

**THE ECONOMIC IMPACTS OF PROPOSED GAMING FACILITIES
IN PRINCE GEORGE'S COUNTY, MARYLAND**

MARYLAND VIDEO LOTTERY FACILITY LOCATION COMMISSION

DECEMBER 18, 2013



CONTENTS

INTRODUCTION2

CONSTRUCTION IMPACTS.....3

 Impact Reporting for Construction.....3

 Construction Impact Findings - Maryland.....6

 Construction Impact Findings – Prince George’s County.....7

OPERATING IMPACTS.....8

 NET Revenues9

 Adjusting Revenues and Expenditures.....10

 Adjusted Revenue Forecasts12

 NET Revenue Forecasts and Adjustments15

 Final Input Modifications20

 Economic Impact Calculations21

 Impact Reporting for Operations22

 Operating Impact Findings – Maryland – As Proposed.....23

 Operating Impact Findings – Maryland – Apples-to-Apples.....24

 Operating Impact Findings – Prince George’s County – As Proposed25

 Operating Impact Findings – Prince George’s County – Apples-to-Apples26

NOTES REGARDING INDIVIDUAL APPLICANTS.....27

IMPACT ON COMPETING LOCAL BUSINESSES.....28

 Change in Local Spending Habits28

 Eating and Drinking, Retail, Entertainment29

 Hotels.....30

CONCLUSION.....31

CONTACT31



INTRODUCTION

Civic Economics is pleased to present the Maryland Video Lottery Facility Location Commission with this report on the comparative economic impacts of three gaming facilities proposed for Prince George's County, Maryland. The competition for a license to operate gaming facilities in Prince George's County includes three applicants, each with a unique location and project design. This report is intended to help the Commission to recognize the strengths and weaknesses of each.

Civic Economics utilizes IMPLAN, a product of the Minnesota Implan Group and an industry-standard tool for evaluating the impact of economic activities. Given the Commission's statewide mandate, Civic Economics used Maryland as the operative study area and applied multipliers and other data from IMPLAN's Local Area Data File for the state rather than for smaller jurisdictions such as counties. In recognition of the importance of this process to the people of Prince George's County, Civic Economics further prepared impact analyses at the county level, using the Local Area Data File for just the county.

Economic impact analyses at both the state and county levels were conducted for two wholly separate phases of each proposal:

1. **Construction Impacts** cover the development of each proposal, including planning and design, land and infrastructure improvements, and construction of all facilities required by the applicant's proposal to the Commission.
 - a. All expenditures are assumed to be incurred in the current calendar year and both expenditures and impacts are presented in 2013 dollars. This is a one-time impact on the state and county.
2. **Operating Impacts** were prepared for two distinct scenarios and are presented in 2019 dollars, assuming 2% annual inflation in the interim.
 - a. 2019, As Proposed: In this scenario, it is assumed that each applicant has completed construction of all gaming and ancillary facilities detailed in its proposal to the state and has achieved stabilized gaming operations.
 - b. 2019, Apples-to-Apples: In this scenario it is assumed that each applicant has completed construction of gaming facilities with 3000 video lottery terminals (slots) and 150 gaming tables (both house-backed and poker) and achieved stabilized gaming operations. Ancillary facilities are assumed to match each applicant's proposal to the Commission.

CONSTRUCTION IMPACTS

The construction phase of each proposed facility will generate substantial but temporary economic activity related to designing and building the gaming facilities and associated infrastructure. In each case, Civic Economics assumed that all expenditures would take place in the year 2013. Inputs were derived from materials submitted to the Commission and consulting team by the applicants. Two applicants, Penn and MGM, propose to construct all required facilities in a single development process culminating in a 2016 opening date. The third, Parx, proposes to construct required facilities in two phases, opening in 2016 with 3000 slot machines before opening an additional 1750 slots and a hotel by 2019. This analysis ignores this phasing in order to present complete construction impacts for all facilities on a comparable basis.

The economic impact of any construction project is, as one might assume, driven primarily by the total expenditure on the facility. However, impacts will vary depending on the type of expenditure and the likelihood that such expenditures will be made in the state or county. For this analysis, Civic Economics consistently applied the Local Coefficients provided by IMPLAN, as these provide a credible estimate of local spending for each type of expenditure. It should be noted, though, that conscientious project managers with supportive clients can substantially increase the use of local contractors and suppliers. Therefore, the impacts described below may be received as conservative but fairly applied across the board.

Furniture Fixtures & Equipment (FFE), Floor & Wall Coverings, and Gaming Equipment were not included in the impact inputs for any applicant. These items are quite specialized in the gaming industry and thus will come primarily from out of state for all applicants.

The analysis includes spending for professional services in planning, architecture, and project management, but does not include land acquisition costs or any costs associated with financing the project.

Impact Reporting for Construction

The economic impacts reported here are comprised of three separate categories. Each category is analyzed separately from one another in IMPLAN.

- **Economic Output** is the total production or sales derived from the project. For this study, the total construction costs and casino revenue are the basis for output.
- **Employment** is the total number of residents employed both on a full and part time basis in a given industry.

- **Wages** is the amount of salaries and benefits paid to local resident employees.

For each of the categories listed above a direct effect, indirect effect, and induced effect has been calculated.

- **Direct** effects capture the initial impact created. For construction impacts, this is based on the amount spent in each of a variety of categories in site preparation and facilities design and development. In this analysis, these were provided by the applicants.
- **Indirect** effects are additional impacts derived from businesses providing products or services to the selected industries. This can be restaurants purchasing supplies, the casino hiring a security firm, or the hotel purchasing advertising from a local radio station. Those are all examples of indirect effects.
- **Induced** effects are the result of increased household spending due to the direct and indirect effects. Employees of firms directly or indirectly affected by the project are buying new cars, homes, and groceries locally and this is detailed in the indirect effects.

The following categories of applicant reported expenditures were included as inputs to this analysis:

CONSTRUCTION INPUT AND MODEL CORRESPONDENCE		
Applicant Expenditure Category		IMPLAN Category
Expenditures for the construction of gaming, hotel and other occupied buildings and all contingencies	34	Construction of new nonresidential commercial structures
Expenditures for land preparation and landscape, and the construction of public and private infrastructure, roadways, and parking garages	36	Construction of other new nonresidential structures
Expenditures for architectural and engineering services	369	Architectural and engineering services
Furniture, fixtures, and equipment, floor and wall treatments, and gaming equipment		Excluded

Source: IMPLAN, Civic Economics

Given the design of the MGM facility, the applicant could not identify a line item for construction of the parking garage, which produces different outputs due to the less finished nature of the space. Civic Economics allocated \$50 million of the construction budget to the garage.

