



### THE ECONOMIC CONTRIBUTION OF HORSE RACING IN ONTARIO (2018)



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### **PURPOSE OF STUDY**

The study quantifies the economic impact and employment levels of the horse racing sector in Ontario.



### **EXECUTIVE SUMMARY**

- In 2019, the Ontario Lottery & Gaming Corporation led a comprehensive economic impact study, in partnership with key industry stakeholders, to effectively assess the direct and spin-off contributions of Ontario's horse racing sector.
- The Ontario horse racing sector spent \$1.86B on operational and capital expenditures in 2018, the bulk of which was attributed to horsepeople (\$1.45B) and racetracks (\$365.7M).
- The industry contributed \$1.88B to Ontario's Gross Domestic Product (GDP) while supporting 22,965 jobs.
- Almost half of the industry's GDP contribution (49.6%) and the majority of jobs (51.8%) came from Thoroughbreds.
- From a value chain standpoint, racing related activities generate the most economic impact (\$1.0B),
   supporting 12,128 jobs.
- It costs an average of \$20,916 per year to produce and maintain a racehorse in Ontario. The annual cost, which includes operational and capital expenses, is higher for Thoroughreds (\$29,731) and lower for Standardbreds (\$19,988) and Quarter Horses (\$19,416).
- The provincial government derived \$327.0M in tax revenue from the industry in 2018.



### **METHODOLOGY**



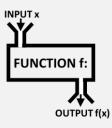
















### **Environment Scan**

- Extensive jurisdictional analyses and review of horse racing and breeding sector economic impact studies
- Engaged PricewaterhouseCoopers (PwC), Deloitte, Klynveld Peat Marwick Goerdeler (KPMG), IMPLAN, Econometric Research Limited (ERL), Praxis Consulting Ltd., Foresight Strategic Advisors Inc. Kain LABS to assess their capabilities and the possibility of sharing efforts and lessons learned

### **Stakeholder Engagement**

- Engaged breeding and racing industry stakeholders to build consensus on the need to conduct an economic impact study that would establish a coherent and integrated value chain hierarchy for evidencebased decision-making
- Formed an economic impact steering committee and working groups with diverse and broad representation from across the industry to ensure success

### Survey

- Developed and deployed surveys to racetracks, horsepeople, industry associations and government agencies to gather information on horse racing industry-related operational and capital spending
- Cleansed, analyzed and prepared the data for the economic model
- Estimated the horsepeople population

### **Economic Model**

- Selected input-output (I-O) model over computable general equilibrium (CGE) model
- Gathered relevant supply and use table information
- Built province-wide and regional models
- Tested, debugged and reviewed model results
- Generated final output for analysis

