

EQUINE SURVEY HIGHLIGHTS

EQUINE POPULATION

The 2005 Equine Survey indicated there were an estimated 197,000 equine of all types in New York on December 31, 2005, up 17 percent from the 168,000 on hand September 1, 2000. Race horse breeds totaled 50,200 head, up 20 percent from 2000, while other light horses increased to 113,400, a 13 percent increase. All light horse breeds combined totaled 163,600, up 15 percent.

Draft horse breeds increased from 11,500 head in 2000 to 12,100 in 2005, an increase of five percent, while donkeys and mules rose 40 percent to a total of 3,500 head. Ponies posted a 3 percent decrease to 12,000 head, continuing the trend begun in 1988. A new category of Miniature Horses was added to the 2005 Equine Survey for the first time for a total of 6,600 head.

VALUE OF EQUINE

All equine as of December 31, 2005, were valued at \$1.83 billion, up eight percent from 2000. Average value per head was computed from the survey data for each breed and aggregated to the total for all equine. Average value for race horse breeds decreased 17 percent to \$22,710 per head. Other categories of equine, except for donkeys and mules, all increased in average value. Other light horses increased 6 percent to \$5,270 per head. Draft horse breed average value increased 24 percent, from \$2,500 to \$3,100. Value of ponies increased 62 percent to \$3,890 per head, while donkeys and mules decreased 9 percent to \$800 per head. Miniature horse value was \$1,400 per head.

EQUINE RELATED ASSETS

Survey tabulations indicated total equine-related assets of \$10.4 billion on December 31, 2005, an increase of 69 percent since the 2000 survey. The value of land, fences, and buildings accounted for \$7.08 billion, or 68 percent of the total assets. This value included \$296 million for the 2,900 indoor arenas in New York. Equine on hand, at \$1.83 billion, accounted for 18 percent of the assets. Vehicles, equipment, tack, and equine feed and supplies on hand, at \$1.45 billion, accounted for the remaining 14 percent.

EQUINE EXPENDITURES

New York equine owners and operators spent a total of \$2.06 billion during 2005 for operating and capital expenses, an increase of nearly three times above the 2000 total of \$704 million. About \$1.10 billion, or 53 percent, of the total was for operating expenses. The leading operating expenses and amounts spent were: feed, \$119 million; hired labor, \$169 million; and boarding \$156 million. Operating expenses averaged \$5,594 per equine. Additional expense categories are shown in Table 18.

Expenditures for capital items increased greatly from the 2000 survey. Capital expenditures totaled \$958 million, up from \$181 million in 2000. Purchases of equipment totaled \$214 million. Purchases of equine amounted to \$254 million, and the purchase or improvement of equine-related real estate totaled \$490 million.

EQUINE LABOR

The survey indicated a total of 12,500 hired workers were employed by New York equine operations during 2005. Of these, 5,700 were full-time workers and 6,800 were part-time workers. In addition, 3,700 private contractors were employed by equine operations, and 11,100 volunteers contributed 1.83 million hours. Operators and unpaid family members worked an additional 43.2 million hours throughout 2005. Additional labor categories are shown in Table 20.

EQUINE REVENUES

This new category was added for the 2005 Equine Survey. Respondents were surveyed for the revenues generated by their equine operation. Revenues totaled \$445 million, with equine services revenue totaling \$158 million, or 36 percent of the total. The next highest category of revenues was for equine sales, at \$118 million, or 27 percent of the total. Training revenues, breeding services and fees, and revenue from winnings made up the rest of the revenue.

Table 1: EQUINE BY TYPE, NEW YORK, 1978, 1988, 2000, AND 2005

Type	1978	1988	2000	2005
Race Horse Breeds	46,050	50,000	42,000	50,200
Other Light Breeds	93,350	105,800	100,500	113,400
Total Light Horse Breeds	139,400	155,800	142,500	163,600
Draft Horse Breeds	5,400	7,200	11,500	12,100
Ponies	33,000	17,000	11,500	11,200
Miniature Horses	NA	NA	NA	6,600
Donkeys/Mules	2,200	2,000	2,500	3,500
TOTAL EQUINE	180,000	182,000	168,000	197,000

Table 2: EQUINE SURVEY HIGHLIGHTS, NEW YORK, 2005

Categories	Number	Average per equine 1/	Total Value
		<i>Dollars</i>	<i>Thousand Dollars</i>
<u>EQUINE BY TYPE</u>			
Racing Breed Horses	50,200	22,710	1,139,880
Other Light Horses	113,400	5,270	598,030
Draft Horses	12,100	3,100	37,480
Ponies	11,200	3,890	43,610
Miniature Horses	6,600	1,400	9,240
Donkeys and Mules	3,500	800	2,800
Total All Equine	197,000	9,300	1,831,040
<u>EQUINE OPERATIONS BY TYPE</u>			
Commercial Boarding/Training	4,700		
Commercial Breeding	2,300		
Crop/Livestock Farms	6,000		
Non-Commercial/Non-Farm	19,100		
Other	900		
Total Equine Operations	33,000		
Acres Used for Equine	987,000		
Fenced Pasture	390,000		
Number of Stalls	209,900		
Indoor Arenas	2,900		
Outdoor Arenas	16,000		
<u>ASSET VALUES, DECEMBER 31, 2005</u>			
Equine on Hand			1,831,040
Land, Fences and Buildings			7,084,830
Vehicles, Equipment			1,105,290
Tack, Equipment, and Clothing			268,180
Equine Feed Supplies			72,220
Total Equine Related Assets			10,361,560
Indoor Arenas 2/			295,760
Horse Trailers and Vans 3/			272,550
<u>EXPENDITURES DURING 2005</u>			
Purchased Equine			254,000
Purchased Equipment			213,690
Purchased Real Estate and Improvements			490,440
Total Capital Expenditures			958,130
Feed		602	118,650
Labor Expenditures		857	168,810
Boarding		791	155,920
Training		291	57,330
Other		3,052	601,230
Total Operating Expenditures		5,594	1,101,940
Total Expenditures			2,060,070
<u>TOTAL WORKERS</u>			
Full-Time Workers	5,700		
Part-Time Workers	6,800		
Total Hired Workers	12,500		
Cash Labor Expenditures			156,600

Table 2: EQUINE SURVEY HIGHLIGHTS, NEW YORK, 2005 (Continued)

Categories	Number	Average per equine ^{1/}	Total Value
		<i>Dollars</i>	<i>Thousand Dollars</i>
Value of Non-Cash Items Provided to Workers			12,210
Total Hired Labor Expenditures			168,810
Private Contractors	3,700		
Volunteer Workers	11,100		
Workers for Whom Housing was Provided	2,500		
Volunteer Hours Worked	1,830,500		
Operator and unpaid family member hours	43,200,000		
<u>REVENUES</u>			445,130
Total Sales			117,830
Total Training			75,310
Total Breeding			32,810
Total Services			158,390
Total Winnings			60,790

^{1/} Based on total equine on hand December 31, 2005

^{2/} Value of indoor arenas included in total value of Land, Fences and Buildings

^{3/} Value of horse trailers and vans included in total value of vehicles and equipment

EQUINE BY DISTRICT

The concentration of New York State equine made some changes since the 2000 survey. Of the 197,000 total equine in New York on December 31, 2005, 22 percent, or 42,500 head, were in the Southeast District (2nd place in 2000). The Western District had 19 percent of total equine with 37,900 head (1st place in 2000). The Central District came in third with 32,300 head (4th in 2000), or 16 percent, and the Eastern District fell to fourth with 29,100 head (3rd in 2000) or 15 percent.