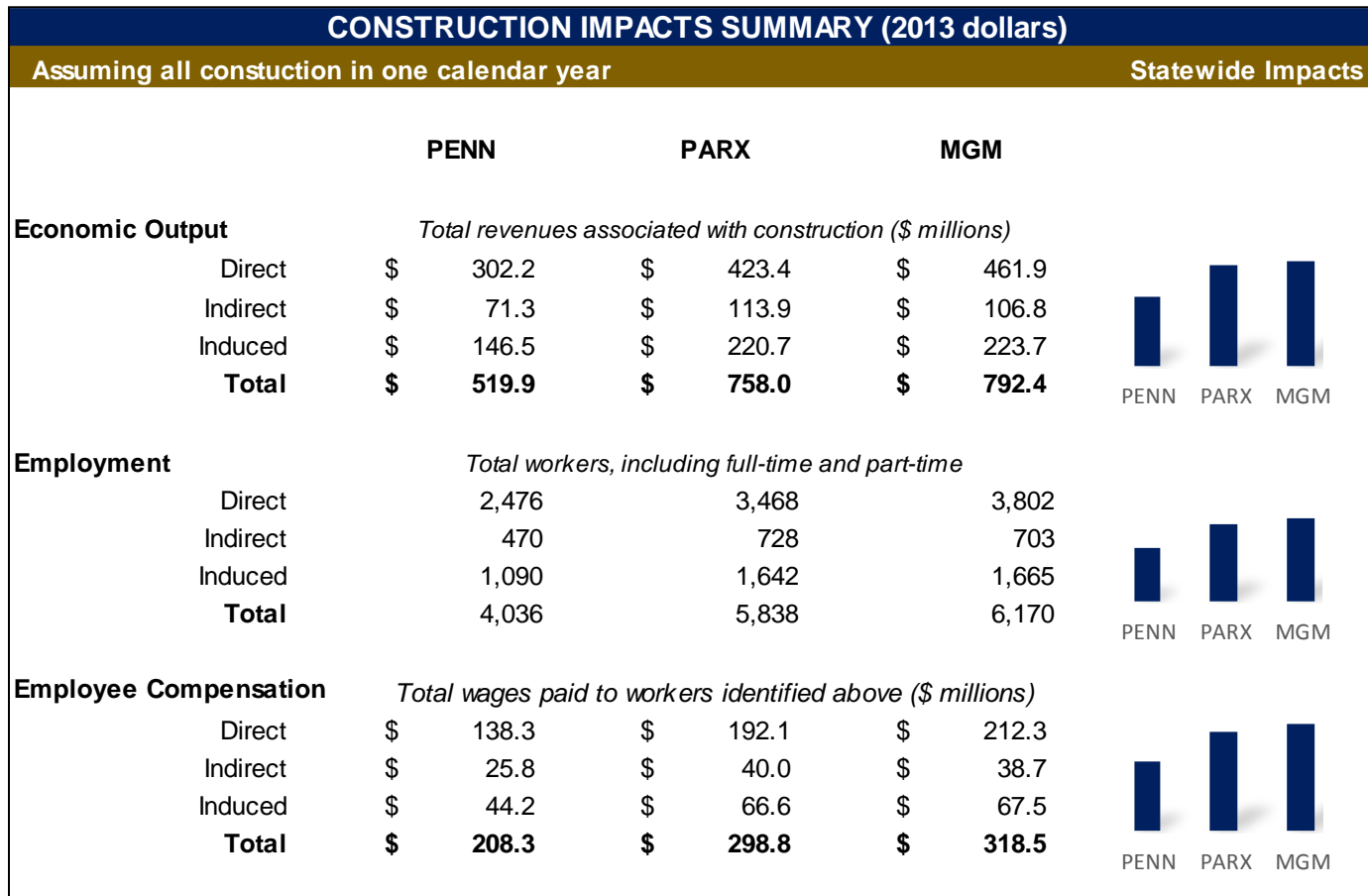
This analysis also incorporates substantial offsite investment associated with the Parx proposal. The applicant has proposed to fund improvements to two intersections on Maryland Route 210, Indian Head Highway, between the Capital Beltway and the site at Old Fort Road in two increments:

- The applicant proposes to fund the first \$100 million of improvement costs without expectation of compensation.
- The applicant proposes to fund any costs beyond \$100 million with the expectation that it will be reimbursed from the statutorily mandated revenue stream by which Prince George's County is to fund improvements to Maryland 210.

At the instruction of the Location Commission and MLCGA staff, Civic Economics has included the first \$100 million as an expenditure in the Construction Impacts above while excluding the costs beyond that amount. Any estimate of those additional expenditures is speculative at this point and the plan is subject to agreement with the county, which is beyond the authority of the Location Commission.



Construction Impact Findings - Maryland



Source: Applicant submissions, IMPLAN, Civic Economics

Revised since 11/26/2013 draft to incorporate changed Parx proposal

Construction Impact Findings – Prince George's County

CONSTRUCTION IMPACTS SUMMARY (2013 dollars)						
Assuming all construction in one calendar year				Prince George's County Impacts		
	PENN	PARX	MGM			
Economic Output	<i>Total revenues associated with construction (\$ millions)</i>					
Direct	\$ 307.6	\$ 436.1	\$ 476.2			
Indirect	\$ 57.8	\$ 87.5	\$ 88.8			
Induced	\$ 114.0	\$ 172.4	\$ 176.7			
Total	\$ 479.5	\$ 696.0	\$ 741.8			
Employment	<i>Total workers, including full-time and part-time</i>					
Direct	2,557	3,614	3,978			
Indirect	453	686	694			
Induced	903	1,365	1,399			
Total	3,914	5,666	6,071			
Employee Compensation	<i>Total wages paid to workers identified above (\$ millions)</i>					
Direct	\$ 151.2	\$ 213.7	\$ 235.2			
Indirect	\$ 22.3	\$ 33.8	\$ 34.2			
Induced	\$ 31.1	\$ 47.1	\$ 48.2			
Total	\$ 204.7	\$ 294.5	\$ 317.6			

Source: Applicant submissions, IMPLAN, Civic Economics

Revised since 11/26/2013 draft to incorporate changed Parx proposal

OPERATING IMPACTS

This section of this report analyzes the economic impacts to be generated by the proposals in 2019, which is treated as a stabilized year of operations for each. As with construction, economic impacts were calculated for the entire state of Maryland and for Prince George's County using the IMPLAN model.

Civic Economics calculated economic impacts for each casino in two separate scenarios, each of which was calculated at both the state and county level:

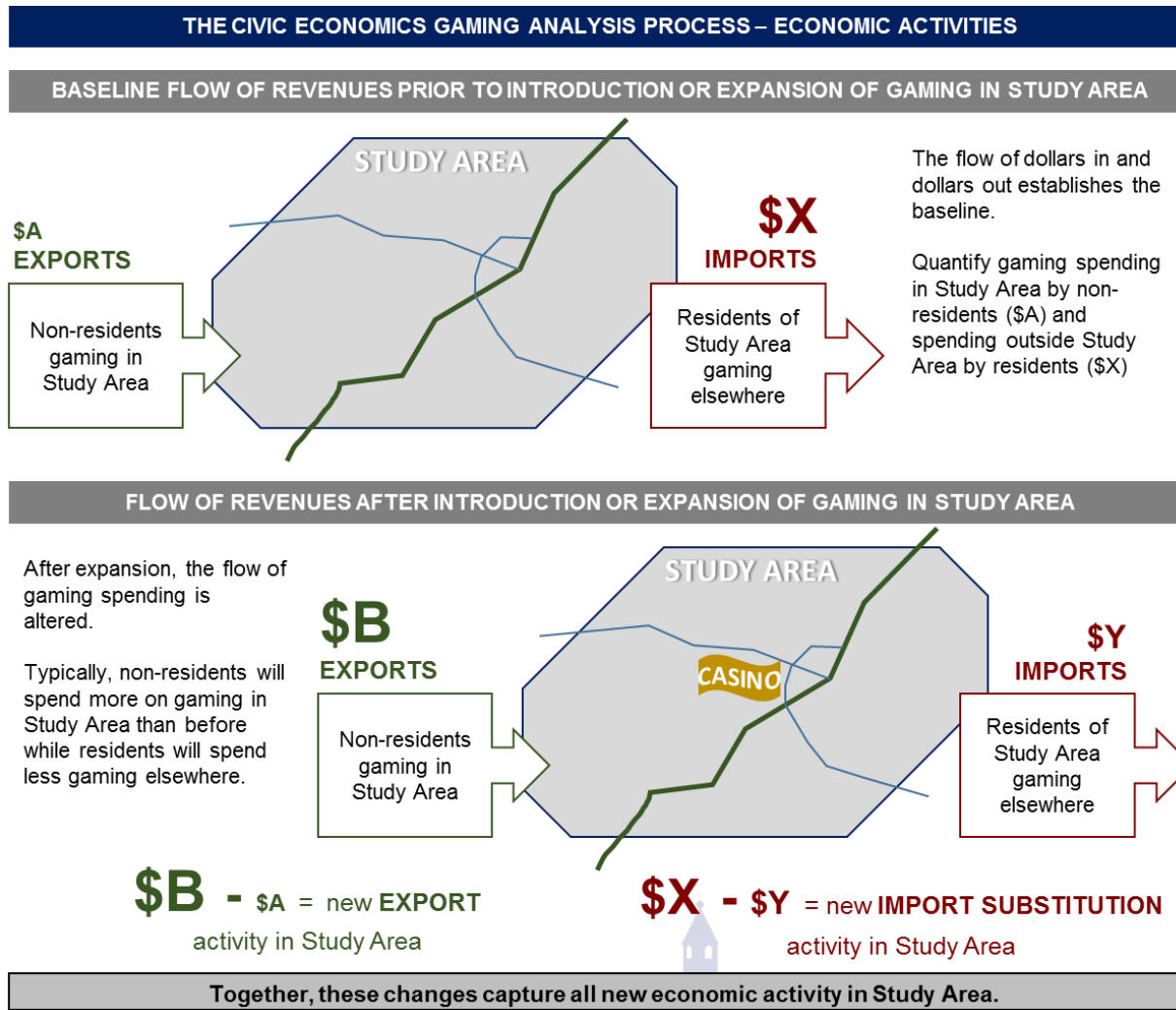
1. 2019 As Proposed: In this scenario, it is assumed that each applicant has completed construction of all gaming and ancillary facilities detailed in their proposal to the state and has achieved stabilized gaming operations.
2. 2019 Apples-to-Apples: In this scenario it is assumed that each applicant has completed construction of gaming facilities with 3000 video lottery terminals (slots) and 150 gaming tables (both house-backed and poker). Ancillary facilities are assumed to match each applicant's proposal to the Commission.

