	($16.9)	-101	($5.2)	-31
Total Direct Losses	**($462.0)**	**-1,672**	**($143.5)**	**-504**

Sources: IMPLAN, The Innovation Group

Table 61: Statewide Economic Impacts of iGaming – Mississippi

	Approach 1: Percent of Land-based				Approach 2: Percent of iGaming			
Impact Type	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**
Direct Effect	-1,673	($91.1)	($360.5)	($499.4)	-504	($28.3)	($112.0)	($155.1)
Indirect Effect	-709	($32.1)	($53.7)	($113.8)	-220	($10.0)	($16.7)	($35.3)
Induced Effect	-539	($23.3)	($47.6)	($88.4)	-167	($7.2)	($14.8)	($27.4)
Total	**-2,921**	**($146.5)**	**($461.8)**	**($701.6)**	**-892**	**($45.5)**	**($143.4)**	**($217.9)**

Sources: IMPLAN, The Innovation Group

Table 62: Tax Impacts of iGaming – Mississippi

Category	**Approach 1**	**Approach 2**	**Average**
Direct Tax Impact, Gaming ($m)	$65.7	$100.3	$83.0
State Tax Losses, All Other Industries ($m)	($68.9)	($21.4)	($45.1)
Net State Taxes ($m)	**($3.2)**	**$78.9**	**$37.8**
Net Value Added (GDP) ($m)	($461.8)	($143.4)	($302.6)

Sources: IMPLAN, The Innovation Group

On average, we project that the introduction of iGaming in Mississippi will lead to approximately $38 million in net tax revenue, 1,906 lost jobs, $96 million in lost labor income, and $303 million in lost value added throughout the economy.

Mississippi Impacts Summary

Positive

- +$38m Net Tax Receipts

Negative

- Jobs Lost: 892 – 2,921
- Labor Income Lost: $46m - $147m
- Economic Output Lost: $218m - $702m
- GDP Lost: $143m – $462m
- Potential increase in disordered gambling
- Reduced physical development and community reinvestment from casinos

New York

Table 63: Direct Gaming Industry Impacts of iGaming – New York

	Approach 1: Percent of Land-based		Approach 2: Percent of iGaming	
Direct Impact Category	**Revenue ($m)**	**Employment**	**Revenue ($m)**	**Employment**
Brick-and-mortar Gaming Losses	($983.7)	-1,338	($901.3)	-1,213
Food & Beverage, Other Losses	($65.3)	-1,267	($59.9)	-1,161
Hotel Losses	($39.8)	-174	($36.5)	-160
Total Direct Losses	**($1,088.8)**	**-2,779**	**($997.6)**	**-2,534**

Sources: IMPLAN, The Innovation Group

Table 64: Statewide Economic Impacts of iGaming – New York

	Approach 1: Percent of Land-based				Approach 2: Percent of iGaming			
Impact Type	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**
Direct Effect	-2,779	($262.5)	($870.8)	($1,177.0)	-2,534	($240.5)	($797.9)	($1,078.4)
Indirect Effect	-1,036	($103.6)	($166.1)	($256.7)	-949	($94.9)	($152.2)	($235.2)
Induced Effect	-1,327	($102.8)	($185.0)	($279.0)	-1,216	($94.2)	($169.5)	($255.6)
Total	**-5,142**	**($468.9)**	**($1,221.9)**	**($1,712.6)**	**-4,699**	**($429.6)**	**($1,119.6)**	**($1,569.2)**

Sources: IMPLAN, The Innovation Group

Table 65: Tax Impacts of iGaming – New York

Category	**Approach 1**	**Approach 2**	**Average**
Direct Tax Impact, Gaming ($m)	$293.8	$336.6	$315.2
State Tax Losses, All Other Industries ($m)	($182.0)	($166.8)	($174.4)
Net State Taxes ($m)	**$111.7**	**$169.8**	**$140.8**
Net Value Added (GDP) ($m)	($1,221.9)	($1,119.6)	($1,170.7)

Sources: IMPLAN, The Innovation Group

On average, we project that the introduction of iGaming in New York will lead to approximately $141 million in net tax revenue, 4,921 lost jobs, $449 million in lost labor income, and $1,171 million in lost value added throughout the economy.

New York Impacts Summary

Positive

- +$141m Net Tax Receipts

Negative

- Jobs Lost: 4,699 – 5,142
- Labor Income Lost: $430m - $469m
- Economic Output Lost: $1,569m - $1,713m
- GDP Lost: $1,120m – $1,222m
- Potential increase in disordered gambling
- Reduced physical development and community reinvestment from casinos

Ohio

Table 66: Direct Gaming Industry Impacts of iGaming – Ohio

	Approach 1: Percent of Land-based		Approach 2: Percent of iGaming	
Direct Impact Category	**Revenue ($m)**	**Employment**	**Revenue ($m)**	**Employment**
Brick-and-mortar Gaming Losses	($468.1)	-540	($522.6)	-614
Food & Beverage, Other Losses	($31.1)	-534	($34.7)	-597
Hotel Losses	($18.9)	-73	($21.1)	-82
Total Direct Losses	**($518.1)**	**-1,148**	**($578.5)**	**-1,292**

Sources: IMPLAN, The Innovation Group

Table 67: Statewide Economic Impacts of iGaming – Ohio

	Approach 1: Percent of Land-based				Approach 2: Percent of iGaming			
Impact Type	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**	**Employment**	**Labor Income ($m)**	**Value Added (GDP) ($m)**	**Output ($m)**
Direct Effect	-1,147	($102.1)	($407.5)	($560.1)	-1,293	($114.0)	($454.9)	($625.4)
Indirect Effect	-715	($46.5)	($78.0)	($141.6)	-798	($52.0)	($87.1)	($158.1)
Induced Effect	-795	($44.0)	($83.3)	($144.3)	-888	($49.1)	($93.1)	($161.1)
Total	**-2,657**	**($192.6)**	**($568.8)**	**($846.0)**	**-2,979**	**($215.1)**	**($635.1)**	**($944.5)**

Sources: IMPLAN, The Innovation Group

Table 68: Tax Impacts of iGaming – Ohio

Category	**Approach 1**	**Approach 2**	**Average**
Direct Tax Impact, Gaming ($m)	$312.5	$294.5	$303.5
State Tax Losses, All Other Industries ($m)	($65.7)	($73.4)	($69.6)
Net State Taxes ($m)	**$246.8**	**$221.1**	**$233.9**
Net Value Added (GDP) ($m)	($568.8)	($635.1)	($602.0)

Sources: IMPLAN, The Innovation Group

On average, we project that the introduction of iGaming in Ohio will lead to approximately $234 million in net tax revenue, 2,818 lost jobs, $204 million in lost labor income, and $602 million in lost value added throughout the economy. Additionally, casino declines will impact horse purses at the tracks associated with the state's racinos.

