



Pennsylvania Video Gaming Terminal (VGT) Impact Analysis

Prepared for:

Harrah's Philadelphia, Mohegan Sun Pocono, SugarHouse Casino, Rivers
Pittsburgh, Lady Luck Casino Nemaquin, Presque Isle Downs Casino, Valley Forge
Casino Resort

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VGT Impact Analysis, Pennsylvania

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EXECUTIVE SUMMARY

The Innovation Group was commissioned to analyze the potential impact on Pennsylvania casinos from deploying video gaming terminals (VGTs) throughout Pennsylvania. The purpose of this analysis is to assess the impacts that distributed (or ambient) VGTs will have on casino revenues, fiscal contributions and employment throughout Pennsylvania.

The assessment first forecasted slot machine revenue in Pennsylvania through 2020 absent the development of VGTs. We then assessed the impacts on casino slot revenue assuming VGTs are deployed beginning in late 2017, based on a comparative analysis of VGT markets in other states, primarily Illinois.

The proposed VGT legislation for Pennsylvania is modeled after the VGT industry in Illinois. The only major difference in the proposed Pennsylvania legislation is the lack of a local option. In Illinois, local jurisdictions can enact ordinances prohibiting VGT development.

As proposed, and based on trends in Illinois, the VGT legislation would be expected to result in the following level of gaming expansion in Pennsylvania:

- Statewide, upwards of 9,000 VGT establishments and 40,000 devices are estimated to be developed by 2020. This would more than double the supply of gaming machines in the state and represent the equivalent of 18 additional casinos based on the average number of slot machines operating at Pennsylvania's 12 existing facilities.
- A large portion of this development would be expected to occur not at existing bars and restaurants but rather "café" chains operating primarily as mini-casinos. Nationally established route operators—companies that operate distributed machine gaming in states such as Nevada, Montana, and Illinois—have indicated to investors that Pennsylvania is a prime market for expansion should VGT legislation be enacted.
- The legislation calls for a three-way split of VGT revenue: 33% to the establishment, 33% to the operator and 34% to the Commonwealth's General Fund. By contrast, slot machines are taxed at an effective rate of 55%.
- The proposed Pennsylvania VGT legislation does not address the topic of self-exclusion; therefore it is assumed that VGT operators would not be required to establish and implement a self-exclusion system for the protection of vulnerable persons and that there would not be a state-administered self-exclusion system analogous to the one governing casino operations. This, along with a lack of requirements for the important and costly security and regulatory protections required in strictly regulated casinos, would tend to give VGTs a competitive advantage over casinos and maximize penetration of local markets.

To assess the potential impact of VGTs on Pennsylvania casinos, the Innovation Group examined data from three jurisdictions that have casinos as well as distributed machine gaming,

with Illinois being the most directly comparable. We estimate that VGT development in Illinois has, over the course of three years, eroded slot machine revenue at affected casinos by an average of 18%.

Casino slot revenue, which is taxed at the effective rate of 53.5%, is estimated to decline by between \$553 million and \$674 million compared to what otherwise would be expected for 2020 in the absence of VGT development.

	Low Trend	Medium Trend	High Trend
2017 Baseline	\$2,462.5	\$2,510.6	\$2,572.4
2020 without VGT impacts	\$2,571.9	\$2,661.9	\$2,783.6
2020 with VGT impacts	\$2,019.2	\$2,058.7	\$2,109.3
Impact on Casino Slot Rev 2020	-\$552.7	-\$603.2	-\$674.3

Source: The Innovation Group

Three earmarked programs would suffer declines proportionate to the decline in slot machine revenue:

	Low	Medium	High
Property Tax Relief (34%)	-\$187,914	-\$205,100	-\$229,249
Economic Development and Tourism Fund (5%)	-\$27,634	-\$30,162	-\$33,713
Race Horse Development Fund (10.5%)	-\$58,032	-\$63,340	-\$70,797

Source: The Innovation Group

In the mid-range, Property Tax relief is estimated to decline by \$205 million, the EDTF by \$30 million, and the PRHDF by \$63 million. In the high range, these impacts would be significantly greater, with Property Tax relief declining by \$229 million, the EDTF by \$33 million, and the PRHDF by \$71 million.

The fourth program funded by slot revenue, the Local Share Assessment (LSA), would, depending upon the jurisdiction, also face declines but not necessarily on a proportionate basis. Designed for host jurisdictions to enhance municipal services such as police and fire and fund capital improvement projects, many LSAs have \$10 million minimums and, additionally, some casinos have individual revenue-based community sharing agreements on top of the statutory LSA. The proposed VGT legislation provides for no local funding.

Host communities could also be expected to be impacted by lay-offs at the casinos, with nearly 1,750 jobs estimated to be cut at Pennsylvania casinos, reducing incomes and consumer spending power. Lady Luck Nemaquin is particularly vulnerable, given its remote location 20 minutes from the nearest sizable population base. The operation of VGTs in the Uniontown-Connellsville area could put the viability of Lady Luck into question and its closing would result in 230 additional job losses.

Moreover, there is the risk of negative impacts to lottery sales. We estimate that up to \$67 million in lottery transfers to government programs would be at risk by VGT development.

INTRODUCTION

The Innovation Group was commissioned to analyze the potential impact on Pennsylvania casinos from deploying video gaming terminals (VGTs) throughout Pennsylvania. The purpose of this analysis is to assess the impacts that distributed (or ambient) VGTs will have on casino revenues, fiscal contributions and employment throughout Pennsylvania.

The assessment consists of two scenarios: a baseline (no VGT) scenario (including commercial casinos and relevant future regional gaming projects) and the impact of introducing video gaming terminals. Revenue projections for both scenarios are provided based on historical revenue trends and a comparative analysis of VGT markets in other states.

In the future revenue forecast, this analysis accounts for the following four developments currently underway in Pennsylvania and adjacent states: 1) the addition of Philadelphia Live! to Philadelphia market; 2) SugarHouse's gaming and amenity expansion; 3) the Montreign casino development in Monticello, New York, and; 4) the MGM project in Prince George's County, Maryland. The proposed Category 1 casino in Lawrence County has not been included; however, it should be noted that VGT development would place further negative pressure on a project that has struggled to get off the ground.

The proposed VGT legislation for Pennsylvania is modeled after the VGT industry in Illinois. The following bullets describe some of the key assumptions for VGT operations utilized in this study:

- Licensed liquor establishments and truck stops would be permitted to operate up to five VGTs. In Illinois the VGT industry has expanded well beyond simply being an adjunct source of income for existing bars and restaurants. Instead, a number of "café" chains have opened across the state that operate primarily as mini-casinos. Such chains would be allowed in Pennsylvania, and it is assumed in this analysis that VGT supply will not be constrained other than the 5-machine-per-venue limit.
- The only major difference in the proposed Pennsylvania legislation is the lack of a local option. In Illinois, local jurisdictions can enact ordinances prohibiting VGT development. Chicago is the most prominent municipality that has opted out; in total, jurisdictions representing 36.6% of the gaming-age population of Illinois have prohibited VGTs.
- Given the lack of a local option in Pennsylvania, we estimate that VGT development could reach a minimum of 37,000 and upwards of 40,000 machines within three years of implementation. In Illinois, there are 22,815 VGTs operating in jurisdictions with 5.9 million gaming-age residents (as of March 2016) and the number continues to rise. A similar level of development throughout the entirety of Pennsylvania would equal nearly 37,000 machines. This would more than double the supply of gaming machines in the state and represent the equivalent of 18 additional casinos based on the average number of slot machines operating at Pennsylvania's 12 existing facilities.

- The number of VGT establishments is estimated to range from 7,400 to 9,000.
- The proposed Pennsylvania VGT legislation does not address the topic of self-exclusion; therefore it is assumed that VGT operators would not be required to establish and implement a self-exclusion system and that there would not be a state-administered self-exclusion system analogous to the one governing casino operations. This, along with lack of requirements for security and surveillance, would tend to give VGTs a competitive advantage over casinos and maximize penetration of local markets.

COMPARATIVE ANALYSIS

To assess the potential impact of VGTs on Pennsylvania casinos, the Innovation Group examined data from three jurisdictions that have casinos as well as distributed machine gaming. Illinois is the most directly comparable. Not only is the proposed Pennsylvania legislation modeled after Illinois, with the notable exception of the lack of a local option, but Illinois also offers a clear before-and-after picture of VGT impact on casinos. Louisiana offers corroborating evidence of impact although venues there are limited to three video poker devices, which is a more limited form of gaming than VGTs. Finally, data from West Virginia also corroborates the premise that VGT gaming cannibalizes local market revenue from casinos.

Illinois Video Gaming Terminals (VGTs)

There are currently nearly 23,000 VGTs operating in Illinois. The first machines began operating in September 2012 but the industry did not reach the half-way point of development until late in 2013. By December 2013 the industry had grown to more than 13,000 machines.

Local jurisdictions are permitted to opt-out; 176 municipalities and unincorporated counties have opted out, including the City of Chicago and unincorporated Cook County. As of 2015, VGTs were operating in jurisdictions representing 63% of the gaming-age population of Illinois.

As the following analysis details, slot machine revenue has declined by an average of 20.7% in casinos affected by VGT development. Discounting the background factor of sluggish slot performance in 2013 and 2014, the average impact to slot revenue attributable to VGT development is estimated to be 18%.