Civic Economics undertakes a multistep process to quantify the revenues and expenditures at a proposed gaming facility that will be treated as new to the jurisdiction. The following pages describe the approach taken by Civic Economics in analyzing the likely economic impact of new gaming facilities in any market.



NET Revenues

The graphic below depicts the underlying premise of our approach to calculating the NET impact of a gaming project. Essentially, gaming revenue at any new casino is made up of three broad components:



1. Gaming spending from non-resident visitors who would not, absent the proposed project, spend that money in the jurisdiction. Two examples may be helpful.
 - a. A resident of a nearby state does not typically gamble in the study area, but begins to do so when the new project opens. That spending is clearly new to the market and attributable to the proposed project.
 - b. A resident of a nearby state does occasionally gamble at an existing casino in the study area, but begins spending some of that money at the new project. That spending, which occurs at the new casino at the expense of another casino in the same state, is not new to the market.
2. Gaming spending from study area residents that would, absent the proposed project, occur in another state. That spending is clearly new to the market and attributable to the proposed project.
3. What remains is gaming spending by local residents that would formerly not have been spend on gaming. For the typical healthy household, gaming is another form of entertainment spending and draws from the discretionary portions of the household budget. For those visitors to the casino, gaming spending is generally understood to represent a substitute for other local leisure activities such as eating out, bowling, or seeing a movie.

The Civic Economics process utilized here is designed to identify the first two classes of gaming spending and treat all the associated economic activity as genuinely new to the market under study. As to the third, it calls for further discussion regarding the scale of the disruption to existing leisure activity businesses in the market. That discussion is provided at the conclusion of this document.

Adjusting Revenues and Expenditures

Gravity modeling is a prerequisite to this methodology because it provides a rational way to forecast the movement of gaming clients and spending among jurisdictions. Reports from the work of Cummings and Custom provide detailed methodology and findings for the proprietary approach each takes to modeling a regional gaming market. For the purposes of this study, Civic Economics utilizes those portions of their



findings that allow us to develop credible estimates of the revenue attributable to new activity in the jurisdiction. Armed with that information, we proceed to quantify the expenditures at the facility that follow from that revenue and from which real economic impact is created.

The chart below walks through the steps that Civic Economics undertakes after consultation with our gravity modeling partners (in this case, Cummings Associates of Boston and Custom Consulting of Denver).

THE CIVIC ECONOMICS GAMING ANALYSIS PROCESS – METHODOLOGY DETAIL

Gaming developments present countless potential outcomes. In order to produce comprehensible findings, likely and significant scenarios are selected for analysis.

1

IDENTIFY SCENARIOS FOR ANALYSIS			
1	2	3	4
Construction	Year 1 Operations	Stabilized Operations	Out Year

Our partner consultancy adapts its proprietary gravity model to study behavioral changes related to each scenario.

2

MODEL REVENUE FLOWS AMONG JURISDICTIONS
Gravity Modeling Partner

Our partner consultancy provides the data that allows us to separate truly new economic activity from spending that would happen in the region without the gaming project.

3

CALCULATE "NET REVENUE" FOR IMPACT	
Export Revenues	Import Substitution Revenues
New activity in jurisdiction from changes in non-resident behavior	New activity in jurisdiction from changes in resident behavior
Excludes Redirected Spending by Residents	

Annual operating expenditures at a gaming facility drive local economic impacts. But those expenditures are actually new to the local economy only in proportion to the Net Revenues quantified above.

4

ADJUST ANNUAL EXPENDITURES TO NET			
Begin with:	Two adjustments:		End with:
Applicant Revenue and Expenditure Estimates	Adjust expenditures to consultant revenue estimates	Adjust expenditures in proportion to NET revenues	Expenditures that are new to the local economy.

Built from detailed analysis of transactions in the regional economy, multipliers estimate the impact of any given activity.

5

APPLY IMPLAN MULTIPLIERS TO NEW ACTIVITY
Various categories of operating expenditure generate different local impacts, captured in IMPLAN multipliers



Adjusted Revenue Forecasts

The figures on the following pages provide detailed depictions of the adjustments we have made to the revenue and expenditures provided by applicants for 2019 operating activity.

The figures on the following two pages show revenue forecasts from applicants, Cummings, and Custom for 2019 in the As Proposed and Apples-to-Apples scenarios. In each case, we formulate a ratio of the average of the Cummings and Custom forecasts to the applicant's. In the current case, the consultants forecast that Penn will achieve gaming revenues 35% greater than what applicant estimates, that Parx will fall short of applicant's estimates by 20%, and that MGM will earn roughly what the applicant has projected.

The bottom half of each figure adjusts the applicant's projected revenue for non-gaming activities in proportion to ratio. Collectively, then, these figures depict what the Commission's consultants believe is a realistic forecast of gaming and non-gaming revenues at each proposed development in 2019.



ECONOMIC IMPACT OF PROPOSED GAMING FACILITIES IN PRINCE GEORGE'S COUNTY, MARYLAND

FORECASTING AND ADJUSTING ACTUAL REVENUE, 2019 (millions, in 2019 dollars)