For all light horses combined (race horse breeds plus all other light horse breeds), the Southeast District was first with 36,600 head, or 22 percent of the 163,600 head. Next was the Western District with 31,100 head (19 percent), then the Central District with 26,100 head (16 percent). The Eastern District ranked fourth with 24,600 head (15 percent).

Ponies totaled 11,200 head, with 2,700 (24 percent) in the Southeast District. The Western District accounted for 2,300 head (21 percent), just ahead of the Central District with 1,900 head (17 percent). Of the 12,100 draft horses indicated by the survey, 2,600 head, or 21 percent, were in the Western District. The Central District was second with 2,500 head, followed by the Southwest District with 1,700 head.

Miniature horses were surveyed for the first time in 2005 with a result of 6,600 head. The largest inventory was in the Western District with 1,500 head (23 percent), with the Central and Southeast Districts both coming in with 1,200 head, or 18 percent, each.

EQUINE BY BREED

Quarter Horses jumped in inventory from 29,600 head in 2000 to 38,100 head in 2005, a 29 percent increase, continuing the trend since 1988. Second was Thoroughbreds with 33,300 head, 9 percent over 2000. Standardbred inventory gained 47 percent to 16,900 head, reversing the decline in numbers since 1978. Other major breeds of light horses were Warmbloods (25 percent increase), Pinto/Paints (up 21 percent), Appaloosas (5 percent down), and Morgans (9 percent decrease). Belgians, despite a 2 percent decrease in inventory, still comprised 50 percent of draft horse inventory. Percheron numbers increased six percent to 3,400, and Clydesdale numbers climbed 29 percent to 900. Welsh and Shetland ponies were the most common pony breeds, accounting for 29 percent and 21 percent, respectively, of all ponies.

AVERAGE VALUES BY BREED

Thoroughbreds continued to have the highest average value, at \$27,600 per head, even though they registered an 18 percent decrease since 2000. Average value of Standardbreds increased 25 percent to \$13,100 per head. With the increase in average value and larger inventory, Standardbred total value gained 84 percent to \$222 million. Race horse breeds accounted for 62 percent of the total value of equine in New York State.

The average value of Warmbloods increased 10 percent to \$22,000 per head. With increased average value and inventory, total value jumped 38 percent to \$185 million.

Welsh ponies also increased in average value, from \$3,500 per head in 2000 to \$6,800 per head in 2005, a jump of 94 percent. Welsh ponies accounted for 50 percent of the total pony value.

The average values of individual breeds and miscellaneous breed categories reflect the average prices one would have had to pay to purchase the same type of animals on December 31, 2005. Reported values ranged from high-priced breeding, racing, and show stock to low-valued grade animals and older equine. High sentimental values placed on “family member” equine were excluded from average value calculations. Values by breed are shown in Table 4.

Table 3: EQUINE BY TYPE AND DISTRICT, NEW YORK, 2005

District	Total Equine	Light Horses ^{1/}	Draft Horses	Ponies	Miniature Horses	Donkeys and Mules
Northern	7,400	5,700	800	400	300	200
Northeast	6,400	5,000	600	400	300	100
Western	37,900	31,100	2,600	2,300	1,500	400
Central	32,300	26,100	2,500	1,900	1,200	600
Eastern	29,100	24,600	1,300	1,800	700	700
Southwest	14,700	11,200	1,700	600	800	400
Southern	11,400	9,200	1,000	500	400	300
Southeast	42,500	36,600	1,300	2,700	1,200	700
Long Island and NYC	15,300	14,100	300	600	200	100
STATE	197,000	163,600	12,100	11,200	6,600	3,500

^{1/} Includes racing breeds

Table 4: EQUINE INVENTORY AND VALUE OF BREED, NEW YORK, 2000 AND 2005

Breeds	Number		Value		Average Value	
	2000	2005	2000	2005	2000	2005
	<i>Head</i>		<i>Thousand Dollars</i>		<i>Dollars</i>	
Light Breeds	100,500	113,400	497,520	598,030	4,950	5,270
Quarter Horse	29,600	38,100	115,440	156,210	3,900	4,100
Saddlebred	2,500	2,600	15,750	22,100	6,300	8,500
Appaloosa	8,500	8,100	19,550	20,250	2,300	2,500
Arabian	9,200	7,900	44,160	35,550	4,800	4,500
Half Arabian	3,600	3,100	10,800	10,540	3,000	3,400
Morgan	9,000	8,200	38,700	33,620	4,300	4,100
Palomino	1,600	NA	4,960	NA	3,100	NA
Pinto/Paint	6,800	8,200	21,760	28,700	3,200	3,500
Warmbloods	6,700	8,400	134,000	184,800	20,000	22,000
Haflinger	NA	3,000	NA	7,200	NA	3,300
Crossbred/Unknown	11,000	14,200	26,400	52,200	2,400	4,500
Other Light	12,000	11,600	66,000	46,860	5,500	2,400
Race Horse Breeds	42,000	50,200	1,142,500	1,139,880	27,200	22,710
Standardbred	11,500	16,900	120,750	221,880	10,500	13,100
Thoroughbred	30,500	33,300	1,021,750	918,000	33,500	27,600
Draft Horse Breeds	11,500	12,100	29,380	37,480	2,550	3,100
Belgian	6,100	6,000	13,420	13,200	2,200	2,200
Percheron	3,200	3,400	8,320	9,520	2,600	2,800
Clydesdale	700	900	2,240	4,860	3,200	5,400
Other	1,500	1,800	5,400	9,900	3,600	5,500
Ponies	11,500	11,200	29,900	43,610	2,600	3,890
Welsh	2,700	3,200	9,450	21,760	3,500	6,800
Shetland	2,100	2,300	2,520	2,300	1,200	1,000
Connemara	500	800	3,050	6,320	6,100	7,900
Other	6,200	4,900	14,880	13,230	2,400	2,700
Miniature Horses	NA	6,600	NA	9,240	NA	1,400
Donkeys and Mules	2,500	3,500	2,500	2,800	1,000	800
Total Equine	168,000	197,000	1,701,800	1,831,040	10,130	9,300

Table 5. LIGHT BREEDS BY DISTRICT, NEW YORK, 2005

District	All Light ^{1/}	Racing Breeds		Quarter Horses	Appaloosa	
		Standardbred	Thoroughbred			
		<i>Number</i>				
Northern	5,700	500	200	2,100	400	
Northeast	5,000	400	400	1,600	500	
Western	31,100	3,500	4,500	7,300	1,900	
Central	26,100	3,150	2,450	6,800	1,600	
Eastern	24,600	3,200	8,400	5,400	900	
Southwest	11,200	900	500	3,600	1,000	
Southern	9,200	500	1,300	2,400	600	
Southeast	36,600	3,950	9,150	6,200	1,100	
Long Island and NYC	14,100	800	6,400	2,700	100	
STATE	163,600	16,900	33,300	38,100	8,100	
District	Arabian	Morgan	Pinto/Paint	Warmbloods	Crossbred	Other Light
		<i>Number</i>				
Northern	^{2/}	400	600	^{2/}	600	600
Northeast	^{2/}	500	400	^{2/}	400	600
Western	2,500	1,500	1,900	1,200	2,200	4,600
Central	1,500	1,800	1,500	900	2,100	4,300
Eastern	500	1,000	1,000	700	1,300	2,200
Southwest	800	700	900	200	700	1,900
Southern	600	500	500	500	1,000	1,300
Southeast	1,600	1,700	1,100	3,700	4,600	3,500
Long Island and NYC	100	100	300	1,000	1,300	1,300
STATE	7,900	8,200	8,200	8,400	14,200	20,300

^{1/} Includes racing breeds.

