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**CHMURA**  
Economics & Analytics

# The Economic Impact of Colonial Downs in Virginia

Prepared for Revolutionary Racing

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### About Chmura Economics & Analytics

We have a data-driven culture. We are a group of published scientists contributing to innovations with big data analytics on the forefront of applied economics and technology solutions. We have a very diverse team of people with backgrounds such as PhD economists, statisticians, computer scientists, and transformation strategists. We serve a cross section of decision makers from the defense, government, public, and private sectors.

As data scientists, we help our clients quickly answer big data questions. We provide a reliable picture of economic trends on both a macro and micro level. Our clients rely on the historical, current, and predictive market reports we provide to cut through the confusing information they receive on a daily basis from the media, politicians, and industry resources.

Our clients view us as trusted economic advisors because we help them mitigate risk and prepare for growth by understanding the why, the how, and the what about their local economy. As the nation's preferred provider of labor market data, we help our clients understand both the demand for and the supply of available data. Our clients benefit from our expertise by better understanding their own bottom line costs, sustainability issues, and associated risks.

## Background

Colonial Downs is a horse-racing track located in New Kent County, Virginia, in the Greater Richmond area. The track was first opened in 1997 and has hosted many events over the years. The facility was closed in 2014.<sup>1</sup>

Revolutionary Racing seeks to bring horse racing back to Colonial Downs by purchasing the property. Part of the business plan to sustain the Virginia horse racing industry at Colonial Downs is to permit historic horse racing (HHR)<sup>2</sup>. Revolutionary Racing seeks to understand the potential economic impact of Colonial Downs in the state of Virginia.<sup>3</sup> Chmura Economics & Analytics (Chmura) was contracted to conduct this analysis.<sup>4</sup>

The economic impact of Colonial Downs in Virginia will come from the following two sources:<sup>5</sup>

- **Colonial Downs operations.** At full capacity, it is estimated that Colonial Downs will host approximately 25 annual horse racing events and a potential steeplechase event. In addition, the HHR facility located at Colonial Downs and ten off-track betting (OTB) locations across the state will generate significant revenue. Colonial Downs will employ hundreds of workers and benefit the state economy.
- **Visitor spending.** Colonial Downs horse racing events and betting facilities will attract many visitors to the region. Visitor spending will also benefit Virginia businesses.

The two components identified above constitute the direct economic impact of Colonial Downs in Virginia. The total economic impact also includes the economic ripple effects from the direct impact. The ripple impact, categorized as indirect and induced impacts, measures the benefits of Colonial Downs to businesses outside of those directly involved in its operations and visitor spending. For operations, Colonial Downs will utilize many Virginia firms in the areas of marketing, logistics, and security, benefiting other state businesses (indirect impact). In addition, Colonial Downs workers will spend their income in places

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<sup>1</sup> Source: <http://www.theracingbiz.com/2017/10/11/sources-deal-bring-colonial-downs-back-life/>.

<sup>2</sup> Historic horse racing is an electronic system that allows players to bet on horse races that have already occurred. Those games are played at individual terminals.

<sup>3</sup> In this report, Chmura uses the name Colonial Downs to represent the entire operation proposed by Revolutionary Racing. While the main HHR facility and horse-racing tracks are located at Colonial Downs in New Kent County, there will be other facilities such as OTB facilities around the state.

<sup>4</sup> If the plan to purchase Colonial Downs is approved, business operations will gradually ramp up over five years from 2018 to 2022. Chmura estimated the economic impact of Colonial Downs at its full capacity in 2022, when all components of Colonial Downs (HHR, OTB, and horse racing events) are in operation. The business plan for Colonial Downs includes three operational scenarios: base case, down case, and aggressive case. This economic impact is analyzed for the base case scenario.

<sup>5</sup> The one-time economic impact of facility construction and renovation is not included in this study, but the construction activities will produce additional jobs in the state.

where they live, benefiting businesses such as retail stores, restaurants, and healthcare facilities (induced impact).

