



Sage Policy
Group, Inc.

Maryland's Horse Industry Turns a Corner

Submitted by:
Sage Policy Group, Inc.

Submitted to:
The Maryland Horse Industry Partners

October 2016

Maryland's Horse Industry Turns a Corner

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Maryland's Horse Industry Turns a Corner

Executive Summary

Maryland's Horse Industry Turns a Corner

This Sage Policy Group, Inc. (Sage) study measures the economic and fiscal impacts of Maryland's horse industry. In order to conduct the analysis, the Sage study team conducted a survey of industry participants in conjunction with the Maryland Horse Breeders Association and a set of closely aligned stakeholders. Nearly 700 surveys were completed, with respondents representing each of Maryland's twenty-four major jurisdictions. Economic impacts were calculated using IMPLAN modeling software, which incorporates contemporary purchasing coefficients and other data pertaining specifically to Maryland's economy.

Based on results of the survey and focus groups, after years of decline, Maryland's horse industry is finally moving in the right direction. Though the industry involves much more than breeding horses for Thoroughbred horse racing, the availability of slots revenues to support purses via a 2008 referendum represents a key inflection point. Between 2002 and 2010, inflation-adjusted industry spending declined by nearly 45 percent. By stark contrast, industry-wide spending increased by 19 percent between 2010 and 2015 in real terms and by 29 percent in nominal terms. It is important to note that the analytical findings discussed below do not embody the impacts of racetrack operations. Correspondingly, Sage's analytical findings should be viewed as highly conservative. The Preakness race itself generates more than \$30 million in statewide economic impact each year.

Principal Analytical Findings

- As of 2015, Maryland's Horse Industry directly supported approximately 5,800 full-time jobs statewide;
- Once multiplier effects are considered, the total number of FTE jobs stands at more than 9,100;
- These approximately 9,100 FTE positions are associated with nearly a half a billion dollars in wage and salary income (measured in \$2016).
- Direct horse industry spending exceeded \$660 million in 2015.
- Once multiplier effects are considered, the industry supports about \$1.15 billion in economic activity in Maryland each year, significantly more than the \$930 million in statewide economic impact generated in 2010.
- If the current pace of industry expansion persists through 2020, by that time the industry will be associated with nearly \$1.5 billion in economic impact and support more than \$620 million in employee income and more than 11,000 jobs.
- The industry will also contribute nearly \$90 million in annual State and local government revenue by that time.
- Industry spending on equipment, personnel, and physical structures is on the rise, but would rise even more quickly if there was less uncertainty regarding the State's commitment to the current slots funding formula.

Exhibits E1 and E2 supply relevant summary detail.

Exhibit E1: Economic Impacts of Horse on Maryland

	Jobs (FTEs)	Labor Income (2016 dollars)	Business sales (2016 dollars)
Direct effects	5,768	\$309,282,332	\$662,419,831
Indirect effects	1,384	\$75,825,693	\$202,635,028
Induced effects	1,958	\$96,728,481	\$283,346,493
Total	9,110	\$481,836,506	\$1,148,401,352

Source: Sage, IMPLAN

Exhibit E2: Fiscal Impacts of Horse on Maryland

Revenue Category	Tax Revenues (2016 Dollars)
MD Income Tax	\$18,165,236
Sales Tax	\$16,459,168
Property Tax	\$15,500,553
Local Income Tax	\$11,064,361
Nontaxes (Fines and Fees)	\$2,534,480
Other Taxes	\$2,327,458
Corporate Taxes & Dividends	\$1,463,843
Motor Vehicle Licensing Fees	\$731,087
Social Insurance Taxes	\$489,675
Total	\$68,735,862

Source: Sage, IMPLAN,

Conclusion

Maryland's horse industry is renascent. In addition to supporting more jobs, income, business sales and tax revenues, the industry is better positioned to help Marylanders preserve open space. The last five years have represented a stark contrast from the prior three decades when Maryland's horse industry was in decline. The advent of slots programs in West Virginia, Delaware and Pennsylvania had tilted the competitive playing field away from Maryland. By 2013, the state could count only 30 stallions, or one-sixth the population twenty-one years prior.

But industry recovery has begun and appears to be accelerating. During a recent year-plus period, Maryland experienced a 15 percent increase in Maryland-bred thoroughbred mares and a 23 percent increase in new thoroughbred stallions. In 2010, as the statewide industry plummeted toward its nadir, only 20 Standardbred mares were bred in Maryland. That number increased by more than 1,000 percent by 2014, when the State produced roughly 250 mares. Maryland's 2015 Thoroughbred and Standardbred foal crops were the largest in several years. According to an article published in the Baltimore Business Journal in May 2014, Country Life Farm and Merryland, two farms owned by the Pons family, delivered 45 foals in 2014, their largest crop since 2003. The growth extends to all breeds. With farms and related businesses across the state continuing to experience improving financial performance and the proliferation of all horse types across the state, more growth and impact can be and is anticipated.

Introduction

Suddenly, a Renascent Maryland Industry

There was a time when the outlook for Maryland's horse industry appeared rather bleak. Part of this was attributable to national dynamics associated with one highly visible element of the horse industry, Thoroughbred horse racing. Between 2007 and 2010, betting on Thoroughbred racing nationally dipped from \$14.7 billion to \$11.4 billion.¹ This was partially a reflection of the Great Recession, but also the growing competition for entertainment dollars from other sources, including auto racing (e.g. NASCAR), fantasy football, and lotteries offering earth-shattering prizes.