Because of the local option, Illinois casinos face different levels of VGT competition. Municipalities surrounding Rivers Casino in Des Plaines, for example, have opted out, including the City of Chicago. Therefore, Rivers has been excluded from the impact analysis.

However, in markets where VGT development is extensive, slot revenues at casinos have declined by as much as 25%.

Historical Trends and Penetration Analysis

As the following table shows, VGT development in Illinois has shown consistent and dramatic growth, both in terms of supply and revenue. This growth curve has occurred in the context of the local option, which has tended to act as a braking force on development viewed from a statewide perspective. VGT development in Pennsylvania would be expected to be even more rapid and expansive.

Illinois VGTs: Historical Performance

Date	VGT Count	Net Terminal Income (NTI)	WPU
Sep-12	61	\$90,071	\$49.21
Oct-12	714	\$1,387,961	\$62.71
Nov-12	1,439	\$3,829,324	\$88.69
Dec-12	2,290	\$6,994,482	\$98.53
Jan-13	3,379	\$9,780,807	\$93.37
Feb-13	4,353	\$13,578,457	\$111.40
Mar-13	5,092	\$18,790,560	\$119.04
Apr-13	6,219	\$20,294,768	\$108.78
May-13	6,956	\$23,077,392	\$107.01
Jun-13	7,920	\$23,247,536	\$97.85
Jul-13	8,830	\$25,534,529	\$93.30
Aug-13	9,380	\$29,120,485	\$100.14
Sep-13	10,250	\$29,622,666	\$96.33
Oct-13	11,105	\$33,987,917	\$98.73
Nov-13	12,113	\$36,008,857	\$98.94
Dec-13	13,374	\$37,637,399	\$90.78
Jan-14	14,423	\$38,432,324	\$85.94
Feb-14	14,859	\$44,070,414	\$105.94
Mar-14	15,667	\$53,369,680	\$109.89
Apr-14	16,380	\$52,309,541	\$106.45
May-14	16,879	\$54,551,321	\$104.25
Jun-14	17,467	\$50,775,438	\$96.89
Jul-14	17,954	\$55,594,241	\$100.53
Aug-14	18,118	\$59,075,332	\$105.18
Sep-14	18,412	\$57,489,764	\$104.08
Oct-14	18,669	\$64,501,457	\$111.45
Nov-14	18,940	\$62,530,031	\$110.05
Dec-14	19,182	\$66,412,022	\$112.35
Jan-15	19,125	\$65,443,002	\$110.38
Feb-15	19,069	\$68,486,057	\$128.27
Mar-15	19,142	\$77,648,637	\$130.86
Apr-15	19,873	\$76,500,302	\$124.17
May-15	20,349	\$77,848,369	\$123.41
Jun-15	20,730	\$72,830,477	\$117.11
Jul-15	20,751	\$75,752,822	\$117.75
Aug-15	21,208	\$75,919,973	\$115.48
Sep-15	21,509	\$75,578,047	\$117.13
Oct-15	21,695	\$83,151,472	\$123.63
Nov-15	21,908	\$78,940,507	\$120.12
Dec-15	22,135	\$85,504,371	\$124.60
2013	8,248	\$300,681,373	\$99.86
2014	17,246	\$659,111,566	\$104.83
2015	20,625	\$913,604,038	\$121.03

Source: Illinois Gaming Board; WPU=Win per Unit, or the daily NTI per VGT

The industry continued to ramp up in the 1st Quarter of 2016, with Net Terminal Income (NTI) increasing by 8.8% quarter-over-quarter as the number of establishments and machines also continued to grow.

Illinois VGTs: 1Q 2016 Results				
Date	Establishments	VGT Count	NTI	WPU
Jan-16	5,235	22,295	\$81,576,872	\$118.03
Feb-16	5,290	22,525	\$88,880,884	\$136.06
Mar-16	5,351	22,815	\$98,879,071	\$139.80
4Q 2015	5,189	21,913	\$247,596,351	\$125.55
1Q 2016	5,292	22,545	\$269,336,827	\$131.28
% Change	2.0%	2.9%	8.8%	4.6%

Source: Illinois Gaming Board

On a statewide basis, as of 2015 there were 3.5 machines for every 1,000 persons of gaming age in jurisdictions that permit VGTs. Establishments are permitted up to 5 devices; the statewide average is slightly above 4 per venue.

Illinois VGT Penetration of Host Jurisdiction Gamer Pop

	VGTs per venue	VGTs per 1,000 gamers
2013	4.16	1.7
2014	4.07	3.0
2015	4.18	3.5

Source: Illinois Gaming Board; IXPRESS/Nielsen Claritas; The Innovation Group

Penetration rates vary between markets that also host casinos and where VGTs enjoy monopolies. This can be seen clearly comparing two similar metropolitan areas in the interior of the state. VGTs in Peoria, which hosts the Par-a-Dice Casino, have a lower WPU and lower win per capita than Springfield, which is approximately 70 miles from the nearest casino.

Illinois VGT Penetration: Casino vs. Non-Casino Markets

	Daily WPU	VGTs per 1,000 gamers	Spend per capita
Peoria	\$97	4.28	\$97
Springfield	\$126	6.84	\$314

Source: Illinois Gaming Board; IXPRESS/Nielsen Claritas; The Innovation Group
Based on 10-mile rings for population and VGT operations

Decatur and Rockford have penetration rates highly consistent with Springfield.

Illinois VGT Penetration: Non-Casino Markets

	Daily WPU	VGTs per 1,000 gamers	Spend per capita
Decatur	\$166	5.55	\$336
Rockford	\$153	5.83	\$326
Springfield	\$126	6.84	\$314

Source: Illinois Gaming Board; IXPRESS/Nielsen Claritas; The Innovation Group
Based on 10-mile rings for population and VGT operations

Spend per capita in casino markets are generally in the \$100 range, at least where VGTs are consistently spread throughout municipalities within 10 miles of a casino, such as Joliet, Elgin, Peoria, and Rock Island. VGT development is very limited around Aurora, the City of East St. Louis has opted out, and Metropolis consists of a total of just 20 machines in the City only, surrounding jurisdictions having opted out. Spend is higher for the 10 miles surrounding the Rivers casino in Des Plaines because jurisdictions in the inner 5 miles or so have opted out and the only VGT development is on the edges of the 10-mile ring.

Illinois VGT Penetration: Casino Markets

	WPU	VGTs per 1,000 gamers	Spend per capita
<i>Chicago Area</i>			
Des Plaines	\$145	2.91	\$155
Joliet	\$104	3.08	\$117
Elgin	\$128	2.09	\$98
Aurora	\$107	1.33	\$52
<i>St. Louis Area</i>			
Alton	\$88	5.97	\$192
East St. Louis	\$104	4.99	\$190
<i>Other</i>			
Peoria	\$97	4.28	\$97
Metropolis	\$166	4.41	\$268
Rock Island	\$85	3.50	\$108

Source: Illinois Gaming Board; IXPRESS/Nielsen Claritas; The Innovation Group
Based on 10-mile rings for population and VGT operations

These statistics support the premise that VGTs are very much a convenience option and tend to perform better as casino alternatives become less convenient.

Impact on Casino Revenue

The VGT statistics to date clearly show that there is cross-over with the casino industry. This is further borne out by an assessment of slot revenue trends at Illinois casinos. The casinos that face the most VGT development in their local markets—such as Peoria and Joliet—have experienced greater cannibalization than casinos in comparable markets—such as, respectively,

Metropolis and Rivers. Looking at 2015, slot revenue at Harrah's Metropolis and Rivers declined by less than 1% compared to 5.1% at Par-a-Dice and 2.7% at the two Joliet properties.

Illinois Casino Trends 2015				
	Slots	Tables	Slot Decline	VGT increase 2015*
Par-a-Dice Peoria	-5.1%	0.8%	-\$4,117,217	\$6,607,681
Joliet Combined	-2.7%	-3.8%	-\$7,415,562	\$7,645,539
Aurora	-4.1%	-7.1%	-\$4,506,381	\$3,300,779
Grand Vic Elgin	-3.3%	23.9%	-\$4,711,455	\$10,767,330
Rivers Des Plaines	-0.7%	1.5%	-\$2,048,736	\$19,074,041
Casino Queen E St Louis	-7.0%	6.7%	-\$6,668,690	\$5,588,518
Argosy Alton	-4.7%	17.8%	-\$2,505,113	\$1,871,431
Jumers Rock Island	-0.5%	6.4%	-\$321,348	\$2,687,820
Harrah's Metropolis	-0.3%	13.2%	-\$176,697	\$440,521
Total	-2.9%	2.1%	-\$32,471,199	\$57,983,660

Source: Illinois Gaming Board. *Over 2014, within 10 miles of the casino.

