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## The Economic Impact of a Category 2 Slot Machine Facility at Harrah's Station Square Casino

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Wednesday, December 28, 2005

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# The Economic Impact of Harrah's Station Square Casino in Pittsburgh, Pennsylvania: Executive Summary

Pursuant to State requirements in applying for a Category 2 stand-alone license, CCA has been asked by Forest City Enterprises to provide an independent assessment of the economic impact of the Harrah's Station Square facility in Pittsburgh, Pennsylvania. The following report estimates and describes the economic impacts that the facility could have on the local area (Allegheny County) and the State of Pennsylvania.

In completing this assignment CCA reviewed several studies of the economic impacts of casinos and racinos and local and regional economies, including some of CCA's prior work in this area. This economic impact analysis focused upon a seven year period during which the casino will first be constructed and then operated. Forest City Enterprises will construct a slot machine facility with 3,000 devices at a projected cost of \$500 million. The facility is expected to add 1,000 machines by the third year of operation. Further, we estimate that the facility will take approximately 16 to 20 months to construct.

Exhibit E.S.1 presents estimated machine and other revenues and projected construction spending for Years One through Ten, and total gross gaming revenue (win) for Harrah's Station Square.

## Exhibit E.S.1: Estimated Revenue Breakdowns and Construction Spending for the Proposed Pittsburgh Slot Facility Years One Through Ten (millions of dollars)

	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Slot Machine Revenues	\$0.0	\$0.0	\$531.4	\$617.7	\$664.2	\$684.1	\$704.6	\$725.8	\$747.6	\$770.0	\$793.1	\$816.9
Food, Beverage, and Other	0.0	0.0	45.2	52.5	56.5	58.2	59.9	61.7	63.5	65.4	67.4	69.4
<b>Total Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$576.5</b>	<b>\$670.2</b>	<b>\$720.7</b>	<b>\$742.3</b>	<b>\$764.5</b>	<b>\$787.5</b>	<b>\$811.1</b>	<b>\$835.4</b>	<b>\$860.5</b>	<b>\$886.3</b>
<b>Construction Expenditures</b>	<b>\$111.4</b>	<b>\$185.7</b>	<b>\$74.3</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Source: Christiansen Capital Advisors, LLC

In the first year of operation we estimate that the proposed Harrah's Station Square slot facility will generate gross gaming revenue of \$531.4 million. Gross gaming revenue is expected to rise to \$617.7 million in Year Two, and increase to \$816.9 million by Year Ten (Exhibit E.S.1).

In addition to the direct impacts described above, this construction spending and gaming revenue will create spin-off impacts. The following section describes CCA's methodology for estimating these impacts and a summary of our results.

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## METHODOLOGY

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To measure the economic impact of the proposed Harrah's Station Square slot facility located in Pittsburgh on surrounding communities and the State of Pennsylvania, CCA employed an input-output (I-O) model. Input-output modeling is an equilibrium approach based on an accounting system of injections and leakages in a given economy. Input-output models allow us to remove an industry from the rest of the economy and assess the impacts of an impending change (in this case Harrah's Station Square) in isolation.

At a minimum the economic impact of any industry or activity is the output produced by that business, or its direct expenditures. However, since other segments of the local and regional economy (the suppliers to that business) will be supported, at least in part, by the new business (here, the new stand-alone slot facility) the total economic impact is actually greater than the new business's direct expenditures. Input-output models capture the total economic impacts of new businesses or new economic activities.

The initial change created by any economic activity is the *direct effect*. Direct effects are the economic activities carried out by the business and/or the construction of the facility or facilities used by that business. In this case these direct effects will include the construction costs of the new facility and, once the facility opens, consumer spending at the facility. Direct effects are primarily output, employment and personal (labor) income generated by that activity. As used here, these terms have the following meanings: *output* is the value of goods and services produced at the identified business or construction project; *employment* is the number of people employed, including wage and salary employees and self-employed persons; and *personal income* is the wages, benefits, and other income derived from that employment.

The stand-alone slot facility's relationship to other businesses in the area is not fully described by the "Direct Effect". *Secondary effects* are generated from this primary spending; economic impacts also include *indirect impacts*, *induced impacts*, and *total impacts*.

*Indirect impacts* derive primarily from off-site economic activities that are attributable to the new business. These economic activities occur mainly as a result of *non-payroll expenditures* by that business within a region. For example, gaming facilities spend significant sums on food and utility services, including water and electricity, which becomes revenue for these suppliers, who in turn purchase goods and services from their suppliers and so on. In short, the *indirect effect* derives from a business (in this case our stand-alone slot facility) purchasing goods and services from other businesses. Indirect impacts differ from direct impacts as they originate off-site.

*Induced impacts* are the multiplier effects of the direct and indirect impacts created by successive rounds of spending by employees and proprietors.<sup>1</sup>

*Total impacts* are the sum of the direct, indirect, and induced impacts.

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<sup>1</sup> As would be expected, a great deal (considerably more than the indirect effect) of this income of employees is spent locally. This in turn becomes income to local business and individuals who provide goods and services for these employees. These successive rounds of spending continue to filter through the economy and expand throughout the region. This phenomenon is commonly referred to as the "multiplier effect."

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### THE IMPLAN MODELING SYSTEM

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Although there are several sets of multipliers that can be used to obtain estimates of the total economic contribution of any economic activity (including RIMS, RIMS II and REMI), for this study CCA employed local and regional data from IMPLAN.

CCA constructed input-output models for both the Commonwealth of Pennsylvania and the Allegheny County local area using the IMPLAN software. The data used in the models are for 2002, which is the latest available. All inputs were converted to current dollars using appropriate deflators and model outputs are reported in current dollars.

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### DIRECT EMPLOYMENT AND WAGE IMPACTS ON THE LOCAL ECONOMY

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To assess the direct wages and employment generated by the construction of this facility, CCA relied upon IMPLAN's estimates for a construction project of this size. Given CCA's extensive experience on casino and racino operations CCA has adjusted the IMPLAN modeling system to more accurately reflect wages and employment for these particular industries. CCA employed the average rate of employment and wages for U.S. racinos as presented in Exhibits 1.1 and 1.2 in the main body of this report.

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### AGGREGATE NET IMPACTS

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In general, studies of the impact of gaming on a locality have found that the beneficial impact of a project is strongly correlated with the facility's ability to increase net exports. Specifically, the amount of goods or services exported must be larger than the amount of locally displaced spending. Gaming facilities can certainly be an overall economic success in terms of profit without accomplishing either of these things, but in that case its profits will come more at the expense of other area businesses.<sup>2</sup>

Moreover, smaller regions tend to benefit more from gaming developments than large ones. The smaller the region, the more likely it is that gamblers will travel to the resort from outside the region. Also, the smaller the region, the greater chance that the costs of gambling, especially the social costs of pathological or problem gambling, will occur outside the region.<sup>3</sup>

Pittsburgh meets some of these criteria. Many patrons of the Harrah's Station Square facility will come from outside the region, and some of these visitors will be people who in the absence of a slot facility would not visit Pittsburgh as often. Nevertheless, spending at the facility and spending at the entertainment and restaurants on-site will cause some displacement in the area. Exhibit E.S.2 presents our estimates of the net economic impact of Harrah's Station Square Casino as a result of these positive and negative impacts. As with any large economic development, increased visitation due to the facility could create added burdens on the local transportation infrastructure, including water supplies and systems, roads, traffic signals and signage, parking, and similar public-sector facilities. As such, the new facility could create new costs for road repairs, police, fire and safety, and increased demand on water, sewer, and related systems, most of which would fall in the public (i.e., taxpayer-supported) sector. There

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<sup>2</sup> Dunstan, Roger. "Gambling in California." Chapter IX. January, 1997. CRB-97-003  
<http://www.library.ca.gov/CRB/97/03/crb97003.html#toc>

<sup>3</sup> *ibid.*

could also be increased work or case loads for providers of social services, and possibly increased demand on local schools caused by an influx of families as a result of the project by families attracted to the area by permanent jobs at the facility. As shown in this report, the positive economic benefits of the \$500 million investment in the facility coupled with a business that will eventually approach three quarters of a billion dollars in revenue and spend a significant proportion of that amount annually to support its operations seem to outweigh the measurable negative economic impacts.

From data provided by Pittsburgh we understand the FY04 budget for Public Safety was \$124.1 million. Based upon our review of the City's budget and a review of the experience in other municipalities that host casinos and or racinos there could be an annual increase in the town's budget to augment public safety, social services, local schools, and health care to accommodate the increased visitation that could result from the facility's construction and opening. According to our calculations the City of Pittsburgh will receive an average of \$12.8 million annually from its share of the facility's gross gaming revenues and an average of \$5.7 million in additional property taxes when the permanent gaming facility is constructed. We believe these additional funds, which amount to approximately a 15% increase in the FY 2004 City budget, should adequately cover any potential increases in services and expenses to Pittsburgh.

CCA has also been asked to assess the potential impact of this facility on public health care, child care, public transportation, affordable housing and social services. In general one of the largest impacts on Pittsburgh and surrounding communities will be the influx of new residents to the area attracted by the quality jobs created during the construction phase and operations phase of the slot facility. According to the IMPLAN models the average wage for sector 478 (other amusements, gambling and recreation industries) in Allegheny County is \$20,371, gaming facilities typically pay wages of 50% more than this amount. The majority of full time workers are provided health insurance on reasonable terms. As such, we would expect demand for many social services to decrease in the area as adults currently residing in Pittsburgh and surrounding communities move from welfare to work at the facility. There may, however, be increases in demand for public transportation services and child care from facility workers and their families. In short, although some social and public services may require augmentation with the opening of this facility we believe the creation of high quality jobs in this community and the ensuing economic and other benefits created thereby will outweigh any potential increases in some public services.

We estimate the Harrah's Station Square slot facility will generate \$625.6 million Statewide in spin off economic activity in Year One, increasing to \$695.1 million in Year Three, and to \$850.4 million in Year Ten. We also estimate that the proposed development will result in 10,377 jobs with wages of \$321.5 million in Year One, increasing to 13,429 jobs with earnings of \$408.1 million by Year Ten.

