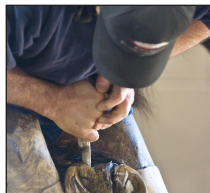
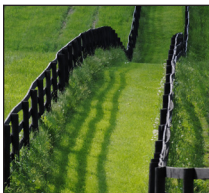
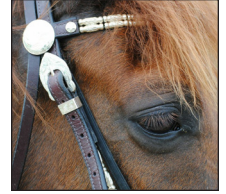


2012 Kentucky Equine Survey

Released September 6, 2013





LINDA WILSON

In Appreciation

The undertaking of a comprehensive statewide equine survey requires the assistance and cooperation of many organizations, institutions and individuals. This project would not have been possible without the dedicated support from many people. A special note of appreciation is in order for the following groups and individuals who provided significant contributions to the 2012 Kentucky Equine Survey.

The Governor's Office of Agriculture Policy and the Agricultural Development Board: GOAP provided grant funding for much of the cost of this study. We appreciate its willingness to recognize the equine industry as a vital part of Kentucky's agricultural industry and the crucial need to assess its size and distribution.

University of Kentucky College of Agriculture, Food and Environment: UK initiated this project with a substantial internal investment of funds, in addition to numerous administrative, faculty, staff and graduate student hours to assist with grant development, industry fundraising, survey design, survey promotion across the Commonwealth and data collection and analysis from equine events like horse shows, races and trail rides, as well as directly from Kentucky residents.

The Kentucky Horse Council: KHC coordinated and submitted the grant proposal to GOAP, resulting in a successful grant request. In addition, KHC helped solicit equine industry matching funds, including a large contribution from its own reserves, and helped design the survey instrument. Finally, KHC assisted in collecting horse owner names for submission to the surveying agency and in compiling the final report.

National Agricultural Statistics Service, U.S. Department of Agriculture: NASS worked with UK and KHC to design an appropriate survey instrument and served as the sole data collection agency, ensuring confidentiality of the results. In addition, NASS summarized the data and produced the equine operation inventory results.

Industry Financial Contributors: Many equine associations, operations and individuals contributed financially to this effort. A complete list is available in both the online appendix and inside the back cover of this report.

Kentucky's Equine Operation Owners: As with any survey, the accuracy of the results is a direct reflection of the completeness of the database. More than 13,000 horse owners sent their contact information to NASS in the in-

terest of benefiting the entire industry. In addition, many of these individuals were responsible for completing the survey itself.

Key Individual Contributors:

- **Jennifer Battat**, statistician, National Agricultural Statistics Service
- **Leland Brown**, former director, National Agricultural Statistics Service (retired March 2013)
- **Shawn Clark**, deputy director, National Agricultural Statistics Service
- **Bob Coleman**, PhD, PAS, director for undergraduate education in equine science and management and extension horse specialist in UK's Department of Animal and Food Sciences
- **Nancy Cox**, PhD, associate dean for research in UK's College of Agriculture, Food and Environment and Kentucky Agricultural Experiment Station director
- **Alison Davis**, director of the Community & Economic Development Initiative of Kentucky, director of undergraduate studies and associate extension professor in UK's Department of Agricultural Economics
- **Ginny Grulke**, executive director, Kentucky Horse Council (retired August 2013)
- **Audrey Jarrett**, 2012 Kentucky Equine Survey project coordinator
- **Stephanie Johnson**, graduate student in UK's Department of Agricultural Economics
- **Jeff Lemmons**, statistician, National Agricultural Statistics Service
- **Mary Rossano**, PhD, associate professor in UK's Department of Animal and Food Sciences
- **Jill Stowe**, PhD, director of UK's Ag Equine Programs and associate professor UK's Department of Agricultural Economics
- **Holly Wiemers**, MA, communications director for UK's Ag Equine Programs

Key Findings

This comprehensive statewide survey of all breeds of horses, ponies, donkeys and mules was the first such study undertaken in Kentucky since 1977.

Phase 1

Phase 1 of the study was a statewide survey of equine operations that included an inventory of all breeds of equine, including horses, ponies, donkeys and mules. It included a look at sales, income, expenses and assets of those operations. Findings include:

- Kentucky is home to 242,400 horses.
- There are approximately 35,000 equine operations in Kentucky.
- 1.1 million acres in Kentucky are devoted to equine use.
- The total value of the state's equine and equine-related assets is estimated at \$23.4 billion.
- The total of all equine-related sales and income for equine operations in 2011 was about \$1.1 billion.
- Total equine-related expenditures by equine operations in 2011 totaled about \$1.2 billion; 77% of operating expenses are spent in Kentucky.

Phase 2

Phase 2 of the project entailed an economic impact analysis of Kentucky's equine industry. According to three of the most commonly-used measures of economic impact:

- The output effect, or the increase in sales of total goods and services due to the presence of the equine industry, was measured at approximately \$3 billion.
- The employment effect, or the number of jobs created, was measured at 40,665.
- The value added effect, which is new income paid to workers, profits earned by businesses or dividends paid to shareholders, was estimated to be \$1.4 billion.