The direct impact of Colonial Downs operations and visitor spending is estimated based on both data from Revolutionary Racing and Chmura's research on secondary information sources such as Virginia visitor profiles and spending. Ripple effects are estimated with the IMPLAN Pro<sup>6</sup> software, which is a model often used by economists to measure the economic impact of events.

## Economic Impact of Colonial Downs

### Economic Impact of Colonial Downs Operations

The operations of Colonial Downs will include several major revenue sources, including:

- historic horse racing (HHR)
- off-track betting (OTB)
- online wagering or advance-deposit wagering (ADW)
- horse racing events

In 2022, when operations reach their full capacity,<sup>7</sup> it is expected that the annual revenue of Colonial Downs can amount to \$203.7 million (Table 1).<sup>8</sup> Of this amount, \$161.9 million is the estimated revenue from historic horse racing. Other revenue sources are off-track betting, with an estimated annual revenue of \$27.9 million, and ADW, with an estimated annual revenue of \$5.2 million. In addition, there will be approximately 25 race days at Colonial Downs during the year, which can generate \$7.3 million in revenue, while the estimated revenue for a potential steeplechase race event is \$1.4 million.<sup>9</sup>

**Table 1: Colonial Downs Operational Revenue-2022  
(\$Million)**

Historic Horse Racing (HHR)	\$161.9
Off-track Betting (OTB)	\$27.9
Advance-deposit Wagering (ADW)	\$5.2
Track Races	\$7.3
Steeplechase Race	\$1.4
<b>Total Operation Revenue</b>	<b>\$203.7</b>

Source: Revolutionary Racing

<sup>6</sup> *IMPLAN Professional* is an economic impact assessment modeling system developed by Minnesota IMPLAN Group that is often used by economists to build models that estimate the impact of economic changes on local economies.

<sup>7</sup> If the plan to purchase Colonial Downs is approved, business operations will gradually ramp up over five years from 2018 to 2022. Chmura estimated the economic impact of Colonial Downs at its full capacity in 2022, when all components of Colonial Downs (HHR, OTB, and horse racing events) are in operation.

<sup>8</sup> All revenue and economic figures in this analysis are measured in current dollars, or 2022 dollars, unless noted differently.

<sup>9</sup> This is estimated based on a three-day event with approximately 60,000 attendants. Source: Revolutionary Racing.

Table 2 presents the estimated economic impact of Colonial Downs operations in Virginia in 2022. It is estimated that the operations can generate an annual economic impact (including direct, indirect, and induced) of \$275.3 million (in 2022 dollars) in Virginia, which can support 796 jobs in the state. Of the total impact, \$203.7 million is the estimated direct impact in Virginia, which is equivalent to the total revenue of Colonial Downs operations. Direct employment is estimated to be 418 jobs, which are those employed by Colonial Downs.<sup>10</sup> Included in those jobs are management and professional staff of Colonial Downs, hourly-wage workers for the HHR facility in New Kent and OTB facilities around the state, and workers hired for horse-racing events. The indirect impact in the state is estimated at \$58.5 million in 2022, supporting 259 jobs in the state. Beneficiaries include Virginia businesses and organizations in a wide range of industries such as advertising and marketing, banking, food suppliers, and animal production and support activities. The induced impact in the region is estimated to reach \$13.0 million in 2022, supporting 119 jobs in Virginia. The beneficiaries of the induced impact are mostly consumer-service businesses such as retail shops, restaurants, and healthcare facilities.<sup>11</sup>

**Table 2: Economic Impact of Colonial Downs Operations-2022**

	Direct	Indirect	Induced	Total Impact
Economic Impact (\$Million)	\$203.7	\$58.5	\$13.0	\$275.3
Employment	418	259	119	796

