



GAMING MARKET STUDY: STATE OF NEW YORK

Executive Summary

Prepared for the New York State Gaming Commission
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Background

The New York State Gaming Commission (“NYSGC” or “Client”) on September 10, 2019, issued Request for Proposal (“RFP”) No. C190013V2 to “to provide a gaming market study in relation to the evaluation of the gaming market in New York State and potential impacts of changes to that market both within and outside of the State.” Spectrum Gaming Group (“Spectrum,” “we” or “our”) was selected on November 14, 2019, to undertake the study based on our RFP response.

The Client subsequently requested that Spectrum assess the potential impacts of the COVID-19 pandemic on the New York gaming industry.

A. Impacts of COVID-19 Pandemic

Note: Spectrum’s analyses concerning the impacts of the COVID-19 pandemic were concluded at the end of October 2020 and reflect all available information as of that date. Subsequently, additional casino re-closures and restrictions on dining and travel have impacted the gaming industry.

There is no road map to recovery from the COVID-19 viral pandemic. Based on the economic impacts that the severe acute respiratory syndrome (“SARS”) virus and other outbreaks had on the tourism industry of Southeast Asia and Mexico, and the slow period of recovery that followed the Great Recession of 2009, we believe U.S. gross gaming revenues will plunge initially and then slowly recover to pre-COVID-19 levels in January 2023.

Spectrum developed projections based on our experience in understanding the relationship between the supply and demand of gaming products, as well as on independent research. Spectrum incorporated insights from the SARS and other epidemics, the Great Recession, visitation and revenue results from recent re-openings of casinos, and Spectrum’s own gaming industry expertise to develop GGR estimates.

Figure 1: New York gaming facilities estimated GGR recovery – Mid Case scenario

Property	FY 2020 GGR (M)	Est. FY 2021 GGR (M)	Est. FY 2022 GGR (M)	Est. FY 2023 GGR (M)
Akwesasne	\$100.5	\$30.2	\$52.8	\$85.4
Batavia Downs	\$62.1	\$18.6	\$32.6	\$52.8
Del Lago	\$158.0	\$47.4	\$83.0	\$134.3
Fairgrounds	\$71.8	\$21.5	\$37.7	\$61.0
Finger Lakes	\$105.3	\$31.6	\$55.3	\$89.5
Oneida	\$383.0	\$172.4	\$301.6	\$325.6
Rivers	\$168.9	\$50.7	\$88.7	\$143.6
RW Catskills	\$204.6	\$61.4	\$107.4	\$173.9
Saratoga	\$126.4	\$37.9	\$66.4	\$107.4
Seneca	\$610.0	\$233.1	\$407.9	\$518.5
Tioga Downs	\$83.1	\$24.9	\$43.6	\$70.6
Vernon Downs	\$29.3	\$8.8	\$15.4	\$24.9
All Upstate	\$2,103.0	\$738.5	\$1,292.3	\$1,787.6
Empire	\$613.1	\$153.3	\$306.6	\$521.1
Jake's 58	\$225.9	\$67.8	\$135.5	\$192.0
RWNYC	\$882.3	\$176.5	\$352.9	\$750.0
All Downstate	\$1,721.3	\$397.5	\$795.0	\$1,463.1
Statewide	\$3,824.3	\$1,136.0	\$2,087.3	\$3,250.7

Source: New York State Gaming Commission, Spectrum Gaming Group

B. Overview of New York Gaming Facilities

New York has three types of gaming facilities: Indian casinos and Class II gaming, VLT facilities at racetracks, and commercial casinos. The following table provides an overview of the size and scope of each facility.

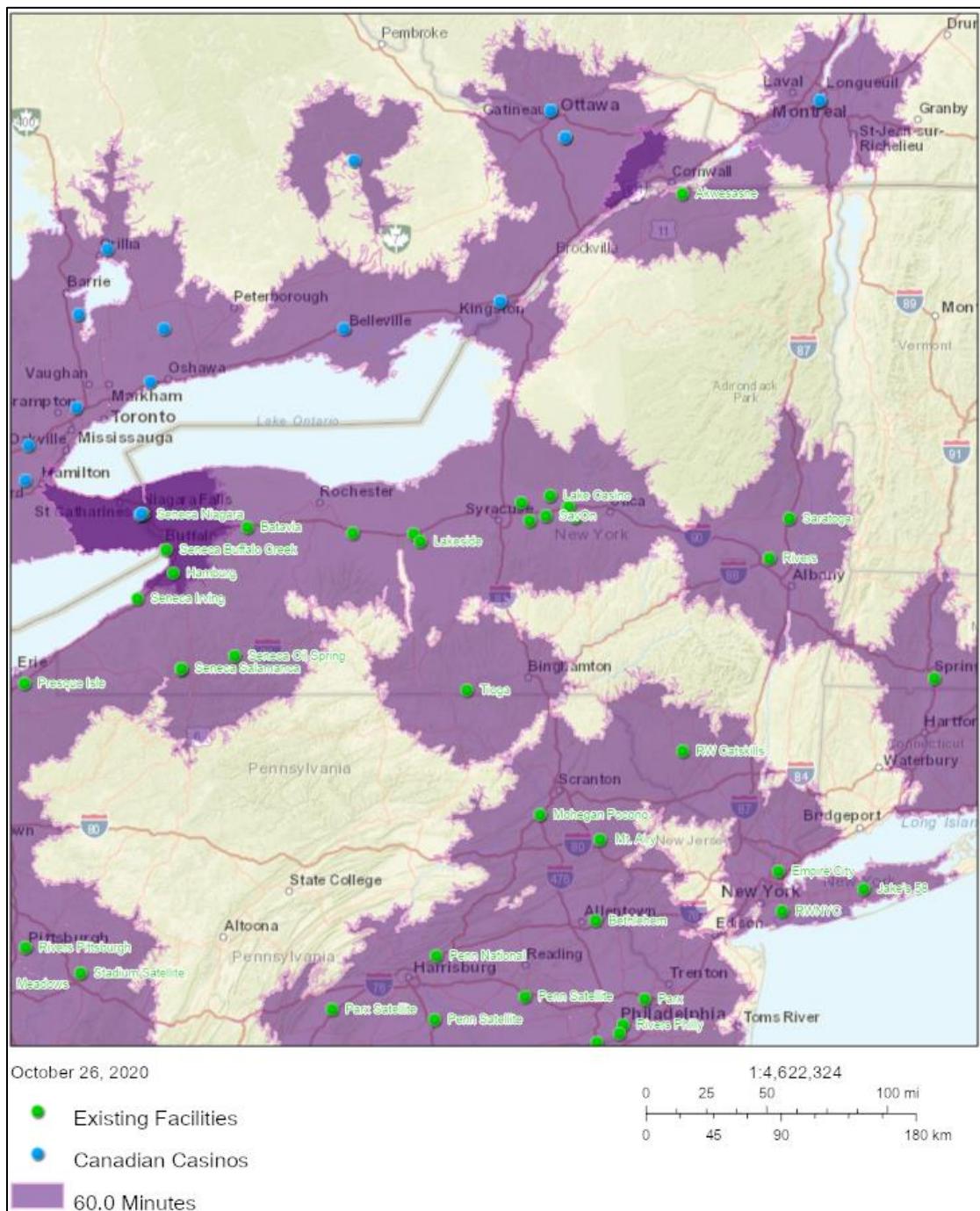
Figure 2: Key specifications of New York gaming facilities

Property (Grouped by Type)	City	Operator	Class	EGDs*	Tables	Poker	Sports	Hotel Rooms	Dining Venues	Golf
Indian Casinos/Gaming Facilities										
Seneca Niagara	Niagara Falls	Seneca Nation	III	3,000	80	Y	Y	604	8	1
Seneca Allegany	Salamanca	Seneca Nation	III	1,500	30		Y	413	5	
Seneca Buffalo Creek	Buffalo	Seneca Nation	III	1,100	36		Y		4	
Seneca Entertainment Irving	Irving	Seneca Nation	II	650					1	
Seneca Ent. Salamanca	Salamanca	Seneca Nation	II	350					1	
Seneca Ent. Oil Spring	Cuba	Seneca Nation	II	110					1	
Lakeside Entertainment	Union	Cayuga Nation	II	86						
Turning Stone	Verona	Oneida Nation	III	2,000	126	Y	Y	707	12	5
Yellow Brick Road	Chittenango	Oneida Nation	III	400	14		Y		3	
Point Place	Bridgeport	Oneida Nation	III	600	20		Y		3	
PlayOn	Sherrill	Oneida Nation	II	16						
PlayOn	Upper	Oneida Nation	II	15						
PlayOn	Oneida	Oneida Nation	II	16						
PlayOn	Oneida Lake	Oneida Nation	II	21						
SavOn CStore	Verona	Oneida Nation	II	35						
SavOn CStore	Canastota	Oneida Nation	II	14						
Lake House Casino	Sylvan Lake	Oneida Nation	III	100						
Akwesasne Mohawk	Hogansburg	Saint Regis Mohawk	III	1,600	30	Y	Y	150	5	
VLT Facilities										
Batavia Downs	Batavia	Western Regional OTB	VLT	138				84	3	
Hamburg Gaming	Hamburg	Delaware North	VLT	898					3	
Finger Lakes	Farmington	Delaware North	VLT	1,195					2	
Vernon Downs	Vernon	American Racing & Gaming	VLT	646				175	6	
Saratoga	Saratoga	Saratoga	VLT	1,706				117	6	
Resorts World NYC/Nassau OTB	Queens	Genting	VLT	6,548					3	
Empire City	Yonkers	MGM	VLT	5,222					3	
Jake's 58	Islandia	Delaware North	VLT	1,000				227	1	
Commercial Casinos										
Tioga Downs	Nichols	American Racing & Gaming		943	32	Y	Y	161	4	1
del Lago	Waterloo	Peninsula Pacific		1,959	81	Y	Y	206	5	
Rivers	Schenectady	Rush Street Gaming		1,150	67	Y	Y	185	6	
Resorts World Catskills	Monticello	Genting		2,155	133	Y	Y	437	9	

Source: New York State Gaming Commission, Spectrum Gaming Group research. *EGDs = electronic gaming devices, whether slot machines, video lottery terminals, or Class II gaming machines

The following map shows the locations of New York gaming facilities and place them into regional context. As casino gaming has proliferated throughout the Northeast and in southern Ontario and southern Quebec, large portions of this region are now within a one-hour drive of a gaming facility, as depicted in Figure 3.