Ohio Impacts Summary

Positive

- +$234m Net Tax Receipts

Negative

- Jobs Lost: 2,657 – 2,979
- Labor Income Lost: $193m - $215m
- Economic Output Lost: $846m - $945m
- GDP Lost: $569m – $635m
- Potential increase in disordered gambling
- Reduced physical development and community reinvestment from casinos
- Decreased horse purses

Summary

Below we present a summary of total employment impacts due to the introduction of iGaming. The table averages the outputs of approaches one and two, reporting point estimates of direct gaming job losses (e.g. casino jobs, F&B jobs, hotel jobs), and indirect and induced non-gaming job losses. In all states, the introduction of iGaming is projected to cause substantial job losses, not only via direct effects on casino employees, but throughout the economy.

Table 69: Employment Impacts from iGaming by State – Average of Approach 1 & 2

State	Direct Gaming Jobs Lost	Non-Gaming Jobs Lost	Total Jobs Lost
Colorado	-981	-757	-1,739
Illinois	-2,775	-1,957	-4,733
Indiana	-1,034	-1,115	-2,149
Louisiana	-1,320	-1,322	-2,642
Maine	-203	-174	-378
Maryland	-734	-716	-1,451
Mississippi	-1,088	-818	-1,906
New York	-2,657	-2,264	-4,921
Ohio	-1,220	-1,597	-2,818

Sources: IMPLAN, The Innovation Group

The average lost labor income associated with these job losses is displayed below. Fewer jobs in the economy begets lost wages and lost productivity for local business owners. The table below displays the average wages and benefits lost per worker who loses their job.

Table 70: Labor Income Impacts from iGaming by State – Average of Approach 1 & 2

State	Lost Labor Income ($m)	Lost Jobs	Lost Labor Income per Lost Job
Colorado	($109.7)	-1,739	$63,093.3
Illinois	($292.9)	-4,733	$61,888.0
Indiana	($158.1)	-2,149	$73,578.4
Louisiana	($163.6)	-2,642	$61,922.8
Maine	($22.0)	-378	$58,256.8
Maryland	($109.7)	-1,451	$75,625.5
Mississippi	($96.0)	-1,906	$50,359.2
New York	($449.3)	-4,921	$91,307.5
Ohio	($203.9)	-2,818	$72,364.1

Sources: IMPLAN, The Innovation Group

Below, we present average value-added (GDP) contraction by state. Online gaming brings substantial GDP contraction, commonly in the hundreds of millions of dollars, reflecting a shift in the economics from in-state jobs to jobs in larger multinational companies.

Table 71: Value Added (GDP) Impacts by State

State	Value Added (GDP) Loss ($m)
Colorado	($313.1)
Illinois	($831.7)
Indiana	($428.6)
Louisiana	($410.5)
Maine	($59.7)
Maryland	($372.5)
Mississippi	($302.6)
New York	($1,170.7)
Ohio	($602.0)

Sources: IMPLAN, The Innovation Group

In the following table, we present the average tax losses associated with the introduction of iGaming. While iGaming will increase state tax receipts in most states through gaming tax, there are substantial tax losses in other areas of the economy that reduce the net tax impact to a given state. Indeed, in Louisiana we project that combined tax losses will result in an overall tax decline in the state.

Table 72: Tax Impacts from iGaming by State – Average of Approach 1 & 2

State	Direct Gaming-Related Tax Gains ($m)	Non-Gaming Tax Losses ($m)	Net State Taxes ($m)
Colorado	$217.2	($62.4)	$154.8
Illinois	$278.2	($196.3)	$81.9
Indiana	$171.2	($133.5)	$37.7
Louisiana	$93.2	($127.2)	($34.0)
Maine	$42.0	($5.6)	$36.4
Maryland	$107.6	($88.2)	$19.4
Mississippi	$82.9	($45.1)	$37.8
New York	$315.2	($174.4)	$140.8
Ohio	$303.5	($69.6)	$233.9

Sources: IMPLAN, The Innovation Group

QUALITATIVE IMPACTS

Here we discuss two impacts of iGaming that we do not include in our economic impact modeling but which are important considerations nonetheless. First, we discuss the development implications for land-based properties as a result of iGaming expansion. Then, we discuss the social impacts of iGaming proliferation, focusing on problem gambling impacts and research.

Development and Expansion

The introduction of iGaming creates significant uncertainty around future land-based gaming development and expansion projects. Our analysis demonstrates substantial impacts on brick-and-mortar operations, with reductions in gaming revenue and corresponding effects on non-gaming amenities. These impacts raise important questions about capital investment in physical gaming facilities and their associated amenities.

This uncertainty is particularly acute given the magnitude of the revenue shifts we observe. In markets like New York, where we project iGaming revenues of $4.0 billion, operators must carefully evaluate their development strategies. While iGaming generates significant new revenue, its impact on physical facilities extends beyond direct gaming revenue to affect food and beverage operations, hotel occupancy, and overall property visitation.

The employment implications of these shifts are especially relevant to development decisions. Our analysis shows that brick-and-mortar casinos typically generate substantial employment - with approximately 0.5 employees per gaming position - while iGaming operations are considerably less labor-intensive. This dramatic difference in employment intensity may influence both operator investment decisions and public policy around gaming expansion.

Furthermore, the data from existing iGaming markets suggests that technological advancement in the online space may outpace innovation in physical gaming products. Online platforms can deploy new games and features with minimal physical infrastructure costs, while land-based facilities must commit to substantial capital expenditures for similar innovations. This differential in development costs and speed-to-market may increasingly favor digital expansion over physical development.

The impact on casino amenity development warrants particular attention. Our analysis shows that food and beverage and hotel revenues decline in concert with gaming revenues. These reductions in ancillary revenue streams may affect the feasibility of new amenity development projects that historically have been key drivers of construction employment and ongoing operational jobs.

Critically, this uncertainty around development may create a self-reinforcing cycle. If operators delay capital improvements or expansion projects due to concerns about iGaming cannibalization, their properties may become less competitive, potentially accelerating the shift toward online play. This dynamic could particularly affect markets where multiple operators are considering simultaneous expansion projects, as the first-mover advantage becomes riskier in an environment of uncertain demand.

These considerations extend beyond individual operator decisions to affect broader economic development strategies. Traditional casino development has often served as an anchor for larger entertainment districts or tourism development initiatives. The potential reduction in physical gaming facility expansion could impact these broader development patterns, affecting everything from construction employment to local retail and entertainment growth. Further, these development projects also generate tax revenue for the state. Tax revenues from forgone development projects are difficult to calculate and will depend on many factors specific to the market, but may constitute additional millions of dollars in forgone tax revenue as a result of reductions in casino development projects.

