

PA TABLE GAMES IMPACT
Technical Memorandum

April 2009

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Prepared by:
The Innovation Group
6601 Ventnor Avenue – Suite 11
Ventnor, NJ 08406

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INTRODUCTION

The Innovation Group was retained to prepare this technical memorandum in order to assess the potential gaming revenue and employment impact resulting from the introduction of table games to licensed gaming establishments in Pennsylvania. The analysis considers the statewide impact broken down into three sub-markets identified below:

Eastern Region (5)	Northeast Region (3)	Western PA Region (4)
Philadelphia Park	Bethlehem	The Meadows
Chester	Pocono Downs	Rivers (Pittsburgh)
Penn National	Mount Airy	Valley View
Philadelphia (1)		Presque Isle
Philadelphia (2)		

The following is list of assumptions that were utilized to prepare the analysis. The model was based on the year 2012 to allow for all licenses to open casino properties.

- Legislative
 - The Commonwealth will pass legislation allowing table games in Pennsylvania. The table games will be competitive with New Jersey and will include card games, dice and roulette (versus the more limited table games offering in West Virginia);
 - There will be no limit on the number of table games permitted;
 - Terms and conditions of table games regulations will be similar to other major markets that offer table games such as Atlantic City and Las Vegas;
 - As discussed in the Effective Tax Rate Comparison Section of this memorandum, it is assumed a table game tax rate of 12% of gross table game revenue.

- Property Level Assumptions
 - The analysis assumes operators will build out facilities to accommodate table games including adding additional amenities needed to be competitive with other markets;
 - Operating and marketing plans will be tailored to include table games.

- Pennsylvania Landscape
 - The table reflects the actual slot inventory for 2008 as well as the anticipated supply when all properties are open based on published reports;

Projected Pennsylvania Slot Supply		
	2008	2012
Eastern Region	7,882	14,382
Northeast Region	4,993	7,993
Western Region	3,825	8,000
Total Pennsylvania Market	16,700	30,375

Source: The Innovation Group

- Resorts (Category 3) licenses were not considered in this analysis.
- Changes to supply of competitive markets include:
 - 4,500 VLT's at Aqueduct;
 - Assuming the proposed gaming tax in Maryland, it is estimated that 12,000 VLT's will be available at five locations;
 - Atlantic City supply remains unchanged.

PENNSYLVANIA MARKET OVERVIEW

The first gaming facility to open in Pennsylvania was the Mohegan Sun's temporary casino in November 2006 at the Pocono Downs Racetrack in Wilkes-Barre. The casino featured approximately 1,100 machines and has since opened their permanent facility which currently offers approximately 2,479 machines. The Mohegan Sun facility was quickly followed by the Philadelphia Park's Casino in Bensalem in December 2006 and featured 2,076 machines. The Philadelphia Park facility hosted 2,912 devices in December of 2008.

In 2007 three additional racetrack casinos opened and the state's first stand-alone casino resort opened in Mount Pocono. The Harrah's Casino opened at the Chester Racetrack in January 2007 with approximately 2,744 machines and was soon followed by the opening of the Presque Isle Down's Casino located in Erie in February 2007. The Presque Isle Facility opened with 2,000 machines and currently features the same number of machines. The Meadows Racetrack and Casino opened in June 2007 with approximately 1,738 machines and currently features approximately 100 additional machines. The Mount Airy Casino Resort is the state's first stand-alone resort casino which opened in October 2007 in Mount Pocono. The resort featured over 2,500 machines and offered 2,514 devices in December 2008.

Pennsylvania's seventh gaming facility, the Hollywood Casino at Penn National is located in Grantville and opened with approximately 2,020 machines in February 2008.

Pennsylvania Gaming Market Participants

Casino	City	Market	Opened	Slots*
Presque Isle Downs	Erie	Western	Feb-07	2,000
The Meadows	Meadow Lands	Western	Jun-07	1,825
Hollywood Casino at Penn National	Grantville	Eastern	Feb-08	2,227
Philadelphia Park	Bensalem	Eastern	Dec-06	2,912
Harrah's Casino at Chester	Chester	Eastern	Jan-07	2,755
Mohegan Sun Pocono Downs	Wilkes-Barre	Northeastern	Nov-06	2,479
Mount Airy	Mount Pocono	Northeastern	Oct-07	2,514

*Source: Pennsylvania Gaming Control Board, The Innovation Group
As of December 2008

At the end of calendar year 2008, seven casinos featured approximately 16,712 machines, with both the Sands Casino in Bethlehem and the Rivers Casino in Pittsburgh scheduled to open in 2009. Also, the Meadows and the Philadelphia Park operators are expected to open their permanent facilities in the year 2009.

Gross Terminal Revenues

Pennsylvania's gaming revenues increased from \$1.039 billion in calendar year 2007 to \$1.615 billion for the 2008 calendar year period. Although four casinos opened in 2007, two of the facilities opened during the latter part of the year and the Mohegan Sun's operators opened their permanent casino in 2008.