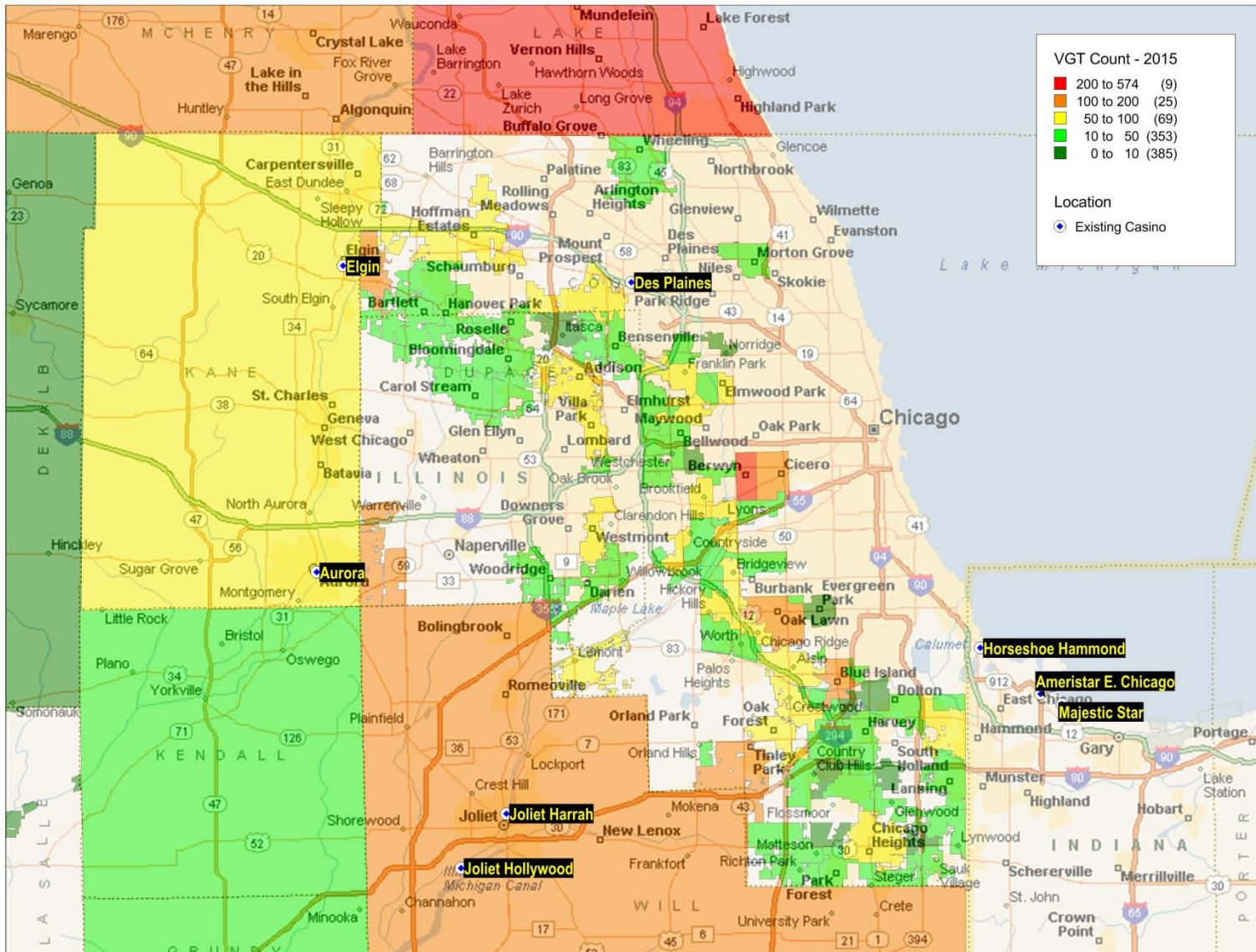
Comparing pre- and post-VGT periods, slot revenue at all casinos except Rivers has declined by between 14% and 25%. Metropolis has been excluded since it was impacted by the opening of the Isle of Capri casino in Cape Girardeau, Missouri, which had its first full month of operation in November 2012.

Illinois Casino Slot Revenue: Before and After VGT Development				
	2012	2015	Decline	% decline
Par-a-Dice Peoria	\$102,186,000	\$76,190,605	-\$25,995,395	-25.4%
Joliet Combined	\$308,915,000	\$267,031,190	-\$41,883,810	-13.6%
Aurora	\$132,812,000	\$104,467,989	-\$28,344,011	-21.3%
Grand Vic Elgin	\$177,317,000	\$136,008,168	-\$41,308,832	-23.3%
Rivers Des Plaines	\$305,489,000	\$297,769,862	-\$7,719,138	-2.5%
Casino Queen E St Louis	\$116,103,000	\$89,000,715	-\$27,102,285	-23.3%
Argosy Alton	\$67,566,000	\$51,035,420	-\$16,530,580	-24.5%
Jumers Rock Island	\$81,851,000	\$70,428,343	-\$11,422,657	-14.0%
Total	\$1,292,239,000	\$1,091,932,292	-\$200,306,708	-15.5%

Source: Illinois Gaming Board.

As shown in the map below, VGT development in the Rivers market area has been limited. Most of the jurisdictions surrounding Rivers have opted out, including the important feeder market of Chicago. Therefore, Rivers has been excluded from subsequent analysis. The map also shows that VGT development in the suburbs to the southwest of Chicago—important feeder markets for the Joliet casinos—has been relatively light or prohibited. VGTs are prohibited in Orland Park and unincorporated Cook County. Therefore, the Joliet impact of 13.6% is skewed low by the fact that many of its customers are unaffected by VGT development. It would be defensible to exclude Joliet from the impact analysis altogether, but out of an abundance of caution it has been included since its host market has seen extensive VGT development.

Chicago Area VGT Development



In contrast to slot trends, table revenue has generally been on an upward trend, although Peoria and Joliet have experienced small declines. The one outlier is Aurora, which has seen a 12% drop in table revenue. Therefore, Aurora has been excluded from subsequent analysis since it appears that slot revenue is being impacted by factors other than VGT development.

	2012	2015	Decline	% decline
Par-a-Dice Peoria	\$14,121,000	\$13,757,586	-\$363,414	-2.6%
Joliet Combined	\$44,981,000	\$44,205,599	-\$775,401	-1.7%
Aurora	\$18,918,000	\$16,665,129	-\$2,252,871	-11.9%
Grand Vic Elgin	\$34,985,000	\$35,405,827	\$420,827	1.2%
Rivers Des Plaines	\$111,034,000	\$127,099,819	\$16,065,819	14.5%
Casino Queen E St Louis	\$15,083,000	\$15,826,027	\$743,027	4.9%
Argosy Alton	\$3,384,000	\$3,533,699	\$149,699	4.4%
Jumers Rock Island	\$5,986,000	\$6,282,921	\$296,921	5.0%
Total	\$248,492,000	\$262,776,607	\$14,284,607	5.7%

Source: Illinois Gaming Board.

For the slot impact, removing Aurora and Rivers results in an average decline of slot revenue in Illinois of 20.7%.

	% decline
Par-a-Dice Peoria	-25.4%
Joliet Combined	-13.6%
Grand Vic Elgin	-23.3%
Casino Queen E St Louis	-23.3%
Argosy Alton	-24.5%
Jumers Rock Island	-14.0%
Average	-20.7%

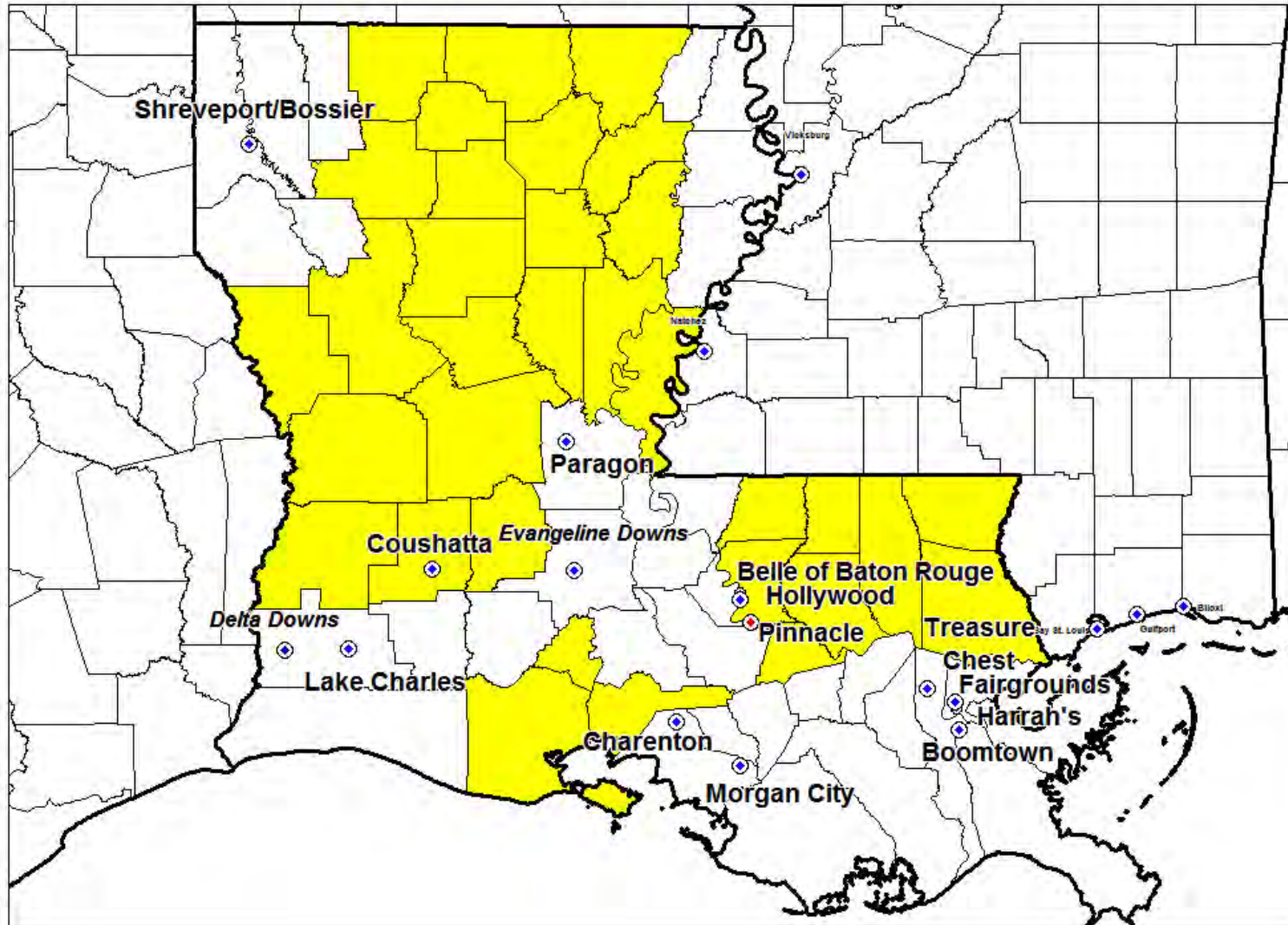
Source: Illinois Gaming Board.