Scenario: As Proposed

Based on all obligated development from applicant proposals

PENN NATIONAL, ROSECROFT		GREENWOOD GAMING, PARX		MGM NATIONAL HARBOR	
PROJECT SCOPE		PROJECT SCOPE		PROJECT SCOPE	
Number of Slot Machines	3,000	Number of Slot Machines	4,750	Number of Slot Machines	3,600
Number of Gaming Tables	100	Number of Gaming Tables	120	Number of Gaming Tables	110
Number of Poker Tables	40	Number of Poker Tables	50	Number of Poker Tables	30
Number of Hotel Rooms	258	Number of Hotel Rooms	281	Number of Hotel Rooms	300
Number of Eating Establishments	11	Number of Eating Establishments	5	Number of Eating Establishments	10
GAMING REVENUE PROJECTIONS		GAMING REVENUE PROJECTIONS		GAMING REVENUE PROJECTIONS	
Estimated gaming revenue: Applicant	\$ 412.6	Estimated gaming revenue: Applicant	\$ 809.0	Estimated gaming revenue: Applicant	\$ 688.3
Cummings	\$ 559.9	Cummings	\$ 682.2	Cummings	\$ 712.6
Estimated gaming revenue: Custom	\$ 551.3	Estimated gaming revenue: Custom	\$ 617.3	Estimated gaming revenue: Custom	\$ 719.2
Average of Cummings and Custom	\$ 555.6	Average of Cummings and Custom	\$ 649.8	Average of Cummings and Custom	\$ 715.9
Ratio A: Average to Applicant	A 1.35	Ratio A: Average to Applicant	A 0.80	Ratio A: Average to Applicant	A 1.04
NON-GAMING REVENUE PROJECTIONS		NON-GAMING REVENUE PROJECTIONS		NON-GAMING REVENUE PROJECTIONS	
Applicant Projections		Applicant Projections		Applicant Projections	
Hotel	\$ 10.6	Hotel	\$ 23.4	Hotel	\$ 28.1
Food and Beverage	\$ 21.3	Food and Beverage	\$ 77.5	Food and Beverage	\$ 75.6
Retail	\$ -	Retail	\$ 3.3	Retail	\$ 24.2
Entertainment	\$ -	Entertainment	\$ 10.4	Entertainment	\$ 4.9
Other	\$ 15.0	Other	\$ 7.6	Other	\$ 10.0
Expected Revenues		Expected Revenues		Expected Revenues	
	<i>Adjusted by Ratio A</i>		<i>Adjusted by Ratio A</i>		<i>Adjusted by Ratio A</i>
Hotel	\$ 14.3	Hotel	\$ 18.8	Hotel	\$ 29.2
Food and Beverage	\$ 28.7	Food and Beverage	\$ 62.2	Food and Beverage	\$ 78.6
Retail	\$ -	Retail	\$ 2.7	Retail	\$ 25.2
Entertainment	\$ -	Entertainment	\$ 8.4	Entertainment	\$ 5.1
Other	\$ 20.2	Other	\$ 6.1	Other	\$ 10.4

SOURCES: Cummings Associates, Custom Consulting, Civic Economics, applicant submissions

ECONOMIC IMPACT OF PROPOSED GAMING FACILITIES IN PRINCE GEORGE'S COUNTY, MARYLAND

FORECASTING AND ADJUSTING ACTUAL REVENUE, 2019 (millions, in 2019 dollars)

Scenario: Apples to Apples

Based on hypothetically equal gaming positions

PENN NATIONAL, ROSECROFT			GREENWOOD GAMING, PARX			MGM NATIONAL HARBOR		
PROJECT SCOPE - HYPOTHETICAL			PROJECT SCOPE - HYPOTHETICAL			PROJECT SCOPE - HYPOTHETICAL		
Number of Slot Machines	3,000		Number of Slot Machines	3,000		Number of Slot Machines	3,000	
Number of Gaming Tables and Poker	150		Number of Gaming Tables and Poker	150		Number of Gaming Tables and Poker	150	
<i>As Proposed by Applicant:</i>			<i>As Proposed by Applicant:</i>			<i>As Proposed by Applicant:</i>		
Number of Hotel Rooms	258		Number of Hotel Rooms	281		Number of Hotel Rooms	300	
Number of Eating Establishments	11		Number of Eating Establishments	5		Number of Eating Establishments	10	
GAMING REVENUE PROJECTIONS			GAMING REVENUE PROJECTIONS			GAMING REVENUE PROJECTIONS		
Cummings	\$ 566.3		Cummings	\$ 574.9		Cummings	\$ 660.4	
Estimated gaming revenue: Custom	\$ 553.9		Estimated gaming revenue: Custom	\$ 556.3		Estimated gaming revenue: Custom	\$ 681.0	
Average of Cummings and Custom	\$ 560.1		Average of Cummings and Custom	\$ 565.6		Average of Cummings and Custom	\$ 670.7	
Ratio C: Average to Applicant	C 1.36		Ratio C: Average to Applicant	C 0.70		Ratio C: Average to Applicant	C 0.97	
NON-GAMING REVENUE PROJECTIONS			NON-GAMING REVENUE PROJECTIONS			NON-GAMING REVENUE PROJECTIONS		
Applicant Projections			Applicant Projections			Applicant Projections		
Hotel	\$ 10.6		Hotel	\$ 23.4		Hotel	\$ 28.1	
Food and Beverage	\$ 21.3		Food and Beverage	\$ 77.5		Food and Beverage	\$ 75.6	
Retail	\$ -		Retail	\$ 3.3		Retail	\$ 24.2	
Entertainment	\$ -		Entertainment	\$ 10.4		Entertainment	\$ 4.9	
Other	\$ 15.0		Other	\$ 7.6		Other	\$ 10.0	
Adjusted Projections			Adjusted Projections			Adjusted Projections		
	<i>Adjusted by Ratio C:</i>			<i>Adjusted by Ratio C:</i>			<i>Adjusted by Ratio C:</i>	
Hotel	\$ 14.4		Hotel	\$ 16.4		Hotel	\$ 27.4	
Food and Beverage	\$ 28.9		Food and Beverage	\$ 54.2		Food and Beverage	\$ 73.6	
Retail	\$ -		Retail	\$ 2.3		Retail	\$ 23.6	
Entertainment	\$ -		Entertainment	\$ 7.3		Entertainment	\$ 4.8	
Other	\$ 20.4		Other	\$ 5.3		Other	\$ 9.8	

SOURCES: Cummings Associates, Custom Consulting, Civic Economics, applicant submissions

NET Revenue Forecasts and Adjustments

The layman might expect an economic impact analysis to quantify the output, employment, and wages of the totality of a proposed facility, which in this case would be built from total projected gaming revenues. However, such an analysis would substantially overstate the true economic impact the facility will have on the state or county as it would, by design, incorporate the impact of money simply redirected from one local activity to another. The true economic impact of a facility is based on a more meaningful number, the net impact.

In this case, net economic impact identifies only that economic activity that is truly new to the jurisdiction. This new activity is made up of two components:

- a. **Export Revenue:** This refers to the portion of gaming revenues derived from non-resident visitors that would not, absent the proposed casino, have occurred in the study area. This revenue is truly new to the state or county as non-local visitors spend money in the state or county they would not have otherwise spent.
- b. **Import Substitution Revenue:** This refers to the portion of gaming revenues derived from local residents that would, absent the proposed casino, have occurred outside of the study area. Again, this revenue is truly new to the state or county as local residents repatriate out-of-state casino spending with in-state casino spending.

What remains is **Redirected Local Spending:** The remainder of gaming revenue not accounted for above *is not included* in the net economic impact analysis, because it reflects casino spending by residents that would not otherwise have occurred in any casino. This revenue is not new to the area because it represents a diversion of other local household income that previously went to innumerable alternative discretionary activities.

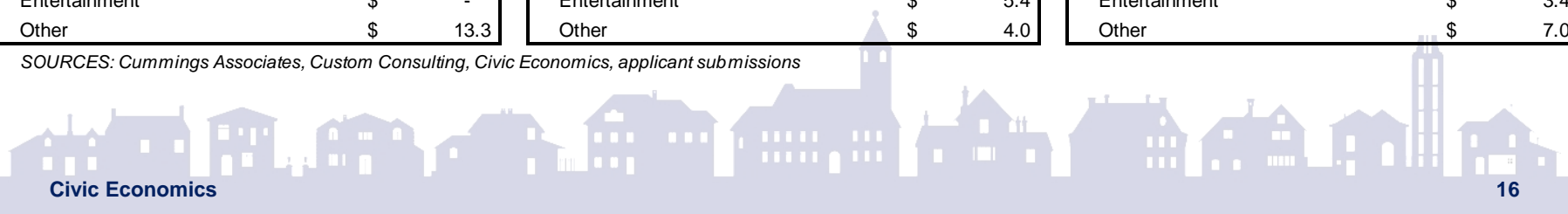
The figures on the following four pages show the process of identifying the proportion of gaming revenue that is new to the state or county economy as described above.