Gross Terminal Revenues by Market Participant

Period	Eastern Pennsylvania				Northeastern Pennsylvania			Western Pennsylvania			Statewide
	Penn National	Philadelphia Park	Chester	Total	Pocono Downs	Mount Airy	Total	Presque Isle	The Meadows	Total	
8-Jan		\$26,733,129	\$27,565,803	\$54,298,932	\$12,960,274	\$12,209,979	\$25,170,253	\$10,724,002	\$17,282,670	\$28,006,672	\$107,475,857
8-Feb	\$10,064,625	\$28,549,086	\$28,482,341	\$67,096,052	\$12,425,270	\$11,593,065	\$24,018,335	\$12,059,650	\$17,060,317	\$29,119,967	\$120,234,355
8-Mar	\$16,226,989	\$30,772,918	\$31,595,072	\$78,594,978	\$13,894,467	\$15,226,354	\$29,110,821	\$13,837,484	\$20,246,082	\$34,083,565	\$141,789,364
8-Apr	\$14,334,422	\$28,339,918	\$28,338,514	\$71,012,854	\$13,275,191	\$13,952,335	\$27,227,526	\$14,199,063	\$19,994,177	\$34,193,240	\$132,433,621
8-May	\$16,376,209	\$32,025,085	\$31,283,316	\$79,684,611	\$14,772,236	\$17,003,619	\$31,775,855	\$16,348,019	\$23,519,353	\$39,867,372	\$151,327,838
8-Jun	\$15,679,810	\$28,088,853	\$26,859,996	\$70,628,658	\$13,228,882	\$14,660,841	\$28,089,723	\$14,835,424	\$21,919,407	\$36,754,831	\$135,473,212
8-Jul	\$17,365,642	\$31,254,844	\$27,748,266	\$76,368,752	\$18,716,358	\$16,926,121	\$35,642,479	\$16,083,002	\$23,146,491	\$39,229,493	\$151,240,724
8-Aug	\$18,416,204	\$31,587,160	\$28,831,905	\$78,835,269	\$20,286,458	\$17,893,433	\$38,178,891	\$17,037,448	\$22,000,654	\$39,038,103	\$156,052,263
8-Sep	\$15,916,165	\$26,879,990	\$24,491,758	\$67,287,914	\$16,689,611	\$14,560,443	\$31,250,054	\$13,935,801	\$20,641,684	\$34,577,485	\$133,115,453
8-Oct	\$16,254,891	\$27,166,546	\$24,689,004	\$68,110,441	\$16,400,037	\$15,691,928	\$32,091,964	\$13,388,583	\$20,612,566	\$34,001,149	\$134,203,554
8-Nov	\$16,569,265	\$27,430,503	\$24,793,248	\$68,793,017	\$17,263,322	\$14,444,327	\$31,707,649	\$11,413,458	\$19,305,221	\$30,718,680	\$131,219,346
8-Dec	\$13,913,402	\$26,674,661	\$23,764,549	\$64,352,613	\$15,682,460	\$12,027,269	\$27,709,728	\$10,614,003	\$18,323,828	\$28,937,831	\$121,000,172
2006		\$9,912,892		\$9,912,892	\$21,655,033		\$21,655,033				\$31,567,926
2007		\$285,032,169	\$285,978,663	\$571,010,832	\$175,503,593	\$25,745,832	\$201,249,425	\$142,182,554	\$124,587,912	\$266,770,465	\$1,039,030,723
2008		\$171,117,626	\$345,502,693	\$845,064,091	\$185,583,564	\$176,389,714	\$361,973,279	\$164,475,937	\$244,052,451	\$408,528,388	\$1,615,565,758
% Change		21.2%	14.9%	48.0%	5.7%	585.1%	79.9%	15.7%	95.9%	53.1%	55.5%

Source: Pennsylvania Gaming Control Board, The Innovation Group

The Eastern Gaming Market which consists of the Penn National, Philadelphia Park and Chester facilities generated \$845 million revenues during the 2008 calendar year period which accounted for over half of the statewide gaming revenues of \$1.615 billion. The Western Market, which consists of the Presque Isle and the Meadows facilities generated over \$408 million in annual revenues for 2008 accounted for 25% of the statewide revenues.

The Northeastern Market experienced the largest growth in income between the 2007 and 2008 calendar periods because the stand-alone casino resort in Mount Pocono was only open for approximately 3 months in 2007.

Gross Revenue and Percentage Breakdown by Market

Period		Eastern	Northeastern	Western	Statewide	% Breakdown		
						Eastern	Northeastern	Western
Jan-08	31	\$54,298,932	\$25,170,253	\$28,006,672	\$107,475,857	50.50%	23.40%	26.10%
Feb-08	29	\$67,096,052	\$24,018,335	\$29,119,967	\$120,234,355	55.80%	20.00%	24.20%
Mar-08	31	\$78,594,978	\$29,110,821	\$34,083,565	\$141,789,364	55.40%	20.50%	24.00%
Apr-08	30	\$71,012,854	\$27,227,526	\$34,193,240	\$132,433,621	53.60%	20.60%	25.80%
May-08	31	\$79,684,611	\$31,775,855	\$39,867,372	\$151,327,838	52.70%	21.00%	26.30%
Jun-08	30	\$70,628,658	\$28,089,723	\$36,754,831	\$135,473,212	52.10%	20.70%	27.10%
Jul-08	31	\$76,368,752	\$35,642,479	\$39,229,493	\$151,240,724	50.50%	23.60%	25.90%
Aug-08	31	\$78,835,269	\$38,178,891	\$39,038,103	\$156,052,263	50.50%	24.50%	25.00%
Sep-08	30	\$67,287,914	\$31,250,054	\$34,577,485	\$133,115,453	50.50%	23.50%	26.00%
Oct-08	31	\$68,110,441	\$32,091,964	\$34,001,149	\$134,203,554	50.80%	23.90%	25.30%
Nov-08	30	\$68,793,017	\$31,707,649	\$30,718,680	\$131,219,346	52.40%	24.20%	23.40%
Dec-08	31	\$64,352,613	\$27,709,728	\$28,937,831	\$121,000,172	53.20%	22.90%	23.90%
2006		\$9,912,892	\$21,655,033		\$31,567,926	31.40%	68.60%	
2007		\$571,010,832	\$201,249,425	\$266,770,465	\$1,039,030,723	55.00%	19.40%	25.70%
2008		\$845,064,091	\$361,973,279	\$408,528,388	\$1,615,565,758	52.30%	22.40%	25.30%
% Change		48.00%	79.90%	53.10%	55.50%	-4.80%	15.70%	-1.50%

Source: Pennsylvania Gaming Control Board, The Innovation Group

Although annual statewide revenues increased over 55% from the 2007 to the 2008 calendar year period, the number of positions increased by 27.8% during the same time period. The Eastern Market saw the largest increase with the opening of the Hollywood Casino at Penn National in February 2008 with over 2,000 devices and the market accounted for nearly half the devices in the market. The Northeastern Market experienced the second largest increase in positions with the opening of Mohegan Sun's permanent facility in August 2008.

Pennsylvania Positions by Market Participant

	Period	Eastern Pennsylvania			Northeastern Pennsylvania			Western Pennsylvania			Statewide Total
		Penn National	Philadelphia Park	Chester	Pocono Downs	Mount Airy	Total	Presque Isle	The Meadows	Total	
8-Jan	31		2,517	2,773	1,203	2,523	3,726	1,999	1,816	3,815	12,831
8-Feb	29	2,020	2,702	2,772	1,202	2,523	3,725	1,998	1,815	3,813	15,032
8-Mar	31	2,020	2,703	2,771	1,202	2,523	3,725	1,983	1,816	3,799	15,018
8-Apr	30	2,020	2,688	2,774	1,203	2,523	3,726	1,998	1,817	3,814	15,022
8-May	31	2,020	2,800	2,778	1,203	2,523	3,726	2,000	1,816	3,816	15,141
8-Jun	30	2,039	2,912	2,853	1,202	2,522	3,724	2,000	1,825	3,825	15,354
8-Jul	31	2,082	2,912	2,873	1,973	2,523	4,496	1,999	1,824	3,822	16,194
8-Aug	31	2,201	2,912	2,858	2,480	2,522	5,002	1,997	1,824	3,821	16,794
8-Sep	30	2,229	2,911	2,873	2,479	2,523	5,002	1,992	1,825	3,817	16,831
8-Oct	31	2,227	2,912	2,873	2,478	2,520	4,998	2,000	1,824	3,823	16,833
8-Nov	30	2,227	2,912	2,835	2,478	2,517	4,995	1,999	1,825	3,824	16,793
8-Dec	31	2,227	2,912	2,755	2,479	2,514	4,993	2,000	1,825	3,825	16,712
2006			2,076	2,765	1,099	2,524	1,099	1,996	1,748	3,744	3,175
2007		2,120	2,229	2,816	1,170	2,524	3,694	1,997	1,821	3,818	12,433
2008		2,120	2,816	2,816	1,798	2,521	4,320	1,997	1,821	3,818	15,889
% Change			26.3%	1.8%	53.7%	-0.1%	16.9%	0.0%	4.2%	2.0%	27.8%