**Exhibit E.S.2: Net Economic Impact of the Proposed Slot Facility (millions of dollars)**

	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Years One Through Ten
Employment	2,455	4,091	10,377	10,161	10,927	11,256	11,592	11,938	12,294	12,661	13,039	13,429	10,352
Wage Income (\$ Millions)	\$84.9	\$141.6	\$321.5	\$308.0	\$331.2	\$341.0	\$351.4	\$362.1	\$373.1	\$384.4	\$396.1	\$408.1	\$3,803.2
Personal Income Tax (\$ Millions)	2.3	3.9	8.8	8.5	9.1	9.4	9.7	10.0	10.3	10.6	10.9	11.2	104.6
Purse Fund			61.5	63.2	63.8	61.6	63.4	65.3	67.3	69.3	71.4	73.5	660.2
State Gambling Privilege Tax			180.7	210.0	225.8	232.6	239.6	246.8	254.2	261.8	269.6	277.7	2,398.8
Allegheny County			10.6	12.4	13.3	13.7	14.1	14.5	15.0	15.4	15.9	16.3	141.1
Pittsburgh (GGR %)			10.6	12.4	13.3	13.7	14.1	14.5	15.0	15.4	15.9	16.3	141.1
Pittsburgh (Property Taxes)	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.1	6.2	6.3	68.0
Development Fund			26.6	30.9	33.2	34.2	35.2	36.3	37.4	38.5	39.7	40.8	352.8
License Fee (One Time)	50.0												
<b>Total Wages and Other Benefits</b>	<b>\$142.3</b>	<b>\$150.6</b>	<b>\$625.6</b>	<b>\$650.7</b>	<b>\$695.1</b>	<b>\$711.7</b>	<b>\$733.2</b>	<b>\$755.2</b>	<b>\$778.0</b>	<b>\$801.4</b>	<b>\$825.6</b>	<b>\$850.4</b>	<b>\$7,719.8</b>

Source: Christiansen Capital Advisors, LLC

CCA concludes that in the aggregate the proposed facility will have significant and lasting beneficial impacts on Allegheny County and the State of Pennsylvania.



# 1. Gaming: A National Perspective

The United States commercial casino industry produced total gross gaming revenues of approximately \$28.9 billion<sup>4</sup> in 2004. From this revenue, these casinos paid nearly \$12.2 billion in employee wages and directly employed over 349,000 persons nationwide.<sup>5</sup> (Exhibit 1.1) Commercial casinos generated an average of 12.1 jobs for every \$1 million in gross gaming revenue and, excluding Nevada, from 5 to 12 jobs per \$1 million of gross gaming revenue depending on the venue, wage levels, the ratio of full-time to part-time jobs, and the mix of gaming to non-gaming operations.

**Exhibit 1.1: Casino Revenue, Wages, and Employees 2004**

State	No. of Operating Casinos	Gross Gaming Revenues (in \$Millions)	Number of Casino Employees	Employees per \$1 Million GGR	Casino Employee Wages (in \$Millions)	Annual Average Wage
Colorado	46	725.9	7,703	10.6	210.4	27,314.0
Illinois	9	1,718.0	8,628	5.0	360.1	41,736.2
Indiana <sup>1</sup>	10	2,369.0	17,377	7.3	589.5	33,924.2
Iowa	13	1,064.0	8,799	8.3	272.3	30,946.7
Louisiana	18	2,163.0	20,048	9.3	486.0	24,243.3
Michigan	3	1,189.0	7,572	6.4	366.2	48,362.4
Mississippi	29	2,780.0	28,932	10.4	1,009.0	34,874.9
Missouri	11	1,473.0	11,200	7.6	284.0	25,357.1
Nevada <sup>2</sup>	258	10,562.0	191,620	18.1	7,287.0	38,028.4
New Jersey	12	4,807.0	45,501	9.5	1,259.0	27,669.7
South Dakota	36	78.0	1,830	23.5	36.4	19,890.7
Total	445.0	28,928.9	349,210.0	12.1	12,159.9	34,821.3

<sup>1</sup> Indiana wages 2003

<sup>2</sup> Includes casinos with GGR of at least \$1 Million

Source: American Gaming Association, Christiansen Capital Advisors, LLC.

The related U.S. commercial racino industry<sup>6</sup> produced total gross gaming revenues of approximately \$2 billion in 2004 and directly employed over 10,000 persons nationwide (Exhibit 1.2). Data for employee wages are currently unavailable for racino States but CCA estimates that wages paid by racinos were approximately \$305 million in 2004. Nationwide, racinos generated an average of 4.7 jobs for every \$1 million in gross gaming revenue. Machines-only racinos typically generate less employment than full-blown casinos for two reasons: first, table games are considerably more labor-intensive than slot machines or video lottery terminals (VLTs), and second, fewer racinos come equipped with hotels and other ancillary developments.<sup>7</sup>

<sup>4</sup> Throughout this report all dollar figures are current (nominal) dollars.

<sup>5</sup> Due to the lack of detailed information Class III Indian gaming is not included in the above table.

<sup>6</sup> William R. Eadington, an economist at the University of Nevada-Reno who studies gaming, once referred to racinos as "...casinos that have animals that run around in circles."

<sup>7</sup> There are exceptions to this general rule, however, such as Dover Downs in Dover, Delaware.

**Exhibit 1.2: Racino Revenue, Wages, and Employees 2004**

State	No. of Operating Racinos	Gross Gaming Revenues (in \$Millions)	Number of Racino Employees	Employees per \$1 Million GGR	Racino Employee Wages (in \$Millions)	Annual Average Wage
Delaware	3	553.3	2,370	4.3	N/A	N/A
New Mexico	5	149.7	518	3.5	N/A	N/A
New York	4	192.5	1,813	9.4	N/A	N/A
Rhode Island	2	383.8	1,057	2.8	N/A	N/A
West Virginia	4	882.4	4,404	5.0	N/A	N/A
Total	18.0	2,161.7	10,162.0	4.7	-	-

Source: American Gaming Association, Christiansen Capital Advisors, LLC.

Commercial casinos and racinos paid more than \$5.6 billion in gaming privilege taxes to State governments. This figure does not include gross gaming revenue generated from Class III gaming shared with States pursuant to compacts between States and tribes, State gaming privilege taxes collected from card rooms, or government revenues generated from non-casino-based slot machines and video lottery terminals. It does not include State income taxes paid by employees or sales, room occupancy, and meals taxes generated by the casinos' non-gaming operations.

## 2. Gaming and Other Revenues

Pursuant to statutory requirements for a Category 2 slot machine facility license, CCA has been asked by Forest City Enterprises to provide an independent assessment of the economic impact of the Harrah's Station Square stand-alone slot machine facility to be located in Pittsburgh, Pennsylvania.<sup>8</sup> The following report estimates and describes the economic impacts that the proposed facility would have on the local area (Allegheny County) and the Commonwealth of Pennsylvania.

In performing this task, CCA reviewed studies of the economic impacts of casinos and racinos on local and regional economies, including some of CCA's prior work in this area. CCA's analysis of the economic impacts of the Pittsburgh stand-alone slot facility focused upon a five-year period during which the facility will be constructed and then operated. Forest City Enterprises will construct a slot machine facility with 3,000 devices at a projected cost of \$500 million. The facility is expected to add 1,000 machines by the third year of operation. Further, we estimate that the facility will take approximately 16 to 20 months to construct.

Exhibit 2.1 presents machine and other revenues, projected construction spending for Years One through Ten, and total gross gaming revenue (win) for Harrah's Station Square.

### Exhibit 2.1: Slot and Other Revenues and Construction Spending for the Pittsburgh Slot Facility Years One Through Ten (millions of dollars)

	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Slot Machine Revenues	\$0.0	\$0.0	\$531.4	\$617.7	\$664.2	\$684.1	\$704.6	\$725.8	\$747.6	\$770.0	\$793.1	\$816.9
Food, Beverage, and Other	0.0	0.0	45.2	52.5	56.5	58.2	59.9	61.7	63.5	65.4	67.4	69.4
<b>Total Revenues</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$576.5</b>	<b>\$670.2</b>	<b>\$720.7</b>	<b>\$742.3</b>	<b>\$764.5</b>	<b>\$787.5</b>	<b>\$811.1</b>	<b>\$835.4</b>	<b>\$860.5</b>	<b>\$886.3</b>
<b>Construction Expenditures</b>	<b>\$111.4</b>	<b>\$185.7</b>	<b>\$74.3</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>

Source: Christiansen Capital Advisors, LLC

In the first year of operation we estimate that Harrah's Station Square will generate gross gaming revenue of \$531.4 million. Gross gaming revenue is expected to rise to \$617.7 million in Year Two when 1,000 machines are added, and increase to \$816.9 million by Year Ten (Exhibit 2.1).

<sup>8</sup> Act 71 defines a Category 2 license as follows:

“(A) ELIGIBILITY. -A person may be eligible to apply for a Category 2 license to place and operate slot machines at a Licensed racetrack facility if the person: (1) Has been issued a license from either the state Horse Racing commission or the state Harness Racing Commission to conduct Thoroughbred or harness race meetings Respectively with pari-mutuel wagering and has conducted live horse races for not less than two years immediately preceding the effective date of this part; (2) Has been approved or issued a license from either The state Horse Racing Commission or the state Harness Racing Commission to conduct thoroughbred or harness race meetings respectively with pari-mutuel wagering within 18 months immediately preceding the effective date of this part and will successfully conduct live racing pursuant to the requirements of section 1303 (relating to additional category slot machine license requirements); or as been approved by the state Harness Racing Commission, after the effective date of this part, to conduct harness race meetings with pari-mutuel wagering and will conduct live racing pursuant to the requirements of section 1303. Is a successor in interest to persons eligible under paragraph (1), (2) or (3) who comply with the requirements of section 1328 (relating to change in ownership or control of slot machine licensee) or is a successor in interest to persons otherwise eligible under paragraph (1), (2) or (3) but precluded from eligibility under the provisions of section 1330. Nothing in this part shall be construed to permit the approval or issuance of more than one slot machine license at a licensed racetrack facility.”

Exhibit 2.2 presents the data in Exhibit 2.1 in terms of win-per-machine per day, assuming that the number of machines remains constant before and after the additional machines come online. In Year One of operation (with 3,000 machines) win per machine per day would in this projection be \$485.3, increasing to \$564.1 in Year Two (also with 3,000 machines), decreasing to \$454.9 in Year Three with the addition of 4,000 machines.

**Exhibit 2.2: Win-Per-Machine-Per Day for the Pittsburgh Slot Facility in Years One Through Ten**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Slot Machine Revenues (\$M)	\$531.4	\$617.7	\$664.2	\$684.1	\$704.6	\$725.8	\$747.6	\$770.0	\$793.1	\$816.9
Number of Machines	3,000	3,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
<b>Win per Unit per Day</b>	<b>\$485.3</b>	<b>\$564.1</b>	<b>\$454.9</b>	<b>\$468.6</b>	<b>\$482.6</b>	<b>\$497.1</b>	<b>\$512.0</b>	<b>\$527.4</b>	<b>\$543.2</b>	<b>\$559.5</b>

Source: Christiansen Capital Advisors, LLC

**CURRENT SPENDING ON GAMING BY PENNSYLVANIA RESIDENTS**

Pennsylvania today is a supplier of patrons and personal income to casinos and racinos in nearby States. CCA evaluated these neighboring State casino and racino markets. This evaluation provides a baseline for assessing the relative saturation of the current Pennsylvania market, in terms of gaming revenue and visitation in Pennsylvania generally and by distinct geographic market (zip codes). More importantly this analysis provides an indication of how much Pennsylvania personal income is currently flowing to gaming facilities in other States. Pennsylvania can expect to recover some, although not all, of this “exported” personal income with the slot machines authorized in its recently enacted machine gaming law.