^{2/} Less than 100 equine.

Table 6: DRAFT HORSE BREEDS BY DISTRICT, NEW YORK 2005

District	Total Draft Breeds	Belgian	Percheron	Other Draft
Northern	800	500	200	100
Northeast	600	<u>2/</u>	<u>2/</u>	<u>2/</u>
Western	2,600	1,500	700	400
Central	2,500	1,100	900	500
Eastern	1,300	500	400	400
Southwest	1,700	1,000	400	300
Southern	1,000	400	200	400
Southeast	1,300	400	400	500
Long Island and NYC	300	<u>2/</u>	<u>2/</u>	<u>2/</u>
STATE	12,100	6,000	3,400	2,700

1/ Other Draft includes Clydesdales and other draft breeds

2/ Less than 100 equine or not published for disclosure reasons

Table 7: PONIES, MINIATURE HORSES AND DONKEYS AND MULES BY DISTRICT, NEW YORK, 2005

District	Total Ponies	Welsh	Shetland	Other Ponies <u>1/</u>	Miniature Horses	Donkeys/ Mules
Northern	400	100	200	100	300	200
Northeast	400	<u>2/</u>	<u>2/</u>	200	300	100
Western	2,300	700	550	1,000	1,500	400
Central	1,900	500	400	1,000	1,200	800
Eastern	1,800	600	300	900	700	500
Southwest	600	100	150	300	800	400
Southern	500	100	150	250	400	300
Southeast	2,700	800	400	1,500	1,200	600
Long Island and NYC	600	<u>2/</u>	<u>2/</u>	450	200	200
STATE	11,200	3,200	2,300	5,700	6,600	3,500

1/ Other Ponies includes Connemara and other pony breeds.

2/ Less than 100 equine or not published for disclosure reasons.

EQUINE BY PRIMARY USE

The 2005 Equine Survey added two primary use categories per requests from the equine industry, as shown in Table 8. The added categories were for Lesson horses and those horses used in Specialty uses (equine used primarily for commercial uses, such as therapeutic riding, day camps, riding stables, carriage rides, etc.). Respondents were requested to record each equine in only one primary use category – the category for which the animal provided the use most important to the respondent.

PLEASURE USE

Forty-four percent of the equine in New York in 2005 were kept primarily for pleasure use, up from 39 percent in 2000. The greatest number of equine for pleasure use was in the Southeast District (16,000 head), while the highest percentage of equine for pleasure use was in Northern District (61 percent).

BREEDING USE

A total of 26,900 equine were used primarily for breeding in 2005, 14 percent of all equine. This compares to 30,100 head and 18 percent in 2000. In 2005, brood mares totaled 22,400, and stallions for breeding 4,500. Forty one percent of the equine breeding stock consisted of race horse breeds, up from 31 percent in 2000. Included in the breeding stock total were 29 percent of the miniature horses, 22 percent of the race horse breeds, 14 percent of the state's draft horses, 10 percent of other light horse breeds, and seven percent of the ponies. The greatest number of equine for breeding was in the Southeast District (6,000 head), while the highest percentage of equine for breeding was in the Southern District (17 percent).

RACING USE

A total of 14,500 equine in New York on December 31, 2005, were used primarily for racing. Thoroughbreds accounted for 63 percent and Standardbreds 37 percent. (Only Standardbreds and Thoroughbreds were included in the "Racing" category. All other breeds used for racing were included in the "Competition or Sport" category for this survey.) The largest number of equine for racing (3,800 head) was in the Western District, while the highest percentage of equine for racing (18 percent) was in the Long Island/NYC District.

COMPETITION OR SPORT USE

Nearly 14 percent of equine in 2005 were used for showing, polo, eventing, etc., down from 17 percent in 2000. The total of 27,000 head included 18 percent of the non-racing light horse breeds, 16 percent of the ponies, seven percent of the race and draft horse breeds, and nine percent of the miniature horses. The Western District had the greatest number of equine for competition use at 7,100 and also the highest percentage of equine for competition at 19 percent.

LESSON USE

The 2005 Equine Survey included a new category of Lesson Horses. Six percent of horses in New York State were primarily used for lessons. The greatest number of lesson horses was 3,000 in the Southeast District. The highest concentration of lesson horses was in the Southeast and Long Island/NYC Districts, with seven percent and 11 percent of total horse population, respectively.

SPECIALTY & OTHER USE

Fifteen percent of New York's equine population in 2005 were kept for specialty and other uses, such as police work, carriage rides, day camps, or work, or were retired, as shown in Table 8. In Table 8, foals are included under "All Other" uses.

Table 8: EQUINE BY PRIMARY USE AND DISTRICT, NEW YORK, 2005

District	Total Equine	Breeding	Lessons	Racing	Competition	Pleasure	Specialty	All Other
Northern	7,400	900	400	100	600	4,500	--	900
Northeast	6,400	900	200	400	1,000	3,300	--	600
Western	37,900	4,300	1,900	3,800	7,100	15,000	800	5,000
Central	32,300	4,800	1,600	1,600	4,700	13,600	700	5,300
Eastern	29,100	4,100	1,000	2,000	3,400	15,400	--	3,200
Southwest	14,700	2,500	600	300	1,000	7,900	300	2,100
Southern	11,400	1,900	700	200	1,100	5,700	400	1,400
Southeast	42,500	6,000	3,000	3,400	5,900	16,000	2,000	6,200
Long Island and NYC	15,300	1,500	1,700	2,700	2,200	5,600	500	1,100
STATE	197,000	26,900	11,100	14,500	27,000	87,000	4,700	25,800

Table 9. EQUINE BY PRIMARY USE AND BREED, NEW YORK, 2005

Breed	Total	Breeding		
		Broodmares	Stallions	2005 Foals
Light Breeds	113,400	8,400	2,400	2,900
Quarter Horse	38,100	2,800	700	800
Saddlebred	2,600	300	1/	1/
Appaloosa	8,100	700	200	200
Arabian	7,900	700	200	100
Half Arabian	3,100	200	1/	100
Morgan	8,200	700	1/	200
Pinto/Paint	8,200	900	300	500
Warmbloods	8,400	500	1/	100
Haffinger	3,000	300	1/	300
Crossbred	14,200	200	1/	1/
Other	11,600	1,100	400	300
Race Horse Breeds	50,200	10,100	900	3,700
Standardbred	16,900	3,700	300	1,700
Thoroughbred	33,300	6,400	600	2,000
Draft Horse Breeds	12,100	1,600	100	400
Belgian	6,000	1,200	100	200
Percheron	3,400	300	1/	1/
Other Drafts	2,700	100	1/	1/
Ponies	11,200	600	200	200
Welsh	3,200	100	1/	100
Other Ponies	8,000	500	1/	100
Miniature Horses	6,600	1,300	600	500
Donkeys and Mules	3,500	400	300	100
TOTAL EQUINE	197,000	22,400	4,500	7,800