Source: Pennsylvania Gaming Control Board, The Innovation Group

Market Share Ratio

The Northeastern market share ratio increased by 26.4% between the 2007 and 2008 calendar year period to 0.824. This increase is attributable to the full year of revenues generated by the Mount Airy Casino Resort. The Eastern Market, which accounts for nearly half the machines in the state also accounts for over half the revenues in the statewide markets as well.

Market Share Ratio by Market			
	Eastern	Northeastern	Western
Jan-08	1.225	0.806	0.876
Feb-08	1.119	0.806	0.955
Mar-08	1.111	0.828	0.950
Apr-08	1.077	0.829	1.017
May-08	1.049	0.853	1.045
Jun-08	1.026	0.855	1.089
Jul-08	1.038	0.849	1.099
Aug-08	1.064	0.821	1.100
Sep-08	1.062	0.790	1.145
Oct-08	1.066	0.805	1.115
Nov-08	1.104	0.812	1.028
Dec-08	1.126	0.767	1.045
2006	0.480	1.982	
2007	1.368	0.652	0.852
2008	1.072	0.824	1.052
% Change	-21.6%	26.4%	23.5%

Source: Pennsylvania Gaming Control Board, The Innovation Group

METHODOLOGY

In order to determine the impact of table games on gaming revenues at slots-only facilities in Pennsylvania, The Innovation Group reviewed the experiences at select properties in other jurisdictions where table games have been introduced into a formerly slots-only environment. Specifically, we separately examined the effects of table installation on overall revenue performance and slot revenue performance in West Virginia (at Wheeling and Mountaineer) and in Iowa (at Prairie Meadows and Dubuque Greyhound Park). The Innovation Group also examined data on the split between table games revenues and slot revenues in other comparable sized jurisdictions. Finally, we also utilized the results of primary research conducted by The Innovation Group and third parties on consumer gaming behavior in completing our analysis.

Based upon the data we examined, we demonstrate that tables will provide an incremental impact to slot-only revenues that varies directly according to the slot vs. table preferences of patrons in the market area. Thus, we find that examining the slot contribution versus table contribution in proximate and competitive markets (or some comparable markets) will be an indicator of incremental revenues driven by the installation of tables as a percentage of historical slot-only revenues.

Furthermore, it will be shown that introducing table games to slot-only environments can improve the slot revenues themselves. Specifically, the data indicates that slot revenues are enhanced between 1.5% and 3% upon the installation of tables. This is quantifiable in the examination of experiences in Dubuque and Des Moines, Iowa; and supported anecdotally in the muting of a negative trend in West Virginia.

West Virginia

West Virginia racinos were negatively impacted by competition which came online in Pennsylvania in November 2006. This cannibalized revenues from West Virginia's out-of-state visitors who were crossing the state lines in order to gamble. In part, to combat the effects of Pennsylvania competition, the State of West Virginia introduced table games in October 2007, and by January 2008, two of the states four racinos (Mountaineer and Wheeling) collectively housed a total of 98 card tables and 60 poker tables.

In 2007, prior to the installation of tables at these facilities, slot revenues at Mountaineer and Wheeling declined 13.2% relative to the same period a year prior.

West Virginia Slot Performance (Before Tables)		
	<i>Total</i>	<i>Change</i>
JAN - DEC 2006	\$459,562,944	
JAN - DEC 2007	\$398,701,263	-13.2%

The addition of card and poker games positively impacted total gaming revenues at the two facilities, though slot revenues continued to incur negative growth, albeit at a muted rate relative to the pre-table rate of decline.

While total revenue increased by 14% as compared to slot-only revenues over the same 12-month period pre-tables, slot revenues decreased by approximately 7.3%. Compared to the 13.2% decline a year prior, this suggests a positive impact on slot revenues as a result of the installation of table games such that slots at the West Virginia facilities yielded higher revenues following the installation of tables than would have otherwise been achieved in a slots-only environment. The muted negative trend can only partially be attributed to the installation of tables, as it is likely that effects of added Pennsylvania competition on West Virginia revenues were beginning to stabilize. The following table summarizes slot performance before and after the installation of tables:

**Mountaineer and Wheeling - Before & After Summary
(Slot Performance)**

	Slot Revs	Change	Slot Positions	Change
JAN - DEC 2007	\$398,701,263	-13.2%	5,388	
JAN - DEC 2008	\$369,718,048	-7.3%	5,262	-2%

The impact of table revenues at the West Virginia facilities was equivalent to 21% of pre-table slot revenues over the 12-month analysis period. Slot revenues presently contribute 82% of total gaming revenue at the properties.

Mountaineer and Wheeling Incremental Table Impact

Table Revenues	Slot Revenues JAN - DEC 07 (Pre-Tables)	Incremental Impact from Tables as % of Previous year Slot Revenue
\$83,111,730	\$398,701,263	20.8%

Iowa

Prior to December 2004, Iowa Racinos were slots-only facilities in competition with full-scale gaming on riverboat casinos.

Prairie Meadows

In December 2004, the previous slots-only facility outside of Des Moines, Prairie Meadows, was the first racetrack in the state to add table games, initially with 33. The following table shows the slot revenue growth before and after the addition of table games. What had been a declining trend in slot revenues through November 2004 became a solid growth trend from December 2004 through July 2005. The declining trend beginning in August 2005 was experienced throughout the State of Iowa, a result of the impact of the thousands of Touch Play video lottery terminals installed throughout Iowa in the latter half of 2005.