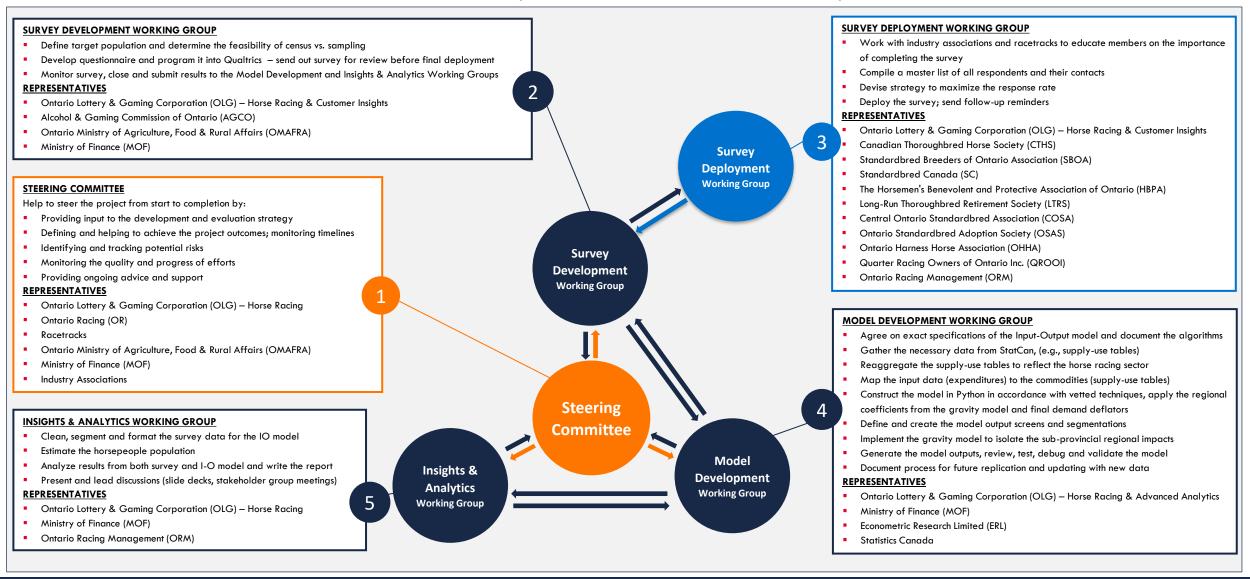
### **Analysis**

- Analyzed survey and I-O model results
- Prepared report capturing key insights
- Led industry discussions informed by study results



### **GOVERNANCE STRUCTURE**

Diverse and broad representation from across the industry to ensure success.





### **ABOUT THE MODEL**

- OLG developed an economic impact assessment tool, leveraging the input-output (I-O) model methodology, to simulate the economic contributions of horse racing expenditures on the output of the industry.
- The results from an I-O model simulation shows the direct, indirect and induced impacts on GDP, the number of jobs created and estimated tax revenue.
- The model depicts inter-industry relationships within an economy, showing how output from one industrial sector may become an input to another industrial sector.
- The customized I-O model developed by OLG captures the economic impact of Ontario horse racing expenditures, leveraging novel technologies that integrate input-output analysis and location theory.



### **KEY TERMS DEFINED**

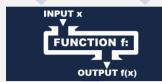
The input-output economic impact methodology estimates the direct, indirect and induced impacts of the horse racing industry in terms of GDP, employment (FTE jobs) and taxes.

- Direct impact results from the initial capital and operational spending by frontline entities on breeding and racing activities:
  - Operational expenditures (OPEX) are recurring in nature and therefore create sustained economic impact.
  - Capital expenditure (CAPEX) streams tend to be lumpy and have a high
    import content. They are typically a one-time investment (i.e., not expected to
    recur every year); hence, reported separately from operational impact as
    temporary economic impact.
- Indirect impact results from subsequent purchases by suppliers of materials and services for breeding and racing activities.
- Induced impact results from horse racing industry and supply chain employees spending their income on consumer goods and services.
- The Multipliers<sup>1</sup> capture the sum of direct, indirect and induced impacts and are calculated and used to estimate economic spinoffs.
  - $O GDP Multiplier = \frac{Direct + Indirect + Induced}{Initial Expenditure}$
  - Employment Multiplier =  $\frac{Direct + Indirect + Induced}{Direct Employment}$

OPEX (Recurring)

CAPEX

(Non-Recurring)



The I-O model captures interindustry relationships, allowing us to evaluate the effects of changes in horse racing sector spending on the provincial and regional economy.

### **TOTAL ECONOMIC IMPACT**

### **Direct Impact**

Due to initial capital and operational spending by frontline entities on breeding, racing and post-racing activity:

- Gross Domestic Product (GDP)
- Employment (FTE)
- Tax Revenue

### **Indirect Impact**

Due to subsequent purchases by suppliers of materials and services to the breeding, racing and postracing activities:

- Gross Domestic Product (GDP)
- Employment (FTE)
- Tax Revenue

### **Induced Impact**

Due to direct and indirect industry employees spending their income at the household level:

- Gross Domestic Product (GDP)
- Employment (FTE)
- Tax Revenue

The spin-off resulting from industry suppliers requiring additional inputs for their own production in order to meet horse sector demand

The spin-off resulting from employees spending their wages & salaries



<sup>&</sup>lt;sup>1</sup> Multipliers help describe how connected a sector is to the rest of the economy

### **KEY TERMS DEFINED (CONT'D)**

**Initial expenditure** is the amount directly spent by frontline entities (e.g., racetracks, horsepeople, industry associations and government agencies) to drive industry activities.

Gross domestic product (GDP) is the net output generated by the initial expenditure. In other words, it is the value added during the production process (i.e., value of output minus value of supplier expenditure). Two of the main methods of calculating GDP are the income and expenditure approaches. Both approaches produce identical results. The expenditure-based approach was selected to conduct this study.