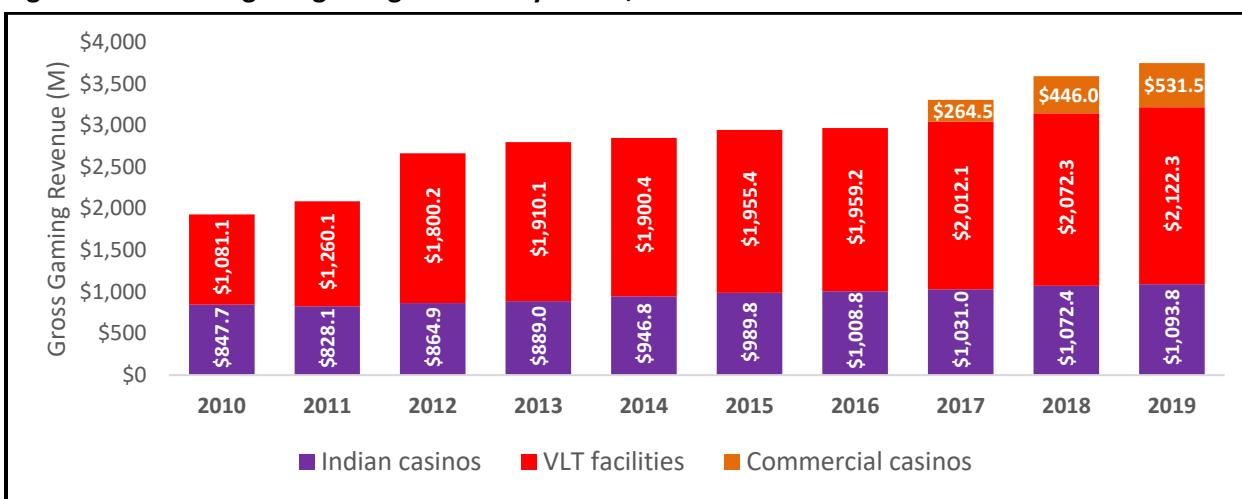
Figure 3: Map of regional gaming facilities with 60-minute drive-time regions



Source: State regulatory agencies, gaming facility websites, ESRI

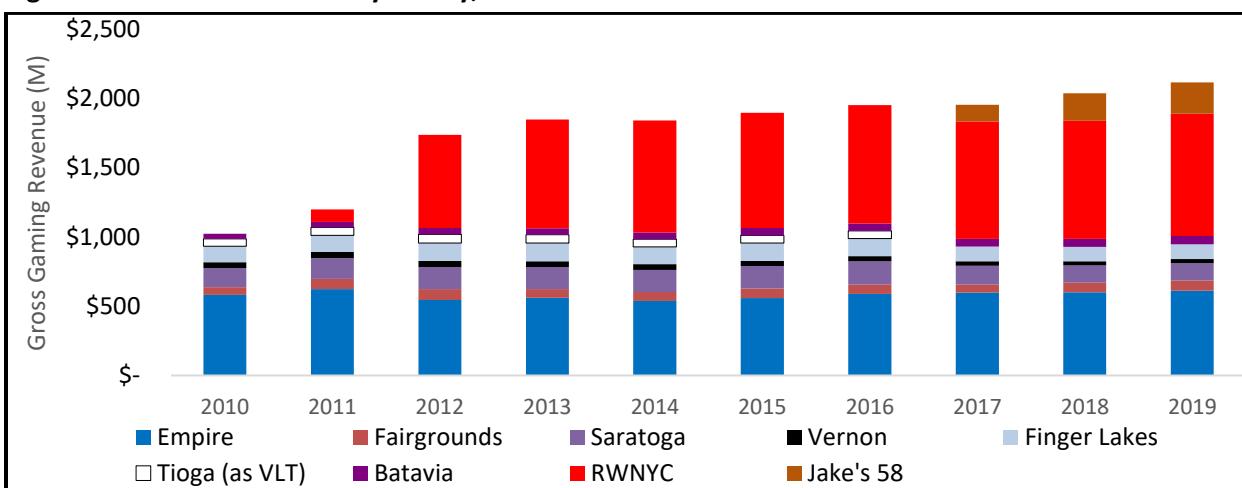
Figure 4 shows the gross gaming revenue (“GGR”) performance of New York’s gaming facilities by sector, followed by property-level detail by sector. The results clearly show the impact of Resorts World New York City (“RWNYC”) opening in late 2011 as well as the addition of commercial casinos in Upstate New York beginning in 2017.

Figure 4: New York gross gaming revenue by sector, 2010-2019



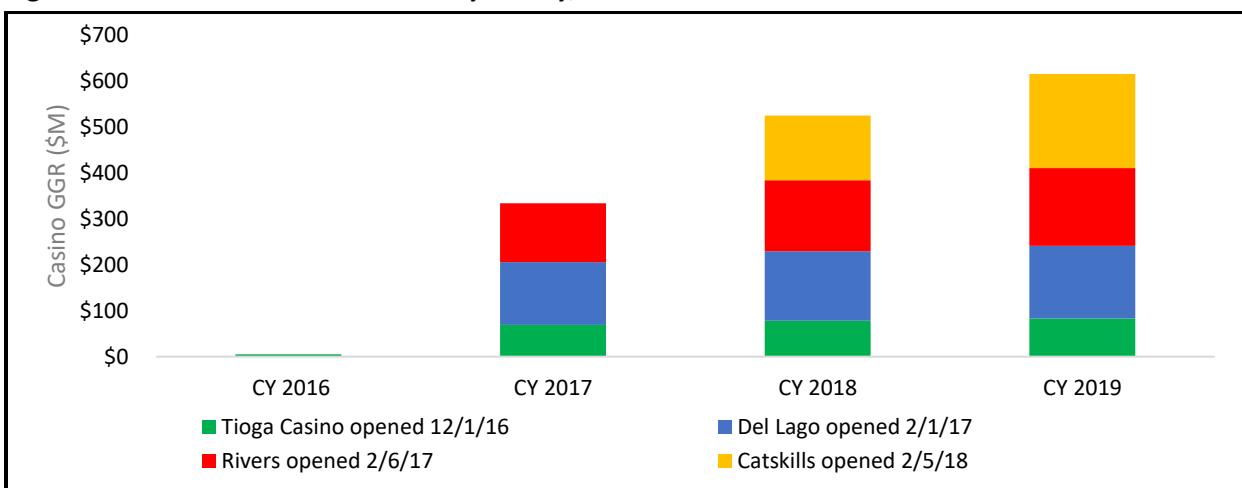
Source: New York Gaming Commission, Spectrum Gaming Group

Figure 5: New York VLT GGR by facility, 2010-2019



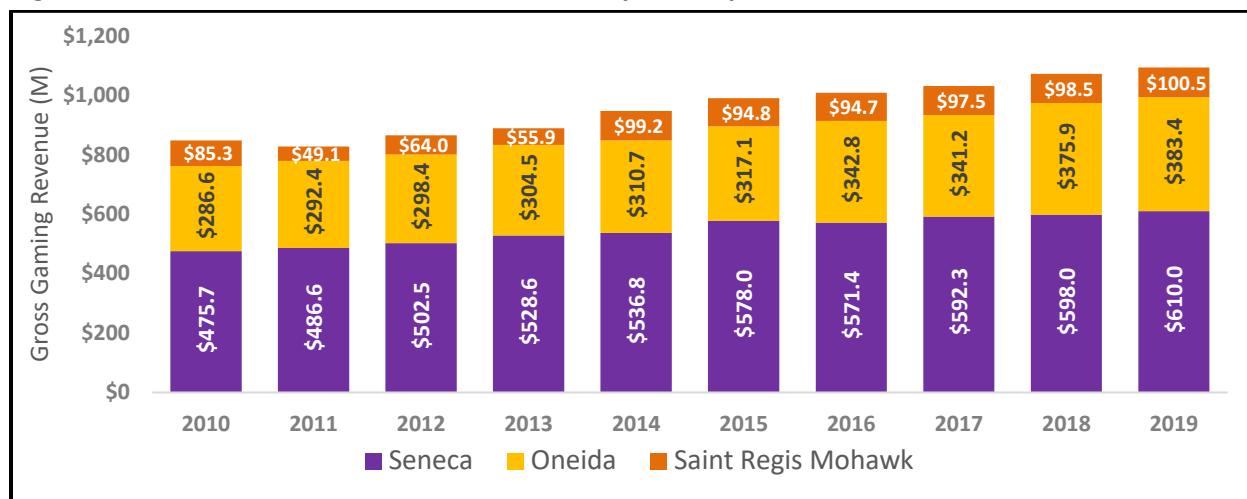
Source: New York State Gaming Commission

Figure 6: New York commercial GGR by facility, 2017-2019



Source: New York State Gaming Commission

Figure 7: Estimated New York Indian casino GGR by tribal operator, 2010-2019



Source: Spectrum Gaming Group

Each New York gaming sector pays gaming taxes at different rates. Within the commercial casino and VLT sectors, there are differences in rates between properties. The Indian nations, via compact with the State of New York, pay 25 percent of their slot revenue to the State for the exclusive right to operate Class III gaming in their exclusivity zones. The State in turn distributes 25 percent of the exclusivity payments back to the host communities of the Indian casinos and 10 percent to non-host communities in the exclusivity zones on a per capita basis.

