

# Economic Impact of New Jersey Online Gaming: **FURTHER LESSONS LEARNED**

---

---

SUBMITTED TO



**FULL REPORT**

October 2019

SUBMITTED BY

Alan Meister, Ph.D.  
Meister Economic Consulting  
(949) 390-0555  
[ameister@meistereconomics.com](mailto:ameister@meistereconomics.com)

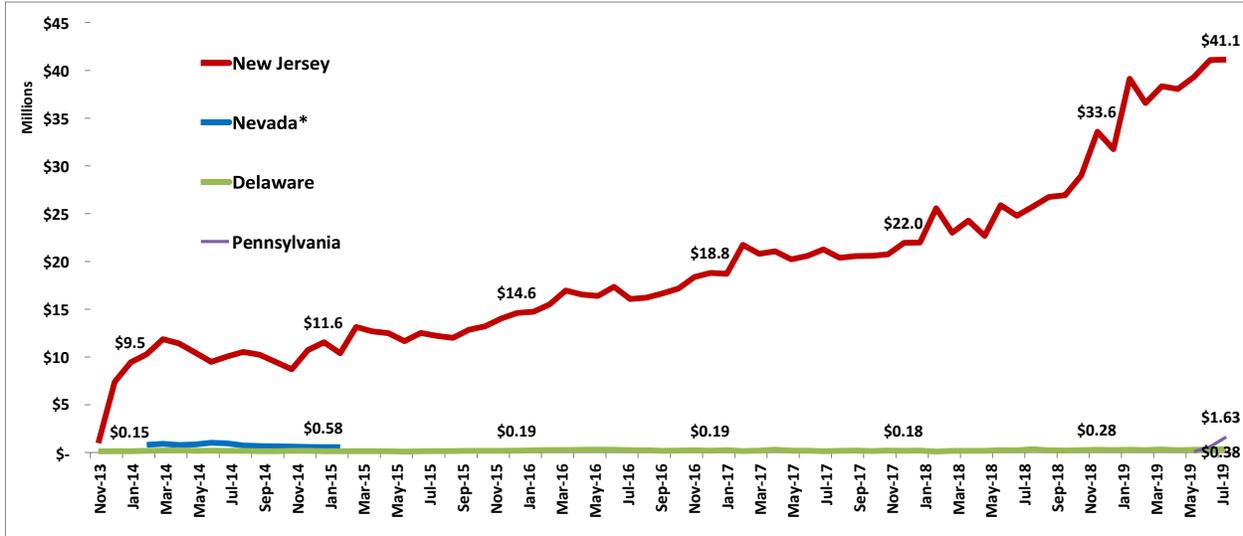
Gene Johnson  
Victor-Strategies  
(609) 294-1100  
[gene@victor-strategies.com](mailto:gene@victor-strategies.com)



## Executive Summary

In November 2013, New Jersey became the third U.S. state to permit the legal operation of Internet gaming (“iGaming”). Measured by the objective metric of gross gaming revenue (“GGR”) generation, New Jersey has clearly implemented the most successful business model of the four states where iGaming is currently in operation in the U.S.

Monthly iGaming Gross Gaming Revenue by State, November 2013-September 2019



Sources: New Jersey Division of Gaming Enforcement; Nevada Gaming Control Board; Delaware Video Lottery; and Pennsylvania Gaming Control Board.

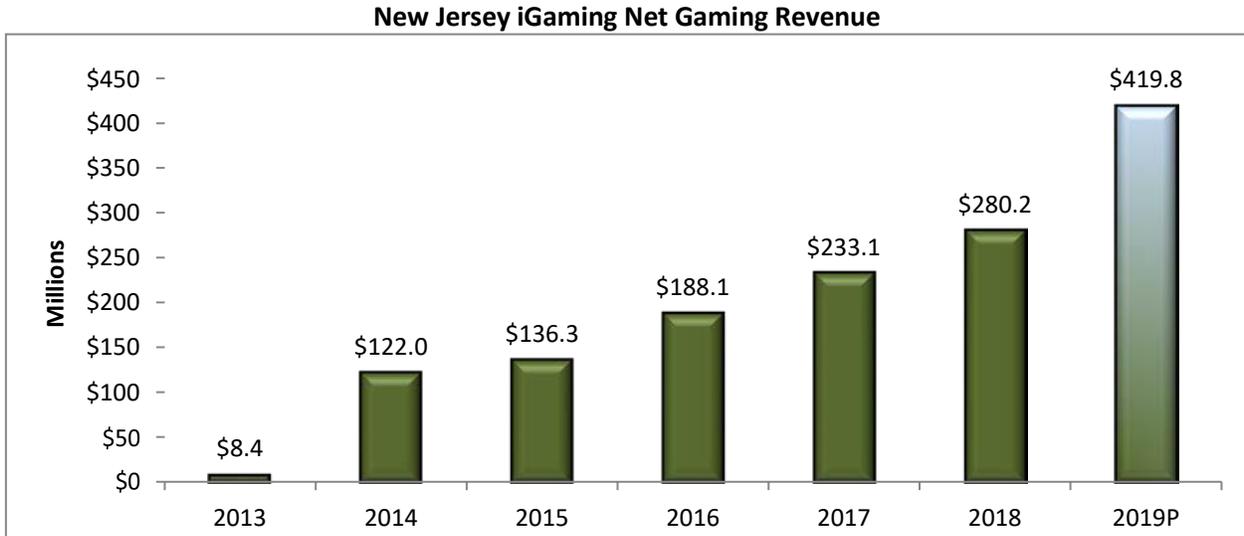
\*Nevada Gaming Control Board ceased reporting Internet poker revenue as of February 2015.

New Jersey’s iGaming laws allow licensed Atlantic City casinos to operate all games permitted in their brick and mortar facilities, and partner with approved technology providers to operate multiple iGaming websites for each property. As a result, iGaming has experienced strong and steady growth in New Jersey since its inception, putting it far ahead of Nevada and Delaware in terms of registered player counts, gaming revenue, and tax revenue. Pennsylvania, which taxes iGaming at the same high rate as land-based casino gaming is still in its infancy and only time will tell how successful that state’s business model will be.

### MARKET PERFORMANCE OF NEW JERSEY IGAMING

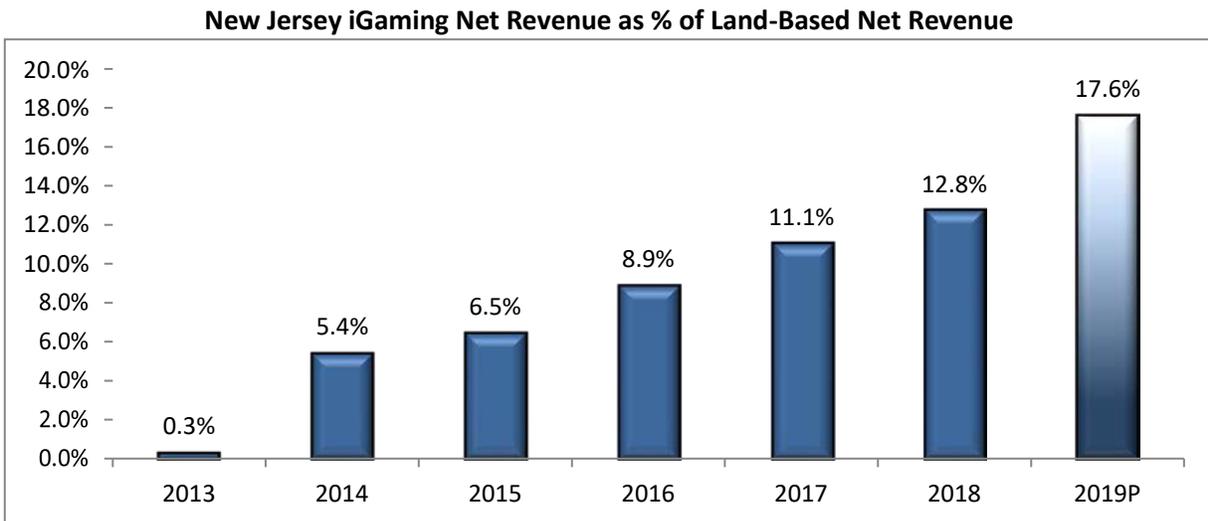
Since its first full year of operations, iGaming GGR has grown at a compound annual growth rate of 24.8%. In calendar year 2018, iGaming generated total GGR of \$299.1 million, a 21.6% increase over 2017. Through September 2019, GGR totaling \$339.0 million has already surpassed the 2018 total. If the remainder of 2019 yields the same average monthly performance as the first nine months (\$37.7 million in average GGR per month), GGR for all of calendar year 2019 is projected to total approximately \$452.0 million, a 51.1% increase over calendar year 2018.

Net gaming revenue, which subtracts all promotional gaming credits from GGR, totaled \$280.2 million in 2018, a 20.2% increase over 2017 revenues. New Jersey iGaming looks to continue this strong growth through the current year. Net Gaming revenue is projected to reach approximately \$419.8 million in net gaming revenue by year end 2019.



Sources: New Jersey Division of Gaming Enforcement; Nathan Associates/Victor-Strategies analysis.

iGaming net revenue as a percentage of land-based casino revenue in New Jersey has grown from 5.4% of land-based net gaming revenue in 2014, its first full calendar year of operation, to 12.8% of land-based net gaming revenue in 2018, and it is projected to reach 17.6% in 2019.

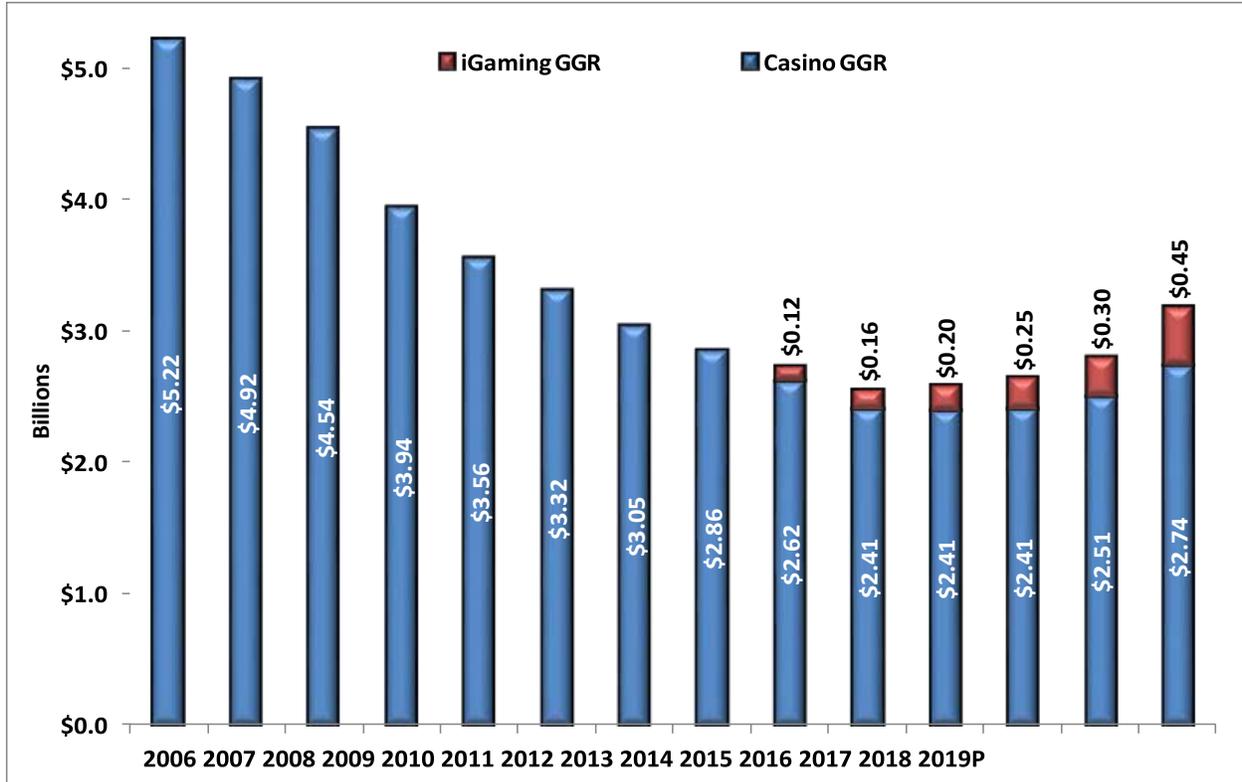


Source: New Jersey Division of Gaming Enforcement.