This pattern represented a distinct departure from much of the 20th century. From 1900 to 1960, horse racing trailed only Major League Baseball in total attendance.² As noted by a 1982 *New York Times* article, for the "last 30 years, more Americans have attended Thoroughbred races each year than . . . basketball or football games at the college and professional levels. Attendance at the country's 92 sanctioned Thoroughbred tracks last year was 56.1 million . . ."³

Since then, the racetrack count has fallen by more than a quarter and total attendance had declined well below the 50 million threshold as early as the 1990s.⁴ After attaining a peak in 2003 of \$15.2 billion, money wagered on races in the U.S. had fallen to \$10.6 billion by 2015 according to the Jockey Club.⁵ Commonly cited factors for the sports retrenchment include urbanization, rapid growth in Sunbelt states that lack a horse racing tradition, including Georgia, North Carolina, and Tennessee, the loss of spending power among working class Americans, the Tax Reform Act of 1986, and eroding leisure time.⁶

A slew of other factors conspired to render life particularly difficult for Maryland's horse industry. A housing boom during the early- to mid-2000s dramatically increased the value of land, pressuring stakeholders to sell their properties for development purposes. Maryland's Thoroughbred breeding horse farmers were also rapidly losing regional market share, largely because of the synergies other states were producing between slots revenues and horse racing.

In 1990, West Virginia legalized slot machines at bars, taverns and veterans clubs. In 1994, the State authorized slots at four racetracks. Of these, Charles Town Races and Slots (which became Hollywood Casino at Charles Town Races, a full service casino including table games) is the closest to Maryland. Charles Town is 80 minutes from Pimlico in Baltimore and is even more proximate to Washington, D.C. and suburban Maryland.

¹ "Betting totals continue to decline in Thoroughbred racing. Andrew Beyer, Washington Post, April 22, 2011.

² www.horseracingbusiness.com, article by Bill Shanklin, March 21, 2009

³ "Horse Racing: An Industry Confronting Transition, Steven Crist, New York Times, December 21, 1982.

⁴ The Atlantic, article by Henry D. Fetter, May 20, 2015.

⁵ www.newsweek.com 5/8/2016.

⁶ See www.bloodhorse.com/horse-racing/racetracks.



By 2006, the slots venues at racetracks in West Virginia were generating nearly \$1 billion in gross sales and employed almost 4,200 people.⁷ The impact of West Virginia's gambit on Maryland's tracks was both immediate and significant. West Virginia's purses expanded, attracting more and higher quality horses. The precise impact on Maryland attributable to West Virginia's maneuver is somewhat difficult to isolate, however, given that the State of Delaware promptly followed with its own stratagem.

What is clear is that West Virginia's thoroughbred industry—and likely their entire horse industry as well—began to boom shortly after the arrival of slots at racetracks. Within two years, West Virginia's share of mares bred began to expand rapidly. In 1996, only 260 mares, or just 0.4 percent of the North American total, were bred in West Virginia. By 2005, West Virginians bred 1,207 mares, or 1.9 percent of the total. That represents a staggering 352 percent increase over the course of roughly a decade.

Slot machine gambling arrived in Delaware in 1995 at Delaware Park and Dover Downs followed in 1996 by Harrington Raceway. By 2007, Delaware offered more than 7,200 slot machines at these three racetracks. In 2006, purses were augmented by roughly \$70 million. Maryland simply could not keep up. During the years 1999-2003, Maryland attempted to supplement its own purses, with these supplements ranging from \$7 million to \$10 million.⁸

The regional story doesn't end there – slots arrived in Pennsylvania in November 2006. It would be another two years before Marylanders passed a 2008 referendum approving the installation of video lottery terminals. Pennsylvania's Thoroughbred mare production expanded from 1,159 mares in 2006 (1.9% of North America's total) to 1,753 mares in 2009 (3.6% of North America's total). That translates into a 51.3 percent increase in Thoroughbred mare production in just two years.

Focus groups conducted by Sage in 2015 generated a strong consensus that among Maryland's neighbors, Pennsylvanians represented the fiercest competitors. From 2007 to 2010, which represents the four years after slots arrived in Pennsylvania, the Commonwealth added 20 Thoroughbred stallions while Maryland lost 29.

This massive loss in stallion population came after a lengthy period of decline that overlaps neatly with the arrival of slots in West Virginia and Delaware. Indeed, the number of Thoroughbred stallions in Maryland has been in decline since 1992 when the state boasted 180 stallions. Since then Maryland has witnessed its population of stallions dip in every year with the exception of 2000 and 2013, and correspondingly the number of resident mares to support the stallions also dropped. By 2013, the state had just 30 stallions, or one-sixth the population twenty-one years prior. Though decline has been nearly relentless for the past two decades, it should be noted that the pace of decline accelerated sharply with the arrival of slots in Pennsylvania.

⁷ The American Gaming Association, 2007 State of the States: The AGA Survey of Casino Entertainment, p. 21.