The implications for state and local economic development policy are substantial. While iGaming may generate significant direct tax revenue, its reduced employment intensity and limited physical presence may require policymakers to reconsider traditional gaming-based economic development strategies. This is particularly relevant given that our analysis shows net job losses in all studied markets, even those with substantial iGaming revenue growth.

From a pragmatic capital allocation perspective, operators must also consider the evolving competitive dynamics between online and physical gaming offerings. While land-based casinos have historically differentiated themselves through comprehensive entertainment experiences - including restaurants, hotels, entertainment venues, and meeting spaces - the potential for reduced visitation may alter the return calculations for these capital-intensive amenities. This could lead to a fundamental shift in development strategy, where operators may choose to allocate capital toward digital infrastructure and customer acquisition rather than physical plant expansion, potentially impacting both the scale and scope of future land-based gaming development projects.

Problem Gambling

In this section, we review research on problem gambling and attempt to address to what degree the introduction of legal online gambling contributes to problem gambling.

A Review of the Research

A key concern in discussions about iGaming—and gaming expansion in general—is responsible gaming and problem gambling. We follow the most up-to-date research on problem gaming and present context here. Our literature review includes studies from around the world, including the United States.

The evidence overwhelmingly shows that online gambling has significantly altered patterns of problem gambling, with troubling implications for public health. Studies across multiple jurisdictions reveal deeply concerning patterns in addiction rates and gambling disorders, particularly as digital platforms provide unprecedented access to gambling. The evidence suggests that the convenience of mobile gambling—characterized by researchers as a "casino in your pocket 24/7"—has created new pathways to addiction that require urgent policy intervention. To borrow a quote from Harvard T.H. Chan School of Public Health professor Shekhar Saxena, online

gambling "[is] continuous… intense, and it can be financially – and also physically and mentally – extremely harmful."[17]

The data reveals stark statistics: 15.8% of adults who engage in online casino or slot gambling develop gambling disorders, while 8.9% of those involved in online sports betting are affected. For adolescents, the rates are even higher: 26.4% for online casino/slots and 16.3% for sports betting. The most concerning trend is the rise of dual-mode gamblers—those who participate in both online and offline gambling. These individuals face the highest risk, with 50.7% showing signs of problem gambling.

Table 73: Problem Gambling Key Statistics and Findings

Category	Key Statistics and Findings
Prevalence Rates	• 15.8% of online casino/slot players develop gambling disorders • 8.9% of online sports bettors develop gambling disorders • 26.4% of adolescent online casino/slot players develop disorders • 16.3% of adolescent online sports bettors develop disorders
Multi-Channel Impact	• 50.7% of dual-mode gamblers show problem gambling indicators • Dual-mode gamblers spend average 14.88 hours/month gambling • Average monthly spending: $708.49 for dual-mode gamblers vs. $616.74 for online-only
Treatment Demands	• 28% increase in addiction treatment cases post-legalization (Netherlands) • Up to 150% increase in helpline calls over five years • 34% of all helpline calls now related to online gambling (Pennsylvania)
Financial Impact	• 43% of active gamblers engage in irresponsible gambling • 11.8% spend over 5% of monthly income on gambling • 5.3% spend over 10% of monthly income on gambling • Low-savings households 5x more likely to be impacted
Youth Impact	• 58% of young adults (18-22) engage in sports betting • 67% of college students participate in sports betting • Young adults represent 23% of gambling accounts
Treatment Access	• Many states under-resourced for problem gambling treatment • Significant increase in demand for treatment services • Treatment needs outpacing available resources

Source: Various Problem Gambling Studies, Cited below

These findings highlight the intensifying problem gambling crisis, especially in relation to online access. The research demonstrates that digital platforms not only increase the prevalence of problem gambling but also escalate harmful behaviors among those already at risk. The evidence

[17] "Online gambling: the stakes for public health." Deseret News. Jan 24, 2025

suggests that without robust intervention and support systems, the continuing expansion of online gambling will likely lead to exacerbated gambling disorders and associated social harms.

Global Trends in Problem Gambling: A Growing Crisis

The rapid expansion of online gambling across the globe has triggered an alarming surge in gambling addiction and related social problems, with particularly concerning impacts on young adults. Recent data from multiple countries reveals a troubling pattern of increased addiction rates, financial distress, and inadequate consumer protections.

The Netherlands serves as a stark warning of how quickly problems can escalate after legalization. Following the 2021 legalization of online gambling, treatment for gambling addiction rose by 28% in 2023. Young adults aged 18-23 now represent 10.8% of Dutch gross gaming revenue and hold 23% of all gambling accounts, underscoring their vulnerability to gambling-related harm.[18]

The United Kingdom's experience raises similar alarms, with 19.2% of online gamblers betting beyond their means, and 8.9% reporting financial problems due to gambling. The industry has seen massive growth, with revenues reaching £14.4 billion in 2021. Even more concerning, approximately 400,000 people in the UK are classified as problem gamblers, with an additional 2.2 million at risk.[19]

In North America, Ontario's expansion of iGaming in April 2022 triggered a sharp rise in problem gambling, with monthly calls to gambling addiction hotlines more than doubling from 84 to 184.[20] The United States is experiencing its own crisis, particularly among young adults, with 58% of those aged 18-22 engaging in sports betting, often circumventing age restrictions through mobile apps. On college campuses, 67% of students actively participate in sports betting, with 63% reporting exposure to betting advertisements.[21]

In Japan, the rise of online gambling, particularly following the COVID-19 pandemic, has led to a significant increase in gambling addiction and its associated social issues. According to the Society Concerned about Gambling Addiction, the number of consultation requests has surged 11-fold over the past five years. The accessibility of online casinos, which allow gambling 24/7 via smartphones, has contributed to the growing number of individuals struggling with addiction. This has, in turn, led to instances of criminal behavior, with some individuals engaging in illegal activities such as theft or seeking out illegal part-time jobs to fund their gambling habits. For example, a case was reported where a young man, whose gambling addiction began with pachinko, extorted money from his mother and was later arrested for robbery.[22] These trends raise concerns

[18] "Dutch MPs call for repeal of online gambling legalization." Next.io. Oct 10,2024
[19] "High stakes: gambling reform for the digital age." UK Department for Culture, Media & Sport. Apr 27, 2023
[20] "iGaming and ads led to more problem gambling in Ontario. Should Alberta expect the same?" St. Albert Gazette. Nov 16, 2024
[21] "America Made a Huge Bet on Sports Gambling. The Backlash Is Here." The Wall Street Journal. Mar 28, 2024
[22] "Online gambling addiction becoming serious issue in Japan." The Japan Times. Jan 5, 2025

about the broader social consequences of online gambling, illustrating its potential to affect not only the individuals directly involved but also their families and communities.

