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Demographics and Economic Impact of the Horse Racing Industry in Oklahoma

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The horse industry impacts the lives of individuals and the economies of many communities across Oklahoma. It is estimated from various national-level surveys that as a state, Oklahoma ranks third in total number of horses behind Texas and California. Because of the smaller land area and population, Oklahoma leads these states in the number of horses per land area and the number of horses per person. The economic activities of the horse industry include the production and use of horses for a variety of sport, recreational, and work activities. In addition, there are large impacts resulting from spectator activities such as horse shows and horse racing.

Although the production and use of horses have influenced the economies of many Oklahomans and Oklahoma businesses, there has been no systematic industry-wide study regarding the statewide impacts of the industry. Recently, however, research scientists at Oklahoma State University have concluded a four-year project which estimates the economic impacts of one segment of the Oklahoma horse industry, the horse racing segment. The study provided demographics and economic data on race horse production and training and on race track industries.

This current report provides findings for some of the major demographics and economic indicators of the horse racing industry in Oklahoma. Research methods utilized included extensive use of surveys and discussion groups for data collection, and analysis methods which calculate economic impact and economic activities. Values represent estimates from the 1993 Oklahoma race horse industry.

Demographics of the Horse Racing Industry in Oklahoma

Horse racing has been part of Oklahoma history since statehood. In fact, much of Oklahoma was settled by a horse race during the historic land runs. The production and management of quality racing stock has increased as a result of the legalization of pari-mutuel wagering on horse racing in 1982. As such, the modern-day horse racing industry in Oklahoma is a complex interaction of the production and training of Thoroughbred, Quarter Horse, Paint, and Appaloosa race horses with the management of several pari-mutuel horse race track businesses.

The race horse industry is also a complex interaction of people involved in several different economic sectors: owners and breeders, trainers and those involved in race track management. Estimates obtained on the 1993 Oklahoma horse herd indicate about 42,000 horses were involved in race horse



(Photo courtesy Remington Park)

production and use. This number represents about 12% of the total estimated number of horses in Oklahoma. Thoroughbreds represented about 66% of this estimate and Quarter Horses, 30%. Paints and Appaloosas represented the remaining 4%. Further, about 3,700 people owned race horses and 1,850 trained horses for racing at the three major pari-mutuel tracks in Oklahoma. Race tracks were responsible for direct employment of over 900 people. Each of these sectors influences the overall economic impact of the race horse industry (Figure 1).

Race Horse Owner and Breeder Characteristics

One sector of the horse race industry centers around those who own and/or breed horses for racing. Approximately 70% of Oklahoma race horse owners and breeders reside in Oklahoma, and 77% report Oklahoma as their base of race horse business. Equal percentages of owners (38%) indicated they race only in Oklahoma, or in Oklahoma and other states.

About 90% of the owners indicate a principle occupation outside the horse industry. On average, owners and breeders indicate that about three quarters of their income is derived from sources other than horse businesses. Of the race horse business income, owners estimated about 75% is derived from purses and incentives, 23% from sale of horses and 2% for other sources. Those involved in breeding operations indicated 50%

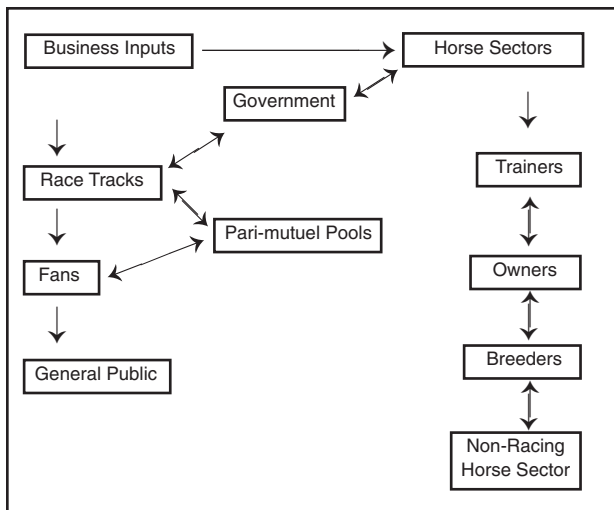


Figure 1. Oklahoma Horse Racing Industry Economic

of the income from purses and the sale of horses, and 50% from breeding farm activities. Investments of owners and breeders of race horses are presented in Table 1. Investments average about \$247,000 in land, buildings, facilities, equipment and horses.