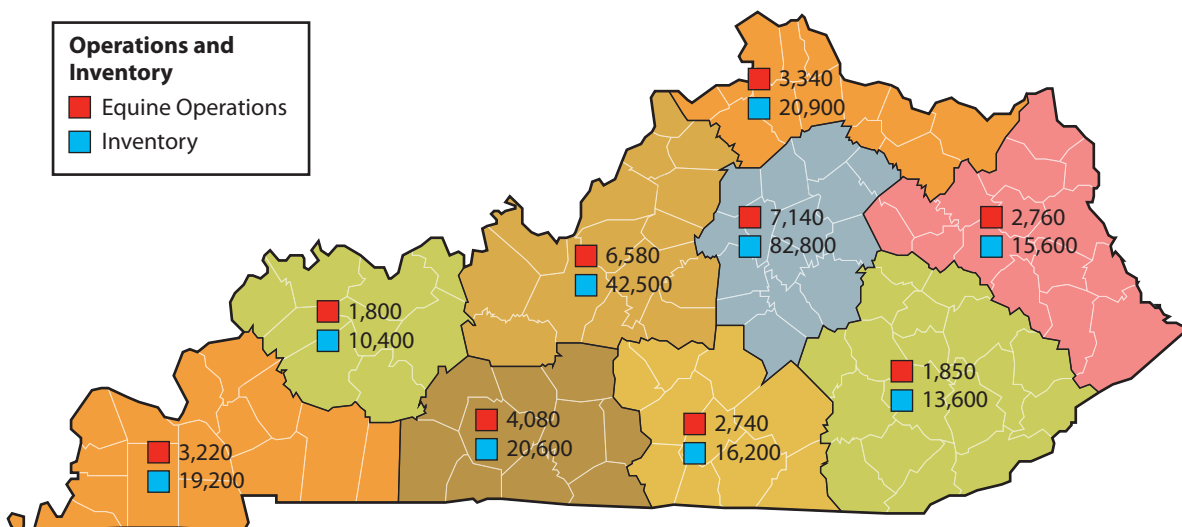
In addition, the tax contribution of the equine industry to the state of Kentucky was approximately \$134 million.

Equine Breeds in Kentucky

Thoroughbred	54,000	Arabian and Half-Arabian	5,500
Quarter Horse	42,000	Appaloosa	3,800
Tennessee Walking Horse	36,000	Belgian	3,300
American Saddlebred	14,000	Morgan	2,000
Donkeys and mules	14,000	Percheron	1,600
Mountain Horse breeds	12,500	Paso Fino	1,500
Standardbred	9,500	Hackney Horse	1,100
Miniature Horses	7,000	Pinto (excludes Paint)	900
Ponies	7,000	Clydesdale	200
Paint	6,500	Other	20,000

Primary Use of Kentucky's Equines

Trail riding/pleasure	79,500
Broodmares	38,000
Idle/not working	33,000
Competition/show	24,500
Yearlings, weanlings and foals	23,000
Racing	15,000
Other activities	13,000
Work/transportation	12,500
Stallions at stud	3,900



Background

As with any key industry, the equine industry prospers when it is measured, growth opportunities assessed, challenges defined and solutions proposed and endeavored. To effectively assess the industry, it is critical to have a current inventory of the existing population of horses and equine operations.

While Kentucky promotes itself as the “Horse Capital of the World,” the last thorough equine inventory in Kentucky was undertaken in 1977, leaving the industry with 35 years of changes, growth and contraction that were neither measured nor analyzed.

Kentucky’s equine landscape varies across the state. In some areas, breeds and disciplines are localized, while others can be found in all parts of the state. And the equine industry extends far beyond “just” horses. We know of the operation- and horse-related activities, but we may forget about the numerous other sectors the equine industry touches. The equine industry offers a number of unique, equine-related tourism opportunities. There are ancillary supporting businesses such as veterinarians and farriers, as well as providers of fencing, feed, bedding, insurance, laundry services, pharmaceuticals and specialized educational opportunities. Some have even characterized Kentucky’s equine industry, particularly in the Central Bluegrass region, as an economic cluster, along with more familiar economic clusters like Napa Valley (wine), Silicon Valley (tech/computers) and the Research Triangle of North Carolina. The existence of this type of business cluster justifies the support and enhancement of the existing equine industry.



The horse is the signature industry of Kentucky, but current benchmarks are needed to evaluate the impact of future changes in the economy, the regulatory environment, the business climate and the changing American lifestyle. In addition, current benchmarks provide the information needed to assess opportunities for growth, corrections for areas of contraction or identification of new markets or opportunities.

Finally, Kentucky’s national image is heavily based on the presence of the horse. Horses are one of the very cornerstones of Kentucky’s culture. To allow these institutions and landscape wonders to become devalued due to neglect would affect jobs and income, not only from equine operations, but also from the ancillary businesses affected by tourism and hospitality, and would ultimately take away the uniqueness and cultural identity of Kentucky.

In response to these needs, in 2011, the University of Kentucky and the Kentucky Horse Council, with support by industry organizations spearheaded by the Kentucky Quarter Horse Association, the Kentucky Thoroughbred Farm Managers’ Club and Kentucky Thoroughbred Association/Kentucky Thoroughbred Owners and Breeders, and initial support from the University of Louisville, finally succeeded in securing funding for a large-scale, comprehensive equine survey upon which future industry plans could be built. This was no small accomplishment, because many groups, including the Kentucky Equine Education Project, spent years laying the groundwork that eventually helped make this happen.



Purpose of the Study

The study's purpose was to determine an accurate inventory of all horses in the state by breed and use, and to describe the economic impact of the entire equine industry, which includes not only the equine operations, but race meets, horse shows, trail rides and supporting businesses which constitute the fabric of Kentucky's unique culture.