Table 9. EQUINE BY PRIMARY USE AND BREED, NEW YORK, 2005 (Continued)

Breed	Activity					
	Lessons	Competition	Pleasure	Specialty	Other	Racing
Light Breeds	8,100	20,000	60,600	3,200	7,800	-
Quarter Horse	3,200	6,900	21,000	700	2,000	-
Saddlebred	100	600	900	1/	500	-
Appaloosa	200	400	5,600	300	500	-
Arabian	300	700	5,000	100	800	-
Half Arabian	100	300	2,000	1/	300	-
Morgan	200	1,500	4,800	1/	600	-
Pinto/Paint	300	800	4,700	300	400	-
Warmbloods	500	5,000	1,800	1/	400	-
Hafflinger	100	300	1,200	1/	700	-
Crossbred	2,900	2,200	6,100	1,500	1,000	-
Other	200	1,300	7,500	200	600	-
Race Horse Breeds	1,900	3,700	11,000	200	4,200	14,500
Standardbred	200	600	3,500	100	1,500	5,300
Thoroughbred	1,700	3,100	7,500	100	2,700	9,200
Draft Horse Breeds	1/	900	5,100	200	3,800	-
Belgian	1/	300	1,500	1/	2,600	-
Percheron	1/	200	1,700	100	900	-
Other Drafts	1/	400	1,900	1/	300	-
Ponies	900	1,800	5,600	800	1,100	-
Welsh	300	800	1,600	1/	200	-
Other Ponies	600	1,000	4,000	1/	900	-
Miniature Horses	100	600	2,800	300	400	-
Donkeys and Mules	1/	1/	1,900	1/	700	-
TOTAL EQUINE	11,100	27,000	87,000	4,700	18,000	14,500

1/ Included in totals only.

EQUINE OPERATIONS

New York had 33,000 places with equine in 2005, compared with 30,000 places in 2000. A place is defined as anyone operating land on which equine are kept. Owners of equine boarding their animals on land they did not operate were excluded.

Operators of places with equine were asked which type of activity best described their operation. Almost 60 percent (19,100 places) of the operators described their equine operation as non-commercial/non-farm. Second most common (6,000 places) were farms on which the major activity was deriving income from crops and/or livestock. Commercial boarding and training operations were third, with 4,700 places. Commercial breeding operations were next, with 2,300 places.

New York registered a large increase in the number of non-commercial/non-farm places between 2000 and 2005, while the number of crop/livestock farms decreased. The number of crop/livestock farms decreased 25 percent from 2000, while the number of non-commercial/non-farm places increased 31 percent from 2000.

Most of the operations, 80 percent, in the state consider themselves involved with recreational or pleasure riding or driving. (Operators were permitted to list more than one discipline that they were involved with.) The second largest group was involved with shows or competitive events, even though this group showed a decrease from 2000. Most of the operations that were involved with shows or competitive events listed more than one discipline. Many were also involved with recreation and pleasure riding or driving.

More than half (57 percent, or 18,900) of the equine operations have been in operation 11 or more years. This number compares to 19,700, or 66 percent, of operations in 2000. The number of newer operations, those with equine five years or less, totaled 7,500 in 2005, compared with 4,900 in 2000. In most of the regions of the state, the number of operations of five years or less ranges from 19 to 26 percent of the total, with the exception of the Northern District and Long Island/New York City District, which have 29 percent and 31 percent, respectively.

Property use prior to involvement with equine, for properties having equine less than 10 years, was more or less evenly divided among the four use categories. Former non-agricultural operations accounted for 25 percent. Twenty-four percent of operations had been livestock farms, excluding equine, while former horse farms and former crops farms accounted for 14 percent and 20 percent respectively. Previous property use for the remaining 17 percent was unknown or unreported.

Table 10. EQUINE OPERATIONS BY DISTRICT, NEW YORK, 2005

District	1978	1988	2000	2005
Northern	3,600	2,650	1,700	1,700
Northeast	1,900	1,100	800	1,300
Western	8,800	8,000	7,100	8,000
Central	9,600	8,200	5,100	6,000
Eastern	3,500	4,500	4,500	3,400
Southwest	4,800	5,000	3,000	3,400
Southern	4,900	3,350	2,100	1,800
Southeast	9,300	5,550	4,700	5,600
Long Island and NYC	2,200	650	1,000	1,800
STATE	48,600	39,000	30,000	33,000

Table 11. EQUINE OPERATIONS BY TYPE AND DISTRICT, NEW YORK, 2005

Discipline	Total Operations	Primary Type				
		Commercial Boarding & Training	Commercial Breeding	Crop/Livestock Farm	Non-commercial/ Non-farm	Other ^{1/}
Northern	1,700	100	<u>2/</u>	650	800	<u>2/</u>
Northeast	1,300	150	<u>2/</u>	250	800	<u>2/</u>
Western	8,000	1,200	450	1,400	4,750	200
Central	6,000	700	400	1,200	3,500	200
Eastern	3,400	500	300	500	2,000	100
Southwest	3,400	400	200	900	1,800	100
Southern	1,800	300	200	<u>2/</u>	900	<u>2/</u>
Southeast	5,600	1,050	500	650	3,200	200
Long Island and NYC	1,800	300	<u>2/</u>	<u>2/</u>	1,350	<u>2/</u>
STATE	33,000	4,700	2,300	6,000	19,100	900

^{1/} Includes race tracks, fairgrounds, and other public facilities or institutions

^{2/} Less than 100 operations or hidden for disclosure reasons

Table 12. EQUINE OPERATIONS BY DISCIPLINE, NEW YORK, 2005

Discipline	Exclusive Use		Multiple Use		Total	
	Number	Percent <u>1/</u>	Number	Percent <u>1/ 2/</u>	Number	Percent <u>1/ 2/</u>
Thoroughbred Racing	750	2	500	2	1,250	4
Standardbred Racing	850	3	350	1	1,200	4
Shows or Competitive Events	2,100	6	6,000	18	8,100	25
Recreation or Pleasure	19,500	59	7,000	21	26,500	80
Therapeutic Riding, Riding Camps, Rescue, etc.	600	2	1,100	3	1,700	5
Other	2,000	6	1,500	5	3,500	11
TOTAL	25,800	78	7,200	22	33,000	100

1/ Percent of all equine operations in the state.

2/ Does not round to total because of multiples uses per operation.

**Table 13. EQUINE OPERATIONS BY LENGTH OF TIME
EQUINE-RELATED USAGE, NEW YORK, 2005**

District	Total Operations	Less than 3 years	3 to 5 years	6 to 10 years	11 to 20 years	21 years or more
Northern	1,700	200	300	400	400	400
Northeast	1,300	50	200	250	200	600
Western	8,000	100	1,600	1,000	3,500	1,800
Central	6,000	550	650	1,200	2,200	1,400
Eastern	3,400	300	600	750	750	1,000
Southwest	3,400	250	600	550	1,000	1,000
Southern	1,800	50	300	400	450	600
Southeast	5,600	500	700	1,750	1,250	1,400
Long Island and NYC	1,800	100	450	300	450	500
STATE	33,000	2,100	5,400	6,600	10,200	8,700

Table 14. PRECEDING USE OF PROPERTY, NEW YORK, 2005

District	Total Operations	Horse Farm	Crop Farm	Livestock Farm	Non-Agricultural	Unknown Type
Northern	900	50	50	200	200	400
Northeast	500	50	50	100	300	-
Western	2,700	500	700	800	400	300
Central	2,400	300	600	600	400	500
Eastern	1,650	200	400	400	400	250
Southwest	1,400	100	200	800	100	200
Southern	750	200	100	200	200	50
Southeast	2,950	500	150	300	1,400	600
Long Island and NYC	850	100	550	-	100	100
STATE	14,100	2,000	2,800	3,400	3,500	2,400

1/ Property use prior to involvement with equine for properties with equine less than 10 years.