This revenue growth for iGaming has occurred without cannibalizing the revenue generated by brick and mortar casinos in Atlantic City. In fact, industry analysts generally agree that iGaming has been complementary rather than cannibalistic to land-based casino business. After a decade-long

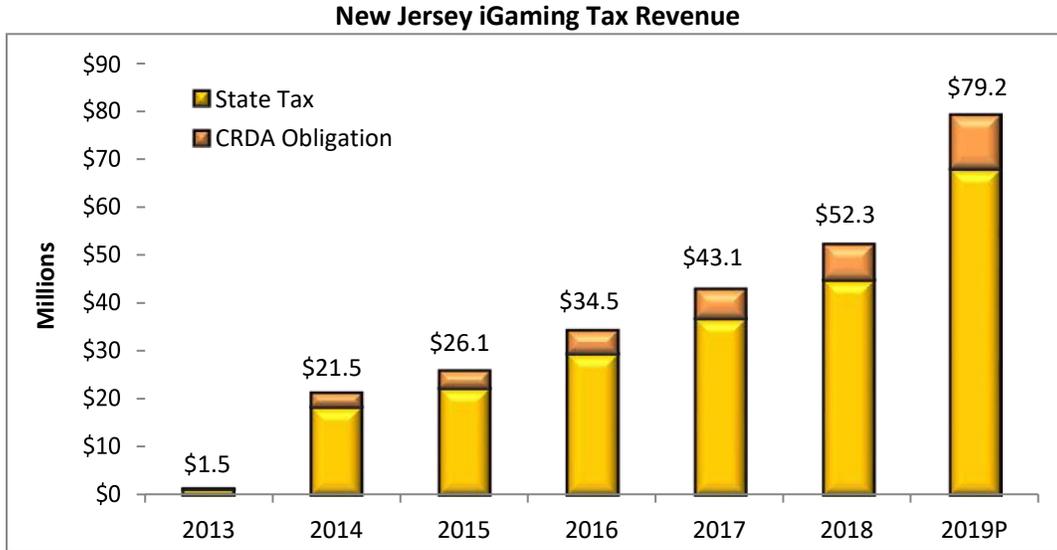
downturn in Atlantic City gaming revenue following the Great Recession and a significant increase in regional competition, the land-based casino market stabilized in 2017 and both land-based casino and iGaming revenues have experienced growth in 2017 and 2018. These phenomena provide strong evidence that multi-channel engagement is attracting new customers to the casino, increasing brand loyalty, and growing the overall player database rather than substituting online for brick-and-mortar visitation. Based on the current trajectory thus far in calendar year 2019, the New Jersey gaming industry as a whole will generate more than \$3 billion in GGR by the end of 2019, the first time this has happened since 2012, when there were 12 casinos operating in the city.

**New Jersey Gross Gaming Revenue, Casino vs. iGaming**



Source: New Jersey Division of Gaming Enforcement.

With this increase in gaming revenue has come a corresponding increase in tax revenue. New Jersey iGaming generated \$52.3 million in gaming taxes for New Jersey in calendar 2018, including approximately \$44.9 million to the State and \$7.5 million locally via the Casino Reinvestment Development Authority (CRDA). This reflects a 21.6% increase over 2017. Gaming taxes are anticipated to total \$79.2 million in 2019.



Source: New Jersey Division of Gaming Enforcement.

## ECONOMIC AND FISCAL IMPACT OF NEW JERSEY IGAMING

As a result of the upfront capital investment in New Jersey iGaming facilities, equipment, and technology, and the ongoing annual operation of iGaming, there have been significant positive impacts on the New Jersey economy. Not only is there the contribution of iGaming itself, but also secondary effects that result from the investment in and operation of iGaming. Secondary effects come about as player expenditures are subsequently spent by the gaming operators and then re-spent by suppliers and all employees throughout the economy. This phenomenon is often referred to as the “multiplier effect.”

From its inception in late 2013 through calendar year 2018, New Jersey iGaming has directly and indirectly generated:

- \$2.0 billion in output (i.e., value of sales);
- 6,552 jobs (i.e., full-time equivalents);
- \$401.0 million in wages to employees; and
- \$259.3 million in tax revenue to state and local governments (including \$178.9 million in iGaming taxes).

<b>2013-2018 Economic &amp; Fiscal Impact of Investment in &amp; Operation of iGaming on State of New Jersey</b>				
Type of Effect	Output	Jobs	Wages	Taxes
Direct	\$1,086,633,618	1,617	\$106,338,586	\$208,284,680
Indirect	\$604,206,501	3,240	\$202,395,710	\$30,614,394
Induced	\$305,637,895	1,695	\$92,295,157	\$20,387,157
<b>Total</b>	<b>\$1,996,478,014</b>	<b>6,552</b>	<b>\$401,029,454</b>	<b>\$259,286,231</b>
<p>Detail may not equate to total due to rounding.                      Output and Wages in 2019 Dollars.                      Jobs are measured as full-time equivalents (FTEs).                      Taxes include state and local taxes.                      Direct Effect was computed from data provided by industry participants.                      Indirect and Induced Effects were computed using input-output analysis.                      The Indirect Effect represents economic activity generated by entities down the supply chain. The Induced Effect represents economic activity generated as a result of household purchases.</p>				

In calendar year 2018 alone, the operation of iGaming (excluding investments) generated:

- \$553.6 million in output;
- 1,851 jobs;
- \$104.8 million in wages to employees; and
- \$74.4 million in tax revenue to state and local governments (including \$52.3 million in iGaming taxes).

<b>2018 Economic &amp; Fiscal Impact of Operation of iGaming on State of New Jersey</b>				
Type of Effect	Output	Jobs	Wages	Taxes
Direct	\$300,782,930	481	\$22,866,018	\$60,317,472
Indirect	\$172,314,516	924	\$57,622,206	\$8,693,264
Induced	\$80,471,986	446	\$24,300,433	\$5,368,231
<b>Total</b>	<b>\$553,569,432</b>	<b>1,851</b>	<b>\$104,788,658</b>	<b>\$74,378,967</b>
<p>Detail may not equate to total due to rounding.                      Output and Wages in 2019 Dollars.                      Jobs are measured as full-time equivalents (FTEs).                      Taxes include state and local taxes.                      Direct Effect was computed from data provided by industry participants.                      Indirect and Induced Effects were computed using input-output analysis.                      The Indirect Effect represents economic activity generated by entities down the supply chain. The Induced Effect represents economic activity generated as a result of household purchases.</p>				

## **REGULATION OF NEW JERSEY IGAMING**

New Jersey iGaming also continues to be successful from a regulatory perspective. The state features arguably the strictest and most robust iGaming regulatory model in the world today. This regime incorporates new technologies that have been thoroughly proven and tested over six years of practice. The New Jersey Division of Gaming Enforcement has established procedures and mandated requirements for precise geolocation, player identification, monetary tracking, and comprehensive monitoring of the all operating platforms that now serve as standards for state oversight of iGaming and other forms of interactive wagering in other U.S. states. To date, there has been no measurable evidence of increases in gambling harm, underage gambling, fraud, or money laundering as a result of the legalization of iGaming. New Jersey's iGaming industry has successfully addressed the valid concerns voiced by opponents and skeptics of legal iGaming and proven that geo-fenced interactive wagering can be successfully operated and safely regulated in an intrastate environment.

---

This white paper was conducted by Meister Economic Consulting and Victor-Strategies on behalf of the iDevelopment & Economics Association (iDEA).

# Table of Contents

**Executive Summary ..... i**

**1. Assignment..... 1**

**2. Update on iGaming in the U.S..... 2**

**3. New Jersey iGaming Market Assessment ..... 4**

    3.1 Market Update..... 4

    3.2 Market Performance ..... 7

    3.3 Ongoing Success of iGaming Regulation..... 11

        3.3.1 State Level Regulation ..... 11

        3.3.2 Geolocation ..... 12

        3.3.3 Underage Gambling..... 13

        3.3.4 Player Protections..... 13

        3.3.5 Problem Gambling ..... 14

        3.3.6 Fraud, Cheating, and Money Laundering ..... 16

        3.3.7 Payment Processing ..... 16

        3.3.8 Cannibalization of Brick and Mortar Casinos ..... 17

        3.3.8 Tax Revenue Generation ..... 18

    3.4 Conclusions..... 19

**4. Economic Impact Analysis ..... 20**

    4.1 Methodology..... 20

        4.1.1 Input-Output Analysis ..... 20

        4.1.2 Study Area..... 20

        4.1.3 Measures of Economic Impact..... 21

        4.1.4 Economic Modeling System..... 21

        4.1.5 Custom Economic Impact Models ..... 22

    4.2 Data ..... 22

    4.3 Results..... 22

        4.3.1 Investment Impact (2013-2018)..... 23

        4.3.2 Operations Impact..... 24

        4.3.3 Total Impact (2013-2018)..... 25

**Appendix A: About the Authors ..... 27**

**Appendix B: About Meister Economic Consulting ..... 29**

**Appendix C: About Victor-Strategies ..... 33**

## 1. Assignment

---

In June 2017, the iDevelopment and Economic Association (iDEA) published the *Economic Impact of New Jersey Online Gaming: Lessons Learned*.<sup>1</sup> This groundbreaking report described the history and development of legal Internet gaming (“iGaming”) and quantified the economic impacts it has produced in the State of New Jersey from its origin in 2013 through calendar year 2016. Now, as iGaming has grown steadily over the past two plus years, Meister Economic Consulting and Victor-Strategies were commissioned to update the original report with new lessons learned and current economic impact results.

This report is organized as follows. Section 2 sets forth an update on iGaming in the U.S. Section 3 provides an assessment of the New Jersey iGaming market. Section 4 describes the methodologies, data, and results of our quantitative economic impact analysis. Background on the authors of this report, Meister Economic Consulting, and Victor-Strategies are set forth in Appendices A, B, and C, respectively.

---

<sup>1</sup> Alan Meister and Gene Johnson, “Economic Impact of New Jersey Online Gaming: Lessons Learned” (<https://ideagrowth.org/online-gaming-research-study-full-report/>), accessed October 2019, on behalf of iDevelopment and Economic Association (iDEA), June 2017.

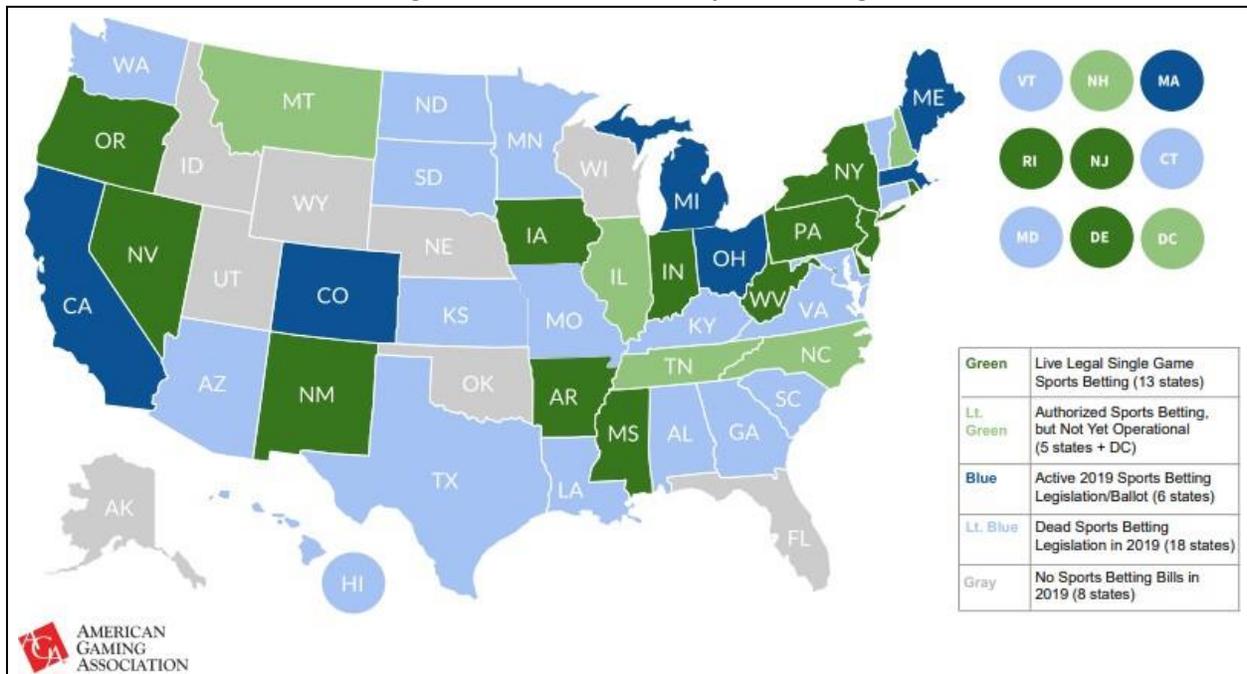
## 2. Update on iGaming in the U.S.