ECONOMIC IMPACT OF PROPOSED GAMING FACILITIES IN PRINCE GEORGE'S COUNTY, MARYLAND

FORECASTING AND ADJUSTING NET REVENUE, 2019 (millions, in 2019 dollars)

<i>Scenario: As Proposed</i>		<i>New economic activity in the State of Maryland</i>		<i>Based on all obligated development from applicant proposals</i>	
PENN NATIONAL, ROSECROFT		GREENWOOD GAMING, PARX		MGM NATIONAL HARBOR	
GAMING REVENUE PROJECTIONS		GAMING REVENUE PROJECTIONS		GAMING REVENUE PROJECTIONS	
Estimated gaming revenue: Applicant	\$ 412.6	Estimated gaming revenue: Applicant	\$ 809.0	Estimated gaming revenue: Applicant	\$ 688.3
Import Substitution Gains: Cummings	\$ 65.0	Import Substitution Gains: Cummings	\$ 83.6	Import Substitution Gains: Cummings	\$ 74.1
Export Gains: Cummings	\$ 328.0	Export Gains: Cummings	\$ 379.2	Export Gains: Cummings	\$ 427.5
Total NET: Cummings	\$ 393.1	Total NET: Cummings	\$ 462.9	Total NET: Cummings	\$ 501.5
Import Substitution Gains: Custom	\$ 38.2	Import Substitution Gains: Custom	\$ 40.0	Import Substitution Gains: Custom	\$ 42.6
Export Gains: Custom	\$ 298.7	Export Gains: Custom	\$ 340.3	Export Gains: Custom	\$ 418.9
Total NET: Custom	\$ 336.9	Total NET: Custom	\$ 380.3	Total NET: Custom	\$ 461.5
Average NET of Cummings and Custom	\$ 365.0	Average NET of Cummings and Custom	\$ 421.6	Average NET of Cummings and Custom	\$ 481.5
Ratio B: NET to Applicant	B 0.88	Ratio B: NET to Applicant	B 0.52	Ratio B: NET to Applicant	B 0.70
NON-GAMING REVENUE PROJECTIONS		NON-GAMING REVENUE PROJECTIONS		NON-GAMING REVENUE PROJECTIONS	
Applicant Projections		Applicant Projections		Applicant Projections	
Hotel	\$ 10.6	Hotel	\$ 23.4	Hotel	\$ 28.1
Food and Beverage	\$ 21.3	Food and Beverage	\$ 77.5	Food and Beverage	\$ 75.6
Retail	\$ -	Retail	\$ 3.3	Retail	\$ 24.2
Entertainment	\$ -	Entertainment	\$ 10.4	Entertainment	\$ 4.9
Other	\$ 15.0	Other	\$ 7.6	Other	\$ 10.0
NET Expected Revenues	<i>Adjusted by Ratio B</i>	NET Expected Revenues	<i>Adjusted by Ratio B</i>	NET Expected Revenues	<i>Adjusted by Ratio B</i>
Hotel	\$ 9.4	Hotel	\$ 12.2	Hotel	\$ 19.7
Food and Beverage	\$ 18.8	Food and Beverage	\$ 40.4	Food and Beverage	\$ 52.9
Retail	\$ -	Retail	\$ 1.7	Retail	\$ 16.9
Entertainment	\$ -	Entertainment	\$ 5.4	Entertainment	\$ 3.4
Other	\$ 13.3	Other	\$ 4.0	Other	\$ 7.0

SOURCES: Cummings Associates, Custom Consulting, Civic Economics, applicant submissions



ECONOMIC IMPACT OF PROPOSED GAMING FACILITIES IN PRINCE GEORGE'S COUNTY, MARYLAND

FORECASTING AND ADJUSTING NET REVENUE, 2019 (millions, in 2019 dollars)

<i>Scenario: Apples to Apples</i>		<i>New economic activity in the State of Maryland</i>		<i>Based on hypothetically equal gaming positions</i>	
PENN NATIONAL, ROSECROFT		GREENWOOD GAMING, PARX		MGM NATIONAL HARBOR	
GAMING REVENUE PROJECTIONS		GAMING REVENUE PROJECTIONS		GAMING REVENUE PROJECTIONS	
Estimated gaming revenue: Applicant	\$ 412.6	Estimated gaming revenue: Applicant	\$ 809.0	Estimated gaming revenue: Applicant	\$ 688.3
<i>Based on total proposed development</i>		<i>Based on total proposed development</i>		<i>Based on total proposed development</i>	
Import Substitution Gains: Cummings	\$ 65.8	Import Substitution Gains: Cummings	\$ 66.0	Import Substitution Gains: Cummings	\$ 65.9
Export Gains: Cummings	\$ 330.5	Export Gains: Cummings	\$ 332.9	Export Gains: Cummings	\$ 403.1
Total NET: Cummings	\$ 396.4	Total NET: Cummings	\$ 398.9	Total NET: Cummings	\$ 469.0
Import Substitution Gains: Custom	\$ 38.7	Import Substitution Gains: Custom	\$ 37.5	Import Substitution Gains: Custom	\$ 42.0
Export Gains: Custom	\$ 298.3	Export Gains: Custom	\$ 303.3	Export Gains: Custom	\$ 395.5
Total NET: Custom	\$ 337.0	Total NET: Custom	\$ 340.8	Total NET: Custom	\$ 437.5
Average NET of Cummings and Custom	\$ 366.7	Average NET of Cummings and Custom	\$ 369.8	Average NET of Cummings and Custom	\$ 453.3
Ratio D: NET to Applicant	D 0.89	Ratio D: NET to Applicant	D 0.46	Ratio D: NET to Applicant	D 0.66
NON-GAMING REVENUE PROJECTIONS		NON-GAMING REVENUE PROJECTIONS		NON-GAMING REVENUE PROJECTIONS	
Applicant Projections		Applicant Projections		Applicant Projections	
Hotel	\$ 10.6	Hotel	\$ 23.4	Hotel	\$ 28.1
Food and Beverage	\$ 21.3	Food and Beverage	\$ 77.5	Food and Beverage	\$ 75.6
Retail	\$ -	Retail	\$ 3.3	Retail	\$ 24.2
Entertainment	\$ -	Entertainment	\$ 10.4	Entertainment	\$ 4.9
Other	\$ 15.0	Other	\$ 7.6	Other	\$ 10.0
Net Revenue Projections Using Ratio D		Net Revenue Projections Using Ratio D		Net Revenue Projections Using Ratio D	
Hotel	\$ 9.5	Hotel	\$ 10.7	Hotel	\$ 18.5
Food and Beverage	\$ 18.9	Food and Beverage	\$ 35.4	Food and Beverage	\$ 49.8
Retail	\$ -	Retail	\$ 1.5	Retail	\$ 15.9
Entertainment	\$ -	Entertainment	\$ 4.8	Entertainment	\$ 3.2
Other	\$ 13.3	Other	\$ 3.5	Other	\$ 6.6

SOURCES: Cummings Associates, Custom Consulting, Civic Economics, applicant submissions

