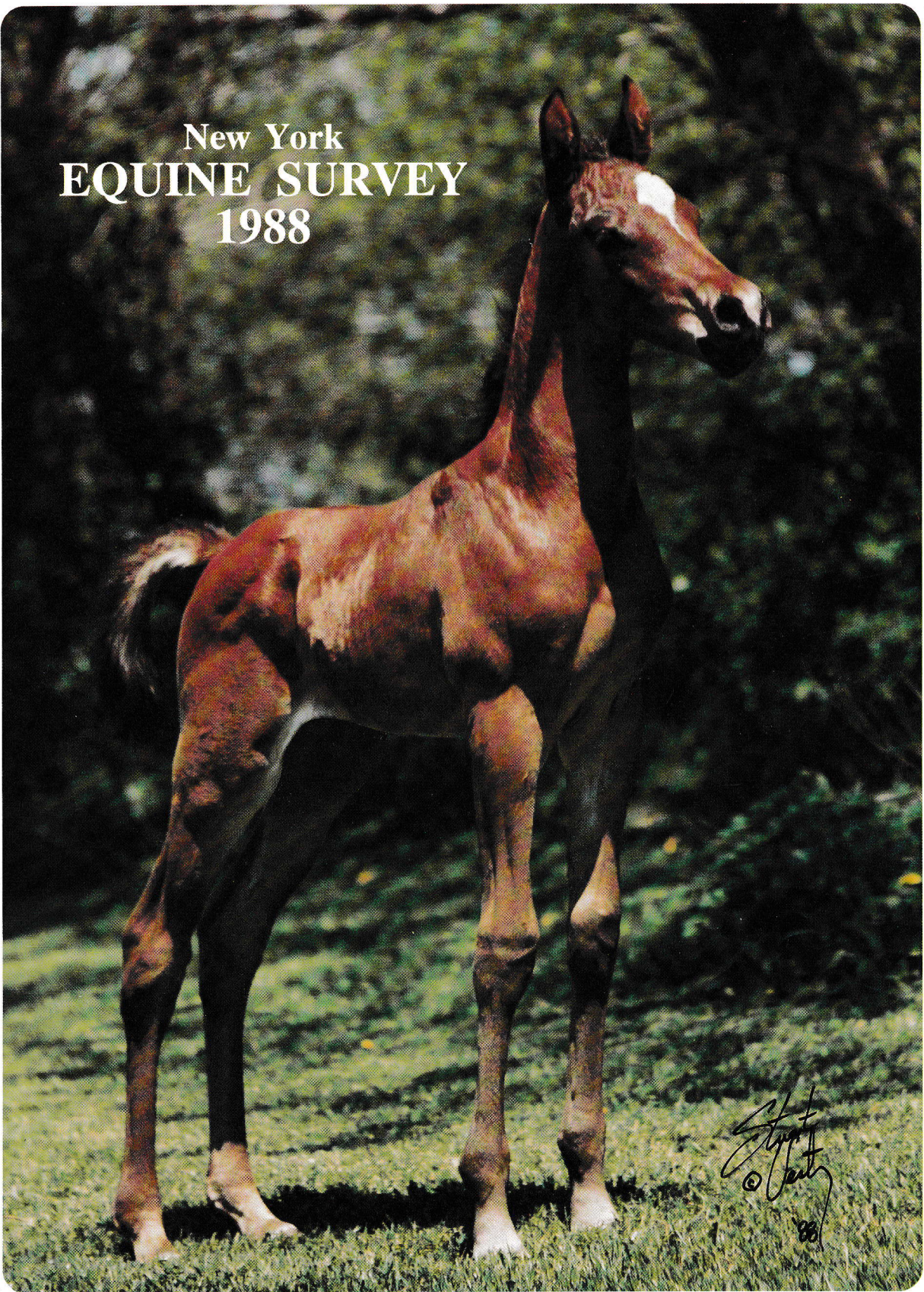


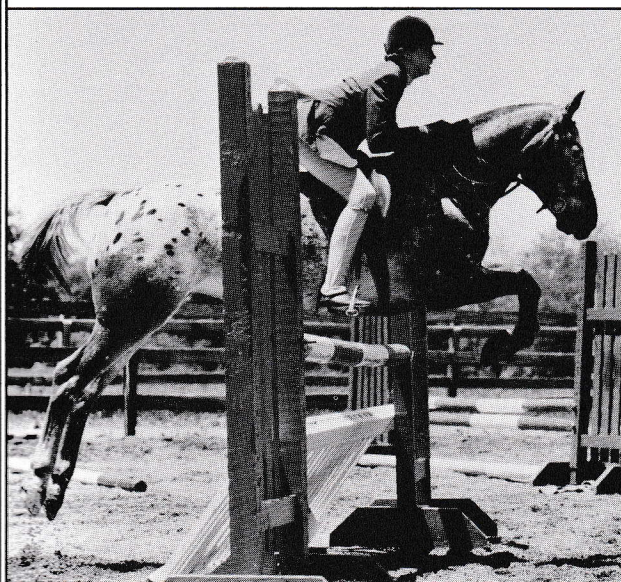
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New York
EQUINE SURVEY
1988



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EQUINE SURVEY
1988



Compiled and Issued by
NEW YORK AGRICULTURAL STATISTICS SERVICE
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October 1989





State of New York

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MARIO M. CUOMO
Governor

RICHARD T. MCGUIRE
Commissioner

October 1989



It is a pleasure to present to you the results of our 1988 survey of New York State's equine industry.

Organizations concerned with the horse industry in New York State requested that such a survey be made and that it include questions on the value of equine related assets, labor and other expenses to indicate the economic impact of the equine industry to the state's economy.

This survey was conducted by the New York Agricultural Statistics Service and I want to personally thank all of those who responded to the data requests that were so essential for compiling this reliable information. I want to especially recognize the financial assistance provided by the New York State Horse Breeding Development Fund and the New York State Thoroughbred Breeding and Development Fund.

In addition to the basic survey results, we have also included a brief analysis of the economic impact of the two racing breeds, thoroughbreds and standardbreds, prepared by Dr. William Lesser, Department of Agricultural Economics, Cornell University.

The New York State Department of Agriculture and Markets has provided this information to help meet the continuing needs of our state's equine industry.

A handwritten signature in cursive script that reads "Richard T. McGuire".

Richard T. McGuire
Commissioner

TABLE OF CONTENTS

EQUINE SURVEY

Highlights	6
Equines by Type and District	8
Inventory and Value by Breed	9
Primary Use by District	10
Primary Use by Breed	11
Light Horses by Breed and District	12
Operations by Type and District	13
Operations by Length of Time in Equine-Related Usage	14
Acreage in Equine Related Usage and Value by District	15
Value of Equine Related Assets by District	16
Labor	17
Expenditures	18
Reporting District Map	20
Inventory and Value by County	21
Survey Procedures	22
Questionnaire	23