Table 15. ACREAGE IN EQUINE RELATED USAGE AND VALUE BY DISTRICT, NEW YORK, 2005

District	Total Acres	Equine Acres		Total Value of Equine Related Land, Fencing and Buildings Thousand Dollars	Average Value per Equine Acre Dollars
		Total	Fenced Pasture		
Northern	176,000	39,000	21,000	57,880	1,480
Northeast	140,000	55,000	35,000	172,940	3,140
Western	886,000	263,000	55,000	940,450	3,580
Central	589,000	190,000	70,000	478,560	2,520
Eastern	313,000	104,000	52,000	630,770	6,070
Southwest	367,000	111,000	46,000	174,530	1,570
Southern	195,000	62,000	27,000	136,210	2,200
Southeast	354,000	135,000	72,000	2,605,060	19,300
Long Island and NYC	50,000	28,000	12,000	1,888,430	67,440
STATE	3,070,000	987,000	390,000	7,084,830	7,180

**Table 16. VALUE OF EQUINE RELATED ASSETS BY DISTRICT,
BY DISTRICT, NEW YORK, 2005**

District	Total Equine Related Assets	Value of Equine On Hand	Total Value of Equine Related Land, Fencing and Buildings	Vehicles and Equipment		Tack, Equipment and Clothing	Equine Feed and Supplies on Hand
				Total	Horse Trailers and Vans		
<i>Thousand Dollars</i>							
Northern	121,280	20,290	57,880	35,450	8,230	5,330	2,330
Northeast	259,020	30,540	172,940	45,170	10,870	8,810	1,560
Western	1,437,520	162,620	940,450	256,620	60,780	59,810	18,020
Central	857,780	163,690	478,560	169,730	39,410	34,500	11,300
Eastern	1,173,850	416,340	630,770	99,640	26,340	18,990	8,110
Southwest	318,940	37,780	174,530	85,230	20,650	13,470	7,930
Southern	243,970	52,970	136,210	44,400	6,810	6,990	3,400
Southeast	3,439,020	500,120	2,605,060	243,390	51,320	75,260	15,190
Long Island and NYC	2,510,180	446,690	1,888,430	125,660	48,140	45,020	4,380
STATE	10,361,560	1,831,040	7,084,830	1,105,290	272,550	268,180	72,220

Table 17. EQUINE FACILITIES BY DISTRICT, NEW YORK, 2005

District	Indoor Arenas	Value of Indoor Arenas	Outdoor Arenas	Number of Stalls
	<i>Number</i>	<i>Thousand Dollars</i>	<i>Number</i>	<i>Number</i>
Northern	140	5,780	800	7,600
Northeast	80	3,490	700	7,600
Western	890	52,470	3,300	39,000
Central	540	54,030	2,400	33,000
Eastern	450	31,520	2,000	32,500
Southwest	100	5,060	1,400	18,200
Southern	140	9,720	800	9,100
Southeast	450	105,380	3,000	38,700
Long Island and NYC	110	28,310	1,600	24,200
STATE	2,900	295,760	16,000	209,900

EQUINE RELATED EXPENDITURES AND REVENUES

Expenditures

Equine related expenditures totaled \$2.06 billion in 2005, almost tripling from the \$704 million spent in 2000. Total equine related expenses were broken down into two main categories: operating expenses and capital expenses. The major increase in the expenditures came from the capital expenses. Capital expenses comprised 47 percent of the total expenditures, and increased from \$181 million in 2000 to \$958 million in 2005. Operating expenses accounted for the other 43 percent of expenditures, and increased from \$523 million in 2000 to \$1.10 billion in 2005.

Unlike 2000, labor expenses were the largest category in expenditures, with \$168 million spent on cash and non-cash labor expenditures, an average of \$857 per equine. Labor expense almost doubled from 2000's expenditure of \$88.3 million. Cash labor expenditures included cash wages as well as the employer's cost of Social Security tax, workmen's compensation, insurance, pension and unemployment compensation. Non-cash items included such things as housing, meals, clothing, horse board, lessons and other benefits.

Second was boarding fees with expenditures of \$156 million. In 2000, expenditures for boarding were combined with training fees and totaled \$54.8 million. For 2005, adding training fees into the boarding fees generates a total of \$213 million.

Third was feed expenses with \$119 million spent on grain, hay, and mixed or formula feeds, an increase of 18 percent over 2000. Feed expenditures included \$47.4 million for grain, \$55.7 million for hay, and \$15.6 million for mixed or formula feeds. Average per equine was \$602.

Other leading expenditures were property taxes (\$82.6 million), veterinary and health expenses (\$74.0 million), and maintenance and repair expenses (\$69.9 million).

New categories added for this year's survey were values for home-grown bedding, grain, and hay. Home-grown bedding value was \$2.3 million, while value of home-grown grain was \$1.5 million. Home-grown hay was valued at \$24.7 million.

Capital expenditures of \$958 million accounted for 47 percent of all expenses. The largest portion of capital expenditures was expenditures for purchase of land and capital improvements at \$490 million. In 2000, land and capital improvement purchases totaled \$63.0 million. Included in this figure are new real estate purchases and improvements to land and buildings for which the cost can be depreciated.

Purchases of equine came in second with \$254 million spent, compared to \$49.5 million in 2000.

Equipment purchases totaled \$214 million, compared to \$68.3 million in 2000. Included as equine related equipment purchases during the year were trucks, tractors, manure spreaders, horse vans, trailers, portable stalls, starting gates, hot walkers, treadmills, sulkies, carts, buggies, motor homes, campers and autos.

Revenues

This was the first year revenues generated from an equine operation were enumerated. Total revenues generated were \$445 million. A large portion (\$158 million, or 35 percent) of this total came from revenues generated by providing equine services, such as boarding, sales preparation, trail riding or recreational services, equine judging, and guest farm services.

Second highest value (\$118 million) was revenues generated from equine sales, including equipment, feed and manure sales.

Revenues generated from training, including riding lessons, training and conditioning, and therapeutic riding, came in third with total revenues of \$75.3 million.

The remainder came from winnings (\$60.8 million) and breeding services (\$32.8 million).