Up through the four-year period covered in our original report (2013-2016), only three U.S. states had legalized interactive wagering, namely Delaware, Nevada, and New Jersey, all in 2013. New Jersey was the third state to permit the legal operation of iGaming in November 2013. For the next five years, no other states successfully passed iGaming legislation. However, the reluctance of other states to enter this new market changed dramatically with the U.S. Supreme Court decision to overturn the Professional and Amateur Sports Protection Act (PASPA) in May 2018. This ruling removed federal prohibitions to legalized sports betting, allowing states to pass their own enabling legislation.

As of mid-September 2019, sports betting has gained momentum and looks to spread further:

- 13 states have single game sports betting in operation, the majority of which operate in brick and mortar gaming facilities;
- 5 states and the District of Columbia have authorized sports betting but it is not yet operational; and
- 6 states have had active sports betting legislation in 2019.<sup>2</sup>

**Figure 1: U.S. States with Sports Betting**



Source: American Gaming Association (<https://www.americangaming.org/resources/state-gaming-map>).

<sup>2</sup> American Gaming Association (<https://www.americangaming.org/resources/state-gaming-map/>), accessed October 2019.



### 3. New Jersey iGaming Market Assessment

---

#### 3.1 MARKET UPDATE

In addition to the legalization of sports betting, changes have occurred in the New Jersey gaming market since our original report was published in 2017. Most importantly, two Atlantic City casinos that were previously closed have reopened and currently are operating both iGaming and sports betting:

- The Seminole Tribe of Florida formed a partnership that purchased the former Trump Taj Mahal Casino. It was refurbished and reopened as Hard Rock Hotel & Casino Atlantic City in June 2018.
- The former Revel Casino Hotel reopened in June 2018 as Ocean Casino Resort after a series of ownership changes.

Currently there are nine casinos operating in Atlantic City. Three of these are owned by one company, Caesars Entertainment, which means there are a total seven casino licensees holding permits to offer iGaming. Under New Jersey's iGaming regime, each licensed permit holder can host up to five website brands each with multiple subsidiary URL's ("skins") offering interactive wagering. At the time of our original report, there were a total of 5 operating licensees supported by 10 platform providers with 20 skins. As of June 2019, there were 7 operating licensees supported by 13 platform providers with 32 different skins offering a wider selection of online casino brands in a robust market.

Legal regulated iGaming continues to bring new jobs and new businesses to New Jersey. In fact, over nearly the last two and a half years, the number of companies contributing to the statewide economy has increased substantially. Back in January 7, 2017, the New Jersey Division of Gaming Enforcement (NJDE) listed a total of five iGaming licensees, 42 iGaming "ancillary companies" or business enterprises that provide goods or services ancillary to gaming activity, and a total of 524 iGaming related vendors on its website.<sup>4</sup> As of September 12, 2019, the NJDE lists a total of seven licensees, 39 iGaming ancillary companies, and 695 iGaming related vendor registrants.<sup>5</sup>

Figure 3 lists the New Jersey iGaming licensees and their websites as of June 2019.

---

<sup>4</sup>New Jersey Division of Gaming Enforcement, "Internet Gaming Ancillary Companies" (<http://www.nj.gov/oag/ge/docs/InternetGaming/AncillaryCompaniesVendor.pdf>), accessed May 30, 2017.

<sup>5</sup>New Jersey Division of Gaming Enforcement, "Internet Gaming Ancillary Companies" (<http://www.nj.gov/oag/ge/docs/InternetGaming/AncillaryCompaniesVendor.pdf>), accessed October 13, 2019.

**Figure 3: New Jersey iGaming Licensees and Websites**

<b>BORGATA HOTEL CASINO &amp; SPA</b>
www.borgatacasino.com www.borgatapoker.com www.nj.partycasino.com www.nj.party poker.com www.palabingousa.com www.palacasino.com www.palapoker.com casino.nj.betmgm.com poker.nj.betmgm.com scorescasino.com
<b>CAESARS INTERACTIVE ENTERTAINMENT</b>
www.caesarscasino.com www.harrahscasino.com www.wsop.com us.888.com us.888poker.com us.888casino.com
<b>GOLDEN NUGGET HOTEL CASINO &amp; MARINA</b>
www.goldennuggetcasino.com www.betfaircasino.com www.playsugarhouse.com nj.betamerica.com/sports nj-casino.goldennuggetcasino.com
<b>HARD ROCK HOTEL AND CASINO</b>
www.hardrockcasino.com www.nj.bet365.com nj.unibet.com
<b>OCEAN RESORT CASINO</b>
www.oceanonlinecasino.com nj.parxcasino.com
<b>RESORTS CASINO HOTEL ATLANTIC CITY</b>
www.resortscasino.com www.draftkings.com www.mohegansuncasino.com www.pokerstarsnj.com
<b>TROPICANA CASINO &amp; RESORT ATLANTIC CITY</b>
www.tropicanacasino.com www.virgincasino.com
Source: New Jersey Division of Gaming Enforcement ( <a href="https://www.nj.gov/oag/ge/gamingsites.html">https://www.nj.gov/oag/ge/gamingsites.html</a> ).

Figure 4 lists each New Jersey iGaming licensee’s websites, with their software platform providers and original website launch dates.<sup>6</sup>

**Figure 4: New Jersey iGaming Licensee Websites, Platform Providers, and Launch Dates**

ONLINE CASINO	LICENSEE	SOFTWARE	LAUNCHED
PartyCasino	Borgata Hotel & Casino	GVC	11/26/2013
Pala Online	Borgata Hotel & Casino	Pala Interactive	11/25/2014
Borgata Online Casino	Borgata Hotel & Casino	GVC	11/26/2013
playMGM	Borgata Hotel & Casino	GVC	8/1/2017
Scores Casino	Borgata Hotel & Casino	Pala Interactive	9/20/2017
Caesars Casino	Caesars Interactive	NYX Gaming Group	11/26/2013
888 Casino	Caesars Interactive	888	11/26/2013
Harrah's Casino	Caesars Interactive	888	11/26/2013
Betfair Casino	Golden Nugget Atlantic City	Game Account Network	11/26/2013
Golden Nugget	Golden Nugget Atlantic City	NYX Gaming Group	12/13/2013
SugarHouse Casino	Golden Nugget Atlantic City	Rush Street Interactive	9/15/2016
BetAmerica Casino	Golden Nugget Atlantic City	SBTech	2/07/2019
Hard Rock Casino	Hard Rock Hotel & Casino	Gaming Innovation Group	6/28/2018
Unibet Casino	Hard Rock Hotel & Casino	SG Digital	6/04/2019
Ocean Casino	Ocean Resort and Casino	Game Account Network	7/11/2018
Resorts Casino	Resort Casino Hotel	NYX Gaming Group	2/27/2015
Mohegan Sun Casino	Resort Casino Hotel	NYX Gaming Group	7/23/2015
PokerStars	Resort Casino Hotel	PokerStars	3/21/2016
DraftKings	Resort Casino Hotel	Kambi	12/17/2018
Tropicana Casino	Tropicana Casino and Resort	Gamesys	11/26/2013
Virgin Casino	Tropicana Casino and Resort	Gamesys	1/24/2014

Source: NJ Online Gambling (njonlinegambling.com), accessed October 2019.

<sup>6</sup>In some cases, there are variations of the same websites.

### 3.2 MARKET PERFORMANCE

iGaming revenue has grown dramatically since our original report was issued. In June 2017, we conservatively projected a 17% increase in iGaming gross gaming revenue (GGR) year over year. The actual total for iGaming GGR in calendar 2017 was \$245.6 million, an increase of 24.9% over the previous year.<sup>7</sup>

Figure 5 presents the performance of New Jersey iGaming since inception. Since its first full year of operations in 2014, iGaming GGR has increased at a compound annual growth rate of 24.8%. In calendar year 2018, iGaming generated total GGR of \$299.1 million, a 21.6% increase over 2017.<sup>8</sup> Through September 2019, GGR totaling \$339.0 million has already surpassed the 2018 total. If the rest of 2019 yields the same average monthly performance as the first nine months (\$37.7 million in GGR per month), GGR for all of calendar year 2019 is projected to total approximately \$452.0 million, a 51.1% increase over calendar year 2018.

**Figure 5: New Jersey iGaming Gross Gaming Revenue**



Source: New Jersey Division of Gaming Enforcement.

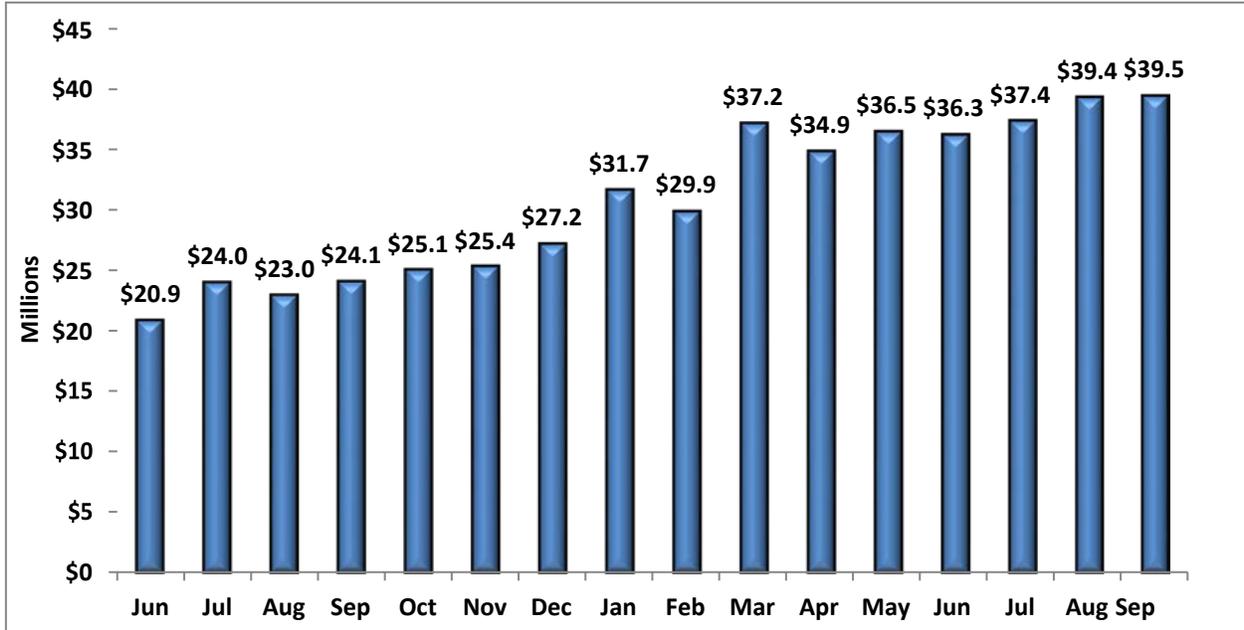
Multiple factors appear to be contributing to the most recent growth in iGaming revenues. These factors include the evolving acceptance of iGaming among New Jersey residents who choose to gamble, the continuing improvement of product offerings and operating platforms, and the maturation of marketing and operations technologies, as well as the increasing acceptance of credit card payment transactions by the large issuing banks. One particularly interesting factor is the apparent complementary effect of sports wagering. Since September 2018, the onset of football season

<sup>7</sup> New Jersey Division of Gaming Enforcement, “DGE Announces December 2017 Gaming Revenue Results” (<https://www.nj.gov/oag/ge/docs/Financials/PressRel2017/December2017.pdf>), press release, January 12, 2018.