In the aggregate, we estimate that gaming machines in Atlantic City, Delaware, and West Virginia facilities generated \$1.1 billion in gross gaming revenue from Pennsylvania residents in FY 2005. Of this amount, \$202 million was spent by Pennsylvanians in West Virginia, \$782 million in Atlantic City, and \$119 million in Delaware. Supply and demand for machine gaming is roughly in balance in Atlantic City. In Delaware and West Virginia demand for machine gaming exceeds supply; that is, machine gaming facilities in these two States are capacity-constrained.

CCA estimates that \$175.8 million is spent by Western Pennsylvania residents at casinos and racinos in other States (primarily at the West Virginia racinos, Mountaineer Park and Wheeling). Most of this spending will be *recaptured* by the Commonwealth of Pennsylvania when gaming facilities (racinos and stand-alone slot facilities) begin operation in the Commonwealth (Exhibit 2.3).

**Exhibit 2.3: Total Gaming Revenue and Amounts Derived from Western Pennsylvania**

	Wheeling	Mountaineer Park	Total
Revenues from Western Pennsylvania	\$ 76.7	\$ 99.1	\$ 175.8
Total GGR	\$ 188.5	\$ 263.8	\$ 452.3
<i>Percentage sourced from PA.</i>	40.7%	37.6%	38.9%

Source: Christiansen Capital Advisors, LLC.

### 3. Community Impacts

CCA has made assessments of the positive and negative community impacts of casinos and racinos in a variety of markets. The categories of these positive and negative impacts are summarized in Exhibit 3.1.

#### Exhibit 3.1: Positive and Negative Community Impacts of Casino and Racino Gaming

Positive Impacts	Negative Impacts
Construction Employment	Compulsive Gambling
Resort Employment	Public Sector Infrastructure Costs
Casino Purchases	Shifts in Consumer Spending Patterns
Increased Visitation	Increased Competition for Bars and Restaurants
Housing	Utilization of Schools and other Community Resources

Source: Christiansen Capital Advisors, LLC.

In Allegheny County, positive impacts would include employment in the local construction industry during the construction phase of the facility development; job creation and salaries and wages paid by the facility; stimulus to the local economy from locally purchased goods and services used by the facility in its on-going operations; new spending in local bars and restaurants, gas stations, convenience stores, fast food chains, toll roads and bridges used by visitors to the facility in Pittsburgh, Pennsylvania area; increased occupancy of hotels in the Pittsburgh area; and increased demand for other area businesses catering to facility visitors.

Negative impacts could include increased community levels of compulsive gambling (no attempt at quantifying this important negative impact of the proposed facility is made in this report); costs arising from added burdens on public-sector infrastructure, especially increased automobile and bus traffic; increased parking requirements; increased levels of competition for area bars and restaurants from food and beverage facilities; shifts in local consumer spending patterns (demand curves for goods and services) as the new facility changes local patterns of leisure consumption; increased levels of the petty crimes associated with an influx of visitors to any leisure attraction; and the possible need for increased local education facilities due to the influx of workers and their families.

#### EXPORT VERSUS LOCAL SPENDING

In assessments of the impact of gaming on communities, regions, and States, almost all commentators, proponents and opponents of gambling alike, agree that the level of direct substitution (or displacement spending) is highly dependent on the level “export spending” generated by a gaming facility. “Export spending” in this context means spending by consumers from outside the local market area—here, Allegheny County. In other words, spending from other markets and other States causes less displacement since it is spending that would not have found its way to Pittsburgh in the absence of a gaming facility.<sup>9</sup> In short, spending in the

<sup>9</sup> It is important to note, however, that “export” spending is not the only factor influencing substitution effects. Quality of goods and services introduced into a market is also important. For example, the high quality of restaurants and non-gaming amenities at the newly opened Borgata in Atlantic City is causing substitution effects among restaurants and amenities at older Atlantic City resorts. These older resorts are thus confronted with a choice: upgrade their facilities; or suffer loss of business to Borgata. Assuming that older resorts elect the former new capital is expended;

Pittsburgh area by out-of-State and out-of-market persons is a net gain to Pittsburgh and Allegheny County economies.<sup>10</sup>

A second factor in assessing the impact of a stand-alone slot facility in the Pittsburgh area is the new facility's contribution to local personal income. To the extent that the facility adds to local employment and purchases goods and services locally Pittsburgh area residents have more money to spend (at the casino or on other things).

A third factor in assessing the impact of a slot facility in the Pittsburgh area is displacement effects. The proposed facility is likely to shift demand curves for other local goods and services. For example, local moviegoers might attend fewer movies or eat out in local restaurants less often in order to spend time in the gaming facility, or in its restaurants. Displacement effects of this kind are the normal, and inevitable, consequences of economic growth and change. They are not peculiar to gaming and occur in all parts of the economy, not just those affected by casinos and racinos. The Internet, to take one prominent economic change, is causing shifts in demand curves for many leisure activities. In October (2004) Nielsen Media Research reported that television viewer-ship among men aged 18 to 34 fell by 12% from the year before, due, in part, to the availability of news and entertainment, including computer games, music file sharing and Web sites offering downloaded clips of popular television shows, on the Internet.<sup>11</sup> A stand-alone slot facility at the Proposed Pittsburgh location is likely to create displacement effects of this kind. For example, to the extent that spending at the proposed facility's restaurants displaces spending at local restaurants the spending will not have a net positive impact *unless total spending on area restaurants increases following the casino's opening*. In order, therefore, to properly assess the economic impact of the facility at the proposed Pittsburgh location such replacement spending has to be netted out of projections of what the post-facility-opening local economy will look like.

## Restaurants

The impacts of casinos/racinos on local businesses in other jurisdictions that have casino resorts/racinos have been mixed (i.e., both positive and negative). Reports of local restaurants hurt by competition from casinos received wide currency in the 1980s, largely as a result of experience in Atlantic City following the introduction of casino gaming in 1978. Atlantic City's restaurants did indeed decrease in number following the start of gaming. In testimony before the National Gambling Impact Study Commission, Joseph Faldetta, president of the Atlantic City Restaurant and Tavern Association, stated "in 1978 [the year the first casino opened], there were 311 taverns and restaurants in Atlantic City. Nineteen years later, only 66 remained, despite the promise that gaming would be good for the city's own."<sup>12</sup> A study of the regional impacts of casino gambling concluded, however, that "... the trend in closings was strong before casinos were approved [in Atlantic City], and it is likely that casinos had a marginal

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new jobs are created; and the level of restaurant and non-gaming amenities in the overall Atlantic City market will rise, making the consumer (Atlantic City visitors) the ultimate beneficiary of the process.

<sup>10</sup> To the extent that these out-of-market visitors would not have come to Pittsburgh and made purchases at other businesses in the absence of a Pittsburgh slot facility.

<sup>11</sup> John Schwartz, "Leisure Pursuits of Today's Young Man", *The New York Times*, March 28, 2004.

<sup>12</sup> Testimony of Joseph Faldetta to the National Gambling Impact Study Commission, Atlantic City, New Jersey, (January 22, 1998).

impact. Also, the number of restaurants and bars in the larger metropolitan area has increased, which includes places where workers and other population spurred by the introduction of casinos live and where some tourists may stop en route to purchase services."<sup>13</sup> The impacts of casinos in Atlantic City on area restaurants and bars are thus by no means as clear as many people have supposed. More recently, since the opening of the Borgata in July 2003, older Atlantic City casinos have upgraded their restaurants and added new ones in efforts to meet the rising consumer expectations for dining created by Borgata's lavish restaurant offerings. The end result is that more capital is being invested in Atlantic City restaurant facilities, which are stimulating increased consumer spending on dining in Atlantic City.

## **Retail**

The proposed facility will have differential impacts on retail businesses in Pittsburgh area. Businesses that cater to visitors, including service stations, convenience stores and fast food outlets located on major traffic arteries, and similar providers of goods and services needed by travelers will benefit from increased visitation to the area. Downtown area businesses that provide goods and services to area residents employed at the facility would also benefit as the facility salaries and wages are spent. Area leisure businesses such as bars and cinema multiplexes may likewise benefit as payrolls are spent in the area.

Whether or not gaming facility development will be a net positive or a net loss to restaurants and retail businesses in Pittsburgh depends upon two key factors. These factors are the *destination effect* and the *substitution effect*. A description of these effects follows, together with CCA's estimates of the magnitude of these effects for this particular project and the quantification of the net impacts of these factors on local restaurant, retail, and lodging businesses in the Pittsburgh area.

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### **DIRECT SUBSTITUTION EFFECTS**

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The presence of a stand-alone slot facility in Pittsburgh will generally increase local sales, but the facility will also compete with other nearby businesses for certain kinds of customers. For instance, if local residents decide to dine at the slot facility instead of elsewhere in Allegheny County, the facility will divert or reduce spending in other food service businesses, and possibly in other local businesses that see their foot traffic reduced. Economists refer to displacement effects of this kind as *direct substitution*. In order to generate accurate estimates of local impacts, CCA subtracted this spending from its estimate of the facility's positive impact on the Pittsburgh area. The magnitude of the substitution effect depends upon the percentage of patrons that would otherwise be spending money at local restaurants and retail businesses in the Pittsburgh area even in the absence of a gaming facility (as well as on spending "exported" by areas outside Allegheny County to the Pittsburgh area as a result of the new facility's operation).