Overall, slot revenues at Prairie Meadows increased by 3.1% with the installation of table games, though this was in concert with a 4% increase in slots supply which makes it difficult to statistically isolate the impact of tables. Based on our experience in this market, we would estimate approximately 50% of the growth (equivalent to 1.6% of the previous year's slot revenue) was attributable to the increase in slot supply, thus the other half we can attribute to the introduction of tables. The following table summarizes slot performance before and after the installation of tables:

**Prairie Meadows Before & After Summary
(Slot Performance)**

	Slot Revs	Change	Slot Positions	Change
Dec 03-Nov 04	\$160,203,964		1,439	
Dec 04-Nov 05	\$165,113,914	3.1%	1,500	4%

Source: IRGC.

The impact of table revenues at Prairie Meadows was equivalent to 10.3% of pre-table slot revenues over the 12-month analysis period. Today, as in 2005, slots account for approximately 91% of total gaming revenues at the property.

Prairie Meadows Incremental Table Impact

Table Revenues DEC 04- NOV 05	Slot Revenues. DEC 03 - NOV 04 (Pre- Table)	Incremental Impact from Tables as % of Previous year Slot Revenue
\$16,535,954	\$160,203,964	10.3%

Dubuque Greyhound

In March 2006, the other two racinos in the state also added table games, with 31 at Bluffs Run (now Horseshoe) in Council Bluffs and 19 at Dubuque Greyhound. Dubuque completed an expansion in June 2005, and thus full year-over-year comparisons could not be drawn, though other facility expansions continued with the placement of table games. The Council Bluffs facility underwent a massive facility expansion and rebranding and was also taken over by a new operator. Thus it is not possible to break down the factors that influenced the facility's growth over this timeframe, and the before-after comparison in terms of isolating the impact on of table games would not be valid.

At Dubuque Greyhound, which competes directly against the proximate Dubuque Diamond Jo riverboat casino, year-over-year slot revenue growth following the introduction of table games was approximately 10%, as demonstrated in the following table. The comparison in this table starts in July in order to minimize noise presented from the expansion that occurred independent of the addition of table games.

Dubuque Greyhound Before And After Summary (Slots Impact)

	Slot Revenues	Change*	Slot Positions	Change*	Notes
JUL 03 - FEB 04	\$29,441,964	9.7%	600		
JUL 04 - FEB 05	\$28,286,890	-3.9%	600	0.0%	
JUL 05 - FEB 06	\$39,244,263	38.7%	982	63.7%	<i>adds 400 slots</i>
JUL 06 - FEB 07	\$43,253,660	10.2%	1,000	1.8%	<i>adds 20 table games in March '06</i>
JUL 07 - FEB 08	\$42,874,972	-0.9%	1,000	0.0%	

Source: IRGC. *Over previous year.

We attribute 20% to 30% of the growth in slot revenue to the introduction of table games (thus equivalent to 3-4% of the previous year's slot revenues). Dubuque underwent non-gaming expansions in concert with the addition of table games and was also experiencing ramp-up effects from the major slot expansion a year prior, collectively accounting for the remainder of the growth.

The impact of table revenues at Dubuque Greyhound was equivalent to 7% of pre-table slot revenues over the 8-month analysis period. Today, as in 2006, slots account for approximately 94% of total gaming revenues at the property. This is consistent with the 94% slot contribution across all riverboat facilities in the Dubuque/Marquette market area.

Dubuque Greyhound Incremental Table Impact

Slot Revenues JUL 05 - FEB 06 (Post-Expansion, Pre-Tables)	Table Revenues JUL 06 - FEB 07	Incremental Impact from Tables as % of Previous year Slot Revenue
\$39,244,263	\$2,756,054	7.0%

MODELING

A series of constrained gravity models were developed in order to estimate the impact on the combined market gaming revenues from the introduction of table games in Pennsylvania. The outputs of the model have been show for the three Pennsylvania regions previously described.

Gravity models are commonly used in location studies for commercial developments, public facilities and residential developments. First formulated in 1929 and later refined in the 1940s, the gravity model is an analytical tool that defines the behavior of a population based on travel distance and the availability of goods or services at various locations. The general form of the equation is that attraction is directly related to a measure of availability such as square feet and inversely related to the square of the travel distance. Thus the gravity model quantifies the effect of distance on the behavior of a potential patron, and considers the impact of competing venues.

The basic formulation is that the interaction between two or more gaming venues is based on Newton's Law of Universal Gravitation: two bodies in the universe attract each other in proportion to the product of their masses and inversely as the square distance between them. Thus, expected interaction between gaming venue *i* and market area *j* is shown as:

$$k \times \frac{P_i \times P_j}{d_{ij}^2}$$

where P_i = the gaming positions in gaming venue *i*, P_j = the population in market area *j*, d_{ij} = the distance between them, and k = an attraction factor relating to the quality and amenities to be found at each gaming venue in comparison to the competing set of venues. When this formulation is applied to each gaming venue gaming trips generated from any given zip code are then distributed among all the competing venues.

The gravity model included the identification of 28 discrete market areas based on drive times and other geographic features and the competitive environment. Using our GIS software and CLARITAS database¹, the adult population, latitude and longitude, and average household income is collected for each zip code.

Each of these market areas is assigned a unique set of propensity and frequency factors. Gamer visits are then generated from zip codes within each of the areas based on these factors. The

¹The GIS software used was MapInfo. This software allows for custom data generally in a tabular format with a geographic identification code (census tract, zip code, latitude and longitude, or similar identifier) to be mapped or displayed and integrated with other geographic census based information such as location of specific population or roadways. MapInfo is one of the most widely used programs in the geographic information systems industry. CLARITAS is a vendor of demographic information located in the United States. CLARITAS provides census demographic and psychographic data on a variety of geographic levels of detail ranging from census block groups and counties to postal zip codes. Their information is updated every six months and includes a current year estimate and provides a five year forecast for the future. The Innovation Group has utilized this data for inputs to its models for the last six years and has purchased full access to their demographic database for the entire United States.

gamer visits thus generated are then distributed among the competitors based upon the size of each facility, its attractiveness and the relative distance from the zip code in question. The gravity model then calculates the probabilistic distribution of gamer visits from each market area to each of the gaming locations in the market.

Each travel distance/time is evaluated to determine the likely alternative gaming choices for residents of the region. The model is constructed to include only those alternative venues that are considered to be within a reasonable travel time. These include competing casinos that have the potential to attract patrons, or siphon off visits from the market. Travel distances have been developed through use of our GIS system.

The following section provides a description and definition of the various components of the model. The Innovation Group is familiar with the Pennsylvania market including the surrounding competitive jurisdictions of New Jersey, New York, Delaware and West Virginia having completed a variety of gaming-related studies and consulting assignments in the region.