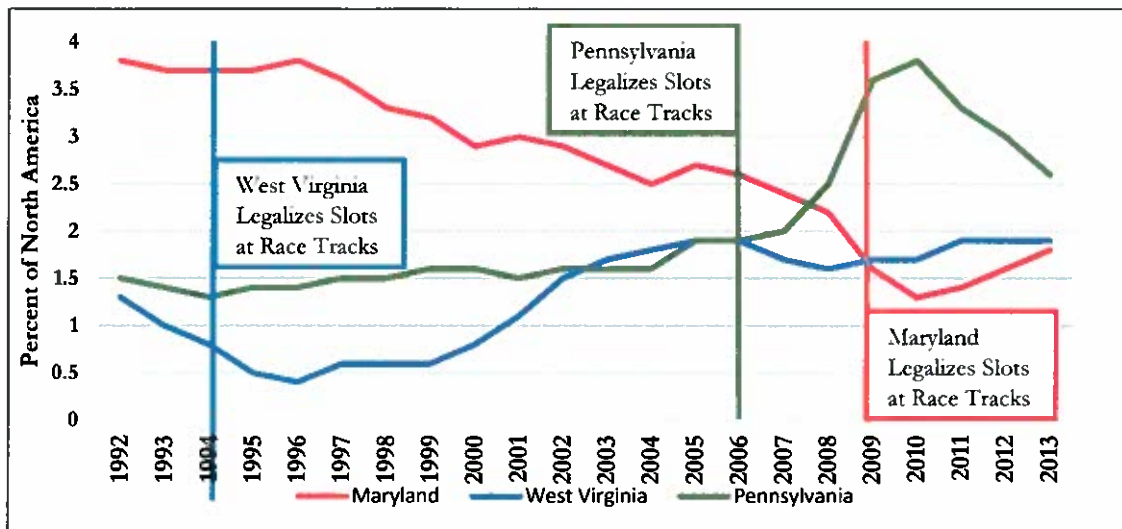
⁸ DLLR, *op cit.*, p. 8.



Maryland's last mover status is reflected in Exhibit 1, which reflects the deterioration in the proportion of North American Thoroughbred mares bred between 1992 and 2010. The number of mares bred within Maryland declined from 2,438 in 1992 to a low of 548 in 2011, a 77.5 percent decline. The share of total North American mares bred in the state dropped from 3.8 percent to 1.3 percent during that period.

Not coincidentally, the most recent Maryland equine census (2010) indicated that there were 29,400 race horses in the state, down from 34,800 in 2002 when the prior census was implemented. Between 2006 and 2008, attendance at Maryland's five major race tracks declined from 1.8 million to 1.5 million, and the number of live race days shrank from 193 to 173.⁹

Exhibit 1. Percent of Total Mares Bred in North America



Source: The Jockey Club

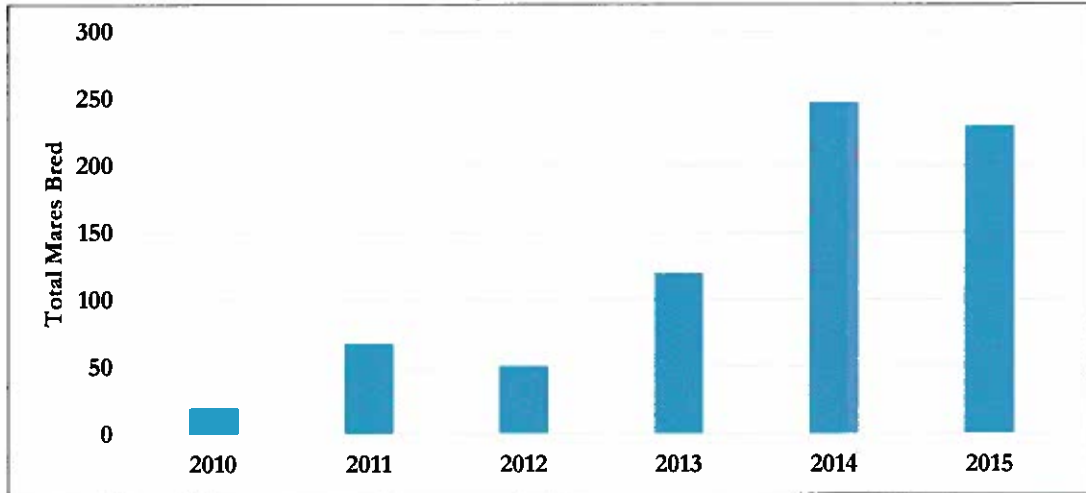
Since 2010, a new trend has emerged. Maryland's horse industry has been stabilizing due in large measure to augmented purses. According to the State of Maryland's formula, 7 percent of slot machine proceeds are directed toward the Purse Dedication Account (PDA) and another 2.5 percent is invested in the Racetrack Facilities Renewal Account (RFRA). Revenues from table games are not allocated to purses or to the horse industry. According to the Maryland Lottery and Gaming Control Agency, casino revenues accounted for nearly \$32 million for race purses and \$7.8 million for racetrack renewal funds in FY2014.

It is critical to note that the PDA has helped support the entire local horse industry, not simply the element of the industry tied to Thoroughbred racing. The number of Standardbred horses sired in Maryland has increased at a rapid pace over the last several years. In 2010, as the statewide industry plummeted toward its nadir, only twenty Standardbred mares were bred in Maryland. That number increased by more than 1,000 percent by 2014 when the State produced roughly 250 Standardbred

⁹ Maryland Racing Commission, Eighty-Ninth Annual Report, State of Maryland, 2008.

mares. It is important for policymakers and other stakeholders to understand that the entire Maryland horse industry has begun to thrive, not only that portion that benefits from more competitive racing purses. This may be due in part to an improving and thicker industry supply chain, with more service providers able to serve Maryland horse farms irrespective of the segments they serve. See exhibit 2 for additional detail.