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### **THE DESTINATION EFFECT**

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A stand-alone slot facility in Pittsburgh will draw some tourists to the area that would not otherwise have visited the Pittsburgh area. Exhibit 3.2 presents CCA estimates of where the

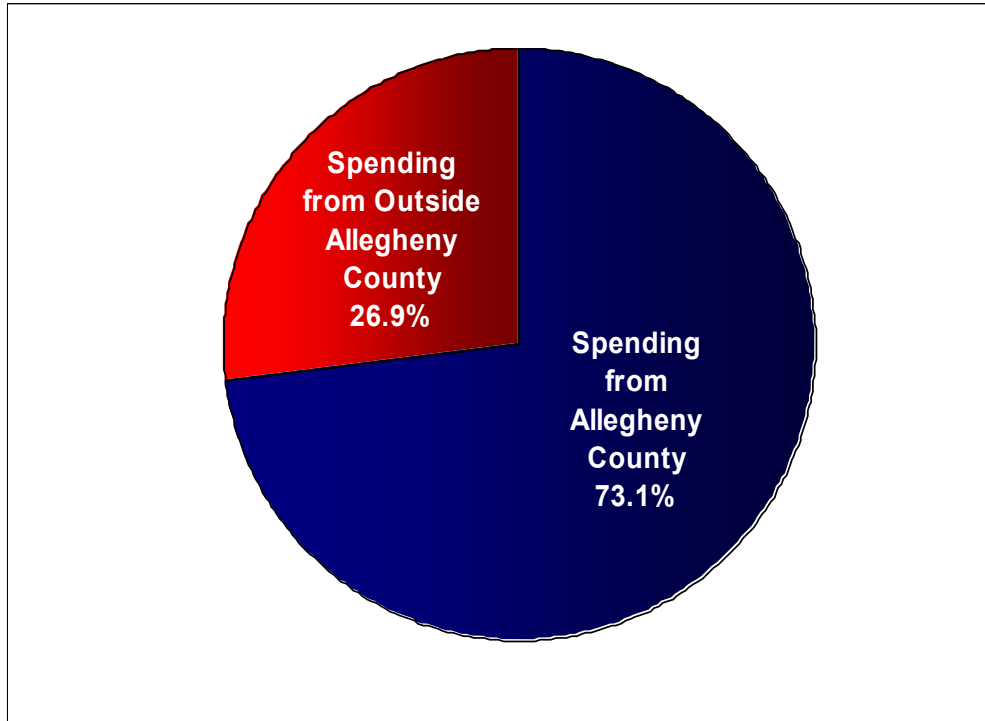
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<sup>13</sup> Adam Rose and Associates, "The Regional Impacts of Casino Gambling: Assessment of the Literature and Establishment of a Research Agenda", prepared in August 1998 for the National Gambling Impact Study Commission (*Final Report* 1999), p 30.



patrons to the proposed Pittsburgh facility will come from. We estimate that about 27% of total spending at a stand-alone slot facility at the proposed Pittsburgh site will come from outside of Allegheny County. As noted previously in this section, "export spending," or spending in Pittsburgh by persons from outside Pittsburgh and Allegheny County who would not have spent money locally in the absence of a slot facility, is a net gain to the local economy.

**Exhibit 3.2: Sources of The Proposed Pittsburgh Facility Spending (millions of dollars)**



Source: Christiansen Capital Advisors, LLC

In a report prepared for the National Gambling Impact Study Commission, Adam Rose and Associates conducted a review of the literature regarding the economic impact of casino gaming. In general, Adam Rose and Associates found that the destination effect of casino development often outweighed the substitution effect. In other words, while residents are likely to substitute purchases of casino food and beverages for similar purchases from local restaurants, these impacts are often more than offset by the increased spending of tourists who come to the area because of the existence of the gaming.<sup>14</sup>

Exhibit 3.3 presents estimated gaming and other revenues at the proposed Pittsburgh location for Years One through Ten of operations. We estimate that this facility will generate \$45.2 million in food and beverage revenue in Year One, increasing to \$69.4 million in Year Ten.

<sup>14</sup> Adam Rose and Associates, "The Regional Impacts of Casino Gambling: Assessment of the Literature and Establishment of a Research Agenda", p 17-18.

**Exhibit 3.3: Estimated Revenue Breakdown of the Proposed Facility Revenues (millions of dollars)**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Slot Machine Revenues	\$531.4	\$617.7	\$664.2	\$684.1	\$704.6	\$725.8	\$747.6	\$770.0	\$793.1	\$816.9
Food, Beverage, and Other	45.2	52.5	56.5	58.2	59.9	61.7	63.5	65.4	67.4	69.4
<b>Total Revenues</b>	<b>\$576.5</b>	<b>\$670.2</b>	<b>\$720.7</b>	<b>\$742.3</b>	<b>\$764.5</b>	<b>\$787.5</b>	<b>\$811.1</b>	<b>\$835.4</b>	<b>\$860.5</b>	<b>\$886.3</b>

Source: Christiansen Capital Advisors, LLC

Utilizing the data in Exhibit 3.3 and the projected analysis of net new visitors to the proposed Pittsburgh facility vs. local residents and visitors who would have come to Pittsburgh even in the absence of a casino, CCA estimated substitution effects for area restaurants and retail that would be caused by the facility's operation.

A detailed survey of prospective local facility patrons and their spending habits would be required to arrive at precise estimates of the amount of local spending that would be displaced by the proposed facility. Such survey research is beyond the scope of this study. CCA has however reviewed similar surveys or studies of the patrons of comparable gaming facilities in other jurisdictions, which provide a basis for reasonable estimates of the magnitude of the direct substitution effects which can be expected from the proposed Pittsburgh facility. Two such studies<sup>15</sup> estimate that the levels of displacement caused by spending on food, beverages and other goods and services at casinos by in-State residents in Missouri and Louisiana were 64.3% and 68% respectively. Applying the average of these rates, or 66.15%, to the projected non-casino spending at the proposed Pittsburgh facility yields results of \$29.9 million in displaced spending on other food and beverage outlets in the area in Year One and \$45.9 million Year Ten. Exhibit 3.4 presents CCA's estimates for direct substitution from the proposed facility.

**Exhibit 3.4: Displaced Spending on Food and Beverage in Allegheny County (millions of dollars)**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Food and Beverage	\$45.2	\$52.5	\$56.5	\$58.2	\$59.9	\$61.7	\$63.5	\$65.4	\$67.4	\$69.4
<i>Displaced Spending</i>	29.9	34.7	37.3	38.5	39.6	40.8	42.0	43.3	44.6	45.9
<b>Net New Spending</b>	<b>\$15.3</b>	<b>\$17.8</b>	<b>\$19.1</b>	<b>\$19.7</b>	<b>\$20.3</b>	<b>\$20.9</b>	<b>\$21.5</b>	<b>\$22.2</b>	<b>\$22.8</b>	<b>\$23.5</b>

Source: Christiansen Capital Advisors, LLC

<sup>15</sup> Leven, Charles and Don Phares, "The Economic Impact of Gaming in Missouri", submitted to Civic Progress (St. Louis: Missouri), April 1998, and McGowan, John R. and Muhammad Islam, "Economic Effects of the Proposed Tax Increases and Removal of Loss Limits on the Missouri Gaming Industry", prepared for Taxpayers Research Institute of Missouri (TRIM) and Associated Industries of Missouri (AIM). April 2003.

CCA also estimated *net* impacts on restaurants and retail in the Pittsburgh region by attempting to measure the destination effects. To estimate the destination effect we look only at net *new* visitors to the proposed Pittsburgh facility.<sup>16</sup> (Exhibit 3.5) We project that net visitation to the facility will be 1.3 million in Year One, increasing to 1.9 million in Year Ten.

### Exhibit 3.5: Net New Visitors to Allegheny County

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Gross Gaming Revenue (\$M)	\$531.4	\$617.7	\$664.2	\$684.1	\$704.6	\$725.8	\$747.6	\$770.0	\$793.1	\$816.9
Total Visitation (M)	4.8	5.6	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4
<b>Net New Adult Visitors to Pittsburgh (M)</b>	<b>1.3</b>	<b>1.5</b>	<b>1.6</b>	<b>1.6</b>	<b>1.7</b>	<b>1.7</b>	<b>1.8</b>	<b>1.8</b>	<b>1.9</b>	<b>1.9</b>

Source: Christiansen Capital Advisors, LLC

From studies in other markets, we assume that, in general, visitors to facilities comparable to the proposed Pittsburgh facility spend an average of \$30 per visit on food, beverages, and area retail. Studies in other markets<sup>17</sup> have shown, however, that casino visitors typically spend approximately 60% less on such purchases than do other tourists. CCA therefore discounted the \$30 per visit by 60%.

### Exhibit 3.6: Net New Spending on Food and Beverage and Retail in Allegheny County (millions of dollars)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Net new spending at the Pittsburgh facility	\$15.3	\$17.8	\$19.1	\$19.7	\$20.3	\$20.9	\$21.5	\$22.2	\$22.8	\$23.5
Spending at other establishments in the market	22.6	26.3	28.3	29.2	30.0	30.9	31.9	32.8	33.8	34.8
<b>Total New Spending</b>	<b>\$37.9</b>	<b>\$44.1</b>	<b>\$47.4</b>	<b>\$48.8</b>	<b>\$50.3</b>	<b>\$51.8</b>	<b>\$53.4</b>	<b>\$55.0</b>	<b>\$56.6</b>	<b>\$58.3</b>

Source: Christiansen Capital Advisors, LLC

To determine the net impact on existing retail, hotels, and restaurants in Pittsburgh we compare our projections of total spending by **net new visitors** on restaurants, lodging, and retail (both at the slot facility and elsewhere in Pittsburgh) with the estimated displaced spending for these products in the facility. The results of this comparison are presented in Exhibit 3.6. As presented in Exhibit 3.6, the substitution effect slightly outweighs the destination effect on other businesses in Allegheny County. In our projections, local restaurants, service stations, and retail outlets will experience a net benefit amounting to \$22.6 million in increased sales in Year One increasing to \$34.8 million in Year Ten. Added to the estimated net new spending on similar goods and services at the facility, the combined new spending will equal \$37.9 million in Year One increasing to \$58.3 million in Year Ten.

### COSTS TO THE TOWN OF INCREASED VISITATION DUE TO THE STAND-ALONE SLOT FACILITY

As with any large economic development, increased visitation due to the slot facility could create added burdens on the local transportation infrastructure, including water supplies and

<sup>16</sup> For the purposes of this projection CCA assumed that the average visitor spends \$110 per visit on slot gaming, which is comparable to average per-person-per-visit spending on gaming at gaming facilities in other markets. CCA discounted the visitation (the total number of visitors) derived from the above calculation by 29.7% (i.e., the amount of spending we project will be generated from residents of Allegheny County, presented in Exhibit 3.2).

<sup>17</sup> ECONorthwest, A Report for the Confederated Tribes of Silentz Indians. Part II: The Impact of the Chinook Winds Casino and Convention Center on Lincoln City. Nebraska:1999.

systems, roads, traffic signals and signage, parking, and similar public-sector facilities. As such, the new slot facility could create new costs for road repairs, police, fire and safety, and increased demand on water, sewer, and related systems, most of which will fall in the public (i.e., taxpayer-supported) sector. There could also be increased work or case loads for providers of social services, and possibly increased demand on local schools caused by an influx of families during the construction phase of the project and thereafter by families attracted to the area by permanent jobs at the stand-alone slot facility.

## 4. Economic Impacts

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### INPUT-OUTPUT MODELS

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To measure the economic impact of the proposed stand-alone slot facility located in Pittsburgh and the surrounding communities CCA employed an input-output (I-O) model. Input-output systems were originally developed by Wassily Leontief to assist in planning the national economy; input-output models are the most frequently used method of measuring economic impacts. Input-output modeling is an equilibrium approach based on an accounting system of injections and leakages in a given economy. Models of these systems incorporate three basic tables. The *Transactions Table* measures inter-industry sales and purchase within a pre-defined region; the *Direct Requirements Table* measures intermediate requirements to produce a dollar of gross output for any given industry;<sup>18</sup> and the combination of these two tables creates the *Industrial Multiplier Table*. Input-output models allow us to remove the industry from the rest of the economy and assess the impacts of an impending change (in this case the proposed stand-alone slot facility) in isolation.