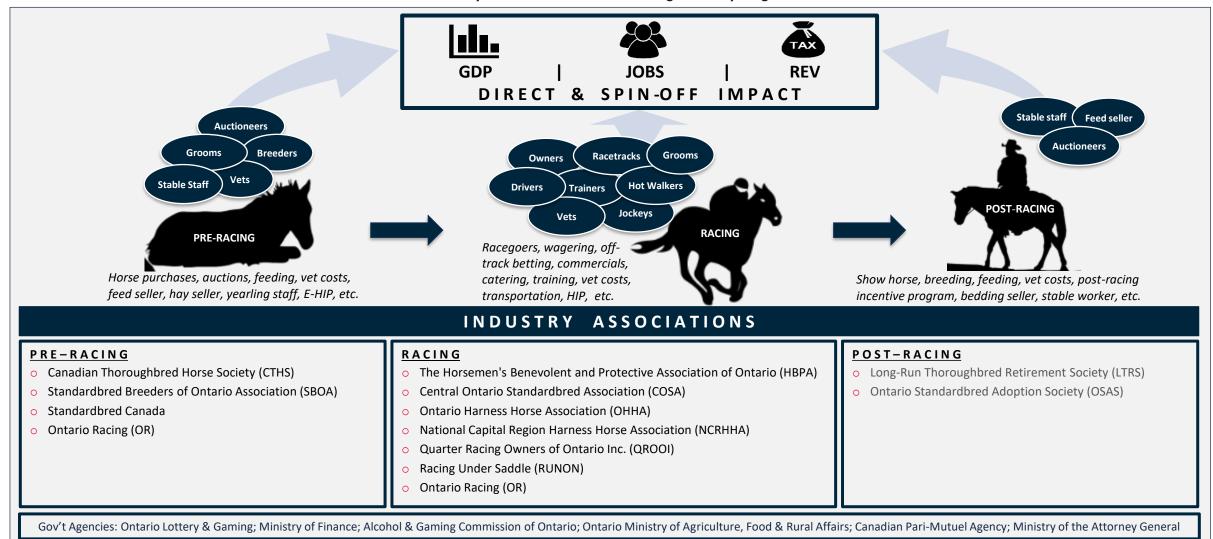
Employment (full-time equivalent jobs) refers to total person years generated by the horse racing sector. One person working full-time for 12 months and two people working 6 months a year are both equivalent to one FTE.

**Taxes** include personal income taxes, corporate profit taxes, harmonized sales tax, local property and business taxes, etc., linked to the three levels of government.

### **Methods of Measuring GDP National Income Identity** INCOME **EXPENDITURE** APPROACH APPROACH Which factor of production earns it? **WAGES &** INCOME **RENT SALARIES APPROACH** (CAPITAL) (LAND) (LABOUR) Who spends it? **EXPENDITURE EXPORTS IMPORTS APPROACH**

### ONTARIO'S HORSE RACING VALUE CHAIN OF ACTIVITIES

The horse racing value chain casts a wide net over many sectors of the economy; from breeding through racing to retirement, as well as industry associations and regulatory agencies.







## OVERVIEW AND SUMMARY OF INDUSTRY RESULTS



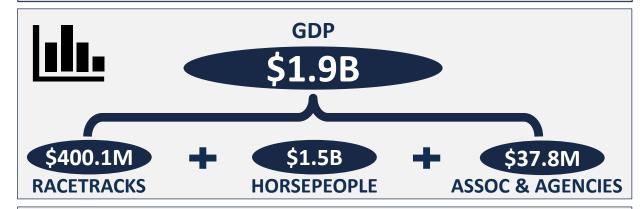
### **OVERVIEW OF INDUSTRY RESULTS**

Horse racing sector contributed ~\$1.9B to Ontario's economy in 2018...

...supporting 22,965 full-time equivalent jobs...

...and generating over \$327M in provincial tax revenue.

### **TOTAL ECONOMIC IMPACT (OPERATIONAL + CAPITAL SPENDING)**









### **ECONOMIC IMPACT SUMMARY**

- About half of the industry's GDP contribution and jobs came from Thoroughbreds.
- From a value chain standpoint, racing related activities generate the most economic impact (\$1.0B), supporting 12,128 jobs.
- Horsepeople, mostly made up of owners, breeders and trainers, are the biggest contributors to the industry's GDP (\$1.45B) and jobs (18,250).