Owners and breeders averaged about \$30,000 per year in business expenses. Predominate expense items were feeds and boarding/training fees, although labor, stud feeds, veterinary services, farriers, overhead, and other business expenses were important (Table 2).

Race Horse Trainer Characteristics

Another sector of the race horse industry is horse training. Estimates of 1993 activities indicate that about 1,850 people trained horses in Oklahoma. Most were identified as owner/trainers. Seventy percent of the trainers had Oklahoma addresses. About 70% of trainers' business was transacted in Oklahoma. Trainers indicated an average investment in land, facilities, machinery, tack, and horses of about \$183,000 (Table 3).

Trainers indicated that training and boarding fees represent the majority of income (67%), although purses and horse sales were also important income sources. Trainers averaged about \$39,000 in expenses with similar expense items indicated by owners (Table 4).

Race Track Characteristics

Oklahoma horse racing tracks offered 401 race days and about 3,800 live races in 1993. Total purses exceeded \$23 million and total wagers were a little over \$214 million.

Table 1. Average Investments of Owners and Breeders of Race Horses^a.

Owner's Investments	Average Amount
Land, acres	43
Land and building, \$	128,850
Other facilities and equipment, \$	12,955
Horses, \$	105,442

^a Owners who manage breeding farms provided responses as a subgroup and have an average an operation size of 147 acres and approximately \$310,000 in investment per business, not including horses owned.

Aggregate expenses were reported at nearly \$45 million. Total track labor was estimated at 934 Full Time Equivalents (FTE).

Other Sectors

There are other sectors of the horse racing industry which were not addressed in the study. Economic effects arising from racing fans' food, lodging, transportation, and other non-track expenses were not addressed. Also, the study did not estimate the tax impacts of Oklahoma horse racing.

At best, information in the study accurately addresses economic characteristics of a very complex, interactive industry at one point in time. All indications suggest that there is a wide range and level of economic activity among individuals involved in the various sectors. As such, caution is warranted when using averages to characterize individual operation activities.

Estimating Statewide Economic Impact of the Horse Race Industry

The horse racing industry affects the economic impact of the state through race tracks, horse production and spectator activities (Figure 2). **This study includes an assessment of race tracks and horse production but does not include spectator activities.** Race horse producers and trainers utilize labor, land, and facilities and purchase feeds, professional services, supplies, bedding, equipment, machinery, and many other business inputs. Race tracks use labor and facilities and have expenses for payroll, utilities, supplies, and many other items. All of these expenditures make up the direct economic impacts of the horse racing industry and can be measured in terms of final demand, gross state product, and employment. Input purchases by firms lead to indirect impacts, and increased income allows employees to spend and consume, which leads to induced impacts. The total economic impact is the sum of direct, indirect, and induced impacts.

Table 2. Distribution of Owner and Breeder Expenses Among Cost Items.

Cost Item	Percent of Total Expense
Interest	2.5
Labor	10.5
Repairs, Maintenance	4.0
Depreciation	5.0
Feeds	21.0
Boarding and Training Fees	21.5
Stud Fees	6.5
Business Expenses (office, insurance, etc.)	6.0
Veterinarian	8.0
Farrier	3.0
Barn Overhead (supplies, bedding, utility, etc.)	5.0
Other	7.0

Table 3. Average Investments of Race Horse Trainers.

Trainer's Investments	Average Amount
Land, acres	121
Land \$	77,302
Facilities, \$	72,279
Machinery, \$	33,421
Tack, \$	9,604
Horses, \$	48,172

Table 4. Distribution of Race Horse Trainer Expense.