It should be noted, however, that other jurisdictions, particularly in 2013 and 2014, experienced weak slot performance because of lingering economic conditions and an aging customer base. A number of markets unaffected by cannibalization experienced declines in 2013 and 2014, followed by a rebound in 2015. Because of continuing VGT impacts, Illinois did not benefit by the 2015 rebound, but a portion of the decline in 2013 and 2014 is properly attributed to other factors than VGTs. Examining 2015 over 2012 data from control jurisdictions, we estimate that approximately 3% points of the 20.7% can be attributed to other factors, resulting in an impact of 18% attributable to VGTs.

Louisiana Video Gaming Devices (VGDs)

As detailed in this section, data from Louisiana shows a 13.5% impact from video poker machines. The VGD industry in Louisiana is limited to video poker, which is an important distinction since this one type of game is of more limited market reach than the VGTs operating in Illinois and proposed for Pennsylvania. In June of 1999, following local parish (county) referenda, video poker was removed from 33 of the state's 63 parishes, as shown in the following map (parishes without video poker highlighted in yellow). Pertinent to this analysis is the removal of video poker from the Baton Rouge market. VGDs continue to operate in the other commercial casino markets.

Louisiana Parishes Without Video Poker Machines



Historical Trends and Penetration Analysis

Video poker devices in Louisiana may not allow more than four dollars to be placed on a game or award credits in excess of the value of one thousand dollars. There are three categories of licenses as follows:

- (1) Liquor licensed establishments (consumption on the premises) are limited to three devices.
- (2) Truck stop facilities are permitted to operate up to fifty devices, which allows them to function as mini-casinos. There are currently 199 facilities in this category with an average of 40 devices per.
- (3) Offtrack betting facilities (OTBs) and pari-mutuel wagering facilities are permitted an unlimited number of devices. There are currently 13 facilities in this category with an average of 78 devices per.

As shown in the following table, the majority of revenue and devices are at truck stops.

Louisiana Video Poker Trends				
	Bars, Hotels & Restaurants	OTBs	Truck Stops	Total
2013	\$151,191,278	\$41,537,335	\$406,780,729	\$599,509,342
2014	\$145,422,608	\$39,452,265	\$406,883,279	\$591,758,152
2015	\$139,838,919	\$41,923,978	\$411,706,941	\$593,469,838
# of Devices 2015	5,199	1,039	8,049	14,288
WPU 2015	\$73.69	\$110.50	\$140.14	\$113.80

Source: Louisiana State Police

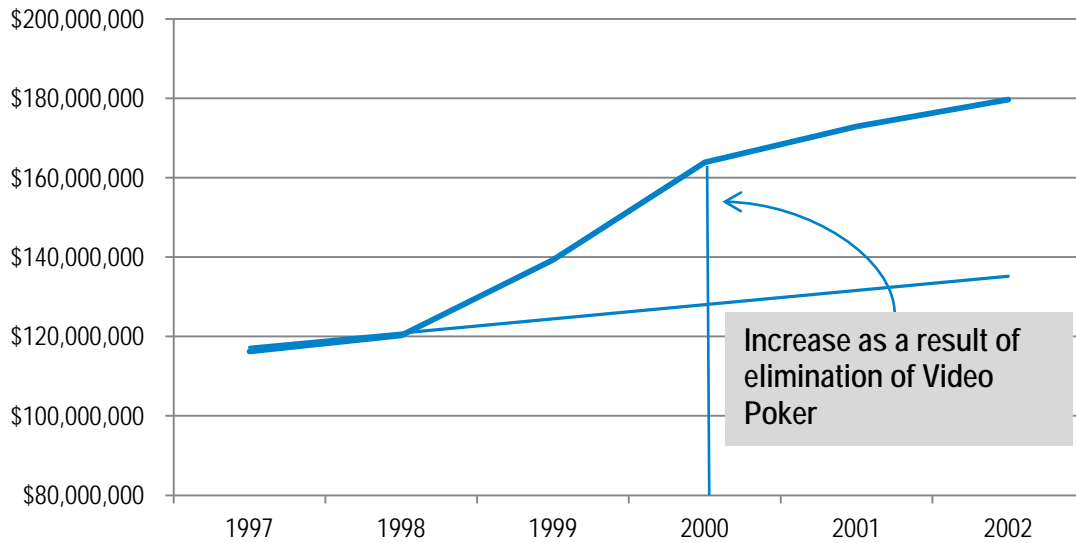
Impact on Casino Revenue

The removal of video poker in East Baton Rouge Parish and parishes to the east offers one of the few cases where the introduction or elimination of distributed (or ambient) machines (in this case video poker) can be seen on the revenues of casino properties. This removal resulted in a significant revenue increase in the Baton Rouge riverboat market. Video poker continued to operate in the other commercial casino markets in Louisiana, making Baton Rouge the only market where the impact of distributed machines can be assessed.

The Baton Rouge market is geographically restricted by the presence of New Orleans to the southeast, the Mississippi Gulf Coast to the east, Paragon to the northwest, the Amelia Belle, Cypress Bayou to the southwest, Evangeline Downs to the west and Lake Charles to the west and Natchez and Vicksburg to the north.

As the following chart shows revenues at Baton Rouge casinos increased dramatically over and above background revenue growth trends after the elimination of video poker in some of the surrounding parishes.

Baton Rouge Adjusted Gross Revenue



Source: Louisiana Gaming Control Board

We then looked more closely at the pre and post periods in the tables below to better define the changes that occurred.

Changes in Admissions, Revenue and Win per Admission Post Ambient Machines at Baton Rouge Casinos

	Admissions	Adj. Gross Rev	Win Per Admission
Jan-Jun 98	1,311,911	\$60,495,584	\$46.11
July-Dec 98	1,278,766	\$59,765,466	\$46.74
Jan-Jun 99	1,312,111	\$66,038,791	\$50.33
July-Dec 99	1,350,260	\$73,275,890	\$54.27
Jan-Jun 00	1,422,844	\$83,535,632	\$58.71

Source: Louisiana Gaming Control Board

Percentage Changes in Admissions, Revenue and Win per Admission Post Ambient Machines at Baton Rouge Casinos

	% change in Admissions	% change in Revenue	% change in Win Per Admission
Change Jan-June 98 vs. 99	0.00%	9.20%	9.10%
Change July-Dec 98 vs. 99	5.60%	22.60%	16.10%
Change Jan-June 99 vs. 00	8.40%	26.50%	16.70%
Average Change	7.00%	24.60%	16.40%
Difference from Pre Ambient Machine Trends	7.00%	15.40%	7.20%
Inverse	-6.50%	-13.30%	-6.70%

Source: Louisiana Gaming Control Board

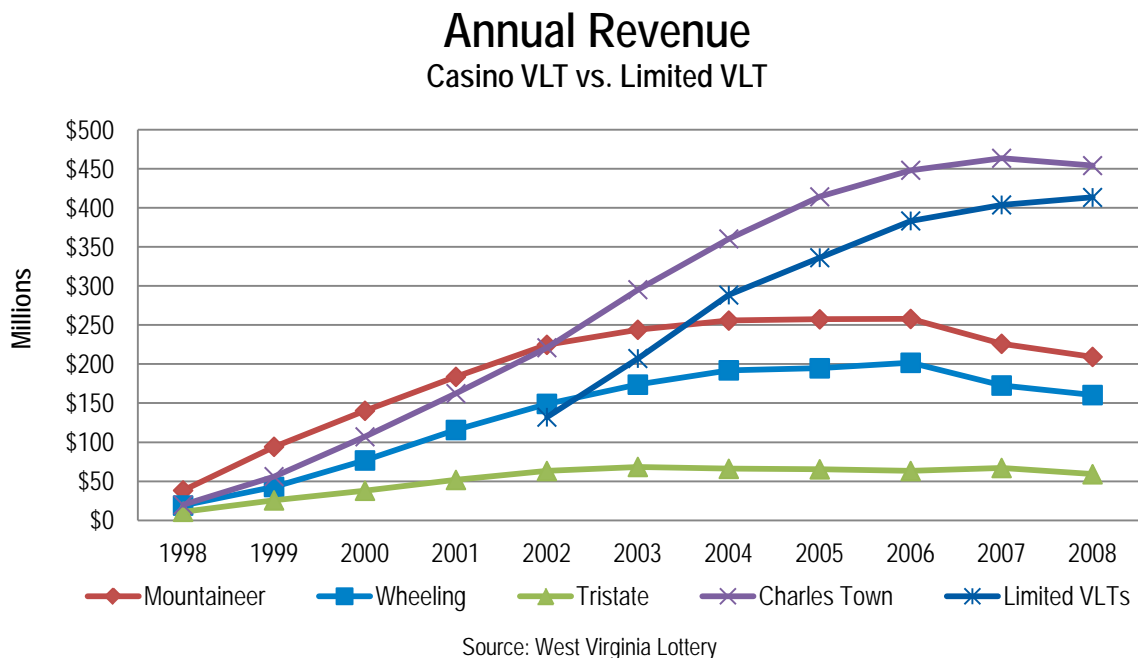
The change in admissions, revenues and win per admission in the six month period prior to the removal of machines versus the same period the prior year establishes underlying trends. We then looked at the change in each variable for the succeeding two six month periods following the removal of machines versus the same period the prior year before their removal and took the average. Since in Illinois we are looking at an inverse situation (i.e. the advent rather than the removal of machines) we calculated the inverse impact. This resulted in an estimate that the addition of ambient machines (using Baton Rouge as a surrogate) would result in a 13.3% decrease in revenues composed of a 6.5% decline in admission and a 6.7% decline in win per admission.