<sup>8</sup> New Jersey Division of Gaming Enforcement, “DGE Announces December 2018 Total Gaming Revenue Results” (<https://www.nj.gov/oag/ge/docs/Financials/PressRel2018/December2018.pdf>), press release, January 14, 2019.

and the advent of double-digit sports betting revenue, iGaming revenue exceeded all previous monthly GGR totals, reaching \$39.5 million in September 2019, as shown in Figure 6. Qualitative evidence appears to confirm that younger sports bettors, including many daily fantasy sports consumers, are now discovering online casino games.

**Figure 6: New Jersey iGaming Casino Games GGR, Post-PASPA Repeal (July 2018-September 2019)**



Source: New Jersey Division of Gaming Enforcement.

One new operational development has been the implementation of “live dealer” table games online. This product, featuring “dealer-tainers” administering live table games in a studio environment, is extremely popular in Europe and internationally and has proven equally attractive in the New Jersey market. Golden Nugget has very effectively positioned their live dealer studio in the entrance corridor to the physical casino in Atlantic City, allowing patrons to view the dealers through smoked glass and adding further credibility to Internet table games.

While Golden Nugget was the first online casino in New Jersey to offer live dealer games, other operators in the market were quick to follow. Currently, there are eight online casinos offering live dealer games, including Betfair Casino, Borgata Online Casino, PartyCasino, playMGM, SugarHouse Casino, 888 Casino, and Hard Rock Casino.<sup>9</sup> Golden Nugget’s live dealer studio, operated by Ezugi, has now been joined by a second studio located at Hard Rock Atlantic City, operated by Evolution Gaming.<sup>10</sup>

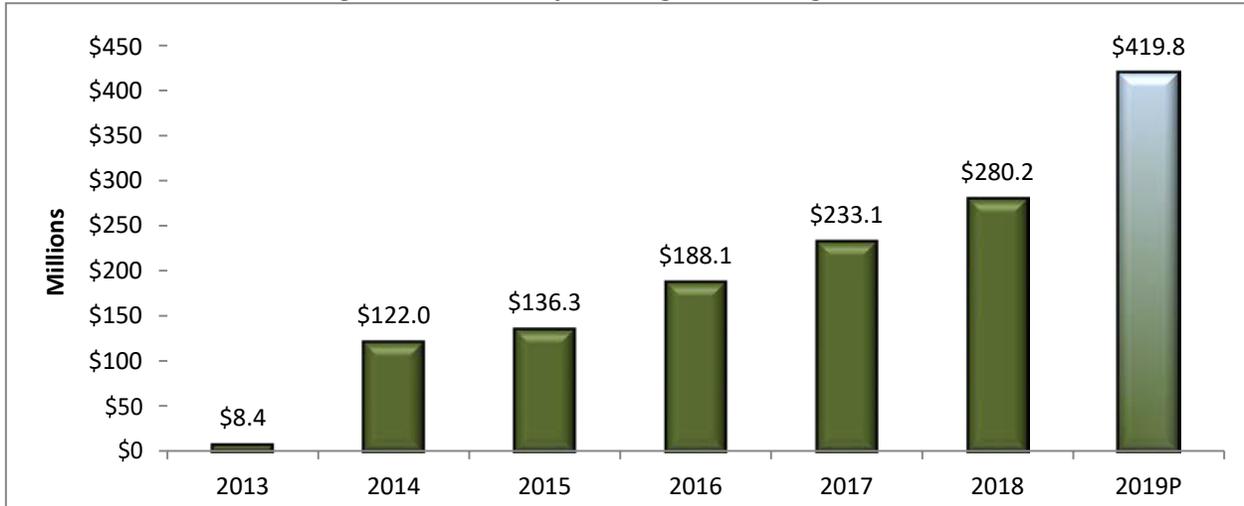
As shown in Figure 7, net gaming revenue, after subtracting all promotional gaming credits, totaled \$280.2 million in calendar year 2018, a 20.2% increase over 2017 revenues. New Jersey iGaming looks

<sup>9</sup> NJ Gambling Sites (<https://www.njgamblingsites.com/14888/variety-live-dealer-games-online-casinos-nj/>), accessed October 2019.

<sup>10</sup> NJ Gambling Sites (<https://www.njgamblingsites.com/14888/variety-live-dealer-games-online-casinos-nj/>), accessed October 2019.

to continue this strong growth through the current year. Net gaming revenue is projected to reach approximately \$419.8 million in calendar year 2019.

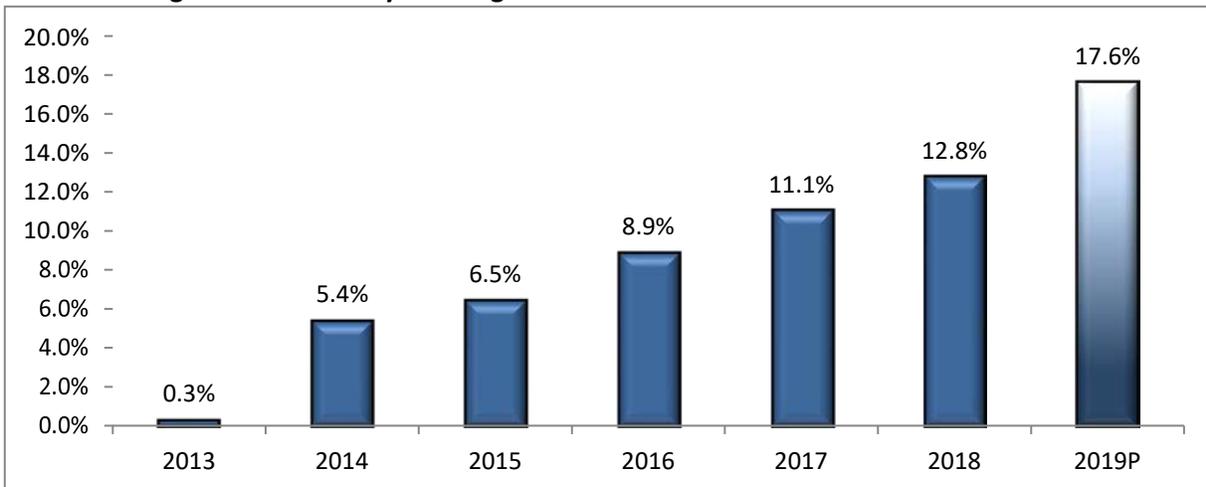
**Figure 7: New Jersey iGaming Net Gaming Revenue**



Sources: New Jersey Division of Gaming Enforcement; Meister Economic Consulting/Victor-Strategies analysis.

Figure 8 shows that New Jersey iGaming net revenue has grown from 5.4% of land-based net gaming revenue in 2014, its first full calendar year of operation, to 12.8% of land-based net gaming revenue in 2018. It is projected to reach 17.6% at the end of 2019.

**Figure 8: New Jersey iGaming Net Revenue as % of Land-Based Net Revenue**



Source: New Jersey Division of Gaming Enforcement.

As described above, New Jersey iGaming has experienced strong and relatively steady revenue growth since the opening of iGaming operations in November 2013. However, Nevada and Delaware, which also inaugurated iGaming in 2013, have not approached the commercial success of New Jersey in terms of registered player counts, gaming revenue, and tax revenue. While New Jersey would be expected to generate higher revenue due to its larger population base, the state's more open and robust business model has been a strong factor contributing to its success. As evidenced in Figure 9,

New Jersey’s revenue performance has far exceeded the difference in population between it and the two other states which have been operating iGaming for the same length of time. Nevada offers only Internet poker and Delaware runs iGaming operations for three casinos through a central provider administered by the Delaware Lottery.

**Figure 9: Monthly iGaming Gross Gaming Revenue by State, November 2013-September 2019**



Sources: New Jersey Division of Gaming Enforcement; Nevada Gaming Control Board; Delaware Video Lottery, and Pennsylvania Gaming Control Board.

\*Nevada Gaming Control Board ceased reporting Internet poker revenue as of February 2015.

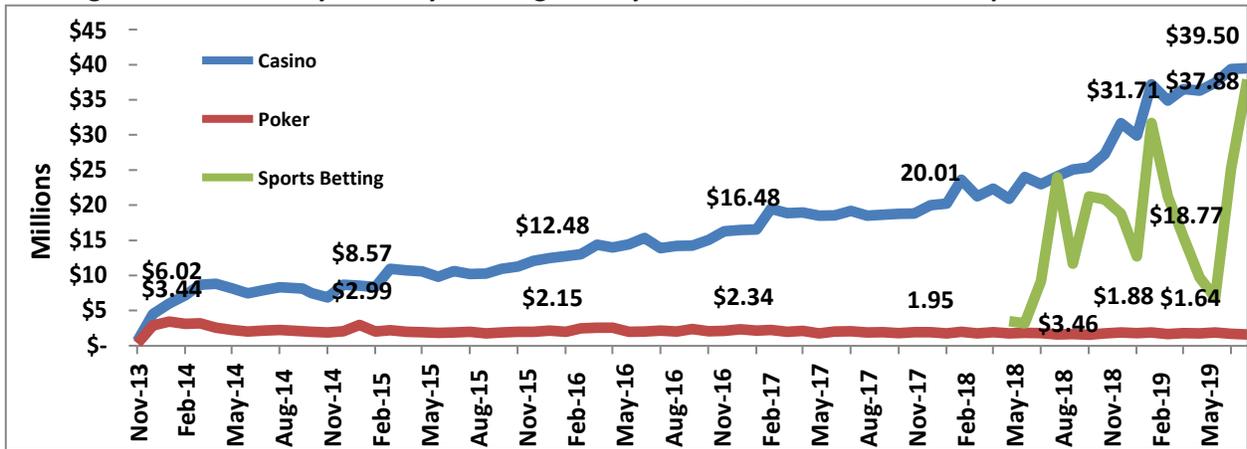
West Virginia and Pennsylvania have both legalized iGaming, and while operations have begun in Pennsylvania, it is still in its infancy. Pennsylvania saw three casinos begin offering iGaming the week of July 15, 2019 and initial gross revenues cumulatively totaled \$2.37 million through September 2019.<sup>11</sup> This is a significant start for early operations, especially in a state with a substantially larger population of approximately 12.8 million, as opposed to 8.9 million in New Jersey.<sup>12</sup> Pennsylvania would be expected to eventually surpass New Jersey in iGaming revenue. However, Pennsylvania has instituted high taxes and fees that may effectively prevent operators from achieving their full revenue potential. West Virginia has yet to implement online casino and poker, but the West Virginia Lottery is expected to go live with iGaming sometime in early 2020.

In the New Jersey market, revenue from online casino style slot and table games, the traditional iGaming content, continue to outpace that for Internet poker, reflecting both a decade-long decline in the popularity of iPoker internationally, as well as the limitations that geo-fenced intrastate markets exert upon liquidity (i.e., the number of poker players playing on a particular site). Shown in Figure 10 is monthly New Jersey iGaming revenue by game type.

<sup>11</sup> Pennsylvania Gaming Control Board, Interactive Gaming Revenue FY 2019-2020 ([https://gamingcontrolboard.pa.gov/files/revenue/Gaming\\_Revenue\\_Monthly\\_Interactive\\_Gaming\\_FY20192020.pdf](https://gamingcontrolboard.pa.gov/files/revenue/Gaming_Revenue_Monthly_Interactive_Gaming_FY20192020.pdf)), accessed October 2019.

<sup>12</sup> U.S. Census Bureau, Quick Facts (<https://www.census.gov/quickfacts/fact/table/PA,NJ/PST045218>), accessed October 2019.

Figure 10: New Jersey Monthly iGaming GGR by Vertical, November 2013-September 2019



Source: New Jersey Division of Gaming Enforcement.

Sports betting has proven to be highly suited to interactive wagering with 80% of wagers being placed via mobile devices or online. Sports betting also appears to be strongly complementary to iGaming revenue generation. The growing importance of sports betting revenue, as well as its apparent influence on the continued growth of iGaming, is illustrated in Figure 10.