ECONOMIC IMPACT STUDY

Standardbred Breeding Industry	31
Thoroughbred Breeding Industry	35

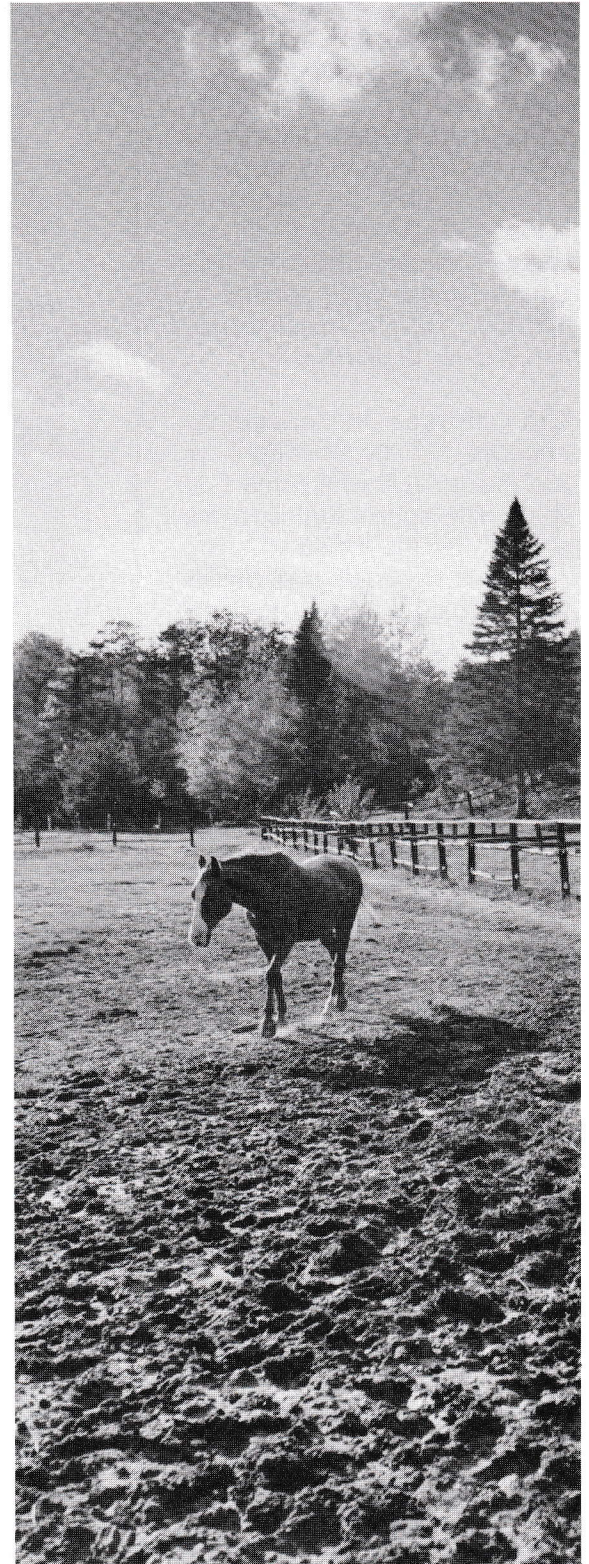


Table 3. EQUINES BY TYPE AND DISTRICT, NEW YORK, 1988

District	Total Equines	Light Horses 1/	Draft Horses	Ponies	Mules and Donkeys
			<u>Number</u>		
Northern	6,200	4,400	850	800	150
Northeast	4,600	3,600	250	700	50
Western	37,000	33,000	1,350	2,400	250
Central	28,500	23,000	1,500	3,550	450
Eastern	21,500	18,700	650	1,900	250
Southwest	13,500	10,300	1,000	1,950	250
Southern	12,500	9,750	500	2,000	250
Southeast	45,000	40,800	900	3,000	300
Long Island and NYC	13,200	12,250	200	700	50
STATE	182,000	155,800	7,200	17,000	2,000

1/ Includes racing breeds.

EQUINES BY DISTRICT

(See map showing district boundaries on page 20)

Of the 182,000 total equines in New York on December 31, 1988, one-fourth of them or 45,000 were in the Southeast District. The Western District was second with 37,000 (20 percent), the Central District third with 28,500 (16 percent), and the Eastern District fourth with 21,500 (12 percent).

Racing breed horses at 50,000 and other light breed horses at 105,800 combined for a total of all light breeds at 155,800. Again the Southeast District had the most with 40,800 (26 percent). The Western District had 33,000 (21 percent), the Central District 23,000 (15 percent) and the Eastern District 18,700 (12 percent).

Of the 17,000 ponies indicated by the survey, the greatest number, 3,550 or 21 percent of the total

were found in the Central District. The Southeast was a close second with 3,000 or 18 percent and the Western District third with 2,400 or 14 percent.

Draft breed horses totaled 7,200. The Central District had the most at 1,500 (21 percent), followed by the Western District with 1,350 (19 percent), and the Southwest with 1,000 (14 percent).