West Virginia Limited Video Lottery Terminals (VLTs)

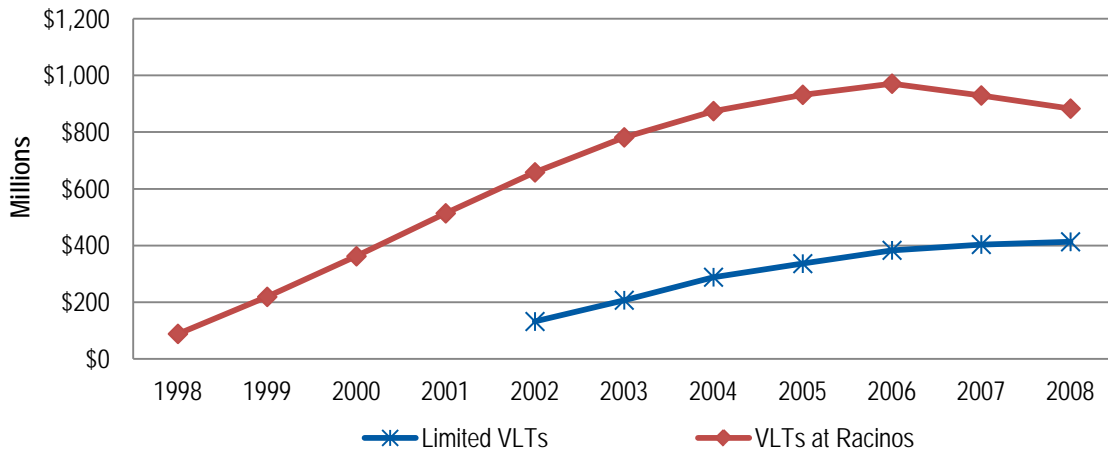
West Virginia offers a third example in which ambient machines were introduced after casinos were established.

Historical Trends and Penetration Analysis

West Virginia casinos opened in 1994 and “limited video lottery” operations began in December 2001. The following two tables show the growth in annual gaming revenues at the racetracks and the limited ambient machines.



Total Annual Revenue Casino VLT vs. Limited VLT



Source: West Virginia Lottery

Impact on Casino Revenue

The majority of gamers (>90%) at Mountaineer and Wheeling are from states other than West Virginia. Tri-State is the only casino located within the center of the state and as such, provides the clearest comparable of what the potential impact of ambient machines on casinos might be.

West Virginia Gaming Revenues – Northern Panhandle and Tri-State				
Calendar Year	Northern Panhandle / Mountaineer + Wheeling Island		Tri-State	
	Gross Terminal Revenue	% Change	Gross Terminal Revenue	% Change
1998	\$57,487,542		\$11,145,021	
1999	\$137,166,851	138.6%	\$25,713,841	130.7%
2000	\$217,147,014	58.3%	\$38,062,385	48.0%
2001	\$299,491,992	37.9%	\$51,882,685	36.3%
2002	\$373,880,212	24.8%	\$63,302,905	22.0%
2003	\$417,759,822	11.7%	\$68,508,593	8.2%
2004	\$447,849,639	7.2%	\$66,096,622	-3.5%
2005	\$452,068,655	0.9%	\$65,477,695	-0.9%
2006	\$459,562,944	1.7%	\$63,254,632	-3.4%
2007	\$424,761,452	-7.6%	\$67,183,680	6.2%

Source: West Virginia Lottery

Limited video lottery machines began operation in 2002. As can be seen in the table above while casino revenues had been growing at an impressive, though declining rate prior to 2002 much of this can be attributed to the growth of the industry and the development of the properties in questions. These declining growth rates are typical of a developing and maturing casino industry as it adds positions. After 2002 when limited video lottery machines began operation (although it should be noted that a large number of machines were in existence prior to 2002 as “grey area”

machines) revenues continued to slow, with Tri-State revenues actually declining in 2004. In comparison revenues for the properties in the Northern Panhandle remained on a positive growth trend, albeit at a significantly reduced rate, until 2007 when they realized their first decline as a result of the opening of competing casinos in western Pennsylvania.

In the Panhandle the majority of the natural market lies in surrounding states and would be unaffected by the development of ambient machines in West Virginia. Tri-State's market however lies largely within West Virginia and would be expected to show a greater impact from the advent of limited video lottery machines in West Virginia. This, as the table above shows, was largely the case. Disproportionate changes in the rate of revenue growth/decline between Tri-State and the Northern Panhandle properties did not materialize until 2004. From 2004 through 2006 Tri-State saw revenues decline while the Northern Panhandle properties saw dramatically reduced growth rates. As the following table shows this delayed reaction is due largely to the growth of the limited ambient machines market. Between 2002 and 2006 the limited ambient machines market grew almost threefold.

Limited Ambient Machines Revenues

	<u>Revenues</u>
2002	\$132,150,000
2003	\$207,200,000
2004	\$288,384,755
2005	\$336,215,083
2006	\$383,238,917
2007	\$403,714,904
2008	\$413,293,326

Source: West Virginia Lottery

Two conclusions can be drawn from the West Virginia example which supports the case for a negative impact on casino revenues from ambient machines. If ambient machines are held to negatively impact casino revenues then it would be expected that Tri-State would experience the greatest impact as the geography of its market would expose it to the greatest potential impact. This in fact was the case. Second, it would be expected that the decline of casino revenues would increase as the limited ambient machines market developed and ambient machines revenues grew. This too also proved to be the case. Due to other extraneous factors relating to the both the development of the West Virginia casino properties and growth in the limited ambient machines market throughout this period frustrates any quantitative estimation of the potential impact.

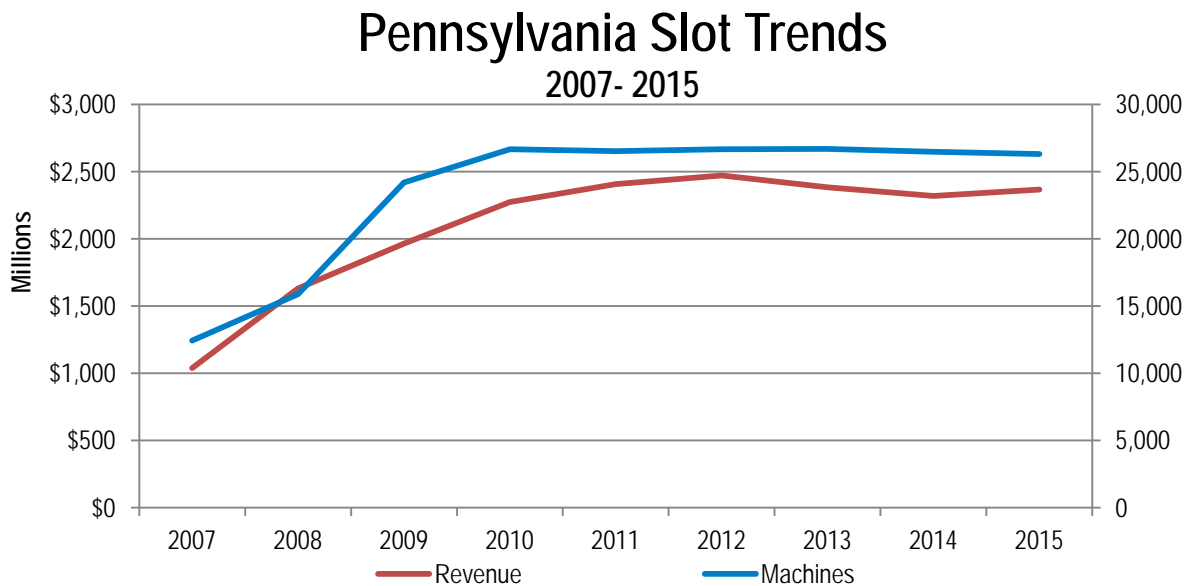
VGT IMPACT ON PENNSYLVANIA CASINOS

In order to provide a future baseline for the analysis it is necessary to look at the recent trends in slot revenue for the state as whole, as well as regionally. In Pennsylvania, most of the casino properties can be divided amongst the eastern and western portions of the state. However, for this analysis we looked more specifically at the regions around Philadelphia, Pittsburgh and the Northeast to gain a better perspective of market trends. The two remaining properties, Presque Isle and Penn National Harrisburg, were analyzed separately as they are isolated properties primarily influenced by markets outside state boundaries.