### 3.3 ONGOING SUCCESS OF IGAMING REGULATION

New Jersey iGaming also has continued to demonstrate success from a regulatory perspective. As noted in our 2017 report, the NJDGE has done well assembling the technological expertise and establishing the procedures to effectively monitor and control iGaming operations on a statewide basis since inception. iGaming in New Jersey has effectively addressed the issues of concern when iGaming was legalized six years ago. This task has been accomplished largely under the state’s existing gaming regulatory structure and primarily by the state’s regulatory authority, the NJDGE, working in close cooperation with industry operators and suppliers, state lawmakers, and interested stakeholders outside the industry. Identified issues of concern with iGaming have included:

- State level regulation;
- Geolocation;
- Underage gambling;
- Player protections;
- Problem gambling;
- Fraud, cheating, and money laundering;
- Payment processing;
- Cannibalization of brick and mortar casinos; and
- Tax revenue generation.

#### 3.3.1 State Level Regulation

New Jersey has proven that intrastate iGaming can be overseen and regulated effectively within a state. The state’s regulatory authority, the NJDGE, built upon the legislative framework post legalization to develop and implement procedures, processes, and technologies to assure regulatory

control and oversight of casino gambling via Internet and mobile. The regulatory regime includes officially mandated requirements, such as precise geolocation, as well as regulatory innovations such as 24/7 comprehensive transaction monitoring on all of the diverse platforms in operation. It also includes rigorous player identification and “know your customer” (KYC) requirements. The integrity of the industry is protected by a stringent regulatory framework that aggressively vets operators, tests their platforms, constantly scrutinizes ongoing operations, and flags any irregularities for investigation.

### **3.3.2 Geolocation**

Geographic fencing technology has improved dramatically since the inception of iGaming in November 2013. Intrastate enabling legislation requires that iGaming customers must be physically located within the state borders and the NJDGE’s policy has always been to err on the side of caution. New Jersey is a densely populated state where the most populous areas often lie in close proximity to adjacent out-of-state metropolises like New York City and Philadelphia. As a result, up to 15 percent of play may take place within a mile of the New Jersey state border and early operations experienced a high proportion of false negatives, where players close to the state line were excluded from playing. Today the technology has become more sophisticated using multiple data sources and regular location checks and allowing precision to the point where a person’s location can be determined to within approximately +/- 25 meters.

The NJDGE constantly monitors active play from a geographic perspective, and at their offices in Atlantic City, widescreen monitors display location points for everyone currently on the system, color coded for Internet or mobile device operating system and even featuring the locations of people trying to access the system from outside the state.



The NJDGE recently made public through prosecution settlement documents that in 2014 they apprehended a California resident who had temporarily spoofed the evolving geolocation protections through a “complex web of verification sources.”<sup>13</sup>

### **3.3.3 Underage Gambling**

The institution of rigorous know your customer (KYC) registration procedures and 24/7 gaming transaction and financial account monitoring have proven effective at preventing underage gambling and may actually be more effective than land-based methods. In order to play online, potential iGaming customers must first establish an account where they must positively identify themselves. During the registration process, players signing up must enter their first and last name, date of birth, gender, last four digits of their social security number, valid New Jersey street address, phone number, answer a security question, and declare that they are over 21 years of age. Most operators automatically assign complex passwords incorporating multiple characters, cases, numbers, and symbols.

This information, once entered, constrains others from using a player’s account. Checks are then performed to ensure that the new player does not hold a New Jersey casino key license or is otherwise prohibited from wagering in New Jersey or may be enrolled on a self-exclusion list. The key differentiation between registering for New Jersey iGaming and signing up on a black market or internationally regulated sites is the requirement for a player’s physical address and social security number. Compared to international jurisdictions, New Jersey’s state-regulated registration process is more intrusive from a customer perspective, requiring various validations, such as a physical address, age verification, and social security number. These more stringent KYC requirements may discourage an uncertain number of qualified potential customers from signing up, but they undoubtedly discourage underage players and make it extremely difficult for cheaters to establish fraudulent accounts or for cybercriminals to launder their proceeds through a New Jersey authorized iGaming site. In fact, the casino and the regulatory authority know a great deal more about the people who are playing online than they know about the people at the slots and tables in a physical casino. Every wager by a player is recorded online, establishing a perfect history of their gambling behavior should that information ever be needed.

### **3.3.4 Player Protections**

New Jersey’s legalization of iGaming brought a longstanding offshore industry onshore from a gray market into a safe and structured environment. Residents who wished to gamble online could now do so with the certainty that Internet games meet defined standards, that the operators are accountable to state regulatory authorities, that the odds are fair, and that they will actually receive payment when they cash out. Players can now interact with well-known trusted brands, wager with vetted and licensed operators, and enjoy protections for their personal information that are superior to commercial ecommerce. Players are further protected by codified mediation procedures, self-

---

<sup>13</sup> John A. Pappas, “Internet Gaming Fraudsters Beware – You Are Being Watched” (<https://www.usbets.com/nj-regulated-online-gambling-watchdogs/>), USBETS, March 19, 2019.

administered tools to manage the velocity of play, and the ability to exclude themselves not just from a single site but from all iGaming websites statewide.

New Jersey residents are also more protected from the hazards of playing on unregulated offshore websites than they were prior to the legalization of iGaming. But even with legal alternatives, it is still possible for people to gamble on a variety of offshore sites. The NJDGE has been actively combatting offshore gaming long before the legalization of in-state iGaming and has become more effective over time. Currently the NJDGE maintains a list of authorized licensees and website URL's that can be accessed from its home page. In addition, it has warned offshore operators that any black market sites that accept wagers from New Jersey residents will be permanently barred from licensure in the state. The NJDGE has also warned iGaming affiliates in writing that they will lose their licenses if they offer unauthorized gaming links: "The division will not license or register any company that is promoting illegal sites, as this activity negatively affects that company's good character, honesty, and integrity."

### **3.3.5 Problem Gambling**

A study released by Rutgers University in May 2017 and described in detail in our original report indicated that there was no increase in problem gambling prevalence rates in New Jersey that can be attributed to iGaming. However, it did document that the absolute level of problem gambling in New Jersey had increased historically and some measures of problem gambling are three times higher than observed in similar studies in other jurisdictions.<sup>14</sup> Only about 5% of survey respondents were online-only gamblers and the rate of "probable disorder" gambling within this segment was 2.8%, within the 2% to 3% of the population nationally classified as having a gambling disorder.

Within the survey, dramatic differences were documented between the two data sources in the survey (telephone sample and Internet sample). The self-selected, opt-in Internet panel sample (n = 2,134) reported a rate of gambling disorder at 10.5% and problem gambling at 21.6%, figures which are remarkably high compared to other gambling prevalence studies. Conversely, among the randomly contacted telephone sample (n = 1,500), the prevalence of gambling disorder was 0.3% and problem gambling 5.7%, figures which are generally below average and well within the tolerance of past problem gambling studies. No update to the Rutgers study has been released at this time but their findings raise questions and call for continued research to monitor problem gambling in New Jersey.

The National Council on Problem Gambling (NCPG) defines problem gambling, or gambling addiction, as all gambling behavior patterns that compromise, disrupt, or damage personal, family, or vocational pursuits.<sup>15</sup> The term "problem gambling" is usually broadly interpreted to include several types of disordered gambling behavior. The worst condition is termed disordered,

---

<sup>14</sup>Lia Nower, Rachel A. Volberg, and Kyle R. Caler, "The Prevalence of Online and Land-Based Gambling in New Jersey" (<https://socialwork.rutgers.edu/file/2695/download>), Center for Gambling Studies at Rutgers University Report to the New Jersey Division of Gaming Enforcement, 2017.

<sup>15</sup> National Council on Problem Gambling, "FAQ - What is Problem Gambling?" (<https://www.ncpgambling.org/help-treatment/faq/>), accessed October 2019.

pathological, or compulsive gambling, which is a progressive addiction characterized by increasing preoccupation with gambling, the increasing need to bet more money and more frequently, restlessness or irritability when attempting to stop, a penchant for “chasing” losses, and loss of control manifested by continuation of the gambling behavior in spite of mounting, serious, negative consequences.<sup>16</sup> According to NCPG, approximately two million U.S. adults, roughly 1% of the U.S. population, are estimated to meet the criteria for a pathological gambling disorder in a given year.<sup>17</sup> Another four to six million adults, 2% to 3% of the population, would be considered to be problem gamblers who do not meet the full diagnostic criteria for pathological gambling, but meet one or more of the criteria and are experiencing problems due to their gambling behavior. Problem gambling rates may differ significantly depending upon which particular diagnostic criterion is used to identify the incidence of problem gambling.<sup>18</sup>

In their efforts to minimize disordered gambling behavior, New Jersey’s iGaming regulatory regime incorporates the following responsible gaming features designed to limit losses and reduce adverse impacts of problem gambling behavior:<sup>19</sup>

- The regulations require each Internet gaming licensee to pay \$250,000 annually for state programs combatting problem gambling.
- Systems are in place that must contain logic to identify and report potential problem gamblers to the licensee, and all licensees are required to maintain records of all actions taken regarding those patrons identified as potential problem gamblers.
- All of the iGaming skins allow players to set deposit limits, loss limits, and time limits on their Internet gambling sessions. iGaming customers can also set a minimum 72 hour “cooling off period” to prevent chasing losses and those who have acknowledged a gambling problem can easily self-exclude themselves from gambling online for a period of one to five years. Unlike the situation in European iGaming, self-exclusion is statewide, effectively preventing an iGaming customer from gambling on any website in New Jersey, not simply the website where they have initiated the self-exclusion protocol. These patrons are required to verify their exclusion status during new registrations and at each login attempt.
- A mandatory player protection feature is also triggered once a player’s cumulative deposits exceed \$2,500 after which they are required to acknowledge that they have the ability to set responsible gaming limits on their accounts and that 1-800-GAMBLER is available for assistance.
- Computerized systems provide on-demand activity statements for a minimum of 180 days of patron gaming activity, and all iGaming platform providers are required to maintain complete records of customer activity for at least ten years.

---

<sup>16</sup>Matthew Garbis, “Internet Gambling: The Problems of the Current Policy Environment and How to Fix Them” (<http://www.indiana.edu/~hightech/papers/Garbis.htm>), December 2009.

<sup>17</sup>National Council on Problem Gambling, “FAQ - How Widespread is Problem Gambling in the U.S.?” (<https://www.ncpgambling.org/help-treatment/faq/>), accessed October 2019.

<sup>18</sup>Christine Reilly and Nathan Smith, “The Evolving Definition of Pathological Gambling in the DSM-5,” ([http://www.ncrg.org/sites/default/files/uploads/docs/white\\_papers/ncrg\\_wpdsm5\\_may2013.pdf](http://www.ncrg.org/sites/default/files/uploads/docs/white_papers/ncrg_wpdsm5_may2013.pdf)).

<sup>19</sup>David Rebeck, “RE: New Jersey Internet Gaming One Year Anniversary – Achievements to Date and Goals for the Future” (<http://www.nj.gov/oag/ge/2015news/Internetgamingletter.pdf>), January 2, 2015.

### 3.3.6 Fraud, Cheating, and Money Laundering

Fraud and cheating are always concerns for any gaming operator, whether it is land-based or Internet-based. Preventing such activities requires constant vigilance and New Jersey's regulatory authority has required operators to record every gaming transaction and every financial transaction generated by their players. The resulting database allows the NJDGE to monitor every bet by every player as well as their complete financial history within the system. The comprehensive recording of all gaming and payment system transactions enables the regulator to identify anomalies, discover unusual activity and flag cases of suspected cheating or collusion for further investigation, and if warranted by the investigation, enforcement action.

Coupled with the KYC protocols, this 24/7, system-wide monitoring regime minimizes the chances for fraud, collusion, and money laundering because new registrants must positively identify themselves in order to create accounts, the sources of funding and the destination for withdrawals are fully documented, and all iGaming transactions are recorded in conjunction with identity and funding data.