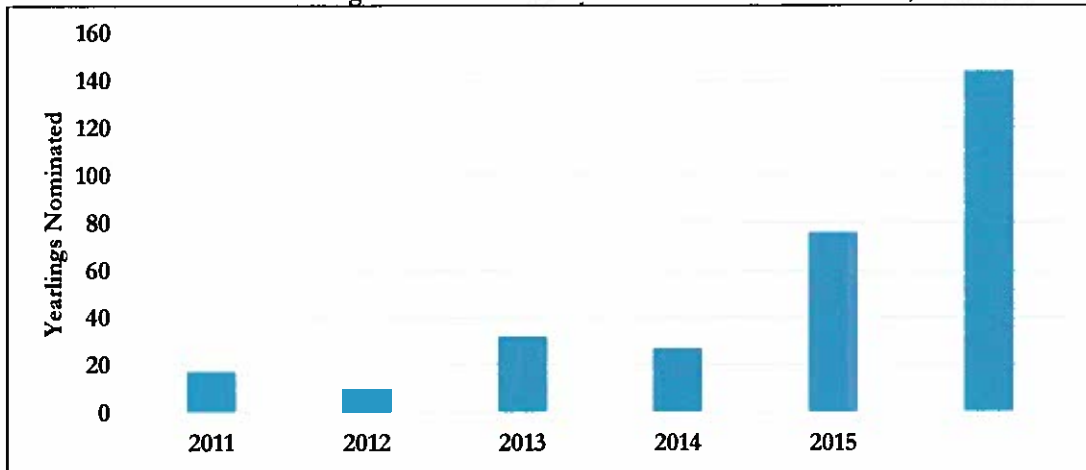
Exhibit 2: Standardbred Mares Bred to Maryland Sire Stakes Registered Stallions, 2010-2015



Source: Maryland Standardbred Race Fund

Exhibit 3 shows the number of Standardbred yearlings nominated to the Maryland Standardbred Sire Stakes program, the Maryland Standardbred Race Fund's primary incentive program. The increase has, to say the least, been dramatic, with the total expanding from a low of 10 yearlings in 2012 to 144 yearlings in 2016. Note that these figures relate to foals born in 2010-2016 (which were yearlings in 2011-2016, respectively).

Exhibit 3: Standardbred Yearlings Nominated to Maryland Standardbred Sire Stakes, 2011-2016



Source: Maryland Standardbred Race Fund

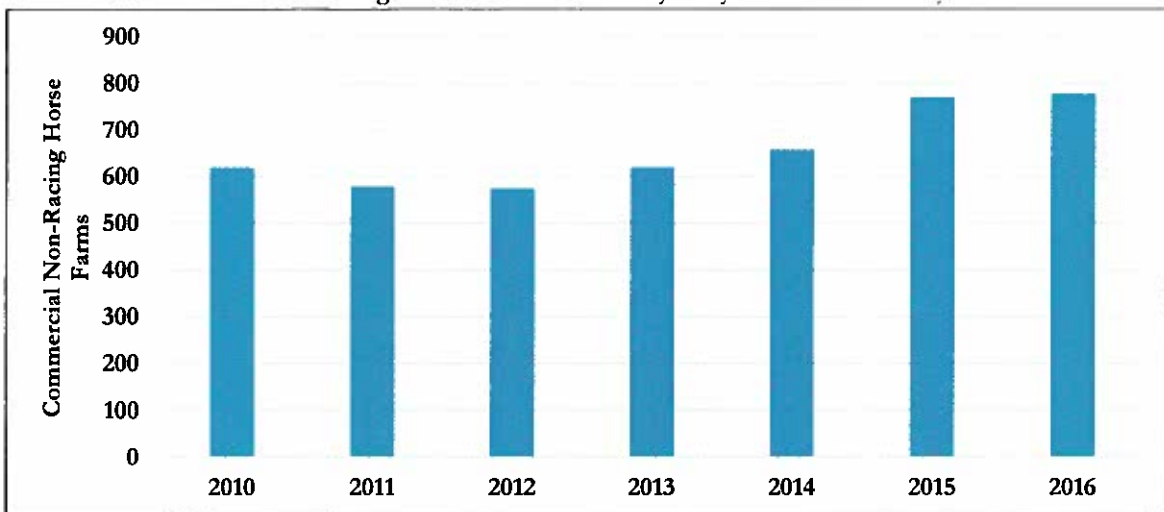
- The Purpose of this Study

This Sage Policy Group, Inc. study is intended to help stakeholders understand the economic and fiscal implications of horse farming in Maryland. Though some of the discussion above is focused on racing, there are many horses that are bred and maintained in Maryland for other purposes.

According to Maryland Horse Industry Board statistics, there are 35 different equestrian disciplines in Maryland representing more than 40 different breeds of horses and ponies. There is at least one stallion per breed and more than 200 non-racing stallions overall. Major horse breeding farms such as Harris Paints in Federalsburg (Caroline County) stand more than a dozen Quarter Horse, Paint and Pony stallions and ship genetics all over the world. Hilltop Farm in Colora (Cecil County) stands 16 European Warmblood stallions, including many that have led U.S. sire lists in the equestrian sports of Dressage, 3-Day Eventing and Grand Prix Jumping.