ECONOMIC IMPACT OF PROPOSED GAMING FACILITIES IN PRINCE GEORGE'S COUNTY, MARYLAND

FORECASTING AND ADJUSTING NET REVENUE, 2019 (millions, in 2019 dollars)											
<i>Scenario: As Proposed</i>				<i>New economic activity in Prince George's County</i>				<i>Based on all obligated development from applicant proposals</i>			
PENN NATIONAL, ROSECROFT				GREENWOOD GAMING, PARX				MGM NATIONAL HARBOR			
GAMING REVENUE PROJECTIONS				GAMING REVENUE PROJECTIONS				GAMING REVENUE PROJECTIONS			
Estimated gaming revenue: Applicant	\$		412.6	Estimated gaming revenue: Applicant	\$		809.0	Estimated gaming revenue: Applicant	\$		688.3
Total NET: Cummings	\$		517.7	Total NET: Cummings	\$		637.4	Total NET: Cummings	\$		666.7
Total NET: Custom	\$		521.2	Total NET: Custom	\$		584.7	Total NET: Custom	\$		684.4
Average NET of Cummings and Custom	\$		519.5	Average NET of Cummings and Custom	\$		611.0	Average NET of Cummings and Custom	\$		675.5
Ratio B: NET to Applicant	B		1.26	Ratio B: NET to Applicant	B		0.76	Ratio B: NET to Applicant	B		0.98
NON-GAMING REVENUE PROJECTIONS				NON-GAMING REVENUE PROJECTIONS				NON-GAMING REVENUE PROJECTIONS			
Applicant Projections				Applicant Projections				Applicant Projections			
Hotel	\$		10.6	Hotel	\$		23.4	Hotel	\$		28.1
Food and Beverage	\$		21.3	Food and Beverage	\$		77.5	Food and Beverage	\$		75.6
Retail	\$		-	Retail	\$		3.3	Retail	\$		24.2
Entertainment	\$		-	Entertainment	\$		10.4	Entertainment	\$		4.9
Other	\$		15.0	Other	\$		7.6	Other	\$		10.0
NET Expected Revenues		<i>Adjusted by Ratio B</i>		NET Expected Revenues		<i>Adjusted by Ratio B</i>		NET Expected Revenues		<i>Adjusted by Ratio B</i>	
Hotel	\$		13.4	Hotel	\$		17.7	Hotel	\$		27.6
Food and Beverage	\$		26.8	Food and Beverage	\$		58.5	Food and Beverage	\$		74.2
Retail	\$		-	Retail	\$		2.5	Retail	\$		23.7
Entertainment	\$		-	Entertainment	\$		7.9	Entertainment	\$		4.8
Other	\$		18.9	Other	\$		5.8	Other	\$		9.8

SOURCES: Cummings Associates, Custom Consulting, Civic Economics, applicant submissions

ECONOMIC IMPACT OF PROPOSED GAMING FACILITIES IN PRINCE GEORGE'S COUNTY, MARYLAND

FORECASTING AND ADJUSTING NET REVENUE, 2019 (millions, in 2019 dollars)

<i>Scenario: Apples to Apples</i>		<i>New economic activity in Prince George's County</i>		<i>Based on hypothetically equal gaming positions</i>	
PENN NATIONAL, ROSECROFT		GREENWOOD GAMING, PARX		MGM NATIONAL HARBOR	
GAMING REVENUE PROJECTIONS		GAMING REVENUE PROJECTIONS		GAMING REVENUE PROJECTIONS	
Estimated gaming revenue: Applicant	\$ 412.6	Estimated gaming revenue: Applicant	\$ 809.0	Estimated gaming revenue: Applicant	\$ 688.3
Total NET: Cummings	\$ 523.8	Total NET: Cummings	\$ 529.6	Total NET: Cummings	\$ 615.1
Total NET: Custom	\$ 523.9	Total NET: Custom	\$ 528.2	Total NET: Custom	\$ 652.8
Average NET of Cummings and Custom	\$ 523.8	Average NET of Cummings and Custom	\$ 528.9	Average NET of Cummings and Custom	\$ 634.0
Ratio D NET to Applicant	D 1.27	Ratio D NET to Applicant	D 0.65	Ratio D NET to Applicant	D 0.92
NON-GAMING REVENUE PROJECTIONS		NON-GAMING REVENUE PROJECTIONS		NON-GAMING REVENUE PROJECTIONS	
Applicant Projections		Applicant Projections		Applicant Projections	
Hotel	\$ 10.6	Hotel	\$ 23.4	Hotel	\$ 28.1
Food and Beverage	\$ 21.3	Food and Beverage	\$ 77.5	Food and Beverage	\$ 75.6
Retail	\$ -	Retail	\$ 3.3	Retail	\$ 24.2
Entertainment	\$ -	Entertainment	\$ 10.4	Entertainment	\$ 4.9
Other	\$ 15.0	Other	\$ 7.6	Other	\$ 10.0
NET Expected Revenues	<i>Adjusted by Ratio D</i>	NET Expected Revenues	<i>Adjusted by Ratio D</i>	NET Expected Revenues	<i>Adjusted by Ratio D</i>
Hotel	\$ 13.5	Hotel	\$ 15.3	Hotel	\$ 25.9
Food and Beverage	\$ 27.0	Food and Beverage	\$ 50.7	Food and Beverage	\$ 69.6
Retail	\$ -	Retail	\$ 2.2	Retail	\$ 22.3
Entertainment	\$ -	Entertainment	\$ 6.8	Entertainment	\$ 4.5
Other	\$ 19.0	Other	\$ 5.0	Other	\$ 9.2

SOURCES: Cummings Associates, Custom Consulting, Civic Economics, applicant submissions

Final Input Modifications

In order to provide fair and equitable treatment to all applicants in a comparative situation such as this, Civic Economics seeks to run the same model with the same modifications for each applicant. In the present case, two modifications were made to the underlying IMPLAN industry model, one of which was applied across the board and the other of which was customized to the tax rates each applicant proposes to pay.

The IMPLAN model is designed to estimate **wages and employment** based on industry averages in the study jurisdiction. In IMPLAN, moreover, casinos are included in an industry category that includes a wide range of entertainment and amusement activities. Given the limited casino gaming in Maryland currently, it was not surprising that the model estimated both total employment substantially higher than what was indicated by the applicants.

In order to correct for the inherently low productivity numbers in the model, Civic Economics instead applied the average of all three applicants in worker productivity and wages, as shown below. We did not directly apply the wage and employment projections of any applicant. That does not mean that one applicant or another does not truly intend to pay higher wages, or employ more people in the enterprise. However, having reviewed many gaming proposals since over the last decade, we believe the wide employment and wages disparity among operators may reflect more the highly speculative nature of completing detailed operating budgets far in advance of operations.

In the present case, Civic Economics modified the industry details for gaming revenues to reflect the average of the applicants. In this case, the custom model assumes that payroll is 16% of gaming revenue and that payroll per full time worker is \$46,169.

The other significant variable not captured in the unmodified IMPLAN model is **tax rates**, as the present situation is highly unusual. The three applicants here propose to pay effective gaming tax rates on electronic gaming that varies widely. After all is said and done, Penn will retain 38% of electronic gaming revenue, Parx 39%, and MGM 44%. In order to fairly represent the impact of those rates, Civic Economics incorporated them into a separate industry model for each applicant.



Economic Impact Calculations

The final step in the process is to apply the NET revenues identified above as inputs in a model of the regional gaming industry and broader economy prepared using IMPLAN data and Civic Economics own knowledge of the gaming industry. For each category of business activity reported, revenues are used as the primary input into the model according to the following chart:

OPERATIONS INPUT AND MODEL CORRESPONDENCE	
Applicant Expenditure Category	IMPLAN Category
Gaming Revenue, Other	409 Other amusement, gamblene, and recreation industries, customized for worker productivity and tax rates as described above
Hotel Revenue	411 Hotels and motels, including casino hotels
Food and Beverage Revenue	413 Food services and drinking places
Entertainment	404 Promoters of performing arts and sports and agents for public figures
Retail Revenue	330 Miscellaneous store retailers

Source: IMPLAN, Civic Economics

In addition, Civic Economics incorporated the proposed profit sharing contributions for Prince George's healthcare enhancements associated with the Penn proposal. The applicant estimates that the annual contribution in year five assuming our consultant revenue estimates will exceed \$18 million in both the As Proposed and Apples-to-Apples scenarios. There remains a degree of uncertainty as to how the countywide health system will use those dollars, so Civic Economics split the annual expenditure between two IMPLAN industry categories: Hospitals (IMPLAN Industry 397) and Outpatient Care Centers (396).