Gamer Visits

This measure is used to specify the number of patron trips to a gaming market, where an individual can make any number of separate visits in the course of a year. In order to estimate the gamer visits, market penetration rates, made up of the separate measures of propensity and frequency, are applied to the adult population in each zip code. A gamer visit can include more than one visit to a casino.

Propensity

Propensity measures the percentage of adults who will participate in casino gaming within the zip code. This varies based upon a number of factors, which includes the number of gaming venues, their type (i.e. landbased versus cruising riverboat versus dockside riverboat), games permitted, availability of other entertainment and leisure options, and most importantly distance from a gaming venue. Propensity in the inner market areas from 0-50 miles can vary between the high thirty per cent range in a single cruising riverboat market to the fifty percent range, or more, for multiple landbased casinos with a well developed array of amenities.

Frequency

This measures the average number of visits that an adult will make annually to casinos in the subject market. Frequency is a function of annual gaming budget as indicated by income variations, the number of venues in the market, the type of gaming facility and most importantly distance from a gaming venue.

Win per Visit

Win per visit varies not only by gaming jurisdiction, but also in some cases by individual facilities. Normatively, win per visit is a function of distance and income. Gamers traveling greater distances tend to spend more per visit, typically making fewer gamer visits on average.

Attraction Factors

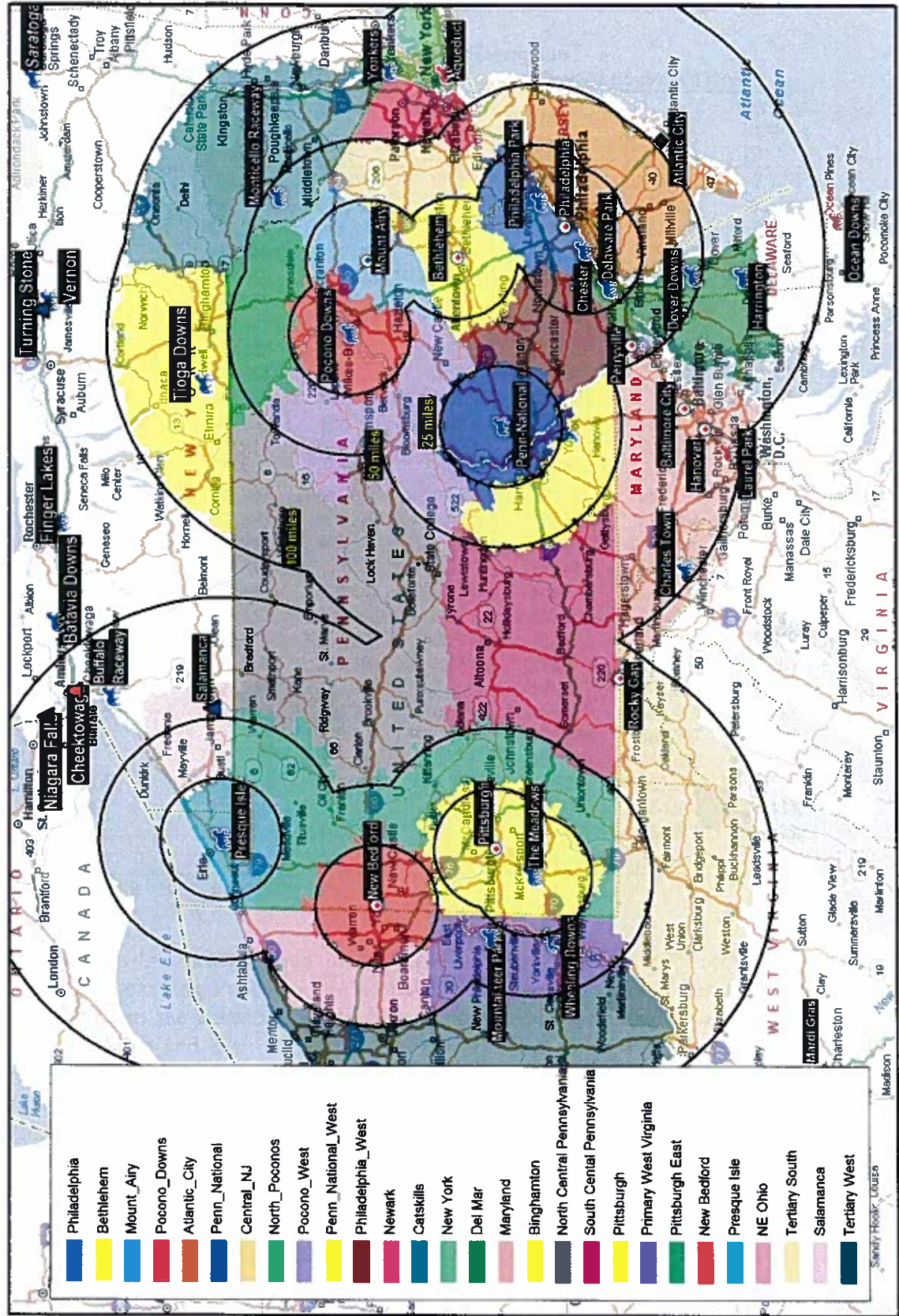
Attraction factors measure the relative attraction of one gaming venue in relation to others in the market. Attraction factors are applied to the size of the gaming venue as measured by the number of positions it has in the market. Positions are defined as the number of gaming machines plus the number of seats at gaming tables. A normative attraction factor would be one. When this is applied to the number of positions in a gaming venue there is no change in the size of the gaming venue as calculated by the model and hence its attraction to potential patrons. A value of less than one adjusts the size of the gaming venue downwards and conversely a value greater than one indicates that the gaming venue has characteristics that make it more attractive. Attraction factors can be based on a number of components including branding, the level and effectiveness of marketing efforts, and the level of quality and amenities of a facility. Attraction factors are also adjusted to model the presence of natural and man-made boundaries which impact ease of access and convenience of travel in the market area.

The sensitivity of the model to changes in these factors is not in the nature of a direct multiplication. For example, a doubling of the attraction factor will not lead to a doubling of the gamer visits attracted to the site. It will however cause a doubling of the attractive power of the gaming venue, which is then translated via non-linear equations into an increase in the number of gamer visits attracted to the gaming venue. This is based upon the location, size and number of competing gaming venues and their relationship to the market area to which the equation is applied. The variation of these factors is based upon The Innovation Group's experience in developing and applying these models, and consideration of the existing visitation and revenues. The latter represents the calibration of the model and has been accomplished by adjusting attraction factors to force the model to recreate the existing revenues and patron counts. In this case attraction factors have been adjusted for each casino for each market area. This is based upon known visitation patterns.