The Maryland Horse Industry Board itself licenses nearly 800 commercial riding schools and horse boarding, therapeutic and rescue stables (exhibit 4). Note that licensed stables exclude private, non-licensed stables and breeding farms. As an indicator of the local industry's newfound momentum, that number has expanded by nearly 35 percent since 2012. The 2010 Maryland Horse Census, conducted by the National Agricultural Statistics Service, counted 79,100 horses and 16,000 places in Maryland where horses are kept. The majority of these farms and farmettes are established for recreational riding purposes. However, both the racing and non-racing segments of the horse farming community are interconnected and dependent on one another to maintain a vibrant industry, including by supporting the practices of veterinarians, specialty contractors, and suppliers of nutrition among others.

Exhibit 4: Commercial Non-Racing Horse Farms Licensed by Maryland Horse Industry Board



Source: Maryland Horse Industry Board

This report focuses heavily upon the jobs, incomes, investments, business sales, and tax revenues supported by the industry. There are certain beneficial impacts, however, that elude quantification, such as the fact that the Maryland horse industry preserves nearly 600,000 acres of pristine land; this according to the Maryland Equine Census of 2010.

It is estimated that there are still in the range of 3 million highly engaged racing fans in America. American Pharoah's Triple Crown run last year, this first since Affirmed in 1978, attracted additional attention to the sport. Prospects for growth in Maryland's horse industry are as promising as they have been in roughly a half century.

Methodology

- Survey Development & Implementation

Working in conjunction with the Maryland Horse Breeders Association and closely aligned industry partners and stakeholders, Sage developed a survey with the single goal of collecting hard operational statistics to drive this analysis. Specifically, Sage sent out more than 1,000 surveys out and received nearly 700 complete responses. Survey responses were received from each of Maryland's twenty-four major jurisdictions.

Responses provided detail regarding industry classification, staffing levels, operational expenditures, annual payroll, revenues, and capital expenditures. Not only did respondents supply data for 2015, but Sage requested statistical detail for 2010, allowing for easy comparisons in activity with the year of the most recent equine census.

Exhibit 5: Survey Responses by County

Jurisdiction	Responses	Jurisdiction	Responses
Allegany	2	Howard	58
Anne Arundel	78	Kent	7
Baltimore	98	Montgomery	92
Baltimore City	6	PG	41
Calvert	14	Queen Anne's	10
Caroline	7	Somerset	1
Carroll	58	St. Mary's	10
Cecil	27	Talbot	9
Charles	15	Washington	13
Dorchester	3	Wicomico	10
Frederick	52	Worcester	10
Garrett	3	Unspecified (MD)	8
Harford	61	Total	693

Source: Sage

- Model Inputs

The survey data comparing 2010 and 2015 activity levels permitted the study team to use 2010 equine census data as a baseline and to create key scaling parameters to compute contemporary levels of economic impact. According to survey responses, industry-wide spending expanded by more than 29 percent between 2010 and 2015 after declining 33 percent between 2002 and 2010. When one adjusts for inflation, real industry spending growth totaled 19 percent between 2010 and 2015. In real terms, industry spending declined by nearly 45 percent during the prior eight-year period.

This report does not capture the impacts of Maryland's horse racing industry itself, either in the form of spending at racetracks or the impact of on-track and off-track wagering. Many survey respondents, however, provide services to the horse racing industry, including horse breeders, horse farm operators, veterinarians, and facility contractors.

Without question, this renders the impact assessments supplied in this report highly conservative. The 141st Preakness itself attracted a record 135,256 in-person attendees in 2016 and supported a total handle exceeding \$94 million dollars. The economic impacts of associated visitor spending are large. There are other major and minor races in Maryland and there are large numbers of people engaged in off-track betting. This report captures associated impacts only indirectly. In addition, attendance and corollary spending at major non-racing events—the spring and fall steeplechases, the Fair Hill International 3-Day event, rodeos, and major horse shows like Capitol Challenge where 1,200 horses come into Maryland from across the country to show—are also not taken into account. Collectively, these equestrian events draw nearly 100,000 spectators.

To estimate the multiplier impacts that the horse industry generates for other industries (e.g. retail, lodging), Sage used IMPLAN modeling software. This software embodies multipliers specific to Maryland's economy and has become an industry standard. An appendix to this report provides additional detail regarding IMPLAN.

The Economic & Fiscal Impacts of Maryland's Horse industry, 2015

- More than a Billion Dollars in Economic Activity in Maryland

Sage's IMPLAN model concludes that in 2015 the industry supported more than 9,100 full-time equivalent positions in Maryland. Of this total, approximately 5,800, or 63 percent, were supported directly. Total worker compensation attributable to industry operations is roughly \$482 million (all dollar figures are in \$2016).

Thanks to the resumption of industry growth in or around 2010, Maryland's horse industry is again a billion dollar industry. As of 2015, the industry directly and secondarily supported \$1.15 billion in economic activity in Maryland, up from roughly \$930 million in 2010. Exhibit 6 supplies relevant summary detail.

Exhibit 6. Economic Impacts

	Jobs (FTEs)	Wage & Salary Income (2016 dollars)	Business sales (2016 dollars)
Direct effects	5,768	\$309,282,332	\$662,419,831
Indirect effects	1,384	\$75,825,693	\$202,635,028
Induced effects	1,958	\$96,728,481	\$283,346,493
Total	9,110	\$481,836,506	\$1,148,401,352

Source: Sage, IMPLAN

Despite the uptick in activity in recent years, Sage estimates that industry spending remains 13.5 percent below its 2002 level. If one adjusts for inflation, that figure rises to more than 34 percent. In other words, Maryland's horse industry is still healing.