The industry's business model raises serious ethical concerns. At PointsBet, just 0.5% of customers – classified as "VIP sports bettors" – generated over 70% of the company's revenue in 2019 and 2020, indicating a troubling reliance on problem gamblers.[23]

Countries are responding to these challenges in diverse ways. Brazil's Federal Supreme Court took bold action by banning the use of welfare funds for online gambling after discovering that 20% of August 2024 welfare funds were being spent on gambling.[24] Argentina is working to establish federal protections against gambling harm, while the UK is exploring stricter regulations for operators and advertising. In response to the growing gambling crisis, the U.K. Parliament has proposed legislation and regulation to enhance consumer protections, particularly in relation to online gambling. A review of gambling laws was initiated in December 2020 with a call for evidence, which led to the publication of a white paper outlining proposed reforms in April 2023. Key proposals include stricter regulations requiring operators to assess customers' financial circumstances and improve responsible gambling practices, as well as strengthening the powers of the Gambling Commission to provide better oversight. These efforts follow data revealing that 19.2% of online gamblers bet more than they can afford at least some of the time, with 8.9% reporting financial issues caused by gambling. While the proposed legislation has not yet been enacted, it signals a significant step toward addressing the scale of the gambling crisis.[25]

The situation is especially concerning given the industry's shift toward mobile platforms and aggressive marketing strategies. Stewart Kenny, co-founder of Paddy Power, wisely warned that the convenience of smartphone gambling could fuel addiction and even predicted that the industry would evolve “from being an entertainment business to an addiction business.”

These trends have prompted various regulatory responses. Britain has strengthened regulations, including banning celebrity endorsements and restricting advertising hours. However, many jurisdictions are still lagging in implementing protective measures. The online gambling industry's substantial lobbying efforts, with £3.4 million spent in 2021 alone in the UK, may be hindering more robust regulatory action.

As more regions consider legalizing online gambling, global evidence suggests that without robust protections and stringent oversight, the societal costs – such as addiction, financial hardship, and mental health issues – could quickly outweigh any potential economic benefits. The particular vulnerability of young adults and the industry's reliance on problem gamblers underscore the urgent need for more comprehensive safeguards and regulatory frameworks.

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[23] “Psychiatrist tried to quit gambling. Apps kept her hooked.” The Wall Street Journal. Feb 25, 2024
[24] "Betting with benefits banned in Brazil pending final approval" iGB. Nov 14, 2024
[25] “Will the Government go through with its £100m levy on gambling companies? London Loves Business. Jan 15, 2025

The Total Costs of Problem Gambling: Economic Impacts from Sweden[26]
According to a comprehensive 2020 study published in BMC Public Health, problem gambling created substantial societal costs in Sweden. The research estimated total social costs at 1.42 billion euros annually, representing 0.30% of Sweden's GDP. This figure comes from a rigorous analysis combining epidemiological data from a large national gambling survey with detailed cost calculations across multiple categories.

The scale of the problem is significant - out of Sweden's population of 10.2 million people, approximately 337,000 individuals experienced gambling problems. This translates to a cost burden of 139 euros per inhabitant across the entire population. When focusing specifically on those affected by gambling problems, the cost rises dramatically to 4,212 euros per person with a gambling problem.

These findings carry particular weight because Sweden provides a relevant case study of regulated online gambling in a developed economy with strong social support systems and data collection capabilities. The study employed conservative estimation methods and included multiple validation approaches, suggesting these figures may actually underestimate the true societal burden. The researchers noted that direct costs for prevention and treatment represented only a small fraction of the total costs (13%), indicating that the majority of the burden falls on individuals, families, and society at large rather than on treatment systems.

If we were to apply the aforementioned costs per inhabitant to the states under consideration in our study, we would find the following direct, indirect, and total costs of problem gambling:

Table 74: Estimated Costs of Problem Gambling by State

State	Direct Costs of PG	Indirect Costs of PG	Total Costs of PG
Colorado	$109.0	$729.4	$838.4
Illinois	$227.5	$1,522.5	$1,750.0
Indiana	$125.3	$838.3	$963.5
Louisiana	$84.2	$563.8	$648.0
Maine	$25.2	$168.9	$194.1
Maryland	$113.4	$758.8	$872.2
Mississippi	$53.6	$358.7	$412.3
New York	$361.3	$2,417.8	$2,779.1
Ohio	$214.5	$1,435.4	$1,649.9

Source: The Innovation Group

[26] "The societal costs of problem gambling in Sweden" T. Hofmarcher et al., BMC Public Health, December 2020.

The Digital Wager: How Online Access Reshapes Problem Gambling Risk[27]

The digitalization of gambling has fundamentally altered both the nature of gambling products and their associated risks, according to the 2024 Lancet Public Health Commission on gambling. Driven by technological advancement and widespread mobile phone access, this shift has created what researchers describe as a "casino in your pocket 24/7," presenting new challenges for public health and regulation.

Online gambling represents the fastest-growing sector of the industry, with projections estimating gross online gambling yield will reach US$205 billion by 2030. The total gambling yield across all forms is expected to approach $700 billion by 2028, underscoring the massive scale of this digital transformation.

The shift to online platforms has intensified gambling products in concerning ways. Online casino games and slots are designed for speed and intensity, traits that research links to higher risks of harm. The introduction of in-game betting during live matches has made sports betting instantaneous, increasing both its frequency and prevalence. Even traditional products like lotteries and bingo have been transformed into faster, continuously accessible games via smartphone apps.

The Commission's systematic review uncovered troubling statistics about online gambling formats. Among adults who gamble using online casino or slot products, an estimated 15.8% experience gambling disorder, with the rate for online sports betting at 8.9%. Among adolescents, these rates are even more alarming- 26.4% for online casino/slots and 16.3% for sports betting. These findings underscore the significant dangers posed by the products driving the gambling industry's global expansion.

Digital infrastructure has provided gambling companies with unprecedented capabilities to target consumers. They leverage online user data to personalize marketing, cross-sell products, and prolong user engagement. The industry has forged sophisticated partnerships with media and social media platforms, while sponsorships with professional sports organizations give them access to massive new audiences.

The Commission's research shows that approximately 7.8% of adults globally participate in online gambling. However, this figure likely underestimates current participation, as many studies in the review were conducted before 2016, prior to recent industry expansion. Even more concerning is that about 10.3% of adolescents reported gambling online, despite age restrictions in many jurisdictions.