At a minimum the economic impact of any industry or activity is the output produced by that business, or its direct expenditures. However, since other segments of the local and regional economy (the suppliers to that business) will be supported, at least in part, by the new business (here, the new slot facility) the total economic impact is greater than the new business's direct expenditures. Input-output models capture the total economic impacts of new businesses or new economic activities.

The initial change created by any economic activity is the *direct effect*. Direct effects are the economic activities carried out by the business and/or the construction of the facility or facilities used by that business. In the present case these direct effects will include the construction costs of the new slot facility and, once the facility opens, consumer spending at the facility. Direct effects are primarily output, employment and personal (labor) income generated by that activity: As used here, these terms have the following meanings: *output* is the value of goods and services produced at the identified business or construction project; *employment* is the number of people employed, including wage and salary employees and self-employed persons; and *personal income* is the wages, benefits, and other income derived from that employment.

The slot facility's relationship to other businesses in the area is not fully described by this direct effect, however. *Secondary effects* are generated from this primary spending; economic impacts also include *indirect impacts*, *induced impacts*, and *total impacts*.

*Indirect impacts* derive primarily from off-site economic activities that are attributable to the identified business establishment. These economic activities occur mainly as a result of *non-payroll expenditures* by the business within a region. For example, gaming facilities spend significant sums on food and utility services, including water and electricity, which becomes revenue for these suppliers, who in turn purchase goods and services from their suppliers and so on. In short, the *indirect effect* derives from a business (in this case our stand-alone slot facility) purchasing goods and services from other businesses. Indirect impacts differ from

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<sup>18</sup> Which, of course, can be quite different for different industries. Producing \$1 dollar of gross output from the manufacture of shoes has different intermediate requirements than the intermediate requirements to produce \$1 dollar of gross output in restaurant sales.

direct impacts insofar as they originate entirely off-site, although the indirect impacts would not have occurred in the absence of the newly created business.

*Induced impacts* are the multiplier effects of the direct and indirect impacts created by successive rounds of spending by employees and proprietors.<sup>19</sup>

*Total impacts* are the sum of the direct, indirect, and induced impacts.

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#### THE IMPLAN MODELING SYSTEM

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Although there are several sets of multipliers that can be used to obtain estimates of the total economic contribution of any economic activity (including RIMS, RIMS II and REMI), for this study CCA employed local and regional data from IMPLAN.

The Forestry Service of the United States Department of Agriculture developed the IMPLAN multipliers in the 1980s. IMPLAN divides regional economies into 528 industrial sectors. Industries that do not exist in the region are automatically eliminated by the model. The primary sources for the IMPLAN data are *County Business Patterns* and Bureau of Economic Analysis (BEA) input-output benchmarks.<sup>20</sup> Incorporated in input-output models, these data explain quantitative relationships between businesses and between businesses and final consumers. From these data, we can examine the effects of a change in one or several economic activities and predict its effect on a specific State, regional, or local economies (impact analysis).

IMPLAN also includes social accounting data (e.g., personal income and gross State product) that make it possible to measure non-industrial transactions, such as the payment of indirect taxes by businesses and households. The IMPLAN database provides data for the entire United States by county and has the ability to incorporate user-supplied data at each stage of the model-building process to insure that estimates of economic impacts are both up-to-date and specific to an economic impact area. We consider IMPLAN to be superior to other multipliers for these reasons.

IMPLAN's Regional Economic Accounts and Social Accounting Matrices are used to construct local, county, or State-level multipliers specific to an impact area. As noted, these multipliers describe an economy's response to a change in demand or production. The multipliers allow economic impact analysis to move from a *descriptive* input-output model to a *predictive* model. Each business or industry that produces goods or services generates demand for other goods and services and this demand is multiplied through a particular economy until it dissipates through "leakage" to economies outside the specified area. Thus, multipliers calculate the response of the economic impact area to a change in demand or production.

IMPLAN models *discern and calculate leakage* from local, regional, and State economic areas based on workforce configuration, the inputs required by specific types of businesses, and the

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<sup>19</sup> As would be expected, a great deal (considerably more than the indirect effect) of this income of employees is spent locally. This in turn becomes income to local business and individuals who provide goods and services for these employees. These successive rounds of spending continue to filter through the economy and expand throughout the region. This phenomenon is commonly referred to as the "multiplier effect."

<sup>20</sup> The IMPLAN input-output accounts capture all monetary market transactions for consumption in a given time period. The IMPLAN input-output accounts are based on industry survey data collected periodically by the U.S. Bureau of Economic Analysis and follow a balanced account format recommended by the United Nations.

availability of these specific kinds of inputs in the economic area.<sup>21</sup> Economic impacts that accrue to other regions or States or countries as a consequence of a change in demand in the defined economic area are not counted as impacts within that economic area.

Within the defined economy, new businesses or industries can cause *substitution* and/or *displacement impacts*. The IMPLAN model adjusts for substitution and displacement impacts by deflating industry-specific multipliers to levels well below those recommended by the U.S. Bureau of Economic Analysis. In addition, multipliers are applied only to *personal disposable income* to obtain a more realistic estimate of the multiplier effects from increased demand.

A predictive model of impacts is constructed by specifying a series of new expenditures in a specific economic area, which is then applied to the industry multipliers for that particular region. Based on these calculations, the model estimates *final demand*, which includes employment, employee compensation (excluding benefits), and point-of-work personal income (including benefits).

The initial IMPLAN data details all purchases in a given area, including all goods and services (including imported goods and services). Next, IMPLAN's *regional economic accounts* exclude imports to an economic area so the calculation of economic impacts identifies only those impacts specific to the economic impact area. IMPLAN makes this distinction by means of regional purchase coefficients (RPC), which predict regional purchases based on an economic area's particular characteristics. The regional purchase coefficient represents the proportion of goods and services that will be purchased regionally under normal circumstances, based on the area's economic characteristics described in terms of actual trade flows within the area.

CCA constructed input-output models for both the Commonwealth of Pennsylvania and the Allegheny County local area using the IMPLAN model-building software and data packages. The data used in the models are for 2002, which is the latest available. Where necessary, all inputs were converted to current dollars using appropriate deflators (producer price indices for industrial commodities and the personal consumption expenditure deflator for personal income). Model outputs are reported in current dollars.

The economic impact of a stand-alone slot facility's operations and capital expenditures may be estimated by changing the output of the appropriate industries in the econometric model (IMPLAN Codes 478 and 479). This method assumes that a stand-alone slot facility's production function is the same as the average of the entire gaming industry in the area. CCA built an additional input-output model for the slot facility's capital (construction) spending. In both models, payments to business establishments within the region are distributed among industrial sectors by applying the model's regional purchase coefficient to purchases from those industries. Land purchases, the purchase of gaming equipment (e.g., slot machines, which would come from out-of-State suppliers), and license cost were not included in construction spending.

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<sup>21</sup> Inputs that are essential to the business or industry but not available within the defined economy have to be imported.

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#### **DIRECT EMPLOYMENT AND WAGE IMPACTS ON THE LOCAL ECONOMY**

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To assess the direct wages and employment generated by the construction of the new facility, CCA relied upon IMPLAN's estimates for a construction project of this size. Given CCA's extensive experience of casino and racino operations CCA was able to adjust the IMPLAN modeling system to more accurately reflect wages and employment for these particular industries. CCA employed the average rate of employment and wages for U.S. casino and racinos as presented in Exhibits 1.1 and 1.2.

The proposed facility will generate significant new employment, income and final demand in the Pittsburgh and Allegheny County areas. The mix of employment created and wages paid will change as the facility moves from the construction to operation phase, but the analysis shows that these impacts continue to increase through the ten-year time horizon of this report.

CCA allocated employment and expenditures among the 528 IMPLAN industry sectors (account subcodes) by assigning gaming-related expenditures to IMPLAN subcode 478 (Other Amusement – Gambling and Recreation). Non-gaming employment and expenditures were assigned to IMPLAN subcode 481 (Food Services and Drinking Places). Construction expenditures were assigned to IMPLAN subcode 38 (Commercial and Institutional Buildings). The economic impacts of a Pittsburgh slot facility are calculated for two geographical areas: the Commonwealth of Pennsylvania and Allegheny County.

Purchases from vendors outside an impact area are excluded from the calculation of economic impacts within the Commonwealth and the local area. Gambling operations have a regional purchase coefficient (RPC) of about 60%, which means that 60% of all non-payroll purchases are made from vendors within the Commonwealth and only that portion of non-payroll purchases are included in the calculation of indirect impacts.

The IMPLAN modeling system can use final demand to generate direct employment and labor income estimates from the U.S. Bureau of Economic Analysis benchmark input-output accounts for Pennsylvania. However, since final demand was used to generate an estimate of direct economic impacts, the final demand input was discounted from the \$506 million total construction cost to \$398.5 million to exclude the purchase of gaming equipment (e.g., slot machines) that are not produced in the state, land cost, and the cost of the license. The exclusion of land purchases, gaming equipment purchases, and the license cost from final demand yields a more realistic estimate of economic impacts during the construction phase.

The IMPLAN modeling system is able to specify the distribution of indirect and induced impacts by sector by calculating the regional effect of construction purchases based on the BEA's input-output accounts for Pennsylvania and by calculating the effect of increased consumer demand (employment) from gross State product data. The model predicts that indirect and induced impacts will be distributed widely across the Commonwealth and that these impacts will be distributed across a majority of IMPLAN's 538 account subcodes.

Gaming facility operations generate economic impacts that continue as long as the facility remains in operation. The IMPLAN modeling system uses U.S. Bureau of Labor Statistics earnings and income data and the U.S. Bureau of Economic Analysis Regional Economic Information System (REIS) to calculate place of work income. These estimates are based on direct employment estimates specific to the different aspects of a slot facility's operations and



on actual compensation rates in the particular region and locality. The most significant indirect and induced impacts will occur in sectors that provide gaming facility-related inputs or that provide retail, health care, financial, and educational services to facility employees.

Employment is defined as total wage-and-salary employees and self-employed jobs in a region. It includes both full-time and part-time workers. The data sets used to calculate total employment are the ES202 (County Business Patterns) and the Regional Economic Information System. Personal income is wages, benefits, and other income derived from employment linked geographically to the workplace site.

The model input is that a Harrah's Station Square slot facility will employ 3,431 persons in various facets of the facility's operations. The direct, indirect, and induced impacts have been estimated on the basis of current earnings specific to Pennsylvania and on the basis of a business profile specific to a slot facility in Pittsburgh.

The occupational matrix of a slot facility is distributed among a wide variety of occupations and professions that require many different types and levels of skills. The facility operation requires changers, beverage servers, accountants, personnel managers, floor managers, repair and maintenance technicians, sound and lighting technicians, chefs, wait staff, retail sales clerks, and security personnel, among other job descriptions. A gaming facility employs people in many areas other than its direct gaming operations. The food and beverage services require waiters and waitresses, chefs and cooks, dishwashers, hosts and hostesses, maintenance personnel, and managers. The facility's general administrative services require computer systems analysts, accountants, financial analysts, risk analysts, and other professional managers.