In 2005, Deloitte composed an economic impact report for Maryland. Benchmarking against that narrative proves difficult for a number of reasons. First and foremost, this report is consistent with the data presented in the Maryland Equine Census. The previous economic impact report, simply put, did not. The discrepancy between that previous report and the Equine Census is apparent by their estimate of total horses in Maryland. The Deloitte paper states that there were 152,930 horses in Maryland in 2005. The 2010 Maryland Equine Census puts that figure at 79,100, while the 2002 Equine Census put the State's equine inventory at 87,100. Is it possible that the equine inventory expanded by over 75 percent from 2002 to 2005 before falling roughly 50 percent over the following five-year period? Yes, it's possible. More likely is that the two publications used different methodologies to estimate the equine inventories.

- The Industry Supports \$69 Million in State and Local Government Revenue

Economic impacts translate into fiscal impacts. To compute fiscal impacts, the Sage study team relied heavily upon data from the Maryland Office of the Comptroller's FY2015 Comprehensive Annual Financial Report. Based on the relationship between Maryland wage and salary income and State income tax collections, the effective State income tax rate used in this report is 3.77 percent. Based on wage and salary income of approximately \$482 million attributable to the industry, this translates into State income tax collections of \$18.2 million. The effective local income tax rate is estimated at 2.3 percent, which translates into a local income tax impact of \$11.1 million. The industry also supported about \$16.5 million in sales tax collections in 2015 and \$15.5 million in State and local property tax collections. Exhibit 7 supplies summary detail.

Exhibit 7: Fiscal Impacts

Revenue Category	Tax Revenues (2016 Dollars)
MD Income Tax	\$18,165,236
Sales Tax	\$16,459,168
Property Tax, Local + State	\$15,500,553
Local Income Tax	\$11,064,361
Non-taxes (Fines and Fees)	\$2,534,480
Other Taxes	\$2,327,458
Corporate Taxes & Dividends	\$1,463,843
Motor Vehicle Licensing Fees	\$731,087
Social Insurance Taxes	\$489,675
Total	\$68,735,862

Source: Sage, IMPLAN

Conclusion

After many years of decline and diminished impact, Maryland's horse industry has begun a renaissance. An industry that generated an estimated \$930 million in economic impact statewide in 2010 generated more than \$1.1 billion in impact by 2015. The industry presently directly and indirectly supports more than 9,100 FTE positions in Maryland associated with nearly half a billion dollars in wage and salary income. The industry also generated nearly \$69 million in State and local government revenue in 2015.

If the current pace of expansion persists through 2020, the industry will be associated with nearly \$1.5 billion in economic impact, support for more than \$620 million in employee income and more than 11,000 jobs. The industry will also contribute nearly \$90 million in annual State and local government revenue by that time.

The industry's reemergence as a Maryland growth engine is traceable to the Maryland Slot Machines Amendment, also known as Question 2, which was on the November 4, 2008 ballot as a legislatively referred constitutional amendment. The measure approved the placement of 15,000 slot machines at five locations throughout the state.

This set the stage for augmented Thoroughbred and Standardbred horse racing purses. According to the State of Maryland's formula, 7 percent of slot machine proceeds are directed toward the Purse Dedication Account and another 2.5 percent is invested in the Racetrack Facilities Renewal Account. Revenues from table games are not allocated to support purses or the horse industry. According to the Maryland Lottery and Gaming Control Agency, casino revenues contributed nearly \$32 million for race purses and \$7.8 million for racetrack renewal funds in FY2014. Not coincidentally, the number of Maryland Thoroughbred stallions, which declined from 180 in 1993 to 29 by 2012, finally expanded in 2014. The number of races, race days, average purse per race, and total purse have also each been expanding recently.

It is critical to note that the PDA has helped support the entire local horse industry, not simply the element of the industry tied to Thoroughbred racing. The number of Standardbred horses sired in Maryland has increased at a rapid pace over the last several years. In 2010, as the statewide industry plummeted toward its nadir, only twenty Standardbred mares were bred in Maryland. That number increased by more than 1,000 percent by 2014 when the State produced roughly 250 Standardbred mares. It is important for policymakers and other stakeholders to understand that the entire industry has begun to thrive, not only that portion that benefits from more competitive racing purses. This may be due in part to an improving and thicker industry supply chain, with more service providers able to serve Maryland horse farms irrespective of the segments they serve.

Importantly, the study team's analytical findings do not incorporate the activity at Maryland's racetracks, including the activity associated with the Preakness. By itself, the 2014 Preakness supported more than \$31 million in activity,¹⁰ an impact not included in Sage's \$1.1 billion industry impact computation. The study also does not include the contributions made in the form of open space preservation. Were the State or local governments to pay for the amount of open space preserved via ongoing horse farming operations, the total expense would likely be in the billions of dollars.

¹⁰ The Economic Impact of the 2014 Preakness on the Maryland Economy, commerce.maryland.gov/ResearchDocument/EconomicImpactofthe2014Preakness.pdf



Appendix 1: IMPLAN Software

IMPLAN is an economic impact assessment software system. The system was originally developed and is now maintained by the Minnesota IMPLAN Group (MIG). It combines a set of extensive databases concerning economic factors, multipliers and demographic statistics with a highly refined and detailed system of modeling software. IMPLAN allows the user to develop local-level input-output models that can estimate the economic impact of new firms moving into an area as well as the impacts of professional sports teams, recreation and tourism, residential development, or in this instance, Maryland's horse industry. The model accomplishes this by identifying direct impacts by sector, then developing a set of indirect and induced impacts by sector through the use of industry-specific multipliers, local purchase coefficients, income-to-output ratios, and other factors and relationships.