The digital environment presents unique challenges due to its features:

- Continuous, open-ended play without natural consumption limits
- Uncertainty around price and true costs

[27] "The Lancet Public Health Commission on gambling." The Lancet. Oct 24, 2024

- High-speed, intensive product design that promotes immersive experiences
- Asymmetry of insight, with operators possessing extensive user data while consumers lack basic product information

Online gambling operators use sophisticated choice architecture and "dark patterns" in their digital platforms to manipulate consumer behavior. These include tactics like frequent pop-ups encouraging play, emotional manipulation in communications, and "sludge" techniques making it difficult to unsubscribe or withdraw funds while keeping deposits easily accessible.

The borderless nature of online gambling creates significant regulatory challenges. While gambling is legally permitted in more than 80% of countries worldwide, online gambling's digital accessibility means it is effectively available anywhere via the internet. This poses particular risks in low and middle-income countries where regulatory infrastructure is often weak.

The Commission stresses that the gambling industry's digital transformation demands urgent regulatory attention. Existing oversight mechanisms have failed to keep up with technological innovation, leaving consumers vulnerable to sophisticated targeting and manipulation. The report calls for stronger policies and regulatory controls focused on harm prevention and public health protection, free from industry influence.

As online gambling continues to expand globally, understanding and addressing its unique risks is crucial for public health. The Commission's findings make clear that the digital transformation of gambling has opened new pathways to addiction and harm, necessitating innovative policy responses and international coordination for effective mitigation.

This comprehensive analysis demonstrates that while technology has made gambling more accessible and engaging than ever before, it has also amplified its potential for harm through features specifically designed to maximize user engagement and spending. Moving forward, balancing innovation with consumer protection will be crucial for safeguarding public health in the evolving digital gambling landscape.

How Online Gambling Legalization Affects Problem Gambling Behavior[28]

The rapid expansion of online gambling across the United States since 2018 has created both opportunities and challenges for states and citizens. Recent research by Taylor, McCarthy, and Wilbur (2024), reveals significant shifts in gambling behaviors, particularly among vulnerable populations. Their comprehensive study of over 717,000 gamblers provides crucial insights into how different types of online gambling affect problematic betting patterns.

The researchers found that policies legalizing Online Casino Gaming (OCG) resulted in significantly higher rates of irresponsible gambling compared to those only permitting Online

[28] "Online Gambling Policy Effects on Tax Revenue and Irresponsible Gambling." Marketing Science Institute. 2024

Sports Betting (OSB). This finding is particularly troubling, as OCG provides continuous, 24-hour access to gambling through "mobile virtual casinos" readily available on smartphones.

The study introduced a new metric, the "Rate of Irresponsible Gambling" (RIG), to quantify the proportion of gamblers who exceed certain thresholds of monthly income spent on gambling. The findings revealed that 43% of gamblers surpassed the recommended guideline of spending no more than 1% of monthly income on gambling. More alarmingly, 11.8% of gamblers spent over 5% of their income, 5.3% spent more than 10%, and 3.2% spent over 15% of their monthly income on gambling activities.

The impact was especially severe among lower-income individuals, with the study revealing that irresponsible gambling rates were approximately five times higher among bottom-tercile income earners compared to those in the top tercile. This stark disparity highlights the disproportionate burden online gambling legalization places on financially vulnerable populations.

The research also tracked gambling helpline calls, finding that states that legalized online gambling saw significant increases in call volumes. The National Council on Problem Gambling reported that helpline calls surged by 150% over five years, from 32,666 calls in 2019 to 83,660 in 2023. This sharp increase in help-seeking behavior underscores a trouble rise in gambling-related problems following legalization.

States that implemented both **online casino gaming (OCG)** and **online sports betting (OSB)** saw the highest increases in regular gambling behavior. For instance, Connecticut's policy led to a 5.2% rise in the proportion of "regular gamblers" (individuals who gambled for at least six consecutive months), followed by Michigan with a 3.3% increase. These states also recorded the most significant growth in "accelerators" – gamblers who increased their spending by 50% or more in consecutive months after initially spending at least $100.

The research also revealed notable patterns in gambling operator revenue and state tax collection. States that legalized online casino gaming (OCG) generated significantly more revenue than those that only allowed online sports betting (OSB). For instance, OCG policies yielded about $8 per person monthly in Connecticut and $16 per person in Michigan, compared to just $3-4 per person in states with OSB-only policies. This higher revenue generation helps explain the gambling industry's continued push for OCG legalization in more states.

Importantly, the study noted that about half of all operator revenue comes from the highest-spending 3% of gamblers, highlighting the industry's dependence on "whales" who may be experiencing gambling problems. This concentration of revenue from a small group of high-spending individuals raises additional concerns about the sustainability, fairness, and ethics of current online gambling business models.

The Socioeconomic Impact of Online Gambling: Evidence from Maryland[29]
A comprehensive 2024 report by Morgan State University's Center for Data Analytics and Sports Gaming Research revealed alarming trends about the expansion of online gambling in Maryland and provides cautionary insights for future iGaming legislation. The report highlights how Maryland's gambling landscape has rapidly evolved since the introduction of online sports betting, with notable impacts on existing gambling operations and community wellbeing.

According to the report, while Maryland's commercial casinos generated substantial revenue in 2022 ($854.7 million in gaming tax revenue, with $617.1 million supporting education), the introduction of mobile sports betting in late 2022 has disrupted this existing ecosystem. The shift to mobile betting has significantly reduced revenue from physical sports betting locations and diminished casino visitation, leading to reduced earnings from slot machines and table games. This decline has also negatively impacted surrounding communities and businesses that previously relied on casino foot traffic.

The report also addresses serious health implications. Studies cited in the document demonstrate strong correlations between gambling issues and elevated stress levels, heightened impulsivity, and cognitive distortions. The research connects gambling problems with various mental health conditions, including anxiety, schizophrenia, bipolar disorder, depression, and substance use disorders. Online gambling's 24/7 accessibility particularly concerns healthcare providers, as it can disrupt sleep patterns and contribute to sedentary lifestyles.

Of particular significance is the report's finding that online gamblers are up to eight times more likely to develop compulsive gambling problems compared to traditional casino players, according to a 2021 Survey on Gambling Attributes by The National Problem Gambling Council. The study also found that 28% of individuals surveyed would find it easier to spend more money on iGaming than land-based gambling.

The Rising Tide of Problem Gambling in Pennsylvania[30]
According to the 2023 Pennsylvania Interactive Gaming Assessment report, there have been several alarming trends in problem gambling across the state, particularly related to online gambling behaviors.

The report shows that online gambling participation has increased significantly, rising from 11% in both 2020-2021 and 2021-2022 to 16% in 2022-2023. This increase coincides with a significant rise in online gambling revenues, which exceeded $2.1 billion in 2022/2023, marking a 27% increase from the previous fiscal year.