The operation of a slot facility in Pittsburgh will not only improve employment levels in Pennsylvania, it will improve overall job quality in traditionally low wage service sectors.

In this first series of Exhibits (4.1-4.8) CCA presents the direct, indirect, induced and total impacts of the proposed slot facility on Allegheny County. For construction in particular, the IMPLAN models estimate that a great proportion of the spin-off economic benefits will be sourced from within Allegheny County.

The following series of Exhibits (4.9-4.16) presents similar results for all 67 counties in the Commonwealth of Pennsylvania.

These two sets of exhibits will be described in more detail.

Exhibits 4.1 and 4.2 present the employment and associated wages that will be generated within Allegheny County.

**Exhibit 4.1: Direct Economic Impacts on Allegheny County - Employment**

Direct Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	1,304	2,174	870	0	0	0	0	0	0	0	0	0
Casino Operations	0	0	2,232	2,595	2,791	2,875	2,961	3,050	3,141	3,235	3,332	3,431
Food, Beverage, and Other	0	0	1,168	1,358	1,460	1,504	1,549	1,595	1,643	1,692	1,743	1,795
<b>Total Direct</b>	<b>1,304</b>	<b>2,174</b>	<b>4,270</b>	<b>3,953</b>	<b>4,251</b>	<b>4,379</b>	<b>4,510</b>	<b>4,645</b>	<b>4,784</b>	<b>4,927</b>	<b>5,074</b>	<b>5,226</b>

Source: Christiansen Capital Advisors, LLC

We estimate total Year One direct employment of 4,270 workers who will receive \$119.2 million in wages. Direct employment will increase to an estimated 5,226 jobs and \$134.2 million in wages in Year Ten.

**Exhibit 4.2: Direct Economic Impacts on Allegheny County – Wages (\$M)**

Direct Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	\$47.9	\$79.9	\$31.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Casino Operations	0.0	0.0	71.5	83.1	89.4	92.1	94.8	97.7	100.6	103.6	106.7	109.9
Food, Beverage, and Other	0.0	0.0	15.8	18.4	19.8	20.4	21.0	21.6	22.3	22.9	23.6	24.3
<b>Total Direct</b>	<b>\$47.9</b>	<b>\$79.9</b>	<b>\$119.2</b>	<b>\$101.5</b>	<b>\$109.2</b>	<b>\$112.5</b>	<b>\$115.9</b>	<b>\$119.3</b>	<b>\$122.9</b>	<b>\$126.6</b>	<b>\$130.3</b>	<b>\$134.2</b>

Source: Christiansen Capital Advisors, LLC

**INDIRECT IMPACTS ON THE LOCAL ECONOMY**

Exhibits 4.3 and 4.4 present the indirect employment and associated wages that will be generated by the proposed slot facility in Allegheny County.

**Exhibit 4.3: Indirect Economic Impacts on Allegheny County - Employment**

Indirect Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	373	622	249	0	0	0	0	0	0	0	0	0
Casino Operations	0	0	2,850	3,313	3,562	3,669	3,779	3,892	4,009	4,129	4,253	4,380
Food, Beverage, and Other	0	0	136	158	170	175	180	185	190	196	201	207
<b>Total Indirect</b>	<b>373</b>	<b>622</b>	<b>3,235</b>	<b>3,471</b>	<b>3,732</b>	<b>3,844</b>	<b>3,959</b>	<b>4,077</b>	<b>4,199</b>	<b>4,325</b>	<b>4,454</b>	<b>4,588</b>

Source: Christiansen Capital Advisors, LLC

We estimate that total spending during Year One will result in indirect employment of an estimated 3,235 workers who will receive \$117.7 million in wages. In Year Ten, the slot facility will provide an estimated indirect 4,588 jobs and \$166.8 million in indirect wages.

**Exhibit 4.4: Indirect Economic Impacts on Allegheny County - Wages (\$M)**

Indirect Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	\$13.7	\$22.9	\$9.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Casino Operations	0.0	0.0	103.9	120.7	129.8	133.7	137.7	141.8	146.1	150.5	155.0	159.6
Food, Beverage, and Other	0.0	0.0	4.7	5.5	5.9	6.1	6.2	6.4	6.6	6.8	7.0	7.2
<b>Total Indirect</b>	<b>\$13.7</b>	<b>\$22.9</b>	<b>\$117.7</b>	<b>\$126.2</b>	<b>\$135.7</b>	<b>\$139.8</b>	<b>\$144.0</b>	<b>\$148.3</b>	<b>\$152.7</b>	<b>\$157.3</b>	<b>\$162.0</b>	<b>\$166.8</b>

Source: Christiansen Capital Advisors, LLC

**INDUCED IMPACTS ON ALLEGHENY COUNTY**

Construction workers, new slot facility employees, and the employees of the facility's suppliers will generate additional economic activity (household spending) through their purchases of goods and services in the local economy, including housing, groceries, insurance and so forth. These are induced economic impacts of Harrah's Station Square. Many, but not all, of these induced economic impacts will be in Allegheny County.

Exhibits 4.5 and 4.6 present estimates of these induced economic impacts in wages and salaries paid to employees.

**Exhibit 4.5: Induced Economic Impacts on Allegheny County - Employment**

Induced Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	543	905	362	0	0	0	0	0	0	0	0	0
Casino Operations	0	0	1,383	1,608	1,729	1,781	1,834	1,889	1,945	2,003	2,062	2,124
Food, Beverage, and Other	0	0	160	186	201	207	213	219	226	232	239	246
<b>Total Induced</b>	<b>543</b>	<b>905</b>	<b>1,905</b>	<b>1,794</b>	<b>1,930</b>	<b>1,988</b>	<b>2,047</b>	<b>2,108</b>	<b>2,170</b>	<b>2,235</b>	<b>2,301</b>	<b>2,369</b>

Source: Christiansen Capital Advisors, LLC

As with the indirect impacts, the smallest geographic unit for which such multipliers are available is the county. CCA estimates that the induced impact from wages and salaries paid to construction and slot facility employees in Allegheny County will result in induced earnings of \$56.6 million and 1,905 jobs in Year One increasing to induced earnings of \$70.5 million dollars and 2,369 jobs in Year Ten.

**Exhibit 4.6: Induced Economic Impacts on Allegheny County - Wages (\$M)**

Induced Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	\$16.0	\$26.7	\$10.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Casino Operations	0.0	0.0	41.2	47.8	51.5	53.0	54.6	56.2	57.9	59.6	61.4	63.3
Food, Beverage, and Other	0.0	0.0	4.7	5.5	5.9	6.1	6.3	6.5	6.7	6.9	7.1	7.3
<b>Total Induced</b>	<b>\$16.0</b>	<b>\$26.7</b>	<b>\$56.6</b>	<b>\$53.4</b>	<b>\$57.4</b>	<b>\$59.1</b>	<b>\$60.9</b>	<b>\$62.7</b>	<b>\$64.6</b>	<b>\$66.5</b>	<b>\$68.5</b>	<b>\$70.5</b>

Source: Christiansen Capital Advisors, LLC

**COMBINED DIRECT, INDIRECT, AND INDUCED IMPACTS ON WAGES AND EMPLOYMENT ON ALLEGHENY COUNTY**

The total economic impact of the proposed casino is the sum of the direct, indirect, and induced impacts. Exhibits 4.7 and 4.8 present CCA's estimate of this total impact for Years One through Ten in Allegheny County.

**Exhibit 4.7: Total Economic Impacts on Allegheny County - Employment**

Total Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	2,220	3,701	1,481	0	0	0	0	0	0	0	0	0
Casino Operations	0	0	6,465	7,516	8,082	8,325	8,574	8,830	9,095	9,367	9,647	9,935
Food, Beverage, and Other	0	0	1,464	1,702	1,831	1,886	1,942	2,000	2,059	2,120	2,183	2,248
<b>Total Impacts</b>	<b>2,220</b>	<b>3,701</b>	<b>9,410</b>	<b>9,218</b>	<b>9,913</b>	<b>10,211</b>	<b>10,516</b>	<b>10,830</b>	<b>11,154</b>	<b>11,487</b>	<b>11,830</b>	<b>12,183</b>

Source: Christiansen Capital Advisors, LLC

As shown in Exhibit 4.8, we estimate that Harrah's Station Square will generate \$293.5 million in economic activity in Year One, increasing to \$371.6 million in Year Ten. We also estimate that the proposed development will generate 9,218 jobs in Allegheny County in Year One, increasing to 12,183 jobs by Year Ten.

**Exhibit 4.8: Total Economic Impacts on Allegheny County - Wages (\$M)**

Total Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	\$77.6	\$129.3	\$51.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Casino Operations	0.0	0.0	216.5	251.7	270.7	278.8	287.2	295.8	304.6	313.7	323.1	332.7
Food, Beverage, and Other	0.0	0.0	25.3	29.4	31.6	32.6	33.5	34.5	35.6	36.6	37.7	38.9
<b>Total Impacts</b>	<b>\$77.6</b>	<b>\$129.3</b>	<b>\$293.5</b>	<b>\$281.1</b>	<b>\$302.3</b>	<b>\$311.4</b>	<b>\$320.7</b>	<b>\$330.3</b>	<b>\$340.2</b>	<b>\$350.3</b>	<b>\$360.8</b>	<b>\$371.6</b>

Source: Christiansen Capital Advisors, LLC

In the following section we assess the net impacts on the State of Pennsylvania, considering both the expected increase in net visitors to Pittsburgh and the direct substitution and displacement that we expect to occur in the market from this slot facility development.

**DIRECT EMPLOYMENT AND WAGE IMPACTS ON PENNSYLVANIA**

Exhibits 4.9 and 4.10 present the employment and associated wages that will be generated for the Pennsylvania economy, including Allegheny County.

**Exhibit 4.9: Direct Economic Impacts on The State of Pennsylvania - Employment**

Direct Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	1,304	2,174	870	0	0	0	0	0	0	0	0	0
Casino Operations	0	0	2,232	2,595	2,791	2,875	2,961	3,050	3,141	3,235	3,332	3,431
Food, Beverage, and Other	0	0	1,168	1,358	1,460	1,504	1,549	1,595	1,643	1,692	1,743	1,795
<b>Total Direct</b>	<b>1,304</b>	<b>2,174</b>	<b>4,270</b>	<b>3,953</b>	<b>4,251</b>	<b>4,379</b>	<b>4,510</b>	<b>4,645</b>	<b>4,784</b>	<b>4,927</b>	<b>5,074</b>	<b>5,226</b>

Source: Christiansen Capital Advisors, LLC

We estimate that total spending during Year One will result in direct employment in the Commonwealth of Pennsylvania of an estimated 4,270 workers who will receive \$119.2 million in wages. In Year Ten, the slot facility will provide an estimated 5,226 jobs and \$134.2 million in wages in the Commonwealth of Pennsylvania.