Figure 8: Estimated state revenue from gaming calendar years 2010 -2019

CY Ests.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
VLT	\$503.4	\$593.6	\$822.7	\$877.7	\$864.2	\$888.4	\$918.0	\$917.4	\$940.7	\$956.3
Casino								\$1.7	\$105.2	\$160.9
Indian Casino PILOT*	\$108.8	\$105.2	\$110.7	\$144.7	\$157.6	\$188.1	\$197.1	\$200.9	\$206.0	\$221.0
Total	\$612.2	\$698.8	\$933.4	\$1,022.4	\$1,021.8	\$1,076.5	\$1,116.8	\$1,223.4	\$1,307.6	\$1,365.5

Sources: Oneida Indian Nation, New York State Gaming Commission, Spectrum Gaming Group. * Spectrum estimate of tribal payments in lieu of taxes.

The Lottery revenue from the VLTs is directed toward education. Eighty percent of the tax revenue from the commercial casinos is directed to elementary or secondary education and 20 percent of the revenue is directed to host and non-host communities in the region.

C. Economic Impact of Existing New York Gaming Industry

Spectrum estimated that the New-York based casinos and VLT facilities could expect CY 2020 (pre-COVID-19) GGR of \$3.8 billion and non-gaming revenues of \$549 million and would employ about 15,700

people, with most revenues and jobs concentrated in the Indian casinos Upstate.¹ These revenues and jobs form the core of gaming's impacts on the state, with their ripple effects driving the total impacts described below.

In order to provide an assessment of all existing gaming as it is today and expanded Upstate gaming within that, we evaluated all gaming in New York in 2015 and 2020 and also just the expanded properties in 2020. We chose 2015 as the first year of our analysis because it preceded any of the developments of the Upstate New York Gaming Economic Development Act. We use the growth from 2015 to 2020 to show how existing gaming has changed over those years as context for the gaming expansion. We also show the impacts of the expanded properties alone as a share of 2015 to 2020 growth for additional context.

The total employment at New York casinos and VLT facilities has grown from about 12,000 jobs in 2015 to 15,700 jobs in 2020, of which roughly 3,400 are at the four commercial casinos that make up the Upstate expansion properties. The total employment impacts were about 25,000 jobs in 2015 and 32,360 in 2020, meaning that a little over one additional job elsewhere in New York was created for each gaming job. Of the 2020 total impact, 5,533 jobs, or 17 percent, are attributable to the expanded properties. Though contained to the Upstate region, the ripple effects of the changes spread throughout New York via trade, commuting, and government spending relationships.

Significantly, the Upstate expansion accounts for 75 percent of the growth in the employment contributions of gaming from 2015 to 2020, with robust contributions in all regions except Long Island. The smaller contributions to Long Island are due to expansion of gaming that also occurred there during this span with the opening of Jake's 58, which accounts for 1,400 of the 1,577 jobs gained in that region during this time span.

Additionally, the Upstate expansion accounts for over 100 percent of the change in employment in the Metro North region, implying that the employment contributions of gaming would have decreased in that region without the expansion. Again, that effect is attributable to Jake's 58, which would reallocate economic activity away from that region, but that loss was offset by the government spending that is enabled in Metro North due to taxes on the expanded properties.

Figure 9: Employment impacts of existing gaming, job-years, 2015 and 2020

Total Employment	2015	2020	2020 Upstate Expansion Only	Expansion's Share of 2020	Expansion's Share of '15-'20 Growth
New York City	3,131	3,694	370	10%	66%
Long Island	1,705	3,290	216	7%	14%
Metro North	2,216	2,349	158	7%	119%
Upstate	17,964	23,032	4,789	21%	94%
State Total	25,017	32,365	5,533	17%	75%

Source: Spectrum Gaming Group, Regional Economic Models Inc. PI⁺

¹ The forecasts for 2020 were made prior to the COVID-19-related shutdowns and thus represent expected gaming trends for New York.

Increases in revenues typically drive increases in employment as firms usually do not hire unless they expect expanding sales. Gaming revenues rose from \$2.9 billion to \$3.8 billion from 2015 to 2020, while nongaming revenues rose from \$400 million to \$549 million, resulting in total revenues growing from \$3.3 billion to \$4.4 billion. The total output impacts grew from \$4.7 billion to nearly \$6.8 billion, resulting in roughly \$0.50 of additional business revenues for each dollar of casino revenues. As expected, gaming employment and revenues grew by similar percentages, with both increasing by about 30 percent. However, the change in *impacts* was farther apart. Employment impacts grew by 29 percent from 2015 to 2020 while output impacts grew by 43 percent. This gap reflects the growing labor productivity seen in the economy where each worker is able to support more production. Expansion's share of 2020 output impacts is generally similar to its share of employment impacts, though expansion's share of 2015-to-2020 growth is generally smaller.

Much like the case with employment, Jake's 58 explains much of the discrepancy. By also contributing taxes, Jake's 58 creates statewide output impacts that exist in 2020 but did not exist in 2015, thus generally diluting the share of growth that is attributable to the Upstate expansion. Furthermore, because Jake's 58 contributes a larger share of its revenues to the State than the Upstate expansion properties, the addition of Jake's 58 dilutes the output effects more than the employment effects.

Figure 10: Output impacts of existing gaming, 2015 and 2020

Output	2015	2020	2020 Upstate Expansion Only (M)	Expansion's Share of 2020	Expansion's Share of '15-'20 Growth
New York City	\$1,028	\$1,299	\$114	9%	42%
Long Island	\$339	\$590	\$50	8%	20%
Metro North	\$516	\$585	\$37	6%	54%
Upstate	\$2,825	\$4,279	\$849	20%	58%
State Total	\$4,709	\$6,753	\$1,051	16%	51%

Source: Spectrum Gaming Group, Regional Economic Models Inc. PI⁺

We have seen how State and local government spending enabled by revenues from gaming accounts for many of the wrinkles seen in the results thus far. Government spending explains the expansion's employment effects on Metro North and also its generally smaller share of output growth. The State revenue impacts presented below reflect the net result of the direct change in State revenues attributable to gaming: the increase in taxes and revenues from gaming, sales, and hotels and the reduction in sales tax revenues due to the reallocation of consumption away from other items toward gaming. The figure also includes revenues to the State supported by general economic activity. Taxes on gaming directly contributed \$1.3 billion in 2015 and \$1.6 billion in 2020, of which \$188 million is attributable to the expansion. The other tax sources are net negative because the loss in sales tax revenues from reallocation is greater than revenues on hotels (both sales and bed taxes), other nongaming revenues, and general taxation on economic growth.

Figure 11: Tax impacts of existing gaming, 2015 and 2020

Total State Taxes	2015 (M)	2020 (M)	2020 Upstate Expansion Only (M)	Expansion's Share of 2020	Expansion's Share of '15-'20 Growth
New York City	\$243	\$307	\$36	12%	57%
Long Island	\$123	\$157	\$18	12%	52%
Metro North	\$119	\$147	\$17	12%	60%
Upstate	\$884	\$1,103	\$138	13%	63%
State Total	\$1,369	\$1,714	\$209	12%	61%

Source: Spectrum Gaming Group, Regional Economic Models Inc. PI⁺

All the labor required to staff the casinos and provide the additional goods and services created by gaming's economic impacts also creates income. Total income impacts grew from \$1.6 billion to \$2.4 billion from 2015 to 2020. The Upstate expansion accounts for 14 percent of 2020 income impacts and 41 percent of the change from 2015. When these income impacts are paired with the employment impacts in Figure 9, average incomes are roughly \$62,500, \$74,200, and \$62,400 for 2015, 2020, and expansion only, respectively.²

Figure 12: Personal income impacts of existing gaming, 2015 vs. 2020

Personal Income	2015 (M)	2020 (M)	2020 Upstate Expansion Only (M)	Expansion's Share of 2020	Expansion's Share of '15-'20 Growth
New York City	\$267	\$375	\$34	9%	31%
Long Island	\$176	\$299	\$26	9%	21%
Metro North	\$173	\$218	\$19	9%	43%
Upstate	\$948	\$1,510	\$266	18%	47%
State Total	\$1,564	\$2,402	\$345	14%	41%

Source: Spectrum Gaming Group, Regional Economic Models Inc. PI⁺

All of the above economic impacts can be summarized in value added, also known as gross product. Value added captures the net change in economic activity and accounts for consumption, the value of inputs used up in production, imports, exports, government spending, and investment. Gaming contributed \$2.9 billion to New York's gross state product in 2015, rising to \$4.2 billion in 2020. The Upstate expansion accounts for \$647 million of the net impact in 2020, or 16 percent. Because value added is a component of output, it is expected to see the two hew closely together as is seen in the expansion's share of 2020 and share of growth. The similarity in the two shares implies there are no notable differences in the economic structure of the firms impacted by gaming generally versus by the expansion specifically.