	TOTAL ECONOMIC IMPACT (OPERATIONAL + CAPITAL SPENDING)								
		GDP	FTE	TAX REVENUE					
	STANDARDBRED	\$915.1M	10,693	\$368.4M					
BREED	THOROUGHBRED	\$934.2M	11,894	\$354.9M					
	QUARTER HORSE	\$34.8M	378	\$13.0M					
NIN	PRE-RACING	\$784.7M	9,838	\$313.8M					
VALUE CHAIN	RACING	\$1,021.7M	12,128	\$391.6M					
<b>*</b>	POST-RACING	\$77.7M	999	\$30.9M					
DER	RACETRACKS	\$400.1M	4,382	\$145.9M					
STAKEHOLDER	HORSEPEOPLE	\$1,446.1M	18,250	\$578.7M					
ST	ASSOC & GOV AG	\$37.8M	333	\$11.7M					





# ECONOMIC IMPACT BY BREED, VALUE CHAIN ACTIVITY, STAKEHOLDER & REGION



### **ECONOMIC IMPACT BY BREED**

### Impact from Operational Expenditures:

- Overall, Thoroughbred expenditures contributed more to GDP (\$750.9M) and jobs (9,899 FTEs) but Standardbreds accounted for 51% of total provincial, federal and municipal taxes (\$283.7M).
- Although Thoroughbreds showed greater aggregate operational spending (\$706.3M), Standardbreds produced higher GDP (\$317.8M) and FTE (2,785) spin-offs (indirect plus induced impact) for the provincial economy.
  - This translates into higher Standardbred multipliers (GDP: 1.09; FTE: 1.45), indicating a larger percentage of operational spending remains in the province through extensive local contractual and production linkages.

### **Impact from Capital Expenditures:**

- Capital expenditures represent 23% of total initial expenditures. The bulk of this spending went to construction projects, equipment and the purchase of horses.
- Because of the high import content in Ontario, the horse racing sector's capital expenditure GDP multipliers tend to be lower than 1.00, reflecting leakages.
- Overall, Thoroughbreds account for the majority of the temporary GDP (\$183.3M), taxes (\$89.4M) and jobs (1,994 FTEs).
- However, Quarter Horses have the highest temporary GDP and FTE multipliers, suggesting less leakage to imports as 2018 capital spending has stronger local contractual and production linkages.

	OPERATIONAL EXPENDITURES			CAPITAL EXPENDITURES				
	SB	ТВ	QH	Total	SB	ТВ	QH	Total
Initial Expenditure (M\$) [A]	682.6	706.3	27.0	1,415.9	216.8	217.3	8.0	442.1
GDP (M\$) [B]	742.0	750.9	27.6	1,520.5	173.1	183.3	7.2	363.6
Direct (M\$)	424.2	446.4	16.7	887.4	64.2	68.3	2.7	135.2
Indirect (M\$)	115.0	115.3	4.1	234.5	47.6	50.2	1.9	99.7
Induced (M\$)	202.8	189.1	6.7	398.6	61.3	64.8	2.6	128.7
Multiplier [B]/[A]	1.09	1.06	1.02	1.07	0.80	0.84	0.90	0.82
FTE Jobs, per year [C]	8,964.3	9,899.5	307.8	19,171.6	1,728.8	1,994.3	70.6	3,793.7
Direct [D]	6,178.9	7,166.2	213.6	13,558.7	790.5	995.7	32.2	1,818.4
Indirect	989.9	1,058.6	34.8	2,083.3	395.3	424.9	15.4	835.6
Induced	1,795.5	1,674.7	59.4	3,529.6	543.1	573.7	22.9	1,139.7
Multiplier [C]/[D]	1.45	1.38	1.44	1.41	2.19	2.00	2.19	2.09
Taxes (M\$)	283.7	265.5	9.5	558.7	84.6	89.4	3.5	177.6
Provincial (M\$)	127.1	117.7	4.2	249.0	37.2	39.3	1.6	78.0
Federal (M\$)	120.2	114.0	4.0	238.2	36.7	38.9	1.5	77.1
Municipal (M\$)	36.5	33.8	1.2	71.5	10.7	11.3	0.4	22.4
GDP - Direct, Indirect & In	duced Im	pact (OPE)	K)	GDP - Direc	t, Indirect	& Induce	d Impact	(CAPEX)
\$ 234.5 M \$ 887.4 M	\$ 1.52		135.2 M	\$ 99.7 M	\$ 128.		863.6 M	
Direct Indirect	Induced	Total		Direct	Indirect	Induc	ed	Total