**Exhibit 4.10: Direct Economic Impacts on The State of Pennsylvania - Wages (\$M)**

Direct Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	\$47.9	\$79.9	\$31.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Casino Operations	0.0	0.0	71.5	83.1	89.4	92.1	94.8	97.7	100.6	103.6	106.7	109.9
Food, Beverage, and Other	0.0	0.0	15.8	18.4	19.8	20.4	21.0	21.6	22.3	22.9	23.6	24.3
<b>Total Direct</b>	<b>\$47.9</b>	<b>\$79.9</b>	<b>\$119.2</b>	<b>\$101.5</b>	<b>\$109.2</b>	<b>\$112.5</b>	<b>\$115.9</b>	<b>\$119.3</b>	<b>\$122.9</b>	<b>\$126.6</b>	<b>\$130.3</b>	<b>\$134.2</b>

Source: Christiansen Capital Advisors, LLC

**INDIRECT IMPACTS ON PENNSYLVANIA**

Exhibits 4.11 and 4.12 present the indirect employment and associated wages that will be generated for the Pennsylvania economy.

**Exhibit 4.11: Indirect Economic Impacts on The State of Pennsylvania - Employment**

Indirect Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	517	860	344	0	0	0	0	0	0	0	0	0
Casino Operations	0	0	3,113	3,619	3,891	4,008	4,128	4,252	4,379	4,511	4,646	4,785
Food, Beverage, and Other	0	0	193	224	241	248	255	262	270	278	286	294
<b>Total Indirect</b>	<b>517</b>	<b>860</b>	<b>3,650</b>	<b>3,843</b>	<b>4,132</b>	<b>4,256</b>	<b>4,383</b>	<b>4,514</b>	<b>4,649</b>	<b>4,788</b>	<b>4,931</b>	<b>5,079</b>

Source: Christiansen Capital Advisors, LLC

We estimate that the total spending during Year One will result in indirect employment in the Commonwealth of Pennsylvania of an estimated 3,650 workers who will receive \$130.0 million in wages. In Year Ten, the slot facility will provide an estimated 5,079 jobs and \$181.5 million in wages in the Commonwealth of Pennsylvania.

**Exhibit 4.12: Indirect Economic Impacts on The State of Pennsylvania - Wages (\$M)**

Indirect Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	\$18.5	\$30.8	\$12.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Casino Operations	0.0	0.0	111.4	129.5	139.2	143.3	147.7	152.2	156.9	161.7	166.7	171.9
Food, Beverage, and Other	0.0	0.0	6.3	7.3	7.8	8.1	8.3	8.6	8.8	9.1	9.3	9.6
<b>Total Indirect</b>	<b>\$18.5</b>	<b>\$30.8</b>	<b>\$130.0</b>	<b>\$136.7</b>	<b>\$147.0</b>	<b>\$151.3</b>	<b>\$156.0</b>	<b>\$160.8</b>	<b>\$165.7</b>	<b>\$170.8</b>	<b>\$176.1</b>	<b>\$181.5</b>

Source: Christiansen Capital Advisors, LLC

**INDUCED IMPACTS ON PENNSYLVANIA**

Finally, construction workers, new slot facility employees, and the employees of the facility's suppliers will generate additional economic activity (household spending) in the form of induced economic impacts through their purchases of goods and services in the local economy and in the Commonwealth of Pennsylvania; including housing, groceries, insurance and so forth.

Exhibits 4.13 and 4.14 present estimates of these induced economic impacts of wages and salaries paid to employees in the local economy of Allegheny County and in the Commonwealth of Pennsylvania.

**Exhibit 4.13: Induced Economic Impacts on The State of Pennsylvania - Employment**

Induced Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	634	1,057	422	0	0	0	0	0	0	0	0	0
Casino Operations	0	0	1,825	2,121	2,281	2,349	2,419	2,491	2,565	2,642	2,720	2,801
Food, Beverage, and Other	0	0	210	244	264	272	279	288	296	304	313	322
<b>Total Induced</b>	<b>634</b>	<b>1,057</b>	<b>2,456</b>	<b>2,365</b>	<b>2,544</b>	<b>2,621</b>	<b>2,699</b>	<b>2,779</b>	<b>2,861</b>	<b>2,946</b>	<b>3,033</b>	<b>3,123</b>

Source: Christiansen Capital Advisors, LLC

As with the indirect impacts, the smallest geographic unit for which multipliers for induced impacts are available is by county. CCA estimates that the induced impact from wages and salaries paid to construction and slot facility employees will result in induced earnings of \$72.3 million and 2,456 jobs in Year One increasing to induced earnings of \$92.4 million dollars and 3,123 jobs in Year Ten.

**Exhibit 4.14: Induced Economic Impacts on The State of Pennsylvania - Wages (\$M)**

Induced Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	\$18.5	\$30.9	\$12.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Casino Operations	0.0	0.0	53.9	62.6	67.3	69.3	71.4	73.6	75.8	78.1	80.5	83.0
Food, Beverage, and Other	0.0	0.0	6.1	7.1	7.7	7.9	8.1	8.4	8.6	8.9	9.1	9.4
<b>Total Induced</b>	<b>\$18.5</b>	<b>\$30.9</b>	<b>\$72.3</b>	<b>\$69.7</b>	<b>\$75.0</b>	<b>\$77.2</b>	<b>\$79.5</b>	<b>\$82.0</b>	<b>\$84.4</b>	<b>\$87.0</b>	<b>\$89.7</b>	<b>\$92.4</b>

Source: Christiansen Capital Advisors, LLC

**COMBINED DIRECT, INDIRECT, AND INDUCED IMPACTS ON WAGES AND EMPLOYMENT IN PENNSYLVANIA**

The total economic impact of the proposed slot facility is the sum of the direct, indirect, and induced impacts on the Pennsylvania economy. Exhibits 4.15 and 4.16 present CCA's estimate of the total impact on the Pennsylvania economy of Harrah's Station Square for Years One through Ten.

**Exhibit 4.15: Total Economic Impacts The State of Pennsylvania - Employment**

Total Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	2,455	4,091	1,636	0	0	0	0	0	0	0	0	0
Casino Operations	0	0	7,170	8,335	8,963	9,232	9,508	9,792	10,085	10,387	10,697	11,017
Food, Beverage, and Other	0	0	1,571	1,826	1,965	2,024	2,084	2,145	2,209	2,274	2,342	2,411
<b>Total Impacts</b>	<b>2,455</b>	<b>4,091</b>	<b>10,377</b>	<b>10,161</b>	<b>10,927</b>	<b>11,256</b>	<b>11,592</b>	<b>11,938</b>	<b>12,294</b>	<b>12,661</b>	<b>13,039</b>	<b>13,429</b>

Source: Christiansen Capital Advisors, LLC

As shown in Exhibit 4.16, we estimate that Harrah's Station Square will generate \$321.5 million in economic activity in Pennsylvania in Year One, increasing to \$331.2 million in Year Three, and \$408.1 million in Year Ten. We also estimate that the proposed development will generate 10,377 jobs in Pennsylvania in Year One, increasing to 13,429 jobs by Year Ten.

**Exhibit 4.16: Total Economic Impacts on The State of Pennsylvania - Wages (\$M)**

Total Economic Impacts	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Casino Construction	\$84.9	\$141.6	\$56.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Casino Operations	0.0	0.0	236.7	275.2	295.9	304.7	313.9	323.5	333.4	343.5	354.0	364.7
Food, Beverage, and Other	0.0	0.0	28.2	32.8	35.3	36.3	37.4	38.5	39.7	40.9	42.1	43.4
<b>Total Impacts</b>	<b>\$84.9</b>	<b>\$141.6</b>	<b>\$321.5</b>	<b>\$308.0</b>	<b>\$331.2</b>	<b>\$341.0</b>	<b>\$351.4</b>	<b>\$362.1</b>	<b>\$373.1</b>	<b>\$384.4</b>	<b>\$396.1</b>	<b>\$408.1</b>

Source: Christiansen Capital Advisors, LLC

**FISCAL IMPACTS**

**Gambling Privilege Taxes**

A Pittsburgh slot facility will be subject to the jurisdiction and authority of the Pennsylvania Gaming Control Board, which will oversee the operations of slot gaming in the Commonwealth. In Exhibit 4.17 we present the likely tax consequences for the Commonwealth of Pennsylvania of the proposed facility, using *pro forma* projections for slot gaming at the Pittsburgh site. As depicted in Exhibit 4.17, CCA projects significant revenues to the State of Pennsylvania, Allegheny County and Pittsburgh.

Based upon Act 71, CCA assumed the following distributions from the subject properties machine revenues:

- Commonwealth of Pennsylvania: 34%
- County Share: 2%
- Local share: 2% or \$10 million, whichever is greater<sup>22</sup>
- The Economic Development and Tourism Fund: 5%
- Purses: Not to exceed 12.0%<sup>23</sup>.

<sup>22</sup> § 1402 of Act 71 specifies how the local and county shares will be distributed. The Commonwealth takes 4% of gross gaming revenue (win) in addition to the 34% collected for the Commonwealth. The Commonwealth then distributes this 4% (according to a complicated schedule) to host counties and cities. The law also specifies that the local share is not to exceed to 50% of the municipalities' 2003-2004 total budget (adjusted for inflation). Pittsburgh's total budget for FY04 was \$390 million. Thus, this particular provision will not apply in Pittsburgh. In other words, the City's share will be around \$8 million in the first nine months of operations growing to \$12 million in Year 2 and over \$14 million by Year Ten.

<sup>23</sup> §1405 of Act 71 relating to purse distributions reads as follows.