Kentucky's economy, like the rest of the country's, has suffered a loss of jobs during the Great Recession. Job stability and creation within one of our largest industries is a critical component to keeping our horse community healthy, as well as helping Kentucky's job market expand. Ultimately, data from this study may be used to identify areas of potential job creation and income expansion, both within the industry, as well as in those businesses associated with industry activities.



As in all of the United States, the general population has become detached from rural and agricultural life. A healthy equine industry is one way to attract Kentuckians to agriculture, to educate them about livestock husbandry, to teach youth patience and responsibility and to provide a physically-active job or hobby.

This study provides data to the equine industry to assess some very practical outcomes, including:

- What will the industry's labor requirements be in the next five years, and what education or training is required for employees to be prepared for equine jobs?
- Are there shortages of equine-focused vets relative to the equine population in specific regions of the state? Are there programs that can be instituted to entice veterinarians to these areas?



- What are the community economic benefits of horse shows or trail rides? How can we increase the number of shows or trail rides throughout the Commonwealth and attract riders from around the country? How can we provide support for facilities based on locally concentrated populations of equine participants?
- Are trail riders located near known trailheads? Are Kentuckians traveling to Indiana, Ohio or Tennessee to ride because there are no trails in their area? How can we keep them here in Kentucky?
- Is the breeding segment of the industry being optimally cultivated for all breeds? Are the ancillary businesses that support this segment being well-utilized by the operations that stand to benefit most from them?
- Are areas of growth opportunities being pursued? Can resources be focused in additional recruitment and engagement of new and growing endeavors?



These and many other questions can be addressed with a thorough understanding of where horses, operations and infrastructure are concentrated across the state.

Methodology and Timeline

Phase 1 of the study was a statewide survey of equine operations that included an inventory of all breeds of equine, including horses, ponies and mules. It included a look at sales, income, expenses and assets of those operations. It also included county-level results. Phase 2 of the project was an economic impact analysis of Kentucky's equine industry.

Phase 1: Equine Operations Inventory

Phase 1 was conducted between July and October 2012. [Note: Data equine operations reported to NASS about income and expenditures were from the calendar year 2011. Inventory and assets were measured on July 1, 2012.] The inventory of equine operations was conducted by the Kentucky Field Office (now the Eastern Mountain Region Office)

of the National Agricultural Statistics Service (NASS), which is an agency of the United States Department of Agriculture. NASS followed a list-segment and area-segment procedure, which is a sound and widely-accepted statistical methodology. NASS mailed the questionnaire to 15,000 randomly-sampled equine operations across the state. In addition, NASS staff visited 279 segments of land. (Segments were usually one to two square miles and were chosen across

the state by NASS to represent rural, semi-rural or urban fringe areas where horses might be located but weren't accounted for by any of the farm or association lists available. NASS staff members physically determined how many horses were located in these areas through questionnaires and visits. More details can be found in the technical methodology in the appendix.)

Phase 2: Economic Impact Analysis

Phase 2 was conducted between June 2012 and April 2013. To estimate the economic impact of the equine industry on Kentucky, this income and expenditure data from the NASS study was combined with an input-output (IO) model with 2011 IMPLAN data. The full economic impact of the equine industry includes the "multiplier effect," which summarizes the total impact that can be expected from a change in a given economic activity. Total statewide wagering was not included in the analysis.

For an estimate of spending and economic impacts of out-of-state attendees at horse shows and race tracks, results are based on nearly 2,000 surveys that were conducted at shows and races across the state during the summer of 2012. Only out-of-state visitors were included in the analysis because they represented new money entering the Kentucky economy.

Technical Versions

Full details on methodology and terminology are available electronically and can be requested by contacting equine@uky.edu.

Phase 1: Equine Operations and Inventory

Defining Equine Operations

For the purposes of this study, an “equine operation” is defined as an address on which at least one horse, pony, donkey or mule resides. From this study, it was determined that an equine operation encompasses the large breeding farms, property on which equines are kept for personal use and other land with a primary use that may not be equine-related, such as a cattle operation or crop farm. It is estimated that there are a total of 35,000 equine operations throughout Kentucky. These equine operations accounted for a total of 4.3 million acres of land, of which 1.07 million acres were devoted to equine-related activities.

Kentucky Equine Operation Demographics

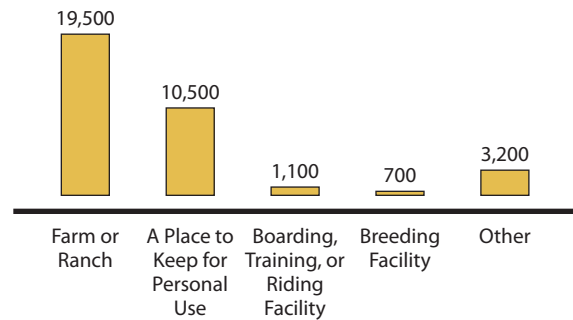
Number of equine operations	35,000
Total operation acreage	4,300,000 ac
Acreage for equine-related use	1,070,000 ac
Acreage in land preservation ¹	90,000 ac
Average years of the operation’s existence	18 yrs

¹ Land preservation may include CRP, WRP, FWP, CREP, and land trusts.

Farms or ranches comprised the largest component of equine operations by primary business type. The survey results showed that 19,500 Kentucky equine operations (56%) were listed as farms or ranches, and 10,500 operations (30%) were properties on which equine were kept for personal use. In addition, 1,100 operations (3%) were listed as a boarding, training or riding facility, and 700 (2%) were listed as a breeding operation. Finally, another 3,200 (9%) operations were identified as “other,” which could include facilities like therapeutic riding centers, equine rescue operations or some type of non-equine operation not identified above.