² Personal income includes wages, salaries, bonuses, benefits, government transfers, and all other sources of income and compensation. Therefore, it is not the same as the average annual pay of a worker.

Figure 13: Value-added impacts of existing gaming, 2015 and 2020

Value-Added	2015 (M)	2020 (M)	2020 Upstate Expansion Only (M)	Expansion's Share of 2020	Expansion's Share of '15-'20 Growth
New York City	\$645	\$821	\$75	9%	42%
Long Island	\$218	\$372	\$32	9%	21%
Metro North	\$317	\$362	\$24	7%	53%
Upstate	\$1,735	\$2,610	\$516	20%	59%
State Total	\$2,915	\$4,165	\$647	16%	52%

Source: Spectrum Gaming Group, Regional Economic Models Inc. PI⁺

D. Forecasts for Downstate Gaming Facilities, with and without Expansion

Spectrum developed a variety of models to determine the revenue potential for casinos and VLT facilities in four different regions of New York (as defined to Spectrum by the Gaming Commission) to determine whether (and through what changes) there was potential for revenue and tax growth, and what the implications may be of gaming expansion. From an established gaming market perspective, Spectrum analyzed the regions of Upstate, Metro North, New York City and Long Island. Each of these markets is distinct in terms of the current gaming supply, level of saturation and potential for growth. From a market potential perspective, we analyzed these defined market areas as well, but also aggregated the Downstate region from a major casino expansionary standpoint, in order to project incremental tax revenue potential, gaming expenditures and economic impacts that could result from new casino licensure in the New York City market area.

With respect to Downstate development, numerous combinations and permutations of competitive supply were considered. In terms of new gaming facilities in the New York City area, the scenarios reflected:

- Scenario 1: Three Downstate casinos
 - 1 new casino in Midtown Manhattan, and
 - Both Resorts World New York (“RWNYC”) and Empire City VLT facilities transform into casinos
- Scenario 2: Three Downstate casinos
 - 1 new casino in western Brooklyn, and
 - Both RWNYC and Empire City VLT facilities transform into casinos
- Scenario 3: Three Downstate casinos
 - 1 new casino in northeast Queens, and
 - Both RWNYC and Empire City VLT facilities transform into casinos
- Scenario 4: Three Downstate casinos and two VLT facilities
 - 3 new casinos – Midtown Manhattan, western Brooklyn and northeast Queens, and
 - Both RWNYC and Empire City remain VLT facilities
- Scenario 5: One Downstate casino and two VLT facilities

- 1 new casino in Midtown Manhattan, and
 - Both RWNYC and Empire City remain VLT facilities
- Scenario 6: Status quo
 - No new casinos, and
 - RWNYC and Empire City remain as VLT facilities

With respect to regional competitive supply permutations, Spectrum modeled demand to potentially include/exclude a VLT facility in Orange County (including the GGR and tax potential of the facility), as well as a large casino at the Meadowlands in northern New Jersey. The inclusion of the Orange County facility has already been statutorily authorized, though development of the facility has not yet commenced (the body of this report also provides projections assuming the Orange County facility is not built/delayed).

Figure 14: Projected State gaming tax revenue from Downstate gaming facilities, 2025, (in \$ millions)

	Casino Slots	Casino Tables	Empire	RWNYC	Jake's 58	Orange	RW Catskills	Total	Incremental
No Additional Gaming Facilities									
Scenario 1 (M, RW, MGM)	\$1,162.6	\$152.3			\$84.7		\$45.5	\$1,445.2	\$556.4
Scenario 2 (B, RW, MGM)	\$1,117.0	\$151.2			\$80.2		\$42.5	\$1,390.9	\$502.2
Scenario 3 (Q, RW, MGM)	\$1,103.5	\$152.7			\$77.0		\$42.2	\$1,375.4	\$486.7
Scenario 4 (M, B, Q)	\$1,049.7	\$214.7	\$180.1	\$180.2	\$68.0		\$38.1	\$1,730.8	\$842.1
Scenario 5 (M)	\$515.9	\$105.5	\$274.4	\$318.6	\$93.9		\$51.7	\$1,360.1	\$471.4
Scenario 6 (Status Quo)	\$0.0	\$0.0	\$336.2	\$385.1	\$107.5		\$59.9	\$888.7	
With a Meadowlands Casino									
Scenario 1	\$1,053.4	\$136.3			\$82.0		\$42.1	\$1,313.8	\$518.6
Scenario 2	\$1,029.0	\$139.1			\$77.9		\$39.3	\$1,285.4	\$490.2
Scenario 3	\$1,018.0	\$141.3			\$74.8		\$38.9	\$1,273.1	\$477.9
Scenario 4	\$969.8	\$198.4	\$165.3	\$173.1	\$66.4		\$35.7	\$1,608.6	\$813.4
Scenario 5	\$448.7	\$91.8	\$246.8	\$299.4	\$90.0		\$47.5	\$1,224.1	\$428.9
Scenario 6	\$0.0	\$0.0	\$290.1	\$350.4	\$101.3		\$53.4	\$795.3	
With an Orange County VLT Facility									
Scenario 1	\$1,137.9	\$151.7			\$83.4	\$70.6	\$42.3	\$1,485.8	\$542.1
Scenario 2	\$1,094.4	\$150.7			\$79.0	\$67.2	\$39.5	\$1,430.8	\$487.1
Scenario 3	\$1,081.8	\$152.3			\$75.9	\$66.9	\$39.3	\$1,416.1	\$472.4
Scenario 4	\$1,035.0	\$213.8	\$178.1	\$178.4	\$67.2	\$61.5	\$35.7	\$1,769.8	\$826.0
Scenario 5	\$504.2	\$104.2	\$268.1	\$312.6	\$92.0	\$77.3	\$47.5	\$1,405.8	\$462.1
Scenario 6	\$0.0	\$0.0	\$325.9	\$375.7	\$105.0	\$82.6	\$54.6	\$943.7	
With an Orange VLT Facility and a Meadowlands Casino									
Scenario 1	\$1,026.3	\$137.5			\$80.8	\$56.6	\$39.1	\$1,340.2	\$503.7
Scenario 2	\$1,004.1	\$140.4			\$76.8	\$53.2	\$36.5	\$1,310.9	\$474.4
Scenario 3	\$994.1	\$142.6			\$73.8	\$52.7	\$36.2	\$1,299.5	\$462.9
Scenario 4	\$976.6	\$203.8	\$163.5	\$171.4	\$65.6	\$50.3	\$33.4	\$1,664.7	\$828.1
Scenario 5	\$413.0	\$86.2	\$241.6	\$294.3	\$88.3	\$61.7	\$43.6	\$1,228.7	\$392.2
Scenario 6	\$0.0	\$0.0	\$282.6	\$343.1	\$99.1	\$63.0	\$48.8	\$836.5	

Scenario Legend: M: Manhattan; RW: Resorts World NYC; MGM: Empire City; Q: Queens; B: Brooklyn. Source: Spectrum Gaming Group. **Notes:** Casino Slots and Casino Tables reflect taxes emanating from any new casinos opened in the New York City area. Incremental column reflects gaming taxes relative to the respective Scenario 6 (status quo) models.

For the first three scenarios, with RWNYC and MGM becoming casinos, there is a VLT revenue loss of \$721 million which suppresses the overall incremental amount. It is possible that significantly larger casino resorts may be proposed through a competitive bid process under these scenarios. Scenario 4 provides the greatest potential tax revenues, but results in a highly saturated gaming market, such that incumbent operators (RWNYC and MGM) in the state will experience significant revenue declines, which in turn could result in employee layoffs at a minimum, or facility closures. It also could limit what is ultimately developed in terms of the scale of the new facilities, as well as what could be generated from initial license fees (the value of a license is less in a more saturated market). Scenario 5 has the lowest incremental tax revenue impact with only a casino in Manhattan being built.

For all new development scenarios, gaming revenues and the related taxes generated by RW Catskills and Jake's 58 can be expected to decline. RW Catskills will be adversely impacted by any of the new developments, whereas Jake's 58 will predominantly be impacted by any expansion in Brooklyn or Queens (including MGM and/or RW NYC expansions).

If an Orange County facility is built, between 53 percent and 67 percent of the facility's gaming revenues are projected to be incremental to the New York market, with the balance coming from other New York facilities, predominantly from slot or VLT revenues at Empire City, as well as slots at RW Catskills. As a percentage of facility revenues, the impact to RW Catskills would be greatest (5 to 7.5 percent, depending on competitive scenario).