There are two major components to IMPLAN: data files and software. An impact analysis using IMPLAN starts by identifying expenditures in terms of the sectoring scheme for the model. Each spending category becomes a "group" of "events" in IMPLAN, where each event specifies the portion of activity allocated to a specific IMPLAN sector. Groups of events can then be used to run impact analysis individually or can be combined into a project consisting of several groups. Once the direct economic impacts have been identified, IMPLAN can calculate the indirect and induced impacts based on a set of multipliers and additional factors.

Secondary benefits can be segmented into two types of impacts, indirect and induced. Indirect benefits are related to the business-to-business transactions that take place due to increased demand for goods and services that accompanies augmented investment and business operations. Impacted businesses sell everything from office furniture and copiers to computer and graphic design services. Induced benefits are created when workers directly or indirectly supported by increased economic activity spend their earnings in the local economy. Indirect and induced benefits together comprise total multiplier effects.

The hallmark of IMPLAN is the specificity of its economic datasets. The database includes information for five-hundred-and-twenty-eight different industries (generally at the three or four digit Standard Industrial Classification level), and twenty-one different economic variables. Along with these data files, national input-output structural matrices detail the interrelationships between and among these sectors. The database also contains a full schedule of Social Accounting Matrix (SAM) data. All of these data are available at *national*, *state*, and *county* levels.

Another strength of the IMPLAN system is its flexibility. It allows the user to augment any of the data or algorithmic relationships within each model in order to more precisely account for regional relationships. This includes inputting different output-to-income ratios for a given industry, different wage rates, and different multipliers where appropriate. IMPLAN also provides the user with a choice of trade-flow assumptions, including the modification of regional purchase

coefficients, which determine the mix of goods and services purchased locally with each dollar in each sector. Moreover, the system also allows the user to create custom impact analyses by entering changes in final demand.

A final advantage of IMPLAN is its credibility and acceptance within the profession. There are more than five hundred active users of IMPLAN databases and software within federal and state governments, universities, and among private sector consultants. The following list provides a sampling of IMPLAN users.

Sample of IMPLAN Users:

Academic Institutions

Alabama A&M University
Auburn University
Cornell University
Duke University
Iowa State University
Michigan Tech University
Ohio State
Penn State University
Portland State University
Purdue University
Stanford University
Texas A&M University
University of California – Berkeley
University of Wisconsin
University of Minnesota
Virginia Tech
West Virginia University
Marshall University/College of Business

Federal Government Agencies

Fed. Emergency Man. Agency (FEMA)
US Dep't of Agriculture, Forest Service
US Dep't of Ag., Econ Research Service
US Dep't of Int., Bureau of Land Mgmt.
US Dep't of Int., Fish and Wildlife Serv.
US Dep't of Int., National Parks Service
US Army Corps of Engineers

State Government Agencies

MD Dep't of Natural Resources
California Energy Commission
Florida Division of Forestry
Illinois Dep't of Natural Resources
New Mexico Department of Tourism
South Carolina Employment Security
Utah Department of Natural Resources
Wisconsin Department of Transportation

Private Consulting Firms

Coopers & Lybrand
Batelle Pacific NW Laboratories
Boise Cascade Corporation
Charles River Associates
CIC Research
BTG/Delta Research Division
Deloitte & Touche
Ernst & Young
Jack Faucett Associates
KPMG Peat Marwick
Price Waterhouse LLP
Sage Policy Group, Inc.
SMS Research
Economic Research Associates
American Economics Group, Inc.
L.E. Peabody Associates, Inc.
The Kalorama Consulting Group
West Virginia Research

Maryland Horse Industry Survey

*This survey is being conducted in order to measure the impact of the equine industry. **The time spent answering this survey will reap benefits for our state's horse industry for years to come.** This study is sponsored by the Maryland Horse Industry Partners (see final page). Participation is voluntary, but your cooperation will be extremely valuable to the future success and sustainability of the industry. All information that you provide will be kept confidential to the extent permitted or required by law. No public funds were used conducting this survey. Thank you for your participation.*

What is your name and preferred email and/or phone number? (this is required to be entered into the prize drawings): _____

Are you a business (i.e. farm owner, horse trainer, tack store owner, etc) or non-business (i.e. pleasure-rider, competitor, horse owner, etc) participant in the equine industry? A horse owner could be considered a business.

- Business Do you own more than one equine related business?
(Please complete the survey for each business)
- Non-business

**If you are a business participant, complete Section 1 of this survey.
If you are a non-business participant, complete Section 2 of this survey.**

Section 1.

What is the business name?

What is the business address (including county)?

Does the business own horses?

If applicable, what is the address of where the horses used for the business are located (including county)?

When was the business established? _____

How is the business structured?