We estimate that Harrah's Station Square will generate nearly \$2.4 billion in gaming privilege taxes for the State of Pennsylvania in its first ten years of operation. Furthermore the facility would produce \$141.1 million for Allegheny County, \$141.1 million for Pittsburgh, \$660.2 million in horse racing purses, and contribute \$352.8 million for the Economic Development and Tourism Fund (Exhibit 4.17). In total this facility will make \$3.7 billion in contributions to these various funds and State and local governments, these funds have cumulative present value of \$2.6 billion.<sup>24</sup>

**Exhibit 4.17 Statutory Distributions from Harrah's Station Square in Pittsburgh (\$s in millions)**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Years One Through Ten
Slot Revenue	\$531.4	\$617.7	\$664.2	\$684.1	\$704.6	\$725.8	\$747.6	\$770.0	\$793.1	\$816.9	\$7,055.3
State	180.7	210.0	225.8	232.6	239.6	246.8	254.2	261.8	269.6	277.7	2,398.8
County	10.6	12.4	13.3	13.7	14.1	14.5	15.0	15.4	15.9	16.3	141.1
Pittsburgh	10.6	12.4	13.3	13.7	14.1	14.5	15.0	15.4	15.9	16.3	141.1
Development Fund	26.6	30.9	33.2	34.2	35.2	36.3	37.4	38.5	39.7	40.8	352.8
Purse Fund	61.5	63.2	63.8	61.6	63.4	65.3	67.3	69.3	71.4	73.5	660.2
<b>Totals</b>	<b>\$290.0</b>	<b>\$328.8</b>	<b>\$349.4</b>	<b>\$355.7</b>	<b>\$366.4</b>	<b>\$377.4</b>	<b>\$388.7</b>	<b>\$400.4</b>	<b>\$412.4</b>	<b>\$424.8</b>	<b>\$3,694.0</b>

Source: Christiansen Capital Advisors, LLC

**COSTS TO THE TOWN OF INCREASED VISITATION DUE TO THE SLOT FACILITY**

As with any large economic development, increased visitation stimulated by the slot facility could create added burdens on the local transportation infrastructure, including water supplies and systems, roads, traffic signals and signage, parking, and similar public-sector facilities. As a consequence, there could be additional costs for road repairs, police, fire and safety, and increased demand on water, sewer, and related systems. There could be increased work or case loads for providers of social services, and possibly increased demand on local schools caused by an influx of families during the construction phase of the project and thereafter by families attracted to the area by permanent jobs at the facility.

“(B) Pennsylvania race horse improvement assessment—each active and operating licensed gaming entity shall pay a daily assessment to the Pennsylvania race horse development fund as determined by the department. Subject to the daily assessment cap established under subsection (c), the licensed gaming entity’s assessment shall be a percentage of each licensed gaming entity’s gross terminal revenue, equal to an amount calculated as “A” multiplied by “B”: with “A” being equal to each licensed gaming entity’s gross terminal revenues for that day divided by the total gross terminal revenue for that day from all licensed gaming entities; and “B” being equal to 18% of that day’s gross terminal revenue for all active and operating Category 2 licensees conducting live racing.

(c) Daily assessment cap—If the resulting daily assessment for a licensed gaming entity exceeds 12% of that licensed gaming entity’s gross terminal revenue for the day, the license gaming entity shall pay a daily assessment of 12% of its gross terminal revenue for that day.”

According to CCA’s calculations of Category 2 GGR, Statewide GGR, and the GGR for the proposed facility, purse contributions from the subject property will equal the approximately 11.57% in the Year 1 declining to 10.23% in Year 2, 9.6% in Year 3, and approximately 9% in Year 4 and thereafter.

<sup>24</sup> Assuming a weighted average cost of capital of 8.0%.

To the extent that these new or increased costs could be born by the City of Pittsburgh the question of how they are to be funded will be an important issue. CCA has reviewed the experience of local communities hosting gaming developments in other jurisdictions.

The towns of Preston, Ledyard, and North Stonington in Connecticut have struggled with these problems since the 1992 opening of Foxwoods. (The towns in the area cite less of a problem from Mohegan Sun, which has its own access off of I-395.) North Stonington First Selectman Nicholas Mullane estimates that his own community spends approximately \$600,000 annually as a result of the impact of Foxwoods.<sup>25</sup> None of the towns in the area participate in revenue sharing or receive local impact fees from the casinos, which are owned by tribes. The towns are awarded some funds from the State of Connecticut's share (25%) of slot machine gross revenue, as are all other towns in Connecticut. Town officials claim, however, that this money is not enough to cover the costs they incur as a result of hosting these gaming facilities in their communities.

Similar impacts have been observed in other communities that host casinos. Instead of one large casino, the Colorado mining town of Central City is home to four small casinos that have 1,484 slot machines and 18 small-stakes table games. A detailed study of these impacts<sup>26</sup> found that municipal expenditures increased substantially in what was a nearly abandoned mining town prior to the introduction of limited stakes gaming. This study found that government services, public works, and public safety (the town's primary budget items) averaged between \$273,000 and \$308,000 between 1988 and 1990 (before the introduction of casinos); by 1991 (following the introduction of casinos) these expenditures had more than doubled, and by 1993 Central City was spending in excess \$2.8 million a year to provide these services and had added a previously non-existent fire department. Public safety was a large part of the increase. The local police force had only a few officers before the introduction of casinos; by 1993 the police department had grown to fourteen officers and five administrative and information personnel.

Central City, however, had next to zero infrastructure in place to deal with the visitors who appeared following the casinos' opening. In Pittsburgh, this infrastructure is already in place, we would thus expect these cost increases to be much less dramatic.

From data provided by Pittsburgh we understand the FY04 budget for Public Safety was \$124.1 million. Based upon our review of the City's budget and a review of the experience in other municipalities that host casinos and or racinos there could be an annual increase in the town's budget to augment public safety, social services, local schools, and health care to accommodate the increased visitation that could result from the facility's construction and opening. According to our calculations the City of Pittsburgh will receive an average of \$12.8 million annually from its share of the facility's gross gaming revenues and an average of \$5.7 million in additional property taxes when the permanent gaming facility is constructed. We believe these additional funds, which amount to approximately a 15% increase in the FY 2004 City budget, should adequately cover any potential increases in services and expenses to Pittsburgh.

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<sup>25</sup> Green, Rick. "Residents Pay for Casino Success: Jackpot is Traffic Jams, Litter." *Hartford Courant*. January 19, 2002.

<sup>26</sup> Stokowski, Patricia A. *Riches and Regrets: Betting on Gambling in Two Colorado Mountain Towns*. University Press of Colorado. 1996



CCA has also been asked to assess the potential impact of this facility on public health care, child care, public transportation, affordable housing and social services. In general one of the largest impacts on Pittsburgh and surrounding communities will be the influx of new residents to the area attracted by the quality jobs created during the construction phase and operations phase of the slot facility. According to the IMPLAN models the average wage for sector 478 in Allegheny County is \$20,371, gaming facilities typically pay wages of 50% more than this amount. The majority of full time workers are provided health insurance on reasonable terms. As such, we would expect demand for many social services to decrease in the area as adults currently residing in Pittsburgh and surrounding communities move from welfare to work at the facility. There may be increases in demand for public transportation services and child care from slot facility workers and their families. In short, although some social and public services may require augmentation with the opening of this facility we believe the creation of high quality jobs in this community and the ensuing economic and other benefits created thereby will outweigh any potential increases in some public services.

### Indirect Taxes

The slot facility proposed for Pittsburgh is a commercial business. As such, its non-gaming revenues are automatically subject to the Commonwealth's retail sales tax and meals tax. It is also likely that some additional cigarette and gasoline tax revenues will be collected as a result of out-of-state residents visiting a Pittsburgh slot facility; we have not attempted to estimate these additional tax collections. Using effective tax rates of 2.75% and 3.4% for income and sales taxes, respectively, we estimate that an additional \$58.7 million in tax revenue from these sources will accrue to the Commonwealth of Pennsylvania over this five year period.

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### AGGREGATE NET IMPACTS

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In general, studies of the impact of slot machine gaming on a locality have found that the beneficial impact of a project is strongly correlated with the facility's ability to increase net exports. Specifically, the amount of goods or services "exported" to residents outside the locality must be larger than the amount of locally displaced spending. Gaming facilities can be a net economic gain in terms of profit without accomplishing either of these things, but in that case its profits will come more at the expense of other area businesses.<sup>27</sup>

Moreover, smaller regions tend to benefit more from gaming developments than large ones. The smaller the region, the more likely it is that gamblers will travel to the resort from outside the region. Also, the smaller the region, the greater is the chance that the costs of gambling, especially the social costs of pathological or problem gambling, will occur outside the region.<sup>28</sup>

Pittsburgh meets some of these criteria. Many patrons of the proposed facility will come from outside the region, and some of these visitors will be people who in the absence of a slot facility would not visit Pittsburgh as often. Nevertheless, spending at the facility and spending at the entertainment and restaurants on-site will cause some displacement in the area.

Exhibit 4.18 presents our estimates of the net economic impact on the Pittsburgh area as a result of these positive and negative impacts. As shown in the exhibit, the positive economic

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<sup>27</sup> Dunstan, Roger. *Gambling in California*, Chapter IX.. January, 1997. CRB-97-003  
<http://www.library.ca.gov/CRB/97/03/crb97003.html#toc>

<sup>28</sup> *ibid.*

benefits of a nearly \$506 million investment in Pittsburgh coupled with a business that will quickly approach three quarters of a billion dollars in revenue and spend a significant proportion of that amount annually to support its operations outweigh the measurable negative economic impacts.

We estimate the Harrah's Station Square slot facility will generate \$625.6 million Statewide in spin off economic activity in Year One, increasing to \$695.1 million in Year Three, and to \$850.4 million in Year Ten. We also estimate that the proposed development will result in 10,377 jobs with wages of \$321.5 million in Year One, increasing to 13,429 jobs with earnings of \$408.1 million by Year Ten.

**Exhibit 4.18: Net Economic Impact of the Proposed Slot Facility (millions of dollars)**

	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Years One Through Ten
Employment	2,455	4,091	10,377	10,161	10,927	11,256	11,592	11,938	12,294	12,661	13,039	13,429	10,352
Wage Income (\$ Millions)	\$84.9	\$141.6	\$321.5	\$308.0	\$331.2	\$341.0	\$351.4	\$362.1	\$373.1	\$384.4	\$396.1	\$408.1	\$3,803.2
Personal Income Tax (\$ Millions)	2.3	3.9	8.8	8.5	9.1	9.4	9.7	10.0	10.3	10.6	10.9	11.2	104.6
Purse Fund			61.5	63.2	63.8	61.6	63.4	65.3	67.3	69.3	71.4	73.5	660.2
State Gambling Privilege Tax			180.7	210.0	225.8	232.6	239.6	246.8	254.2	261.8	269.6	277.7	2,398.8
Allegheny County			10.6	12.4	13.3	13.7	14.1	14.5	15.0	15.4	15.9	16.3	141.1
Pittsburgh (GGR %)			10.6	12.4	13.3	13.7	14.1	14.5	15.0	15.4	15.9	16.3	141.1
Pittsburgh (Property Taxes)	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.1	6.2	6.3	68.0
Development Fund			26.6	30.9	33.2	34.2	35.2	36.3	37.4	38.5	39.7	40.8	352.8
License Fee (One Time)	50.0												
<b>Total Wages and Other Benefits</b>	<b>\$142.3</b>	<b>\$150.6</b>	<b>\$625.6</b>	<b>\$650.7</b>	<b>\$695.1</b>	<b>\$711.7</b>	<b>\$733.2</b>	<b>\$755.2</b>	<b>\$778.0</b>	<b>\$801.4</b>	<b>\$825.6</b>	<b>\$850.4</b>	<b>\$7,719.8</b>

Source: Christiansen Capital Advisors, LLC

CCA concludes that in the aggregate Harrah's Station Square will have significant and lasting beneficial impacts on Allegheny County and the Commonwealth of Pennsylvania.

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