If a Meadowlands facility is built, it would potentially have the greatest impact on an Orange County VLT facility, reducing the Orange County facility revenue potential (and tax revenue potential from the facility) by approximately 20 percent (varying slightly as a percentage depending on overall regional development scenario). If there is no Orange County facility, a casino at the Meadowlands would have approximately a \$90 million to \$130 million impact on tax revenues from Downstate gaming facilities, depending on scenario. More specifically, the change in potential revenues (and taxes) for Downstate facilities attributable to a Meadowlands casino would be:

- -12.5 percent for Manhattan
- -8.1 percent for Brooklyn
- -7 percent for Queens
- -9.8 percent to -11 percent for Empire City (depending on third license casino location)
- -5.4 percent to -6.2 percent for RWNYC (depending on third license casino location)
- -7.7 percent to -8.0 percent for RW Catskills (depending on third license casino location)
- -2.8 percent to -3.2 percent for Jake's 58

While Spectrum has modeled a broad range of potential development scenarios to arrive at this matrix of potential gaming taxes to the State, Spectrum recommends a competitive bid process be put forth to arrive at the most optimal result for the State to choose from.

E. Forecasts for Upstate Gaming Facilities, with and without Expansion

Spectrum constructed a series of large-scale drive-time gravity models calibrated to the visitation and GGR patterns of gaming-age adults in the Upstate region.³ These models were then utilized to develop

³ Spectrum's gravity models were calibrated to existing revenue patterns at casinos both in New York and the surrounding region, and in consideration of insights from many gaming property operators across New York. It should be noted that not all gaming operators provided assistance in this regard; Delaware North Companies did not

a series of projection models that consider future population and income growth as projected by ESRI,⁴ as well as the impacts of future competition. It should be noted that these projections do not consider any expansions, significant additions or improvements to existing Upstate gaming properties, nor do they consider changes that an individual operator could potentially make to marketing strategies. Figure 15 details Spectrum's projection of GGR for each gaming property in the following scenarios:

- 2019 actual GGR
- 2023 Status Quo – without any new competition
- 2025 Status Quo – without any new competition
- 2025 Expansion Scenario 1 with Orange County VLT – casino in Manhattan, VLT facility in Orange County, and the two existing New York City metro VLT facilities add table games (becoming full-scale casinos)
- 2025 Expansion Scenario 1 with Orange County VLT and East Windsor – adding casino in East Windsor, CT, to scenario above
- 2025 Expansion Scenario 4 – casinos in Manhattan, Queens and Brooklyn, VLT facility in Orange County, and new casino in East Windsor, CT

On an aggregate basis, we expect GGR across Upstate New York to grow only organically, at a rate of just less than 1 percent per year before the introduction of new competition. New competition from Downstate gaming facilities is forecast to have varied impacts on existing gaming facilities, but overall could impact Upstate GGR by approximately -5.9 percent. The greatest property-level impacts are expected to accrue to Rivers Schenectady (-12.6 percent in Scenario 4), as competition from a VLT facility in Orange County, a casino in Manhattan, and a casino in East Windsor all involve overlaps with Rivers' regional market area (but not its primary market area of the Capital Region).

Tioga Downs could be expected to lose some market share to a VLT facility in Orange County and to a lesser degree a casino in Manhattan, with the potential to see GGR declines of 9.2 percent. Note that the potential impacts on Resorts World Catskills were already discussed in greater detail in the New York City-area and Orange County VLT expansion sections of this Part 1 report, as there is considerably greater overlap in its markets than for the other Upstate facilities.

This conservative scenario assumes that a VLT facility in Orange County as well as an integrated resort in New York City would have a material impact on visitation decisions, as has been demonstrated in various markets. For example, Atlantic City NJ is 2.5 Hours from Manhattan, roughly the same distance as Tioga Downs, and that market would also be significantly affected by a casino in New York City.

provide information on county of residence of their customers, and Rivers Schenectady provided this information after the analysis was complete, and therefore Spectrum estimated the properties' market capture across the region.

⁴ ESRI is the global market leader in geographic information systems, with its ArcGIS product as the standard platform for government agencies across the United States, most national governments worldwide, as well as the private sector.

Figure 15: Upstate gaming facility GGR projections (\$M)

Facility	2019 Actual	2023 Status Quo Projection	2025 Status Quo Projection	2025 Projected Scenario 1 with Orange County VLT	2025 Projected Scenario 1 with Orange County VLT and East Windsor	2025 Projected Scenario 4 with Orange County VLT and East Windsor
Batavia	\$62.1	\$63.1	\$63.2	\$61.8	\$61.7	\$60.4
Del Lago	\$158.0	\$173.8	\$174.2	\$168.1	\$167.7	\$165.4
Finger Lakes	\$105.3	\$107.0	\$107.5	\$104.7	\$104.5	\$103.7
Hamburg	\$71.8	\$75.5	\$76.8	\$76.0	\$75.9	\$75.4
Rivers	\$168.9	\$173.8	\$175.0	\$162.2	\$160.1	\$153.0
Saratoga	\$126.4	\$131.3	\$132.8	\$125.0	\$123.2	\$121.7
Tioga	\$83.1	\$84.8	\$85.1	\$78.9	\$78.6	\$77.3
Vernon	\$29.3	\$29.8	\$29.8	\$28.6	\$28.5	\$28.0
Akwesasne	\$100.5	\$106.6	\$108.8	\$108.5	\$108.2	\$107.7
All Seneca	\$610.6	\$636.9	\$645.6	\$631.5	\$630.7	\$616.7
All Oneida	\$384.3	\$392.6	\$393.3	\$375.3	\$374.0	\$364.3
Cayuga	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.5
Total*	\$1,908.0	\$1,976.9	\$1,993.7	\$1,922.1	\$1,914.8	\$1,875.2

Source: Spectrum Gaming Group. *2019 actual total includes \$6.1 million in GGR from Monticello VLT facility, which permanently closed in April 2019.

It must be noted that the preceding GGR projections differ from Spectrum's analysis of GGR potential for the Upstate region. The analysis of GGR potential, presented in Chapter H of this report, addresses the question of market saturation and whether there is room for growth in the region. As shown in Figure 16, the stability of overall GGR translates into stable revenues to the State. There is some modest shifting of tax, but generally the overall revenue to the State remains fairly constant.

Figure 16: Upstate gaming facility estimated gaming-tax projections (\$M)

Facility	2019 Actual	2023 Status Quo Projection	2025 Status Quo Projection	2025 Projected Scenario 1 with Orange County VLT	2025 Projected Scenario 1 with Orange County VLT and East Windsor	2025 Projected Scenario 4 with Orange County VLT and East Windsor
Batavia	\$24.63	\$24.61	\$24.65	\$24.10	\$24.06	\$23.56
Del Lago	\$46.56	\$51.62	\$51.74	\$49.93	\$49.81	\$49.12
Finger Lakes	\$48.39	\$39.06	\$39.24	\$38.22	\$38.14	\$37.85
Hamburg	\$20.83	\$25.67	\$26.11	\$25.84	\$25.81	\$25.64
Rivers	\$53.33	\$60.13	\$60.55	\$56.12	\$55.39	\$52.94
Saratoga	\$59.61	\$47.92	\$48.47	\$45.63	\$44.97	\$44.42
Tioga	\$26.35	\$27.98	\$28.08	\$26.04	\$25.94	\$25.51
Vernon	\$9.99	\$5.99	\$5.99	\$5.75	\$5.73	\$5.63
Akwesasne	\$25.13	\$26.65	\$27.20	\$27.13	\$27.05	\$26.93
All Seneca	\$152.65	\$159.23	\$161.40	\$157.88	\$157.68	\$154.18
All Oneida	\$96.08	\$98.15	\$98.33	\$93.83	\$93.50	\$91.08
Cayuga	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total	\$563.54	\$567.01	\$571.75	\$550.44	\$548.07	\$536.84

Sources: New York Gaming Commission, Spectrum Gaming Group

F. Social Impacts of Expanded Gaming

Based on Spectrum's review of academic literature, which include data-based studies that undergo a rigorous peer-review process, we found that most of the negative social impacts (or "social costs") of gambling are attributable to gambling disorder. With the expansion of legal gambling options in New York, exposure to gambling increases, and a short-term increase in gambling disorder may result. Types of effects that may increase include crime, drunken-driving fatalities, and bankruptcy. However, such increases are likely to be short-lived, as residents adapt to the expansion of gaming options. Over the longer term, the prevalence rate of gambling disorder in New York is likely to remain stable.

In short, the academic literature indicates that the expansion of gaming facilities in New York is unlikely to have a significant impact on overall negative social impacts from gambling.

G. Economic Impacts of Expanded Gaming

Spectrum employed the PI⁺ model for estimating all economic impacts in this report; it is produced by Regional Economic Models, Inc. ("REMI") based in Massachusetts.

In addition, because this section involves assessing the economic impacts of potential new facilities, Spectrum estimated the construction costs of developing new or converted gaming facilities. These costs are order of magnitude estimates for the sole purpose of estimating the economic impacts of potential casino/VLT projects in Orange County, Manhattan, Brooklyn and Queens. They were sized according to (1) our gross gaming revenue forecasts above in Chapter D and (2) our experience analyzing gaming facilities and markets throughout the country. We segmented the economic impacts by region, as follows:

Figure 17: Economic models by region and county

Model Region	County
New York City	Bronx
	Kings
	New York
	Queens
	Richmond
Long Island	Nassau
	Suffolk
Metro North	Dutchess
	Orange
	Putnam
	Rockland
	Westchester
Upstate	All other counties

Source: Spectrum Gaming Group

For the purposes of the economic impact analysis, we evaluated the following scenarios:

- For the individual integrated resorts:
 - High scenario: one IR in either Manhattan, Brooklyn, or Queens and VLT facilities become casinos
 - Low scenario: one IR in either Manhattan, Brooklyn, or Queens, VLT facilities become casinos, a new property in the Meadowlands, and a VLT facility in Orange County
- For all three integrated resorts combined:
 - High scenario: one IR in each of Manhattan, Brooklyn, and Queens and VLT facilities remain as VLT facilities
 - Low scenario: one IR in each of Manhattan, Brooklyn, and Queens, VLT facilities remain as VLT facilities, a new casino at the Meadowlands, and a VLT facility in Orange County
- For the Orange County VLT facility:
 - High scenario: one VLT facility in Orange County and no other Downstate changes
 - Low scenario: one VLT facility in Orange County, no other Downstate changes, and a Meadowlands casino

The net new economic impacts of expanding Downstate gaming with one IR and two VLT-to-casino conversions are best summarized in value added (also known as gross product). In these scenarios, New York State's economy is estimated to grow by an average annual amount of between \$3.7 billion and \$4.6 billion. Within each scenario, the difference in the annual average ranges from around \$420 million per year to \$630 million. The Manhattan casino has the largest impacts while also differing the most (in both absolute and percentage terms) as the competitive landscape changes. With details in the main body of the report, the three-IR scenario is roughly 50 percent larger than the Manhattan-only scenario.