Source: OLG Horse Racing Economic Impact Study

Notes: 1. All impact estimates are in 2018 dollars except for employment, which is estimated as full-time equivalent jobs per year.

2. Racetrack CAPEX is averaged over 5 years (FY 2014/15 to FY 2018/19). CAPEX for Horsepeople and industry associations are for FY 2018/19.

3. Multipliers help describe how connected a sector is to the rest of the economy.



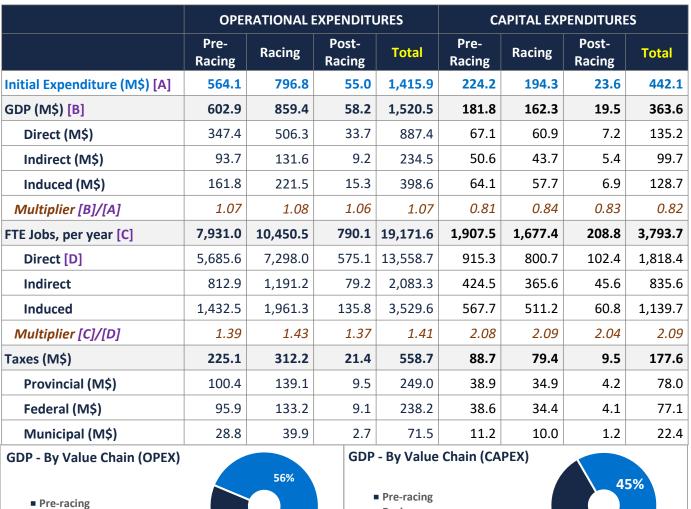
### **ECONOMIC IMPACT BY VALUE CHAIN ACTIVITY**

### Impact from Operational Expenditures:

- Racing activities contribute more to the provincial economy in terms of GDP, employment and taxes than pre-racing and post-racing activities combined.
- In 2018, racing accounted for 57% of the direct GDP impact (\$506.3M), helping sustain 7,298 direct jobs.
- The pre-racing and post-racing segments' combined direct GDP contributions (\$381.1M) and spin-off impact (\$280M) are much lower than racing, because breeding is predominantly rural and agricultural in nature, resulting in simpler contractual and production linkages with other industries, hence a smaller multiplier. Racing has more complex contractual and production relationships with other industries (e.g., retail, administrative, transportation, professional & technical, etc.).

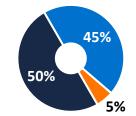
### **Impact from Capital Expenditures:**

- Pre-racing accounts for half of the GDP impact (\$181.8M) in 2018. This segment created 1,908 jobs and generated \$88.7M in tax revenue for all levels of government.
- Racing capital spending has slightly higher GDP (0.84) and FTE (2.09) multipliers than other value chain activities due to stronger integration with other sectors of Ontario's economy.





Racing Post-racing



**Source**: OLG Horse Racing Economic Impact Study

Notes: 1. All impact estimates are in 2018 dollars except for employment, which is estimated as full-time equivalent jobs per year.

2. Multipliers help describe how connected a sector is to the rest of the economy.



### **ECONOMIC IMPACT BY STAKEHOLDER**

### Impact from Operational Expenditures:

- Horsepeople, consisting of owners, breeders, trainers, grooms, etc., account for 73% of the total GDP impact and sustain over 76% of the jobs tied to the horse racing sector. This segment added \$1.1B to Ontario's GDP in 2018, yielding roughly 14,642 full-time equivalent jobs and \$183.4M in provincial tax revenue.
- Racetracks account for 26% of the direct economic impact (\$227.2M) and 21% of the direct jobs (2,809).
- Other stakeholders, including industry associations and government agencies, account for 2% of the total economic impact. This is because the majority of government programs ultimately support horsepeople and racetracks.
- Tracks show a stronger GDP multiplier (1.10), yielding roughly \$152.3M in indirect and induced impacts. This is expected because tracks focus on racing and therefore have more complex contractual and production relationships with other industries than horsepeople do.