To date and to the extent of our knowledge in researching this report, no major incidents of online cheating or player fraud have been reported by any New Jersey iGaming operator. Also, according to payment processors, iGaming credit card chargeback rates remain highly consistent with mainstream online retail businesses. Similarly, no iGaming violations have been disclosed by the federal Financial Crimes Enforcement Network (FINCEN), which requires the entire casino industry to maintain strict compliance with the latest regulatory standards at the federal level. Because every financial transaction and every bet is tracked by the NJDGE and traceable back to an individual account, potential money launderers have found the New Jersey iGaming market to be particularly unattractive. The combination of KYC requirements, comprehensive documentation of each and every operational transaction, and the financial money trail created makes it virtually impossible for players to anonymously remove funds via payment systems.

### 3.3.7 Payment Processing

Payment processing has been an evolving story for New Jersey iGaming. Early in the development of iGaming, patrons often found that their credit cards would not be accepted for funding accounts during registration at New Jersey iGaming websites. At launch, as much as 75% of credit card payments were routinely declined. Six months later, representatives of Consolidated Asset Management Services, LLC (CAMS), a firm that routes credit card payments, reported that credit cards were being accepted only between 42 percent and 46 percent of the time.<sup>20</sup> This situation was in part due to the uncertainty created by UIGEA in regard to issuing banks being charged with enforcing these anti-gambling regulations, and also in part due to the relatively low monetary volume of iGaming transactions. Since that time, many alternative funding options have become available for processing iGaming payments, including prepaid cards, ACH electronic payments, and digital wallets

---

<sup>20</sup> Wayne Parry, "Firm: Tough for Bettors to Fund Online N.J. Accounts" (<https://www.rgj.com/story/money/gaming/2014/05/02/firm-tough-bettors-fund-online-nj-accounts/8623889/>), *Reno Gazette Journal*, May 4, 2014.

such as Neteller and Skrill, offered by a host of financial service companies including Paysafe, PayNearMe, and PayPal.

Ongoing efforts to expand merchant category codes (MCC's) to include iGaming transactions bore fruit when on April 17, 2015 the credit card associations (Visa, Mastercard, Discover, and American Express) introduced three new MCC's to separate licensed gambling institutions from unlicensed ones:<sup>21</sup>

- MCC 7800, indicating government-run online lotteries;
- MCC 7801, indicating regulated online casinos; and
- MCC 7802, indicating regulated events for online horse and dog racing.

These new merchant category codes helped marginally to increase credit card acceptance but the recent inclusion of online sports betting, with handle figures reaching into the billions, means that credit card issuing banks are finally taking notice of the monetary volume involved with interactive wagering. At the Global Gaming Expo in Las Vegas in October 2019, payments industry executives announced that American Express and Discover will soon be accepting iGaming and sports betting transactions.<sup>22</sup>

### **3.3.8 Cannibalization of Brick and Mortar Casinos**

When iGaming was first legalized in New Jersey, one of the greatest concerns was whether interactive wagering would become a substitute for visitation to brick and mortar casinos. Some industry experts worried that the land-based casinos would experience massive revenue declines as players stayed home and wagered over the Internet. Revenue statistics over the past six years have proven otherwise and industry analysts generally agree that iGaming has been complementary rather than cannibalistic to land-based casino business. Land-based gross gaming revenue has increased while at the same time iGaming gross revenues have grown.

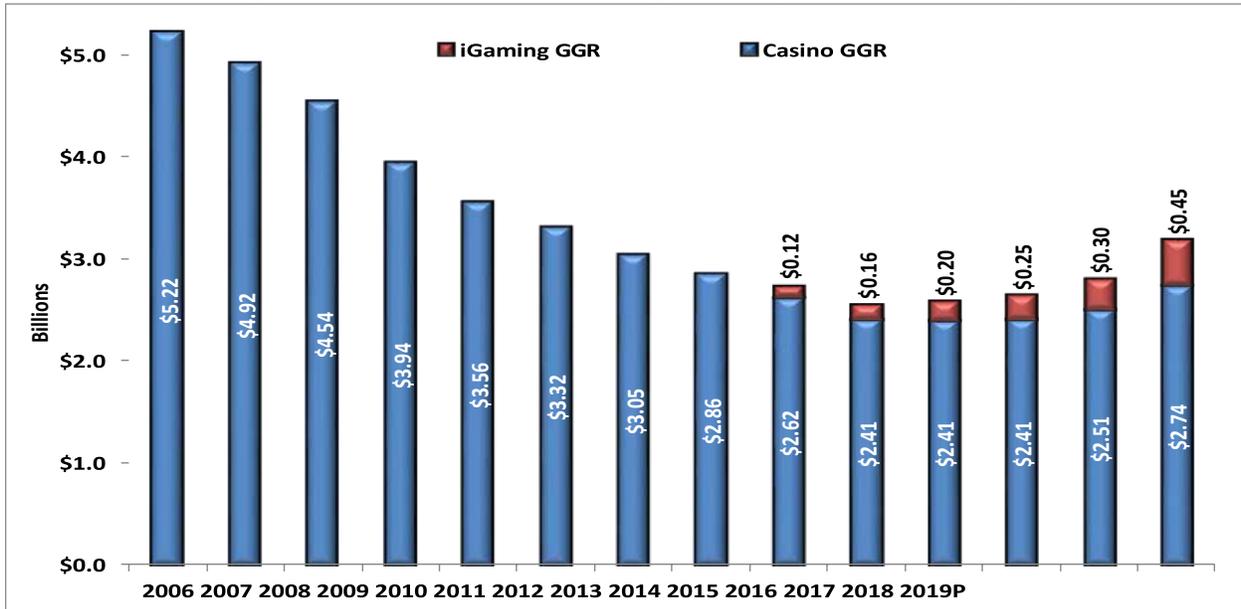
After a decade-long downturn in Atlantic City gaming revenue following the Great Recession and a significant increase in regional competition, the land-based casino market stabilized in 2017 and both land-based casino and iGaming revenues have experienced growth in 2017 and 2018. These phenomena, shown in Figure 11, provide strong evidence that multi-channel engagement is attracting new customers to the casino, increasing brand loyalty, and growing the overall player database rather than substituting online for brick-and-mortar visitation. Based on the current trajectory thus far in calendar year 2019, the New Jersey gaming industry as a whole will generate more than \$3 billion in GGR by the end of 2019, the first time this has happened since 2012, when there were 12 casinos operating in the city.

---

<sup>21</sup> MerchantMaverick.com, "What New MCCs Mean for Online Gambling Sites" (<https://www.merchantmaverick.com/what-new-mccs-mean-for-online-gambling-sites/>), accessed October 2019.

<sup>22</sup> Bill Gelman, "AmEx Leaps into NJ Online Gambling as a Caesars Deposit Option" (<https://www.njgamblingsites.com/24784/american-express-caesars-deposit-option/>), NJ Gambling Sites, accessed October 2019.

Figure 11: New Jersey Gross Gaming Revenue, Casino vs. iGaming

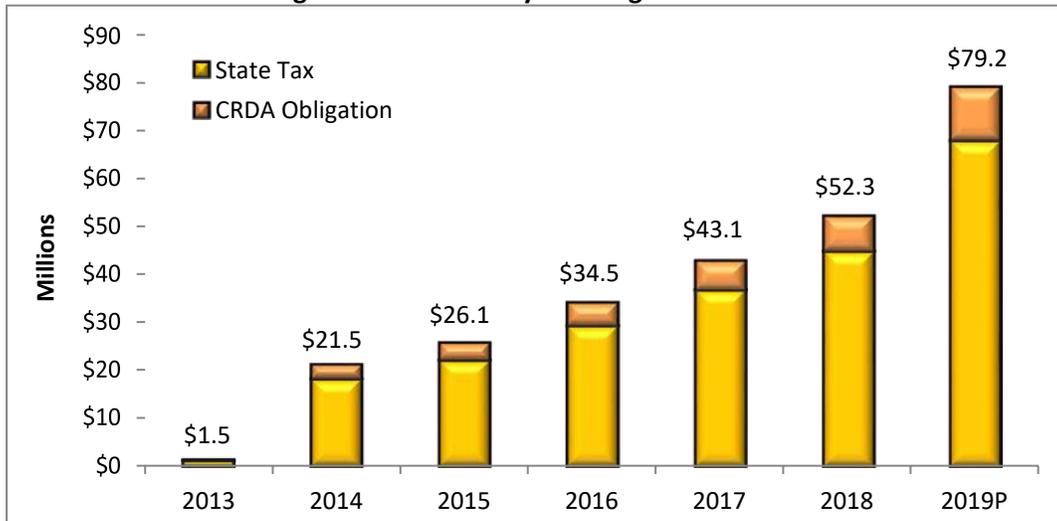


Source: New Jersey Division of Gaming Enforcement.

### 3.3.8 Tax Revenue Generation

Since inception, New Jersey iGaming has generated steadily growing revenue. This increase in gaming revenue has been accompanied by a corresponding increase in tax revenue. As shown in Figure 12, state and local taxes from iGaming in calendar year 2018 were significant at \$52.3 million, including approximately \$44.9 million to the State and \$7.5 million locally via the Casino Reinvestment Development Authority (CRDA). This reflects a 21.6% increase over 2017. Gaming taxes are anticipated to total \$79.2 million in 2019.

Figure 12: New Jersey iGaming Tax Revenue



Source: New Jersey Division of Gaming Enforcement.

### **3.4 CONCLUSIONS**

New Jersey has successfully established an effective regulatory environment for interactive wagering which has allowed iGaming to flourish. Today, state residents who enjoy playing casino style games over the Internet have the ability to do so in a legal, regulated environment with the assurance of trusted brands, fair odds, and strong player protections. The New Jersey model has proven that iGaming can be successfully operated under robust regulation in a single state environment. New Jersey's experience provides valuable lessons for other U.S. states considering iGaming legalization in the future. Its successful operating environment and regulatory structure may be adapted to suit the individual needs of other state jurisdictions, accelerate implementation, and more quickly realize the benefits of legal, regulated iGaming.

## 4. Economic Impact Analysis

---

In order to measure the contribution of New Jersey iGaming to the state economy, we employed an economic impact analysis. Set forth below are details on the economic impact analysis methodology, the data used in the analysis, and the results of the analysis.

### 4.1 METHODOLOGY

#### 4.1.1 Input-Output Analysis

An economic impact analysis utilizes an input-output analysis to estimate the total economic impact of an initial change in an economy, including secondary effects that result from the initial change. Input-output analyses model these effects by accounting for the economic interdependence between industries, households, and government institutions in the economy.

The initial change in economic activity is typically referred to as the direct effect. The direct effect is the “input” into the input-output analysis. In this report, the direct effect is measured as the total expenditures by players at New Jersey iGaming websites.

Secondary effects come about as player expenditures are subsequently spent by the gaming operators and then re-spent by suppliers and employees throughout the economy. The successive rounds of spending are often referred to as the “multiplier effect.” The secondary effects continue until leakages (e.g., imports from outside the study area, profit, and savings) stop the cycle.

There are two types of secondary effects: indirect and induced. The indirect effect relates to the iteration of businesses purchasing from other businesses as a result of the direct effect. In this report, the indirect effect includes purchases of goods and services by gaming operators from suppliers, who in turn purchase goods and services from their suppliers, and so on. The induced effect relates to household spending resulting from wages directly or indirectly earned as a result of the direct effect. In this report, the induced effect is household purchases by employees of gaming operators, their suppliers, and other businesses down the supply chain (i.e., businesses captured in the indirect effect).

Given that other segments of the economy are supported, at least in part, by the initial change in economic activity, the total economic impact equals the sum of the direct, indirect, and induced effects.

#### 4.1.2 Study Area

In conducting an economic impact analysis, a study area must be defined. The study area is the geographic region in which the economic impact is to be measured. A wide range of geographic regions can be analyzed with economic impact analyses. A study area can be defined as small as a zip code, as large as the entire U.S., and everywhere in between. In our analysis in this report, we used the State of New Jersey as our study area.

### 4.1.3 Measures of Economic Impact

Employing a widely-accepted and frequently-used economic modeling system (described in the next subsection below), an input-output analysis can measure economic impact in four ways: output, employment, wages, and taxes. Output equals the value of production or sales. Employment is the total number of jobs, computed as full-time equivalents (FTEs). Wages consist of the current value of income earned by households, including self-employed individuals. It also includes tips, as well as benefits, such as health insurance and retirement payments. Taxes equal the amounts received by federal, state, and local governments from businesses, employees, and households. Note that Direct State Taxes in our results tables include state iGaming revenue taxes and Direct Local Taxes include CRDA obligation payments.