<i>Trainer's Expense</i>	<i>Percent of total</i>
Interest	3.0
Labor	14.0
Repairs, Maintenance	5.5
Depreciation	3.5
Feeds	28.5
Business Expenses (office, insurance, etc.)	8.0
Veterinarian	8.0
Farrier	6.0
Barn Overhead (supplies, bedding, utility, etc.)	9.0
Transportation	7.5
Other	7.0

Measures of economic impact include final demand, gross state product, and employment. Final demand represents purchases for final use or consumption such as exports, inventory, capital formation, and personal consumption. Gross state product is an estimate of net income generated as a result of the economic activity, roughly the "value added" portion of the final value for goods and services produced in the economy. Employment represents the number of full time equivalent jobs generated by the horse racing sector, including self-employment.

Total Direct Economic Impacts

Aggregate expenses for owners and breeders were estimated at about \$37 million. Aggregate expenses for the race horse trainer sector was estimated at about \$39 million. Race track expenses were calculated to be nearly \$45 million. The spectator-fan expenses were not assessed.

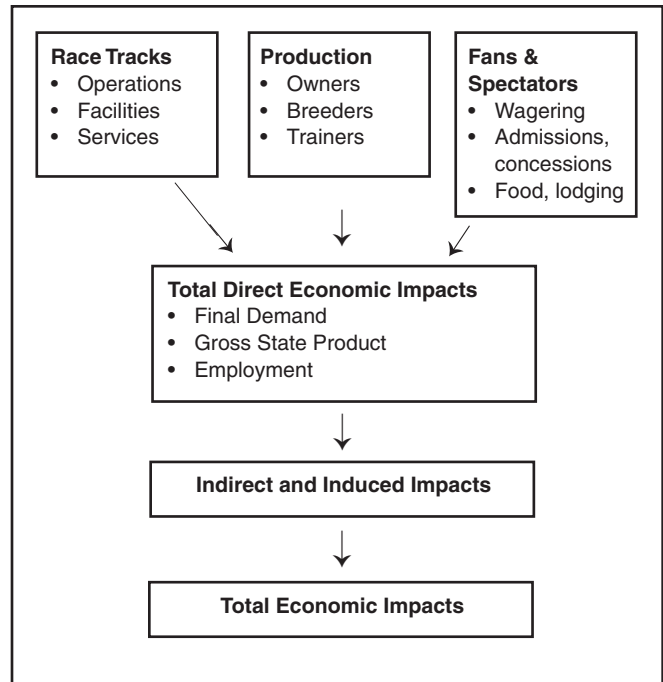
The final direct impact in terms of final demand for owners/breeders, trainers, and race tracks was estimated at \$116,366,000 (Table 5). The gross state product for the three components of the 1993 race horse industry was estimated at \$51,733,000 (Table 6). Direct employment was estimated at 5,547 full time equivalent (FTE) (Table 7).

Indirect and Induced Effects

The IMPLAN data base and model was utilized to estimate indirect and induced impacts based on survey results in the study. IMPLAN is a widely used tool to estimate such impacts. Indirect and induced final demand impacts were estimated using the expenditure information. Major industries receiving effects from the horse race industry include services, real estate, wholesale and retail trade, manufacturing, transportation, and many other important industries. Indirect and induced final demand impact was estimated at \$215,511,000. Indirect and induced gross state product was estimated at \$137,041,000. Employment resulting from indirect and induced effects totaled 6,305 jobs.

Economy-wide Impact

Economy-wide impacts for the horse racing industry include the sum of direct, indirect, and induced effects on the industry. Total final demand impacts are estimated at \$331,877,000, and total gross state product is \$188,774,000. Total employment estimates are 11,852 FTE.



Relating the Significance of Race Horse Production to Other Livestock in Oklahoma

Compared to other species of livestock, the race horse industry is unique because it includes use activities related to race tracks and tourism. Other species of livestock are produced for food and fiber, and a complete impact assessment should include related industries of product processing. As such, to be accurate, comparisons should be limited to the production sectors of the various species of livestock. Similarly conducted studies on production of other species of livestock allow for comparisons of the significance of race horse production to production of other livestock in Oklahoma (Table 8).