### **Impact from Capital Expenditures:**

Reflecting its relative share of total expenditures, horsepeople account for the biggest temporary GDP, FTE and tax impacts but with much simpler relationships to other sectors of Ontario's economy.

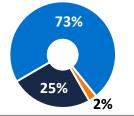






Horsepeople

Industry Assoc/ Gov't Agencies

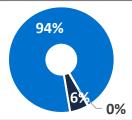


### **GDP - By Stakeholder (CAPEX)**

Racetrack

Horsepeople

Industry Assoc/ Gov't Agencies



**Source**: OLG Horse Racing Economic Impact Study

Note: 1. All impact estimates are in 2018 dollars except for employment, which is estimated as full-time equivalent jobs per year.

2. Multipliers help describe how connected a sector is to the rest of the economy.

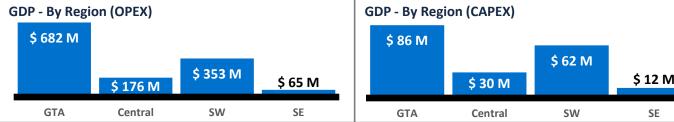


### **ECONOMIC IMPACT BY REGION**

### Impact from Operational Expenditures:

- **GTA region** has the biggest economic impact, contributing approximately \$682.2M to Ontario's GDP and sustaining 9,894 full-time equivalent jobs.
  - It is home to three of the biggest racetracks (Woodbine, Mohawk, and Ajax) that account for 90% of tracks' operational spending and is home to 40% of horsepeople (particularly Thoroughbreds and Quarter Horses)
  - GTA also has the highest multiplier effect
- **Southwestern region** has the second biggest economic impact, contributing about \$353.0M to the provincial GDP and sustaining over 5,731 full-time equivalent jobs.
  - It is home to eight racetracks (Fort Erie, Western Fair, Hanover, Flamboro, Hiawatha, Clinton, Dresden and Lakeshore) that account for 9% of tracks' operational spending and is home to 33% of horsepeople (particularly Standardbreds)
- Central region has the third biggest economic impact, contributing approximately \$176.2M to Ontario's GDP and sustaining over 2,908 full-time equivalent jobs.
  - It is home to three racetracks (Georgian, Grand River and Kawartha) that account for 1% of tracks' operational spending and is home to 18% of horsepeople
- Southeastern region has the least economic impact, contributing approximately \$65.0M to Ontario's GDP and sustaining over 1,061 full-time equivalent jobs.
  - o It is home to Rideau-Carleton, which accounts for less than 1% of tracks' operational spending and is home to 5% of horsepeople

	OPERATIONAL EXPENDITU			URES	C	APITAL EX	PITAL EXPENDITURES		
Functional Region	GTA	Central	South- western	South- eastern	GTA	Central	South- western	South- eastern	
Initial Expenditure (M\$) [A]	635.1	173.7	342.7	61.3	107.0	33.5	65.3	10.9	
GDP (M\$) [B]	682.2	176.2	353.0	65.0	86.0	30.3	62.1	12.0	
Direct (M\$)	411.5	117.8	228.5	40.5	34.3	12.3	24.4	4.5	
Indirect (M\$)	100.4	19.0	42.3	8.7	21.7	7.0	14.8	2.9	
Induced (M\$)	170.3	39.5	82.2	15.8	30.0	11.0	23.0	4.6	
Multiplier [B]/[A]	1.07	1.01	1.03	1.06	0.80	0.90	0.95	1.10	
FTE Jobs, per year [C]	9,894.2	2,908.1	5,731.1	1,061.3	1,104.4	471.2	928.1	177.3	
Direct [D]	6,121.0	2,002.3	3,830.8	678.8	434.7	206.9	390.2	69.5	
Indirect	1,375.0	311.8	672.3	139.6	278.1	101.9	209.3	41.8	
Induced	2,398.1	594.1	1,228.0	242.9	391.7	162.5	328.6	66.0	
Multiplier [C]/[D]	1.62	1.45	1.50	1.56	2.54	2.28	2.38	2.55	
Taxes (M\$)	241.2	59.1	122.0	23.4	51.1	18.4	37.6	7.3	
Provincial (M\$)	107.5	26.6	54.8	10.5	22.6	8.2	16.7	3.3	
Federal (M\$)	102.8	24.9	51.5	9.9	22.0	7.9	16.1	3.1	
Municipal (M\$)	30.9	7.6	15.7	3.0	6.5	2.3	4.8	0.9	
GDP - By Region (OPEX)		GDP - By Region (CAPEX)							
\$ 682 M		¢ 96 M							