Not all individuals participating in the equine industry do so for business reasons. For most, their equine-related activities are recreational, and there

Primary Function of Land Used for Equine Operation
As of July 1, 2012

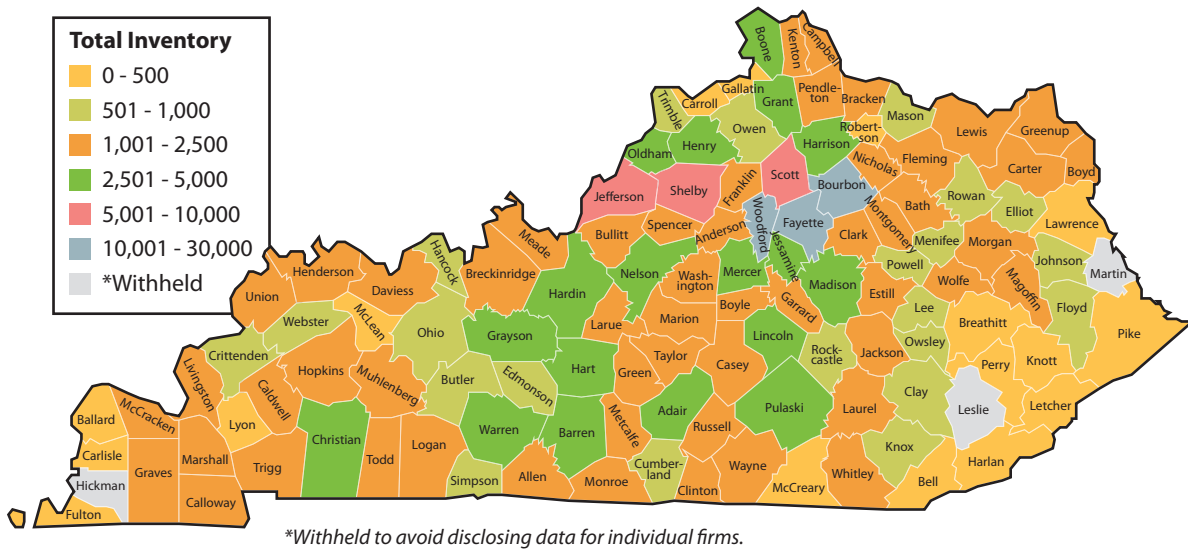


is no profit motive. Survey respondents were asked to estimate the percentage of equine-related activities on their operation that were conducted for business purposes—in other words, to generate income. These responses differed significantly according to primary type of the operation. Breeding operations had the highest percentage of activities that are income-generating (73%), followed by boarding, training or riding facilities (56%). Farms or ranches indicated that 10% of activities were for business purposes, followed by “other” (8%) and operations on which equine are kept for personal use (6%). So, about 95% of the equine operations (farms and ranches, personal use, and other) have 10% or less of their equine-related activities for business purposes, indicating a large hobby or recreational segment.

Numbers, Types and Uses of Equine

According to the 2012 Kentucky Equine Survey, there were an estimated 242,400 horses, ponies, mules and donkeys in the state of Kentucky on July 1, 2012. The majority of the state’s equine are light horse breeds, which accounted for 89.2% of the total. Donkeys and mules accounted for 5.8% of the state’s equine, with ponies accounting for 2.9% and draft horse breeds accounting for 2.1%.

Kentucky Equine Inventory by County



Thoroughbreds were the largest breed in the state (54,000), followed by Quarter Horses (42,000), Walking Horses (36,000), American Saddlebreds (14,000), donkeys and mules (14,000), Mountain Horse breeds (12,500) and Standardbreds (9,500). A complete listing of the estimated number of all

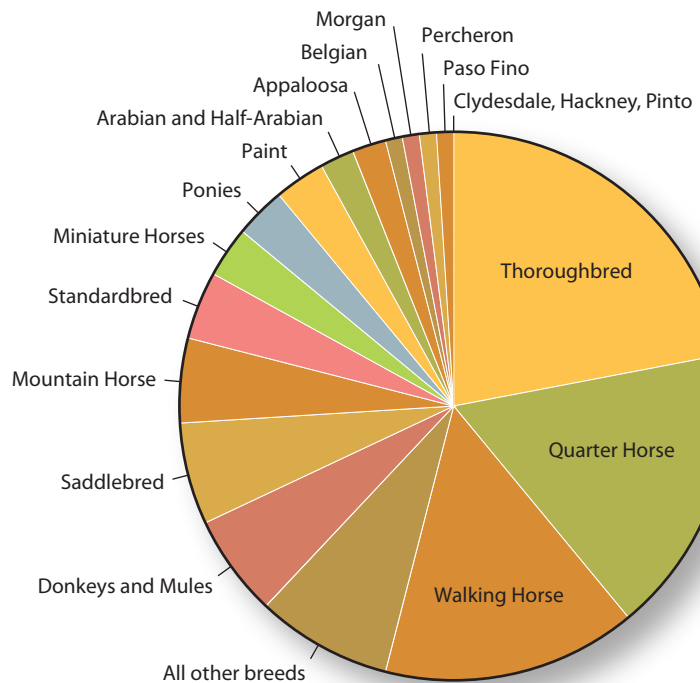
breeds is included in the NASS release in the appendix.