Market Carve-out

The Pennsylvania market has been carved into 28 distinct market areas, from which different participation rates may be expected depending on the level and location of competition that is present in the market currently and in the future. The following map and table show the market areas and their respective adult population and average household income.

Pennsylvania Gaming Market Regions with Competitive Facilities



Pennsylvania Market Demographics
Adult (21+) Population
Average Household Income

	Adult (21+) Population		A.A.G. 2008- 2012	Average Household Income		A.A.G. 2008- 2012
	2008	2012		2008	2012	
Philadelphia	2,566,551	2,582,017	0.15%	\$76,442	\$84,021	2.39%
Bethlehem	790,161	833,895	1.36%	\$75,162	\$82,326	2.30%
Mount Airy	223,873	249,338	2.73%	\$61,773	\$67,376	2.19%
Pocono Downs	412,245	413,562	0.08%	\$54,068	\$59,248	2.31%
Atlantic City	1,806,046	1,881,586	1.03%	\$76,482	\$84,776	2.61%
Penn National	611,461	633,143	0.87%	\$66,652	\$73,307	2.41%
Central NJ	1,272,482	1,320,753	0.94%	\$110,376	\$121,727	2.48%
North Poconos	99,452	101,041	0.40%	\$51,181	\$55,830	2.20%
Pocono West	334,858	336,508	0.12%	\$52,243	\$57,274	2.33%
Penn Nat' West	400,075	423,350	1.42%	\$63,923	\$70,122	2.34%
Philadelphia West	847,986	892,755	1.29%	\$78,848	\$86,880	2.46%
Newark	3,173,913	3,214,792	0.32%	\$86,033	\$94,124	2.27%
Catskills	977,801	1,014,607	0.93%	\$81,958	\$90,508	2.51%
New York	7,395,307	7,481,051	0.29%	\$78,026	\$85,613	2.35%
Del Mar	660,696	699,228	1.43%	\$73,390	\$79,834	2.13%
Maryland	3,323,916	3,469,307	1.08%	\$91,222	\$102,306	2.91%
Binghamton	426,310	429,880	0.21%	\$56,423	\$61,704	2.26%
North Central	425,133	426,817	0.10%	\$49,549	\$53,875	2.11%
South Central	497,110	501,424	0.22%	\$50,939	\$56,043	2.42%
Pittsburgh	1,512,378	1,499,491	-0.21%	\$62,472	\$68,347	2.27%
Primary W Virginia	291,550	287,496	-0.35%	\$48,071	\$52,126	2.05%
Pittsburgh East	429,361	427,740	-0.09%	\$49,027	\$53,551	2.23%
New Bedford	511,050	508,784	-0.11%	\$52,475	\$56,414	1.83%
Presque Isle	224,895	226,228	0.15%	\$52,779	\$56,397	1.67%
NE Ohio	346,130	353,948	0.56%	\$61,486	\$65,465	1.58%
Tertiary South	411,093	416,343	0.32%	\$48,245	\$53,506	2.62%
Salamanca	114,545	113,408	-0.25%	\$49,988	\$54,342	2.11%
Tertiary West	2,468,269	2,467,904	0.00%	\$60,959	\$64,870	1.57%
TOTAL	32,554,647	33,206,395	0.50%	\$1,820,193	\$1,991,912	2.28%

Source: Claritas, Inc.; MapInfo: The Innovation Group

The first step in the process was to calibrate a base model to 2008 conditions and revenues for the existing Pennsylvania properties and the surrounding gaming properties that also pull from the carved markets. Once completed, the model was updated with 2012 demographics and then adjusted to include the remaining Philadelphia properties that are yet to be open, along with increased regional completion from New York and Maryland. This updated base case was then recalibrated adjusting propensities and frequencies yet again to reflect the introduction of table games into each of the three Pennsylvania regions.

MODEL RESULTS

The final adjustments were made to the model to increase attraction factors for the Pennsylvania properties that would reflect a similar attraction of comparable full casino facilities. These adjustments increased the capture of potential gaming visits in the markets for the Pennsylvania properties.

The results indicate statewide gaming revenue could increase approximately 30.6% or \$976.0 million. The model does not consider incremental table game play from tourists that live outside of the market area but visit cities that offer casinos.

The Innovation Group methodology for assessing table games impacts is heavily focused on the local and drive-in market, the overwhelmingly dominant source of play in Pennsylvania and most of the northeast. Though not quantified specifically for each PA facility we would point out that in most markets tourists do make their way to primarily locals casinos on occasion, and leave behind valuable "imported" revenue which is new to the economy and the state. The range for such revenue contribution can be as high as 10% of incremental revenue depending on the concentration of urban centers relative to casinos, hotel distribution, airport accessibility, games make-up relative to competitors, and other factors. In the case of Pennsylvania taking the distribution of these items on average, we believe 2.5% to 5.0% more likely represents the range of achievable outer market revenue. This would represent approximately \$25 million to \$50 million in additional induced revenue across the Commonwealth.

2012 Pennsylvania - Incremental Impact of Table Games

	Eastern Region	Northeast Region	Western PA Region	Total PA
Revenue Prior to Tables	\$1,498,048,723	\$757,323,988	\$927,802,642	\$3,183,175,352
# of Gaming Positions	14,394	7,993	10,000	32,387
Win/Unit/Day	\$285	\$260	\$254	\$269
Revenue with Tables	\$1,950,886,027	\$991,639,643	\$1,216,249,665	\$4,158,775,335
# of Slots	14,394	7,993	10,000	32,387
# of Tables	490	255	330	1,075
# of Total Gaming Positions *	17,334	9,523	11,980	38,837
Win/Position/Day	\$308	\$285	\$278	\$293
Increase	\$452,837,304	\$234,315,655	\$288,447,023	\$975,599,983
Revenue Increase %	30.2%	30.9%	31.1%	30.6%
Unit Increase %	20.4%	19.1%	19.8%	19.9%

Source: The Innovation Group

* Gaming Positions = # of Slots plus (# of Table Games x 6)

Incremental Slot Revenue

Based on the examination of West Virginia and Iowa markets previously discussed, The Innovation Group estimates slot revenue would increase in the range of 3.4% to 3.6% as a direct result of introducing table games at each of the properties.