Note: Numbers may not sum due to rounding

Source: IMPLAN Pro 2016 and Chmura

Virginia's horse industry will benefit financially from Colonial Downs as well. Virginia's law stipulates that part of the wagering is to be distributed as a purse to participants in horse races, and part of it will be distributed to the Virginia Breeders Fund, the Virginia-Maryland Regional College of Veterinary Medicine, and to support Virginia horsemen, their operations, and other horse related organizations.<sup>12</sup> In 2022, it is estimated the total purse, contribution to the Virginia Breeders Fund, and the horsemen's OTB share will reach \$18.0 million.<sup>13</sup>

### Economic Impact of Colonial Downs Visitor Spending

Colonial Downs operations can generate significant economic impact in the state. The racing events and HHR and OTB facilities also attract visitors to the state. While both ticket price and on-site food and beverage costs are included in Colonial Downs operational impact (Table 2), visitors also purchase other

<sup>10</sup> The job numbers are estimated annual jobs based on prevailing wages. Estimated jobs include both full- and part-time positions. They are not full-time equivalent (FTE) jobs.

<sup>11</sup> If Colonial Downs hosts 15 race days per year, the total economic impact (direct, indirect, and induced) of Colonial Downs operations will decrease to \$271.7 million in spending that can support 771 Virginia jobs. This includes the direct impact of operations which is estimated to be \$200.8 million, supporting 402 jobs.

<sup>12</sup> Source: Code of Virginia § 59.1-392. <https://law.lis.virginia.gov/vacode/title59.1/chapter29/section59.1-392/>

<sup>13</sup> Source: Revolutionary Racing.

items outside Colonial Downs during their trips. This spending would benefit state businesses such as gas stations, restaurants, and retail shops.<sup>14</sup>

To estimate the impact of visitor spending, two key numbers are needed—the total number of visitors and their average spending amount. A market study commissioned by Revolutionary Racing shows that the HHR facility can accommodate 1.4 million participants per year.<sup>15</sup> The 25 horse-racing days can attract an estimated 52,500 visitors. In addition, the three-day steeplechase event is estimated to have 60,000 visitors.<sup>16</sup> Colonial Downs visitors include both out-of-town visitors and local residents. For example, players at the Colonial Downs HHR facility are assumed to be primarily from within a one hour's drive of the site. As a result, Chmura assumes that all visitors of HHR and OTB facilities are locals making a day trip.<sup>17</sup> The attendants to horse-racing events may come from a wider area.

Average spending of Colonial Downs visitors is estimated based on visitor profile data collected by Virginia Tourism Corporation (VTC).<sup>18</sup> The VTC survey found that for day trippers in Virginia, they spent an average of \$53.60 per person per day in the state in 2016. However, this figure includes visitor spending for the whole trip, so part of this amount will be spent on admission tickets, and food and drink inside Colonial Downs facilities. Excluding those items, it is estimated that in 2022, an average visitor will spend \$30.20 per day outside Colonial Downs facilities, resulting in annual visitor spending of \$45.7 million (in 2022 dollars). Based on the VTC survey, visitor spending is allocated to different sectors such as gas, food and drink, and shopping.

Direct visitor spending can generate additional economic impact in Virginia (Table 3). In 2022, the annual total economic impact (direct, indirect, and induced) of Colonial Downs visitor spending is estimated to be \$73.8 million (in 2022 dollars) that can support 611 jobs in Virginia. Among those, direct visitor spending in the state can reach \$46.6 million that can support 417 jobs in the state, mostly in tourism-related businesses such as gas stations, restaurants, and retail shops.<sup>19</sup> The indirect impact is estimated to be \$12.9

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<sup>14</sup> In economic literature, there are debates on whether visitor spending should be included. One argument is that spending by Virginia residents would occur in the state even if Colonial Downs did not exist. While that is true for some visitors, some Virginia residents will travel to betting facilities in neighboring states such as Maryland. Chmura chose to include visitor spending in this study.

<sup>15</sup> Source: Gaming Market Assessment, Historic Horse Racing Machines, Colonial Downs, VA. Prepared for ELS Gaming, by The Innovation Group. June 2017.