[29] "The Socio-economic Impact of Legalizing Interactive Gaming (iGaming) and Online Betting in Maryland." Morgan State University. Feb 14, 2024
[30] "The Pennsylvania Interactive Gaming Assessment: Online Gambling Report." Pennsylvania State University. 2023

The study identified dual-mode gamblers (those who gamble both online and offline) as having the highest risk for problem gambling behaviors. Among monthly gamblers, 50.7% of dual-mode gamblers exhibited at least one problem gambling indicator on the Brief Problem Gambling Screen (BPGS), compared to 40.7% of online-exclusive gamblers and 16.4% of offline-exclusive gamblers. The research identified several key predictors of problem gambling indicators:

- Younger age
- More frequent gambling
- Higher monthly spending
- Using gambling as an escape mechanism
- Tendency to gamble alone
- Membership in gambling loyalty/rewards programs

Calls to the 1-800-GAMBLER helpline have also shown concerning trends. Online gambling-related calls now account for approximately 34% of total call volume, up significantly from 20% during 2021/2022. The total number of calls has increased substantially, from 1,040 in 2019-2020 to 2,834 in 2022-2023.

Sports betting emerged as the most popular form of online gambling, while lottery was the most common offline gambling activity. The study found that approximately 3.2% of Pennsylvania adult residents engaged in illegal online gambling, with an additional 2.1% participating in unregulated online gambling activities.

The research suggests a hierarchy of risk in gambling modes, with dual-mode gamblers showing the highest risk factors, followed by online-exclusive gamblers, and then offline-exclusive gamblers. This is particularly concerning given that 13.7% of Pennsylvania gamblers engage in both online and offline gambling, while 2.3% gamble exclusively online and 48.7% gamble exclusively offline.

The report underscores the need for targeted education and prevention efforts, particularly for those who engage in online gambling. The researchers stress the importance of using diverse media formats to effectively reach all demographics. This includes traditional methods—such as print, radio, and television—to connect with older, offline-exclusive gamblers, while also employing digital messaging through social media and streaming platforms to engage younger, at-risk online gamblers. Given that online gambling disproportionately attracts a younger demographic, who may be more vulnerable to developing problem gambling behaviors, these focused efforts are essential to mitigating the increased risks associated with iGaming.

Problem Gambling Incidence and iGaming: A Study from New Jersey[31]

Two studies from Rutgers University Center for Gambling Studies (2017, 2023) reveal significant shifts in gambling behavior across different channels. The earlier study found 75% of gamblers used land-based venues exclusively, while 5% gambled only online and 20% used both channels. By 2023, these percentages had shifted dramatically to 50%, 15%, and 35% respectively. This change reflects the growing dominance of online gambling, partially driven by the legalization of online sports betting and the expanding reach of iGaming in New Jersey. The shift also highlights the potential for increased problem gambling behaviors, as online gambling platforms are often associated with higher risks of addiction.

The research identified varying levels of problem gambling risk across these groups. Multi-channel gamblers showed the highest risk at 19%, compared to 11.3% for online-only gamblers and 1.1% for land-based only gamblers.

Despite the significant growth in online gambling participation in New Jersey, the state's overall problem gambling rate actually decreased from 6.3% to 5.6% between 2017 and 2023. This decline occurred even as the proportion of mixed-vertical gamblers—identified as the highest-risk group—increased. While participation across multiple gambling types correlates with higher problem gambling risk, the expansion of online gaming did not appear to drive an increase in overall problem gambling rates. However, it's important to contextualize these findings given that New Jersey's problem gambling rates remain significantly higher than the national average of 2%, regardless of the gambling format.

Overall, the latest research suggests that those most at risk of problem gambling disorders are those who play frequently and across multiple formats. Since the widespread availability of iGaming may enable those who are predisposed to gambling problems greater access to more gaming formats, it is important to make responsible gaming practices like self-exclusion, deposit limits, and helplines available and obvious to internet gamblers, as this will be disproportionately more likely to capture the multi-vertical gamblers who make up the bulk of online play (from various estimates, approximately 70% of online play).

The Hidden Costs: Sports Betting Legalization and Household Financial Stability[32]

A new research paper by Baker et al. (2024) provides compelling evidence that the legalization of online sports betting has significant negative effects on household financial health, particularly among vulnerable populations. The study leverages a unique dataset of consumer transactions spanning over 230,000 U.S. households to examine how sports betting legalization impacts household spending, saving, and investment behaviors.

The research employs a rigorous methodology, using the staggered rollout of sports betting legalization across different states between 2018 and 2023 to identify causal effects. This approach

[31] "The Prevalence of Online and Land-Based Gambling in New Jersey." Rutgers Center for Gambling Studies. 2023

[32] "Gambling Away Stability: Sports Betting's Impact on Vulnerable Households." Baker, et al. Oct 21, 2024

allows the researchers to compare household behavior before and after legalization while controlling for broader economic trends. The comprehensive transaction-level data provides unprecedented visibility into how households adjust their financial decisions following the introduction of online sports betting.

The findings reveal several concerning patterns regarding problem gambling behaviors. First, the study finds that sports betting activity increases substantially after legalization and continues to grow over time, suggesting the development of habitual betting behavior. The average bettor spends approximately $280 per quarter on sports betting ($1,100 annually). However, this average masks significant variation - the most active third of bettors wager about 1.7% of their income, while the bottom third spends just $1.39 per quarter.

Particularly troubling is the evidence that financially constrained households are disproportionately affected. The study finds that low-savings households and those who frequently overdraw their accounts allocate a significantly larger portion of their income to betting compared to financially stable households. For example, households with low savings bet about 0.85% of their income compared to 0.49% for households with adequate savings.

The research documents clear signs of problematic gambling behavior developing over time. About 70% of individuals who place an initial bet go on to make at least two more deposits, with nearly 40% making more than ten deposits. The probability of making follow-up deposits remains consistently high at 50-60%, indicating that many users develop regular betting habits. By twelve quarters after legalization, the average bettor has deposited eight times their initial betting amount.

The financial consequences of these betting patterns are severe. For every $1 spent on sports betting, households reduce their investment in traditional savings vehicles by over $2. Low-savings households who bet show an average increase in credit card debt of $368 (8% above the sample mean) and experience a $316 reduction in available credit. They also reduce credit card payments by approximately $890 per quarter while increasing their frequency of account overdrafts by 24%.

Importantly, the study finds that sports betting does not simply substitute for other forms of gambling or entertainment spending. Instead, betting appears to crowd out positive financial behaviors like saving and investing while leading to increased spending on complementary activities like cable TV, restaurants, and entertainment. This suggests that sports betting may be creating new problematic spending patterns rather than just redirecting existing recreational spending.