Historical Trends

Since the first two Pennsylvania casinos opened in late 2006, commercial gaming rapidly expanded across the state. Within five years, eight new properties were open in different markets and the total number of slots in the state doubled, reaching 26,500 machines in 2011. Since then, Total Annual Revenues from these properties have exceeded \$3 billion, despite fluctuations following the recessionary years.

Although table revenues continue to grow annually, slot revenues for the state peaked in 2012, followed by two consecutive years of decline. The following graph shows statewide trends since the first full year of operations occurred in the state. With no new properties opening, last year was the first real sign of recovery for slots gaining \$47 million in revenue, an increase of 2% from 2014. However, these gains were not equally dispersed across markets as some properties continue to lag behind in recovery.



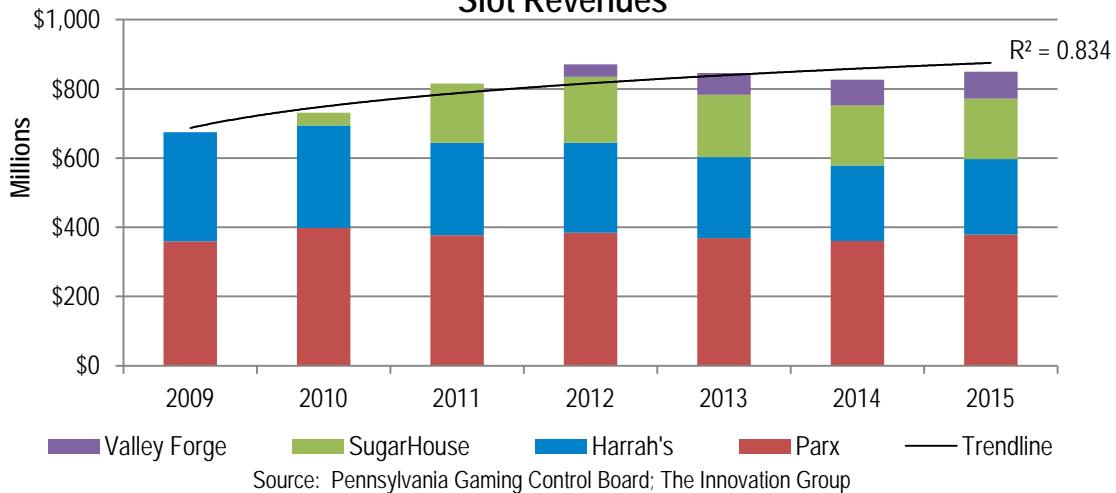
Source: Pennsylvania Gaming Control Board; The Innovation Group

The four casinos located in the Philadelphia metropolitan area comprise the strongest casino market in the state with an annual growth rate of 1% over the past five years. The bar graph

indicates that slot revenues from these properties have exceeded \$800 million since 2011, before Valley Forge had even entered the market. Similar to the state, revenues declined until last year when the market rebounded after two years of decline. The overall trend indicates that the market will exceed \$925 million by 2020. However, these projections do not include anticipated revenues or market substitution from the opening of Philadelphia Live! Casino in 2018.

Philadelphia Market Trends

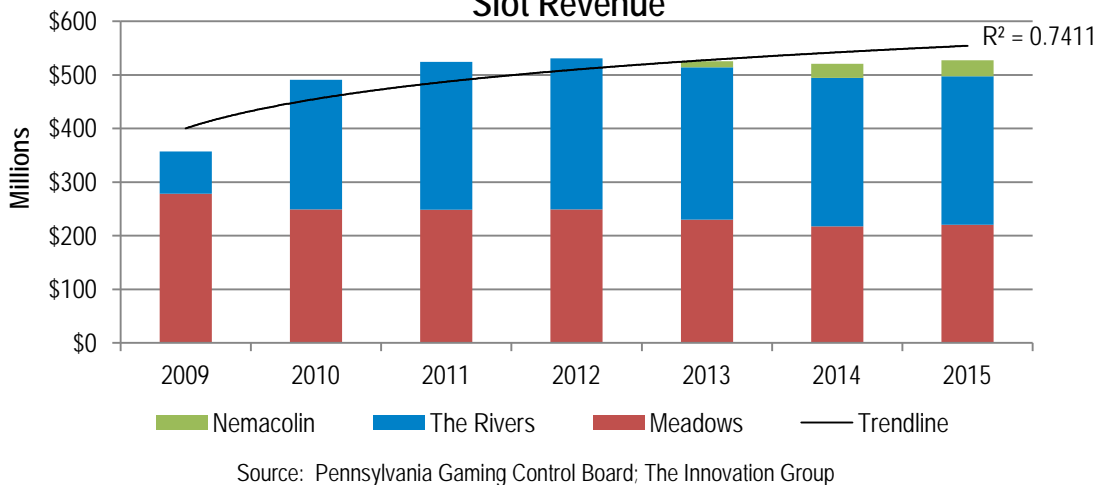
Slot Revenues



Slot revenues from Pittsburgh casinos were not as significantly impacted throughout the recessionary years and recovery period as other properties in the state. Total annual slot revenues for the two casinos, Rivers and Meadows, reached \$530 million in 2011 prior to Lady Luck entering the market. Excluding the net gains to the market from Lady Luck, the two casinos only experienced a combined decline of less than 4% in 2013 and 2014. Total slot revenues for the market are projected to increase annually by roughly 2% through 2021, reaching \$600 million.

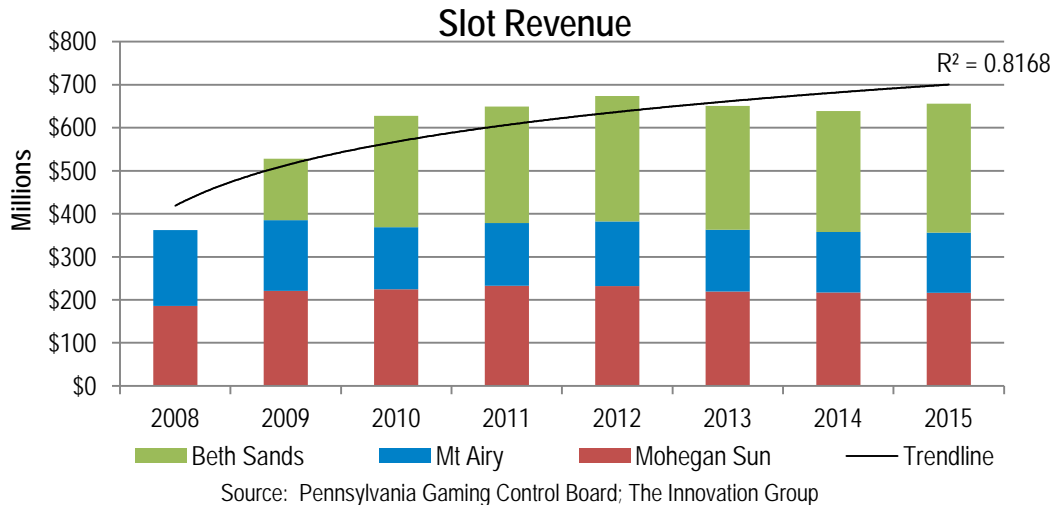
Pittsburgh Market Trends

Slot Revenue



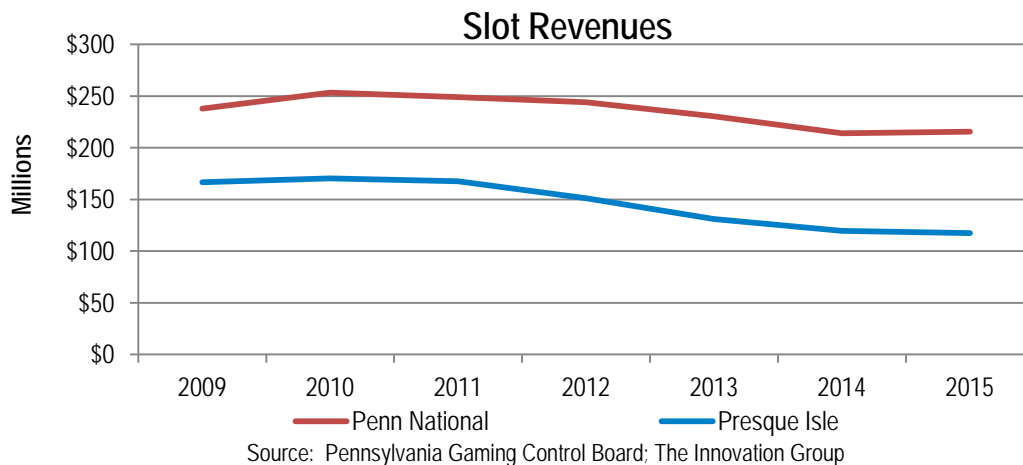
The northeastern region is one of the more established markets in the state with two of the oldest casinos, Mohegan Sun and Mount Airy. Beth Sands is the newest property to the market though currently has the largest market share of slot revenues (44%). While Mohegan and Mount Airy continue to lag in slot revenue recovery, Beth Sands Casino saw a 6.6% increase from 2014. However, in the first quarter of 2016 all properties in this market are showing significant gains, with the market currently \$13 million over the previous year. With these recent trends, revenue projections for this market are estimated to increase by 2-3% annually for the next five years.