The number of equine was disclosed in all but three of Kentucky's 120 counties. The distribution of equine across the state can be seen in the figure above.

Kentucky Equine Inventory

As of July 1, 2012

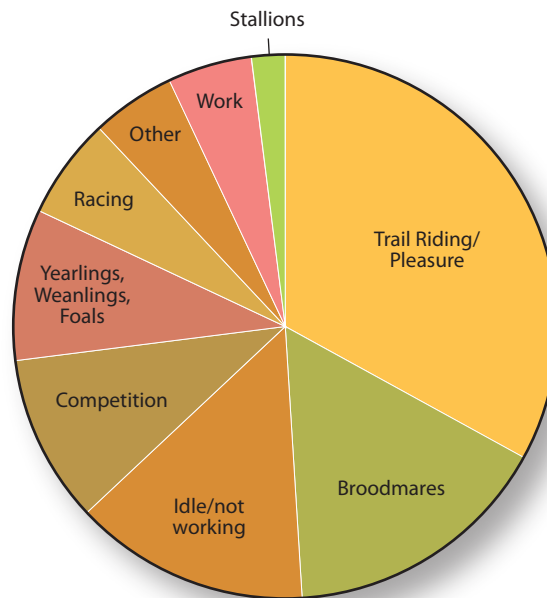
Breed	Number	Percent
Thoroughbred	54,000	22
Quarter Horse	42,000	17
Tennessee Walking Horse	36,000	15
American Saddlebred	14,000	6
Donkeys and mules	14,000	6
Mountain Horse breeds	12,500	5
Standardbred	9,500	4
Miniature Horses	7,000	3
Ponies	7,000	3
Paint	6,500	3
Arabian and Half-Arabian	5,500	2
Appaloosa	3,800	2
Belgian	3,300	1
Morgan	2,000	1
Percheron	1,600	1
Paso Fino	1,500	1
Hackney Horse	1,100	<1
Pinto (excludes Paint)	900	<1
Clydesdale	200	<1
Other	20,000	8



Primary Use of Kentucky Equine

As of July 1, 2012

Use	Number	Percent
Trail riding/pleasure	79,500	33
Broodmares	38,000	16
Idle/not working	33,000	14
Competition/show	24,500	10
Yearlings, weanlings, foals	23,000	9
Racing	15,000	6
Other activities	13,000	5
Work/transportation	12,500	5
Stallions at stud	3,900	2



Uses of Equine

The primary use of equine in the state is recreational, such as trail or pleasure riding (32.8%). Due to Kentucky's active breeding industry, the next most common primary use for equine is as breeding stock, such as broodmares and stallions (17.3%), followed by equine which are idle or not working (13.6%), equine primarily used for competition or show (10.1%), and "growing" equine, such as foals, weanlings and yearlings (9.5%). In Kentucky, 5.2% of the equine are used for work or transportation, and another 5.4% are used for other activities, which may include therapeutic riding, riding lessons, police mounts or other beneficial activities like leadership training.

Value of Equine and Equine Related Assets

The value of the all horses, ponies, mules and donkeys on July 1, 2012, was \$6.3 billion. The estimated total value for Thoroughbred horses was the highest (\$5.5 billion), followed by American Saddlebreds (\$173 million), Quarter Horses (\$146 million), Standardbreds (\$119 million), Walking Horses (\$71 million) and Mountain Horse breeds (\$31 million). A complete listing of all estimated total values can be found in the appendix.

Many assets, capital and otherwise, are required to support equine and equine-related activities. The

reported value of equine-related land, fencing and buildings was \$13.9 billion. The value of equine-related vehicles and equipment was reported to be almost \$3 billion. The reported value of tack and equestrian clothing was \$114 million and the value of feed and supplies was \$58 million. In total, the value of all equine-related assets, including the value of the equine in the state, was estimated at \$23.4 billion.

Equine Operation Revenues and Expenses

Revenues

Equine operations receive income through sales of horses as well as services related to the operation, which may include breeding-related services, such as stud fees and semen, broodmare care and foaling of mares, along with other services, such as boarding, lessons, training and transportation, to name a few.

Income from sales of horses, ponies, mules and donkeys was \$522.1 million. Income from equine-related services was \$491 million, with \$220 million coming from breeding services and \$271 million coming from non-breeding services. These figures suggest a dynamic industry, encompassing a broad range of activities, including breeding, preparing horses for the market place, recreational use and equine and human health endeavors.

Operating Expenditures, 2011

Category	Expense (\$)	% Spent in Kentucky
Maintenance/repair	149,000,000	73%
Feed	123,000,000	85%
Breeding fees	85,000,000	77%
Health	71,000,000	82%
Training fees	69,000,000	60%
Boarding fees paid to others	48,000,000	80%
Insurance premiums	41,000,000	77%
Utilities/fuel	38,000,000	86%
Farrier	34,000,000	85%
Taxes	34,000,000	78%
Shipping and travel	34,000,000	70%
Supplies	27,000,000	81%
Miscellaneous	26,000,000	79%
Fees and payments	25,000,000	69%
Bedding	21,000,000	85%
Rent/lease	14,000,000	88%
Total operating expenditures	839,000,000	77%



KENTUCKY HORSE COUNCIL

In total, equine-related income from sales and services for equine operations in 2011 was estimated to be about \$1.1 billion.