The authors note that these effects are particularly concerning given the rapid expansion of online sports betting. Since the 2018 Supreme Court decision allowing states to legalize sports betting, 25 states plus Washington D.C. had legalized online betting by late 2023. The market has grown dramatically, with total bets increasing from $1.1 billion per month in 2019 to $14 billion in January 2024.

The research suggests that the ease of access to online sports betting, combined with aggressive marketing and the addictive nature of gambling, may be creating significant financial

vulnerabilities for many households. The concentration of negative effects among already financially constrained households indicates that sports betting may be exacerbating existing economic inequalities while potentially creating new cycles of problematic gambling behavior.

APPENDIX: THE US IGAMING LANDSCAPE

This appendix discusses and summarizes the US online casino landscape and describes the course of market development over time. We include data on online gaming performance during the relevant periods that we use to assess the impact iGaming has on land-based casino operations.

iGaming in the United States

Overview

Since the repeal of PASPA in 2018, many states have authorized online sports betting, but only seven states have launched legal forms of iGaming: Delaware, New Jersey, Nevada, Michigan, Pennsylvania, West Virginia, Connecticut, and Rhode Island. Rhode Island is the latest state to legalize iGaming and launched in March 2024. Nevada has online poker only, so we will focus our analysis on the remaining states. Delaware and New Jersey were early adopters of iGaming, launching their first online casino gambling sites in 2013. In July 2019, Pennsylvania became the next state to launch legal online gambling sites, followed by West Virginia in July 2020. In 2021, Michigan launched iGaming operations in January, followed by Connecticut in October. Several other states have since introduced iGaming legislation, including New York, Illinois, Indiana, and Missouri.

Delaware

Online gambling in Delaware was legalized in 2012 with the passage of House Bill 333[33], and the first online gambling sites launched in November 2013. Since inception, Delaware has allowed online poker, slots, and table games through a single platform manager. Each of the state's three brick-and-mortar casinos may offer online gaming, though technology providers are licensed by the state and must go through a selection process with the Lottery. From its launch in 2013, a collaboration of 888 Holdings and Scientific Games was the sole platform provider for online gaming in the state, so each of the three brick-and-mortar licensees utilized this platform for its online gaming product. In 2023, the Delaware Lottery conducted a Request for Proposal (RFP) process for a platform and selected Rush Street Interactive to be its sole platform provider.

In 2015, Delaware signed the Multi-State Internet Gaming Agreement (MSIGA) with Nevada, allowing poker players from both states to play against each other. In 2018, New Jersey joined this agreement, and in April 2022, Michigan joined as well.

Revenue data shows the iGaming market continues to grow following brick-and-mortar casinos re-opening post COVID, but the revenue per capita is still much lower than in other states.

[33] An Act to Amend Titles 4 and 29 of the Delaware Code Relating to the State Lottery. HB 333 (2012)

Table 75: Delaware iGaming Trends

Year	Revenue	Annual Growth (%)
2013	$251,397	
2014	$2,098,532	735%
2015	$1,798,931	-14%
2016	$2,906,886	62%
2017	$2,391,942	-18%
2018	$2,591,130	8%
2019	$3,569,678	38%
2020	$8,448,034	137%
2021	$10,562,587	25%
2022	$13,630,043	29%
2023	$14,073,454	3%
2024	$62,638,661	345%

Source: Delaware Lottery

The tax environment for online gaming in Delaware is as follows: the state receives the first $3.75 million in Gross Gaming Revenue ("GGR") generated state-wide, and marginal revenue is taxed at 47% for slots and 15.5% for tables. An additional 10% of slot revenue and 4.5% of table revenue goes to the horse racing industry. Prior to 2020, online casino GGR was effectively taxed at 100% since statewide revenue totals had yet to exceed the $3.75 million threshold.

New Jersey

Online gambling in New Jersey was legalized in February 2013 with the passage of Bill A2578[34], and the first online gambling sites began operating in November of that same year. Each license holder is allowed five skins, or sites. Currently, there are 8 land-based casinos offering an online gaming option and 37 total authorized sites.

New Jersey offers a full online casino experience, allowing operators to offer slots, poker, and table games. Players may create and fund an account from anywhere in the world; however, they must physically be in New Jersey to play.

New Jersey saw a substantial increase in iGaming revenue post-PASPA, and again during the pandemic as a result of increased player acquisition. Even as brick-and-mortar casinos re-opened and returned to pre-pandemic revenue levels, New Jersey saw continued strengthening of the iGaming market.

[34] Authorizes Internet gaming at Atlantic City casinos under certain circumstances. Assembly Bill 2578 (2012-2013)

Table 76: New Jersey iGaming Trends

Year	Revenue	Annual Growth (%)
2013	$8,371,486	
2014	$123,096,896	1370%
2015	$149,029,795	21%
2016	$196,858,746	32%
2017	$246,018,441	25%
2018	$299,076,588	22%
2019	$483,148,127	62%
2020	$971,640,789	101%
2021	$1,368,253,617	41%
2022	$1,662,576,635	22%
2023	$1,923,222,557	16%
2024	$2,185,772,907	14%

Source: New Jersey Division of Gaming Enforcement

Online gambling GGR is subject to a 15% state tax and an additional 5% of GGR goes to the Casino Reinvestment Development Authority (CRDA). By comparison, brick-and-mortar gaming revenue is subject to an 8% state tax and an additional 2.5% community investment alternative tax. This higher tax rate that NJ chooses to impose on online gaming may reflect two economic realities: first, margins for online gaming ought to be higher than margins for land-based gaming due to reduced labor and reduced facilities costs, though notably there are substantial marketing costs that operators incur to produce robust and competitive iGaming markets. Second, the jobs supporting iGaming, and therefore the downstream economic impacts from associated payroll, are largely based in other states or other countries. It is therefore reasonable to incentivize land-based operators, who provide jobs and economic benefit locally, with a lower tax rate. Additionally, New Jersey allows operators to deduct from revenue promotional play in excess of $7.5 million monthly.

Nevada

Online poker was legalized in February 2013 with the passage of Assembly Bill 114[35], and the player pool was restricted to adults located within Nevada. In 2015, the state signed a liquidity agreement with Delaware, allowing poker players from both states to play against each other. Despite many companies applying for poker licenses, only three providers have ever offered licensed real money online poker in Nevada.

Due to the limited number of players, the market struggled to gain traction. Ultimate Poker, which opened to players in early 2013, shut down in November 2014. The other two – WSOP.com and Real Gaming Online Poker – opened in late 2013 and early 2014 respectively. Now, only WSOP.com still exists, and the Nevada Gambling Control Board has stopped publishing revenue

[35] Revises provisions governing interactive gaming. Assembly Bill 114 (2013)

reports due to low revenues from online gambling. Online poker revenue is subject to the same 6.75% state tax imposed on land-based gaming revenue.