Table 18. EQUINE RELATED EXPENDITURES, NEW YORK, 2000 AND 2005

Expense Category	Total Expenditures			Average per Equine	
	2000	2005	Percent Spent in New York ^{1/}	2000	2005
	<i>Thousand Dollars</i>		<i>Percent</i>	<i>Dollars</i>	
<u>Operating Expenses</u>	522,860	1,101,940	91	3,112	5,594
Boarding	54,800	155,920	95	326	791
Training	^{2/}	57,330	90	^{2/}	291
Breeding Fees and Related Expenses	22,000	28,310	71	131	144
Farrier	23,400	52,160	95	139	265
Veterinary and Health Expenses	32,590	74,000	87	194	376
Shipping and Travel	14,810	31,010	82	88	157
Purchased Bedding	18,750	32,300	90	112	164
Value of Home-grown Bedding	NA	2,330	NA	NA	12
Purchased Grain	24,920	47,360	97	148	240
Value of Home-grown Grain	NA	1,490	NA	NA	8
Purchased Hay	59,120	55,660	94	352	283
Value of Home-grown Hay	NA	24,740	NA	NA	126
Mixed or Formula Feeds	16,700	15,630	85	99	79
Medicine	^{3/}	14,870	87	^{3/}	75
Supplies	11,050	25,400	90	66	129
Manure Disposal	NA	6,350	93	NA	32
Fees and Payments	12,780	29,520	82	76	150
Advertising and Marketing	^{4/}	7,440	85	^{4/}	38
Contract Services	^{4/}	8,120	96	^{4/}	41
Maintenance and Repair	37,190	69,910	85	221	355
Utilities and Fuels	22,930	35,140	95	137	178
Insurance Premiums	20,290	30,780	82	121	156
Rent/Lease Expenses	10,920	34,150	88	65	173
Miscellaneous	6,410	NA	NA	38	NA
Property Taxes	37,910	82,580	97	226	419
Interest	7,970	39,190	98	47	199
Labor	88,320	168,810	NA	526	857
<u>Capital Expenditures</u>	180,790	958,130	86	1,076	
Purchases of Equine	49,460	254,000	69	294	
Purchases of Equipment	68,320	213,690	90	407	
Purchases of Land and Capital Improvements	63,010	490,440	92	375	
TOTAL	703,650	2,060,070	88	4,188	

^{1/} 2005 labor expenses are not included in Percent Spent in New York column.

^{2/} Training included with Boarding in 2000.

^{3/} Medicine included with Health in 2000.

^{4/} Advertising and Marketing and Contract Services included in Miscellaneous in 2000.

Table 19. EQUINE RELATED REVENUES, NEW YORK, 2005

Equine Activities Generating Revenue	Gross Receipts
	<i>Thousand Dollars</i>
SALES	117,830
Horse Sales	95.140
Equipment Sales/Rental/Lease	13.000
Feed Sales	9.600
Manure Sales	90
TRAINING	75,310
Riding Lessons/Clinics	39.330
Training/Conditioning	33,100
Therapeutic Riding	2,880
BREEDING	32,810
Mare Care	22.900
Stud Fees	9.910
SERVICES	158,390
Boarding	139.420
Sales Preparation	1.770
Trail Riding/Recreational Services	16.220
Equine Judging	510
Guest Farm/Bed and Breakfast/Tourism	470
WINNINGS	60,790
Horse Shows/Competitions	5.990
Rodeo Winnings	680
Racing Purses	54.120
TOTAL	445,130

EQUINE RELATED LABOR

There were 12,500 equine related positions for which employees were hired during 2005 in New York, 10 percent higher than the 11,200 positions in 2000. Of this, 54 percent, or 6,800, were considered part-time. A part-time or seasonal employee is defined as a person working less than 150 days a year.

Full-time employees totaled 5,700, 54 percent higher than 2000's total of 3,700. Of these, 28 percent, or 1,600, were employed as managers or assistant managers. Grooms or exercise riders totaled 1,400, or 25 percent of full-time employees. There were 900 trainers or assistant trainers, and 200 riding or driving instructors.

Of the total number, most employees fell into the "other" category. For the most part, these were general farm workers, persons hired for cleaning of stalls, tending equine, or general crop workers. The majority of these employees were part-time.

Employees that performed multiple duties were counted only in the category for which the most important service to the operator was provided.

Cash labor expenditures of \$157 million included cash wages as well as the employer's share of Social Security taxes, workmen's compensation, insurance, pension and unemployment compensation. The estimated value of non-cash items provided to workers during 2005 totaled \$12.2 million. These non-cash items included such things as housing, meals, clothing, horse board, lessons, and other benefits. A total of 2,500 workers, or 20 percent, were provided with housing.

A couple of new categories were added to the 2005 survey. For the first new category, respondents were asked about private contractors working on the respondent's equine operation. A total of 3,700 private contractors worked on equine operations in New York in 2005, most of them as "other" type of workers. Horse trainers/assistant trainers and grooms/exercise riders had 700 contractors each. There were 500 riding/driving instructors. A private contractor is defined as a person whose contract terms are defined by the individual providing service, and the individual is not on the company payroll.

The second new category asked for information about volunteers working on the equine operation. According to the survey, there were 11,100 volunteers providing their services to equine operations during 2005. Of these, 6,900 volunteers, or 62 percent, were working as "other" type of workers. Grooms/exercise riders made up another 3,600, or 32 percent. The remainder was managers/assistant managers, horse trainers/assistant trainers, and riding/driving instructors. Volunteers are described as any worker not paid in cash or non-cash items.

Table 20. EQUINE RELATED LABOR, NEW YORK, 2005

Category	Full-time (150 days or more)	Part-time (less than 150 days)	Private Contractor	Volunteers/ Student Workers	Total
<u>Type of Worker</u>	<i>Number of Workers</i>				
Manager/Assistant Manager	1,600	700	300	200	2,800
Horse Trainer/Assistant Trainer	900	300	700	300	2,200
Groom, exercise rider, etc.	1,400	900	700	3,600	6,600
Riding/Driving Instructor	200	500	500	100	1,300
Other Type of Worker	1,600	4,400	1,500	6,900	14,400
Total Workers	5,700	6,800	3,700	11,100	27,300
Workers for whom housing was provided					2,500
Volunteer hours worked					1,830,500
Operator and unpaid family member hours worked					43,200,000
<u>Expenditures for Labor During 2005</u>					<i>Thous. Dollars</i>
Cash Labor Expenditures					156,600
Value of Non-Cash Items Provided to Workers.....					12,210
Total Labor Expenditures					168,810

OPERATOR INFORMATION

In 2005, respondents were asked for general information about the operator.

The average number of years New York operators have owned equine is 21. This number takes into account those operators who have owned equine all their life, those who had equine in other states, and those who are new to the equine industry.

In New York State, operators have had equine at their present location for an average of 16 years.

Of the 33,000 equine operations in New York State, most equine operators (11,300, or 34 percent) have a gross household income of between \$50,000 and \$99,999. Second are those that made between \$25,000 and \$49,999 with 8,000 operations, and close behind are those operations that make between \$100,000 and \$249,999 per year (7,600 operations).

Approximately 25 percent of the gross household income for all equine operations in New York is equine-related. This number ranges from zero percent for those who have equine only for pleasure to 100 percent for those operations whose income comes solely from equine.