Expenses

Total equine-related expenditures in Kentucky in 2011 amounted to \$1.2 billion. Capital expenditures, which at \$338 million accounted for 29% of all equine-related expenditures, include the purchase of real estate, horses, ponies, mules and donkeys, and also account for expenditures on improvements and equipment. Operating expenditures, excluding labor, include many items, such as board, feed, bedding, veterinarian and farrier services, supplies, tack and equipment, breeding fees, maintenance and repair, insurance premiums, utilities and fuel, taxes, rent or lease, fees and payments, transportation, training fees and other expenses. In 2011, operation expenditures, excluding labor, totaled \$839 million. Notably, 77% of these operating expenses were spent in Kentucky.

Equine Operation Employment

The 2012 Kentucky Equine Survey measured direct income as well as employment on equine operations. This includes only those who work directly on an equine operation in some capacity, whether breeding, training, boarding, instruction or in business functions, including finance and marketing. These figures do not include the jobs or income derived from the ancillary businesses and professionals that support equine operations, like veterinarians, farriers, therapists, facility maintenance, insurance, etc.

According to the results, there were a total of 13,000 workers reported on Kentucky's equine operations during 2011. This number includes 5,600 full-time and 7,400 part-time employees. The total payroll expenses paid to these workers was estimated at \$202 million. Additionally, non-wage benefits, which include housing, utilities, meals, clothing, transportation, horse boarding and riding lessons, totaled an estimated \$16.7 million during the same period. Of the labor expenses, 40% were attributed to breeding-related activities, 15% for racing, 7% for competition, 1% for recreation and 37% for other activities.

Phase 1: Inventory and Value by County

Concentration of Equine

As one might expect, there is a concentration of horses in the Bluegrass area of Central Kentucky including the seven counties (Fayette, Bourbon, Woodford, Scott, Jessamine, Madison and Clark). These seven counties alone account for over 39,000 horses, ponies, mules and donkeys, or 16% of the state's population.

However, there are other areas of the state with significant concentrations of equine:

- Shelby County has over 6,200 horse; 1,500 are American Saddlebreds.
- Warren and Oldham Counties both have over 4,000 horses each.
- Four additional counties have over 3,000 horses each (Hardin, Jefferson, Boone and Mercer).
- The area just west of Louisville including the six counties of Meade, Breckinridge, Hardin, Grayson, Larue and Hart, have a combined population of over 11,000 horses.

- The seven counties just south of the Bluegrass area (Anderson, Mercer, Washington, Garrard, Boyle, Marion and Lincoln) have a population of over 12,000 horses.
- The central Tennessee line area has seven counties (Barren, Metcalfe, Warren, Logan, Simpson, Allen and Monroe) that have a combined population of over 12,000 horses and represent another area of clustering.
- The Northern Kentucky area (Kenton, Boone, Campbell, Pendleton, Bracken, Mason and Grant counties) represent over 10,000 horses and are natural cluster for services and programs.
- Other standout horse populations are in Pulaski County (2,920), Adair County (2,900), Harrison County (2,540), Christian County (2,520) and Fleming County (2,100).
- Another 13 counties have over 1,000 horses:

Calloway	Henry	Morgan	Wayne
Carter	Hopkins	Nelson	Whitley
Daviess	Laurel	Taylor	Wolfe
Graves	McCracken	Trigg	