### 4.1.4 Economic Modeling System

In this report, the economic impact analysis was conducted using the IMPLAN economic modeling system.<sup>23</sup> IMPLAN was originally developed by the USDA Forest Service in cooperation with the Federal Emergency Management Agency and the USDI Bureau of Land Management.<sup>24</sup> The IMPLAN system has been in use since 1979 and continues to be widely used by universities, government agencies, corporations, and private consultants to conduct economic impact analyses involving a wide range of issues and industries. IMPLAN's data and accounts closely follow the accounting conventions used in the "Input-Output Study of the U.S. Economy" by the U.S. Bureau of Economic Analysis and the format recommended by the United Nations. IMPLAN is largely based upon data from the U.S. Bureau of Economic Analysis and U.S. Bureau of Labor Statistics.

The region data used in IMPLAN was for 2017. However, IMPLAN results presented in this study are reported in current dollars (2019).

Our IMPLAN models use Type SAM multipliers with households internalized, which are "generally accepted" and considered to be the "best practices formulation."<sup>25</sup> However, these multipliers yield conservative results as they do not allow tax revenue to federal, state, and local governments to generate multiplier effects (i.e., indirect and induced effects) like they actually would do.<sup>26</sup>

Our IMPLAN analysis uses the National Trade Flows Model, which is used to estimate Regional Purchase Coefficients and other trade data for the Study Area. We use National Trade Flows Model as it is considered to be "superior to econometric methods for estimating regional RPCs."<sup>27</sup>

---

<sup>23</sup> Minnesota IMPLAN Group, Inc. (MIG), IMPLAN system 3.0 (software and region data).

<sup>24</sup> Minnesota IMPLAN Group, Inc., *IMPLAN Professional Version 2.0 User's Guide, Analysis Guide, Data Guide*, 1999.

<sup>25</sup> Type SAM multipliers allow the estimation of indirect and induced impacts. IMPLAN Group LLC, "Explaining the Type SAM Multiplier," October 15, 2013.

<sup>26</sup> Using Type SAM multipliers with federal government and/or state and local government internalized would yield greater economic and fiscal impact results.

<sup>27</sup> IMPLAN Group LLC, "Updating and Enhancing IMPLAN's Econometric Regional Purchase Coefficients," 2011.

Note that IMPLAN only separates tax revenue impacts into two categories: federal and state/local. Thus, U.S. Census Bureau data on government financing were used to separate state and local taxes.<sup>28</sup>

#### **4.1.5 Custom Economic Impact Models**

We developed two types of IMPLAN models in order to capture the total contribution of New Jersey iGaming to the state economy: (1) investment; and (2) operations. The investment models captured all one-time, in-state investments in buildings, offices, furniture and fixtures, equipment, and technology necessary to make iGaming operational.<sup>29</sup> The operations models captured the ongoing, day-to-day operations of New Jersey iGaming.<sup>30</sup> We implemented two operations models, one cumulative for 2013 through 2018, and another for 2018, the most current year for which we have data.

#### **4.2 DATA**

In order to customize and run our IMPLAN models, we gathered and utilized a variety of data:

- Data on iGaming investments were gathered from New Jersey iGaming operators and platform providers in order to run the investment models.<sup>31</sup>
- Employment and wage data were gathered from New Jersey iGaming operators and platform providers in order to customize the operations models.<sup>32</sup>
- Data on player expenditures at New Jersey iGaming websites (i.e., New Jersey iGaming net gaming revenue) were gathered for all iGaming operators from the New Jersey Department of Gaming Enforcement in order to run the operations models.

#### **4.3 RESULTS**

Set forth below are the results of our investment and operations economic impact analyses measuring the contribution of New Jersey iGaming on the state economy. All monetary impacts are presented in current dollars (2019).

---

<sup>28</sup> United States Census Bureau, Governments Division, "State and Local Government Finances by Level of Government and by State: 2016," December 19, 2018.

<sup>29</sup> We utilized the following IMPLAN codes to capture these one-time investments: 57 (construction of other new commercial structures, including farm structures), 301 (electronic computer manufacturing), 395 (wholesale trade), and 452 (computer systems design services).

<sup>30</sup> We utilized the following IMPLAN codes to capture these day-to-day operations: 430 (data processing, hosting, and related services), 432 (internet publishing and broadcasting and web search portals), and 495 (gambling industries except casino hotels).

<sup>31</sup> Across the seven iGaming licensees in calendar year 2018, there were 13 platform providers and 31 skins in operation (one of the 32 skins in Figure 3 began operation in 2019). Data for 10 of the platform providers and 24 skins were included in our analysis. Thus, our results are considered to be conservative due to the missing data.

<sup>32</sup> See footnote 31.

The first set of results represents the total impacts of both the construction and operation of iGaming in New Jersey for the first six years (2013-2018). The second set of results represents the impact of operations for the most current year for which data were available (2018).

#### 4.3.1 Investment Impact (2013-2018)

The investment in New Jersey iGaming by market participants from 2013 through 2018 totaled \$54.4 million. This investment yielded the following economic and fiscal impacts (see Figures 13 and 14):

- \$89.2 million in output;
- 407 jobs;
- \$36.2 million in wages; and
- \$4.1 million in state and local tax revenue.

**Figure 13**

<b>Economic Impact of Investment in iGaming on State of New Jersey, 2013-2018</b>			
Type of Effect	Output	Jobs	Wages
Direct	\$51,706,470	203	\$24,064,507
Indirect	\$11,565,114	61	\$4,305,406
Induced	\$25,909,809	144	\$7,824,500
<b>Total</b>	<b>\$89,181,394</b>	<b>407</b>	<b>\$36,194,413</b>
Detail may not equate to total due to rounding. Output and Wages in 2019 Dollars. Jobs are measured as full-time equivalents (FTEs).			

**Figure 14**

<b>Fiscal Impact of Investment in iGaming on State of New Jersey, 2013-2018</b>				
Type of Effect	Taxes			
	Federal	State	Local	Total
Direct	\$5,751,547	\$1,050,659	\$677,945	\$7,480,151
Indirect	\$1,158,526	\$331,250	\$360,757	\$1,850,533
Induced	\$2,246,327	\$780,447	\$946,570	\$3,973,344
<b>Total</b>	<b>\$9,156,400</b>	<b>\$2,162,356</b>	<b>\$1,985,272</b>	<b>\$13,304,028</b>
Detail may not equate to total due to rounding. Taxes in 2019 Dollars.				

### 4.3.2 Operations Impact

#### 4.3.2.1 Cumulative Impact (2013-2018)

From 2013 through 2018, New Jersey iGaming generated \$1.0 billion in net gaming revenue. These player expenditures yielded the following economic and fiscal impacts (see Figures 15 and 16):

- \$1.9 billion in output;
- 6,145 jobs;
- \$364.8 million in wages; and
- \$255.1 million in state and local tax revenue (plus an additional \$107.4 million in federal tax revenue).

**Figure 15**

<b>Economic Impact of Operation of iGaming on State of New Jersey, 2013-2018</b>			
Type of Effect	Output	Jobs	Wages
Direct	\$1,034,927,148	1,415	\$82,274,079
Indirect	\$592,641,387	3,179	\$198,090,305
Induced	\$279,728,085	1,551	\$84,470,658
<b>Total</b>	<b>\$1,907,296,621</b>	<b>6,145</b>	<b>\$364,835,042</b>
Detail may not equate to total due to rounding. Output and Wages in 2019 Dollars. Jobs are measured as full-time equivalents (FTEs).			

**Figure 16**

<b>Fiscal Impact of Operation of iGaming on State of New Jersey, 2013-2018</b>				
Type of Effect	Taxes			Total
	Federal	State	Local	
Direct	\$27,287,172	\$165,310,176	\$41,245,900	\$233,843,248
Indirect	\$55,858,719	\$15,078,125	\$14,844,262	\$85,781,106
Induced	\$24,255,215	\$8,431,298	\$10,228,842	\$42,915,355
<b>Total</b>	<b>\$107,401,106</b>	<b>\$188,819,600</b>	<b>\$66,319,003</b>	<b>\$362,539,709</b>
Detail may not equate to total due to rounding. Taxes in 2019 Dollars.				

#### 4.3.2.2 2018 Impact

From 2018 alone, New Jersey iGaming generated \$299.1 million in net gaming revenue. These player expenditures yielded the following economic and fiscal impacts (see Figures 17 and 18):

- \$553.6 million in output;
- 1,851 jobs;
- \$104.8 million in wages; and
- \$74.4 million in state and local tax revenue (plus an additional \$30.9 million in federal tax revenue).

**Figure 17**

<b>Economic Impact of Operation of iGaming on State of New Jersey, 2018</b>			
Type of Effect	Output	Jobs	Wages
Direct	\$300,782,930	481	\$22,866,018
Indirect	\$172,314,516	924	\$57,622,206
Induced	\$80,471,986	446	\$24,300,433
<b>Total</b>	<b>\$553,569,432</b>	<b>1,851</b>	<b>\$104,788,658</b>
Detail may not equate to total due to rounding. Output and Wages in 2019 Dollars. Jobs are measured as full-time equivalents (FTEs).			

**Figure 18**

<b>Fiscal Impact of Operation of iGaming on State of New Jersey, 2018</b>				
Type of Effect	Taxes			
	Federal	State	Local	Total
Direct	\$7,700,552	\$48,297,464	\$12,020,008	\$68,018,024
Indirect	\$16,244,241	\$4,381,857	\$4,311,407	\$24,937,505
Induced	\$6,977,746	\$2,425,545	\$2,942,686	\$12,345,977
<b>Total</b>	<b>\$30,922,539</b>	<b>\$55,104,865</b>	<b>\$19,274,101</b>	<b>\$105,301,506</b>
Detail may not equate to total due to rounding. Taxes in 2019 Dollars.				

#### 4.3.3 Total Impact (2013-2018)

The upfront investment in and ongoing day-to-day operations of New Jersey iGaming from 2013 through 2018 yielded significant positive impacts on the New Jersey economy (see Figure 19):

- \$2.0 billion in output;
- 6,552 jobs;
- \$401.0 million in wages; and
- \$259.3 million in tax revenue to state and local governments.

Figure 19

<b>Economic &amp; Fiscal Impact of Investment in &amp; Operation of iGaming on State of New Jersey, 2013-2018</b>				
Type of Effect	Output	Jobs	Wages	Taxes
Direct	\$1,086,633,618	1,617	\$106,338,586	\$208,284,680
Indirect	\$604,206,501	3,240	\$202,395,710	\$30,614,394
Induced	\$305,637,895	1,695	\$92,295,157	\$20,387,157
<b>Total</b>	<b>\$1,996,478,014</b>	<b>6,552</b>	<b>\$401,029,454</b>	<b>\$259,286,231</b>

Detail may not equate to total due to rounding.  
Output and Wages in 2019 Dollars.  
Jobs are measured as full-time equivalents (FTEs).  
Taxes include state and local taxes.

## Appendix A: About the Authors

---

### Alan P. Meister, Ph.D.

Dr. Meister is CEO and Principal Economist at Meister Economic Consulting. He specializes in the application of economic analysis to litigation, regulatory, public policy, and business planning and operations matters. He has extensive experience analyzing economic issues related to the gaming industry, including commercial casinos, racinos, Indian gaming, card rooms, and online gaming. His consulting work has included industry and market analyses, economic and fiscal impact studies, public policy analysis, feasibility studies, evaluations of regulations, surveys, damage analysis, and economic research, analysis, and expert testimony in litigation and regulatory matters. His clients have included gaming operators, industry suppliers, investors, governments, and gaming associations. Dr. Meister has also conducted years of independent, scholarly research on the gaming industry and authored a number of publications, most notably his annual study, the *Indian Gaming Industry Report*, which has been cited by the U.S. Supreme Court. He has presented his work at various academic, professional, and industry conferences and testified before the California State Senate on gaming issues. Furthermore, his consulting and scholarly work have been used in matters before the U.S. Supreme Court, World Trade Organization, and U.S. Department of the Interior. Dr. Meister leads the Gaming consulting practice at Nathan Associates.