Northeastern Market Trends



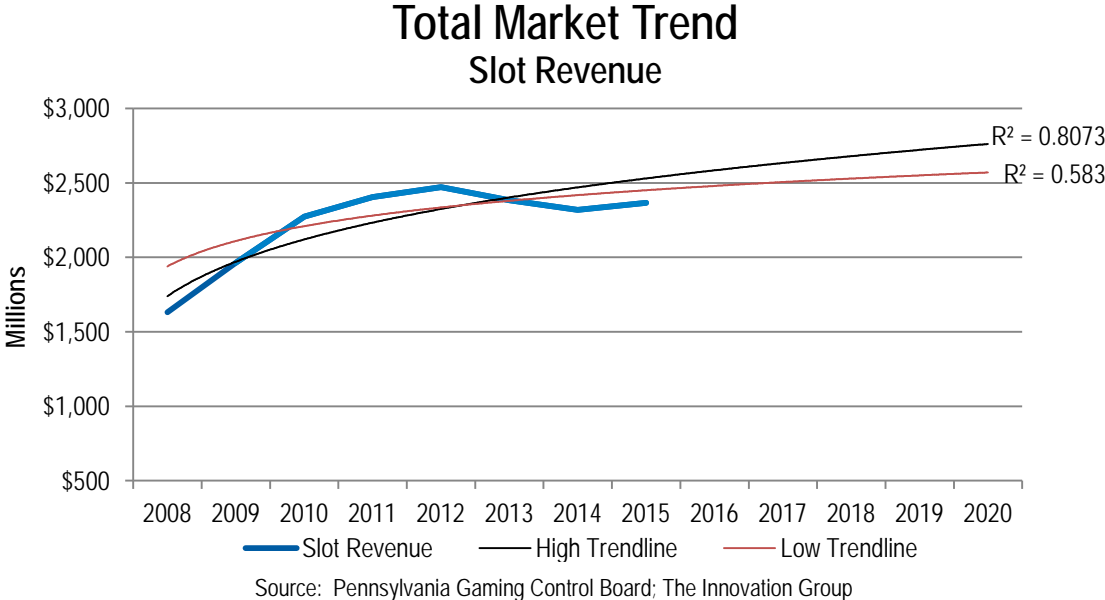
The two individual markets, Presque Isle and Penn National have experienced similar revenue trends over the past five years with compounding effects from both expanded gaming in external markets and the lingering recession. In 2015, Penn National saw a slight uptick (0.8%) in slot revenue from the previous year, however is back down 1.5% in the first quarter of 2016. In contrast, Presque Isle is up 4.5% in the first quarter from 2015 after five years of straight decline. As both markets will continue to see impacts from out-of-state developments, neither market is expected to increase significantly by 2021.

Individual Casino Market Trends



Baseline Forecast

Using the annual slot revenue trends from the total statewide market we were able to estimate two trendlines for this analysis. The following graph shows the higher trend approaching \$2.8 billion and the lower trend closer to \$2.5 billion in 2020.



Using the combined market projections and individual property projections, total slot revenues for the state were forecasted to \$2.6 billion in 2020. The following table shows the results of the three projections.

	Low Trend	Medium Trend	High Trend
2015 A	\$2,365.7	\$2,365.7	\$2,365.7
2016 P	\$2,434.3	\$2,468.1	\$2,510.4
2017 P	\$2,462.5	\$2,510.6	\$2,572.4
2018 P	\$2,489.9	\$2,552.0	\$2,633.6
2019 P	\$2,516.7	\$2,592.8	\$2,694.3
2020 P	\$2,543.0	\$2,633.0	\$2,754.7
% Change	8.7%	12.5%	17.7%

Source: The Innovation Group

The 2020 revenue forecast is further adjusted to reflect four developments currently underway in Pennsylvania and adjacent states: 1) the addition of Philadelphia Live!; 2) SugarHouse’s gaming and amenity expansion; 3) the Montreign casino development in Monticello, New York, and; 4) the MGM project in Prince George’s County, Maryland. The addition of a second casino in Philadelphia and the SugarHouse expansion are estimated in gravity model analyses to slightly outweigh the negative impacts of Montreign and MGM. The net impact to Pennsylvania is

estimated to be \$29 million in 2020 dollars.

Pennsylvania Slot Revenue Projection Baseline 2020: Adjusted for New Developments (MMs)

	Low Trend	Medium Trend	High Trend
2020 Adjusted	\$2,571.9	\$2,661.9	\$2,783.6

Source: The Innovation Group

VGT Impact

As the Illinois experience has demonstrated, the VGT industry has a relatively long ramp-up period, as thousands of individual licenses are granted and developers seek out prime opportunities to fill demand in multiple communities throughout the state. For the purposes of analysis we have assumed a stabilized year of VGT operation and casino impact of 2020. VGTs are assumed to begin operation in mid- to late 2017, followed by three full years of ramp up. As discussed in the Illinois impact section previously, casino slot revenue in affected VGT markets fell by an average of 20.7% from 2012 to 2015. Discounting background factors other than VGT development, we estimate that VGTs caused an 18% decline in casino slot revenue.

The following table shows the result of the impact analysis. In the base or medium forecast, casino slot revenue is estimated to decline by \$603 million compared to what otherwise would be expected for 2020 in the absence of VGT development.

Pennsylvania Slot Revenue Projections (MMs)

	Low Trend	Medium Trend	High Trend
2017 Baseline	\$2,462.5	\$2,510.6	\$2,572.4
2020 P with VGT impacts	\$2,019.2	\$2,058.7	\$2,109.3
% Impact	-18%	-18%	-18%
2020 P without VGT impacts	\$2,571.9	\$2,661.9	\$2,783.6
Impact on Casino Slot Rev 2020	-\$552.7	-\$603.2	-\$674.3

Source: The Innovation Group

FISCAL ANALYSIS

Casino State Tax Impact

Unrestricted VGT development across PA will result in significant declines in revenues to four earmarked programs. Slot machine revenue in Pennsylvania is subject to the following taxes and distributions:

- Property Tax Relief (34%)
- Local Share Assessment (4%)¹
- PA Economic Development and Tourism Fund (5%)
- PA Race Horse Development Fund (10.5%)²

The Property Tax Relief program is funded solely by slot revenue. It reduces the property tax assessed by school districts for homeowners throughout the state. All homeowners are eligible for their primary place of residence. The Pennsylvania Department of Education distributes the slot funds among all of Pennsylvania's school districts. Typically, urban school districts—where there are low property values and high tax rates—receive the most relief.

The Local Share Assessment is designed for host jurisdictions to enhance municipal services such as police and fire in response to casino development as well as fund capital improvement projects. In addition, many casinos have individual revenue-based community sharing agreements on top of the LSA. The proposed VGT legislation provides for no local funding.

The Economic Development and Tourism Fund is a program established to fund community and economic development projects throughout the Commonwealth.

The Race Horse Development Fund supports a significant agricultural sector in Pennsylvania. Funds enhance racing purses, which makes Pennsylvania tracks more competitive. A portion of revenue also goes to the breeding sector. In all, more than 23,000 Pennsylvanians benefit from the fund, including blacksmiths, breeders, stable hands, track workers, horse trainers, jockeys and drivers, veterinarians and farmers who produce feed.

The following table shows the decline in funding for these programs estimated to result from VGT development:

¹ The Gaming Board revenue reports show the LSA as 4%; however, \$10 million minimums and individual revenue-based community sharing agreements raise the effective LSA to approximately 6% at most casinos, resulting in a total effective tax rate of approximately 55% statewide and as high as 56% at individual casinos.

² The Race Horse Development Fund is determined through a complex formula tied to Category 1 slot revenue but it has consistently averaged approximately 10.5% since July 2013.

Pennsylvania Slot Revenue Tax Impacts 2020 (000s)³

	Low	Medium	High
<i>Impact on Casino Slot Rev</i>	-\$552,688	-\$603,235	-\$674,261
Property Tax Relief	-\$187,914	-\$205,100	-\$229,249
Economic Development and Tourism Fund (EDTF)	-\$27,634	-\$30,162	-\$33,713
Race Horse Development Fund (PRHDF)	-\$58,032	-\$63,340	-\$70,797

Source: The Innovation Group

In the mid-range, Property Tax relief is estimated to decline by \$205 million, the EDTF by \$30 million, and the PRHDF by \$63 million. In the high range, these impacts would be significantly greater, with Property Tax relief declining by \$229 million, the EDTF by \$33 million, and the PRHDF by \$71 million.

Lottery Impact

Lottery sales are highly dependent upon operational factors such as new games being introduced, allowing internet games and sales, and multi-state prize levels. Draw games are particularly volatile, while instant ticket sales seem to be less influenced by operational factors. Therefore, it is difficult to isolate the impact of introducing new forms of gaming on lottery sales. This is particularly true of VGTs, since only a handful of states have distributed or ambient devices. As shown in the following table, lottery sales in Illinois did decline in FY2014 but that followed two years of high growth. Total sales increased in 2015 but that growth came solely from instant tickets, as draw game sales declined.