In terms of final demand, race horse production ranks behind various sectors of the production of beef cattle (cows and calves, stockers, and feedlot cattle), poultry, and dairy. It holds similar rank in gross state product. Employment comparisons suggest the race horse production sector ranks behind cows and calves, stockers, feedlot cattle, and dairy with 9,011 FTE.

Summary

- 42,000 horses are directly used for Oklahoma race horse production and use activities.
- 3,700 people own Oklahoma race horses.
- 1,850 people train Oklahoma race horses.
- Oklahoma race horse owners average investments of \$250,000

Table 5. The Final Demand of the Horse Racing Industry Impact on the 1993 Oklahoma Economy.

<i>Sector</i>	<i>Final Demand</i>
Owners and Breeders	\$34,887,000
Trainers	\$36,533,000
Race Track Operation	\$44,946,000
Total	\$116,366,000

Table 6. The Direct Impact on Gross State Product of the Horse Racing Industry Impact on the 1993 Oklahoma Economy.

<i>Sector</i>	<i>Gross State Product</i>
Owners and Breeders	\$14,822,000
Trainers	\$14,414,000
Race Track Operation	\$22,497,000
Total	\$51,733,000

Table 7. The Direct Employment of the 1993 Oklahoma Horse Racing Industry.

<i>Sector</i>	<i>Full Time Equivalent Jobs</i>
Owners and Breeders	1,682
Trainers	2,511
Race Track Operation	1,354
Total	5,547

in land, buildings, facilities, equipment, and horses.

- Oklahoma race horse trainers average investments of \$183,000 in land, facilities, machinery, tack, and horses.
- Oklahoma race tracks employ over 900 people.
- Aggregate annual (1993) expenses of Oklahoma owners

and breeders of race horses total \$37 million.

- Aggregate annual (1993) expenses of Oklahoma race horse trainers total \$39 million.
- Aggregate annual (1993) expenses of Oklahoma race tracks total \$45 million.
- Final demand (purchases for final use or consumption) for the combined race track, production, and fan sectors of the Oklahoma race horse industry total \$331,877,000.
- Gross state product (measure of overall economic activity) for the combined race track, production, and fan sectors of the Oklahoma race horse industry total \$188,774,000.
- Direct employment estimates for the combined race track, production, and fan sectors of the Oklahoma race horse industry total 11,852 FTE.

Resource List

The following reports were used to compile information in this report.

Anderson, K. M. Dicks, R. Sahs, W. Caid and J. Brackett. 1996. Economic Impact of Agriculture on Oklahoma's Economy, p. 947, Oklahoma Agricultural Experiment Station, Oklahoma State University.

D.W. Freeman. 1994. Oklahoma Horse Industry Trends. CR-3987. Oklahoma State University.

Walker, O.L., M.D. Woods, D.W. Freeman and D.R. Topliff. 1995. An Economic Overview of the Oklahoma Horse Racing Industry. AE-9575. Oklahoma State University.

Woods, M.D., O.L. Walker, J. Lu, D.W. Freeman and D.R. Topliff. 1995. The Economic Impact of the Horse Racing Industry on Oklahoma's Economy. AE-9576. Oklahoma State University.

Table 8. Comparison of Production of Race Horses with Production of Other Livestock Production in Oklahoma, 1993.

<i>Industry</i>	<i>Final Demand (\$1,000)</i>	<i>Gross State Product (\$1,000)</i>	<i>Employment (number of jobs)</i>
Cows and Calves	1,456,448	1,006,537	44,914
Stockers	1,144,353	790,850	35,286
Feedlot Cattle	284,943	198,433	8,690
Poultry	470,268	132,643	5,179
Dairy	248,563	132,643	9,985
Swine	141,533	101,121	4,100
Total Livestock¹	3,843,789	2,503,443	110,042
Race Horse Production	218,499	121,819	9,011

¹ Total livestock values include other commodities not listed. List includes top six livestock commodities as reported by Anderson, et. al 1996.

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