**Source**: OLG Horse Racing Economic Impact Study

Note: All impact estimates are in 2018 dollars except for employment, which is estimated as full-time equivalent jobs per year.

GTA: Toronto, Halton, Durham, York & Peel

Southwestern: Niagara, Middlesex, Grey, Hamilton, Lambton, Chatham-Kent, Huron, Essex, Haldimand-Norfolk, Perth, Eglin, Brant, Oxford & Bruce,
Central: Simcoe, Peterborough, Wellington, Waterloo, Northumberland, Parry Sound, Northumberland, Nipissing, Muskoka, Kawartha Lakes, Haliburton & Dufferin
Southeastern: Ottawa, Frontenac, Hastings, Lanark, Leeds & Grenville, Lennox & Addington, Prescott & Russell, Prince Edward, Renfrew, Stormont, Dundas & Glengarry





## COST OF PRODUCTION AND MAINTENANCE OF RACE HORSE



### ANNUAL RACE HORSE COSTS

- On average, it costs roughly \$20,916 to produce and maintain a race horse in Ontario with 73% of the annual expense (\$15,239) being operational in nature (i.e., relates to day-to-day support and maintenance of the horse).
- The annual cost to produce and maintain a horse is the largest for Thoroughreds (\$29,731) and the lowest for Quarter Horses (\$19,416).
- Owners constitute the largest set of horsepeople and are responsible for 91% of horsepeople's operational expenses.
- The biggest operational expenditures incurred by horsepeople are training fees, wages and salaries, feed and veterinary services and medicines. On average, it costs \$20,077 per year to maintain and support a Thoroughbred horse, higher than Standardbreds (\$15,136) and Quarter Horses (\$14,640).

	Annual Cost of Production Per Horse (\$)						
	САРЕХ	OPEX	Total				
Overall	5,677	15,239	20,916				
Standardbred	4,852	15,136	19,988				
Thoroughbred	9,654	20,077	29,731				
Quarter Horse	4,776	14,640	19,416				

Source: OLG Horse Racing Economic Impact Study

### **Job Families Owners, Breeders, Trainers Expenditures** Breeders **Auctioneers** Breeders supply the race horses to Spends on farm, feed, farm Trainers owners. The majority of breeders equipment, license fees, bedding, Assistant trainers are also owners, but ownership property tax, other expenses. Drivers and Jockeys could change between the yearling Uses professional services of vets. Apprentice jockeys and racina stages. farriers Jockey agents **Stud farms** provide the necessary Hires farm managers, riders Jockey valets services to the breeders and owners, labourers, etc. Veterinarians including boarding, breaking, lay Groomers ups & rehab and training. Stable employee Stable foreman Trainers control and manage the **Spends** on feed, bedding, stable Hot walkers RACING race preparation and racing career equipment, fees & other business Exercise persons of horses (e.g., training, conditioning, expenses. Stable managers workouts, day-to-day care, feeding Uses professional services of vets. Other stable help & supplies). Many trainers also own farriers Farrier their horses and may hire assistants. Hires assistants, groomers, riders

### **RESTRICTIONS & LIMITATIONS**

This report was prepared by the Ontario Lottery and Gaming Corporation (OLG), using surveys designed and implemented in collaboration with industry stakeholders, Supply and Use Tables provided by Statistics Canada, and Input-Output model developed by OLG and Econometric Research Limited (ERL).

The information contained in this report captures the pre-COVID period (2018) and is provided for discussion purposes only. Readers are cautioned that past performance may not be indicative of future results. Any conclusion, inferences or other forward-looking information contained in this report is inherently subject to change and uncertainty, and actual results may differ materially.

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