Impact Reporting for Operations

The economic impacts are comprised of three separate categories. Each category is analyzed separately from one another in IMPLAN.

- **Economic Output** is the total production or sales derived from the project. For this study, inputs are based upon projected gaming and non-gaming revenues.
- **Employment** is the total number of state or county residents employed both full and part time in a given industry.
- **Wages** is the amount of salaries and benefits paid to state or county resident employees.

For each of the categories listed above a direct effect, indirect effect, and induced effect has been calculated.

- **Direct** effects capture the initial impact created in the study area.
- **Indirect** effects are additional impacts derived from businesses providing products or services to the selected industries. This can be restaurants purchasing supplies, the casino hiring a security firm, or the hotel purchasing advertising from a local radio station. Those are all examples of indirect effects.
- **Induced** effects are the result of increased household spending due to the direct and indirect effects. Employees of firms directly or indirectly affected by the project are buying new cars, homes, and groceries locally and this is detailed in the indirect effects.



Operating Impact Findings – Maryland – As Proposed

OPERATING IMPACTS SUMMARY (2019 dollars)							
Scenario: As Proposed					State Wide Impacts		
Based on all obligated development from applicant proposals							
	PENN	PARX	MGM				
Economic Output				<i>Total revenues associated with operation (\$ millions)</i>			
Direct	\$ 423.4	\$ 484.4	\$ 572.1		PENN	PARX	MGM
Indirect	\$ 58.8	\$ 70.9	\$ 84.8				
Induced	\$ 68.0	\$ 78.0	\$ 95.5				
Total	\$ 550.2	\$ 633.3	\$ 752.4				
Employment				<i>Total workers, including full-time and part-time</i>			
Direct	1,700	2,218	2,758		PENN	PARX	MGM
Indirect	409	496	586				
Induced	506	581	710				
Total	2,615	3,294	4,054				
Employee Compensation				<i>Total wages paid to workers identified above (\$ millions)</i>			
Direct	\$ 66.3	\$ 74.5	\$ 91.2		PENN	PARX	MGM
Indirect	\$ 19.8	\$ 23.6	\$ 28.0				
Induced	\$ 20.5	\$ 23.6	\$ 28.8				
Total	\$ 106.6	\$ 121.6	\$ 148.0				




Source: Applicant submissions, IMPLAN, Civic Economics Revised since 11/26/2013 draft to incorporate value of Penn healthcare giving

Operating Impact Findings – Maryland – Apples-to-Apples

OPERATING IMPACTS SUMMARY (2019 dollars)					
Scenario: Apples to Apples			State Wide Impacts		
			Based on hypothetically equal gaming positions		
	PENN	PARX	MGM		
Economic Output	<i>Total revenues associated with operation (\$ millions)</i>				
Direct	\$ 425.6	\$ 424.9	\$ 538.5		PENN PARX MGM
Indirect	\$ 59.2	\$ 62.2	\$ 79.8		
Induced	\$ 68.4	\$ 68.5	\$ 89.9		
Total	\$ 553.2	\$ 555.6	\$ 708.2		
Employment	<i>Total workers, including full-time and part-time</i>				
Direct	1,709	1,946	2,596		PENN PARX MGM
Indirect	412	435	551		
Induced	509	509	669		
Total	2,630	2,890	3,816		
Employee Compensation	<i>Total wages paid to workers identified above (\$ millions)</i>				
Direct	\$ 66.7	\$ 65.4	\$ 85.8		PENN PARX MGM
Indirect	\$ 19.9	\$ 20.7	\$ 26.4		
Induced	\$ 20.6	\$ 20.7	\$ 27.1		
Total	\$ 107.2	\$ 106.7	\$ 139.3		

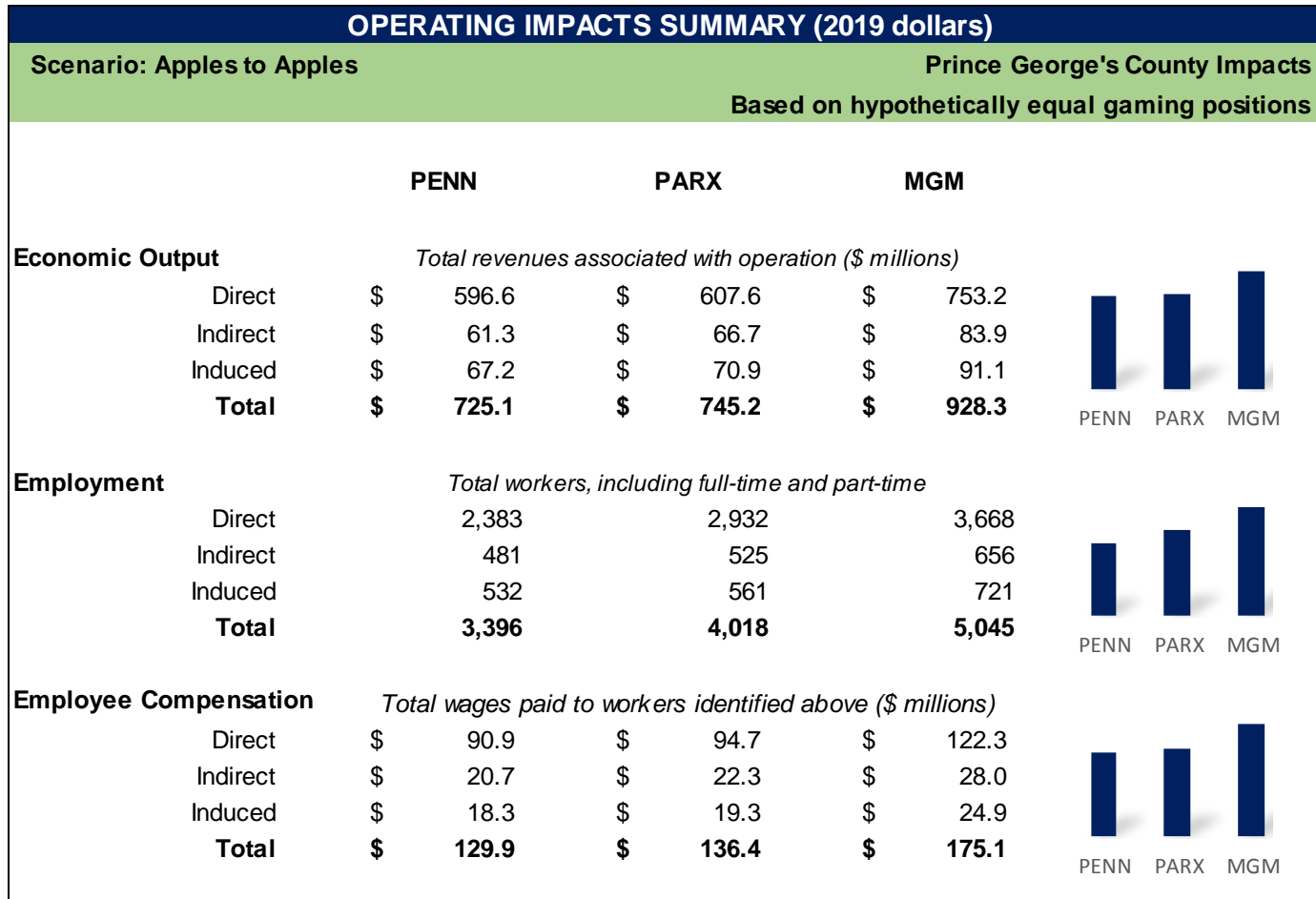
Source: Applicant submissions, IMPLAN, Civic Economics Revised since 11/26/2013 draft to incorporate value of Penn healthcare giving