Figure 18: Integrated resort in Manhattan, Brooklyn or Queens – summary results of operating impacts, 10-year annual average and job-years

Region	Emp.	Output (M)	Value-Added (M)	Personal Income (M)	State Revenue (M)	Emp.	Output (M)	Value-Added (M)	Personal Income (M)	State Revenue (M)
Manhattan IR Low						Manhattan IR High				
New York City	13,620	\$4,964	\$3,078	\$1,518	\$159	15,928	\$5,757	\$3,570	\$1,774	\$190
Long Island	758	\$231	\$147	\$238	\$43	947	\$283	\$180	\$284	\$52
Metro North	3,032	\$940	\$577	\$392	\$52	3,064	\$1,009	\$619	\$417	\$60
Upstate	1,117	\$283	\$181	\$141	\$206	1,574	\$384	\$244	\$186	\$257
State Total	18,527	\$6,419	\$3,983	\$2,289	\$461	21,514	\$7,433	\$4,614	\$2,661	\$560
Brooklyn IR Low						Brooklyn IR High				
New York City	12,960	\$4,756	\$2,943	\$1,451	\$148	14,504	\$5,288	\$3,272	\$1,623	\$168
Long Island	627	\$199	\$127	\$216	\$38	751	\$233	\$148	\$246	\$44
Metro North	2,549	\$813	\$499	\$341	\$46	2,591	\$880	\$540	\$360	\$51
Upstate	894	\$234	\$150	\$118	\$179	1,216	\$304	\$194	\$149	\$212
State Total	17,030	\$6,001	\$3,718	\$2,126	\$410	19,062	\$6,705	\$4,155	\$2,378	\$475
Queens IR Low						Queens IR High				
New York City	13,178	\$4,832	\$2,988	\$1,474	\$147	14,682	\$5,351	\$3,309	\$1,642	\$166
Long Island	582	\$189	\$121	\$213	\$36	702	\$222	\$142	\$242	\$42
Metro North	2,167	\$708	\$434	\$310	\$42	2,178	\$766	\$470	\$326	\$47
Upstate	817	\$217	\$139	\$110	\$170	1,127	\$284	\$181	\$139	\$201
State Total	16,745	\$5,946	\$3,683	\$2,106	\$395	18,689	\$6,623	\$4,103	\$2,348	\$457

Source: Spectrum Gaming Group, PI+

The final group of scenarios is the evaluation of a VLT facility in Orange County in the absence of any IRs in New York City. The high scenario reflects the economic impact of the new VLT facility in Orange County without any other new casinos in New York or New Jersey. The low scenario adds a casino at the Meadowlands. In the low scenario, the negative impacts reflect the negative impacts of gaming dollars flowing out of New York to New Jersey rather than any negative effects of VLT facilities. In fact, the presence of the VLT facility in Orange County helps offset the negative employment and value-added impacts in that region.

Despite representing a smaller change in the gaming landscape than what is considered in the IR scenarios, the Orange County development creates the largest proportional results. It will create at least 1.3 additional jobs per direct job and \$2.79 additional dollars of revenue for each direct dollar. However, the Orange County facility creates smaller proportional tax impacts of only around \$0.13 per dollar of taxes on GGR.

Figure 19: VLT facility in Orange County summary results of operating impacts, 10-year annual average and job-years

Region	Emp.	Output (M)	Value-Added (M)	Personal Income (M)	State Revenue (M)	Emp.	Output (M)	Value-Added (M)	Personal Income (M)	State Revenue (M)
Orange County VLT Low						Orange County VLT High				
New York City	-563	(\$141)	(\$88)	(\$62)	(\$13)	51	\$42	\$29	\$11	\$16
Long Island	-69	(\$19)	(\$12)	(\$14)	(\$5)	91	\$25	\$16	\$13	\$8
Metro North	223	\$40	\$24	\$13	(\$3)	1,007	\$201	\$123	\$88	\$13
Upstate	-400	(\$82)	(\$51)	(\$34)	(\$33)	338	\$78	\$51	\$41	\$58
State Total	-809	(\$202)	(\$127)	(\$97)	(\$54)	1,487	\$347	\$219	\$153	\$95

Source: Spectrum Gaming Group, PI⁺

H. Assessment of New York Gaming Market Potential without Expansion

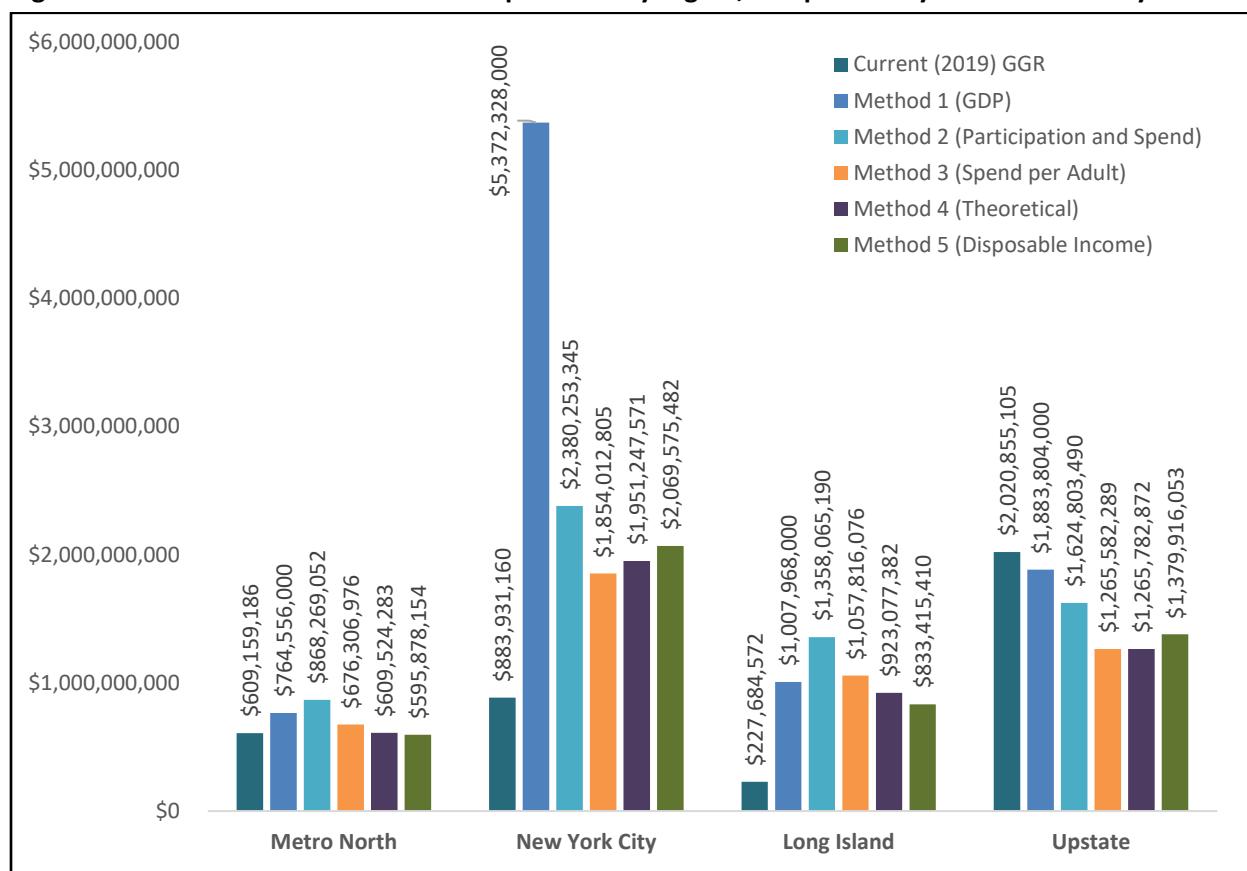
Spectrum developed the estimated market potential for New York GGR both statewide and by region – for all types of gaming facilities, including commercial casinos, Indian casinos and VLT facilities – by analyzing GGR potential using five different methodologies, and then comparing and contrasting the validity and reasonableness of the outcomes for each region.