Table 21. OPERATOR INFORMATION, NEW YORK, 2005

	Number of Operations	Average
Number of years operator has owned equine		21
Number of years operator has had equine at the present location		16
Gross Household Income of operations		
\$0 - \$24,999	3,250	
\$25,000 - \$49,999	8,000	
\$50,000 - \$99,999	11,300	
\$100,000 - \$249,999	7,600	
\$250,000 - \$499,999	1,700	
\$500,000 - \$999,999	650	
\$1,000,000 or more	500	
Percent of equine-related income for all operations		25

Table 22: EQUINE INVENTORY AND VALUE BY COUNTY, NEW YORK, 2000 AND 2005

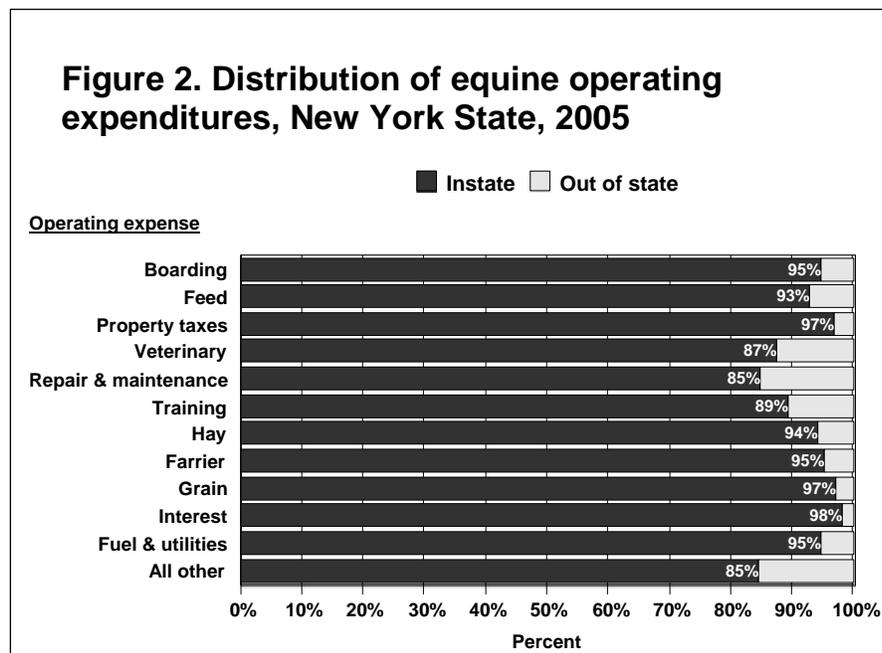
County	Head			Total Value		
	Sep 1, 2000	Dec 31, 2005	Rank in 2005	Sep 1, 2000	Dec 31, 2005	Rank in 2005
		<i>Head</i>			<i>Thousand Dollars</i>	
Jefferson	4,300	3,000	29	13,760	8,380	45
Lewis	1,200	1,000	56	3,300	2,670	56
St. Lawrence	2,900	3,400	25	8,990	9,240	40
Northern, Total	8,400	7,400		26,050	20,290	
Clinton	1,500	2,200	39	6,150	8,540	42
Essex	1,000	1,700	49	3,100	7,190	50
Franklin	800	1,200	53	2,560	4,810	55
Hamilton	100	100	58	180	230	58
Warren	1,200	1,200	54	5,100	9,770	39
Northeast, Total	4,600	6,400		17,090	30,540	
Erie	7,200	7,900	4	48,240	34,700	12
Genesee	2,100	1,800	44	10,080	8,110	47
Livingston	3,300	4,400	11	13,200	19,760	22
Monroe	5,700	5,100	10	27,930	23,080	18
Niagara	3,000	3,100	27	12,000	12,320	32
Ontario	3,700	4,100	15	22,570	18,510	24
Orleans	1,400	2,400	37	4,060	9,100	41
Seneca	900	1,300	52	1,800	4,870	54
Wayne	2,000	3,500	23	6,600	13,790	29
Wyoming	1,800	2,400	38	5,220	9,880	38
Yates	1,200	1,900	42	3,480	8,500	43
Western, Total	32,300	37,900		155,180	162,620	
Cayuga	2,200	2,800	32	7,700	12,830	31
Chenango	2,900	3,100	28	10,440	15,880	26
Cortland	1,600	2,200	40	3,680	10,380	35
Herkimer	1,600	1,900	43	4,800	7,990	48
Madison	2,600	4,100	16	12,220	20,630	20
Oneida	5,500	5,900	7	31,350	36,140	11
Onondaga	3,700	5,400	9	17,760	27,490	15
Oswego	2,000	2,500	36	11,000	11,050	33
Otsego	3,500	4,400	12	11,200	21,300	19
Central, Total	25,600	32,300		110,150	163,690	
Albany	2,900	3,000	30	15,080	29,320	14
Fulton	1,000	1,100	55	4,700	6,860	51
Montgomery	2,400	2,900	31	7,680	20,490	21
Rensselaer	2,500	3,600	21	12,750	34,140	13
Saratoga	11,800	11,000	1	317,420	250,520	1
Schenectady	1,500	1,800	45	7,200	19,420	23
Schoharie	2,000	1,800	46	10,600	15,140	27
Washington	2,700	3,900	18	13,230	40,450	10
Eastern, Total	26,800	29,100		388,660	416,340	
Allegany	2,300	2,600	35	7,360	6,720	52
Cattaraugus	3,500	3,800	19	9,800	9,900	37
Chautauqua	3,800	4,300	13	10,640	10,920	34
Steuben	4,500	4,000	17	13,050	10,240	36
Southwest, Total	14,100	14,700		40,850	37,780	
Broome	2,500	3,500	24	14,250	18,330	25
Chemung	1,700	1,700	50	7,310	7,220	49
Schuyler	1,100	1,400	51	2,200	5,500	53
Tioga	1,600	2,000	41	5,120	8,490	44
Tompkins	2,900	2,800	33	11,310	13,430	30
Southern, Total	9,800	11,400		40,190	52,970	
Columbia	2,400	4,300	14	63,600	46,800	8
Delaware	2,200	3,600	22	7,260	14,100	28
Dutchess	7,000	9,500	2	126,000	132,400	3
Greene	2,000	1,800	47	11,400	8,250	46
Orange	6,800	8,500	3	59,840	113,250	5
Putnam	1,100	1,800	48	21,450	24,960	16
Rockland	600	400	57	5,400	2,200	57
Sullivan	2,300	3,200	26	20,470	24,610	17
Ulster	4,200	5,600	8	35,280	46,510	9
Westchester	3,500	3,800	20	121,100	87,040	7
Southeast, Total	32,100	42,500		471,800	500,120	
Nassau	5,400	6,300	5	287,280	221,030	2
Suffolk	5,800	6,200	6	63,800	126,660	4
New York 1/	3,100	2,800	34	100,750	99,000	6
Long Island/NYC, Total	14,300	15,300		451,830	446,690	
State	168,000	197,000		1,701,800	1,831,040	

1/ Includes Bronx, Kings, New York, Queens, and Richmond.

THE EQUINE INDUSTRY'S CONTRIBUTION TO THE NEW YORK STATE ECONOMY

Economic Analysis Performed by
Nelson Bills and David Kay, Cornell University

Economic issues are a focal point of the 2005 survey and are reported on in this section. The contribution of the equine sector to the New York State economy was analyzed using the economic impact software program IMPLAN® (Impact Analysis for Planning). The IMPLAN® software allows economic analysts to estimate structural relationships between economic sectors in a regional economy. The model is derived from national level data maintained by the US Department of Commerce. This federal agency has been estimating input-output relationships for the US for more than a half-century. In the 1970s, with funding from the US Forest Service, IMPLAN® was developed to allow applications at state and sub-state levels (Lindall and Olson, 2007). Applications using this model for state-level analysis are now commonplace in the academic community and in the general business community as well. A detailed description of our modeling procedures are appended to this report.