Illinois Lottery Sales (\$MMs)						
FY	Instant		Draw Games		Total	
2011	1,265		998		2,263	
2012	1,623	28.3%	1,054	5.6%	2,676	18.3%
2013	1,768	9.0%	1,073	1.8%	2,841	6.2%
2014	1,757	-0.6%	1,045	-2.6%	2,803	-1.4%
2015	1,822	3.7%	1,020	-2.4%	2,841	1.4%

Source: Illinois Lottery

It should be noted that the Illinois Lottery was turned over to private management beginning FY2012, a contract which was ultimately cancelled amid controversy, and it is not possible to isolate the effect of events surrounding this contract from potential impacts that VGTs may have had. However, other studies have shown that new gaming options can lead to a slowdown in the growth rate of lottery sales, and impacts in Pennsylvania are possible, especially in regards to instant ticket sales, which are more similar as a gaming product than draw lotteries and thus

³ Given the \$10 million minimum LSA payments, impacts to LSAs were not quantified.

estimated to have greater crossover with VGT gaming.

Total lottery sales in Pennsylvania were relatively flat in FY2015; however, instant tickets have grown at an annual rate of 5.6% since 2006, with even higher growth in the past five years.

Pennsylvania Lottery Sales (\$MMs)						
FY	Instant		Draw Games		Total	
2006	1,588		1,483		3,070	
2007	1,704	7.3%	1,373	-7.4%	3,076	0.2%
2008	1,707	0.2%	1,382	0.7%	3,089	0.4%
2009	1,758	3.0%	1,331	-3.7%	3,088	0.0%
2010	1,749	-0.5%	1,317	-1.0%	3,066	-0.7%
2011	1,922	9.9%	1,286	-2.4%	3,208	4.6%
2012	2,139	11.3%	1,346	4.7%	3,486	8.7%
2013	2,305	7.7%	1,395	3.6%	3,700	6.1%
2014	2,445	6.1%	1,355	-2.9%	3,800	2.7%
2015	2,586	5.8%	1,237	-8.7%	3,823	0.6%
<i>CAGR</i>	<i>5.6%</i>		<i>-2.0%</i>		<i>2.5%</i>	

Source: Pennsylvania Lottery

Conservatively estimating annual growth of 5% for the next five years in a baseline forecast, sales of instant tickets would rise to \$3.3 billion by 2020. If VGT development lowered the growth rate by just one point in the years 2018 through 2020, transfers to government programs would decrease by \$34 million in 2020 terms. A decrease of two points in the growth rate results in a loss to government transfers of \$67 million. This shows the magnitude of even small impacts to growth rates on lottery sales.

Pennsylvania Instant Tickets: VGT Impact Estimate (\$MMs)			
	Base: 5% annual growth	Low Impact: 4% annual growth 2018- 2020	High Impact: 3% annual growth 2018- 2020
2016	2,715	2,715	2,715
2017	2,851	2,851	2,851
2018	2,993	2,965	2,936
2019	3,143	3,083	3,024
2020	3,300	3,207	3,115
<i>Sales Differential</i>		93	185
<i>Transfers Differential*</i>		34	67

Source: The Innovation Group; *Note, government transfers average 36% of sales.

JOBS ANALYSIS

Casino Employment Impact

In addition to the reduction in local gaming taxes, host communities could be expected to be impacted by lay-offs at the casinos as a result of declining revenues. In Illinois, discounting outliers, employment has declined by 13.7% relative to a total GGR decline of 17.8% since VGTs opened. The Grand Victoria was excluded since it has opened a hotel and thus employment has gone up and Joliet Empress since employment decreased at a rate twice that of GGR.

Illinois Employment and Revenue Trends: Casinos Impacted by VGTs

	Employment	Total GGR	Employment % Change	GGR % Change	Slot as % of Total
2012	4,104	770,102,000	-1.7%	-3.9%	89.3%
2013	3,849	721,786,582	-6.2%	-6.3%	87.6%
2014	3,727	662,386,523	-3.2%	-8.2%	87.3%
2015	3,541	633,164,461	-5.0%	-4.4%	86.6%
2015/2012	(563)		-13.7%	-17.8%	
Employment Impact/Total GGR Impact					77.1%

Source: Illinois Gaming Board

This is similar to what was experienced in Atlantic City as revenues declined from the recession and impact of Pennsylvania and New York, as shown in the following table:

Atlantic City Employment and Revenue Trends

	2006	2007	2008	2009	2009/2007
Borgata					
Gaming Revenue	\$735,145	\$748,649	\$734,306	\$691,428	-7.60%
Casino Employment	2,758	2,620	2,508	2,483	-5.20%
Ratio of Employment/Rev Decline					68.40%
Trump Taj					
Gaming Revenue	\$525,437	\$504,090	\$476,706	\$441,111	-16.00%
Casino Employment	1,641	1,566	1,471	1,438	-12.40%
Ratio of Employment/Rev Decline					77.10%

Source: New Jersey Casino Control Commission

To estimate the impact on Pennsylvania casino employment we applied the 77% ratio to the 18% slot revenue impact, resulting in an employment impact of 13.86%, as shown in the following table.

Pennsylvania Employment Impact Calculation

A. Slot Rev Impact	18.0%
B. Employment impact relative to total GGR decline	77.0%
C. Impact Applied (A * B)	13.86%

A further adjustment is necessary to account for the fact that we are assessing slot revenue impacts only and the employment data we are utilizing is total property employment from the Pennsylvania Gaming Control Board. Given the variability in slot versus table play at the Pennsylvania casinos, we have applied the slot revenue ratio (as percentage of total GGR) on a property-by-property basis. Therefore, for example, BethSands is estimated to have a smaller impact on total property employment since it has the lowest ratio of slot revenue. On a statewide basis, nearly 1,750 jobs are estimated to be cut at Pennsylvania casinos as a result of VGT development.

Pennsylvania Employment Impact Results

Pennsylvania casino	Employees FY 2014-15	Job Losses	Employment after Impact	% Employment Impact	Slot % of Total
Mohegan Sun	1,777	201	1,576	11.3%	82%
Parx	1,946	195	1,751	10.0%	72%
Harrah's Philly	1,442	152	1,290	10.6%	76%
Presque Isle	957	119	838	12.4%	90%
Meadows	1,363	165	1,198	12.1%	88%
Mount Airy	1,161	121	1,040	10.4%	75%
PNC	1,048	125	923	11.9%	86%
Beth Sands	2,363	191	2,172	8.1%	58%
Rivers	1,715	189	1,526	11.0%	80%
SugarHouse	1,224	110	1,114	9.0%	65%
Valley Forge	1,063	102	961	9.6%	69%
Lady Luck Nemaquin*	300	71	229	23.5%	85%
Total	16,359	1,741	14,618	10.6%	

Source: Pennsylvania Gaming Control Board; *Isle of Capri—the total resort has 1,443 employees, 300 at the casino.

Given its remote location and the de minimis purchase requirement, Lady Luck Nemaquin is a particularly vulnerable operation. The nearest sizable population base is Uniontown, a 20-minute drive. The operation of VGTs in Uniontown and other nearby markets such as Connellsville could put the viability of Lady Luck into question and place all 300 jobs at risk. At minimum, Lady Luck would likely experience an impact double that of the statewide average, which is an assumption we have utilized in the analysis above.

CONCLUSION

As proposed, VGT development would represent a large expansion of gaming in Pennsylvania, equivalent to adding 18 casinos but without the same regulatory standards that apply to the casino industry. VGT operators would not be required to establish and implement a self-exclusion system for the protection of vulnerable consumers and there would not be a state-administered self-exclusion system analogous to the one governing casino operations. This, along with lack of requirements for security and surveillance, would tend to give VGTs a competitive advantage over casinos and maximize penetration of local markets.

The proposed tax rate for VGTs, 34%, is considerably lower than that levied on casino slot revenue, 55%, which further enhances the competitive advantage of VGTs. Moreover, a large portion of VGT development would be expected to occur not at existing bars and restaurants but rather “café” chains operating primarily as mini-casinos. Nationally established route operators—companies that operate distributed machine gaming in states such as Nevada, Montana, and Illinois—have indicated to investors that Pennsylvania is a prime market for expansion should VGT legislation be enacted.

We estimate that VGT development in Illinois has, over the course of three years, eroded slot machine revenue at affected casinos by an average of 18%. Casino slot revenue in Pennsylvania is estimated to decline by between \$553 million and \$674 million compared to what otherwise would be expected for 2020 in the absence of VGT development.

The dedicated programs funded by slot revenue—including property tax relief, local payments to host communities,⁴ and economic development projects throughout the state—would experience significant declines. Assuming the base or medium impact:

- Property Tax Relief - \$205,100
- Economic Development and Tourism Fund - \$30,162
- Race Horse Development Fund - \$63,340

Job losses at casinos—estimated at approximately 1,750—would further affect local economies by reducing incomes and consumer spending power. Lady Luck Nemaquin is particularly vulnerable, given its remote location 20 minutes from the nearest sizable population base. The operation of VGTs in the Uniontown-Connellsville area could put the viability of Lady Luck into question and its closing would result in 230 additional job losses.

Moreover, there is the risk of negative impacts to lottery sales. We estimate that up to \$67 million in lottery transfers to government programs would be at risk by VGT development.

⁴ Given the \$10 million minimum LSA payments, impacts to LSAs were not quantified.

DISCLAIMER

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

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

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