2012 Pennsylvania - Table Game Impact to Incremental Gaming Revenue				
	Eastern Region	Northeast Region	Western PA Region	Total PA
Incremental Slot Growth	3.4%	3.6%	3.6%	3.5%
Incremental Slot Revenue	\$50,570,579	\$27,586,410	\$32,974,903	\$111,131,892
Table Game Revenue	\$402,266,725	\$206,729,245	\$255,472,120	\$864,468,091
Incremental Gaming Revenue	\$452,837,304	\$234,315,655	\$288,447,023	\$975,599,983
Revenue Growth	30.2%	30.9%	31.1%	30.6%

Source: The Innovation Group

Slot/Table Revenue Ratio

Slot and table ratios vary in markets across the country. Table contribution is greatest in destination markets such as on the Las Vegas Strip and in Atlantic City. In these markets, tables contribute 47% and 31% of all gaming revenues, respectively.

Markets which are not destination gaming markets will generally see a much smaller contribution from tables (generally ranging between 10%-20%). The following table highlights a number of markets where this is the case and contrasts these against major gaming destinations Atlantic City and Las Vegas.

Prior to the introduction of slots in Pennsylvania, table games in Atlantic City historically reflected approximately a 25% share. As competition cannibalized slot revenue table, games in Atlantic City reflected a larger share of the smaller total.

Gaming Revenue Breakdown, Slots vs. Tables 2008

	2008 Slot Revenues	2008 Table Revenues	Slots	Tables
Iowa	\$1,289,464,488	\$130,079,660	91%	9%
West Virginia**	\$369,718,048	\$83,111,730	82%	18%
Indiana	\$2,245,308,582	\$420,665,456	84%	16%
Illinois	\$1,369,056,000	\$199,668,000	87%	13%
Missouri**	\$1,381,869,278	\$163,769,777	89%	11%
Rest of Nevada***	\$4,526,343,000	\$623,586,000	88%	12%
Atlantic City	\$3,132,775,749	\$1,412,459,848	69%	31%
Las Vegas Strip	\$3,209,898,000	\$2,883,753,000	53%	47%

**Revenues for JAN - NOV 2008

*Wheeling and Mountaineer

***Excludes Las Vegas Strip

The following table reflects the projected slot/table games ratio of total gaming revenue. Table game revenue is projected to account for 20.8% of the total Pennsylvania gaming revenue market.

2012 Pennsylvania - Total Gaming Revenues with Table Game Impact

	Eastern Region	Northeast Region	Western PA Region	Total PA
Slot Revenue	\$1,548,619,302	\$784,910,398	\$960,777,545	\$3,294,307,244
% of Revenue	79.4%	79.2%	79.0%	79.2%
# of Units	14,394	7,993	10,000	32,387
Win/Unit/Day	\$295	\$269	\$263	\$279
Table Game Revenue	\$402,266,725	\$206,729,245	\$255,472,120	\$864,468,091
% of Revenue	20.6%	20.8%	21.0%	20.8%
# of Units	490	255	330	1,075
Win/Unit/Day	\$2,249	\$2,221	\$2,121	\$2,203
Total Gaming Revenue	\$1,950,886,027	\$991,639,643	\$1,216,249,665	\$4,158,775,335

Source: The Innovation Group

Effective Tax Rate Comparison

The following chart shows the effective gaming tax rate for casinos in markets that offer slots and table games. They range from a low that is below 10% in the highest volume markets of Nevada and New Jersey to 48.1% in West Virginia.

Combined Slots/Tables Tax Rate Summary

State	Period	Combined Slot and Table Revenue (\$ millions)	Gaming Taxes (\$ millions)	Effective Tax Rate
Nevada *	FY 2008	\$12,040.9	\$913.2	7.6%
New Jersey **	CY 2008	\$4,545.2	\$360.3	8.0%
Mississippi	CY 2008	\$2,721.1	\$326.9	12.0%
Colorado	FY 2008	\$773.4	\$108.2	14.0%
Iowa **	FY 2008	\$952.6	\$180.0	18.9%
Louisiana	FY 2008	\$2,223.1	\$478.1	21.5%
Missouri	FY 2008	\$1,636.3	\$428.6	26.2%
Indiana	FY 2008	\$2,571.1	\$819.0	31.9%
Illinois	CY 2008	\$1,569.4	\$566.7	36.1%
West Virginia ***	CY 2008	\$972.3	\$467.7	48.1%
Total / Average		\$30,005.4	\$4,648.7	15.5%
Pennsylvania	Est. 2012	\$4,158.8	\$1,915.6	46.1%

Source: State Gaming Agencies, The Innovation Group

* Does not include Regulatory fees

** Does not include Casino Reinvestment Development Authority obligation

*** Estimate based on Effective tax rate as determined by the WV Lottery

When the gaming tax on slot revenue and a proposed 12% tax on table revenue are combined, the effective tax rate is projected at 46.1%. This would result in one of the highest effective tax rates for a market that offers both slot machines and table games, second only to West Virginia.

Pennsylvania Proposed Effective Tax Rate

	Total PA
Slot Revenue	\$3,294,307,244
Table Game Revenue	\$864,468,091
Gross Gaming Revenue	\$4,158,775,335
Slot Tax	\$1,811,868,984
Tax Rate ²	55.0%
Table Game Tax	\$103,736,171
Tax Rate	12.0%
Total Tax	\$1,915,605,155
Effective tax Rate	46.1%

Source: The Innovation Group

² For 2008, the effective slot tax rate for the casinos that are already open is 57.3%. Under the existing gaming act, the county in which the property operates is entitled to 2% of Gross Terminal Revenue or \$10,000,000, whichever is higher. However, as standalone properties open it is expected that the 12% horseman's share per property will be reduced.

Tax Rate Equalization

The operation of slot machine facilities has become very efficient as they have taken advantage of technological advancements. Utilizing coinless machines as well as sophisticated accounting and marketing systems has allowed for cost savings that has enabled slot machine operators to survive in a high tax environment. However, a table game operation relies heavily on their employees to deal and supervise the game in order to ensure the integrity of the game. There is a heavy emphasis on customer service and dealer/player interaction.

Isolating the staffing in table games and slot departments only, The Innovation Group estimates that a 100 table game operation would require more than 3.5 times the number of employees than a 3,000 slot machine operation.

	Slot Machines	Table Games	Difference
# of Positions	3,000	100 tables / 600 positions*	20%
FTE's Required to operate	145	540	372%

Source: The Innovation Group

* assumes 6 gaming positions per table

In addition to being extremely labor intensive, the marketing and servicing of table game customers can vary from slot players which often lead to higher reinvestments percentages for customer rewards. These rewards programs will need to be competitive with other regional gaming destinations particularly Atlantic City that offer table games. The higher reinvestment percentages needed for table games further reduces the operating profit margin.

A casino introducing table games will also see an increase in support services, both operational and administratively. Operational areas such as the Casino Cage, Money Handling, Accounting, Audit, Security and Surveillance will need to increase in terms of size and responsibility. Internal Controls for table games require more labor in order to create separation of duties and checks and balances.