Pennsylvania

In October 2017, Pennsylvania legalized online versions of poker, casino games, daily fantasy sports, and sports betting after the state's unsuccessful attempt in 2013. The state's first two online casinos launched in July 2019, making Pennsylvania the fourth U.S. state to legalize online gambling. House Bill 271 was the comprehensive bill that brought iGaming and various new forms of gaming to the state[36]. After undergoing multiple revisions throughout the years, the bill's final version legalized iGaming licenses for each of the state's land-based casinos for online poker, slots, and table games. VGT's (video gaming terminals) at truck stops, daily fantasy sports, the construction of ten category 4 (satellite) casinos, and sports betting were also authorized.

Table 77: Pennsylvania iGaming Trends

Year	Revenue	Annual Growth (%)
2019	$33,599,749	
2020	$565,157,898	1582%
2021	$1,112,855,937	97%
2022	$1,364,392,468	23%
2023	$1,741,832,078	28%
2024	$2,181,669,450	25%

Source: Pennsylvania Gaming Control Board

Pennsylvania's online gaming tax rates vary based on the revenue channel: online table games and poker are taxed at 16% while online slot revenue is taxed at 54%. These are the same rates that apply to brick-and-mortar slot and table revenue.

West Virginia

West Virginia legalized online casinos in March 2019, with passage of the West Virginia Lottery Interactive Wagering Act[37]. The law allows each of the state's five land-based casinos to apply for a permit to offer online poker and casino games and offer up to three separate iGaming websites per permit. The state's first online casino launched in July 2020.

In its first 12-months of operation, West Virginia iGaming operators earned $30 million in GGR, which pales in comparison to first year revenue numbers for other emerging iGaming markets. A potential explanation for this is weakened consumer confidence around mobile wagering. Prior to iGaming going live, West Virginia experienced a rocky mobile sports betting launch that included outages and disruptions to both in-person and mobile wagering.

[36] An act amending Titles 3 (Agriculture) and 4 (Amusements) of the Pennsylvania Consolidated Statutes, extensively revising gaming provisions as follows. House Bill 271. (2017-2018)
[37] West Virginia Lottery Interactive Wagering Act. West Virginia Code Chapter 29 Article 22E. (2019)

Table 78: West Virginia iGaming Trends

Year	Revenue	Annual Growth (%)
2020	$9,185,010	
2021	$59,953,010	553%
2022	$114,000,681	90%
2023	$156,749,438	37%
2024	$244,601,218.04	56%

Source: West Virginia Lottery

Online gambling revenue in West Virginia is taxed at 15%. By comparison, revenue from video lottery terminals in the state are taxed at 49% and table revenue is taxed at 35%.

Michigan

In 2019, Michigan passed the Lawful Internet Gaming Act[38] legalizing online casinos. The law allows each of the state's land-based commercial and tribal casinos to apply for a permit to offer online poker and casino games. Online casinos launched in the state in January 2021 and, in their first year of operation, generated over $1 billion in gaming revenue.

Table 79: Michigan iGaming Trends

Year	Revenue	Annual Growth (%)
2021	$1,003,453,761.23	
2022	$1,427,274,464.47	42%
2023	$1,732,507,596.37	21%
2024	$2,198,379,380.13	27%

Source: Michigan Gaming Control Board

Online gambling revenue in Michigan is taxed on a sliding scale ranging from 20 to 28% based on adjusted gross receipts. Michigan operators can deduct from gross receipts up to 10% of promotional play in the first 3 years of operation, decreasing to 6% in year 4, 4% in year 5, and 0% in year 6 and beyond. For context, commercial land-based casino revenue is taxed at 19% (8.1% to the state + 10.9% to the host city).

Connecticut

In 2021, Connecticut passed House Bill 6451[39], legalizing online casinos and sports betting in the state. While the state does not have any commercial casinos, the law allows the state's tribal casino operators – the Mohegan Tribe and the Mashantucket Pequot Tribe – to offer iGaming and sports wagering. Online casinos launched in the state in October 2021 and, in their first twelve months of operation, generated $159 million in gross gaming revenue.

[38] Lawful Internet Gaming Act. Act 152. (2019)
[39] An Act Concerning The Authorization, Licensing And Regulation Of Online Casino Gaming, Retail And Online Sports Wagering, Fantasy Contests, Keno And Online Sale Of Lottery Tickets. House Bill 6451. (2021)

Table 80: Connecticut iGaming Trends

Year	Revenue	Annual Growth (%)
2021	$16,338,921	
2022	$225,382,371	1279%
2023	$334,602,489	48%
2024	$456,791,829	37%

Source: Connecticut Department of Consumer Protection

Connecticut taxes online casino games at 18%, with the rate rising to 20% five years after launch (2026), and they permit operators to deduct promotional play

Rhode Island

On June 22, 2023, Rhode Island Governor Dan McKee signed Senate Bill 948[40] into law, legalizing iGaming across the state. The bill allows the state lottery to contract with Bally's, which currently operates two casinos in the state, to operate online slots and table games, which it began doing in March 2024. Slot revenue is taxed at 61%, with an additional 1.45% going to the towns of Lincoln and Tiverton, while table games revenue is taxed at 15.5%, with the same towns receiving an additional 1%.

[40] Video Lottery Games, Table Games And Sports Wagering. Senate Bill 948. (2023)

DISCLAIMER

Certain information included in this report contains forward-looking estimates, projections and/or statements. The Innovation Group has based these projections, estimates and/or statements on our current expectations about future events. These forward-looking items include statements that reflect our existing beliefs and knowledge regarding the operating environment, existing trends, existing plans, objectives, goals, expectations, anticipations, results of operations, future performance and business plans.

Further, statements that include the words "may," "could," "should," "would," "believe," "expect," "anticipate," "estimate," "intend," "plan," “project,” or other words or expressions of similar meaning have been utilized. These statements reflect our judgment on the date they are made and we undertake no duty to update such statements in the future.

Although we believe that the expectations in these reports are reasonable, any or all of the estimates or projections in this report may prove to be incorrect. To the extent possible, we have attempted to verify and confirm estimates and assumptions used in this analysis. However, some assumptions inevitably will not materialize as a result of inaccurate assumptions or as a consequence of known or unknown risks and uncertainties and unanticipated events and circumstances, which may occur. Consequently, actual results achieved during the period covered by our analysis will vary from our estimates and the variations may be material. As such, The Innovation Group accepts no liability in relation to the estimates provided herein.