The model addresses backward linkages between any single economic sector and other sectors of the wider New York economy. The analysis proceeds through the calculation of economic multipliers. The economic multiplier is an important tool in economic impact analysis. Formal study and our own practical experience indicate that industries are

interdependent and that expansions or contractions in one industry are likely to have some far-reaching implications. A substantial share of total gross output in the New York State economy is comprised of cash business expenses. These are transactions between businesses to acquire the inputs needed to deliver additional product or service to a final user.

The object of multiplier analysis is to trace the inter-relationships between sectors and construct quantitative measures of the impact associated with increasing or decreasing a line of economic activity. The idea traces to economic base theory, which classifies goods and services sold outside the region's boundaries as "exports", and hence, basic. Conversely, goods and services produced by the nonbasic sector are consumed within the region's boundaries. Expansion of the basic sector of the economy necessarily entails added production in these support industries, particularly in terms of intermediate inputs, all of which adds to the overall development of a regional economy.

The economic multiplier summarizes the cumulative (direct, indirect, and induced) effect of an initial change in final demand plus the resulting series of successive rounds of spending within the local economy. It is the ratio between the total change in spending and the initial change in final demand (or the income or employment implied by it). Multipliers are constructed based on a "snapshot" of a regional economy. That is, the economic multiplier is governed by the pattern of economic transactions between firms and the final users of their products for a single year. Lots of transactions between in-state business firms make for relatively large economic multipliers; relatively fewer transactions mean smaller multipliers.

The point of departure for multiplier analysis is an assessment of the geographic distribution of business expenditures. For this study, survey respondents were asked to supply information on major categories of cash business expense. Then, each respondent was asked to allocate those expenditures to input suppliers in-state and out-of-state. This distinction between in-state and out-of-state expenditures is absolutely critical when making economic multiplier calculations. Out-of-state expenditures represent leakage from the state economy that cannot be recovered and circulated among business entities in-state. Economic sectors with large amounts of leakage contribute relatively little to total state income and employment compared to industries that spend a substantial share of their business expense either locally or in-state. Traditionally, farming enterprises have received high marks on in-state expenses. That is, multipliers have been relatively large because farm businesses have tended to purchase relatively large shares of business inputs locally or at least within New York State. These arrangements of course, shift from year to year and from one economic sector to the next.

Responses gathered from equine operators suggest that their cash business expenses are primarily in-state as shown in Figure 2. Not unexpectedly, nearly 100 percent of all property tax payments are made within state. Equine operators do own some real estate for business purposes in border states and about 3 percent of all property tax payments go out of state. Looking across other expense categories, in-state expenses are also relatively high—usually 85 percent or more.

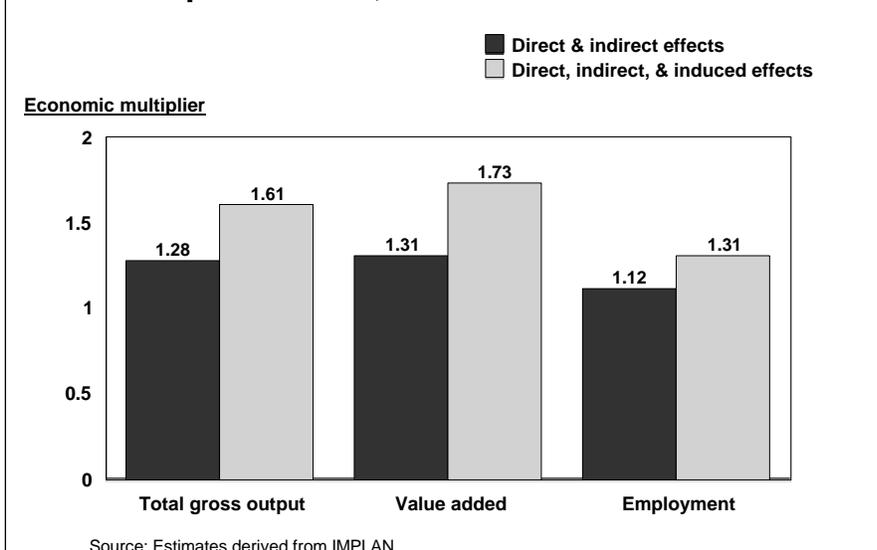
Information on the in-state cash expenditures paves the way for estimates of the total output generated by the New York State equine industry. That estimate is reported in Table 1, and shows that total gross output directly attributable to equine in 2005 amounted to \$856 million. Accounting for indirect industry transactions stemming from this gross output generated an additional \$236 million for the New York State economy. The IMPLAN® model also allows an estimate of the induced changes in State output that stem from additional household expenditures attributable to the New York State equine industry. Taking these induced expenditures into account adds another \$285 million to total State output. Total importance for the New York State economy, then, measured in 2005 dollars, is on the order of \$1.38 billion.

Table 1: ESTIMATED ECONOMIC IMPACT OF THE NEW YORK STATE EQUINE INDUSTRY, 2005
(in 2005 dollar values)

Item	Unit	Total Effect	Direct Effect	Indirect Effect	Induced Effect
Industry output	Dollars \$1,000)	1,376,666	855,067	236,173	285,426
Value added	Dollars \$1,000)	717,252	413,819	127,220	176,213
Employment	Number	15,233	11,616	1,400	2,216

Another useful measure of these indirect and induced impacts is value-added. Value added indices avoid the double counting that comes from pegging estimates to changes in total gross output. The latter includes estimates of all intermediate transactions between economic sectors in New York State economy. Eliminating those and focusing on final payments, whether to households who provide labor services, imports of goods and services from out-of-state sources, or payments to owners of capital resources, add precision to an evaluation of any economic sector's contribution. Value added measurements correspond to the equine industry's contribution to gross state product. In 2005, according to the modeling results reported in Table 1, total value-added attributable to the New York State equine industry, after taking into account the direct, indirect, and induced effects of equine goods and services, amounted to more than \$717 million.

Figure 3. economic multipliers for the New York State equine sector, 2005



Another critical aspect of industry structure goes to questions about labor use. For this reason, it is helpful to arrange input-output modeling results using employment rather than total gross output for value added as a unit of measure. Results for the New York State equine sector are

reported, once again, in Table 1. Using labor to output ratios reported in the IMPLAN® model, we estimate that over 11,600 jobs are generated on equine farms in New York State.

This result is 7 percent lower than the 12,500 employee estimate generated by the 2005 survey, probably for several reasons. Employment estimates can vary by source because of differences in definition. Definitions are a challenge throughout farming and agriculture because of the seasonality of employment, dependence on family labor, and the use of part-time employees. In the equine sector, the employment picture is clouded further by the use of volunteers on many equine farms. But, in addition, the survey respondents were not asked to identify the location or residence of their employees. A fraction of all employees, however, likely reside in border states and commute to jobs on New York State equine farms. After taking indirect and induced changes in employment into account, our IMPLAN® model results suggest that the equine sector accounts for about 15,200 jobs statewide.

Rearranging these results yields economic multipliers using, in turn, gross output, value-added, and total employment as a unit of measure as in Figure 3. Each gives its own impression of the generative effects associated with the sector. The value-added multipliers are the most robust by a small margin, with each additional dollar of value-added estimated to generate \$1.31 after taking indirect effects into account. Building in induced effects on value added brings the multiplier estimate to \$1.73. Output multipliers occupy a middle ground with employment measures suggesting relatively weak indirect and induced effects for the industry. This suggests that a relatively large proportion of equine business expenses go to in-state input providers that feature either relatively low wages or relatively high output/employment ratios.