Finally, a casino that plans to offer table games will require a significant capital investment. This investment will not only address the necessary space requirements but also to add the amenities that table game customers have come to expect from the other regional destinations.

The disparities in the operation of slot machines versus a full scale table game operation are dramatic. Currently, the Pennsylvania slot casinos operate under an effective gaming tax rate of 57.3% which is close to the highest in the Nation and many times higher than the principal competitive jurisdiction of New Jersey. It is expected once all standalone properties are open and contributing to the horseman's share, the effective tax rate will stabilize at 55%. Given such a high slot tax rate, and the significant operating expenses of table games, we have assumed a table game tax rate of 12%, which would create a combined effective gaming tax rate of 46.1%, the second highest in the country.

STATEWIDE ECONOMIC IMPACT

The following analysis assesses the economic impacts generated by the operation of table games at Pennsylvania casinos. An economic impact analysis is an assessment of the economic benefit that will accrue to the area due to the construction and operation of this proposed casino development. The benefits that are typically examined in an economic impact analysis include the total spending that is introduced to the area, the increase in earnings to area residents and the number of new jobs created. This analysis does not consider the impact on state and local governments from taxes.

Economic impact analyses are commonly used tools to demonstrate the quantitative benefits that states and communities receive as a result of the opening or closure of a business or industry to an area. Economic input-output multipliers for Pennsylvania have been obtained from the U.S. Bureau of Economic Analysis through the RIMS II system (Regional Input-Output Modeling System). The standard output of an economic input analysis is a quantification of the increased spending that will result in a region, the impact on aggregate household earnings, and the impact on the level or rate of unemployment. Fiscal benefits, including the aggregation of local mitigation payments, income taxes and sales taxes, have not been included.

Ongoing Economic Impact

Economic benefits resulting from the ongoing operation of the casino complex result in a constant stimulus to the economy. Expenditures by patrons and the casino are considered to be direct expenditures. Expenditures by patrons elsewhere in the local economy that would otherwise not have occurred are referred to as induced expenditures. These expenditures are important because their existence allows for a vitalization of the region aside from the casino. Merchants and restaurateurs will be needed to provide services and goods to the casino patrons. These expenditures will create the need for new jobs, and will be filled by residents of the area.

Direct Spending

Expenditures that emanate within the proposed casino complex constitute the direct spending in the economy. These expenditures are traced to the activities of patrons of the casino, and that of the casino operator. The spending category sums the expenditures made by the total casino complex in the form of salaries, wages, purchases (including cost of goods), and services required. Gaming expenditures by patrons are not considered as 'direct expenditures', though in theory it could fall into a gray area of 'entertainment service expenditures'. As such, though the gaming revenues are not reflected in the economic impact, the spending by the casino in the community and on employees is a direct result of these revenues. Direct earnings and employment figures are the expected totals for the casino during the ongoing operating phase, as projected in operational pro formas that were prepared for this analysis.

Direct Jobs created

The following table reflects the estimated number of direct jobs that will be created throughout Pennsylvania casinos as a direct result from the introduction of table games. It should also be noted that these projections do not include any construction jobs that may be created from expansions at casino properties that may be necessary due to table games. Also not included are jobs associated with additional amenities (hotel/food & beverage) that may be needed to support the table game operation.

PA Table Games Impact – Direct Labor

	Eastern Region	Northeast Region	Western PA Region	Total PA
Direct Jobs	4,590	2,400	3,110	10,100

Source: The Innovation Group

Induced Spending

Local merchants and hoteliers will benefit from the introduction of the table games as well. Patrons of the property can be expected to spend some money elsewhere in the area during their visit, ranging from convenience stores and gas stations to area restaurants and hotels. These expenditures are deemed to be induced by the presence of the casino, meaning that these merchants would not be able to expect these revenues were it not for the presence of the casino. This would apply primarily to patrons coming from outside of the local market area, as it would otherwise not be considered as being a new expenditure in the economy. For purposes of this analysis it is estimated that each visit will generate \$8.00 of induced spending.

Indirect Spending

Indirect spending is the result of the multiplier effect in the economy. A ripple of increased revenues and incomes is created that begins with purchases made by the recipients of the direct and induced expenditures. Local firms that provide goods and services to the facilities are the recipients of new dollars in the economy. These new dollars enhance their ability to spend, and therefore the incremental increase in their spending attributable to this income is considered an indirect impact. These additional expenditures and revenues continue to take place throughout the economy, during the construction period, in a rippling effect. Economic impact analyses use industry multipliers that have been developed based on U.S. Census data to determine the indirect impacts that occur from the direct expenditures.

Indirect expenditures from gaming operations will originate with the expenditures of the vendors, employees, and from expenditures by establishments providing goods and services to gaming and hotel patrons.

Economic Impact of Pennsylvania Table Games

Combining the indirect impacts with the direct and induced impacts of casino operations, the impact on spending, employment, and earnings on Pennsylvania can be determined.

It is projected that an economic impact of \$903.3 million per year could occur with the introduction of table games to Pennsylvania. This figure includes salaries and wages.

The number of jobs created (excluding construction and jobs associated with the additional amenities) is expected to reach 16,366

Pennsylvania Commonwealth - Economic Impact of Table Games				
	Direct	Induced	Indirect	Total
Expenditures	\$330,278,417	\$67,946,514	\$505,036,396	\$903,261,328
Jobs	10,100	463	5,803	16,366

Source: The Innovation Group

Direct Expenditures includes expenditures for Goods & Services as well as labor

The Commonwealth would also benefit from the additional tax revenue to be paid on incremental revenue generated from slots and table games. Assuming an effective tax rate of 55% of additional slot revenue and 12% of table games revenue, the Commonwealth could realize an additional \$164.9 million in gaming taxes.

Incremental Gaming Taxes				
	Philadelphia Region	Northeast Region	Western PA Region	Total PA
Incremental Slot Revenue	\$50,570,579	\$27,586,410	\$32,974,903	\$111,131,892
Effective Tax Rate	55.0%	55.0%	55.0%	55.0%
Additional Slot Tax	\$27,813,818	\$15,172,525	\$18,136,197	\$61,122,541
Table Revenue	\$402,266,725	\$206,729,245	\$255,472,120	\$864,468,091
Estimated Tax Rate	12.0%	12.0%	12.0%	12.0%
Table Tax	\$48,272,007	\$24,807,509	\$30,656,654	\$103,736,171
Total Additional Tax Revenue	\$76,085,825	\$39,980,035	\$48,792,851	\$164,858,711

Source: The Innovation Group

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.