<sup>16</sup> Source: Revolutionary Racing.

<sup>17</sup> Source: Gaming Market Assessment, Historic Horse Racing Machines, Colonial Downs, VA. Prepared for ELS Gaming, by The Innovation Group. June 2017. This assumption is conservative, as there will be participants from outside the region with a higher level of spending in areas such as lodging and transportation.

<sup>18</sup> Source: Virginia Tourism Corporation. <https://www.vatc.org/research/travel-data-and-profiles/>.

<sup>19</sup> The job numbers are estimated annual jobs based on prevailing wages. In reality, for horse-racing events at Colonial Downs that are seasonal and mainly occur on weekends, many businesses will simply extend the hours of current employees rather than hiring new workers.

million that can support 84 jobs in the state. The induced impact is estimated to be \$14.3 million that can support 110 jobs in the state.<sup>20</sup>

**Table 3: Economic Impact of Colonial Downs Visitor Spending-2022**

	Direct	Indirect	Induced	Total Impact
Economic Impact (\$Million)	\$46.6	\$12.9	\$14.3	\$73.8
Employment	417	84	110	611

Note: Numbers may not sum due to rounding

Source: IMPLAN Pro 2016 and Chmura

### Colonial Downs Economic Impact Summary

Combining Colonial Downs operations and visitor spending, Table 4 presents the overall economic impact of Colonial Downs in Virginia. When operations reach full capacity in 2022, the annual total economic impact (including direct, indirect, and induced) of Colonial Downs is estimated to be \$349.1 million (in 2022 dollars) that can support 1,407 jobs in Virginia.<sup>21</sup>

**Table 4 Economic Impact of Colonial Downs-2022**

	Direct	Indirect	Induced	Total Impact
Economic Impact (\$Million)	\$250.3	\$71.5	\$27.3	\$349.1
Employment	835	343	229	1,407

Note: Numbers may not sum due to rounding

Source: IMPLAN Pro 2016 and Chmura

### State & Local Fiscal Impact

Colonial Downs will also generate tax revenue for the Commonwealth of Virginia and local governments. The state government benefits from the following three main tax streams: sales, license, individual income, and corporate income. Local governments benefits from local sales; meals; lodging; license; and business, professional, and occupational license (BPOL) taxes. To be conservative, only tax revenue from the direct impact is estimated.<sup>22</sup>

The Virginia sales tax rate is 5.3% for retail sales; 1% of retail sales is returned to the local governments while the state retains 4.3% of total sales. The state taxes grocery items at a lower rate of 2.5%. For Colonial Downs operations, sales tax is applied to the sales of food, beverage, and other merchandise sold within Colonial Downs facilities. For visitor spending, this tax is applied to sales of food and beverages, grocery items, lodging, and gas. From Colonial Down Operations and visitor spending, the sales tax is estimated to

<sup>20</sup> If the number of annual race days declines to 15, the total economic impact (direct, indirect, and induced) of Colonial Downs visitor spending decreases to \$72.3 million in spending that supports 600 Virginia jobs.

<sup>21</sup> If the number of annual race days declines to 15, the total economic impact of Colonial Downs (direct, indirect, and induced) decreases to \$343.9 million in spending that can support 1,370 Virginia jobs in 2022.

<sup>22</sup> This approach is recommended by Burchell and Listokin in *The Fiscal Impact Handbook*. Source: Burchell, R.W. and Listokin, D. 1978. *The Fiscal Impact Handbook: Estimating Local Costs and Revenues of Land Development*. Center for Urban Policy Research, New Brunswick, NJ; Rutgers, The State University of New Jersey.

be \$2.1 million for the state government and \$0.6 million for New Kent County and other local governments.