Five distinct methods of analyzing the GGR potential for New York's gaming facilities were developed as follows:

- **Method 1:** County-level estimates of gross domestic product
- **Method 2:** Gaming participation rates and spending levels in non-New York markets across the United States, adjusted for New York income levels
- **Method 3:** Gaming spend per adult in non-New York markets across the United States, adjusted for New York income levels
- **Method 4:** Gaming spend based on modeling indices of household participation rates in gaming, as reported by our demographic data supplier, ESRI
- **Method 5:** Disposable income and relationship to gaming spend in markets across the United States

The five methods of analysis indicate that New York's gaming facilities have the potential for generating between \$4.75 billion and \$9.03 billion in gaming revenues, or growth of between \$1.11 billion and \$5.29 billion over those generated in 2019.

Figure 20: New York GGR and estimated potential by region, comparison by methods of analysis

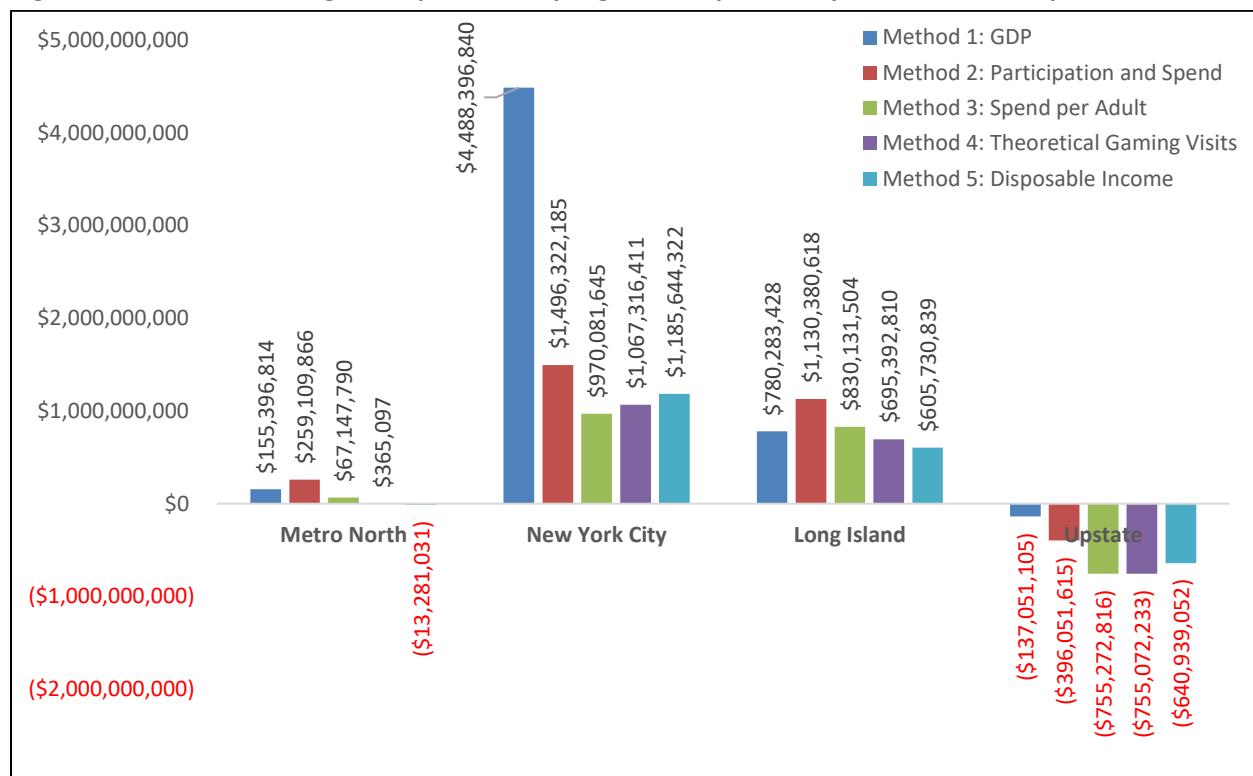


Source: Spectrum Gaming Group

While no single method of estimating the potential for casino/VLT gaming can be solely relied upon, together they unveil patterns and indicate areas of potential saturation as well as those for future growth. The Downstate counties clearly exhibit the greatest potential for growth, ranging from \$970 million to \$4.49 billion for New York City, and \$606 million to \$1.13 billion for Long Island. The Upstate region, estimated to generate \$2.02 billion in GGR in 2019, is operating above its reasonable potential, indicating market saturation and limited growth potential outside of organic or inflationary growth.

Figure 21 and Figure 22 summarize the gaming spend growth potential by scenario.

Figure 21: New York GGR growth potential by region, comparison by methods of analysis



Source: Spectrum Gaming Group

Figure 22: Gaming growth potential by region, comparison of methods of analysis

	Metro North	New York City	Long Island	Upstate	TOTAL
Current (2019) GGR	\$609,159,186	\$883,931,160	\$227,684,572	\$2,020,855,105	\$3,741,630,022
Method 1: GDP					
Potential GGR	\$764,556,000	\$5,372,328,000	\$1,007,968,000	\$1,883,804,000	\$9,028,656,000
Growth Potential	\$155,396,814	\$4,488,396,840	\$780,283,428	(\$137,051,105)	\$5,287,025,978
Method 2: Participation and Spend					
Potential GGR	\$868,269,052	\$2,380,253,345	\$1,358,065,190	\$1,624,803,490	\$6,231,391,076
Growth Potential	\$259,109,866	\$1,496,322,185	\$1,130,380,618	(\$396,051,615)	\$2,489,761,054
Method 3: Spend per Adult					
Potential GGR	\$676,306,976	\$1,854,012,805	\$1,057,816,076	\$1,265,582,289	\$4,853,718,145
Growth Potential	\$67,147,790	\$970,081,645	\$830,131,504	(\$755,272,816)	\$1,112,088,123
Method 4: Theoretical Gaming Visits					
Potential GGR	\$609,524,283	\$1,951,247,571	\$923,077,382	\$1,265,782,872	\$4,749,632,107
Growth Potential	\$365,097	\$1,067,316,411	\$695,392,810	(\$755,072,233)	\$1,008,002,085
Method 5: Disposable Income					
Potential GGR	\$595,878,154	\$2,069,575,482	\$833,415,410	\$1,379,916,053	\$4,878,785,099
Growth Potential	(\$13,281,031)	\$1,185,644,322	\$605,730,839	(\$640,939,052)	\$1,137,155,077

Source: Spectrum Gaming Group

To capture this growth potential, Spectrum reached the following conclusions by region:

New York City and Metro North: The potential of the New York City market could be captured by the addition of new gaming facilities as well as the expansion/conversion of the RWNYC VLT facility into a full scale casino. The untapped potential of the Metro North region could be realized with the addition of an Orange County VLT facility, as well as with the expansion of gaming further Downstate. However, such expansion would have negative impacts on existing gaming facilities. Adding a 300-room to 400-room hotel to Empire City has the potential to extend the length of visits by converting day trippers into overnight guests. An overnight guest would be expected to generate twice the GGR of a day player, while a significant portion of the rooms would be double occupancy.

Long Island: The Long Island market is underserved with regard to gaming. Adding capacity to Jake's 58 would likely increase the gaming spend by Long Island residents. Such additional gaming capacity would likely also necessitate food and beverage ("F&B") expansion in order to accommodate the related increase in patron F&B needs. However, we note that there may be limited space to make such an expansion at Jake's 58, and any change in permitted gaming positions would have a statutory impact on permissible gaming positions at Resorts World New York City, as they are linked.

Upstate: In this saturated market, investment in amenities would likely only shift GGR among properties rather than grow GGR marketwide.

I. Tax Policy Analysis

The most effective means of ensuring that future tax policy considerations and changes are based on economic principles is to suggest that operators can petition the State for relief. Commercial casino and VLT operators that were raising questions about the complex taxation process prior to the COVID-19 pandemic are far more concerned today and can be expected to turn to the State for relief.

A process by which operators petition the State for relief can take into account some of the aforementioned lessons. Petitions would be examined individually, based on the totality of circumstances. The licensee would have to specify in detail the reasons for requesting the tax adjustment and provide all necessary supporting documentation. In all cases, the burden would rest upon the licensee to demonstrate by a preponderance of the evidence that granting the relief requested is in furtherance of a legitimate public interest, which could include the ability to remain a going concern.

The licensee would be required to demonstrate that the reason for the requested relief is due to external causes beyond the licensee's control, and is not predicated on unsuccessful decisions undertaken by management that adversely impacted operational performance.

The licensee must demonstrate that, upon the granting of the relief requested, it will be able to fully satisfy all license criteria, including financial stability. Conversely, the licensee should be required to demonstrate that, in the absence of a tax adjustment, it would be unable to sustain ongoing financial stability, remain competitive, and/or remain a going concern over a specified period.

In deciding the matter, the New York State Gaming Commission would evaluate all relevant circumstances, including:

- The ability of the licensee to satisfy the license criterion of financial stability absent the tax rate reduction;
- A complete examination of all financial projections, as well as all GGR generated for the prior annual period;
- The licensee's intended use of the funds resulting from a tax adjustment, including whether or not the relief would allow for a revised and improved business model;
- The inability of the operator to remain competitive under the current tax structure;
- Positions advanced by other gaming operators in the state in response to the petition;
- The impact on the competitive landscape to determine whether and to what extent a revised business model, if applicable, will help grow the market or cannibalize competitors;
- Other economic factors such as employment and the potential impact upon other businesses in the region; and
- The public interest to be served by a tax adjustment, including the impact upon the State in the event the operator is unable to remain financially viable.