- LLC Corp Partnership Sole Proprietorship LP LLP
 Other, please specify _____

Please check the business's main equine related service:

- | | |
|--|---|
| <input type="checkbox"/> Association | <input type="checkbox"/> Retail (Apparel, Tack, Feed, Gifts, etc) |
| <input type="checkbox"/> Breeder | <input type="checkbox"/> Show/Event Facility |
| <input type="checkbox"/> Charity | <input type="checkbox"/> Show/Event Services |
| <input type="checkbox"/> Farm – Commercial (boarding, breeding, training, etc) | <input type="checkbox"/> Trainer |
| <input type="checkbox"/> Health Services (Chiropractor, Acupuncture, Dentist, Farrier, Nutritionist, etc.) | <input type="checkbox"/> Vet / Vet Hospital Surgery |
| <input type="checkbox"/> Professional Services (Legal, Finance, Marketing, etc) | <input type="checkbox"/> Other, please specify: _____ |
| <input type="checkbox"/> Racing / Sports Related | |

Please check all other relevant equine or associated services the business supplies:

Farm Services & Businesses

- Boarding – Short / Long Term
 - Breaking
 - Breeding
 - Equine Rescue

 - Guided Trail Rides
 - Hay / Straw Grower
 - Hyperbaric Chamber
 - Instruction/Riding Program
 - Jockey / Driver

 - Lay Ups
 - Mare Care & Foaling

 - Pony Rides/Parties
 - Quarantine
 - Rentals
 - Sales Prep
 - Sales/Leases

 - Shelter / Evacuation Facility

 - Show Facility
 - Summer Camp

 - Swim Facility
 - Therapeutic Program
 - Training
 - XC Schooling Course
 - Other, please specify:
-

Services

- Advertising / Marketing / PR
 - Art
 - Auction Services
 - Barn Related (Barn/Pet Sitting, Stall Cleaning, Manure Removal)
 - Bedding / Hay / Straw
 - Braiding / Clipping
 - Carriage Services
 - Catering / Restaurants
 - Clothing / Tack Services (Leather Repair/Custom, Embroidery, Saddle Fitting, Seamstress, Tailor)
 - Construction / Electrical / Painting
 - Education/research (e.g. University Professor)
 - Farm Equipment (Repair, Sales, Rental)
 - Farm Related (Fencing, Jumps, Footings)
 - Farrier
 - Financial / Legal
 - Health Services (Acupuncture, Chiropractor, Dentist, Massage, Nutritionist, etc)
 - Insurance (Human, Equine, Automotive, Property, Liability etc)
 - Real estate
 - Show / Event Services (Judges, Announcer, Designer etc)
 - Transporting
 - Vet / Vet Hospital Surgery
 - Other, please specify:
-

Retail

- Apparel
 - Custom Jewelry
 - Equipment
 - Feed / Supplements

 - Gift Items
 - Health Care
 - Premade Farm Buildings
 - Tack
 - Trailers

 - Trucks
 - Other, please specify:
-

Please provide the following information for all the business' horse industry operations in Maryland. We would like to know how the business has changed over the past five years:

	2010	2015
Number of jobs supported by your operations measured in full-time equivalents		
Value of annual payroll including contract employees (including benefits)		
Operating revenue/income		
Operating expenditures/expenses		
Total capital expenditures (i.e. equipment, buildings, etc)		
Total acreage owned or leased		
Value of total acreage owned or lease		
Total preserved acreage		

If possible, please indicate how much the business spent on each of the items below in 2015:

Bedding and grooming supplies	\$
Boarding	\$
Clinics/seminars	\$
Clothing	\$
Feed	\$
Fees (commission, entry, dues, stake, registration, etc)	\$
Horse leasing	\$
Horse-related charitable donations	\$
Insurance	\$
Maintenance of owned facilities	\$
Professional services (finance, legal, marketing, etc)	\$
Rider education/lessons	\$
Shoeing/farrier	\$
Supplements	\$
Tack, equipment, and all other services	\$
Training	\$
Travel (gas, lodging)	\$
Veterinary services	\$
Other, please specify:	\$

Section 2.

What is your name?

What is your address (including county)?

If applicable, what is the address of where your horses are located (including county)?

Please check all relevant equine or associated services you participated in or purchased:

Equine

- Boarding
- Clinics/seminars
- Horse breeding
- Horse sales
- Horse transport
- Racing
- Rider education/lessons
- Rodeo
- Showing
- Training
- Other, please specify _____

Associated

- Education/research (e.g. University professor)
- Farrier
- Feed/tack/retail store
- Insurance
- Professional Services (finance, legal, marketing, etc)
- Real estate
- Veterinary medicine
- Other, please specify _____

If possible, please indicate how much you spent on each of the items below in 2015:

Bedding and grooming supplies	\$
Boarding	\$
Capital Expenditures / Improvements	\$
Clinics/seminars	\$
Clothing	\$
Feed	\$
Fees (commission, entry, dues, stake, registration, etc)	\$
Horse leasing	\$
Horse-related charitable donations	\$
Insurance	\$
Maintenance of owned facilities	\$
Professional services (finance, legal, marketing, etc)	\$
Rider education/lessons	\$
Shoeing/farrier	\$
Supplements	\$
Tack, equipment, and all other services	\$
Training	\$
Travel (gas, lodging)	\$
Veterinary services	\$
Other, please specify:	\$

Thank you for your participation in this important industry survey

Appendix 3: Maryland Horse Industry Partners



Maryland Association for Wildlife Conservation



Maryland Jockey Club



Cloverleaf Standardbred Owners' Association



Ocean Downs



Maryland Millions, Ltd.



Rosecroft Raceway



Maryland Horse Breeders Association



Maryland Steeplechase Association



Maryland Horse Council



The Maryland State Fair



Maryland Horse Industry Board



Maryland Standardbred Breeders Association



Fasig-Tipton Mid-Atlantic



Maryland Thoroughbred Horsemen's Association

Appendix 4: Maryland Horse Industry Participants



Capitol Polo Club



Maryland Department of Agriculture



The Equery



U.S. PONY RACING
RACING INTO THE FUTURE
U.S. Pony Racing



Maryland Saddlery