LINDA WILSON

Full County Inventory List

County	Inventory	Inventory Value*	County	Inventory	Inventory Value*
Adair	3,400	\$8,906,000	Knox	600	\$1,132,000
Allen	2,400	\$6,611,000	LaRue	1,700	\$2,168,000
Anderson	1,400	\$7,080,000	Laurel	1,900	\$4,030,000
Ballard	300	\$596,000	Lawrence	500	\$778,000
Barren	3,600	\$8,409,000	Lee	800	\$1,940,000
Bath	1,200	\$2,599,000	Leslie		
Bell	200		Letcher	200	\$166,000
Boone	4,300	\$71,705,000	Lewis	1,400	\$3,182,000
Bourbon	13,000	\$861,403,000	Lincoln	3,000	\$11,718,000
Boyd	1,200	\$4,656,000	Livingston	1,200	\$2,004,000
Boyle	2,000	\$15,508,000	Logan	1,700	\$1,771,000
Bracken	1,200	\$1,372,000	Lyon	400	\$1,765,000
Breathitt	300	\$341,000	Madison	3,100	\$10,745,000
Breckenridge	1,900	\$3,849,000	Magoffin	1,100	\$1,636,000
Bullitt	1,500	\$5,778,000	Marion	2,000	\$6,305,000
Butler	500		Marshall	1,300	\$8,068,000
Caldwell	1,600	\$3,691,000	Martin		
Calloway	1,900	\$6,549,000	Mason	1,000	\$6,458,000
Campbell	1,800	\$11,791,000	McCracken	1,900	\$6,410,000
Carlisle	300	\$371,000	McCreary	300	\$315,000
Carroll	400	\$550,000	McLean	400	\$1,071,000
Carter	2,000	\$3,584,000	Meade	2,000	\$7,360,000
Casey	1,400	\$3,784,000	Menifee	900	\$4,136,000
Christian	2,700	\$5,026,000	Mercer	3,700	
Clark	2,200	\$22,971,000	Metcalfe	1,600	
Clay	600	\$2,466,000	Monroe	1,300	\$1,408,000
Clinton	1,000	\$1,144,000	Montgomery	1,600	\$4,079,000
Crittenden	900		Morgan	2,300	\$3,986,000
Cumberland	700	\$1,475,000	Muhlenberg	1,300	\$4,328,000
Daviess	1,400	\$3,306,000	Nelson	2,800	\$7,890,000
Edmonson	900	\$849,000	Nicholas	1,200	
Elliott	600	\$963,000	Ohio	1,000	
Estill	1,000	\$2,686,000	Oldham	4,700	\$163,019,000
Fayette	24,600	\$2,608,789,000	Owen	600	\$1,525,000
Fleming	2,300	\$4,442,000	Owsley	700	\$2,453,000
Floyd	800	\$2,491,000	Pendleton	2,200	\$6,343,000
Franklin	1,200	\$11,518,000	Perry	400	\$302,000
Fulton	100		Pike	200	
Gallatin	400	\$659,000	Powell	800	\$1,550,000
Garrard	1,700	\$11,509,000	Pulaski	3,200	\$11,795,000
Grant	2,700	\$6,114,000	Robertson	400	\$296,000
Graves	2,400	\$10,372,000	Rockcastle	800	\$797,000
Grayson	3,000	\$5,247,000	Rowan	1,000	\$2,585,000
Green	1,100	\$3,016,000	Russell	1,400	
Greenup	1,400	\$2,204,000	Scott	7,000	\$326,614,000
Hancock	600		Shelby	6,500	\$140,851,000
Hardin	4,300	\$20,622,000	Simpson	800	\$2,658,000
Harlan	200	\$240,000	Spencer	1,000	\$4,745,000
Harrison	3,500	\$9,975,000	Taylor	2,100	
Hart	3,300	\$6,726,000	Todd	1,300	\$4,082,000
Henderson	1,300		Trigg	1,200	\$4,970,000
Henry	2,500	\$13,921,000	Trimble	900	\$5,430,000
Hickman			Union	1,100	
Hopkins	1,900	\$3,626,000	Warren	4,500	\$11,328,000
Jackson	1,300	\$1,994,000	Washington	1,900	\$6,029,000
Jefferson	7,400	\$124,148,000	Wayne	1,900	\$3,679,000
Jessamine	4,500	\$332,552,000	Webster	700	\$1,313,000
Johnson	700	\$3,849,000	Whitley	1,700	\$2,961,000
Kenton	1,200	\$5,415,000	Wolfe	1,800	\$2,596,000
Knott	100	\$133,000	Woodford	11,900	\$1,036,568,000

*The inventory value represents the self-reported value of equine owned and boarded on operations in Kentucky

Phase 2: The Economic Impact of Kentucky's Equine Industry

Kentucky's equine industry has long had an important impact on the state's economy. The economic impact of an industry can be measured in a number of ways; three measures often used include the output effect, the employment effect and the value added effect. The full economic impact takes into account the "multiplier effect," including both direct and "spinoff," or indirect, activities.



Note: Figures reported in the inventory section above were compiled based on data collected by NASS. The economic impact figures listed here represent both jobs created directly by equine operations, as well as jobs generated in the ancillary businesses needed to support equine operation activities.

Output

The output effect is the increase in sales of total goods and services due to the presence of the equine industry. In 2012, this impact was measured at approximately \$3 billion, which includes the direct effect of \$1.8 billion and an additional \$1.2 billion in output due to indirect and induced effects. This is a conservative estimate, as it does not include banking, legal or accounting services or any tourism impacts related to the equine sector. It also does not include pari-mutual wagering. Of the \$3 billion economic impact, it was estimated that \$1.28 billion was generated by the racing sector, \$710 million by the breeding sector, \$635 million from competition, \$166 million from recreation and \$194 million from all other sectors.

Employment

The employment effect measures the number of jobs generated as a result of the presence of the equine industry. An estimated 40,665 jobs are generated by Kentucky's equine industry, with 32,022 directly employed by equine operations and businesses. Another 8,643 jobs are due to indirect and induced effects.

Value Added

Another important measure of economic impact is the value added impact. Value added is often interpreted as new

income paid to workers, profits earned by businesses or dividends paid to shareholders; in other words, it is the amount that is actually earned by an individual or business through the sale of goods and services. The direct value added of the equine industry is \$813 million, with the full value added impact estimated at \$1.4 billion after accounting for indirect and induced effects.

Note: The value added effect will always be smaller than the output effect because it accounts not only for the value of the goods and services sold, but also for the cost of production and opportunity costs. In this sense, it may be a more useful measure of economic impact.

Total Economic Impact of Equine Industry

	Employment (jobs)	Output	Value Added
Direct equine industry impacts	32,022	\$1.78 billion	\$813 million
Total equine industry impacts	40,665	\$2.99 billion	\$1.40 billion



LINDA WILSON

Estimate of Impact by Sector

Sector	Employment	Output	Value Added
Breeding	16,198	\$710 million	\$333 million
Competition	2,708	\$635 million	\$297 million
Racing	6,251	\$1.28 billion	\$601 million
Recreation	594	\$166 million	\$78 million
Other	14,914	\$194 million	\$91 million

Tax Impact

State and local tax revenues are derived from all of the direct and indirect activities generated by the equine industry. In addition, the equine industry contributes an above average share of sales tax to Kentucky compared to the rest of the agricultural industry because, unlike the rest of the state’s animal agriculture, such as beef cattle, dairy cattle, swine, poultry and goats, equine farm purchases are not exempt from Kentucky sales tax. It is estimated that the Kentucky tax impact of the equine industry is approximately \$134 million annually, which includes tax revenue collected from state income tax and sales tax, but does not include occupational license tax revenues.