We have analyzed six various tax rate structure scenarios. The tax rate structures and the impact of various tax rate structures are summarized below:

- **Tax rate equalization:** If all VLTs and slot machines at casinos were to be taxed at a reduced flat rate of 25 percent to be equalized with the State's share of tribal slot revenue. Under this scenario, the State would have taken \$626 million less in FY 2020.
- **Uniform tax rates for VLT operators:** Flat tax rate of 43.2 percent, which is equivalent to effective tax rate for statewide VLTs operators for FY 2021. This tax rate scenario would negatively impact the Upstate facilities while benefiting some of the Downstate facilities.
- **Revenue-neutral tax rates based on GGR:** This tax rate scenario would benefit all VLT facilities except for Resorts World New York City, which would see a tax increase. An alternative is to leave Jake's 58 and Nassau OTB's rate at the current 45 percent amount and reduce other VLT rates by \$13 million.

Figure 23: Revenue-neutral suggested tax rates based on GGR

GGR (M)	"Tax Rate"
Under \$40	20%
\$40- \$75	31%
\$75 - \$150	35%
\$150 - \$250	42%
Over \$250	47%

- **Graduated or progressive tax rates based on GGR:** under this scenario, as the properties generate more GGR, the marginal tax rate on the GGR increases. We have analyzed three difference tax rate options under graduated or progressive tax rate structure.
 - First, we have analyzed a progressive tax rate structure ranging from 30 percent on all VLT facilities with less than \$25 million annual GGR to 50 percent on VLT facilities with more than \$250 million annual GGR. *Under this scenario, some facilities would*

benefit while others would see a negative impact. Overall, the State would take in slightly more revenues in FY 2021.

- Second, we have analyzed a progressive tax rate structure ranging from 35 percent on all VLT and casino facilities with less than \$100 million annual GGR to 55 percent on all VLT and casino facilities with less than \$1 billion annual GGR. Currently none of the facilities generate annual GGR of \$1 billion or more. *Under this scenario, some VLT facilities would benefit while others would see a negative impact. All commercial casinos would see a hike in tax rate. Overall, the State would receive about \$19.4 million less in tax revenues under the graduated tax rates in FY 2021.*
- Third, we analyzed a progressive tax rate structure ranging from 40 percent on all VLT and slot machines at casino facilities with less than \$100 million annual GGR to 55 percent on all VLT and slot machines at casino facilities with less than \$500 million annual GGR. Under this scenario, table games, poker tables, and sports wagering would be taxed at flat 10 percent at the four commercial casinos. *Under this scenario, the effective tax rates would be lower for three of the nine VLTs as well as for Rivers Casino in FY 2021. The State would receive about \$44.5 million more in tax revenues under the graduated tax rates in FY 2021.*
- Modified graduated tax alternative based on GGR: under this scenario, facilities would pay a flat tax rate, but the tax rate would be based on their annual GGR. More specifically, facilities with less than \$100 million GGR would be taxed at 35 percent, facilities with less than \$250 million (but more than \$100 million) would be taxed at 40 percent, facilities with less than \$500 million (but more than \$250 million) would be taxed at 45 percent, facilities with less than \$1 billion (but more than \$500 million) would be taxed at 50 percent, and facilities with over \$1 billion would be taxed at 55 percent. Under this scenario, all four casinos as well as five VLTs would see a tax hike in FY 2021. The State would take in about \$100.6 million more in tax revenues in FY 2021.

Analysis of various tax rate structures illustrate the difficulty of having a tax rate structure that is beneficial to all facilities and to the State.

J. Sports Wagering and Digital Gaming

1. Sports Wagering – Present and Expanded

Figure 23 provides Spectrum's revenue estimates of gross gaming revenue ("GGR") and the State tax revenue for all three scenarios for sports wagering. The scenarios include the following assumptions:

- **Scenario 1** – Retail sports wagering is offered at NY's commercial casinos and Indian casinos
- **Scenario 2** – In addition to retail offered at commercial and Indian casinos, retail sports wagering is offered at VLT facilities and OTB facilities.
- **Scenario 3** – Assumes that NY state has digital wagering in addition to retail sports wagering in Scenario 2. Under Scenario 3 we illustrated two distinct scenarios with differing assumptions around the degree to which tribes can offer sports wagering only within their respective tribal regions vs. have the ability to offer sports wagering throughout the State (detailed explanation in the main body of this report).

Although these estimates differ in the assumptions attached to each scenario, they represent the market size at maturity or stabilization – approximately three to five years after rollout. These assumptions assume sports wagering tax of 10 percent for both retail (i.e., at a physical location) and digital (i.e., online/mobile) sports wagering, which is the current tax rate for the four commercial casinos.

Figure 24: Summary of sports wagering forecasts – GGR and tax revenue, at stabilization

(Millions)	GGR		Tax Revenue	
	Low	High	Low	High
Scenario 1				
Retail - Commercial	\$35	\$48	\$4	\$5
Retail - Indian	\$32	\$45		
Total - Scenario 1	\$66	\$93	\$4	\$5
Scenario 2: Expanded Retail				
Commercial	\$18	\$26	\$2	\$3
Indian	\$18	\$25		
VLT Facilities	\$142	\$198	\$14	\$20
OTB Facilities	\$34	\$47	\$3	\$5
Total - Scenario 2	\$212	\$296	\$19	\$27
Scenario 3A: Restricted Tribal¹				
Expanded Retail (Non-Indian)	\$129	\$181	\$13	\$18
Retail – Indian	\$18	\$25		
Digital – Oneida	\$25	\$35		
Digital - Seneca & Mohawk	\$33	\$46		
Digital (Non-Indian)	\$611	\$856	\$61	\$86
Total - Scenario 3A	\$816	\$1,143	\$74	\$104
Scenario 3B: Statewide Tribal¹				
Expanded Retail (Non-Indian)	\$129	\$181	\$13	\$18
Retail – Indian	\$18	\$25		
Digital – Oneida	\$43	\$67		
Digital - Seneca & Mohawk	\$37	\$64		
Digital (Non-Indian)	\$589	\$806	\$59	\$81
Total - Scenario 3B	\$816	\$1,143	\$72	\$99

Source: Spectrum Gaming Group. ¹ Most of the digital wagering impact will be on downstate VLT facilities and OTBs; this illustration shows 100% of decline will be on non-Indian expanded retail.

2. Online Gaming and Online Lottery

Figure 25 illustrates the estimates for internet poker (“iPoker”), internet casino gaming (“iGaming”) and internet lottery (“iLottery”) at stabilization (three to five years after launch). The tax revenue estimates are based on a 10 percent tax rate on GGR. For these projections we benchmarked our analysis on the performance of these businesses in other states (i.e., New Jersey for iGaming and iPoker, Michigan for iLottery). It is important to note that digital gaming expansion in the U.S. is still in its early stages, so there is a relatively small sample size of states with which to benchmark. Nevertheless, all indications suggest digital gaming revenue in such a large and densely populated New York will be substantial.

Figure 25: Summary of iPoker, iGaming and iLottery forecasts at stabilization

(Millions)	iPoker	iGaming	iLottery	Total
Statewide GGR	\$60	\$750	\$299	\$1,109
“Taxable” GGR	\$15-\$30	\$500	\$209	\$730
State Revenue	\$1.5 - \$3	\$50	\$21	\$73

Source: Spectrum Gaming Group The difference between statewide GGR and “taxable” GGR is the estimated impact of Native American nations offering similar products without remitting tax.

K. Horse Racing and Pari-Mutuel Wagering

1. Distribution of Pari-Mutuel Horse Racing Revenue

New York experienced a sharp decline in wagering, on and off track, during the 2011 through 2018 period at a time when the national trend was improving. Fundamental market changes, coupled with the significant shift in wagering from retail betting facilities to Advance Deposit Wagering (“ADW”), indicate that the OTB model and on-track experience is less desirable than ADWs.

The economic impact of the New York horse racing sector to the state economy in 2018 was estimated by an industry proponent at \$3.08 billion, a benefit so large that it eclipses all other rationales for racing, including the benefit to the state from the pari-mutuel tax on wagering handle. So, it is important when making changes to both revenue distribution and race days that this impact serve as a consideration.

2. Effect of Modifying Live-Racing Requirements

No significant changes in NYRA purses have occurred in the last few years, despite the reductions made in NYRA race days. The eight other racetracks in New York derive 78 percent to 84 percent of their purses from VLT revenue and therefore the purses are less impacted by shifts in pari-mutuel revenue as race dates are changed.

Stakeholder interests must be balanced, and many factors must be considered when analyzing the effects of modifying live-racing requirements for pari-mutuel facilities.

A factor driving the current decline in the number of races is the drastically reduced supply of horses available to race, which can be attributed to the declining number of foals. Regardless of any negative impact on purses/awards, this factor alone would necessitate some reduction until supply increases.

Incremental change, as opposed to a large sweeping change, reduces the risk of having a significant negative effect to the state, which would not be easily reversed. Metrics must be in place to monitor the effect of race day changes and will benefit the industry because there is a balance between maintaining a sufficient number of days while at the same time not having too many races that place a strain on the supply, demand, product quality and cost of producing the live product.

While the industry contributes significant economic impact to New York, Spectrum believes it is imperative that serious efforts must be made to increase wagering and to make sure wagering dollars

make proper contributions to live racing. As market fundamentals evolve, if the revenue (purses, breeders awards, etc.) becomes less tied to live racing, in the long-term New York will end up with much less racing and thus fewer economic benefits from racing.