Operating Impact Findings – Prince George's County – As Proposed

OPERATING IMPACTS SUMMARY (2019 dollars)			
Scenario: As Proposed		Prince George's County Impacts	
Based on all obligated development from applicant proposals			
	PENN	PARX	MGM
Economic Output	<i>Total revenues associated with operation (\$ millions)</i>		
Direct	\$ 591.5	\$ 702.0	\$ 802.6
Indirect	\$ 60.8	\$ 77.1	\$ 89.5
Induced	\$ 66.6	\$ 81.9	\$ 97.0
Total	\$ 718.8	\$ 860.9	\$ 989.1
			
Employment	<i>Total workers, including full-time and part-time</i>		
Direct	2,362	3,388	3,908
Indirect	477	606	699
Induced	527	648	768
Total	3,366	4,642	5,376
			
Employee Compensation	<i>Total wages paid to workers identified above (\$ millions)</i>		
Direct	\$ 90.1	\$ 109.4	\$ 130.3
Indirect	\$ 20.5	\$ 25.8	\$ 29.8
Induced	\$ 18.2	\$ 22.3	\$ 26.5
Total	\$ 128.8	\$ 157.5	\$ 186.6
			

Source: Applicant submissions, IMPLAN, Civic Economics Revised since 11/26/2013 draft to incorporate value of Penn healthcare giving

Operating Impact Findings – Prince George's County – Apples-to-Apples



Source: Applicant submissions, IMPLAN, Civic Economics Revised since 11/26/2013 draft to incorporate value of Penn healthcare giving

NOTES REGARDING INDIVIDUAL APPLICANTS

PENN

- The applicant has proposed a program of profit-sharing donations for health care and teacher's pension funding in Prince George's County. These contributions are proposed to exceed \$300 million over the life of the program. For the community health care portion of the program, the applicant proposes to dedicate half of the annual profit-sharing amount to health care until a total of \$100 million has been donated. Depending on the revenue of the facility in operation, that contribution will take roughly 8-10 years to complete.
- Civic Economics incorporated a rough estimate of those contributions into the Operating Impacts analyses as described above.

PARX

- The applicant has proposed to fund improvements to two intersections on Maryland Route 210, Indian Head Highway, between the Capital Beltway and the site at Old Fort Road in two increments:
 - The applicant proposes to fund the first \$100 million of improvement costs without expectation of compensation.
 - The applicant proposes to fund any costs beyond \$100 million with the expectation that it will be reimbursed from the statutorily mandated revenue stream by which Prince George's County is to fund improvements to Maryland 210.
- At the instruction of the Location Commission and MLCGA staff, Civic Economics has included the first \$100 million as an expenditure in the Construction Impacts above while excluding the costs beyond that amount. Any estimate of those additional expenditures is speculative at this point and the plan is subject to agreement with the county, which is beyond the authority of the Location Commission.

MGM

- In detailing anticipated construction costs pursuant to a request from consultants, MGM was unable to break out costs associated with the substantial portion of the proposed podium structure that would constitute parking. In order to produce fair and comparable impact findings with the other applicants, Civic Economics allocated \$50 million of the total construction budget to the parking garage. Parking structures fall into an IMPLAN industry category that produces lower output impacts but higher employment than are associated with the casino and hotel portions of the project.

IMPACT ON COMPETING LOCAL BUSINESSES

Change in Local Spending Habits

The following table summarizes the anticipated redirection of discretionary spending by residents of the state or county. It is made up of two components:

1. The portion of gaming revenue that reflects an increase in gaming spending by local residents, and
2. The proportion of revenue for each non-gaming activity that reflects a redirection of spending by local residents.

DIVERTED SPENDING BY LOCAL RESIDENTS, 2019 (millions, 2019 dollars)						
Increase in Resident Gaming Spending						
	As Proposed - Maryland			As Proposed - County		
	PENN	PARX	MGM	PENN	PARX	MGM
Cummings	\$ 166.9	\$ 219.3	\$ 211.1	\$ 42.2	\$ 44.8	\$ 45.9
Custom	\$ 214.4	\$ 237.0	\$ 257.7	\$ 30.1	\$ 32.7	\$ 34.8
Average	\$ 190.6	\$ 228.2	\$ 234.4	\$ 36.1	\$ 38.7	\$ 40.4
Redirected Resident Non-Gaming Spending						
	As Proposed - Maryland			As Proposed - County		
	PENN	PARX	MGM	PENN	PARX	MGM
Hotel	\$ 4.9	\$ 6.6	\$ 9.6	\$ 0.9	\$ 1.1	\$ 1.6
Food and Beverage	\$ 9.8	\$ 21.9	\$ 25.7	\$ 1.9	\$ 3.7	\$ 4.4
Retail	\$ -	\$ 0.9	\$ 8.2	\$ -	\$ 0.2	\$ 1.4
Entertainment	\$ -	\$ 2.93	\$ 1.66	\$ -	\$ 0.50	\$ 0.29

SOURCE: Cummings, Custom, Civic Economics, applicant revenue submissions

In the view of Civic Economics, the essential takeaway from this chart is that the three proposals will have comparable impacts on the amount of household income available in the local market (Prince George's County). At the local level, there is little to distinguish the applicants in that regard.

Moreover, any impact on existing Prince George's County business will be relatively small. The reason for that conclusion is that the Prince George's County market is currently substantially underserved by eating and drinking places and retailers.

Eating and Drinking, Retail, Entertainment

The table below compares estimated current expenditures in each category by county residents with actual sales within the county, and concludes with an estimate of leakage from the county into the broader market area.

CURRENT EATING, DRINKING, AND RETAIL MARKET IN PRINCE GEORGE'S COUNTY (millions)					
	2013 Demand		2013 Supply		Opportunity
	<i>Consumer Expenditures</i>		<i>Retail Sales</i>		<i>Gap/Surplus</i>
Eating and Drinking Places	\$	1,508	\$	1,060	\$ 448
Retail (excluding automotive)	\$	9,149	\$	6,924	\$ 2,225

SOURCE: Nielsen/Claritas

County residents are forecast to increase gaming spending by over \$40 million per year, a tiny fraction of the \$10 billion local market for retail and restaurant activity. Even the shift in spending from existing county businesses to new competitors inside a new gaming facility will be modest. Comparable statistics for entertainment venues in Prince George's County are unavailable. However, the very modest shifts in entertainment spending would have little impact in any large market. This is especially true in a suburban market, which typically leaks entertainment spending to the nearby urban center.

These modest impacts are likely to be more than offset by the opportunity to serve visitors drawn to the county by a new gaming facility. Indeed, Civic Economics anticipates that the new casino and nearby developments will drive a modest reduction in leakage from the county.

Hotels

Applicants for a Prince George's County gaming facility license propose similarly sized upmarket hotels. Penn proposes 258 rooms, Parx 281, and MGM 300.

Hotel revenue and occupancy data is typically unavailable from public sources, and Prince George's County is no exception. The leading provider of that data is Smith Travel Research, and we are fortunate to have a summary of current local market data as provided by Marquette Advisors in its market study for the MGM proposal. Because the detailed data is labeled "Confidential" and is unnecessary to this analysis, we will refrain from providing it here.

Southern Prince George's County is home to just two hotels at price points likely to be competitive with the hotels proposed by the applicants, and both of them are in the National Harbor development. Together, the Gaylord and Westin at National Harbor offer 2,195 rooms. Smith Travel Research identified an additional six competitive hotels nearby in Virginia, offering a total of 1,480 additional upscale rooms. So, the addition of 250-300 rooms to the market is unlikely to substantially impact the local market for upmarket lodging.

Finally, the applicants project that roughly one third to one half of all room nights on site will be provided to gamblers at complimentary or reduced rates, further reducing the likely impact on existing hotels in Prince George's County.



CONCLUSION

Civic Economics appreciates the opportunity to provide our services to the Location Commission and the people of Maryland and Prince George's County. Should the Commissioners or staff require further information, analysis, or testimony from Civic Economics, we will be more than happy to provide it.

CONTACT

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www.CivicEconomics.com