**Table 5: Annual State Tax Revenues from Colonial Downs-2022  
(\$Million)**

<b>Tax</b>	<b>State</b>	<b>New Kent &amp; Other Localities</b>	<b>Total</b>
Sales	\$2.1	\$0.6	\$2.7
Individual Income	\$1.7		\$1.7
Corporate Income	\$2.0		\$2.0
License	\$20.6	\$13.2	\$33.8
Meals		\$0.8	\$0.8
Lodging		\$0.1	\$0.1
BPOL		\$0.6	\$0.6
<b>Total</b>	<b>\$26.4</b>	<b>\$15.3</b>	<b>\$41.6</b>

Source: Chmura

Virginia can collect individual income tax from wages and salaries paid to Colonial Downs employees, including managers, professional staff, and hourly-wage employees working at HHR and OTB facilities and race events. For visitor spending, individual income tax is collected for wages and salaries from businesses serving Colonial Downs visitors. The combined individual income tax is estimated to be \$1.7 million in 2022.<sup>23</sup>

Virginia has a state corporate tax with a rate of 6.0%. The net pre-tax income for Colonial Downs in 2022 is estimated to be \$31.0 million.<sup>24</sup> For visitor spending, corporate income tax is levied on profits from businesses serving Colonial Downs visitors. Combined, the state corporate income tax is estimated to be \$2.0 million in 2022.

In addition, Virginia collects a license tax on horse race wagering. The tax is levied on the total amount wagered. The tax rate depends on whether the wagering is placed at a racetrack or at a satellite facility, and on whether the horse race occurs in Virginia or elsewhere.<sup>25</sup> It is estimated that in 2022, the state government can receive \$20.6 million in license tax revenue from Colonial Downs operations. In addition, New Kent County and other local governments whose jurisdictions house OTB facilities can receive \$13.2 million in license tax revenue. Combining the state and local portions, the total license tax collected from Colonial Downs operations is estimated to reach \$33.8 million in 2022.

Local governments will also benefit from meals, lodging, and BPOL taxes from Colonial Downs operations and visitor spending. Food and beverage sales within Colonial Downs are subject to New Kent County's meals tax, which is 2% of total sales. Visitor spending elsewhere will also generate meals tax for other localities where such sales occur and a meals tax is imposed. Combined, the total meals tax is estimated

<sup>23</sup> Virginia has a progressive individual income tax. Based on the average income of Colonial Downs, the average income tax rate is 5.5%. Source: Virginia Department of Taxation.

<sup>24</sup> Source: Revolutionary Racing.

<sup>25</sup> Source: Code of Virginia § 59.1-392. <https://law.lis.virginia.gov/vacode/title59.1/chapter29/section59.1-392/>

to be \$0.8 million in 2022. Similarly, visitor spending in hotels is subject to a local lodging tax, which is estimated to be \$0.1 million in 2022. Finally, business revenue from Colonial Downs operations and visitor spending are subject to local BPOL taxes, which is estimated to be \$0.6 million in 2022.

In summary, including both operations and visitor spending, Colonial Downs can contribute \$26.4 million in tax revenue for the state government, and \$15.3 million for New Kent County and other local governments in 2022, when operations reach full capacity.

## Appendix 1: Impact Study Glossary

*IMPLAN Professional* is an economic impact assessment modeling system. It allows the user to build economic models to estimate the impact of economic changes in states, counties, or communities. It was created in the 1970s by the Forestry Service and is widely used by economists to estimate the impact of specific event on the overall economy.

*Input-Output Analysis*—an examination of business-business and business-consumer economic relationships capturing all monetary transactions in a given period, allowing one to calculate the effects of a change in an economic activity on the entire economy (impact analysis).

*Direct Impact*—economic activity generated by a project or operation. For construction, this represents activity of the contractor; for operations, this represents activity by tenants of the property.

*Overhead*—construction inputs not provided by the contractor.

*Indirect Impact*—secondary economic activity that is generated by a project or operation. An example might be a new office building generating demand for parking garages.

*Induced (Household) Impact*—economic activity generated by household income resulting from the direct and indirect impact.

*Multiplier*—the cumulative impacts of a unit change in economic activity on the entire economy.