Equine Events

Kentucky’s equine industry is a rich source of tourism revenue. Tourism activities generate additional sales for the hospitality and transportation industries through hotel rooms, eating establishments, gasoline purchases and other sundry expenditures at drugstores, apparel stores and other entertainment venues such as movies and vineyards. Tourism impacts were not included in the numbers above, but the table below provides a guideline about economic impacts at horse shows of different sizes. These results are based on nearly 2,000 surveys from shows across the state collected during the summer and fall of 2012. Only out-of-state visitors were included in the analysis because they represent new money entering the Kentucky economy.

Economic Impact of Horse Shows

Size of Show	Attendees	Out-of-state Attendees	Total Economic Impact
Small	200	80	\$21,400
Medium	500	200	\$53,600
Large	2,000	800	\$214,400

The state hosts many national and international events which attract significantly greater numbers of attendees (and, importantly, many more out-of-state and out-of-country attendees) than those events listed on the above table. For example, the Rolex Three-Day Event averages over 50,000 spectators a year. Using survey data from a sample of 2013 Rolex visitors collected by Jason Swanson, PhD, assistant professor in the Department of Retailing and Tourism Management at the University of Kentucky, preliminary estimates suggest that the economic impact of the 2013 Rolex Three Day Event was approximately \$14.2 million.



Racing is also an important contributor to Kentucky's economy, and it boasts six major race-tracks: Churchill Downs, Ellis Park, Keeneland, Kentucky Downs, The Red Mile and Turfway Park. While data available from these tracks vary, Keeneland alone estimated it generated a \$15 million economic impact from its spring and fall meets in 2012. (<http://www.keeneland.com/content/keeneland-posts-numerous-records-spring-meet>)

Rural Landscapes

The value of Kentucky's equine industry extends beyond tourism impacts and transactions in the marketplace. There are many benefits to a community which is home to a healthy horse economy.

These benefits cannot be directly measured, but are just as real as the economic impacts. There is value to both area and non-area residents in the existence of the rural landscapes created by equine operations, which may be recreational, environmental and/or aesthetic benefits. The blend of urban and rural landscapes creates a unique culture which is aesthetically pleasing and can aid in employee recruitment for local businesses and institutions. There is a value to preserving these types of

landscapes created by the presence of the horse industry.

In a survey mailed to over 8,000 randomly selected residents across the Bluegrass and non-Bluegrass regions of Kentucky in 2013, a large majority of respondents were supportive of a free, hypothetical program which would protect agricultural farm land, including equine operations, from development. Of those that were supportive, more than 80% were willing to pay some amount of increased taxes every year to preserve the equine industry at its current size. Notably, more than 60% percent were willing to pay \$50 a year or more.

Many respondents indicated their value for the equine industry stems from the industry's dynamic role in Kentucky's own culture, heritage and history. Other respondents believed that the equine industry, specifically horse farms, not only make Kentucky a nicer, more beautiful place to live, but also have a positive impact on the Kentucky economy.

Now that this data is available, the Kentucky Equine Survey team anticipates that policy makers will have better data on which to set policy, entrepreneurs and business owners will have better data from which to develop business plans and ideas, veterinarians can undertake better disease surveillance, community planners can use the data to facilitate future projects and the state now has a benchmark going forward.

Appendices

For a copy of the appendices, including the technical appendix, please visit or contact the UK Ag Equine Programs office at equine@uky.edu or 859-257-2226.

<http://equine.ca.uky.edu/kyequinesurvey>

- Industry financial contributors
- Sources of equine jobs and incomes
- State-level estimates
- Equine operations and values of equine, by county
- Inventory of breed and use, by county
- Equine industry structure
- NASS final release
- Technical appendix
 - Detailed methodology
 - Kentucky Equine Survey tool
 - KYCV study version
 - KyES horse event attendance survey
 - KyES horse race attendance survey
 - KyES racetrack survey



Many Thanks

Many equine associations, operations and individuals contributed financially to this effort. Our sincere gratitude goes out to the organizations and individuals below who made this survey possible.

Alltech	Kentucky Veterinary Medical Association
Beta-Rock Stables	Lexington Equine Surgery
Butler Schein Animal Health	Maplecrest Farm
Cane Run Farm	Masterson Station Equestrian Trust
Commerce Lexington	McMahon & Hill Bloodstock, LLC
Daniel Boone Distance Riders	Medical Association Foundation
Equine Medical Associates	Merck Animal Health
Fort Harrod Back Country Horsemen	Misty Ridge Farm
Hagyard Equine Medical Institute	Mountain Pleasure Horse Association
Hallway Feeds	North American Equine Ranching Information Council
Keeneland	Northern Kentucky Horse Network
Kentucky Association of Equine Practitioners	Pfizer, Inc.
Kentucky Dressage Association	Rood & Riddle Equine Hospital
Kentucky Equine Education Program	Shawhan Place
Kentucky Hunter Jumper Association	Siena Farm
Kentucky Paint Horse Club	Sierra Farm
Kentucky Quarter Horse Association	Society for Arabian Horses in the Bluegrass Area
Kentucky Ropers' Association	Spycoast Farm
Kentucky Thoroughbred Association, Inc.	United States Equestrian Federation
Kentucky Thoroughbred Farm Managers Club	Webster Pharmaceuticals
Kentucky Trail Riders Association	
Kentucky Veterinary	<i>and many generous individuals</i>