Of particular note have been the following consulting and scholarly projects in New Jersey:

- Dr. Meister co-authored with Mr. Eugene Johnson a study that provided an in-depth review of New Jersey online gaming and quantified the contribution of online gaming to the New Jersey state economy.
- Dr. Meister co-authored with Dr. Clyde Barrow a peer-reviewed academic paper on market saturation in the gaming industry. The paper examined various gaming markets, including Atlantic City, and developed various metrics for measuring market concentration and determining whether markets were saturated.

In his public policy work, Dr. Meister has conducted economic analysis to identify and measure the effects of: construction, expansion, and operation of various types of businesses; regulations; legislation; taxation; the passage of ballot initiatives; government programs and services; publicly funded projects; sporting and entertainment events; commercial and mixed-use developments in low-income areas; and medical research. His work has included economic and fiscal impact analyses, assessments of the contribution of businesses and industries to the economy, cost-benefit analyses, and surveys.

Prior to joining Nathan Associates, Dr. Meister was a teaching assistant for five years at the University of California, Irvine, where he assisted with teaching courses on probability, statistics, econometrics, and survey design. In addition, he worked for a market research firm that implemented surveys for the motion picture industry.

Dr. Meister holds a Ph.D., M.A., and B.A. in Economics from the University of California, Irvine.

**E. Eugene Johnson, MBA**

Gene Johnson is an Executive Vice President of Victor-Strategies. He has over 30 years of experience in the gaming industry, including more than seven years with Atlantic City casinos. This experience ranges across the areas of market research, strategic planning and analysis, MIS, and quality assurance. Over his career, Johnson has managed and conducted extensive qualitative and quantitative surveys and focus groups with gamblers of all types, including casino players, poker players, bingo and charitable game players, and online gamblers.

One of his focuses has been research and analysis of online gaming. He has consulted with numerous gaming companies, trade associations, and governments in North America, including recently in the states of New Jersey, California, Massachusetts, and West Virginia. Services have included market analysis, market sizing, player perceptions, attributes of attraction, player loyalty and satisfaction, new product development and testing, and website usability and application functionality. In New Jersey, Mr. Johnson recently co-authored with Dr. Alan Meister that provided an in-depth review of New Jersey online gaming and quantified the contribution of online gaming to the New Jersey state economy.

Prior to Victor-Strategies, Mr. Johnson founded EE Johnson Research, a marketing research and consulting firm specializing in the casino industry, with secondary specialization in entertainment, tourism and travel, financial services, and credit cards. EE Johnson Research eventually became part of Spectrum Gaming Group, where he served as Senior Vice President for Market Research and Internet Studies.

Mr. Johnson holds a BA from Washington College and an MBA from the University of Phoenix. He also holds a CQA certification from the Quality Assurance Institute. He is a member of the American Society for Quality, American Marketing Association, and Qualitative Research Consultants Association. Mr. Johnson remains an active member of QRCA and was a speaker at that organization's 2011 annual convention on the topic of identifying and analyzing influential attributes of attraction for gambling centric destination resorts.

## Appendix B: About Meister Economic Consulting

---

Meister Economic Consulting is an economic consulting firm that specializes in the application of economic research and analysis to litigation, regulatory, public policy, business development and operations, and economic development matters. We have a reputation for objective, insightful, comprehensive, high-quality research and analysis. Our work is grounded in sound economic and financial theory, guided by extensive industry knowledge, supported by relevant data and market research, and customized to the circumstances of each matter. Despite the complexity of our work, we convey data, analyses, and results in straightforward, simplified terms so that they can be easily understood. For these reasons, we are routinely called upon to analyze complex issues and assist clients in high-stakes and controversial matters, and our work is widely accepted and well respected by governments, regulators, courts, the media, and the public.

We have conducted research and analysis in a variety of contexts, including:

- Business planning and operations
- Economic development
- Public and government relations
- Public policy matters
- Regulatory proceedings
- Litigation, arbitration, and mediation

We provide a wide range of consulting services, including:

- Industry and market studies
- Economic impact analysis
- Feasibility studies
- Public policy analysis
- Market research
- Statistical analysis
- Survey research, design, and analysis
- Strategic advisory services
- Damage analysis
- Expert testimony in litigation and regulatory matters
- Assistance with public relations and government relations efforts

Meister Economic Consulting also brings significant industry experience and expertise to cases, projects, and studies. We have particular expertise analyzing the gaming industry. We also have experience with antitrust matters.

### GAMING INDUSTRY

Meister Economic Consulting has extensive experience analyzing the gaming industry. We have conducted economic and financial research and analysis to help gaming operators, suppliers, developers, investors, associations, governments, and regulatory agencies assess business and market opportunities and navigate economic, regulatory, legal, and legislative challenges.

Meister Economic Consulting provides a variety of services to the gaming industry, including:

- Market assessments
- Analysis of market entry and competition

- Economic and fiscal impact studies to quantify the effects of existing and planned gaming facilities on competitors, surrounding communities, and the economy
- Feasibility studies
- Gaming facility performance assessments
- Public policy analysis
- Evaluations of game performance
- Skill vs. chance game assessments
- Survey design, implementation, and data analysis
- Expert research and analysis in litigation matters, including cases involving claims of alleged breach of contract, breach of fiduciary duty, breach of good faith and fair dealing, anticompetitive conduct, unfair competition, and tortious interference with current and prospective business
- Analysis of competition, market power, and harm to competition in antitrust litigation matters

We have conducted research and analysis of all segments of the gaming industry:

- Commercial casinos
- Racetrack casinos
- Indian gaming
- Lotteries
- Pari-mutuel wagering
- Charitable gaming
- Card rooms
- Convenience gambling
- Internet gaming

We have studied the gaming industry at national, state, regional, and local levels and in all 48 states in which it exists. We have analyzed the introduction of planned gaming facilities, as well as the development and operation of existing gaming facilities. This includes the integration and development of non-gaming amenities at gaming facilities. Our experience and expertise transcend the U.S. gaming market, as we also research and analyze international gaming.

In addition to consulting, we regularly conduct independent scholarly research and analysis of the gaming industry, publishing articles and studies, and presenting at academic, professional, and industry conferences. Our consulting and scholarly research and analyses have been relied on by the gaming industry, tribal and non-tribal governments, the investment community, academics, and our competitors.

Our experts' work is regularly cited in trade publications such as *Casino Journal*, *Global Gaming Business*, *Casino Enterprise Management*, and *Indian Gaming*; law and economics publications including *Gaming Law Review and Economics*, *Gaming Research & Review Journal*, and *American Gaming Lawyer*; and general media including *The Wall Street Journal*, *USA Today*, *New York Times*, *Los Angeles Times*, *Washington Post*, *Financial Times*, *The Economist*, Bloomberg, Reuters, National Public Radio, *Indian Country Today*, *Las Vegas Review-Journal*, CNN, MSNBC, CNBC, Fox News, ABC News, and *Forbes*.

## ECONOMIC IMPACT ANALYSIS

Household, business, and government spending and investment can have significant impacts on the economy. These impacts include not only the direct effect of spending and investment, but also secondary effects—frequently referred to as ripple or multiplier effects. It is important for decision

makers in the public and private sectors to understand the scope and magnitude of these effects when formulating policies, proposing projects, or preparing economic development plans. Meister Economic Consulting has extensive experience identifying and measuring such effects through economic impact analysis.

Meister Economic Consulting uses economic impact analysis to estimate the effects of projects, businesses, institutions, industries, events, and public policies on economies at all levels—national, state, regional, and local. We identify and measure the net impact of changes in economic activity, as well as the overall contribution of economic activity to an economy. We analyze the impact of one-time capital investments or construction projects, as well as the annual, ongoing operational impacts of projects.

Our experts assist clients with communicating the findings of our economic impact analyses—we produce reports that our clients can disseminate to stakeholders, policymakers, the media, and the general public; and we provide testimony before governing bodies and regulators.

Meister Economic Consulting draws on extensive training and experience to develop economic impact analyses. We customize our economic impact models to meet the needs of each project and to take into account the unique characteristics of the geographic area and economic activity being studied. Our economic impact studies are rooted in economic theory and use state-of-the-art software. In conducting studies, we start by modeling the relevant economy and economic activity. We then use economic impact analysis to capture the secondary effects that result from the initial economic activity. Because our studies capture the economic dependencies between households, industries, and governments, we can identify segments of an economy that stand to be most affected by the initial economic activity. In our analyses, we assess the economic value of a particular activity to a community, businesses, and the government through several key measures of impact:

- Output (i.e., value of sales)
- Jobs
- Wages
- Taxes

Economic impact analysis can be used to quantify the effects of a wide variety of entities, activities, and policies, including the following:

### **PUBLIC POLICY ANALYSIS**

Governments at all levels—federal, state, local, and tribal—routinely determine public policy on a wide array of economic and social issues that have widespread effects on society, including individuals, businesses, industries, and governments themselves. Meister Economic Consulting helps inform and shape public policy through the use of economic and financial research, analysis, and testimony.

Meister Economic Consulting assists businesses, industry associations, and governments in understanding the economic impacts of existing and proposed public policies and policy reforms. Our analyses help government clients formulate sound policy and help businesses and associations influence policy, respond to changes in policy, and propose new policies.

Our public policy work includes:

- Policy studies
- Economic assessment of regulations
- Economic impact analysis
- Assistance with economic policy formulation
- Cost-benefit analysis
- Market and industry research
- Survey research, design, and analysis
- Evaluation of other experts' public policy studies and analysis
- Public testimony before legislative bodies and government agencies
- Expert witness testimony in regulatory proceedings

Meister Economic Consulting researches and analyzes the introduction of and changes in various types of public policies, including:

- Legislation
- Regulations
- Taxes
- Ballot propositions
- Government programs and services
- Budget management
- Investment
- Subsidies
- Infrastructure development
- Trade
- Policing practices

Meister Economic Consulting's clients employ our research, analysis, and testimony in a variety of contexts, including legislative hearings, regulatory proceedings, public hearings, public relations, government relations, and political and media campaigns. Our experts have provided public policy research, analysis, and testimony to various government bodies and agencies.

## Appendix C: About Victor-Strategies

---

Victor-Strategies is a unique professional firm providing expert advisory services and critical business insights to the gaming industry, with a particular focus on new gaming technologies. We are dedicated to providing governments and industry leaders with the strategies, tools, data, and expertise essential for informed decision-making and effective operations. Victor-Strategies offers expert advisory services and the highest quality research and analysis capabilities to be found in the gaming industry.

The firm's three partners collectively bring more than 60 years of experience in the gaming industry spanning both commercial and tribal land-based casino operators, slot system and software suppliers, and online gaming operators. Our principals are thought leaders in the gaming industry and are committed to delivering maximum value to our clients. Our clients include tribal and commercial gaming enterprises, tribal and state governments, gaming regulators, gaming equipment suppliers, iGaming and social gaming companies, state lotteries, academic institutions, and research firms.

Victor-Strategies advises clients on public policy, media strategy and communications, economic development, and business diversification. We deliver unparalleled knowledge in the realms of casino gaming, interactive wagering, and emerging new gaming products. Our qualitative and quantitative research capabilities enable clients to make fact-based decisions in all crucial strategic and operational areas.

Our consultants have extensive experience with both online and land-based gaming. We have conducted numerous research studies, profiled the competitive landscape, analyzed consumer attitudes, behavior and demographics, and provided confidential advisory services to iGaming operators since 1999. Our consultants have been intimately involved in the development, rollout, and ongoing analysis of iGaming in New Jersey and have worked closely with many of the principal operators and suppliers in the state. Our consultants have also recently analyzed online gaming for the Massachusetts Lottery and the National Indian Gaming Association.

Our products include policy analysis, casino management consulting, market and customer research, proof of concept and feasibility studies, economic development and diversification strategies, and new business and new technology development. In addition, Victor-Strategies develops and presents cutting edge conferences where industry leaders can explore solutions to current issues and interact with the leading experts in their fields of business. Victor-Strategies conferences include the brands Indian Country Online, the iGaming Legislative Summit, and the California iPoker Summit. Our founder, Victor Rocha, is also the Conference Chair for the National Indian Gaming Association. Our lines of business include:

- Policy Consulting & Advisory Services;
- Gaming Consulting, Research, & Analysis;
- Interactive & Emerging Gaming Technologies Expertise; and
- Executive Level Conferences.