EQUINES BY BREED

Thoroughbreds led all breeds in 1988 with an estimated total of 30,500 horses. Quarterhorses showed the second largest number, at 21,500, but were followed closely by Standardbreds in third place with 19,500. Other major breeds, as shown in Table 4 were: Arabians, at 12,750; Appaloosas, at 12,400, and Morgans, at 8,000. Belgians were the dominant draft breed with 4,200. This was well over one-half of all draft horses.

AVERAGE VALUES BY BREED

Warmbloods, although only 1,550 in number, averaged the highest in value per horse at \$19,500. Thoroughbreds, with an average value of \$12,000, accounted for 41 percent of the value of all equines, but only 17 percent of the total number. Standardbreds were the third highest valued equines, averaging \$10,000 each. They accounted for 22 percent of the value of all equines. The two race horse breeds accounted for 63 percent of the total equine value.

The average value of equines reflects the price one would have to pay to purchase the same type of animal on December 31, 1988. Reported values ranged from high priced breeding, racing, and show stock to low valued grade animals and older equines. High sentimental values placed on retired "family member" equines were excluded from the average value calculation. Values by breed are shown in Table 4.

Table 4. EQUINE INVENTORY AND VALUE BY BREED, NEW YORK, 1988

Breed	Total Equines	Total Value	Average Value
	Number	Thousand dollars	Dollars
<u>Light Horse Breeds</u>	105,800	306,875	2,900
American Quarter Horse	21,500	47,290	2,200
American Saddlebred	2,200	9,240	4,200
Appaloosa	12,400	19,835	1,600
Arabian	12,750	80,320	6,300
Half Arabian	4,650	11,160	2,400
Morgan	8,000	33,600	4,200
Palomino	1,100	1,650	1,500
Pinto or Paint	4,350	7,830	1,800
Warmbloods	1,550	30,225	19,500
Crossbred or Unknown	25,800	33,530	1,300
Other	11,500	32,195	2,800
<u>Race Horse Breeds</u>	50,000	561,000	11,220
Standardbred	19,500	195,000	10,000
Thoroughbred	30,500	366,000	12,000
<u>Draft Horse Breeds</u>	7,200	12,700	1,765
Belgian	4,200	6,300	1,500
Percheron	1,400	2,240	1,600
Other	1,600	4,160	2,600
Ponies	17,000	12,750	750
Donkeys and Mules	2,000	900	450
TOTAL EQUINES	182,000	894,225	4,913

EQUINES BY PRIMARY USE

The 1988 Equine Survey questionnaire listed eight primary use categories, as shown in Table 6, with the request that the respondent specify the use. Even though many equines are used for several purposes, each was recorded only under one primary use.

PLEASURE USE

Nearly one-half (48 percent) of the equines in New York in 1988 were kept primarily for pleasure use. Included in the pleasure use total were 79 percent of the ponies and 63 percent of the non-racing breed light horses. The Southeast District had the most with 19,500 but was followed closely by the Western District with 18,200, the Central District with 15,100, and the Eastern District with 11,000, as shown in Table 5.

BREEDING USE

A total of 28,500 equines were indicated to be used primarily for breeding. Brood mares totaled 24,000 and stallions for breeding 4,500. Racing breeds accounted for nearly one-half (48 percent) of the equine breeding stock. Thoroughbreds accounted for 9,300 or 33 percent and Standardbreds 4,400 or 15 percent of the total. Other light horse breeds showed the Arabian with 4,300, the American Quarter Horse with 2,500, Appaloosa with 1,800 and Morgan with 1,700 breeding animals. Nearly one-third (32 percent) of the total were found in the Southeast District, 19 percent in the Western District, and 16 percent in the Central District.

RACING USE

Nearly half (49 percent) of the equines used for racing were found in the Southeast District

and Long Island. A total of 19,400 equines in New York on December 31, 1988 were used primarily for racing. Thoroughbreds accounted for 53 percent and standardbreds 47 percent.

COMPETITION/SPORT USE

There were 19,300 equines found being primarily used for showing, polo, eventing, etc. Again, the Southeast District had the most equines devoted to this use followed closely by the Western District. The American Quarter Horse was the major breed used in competition or sport.

OTHER USE

There were 12,400 equines in the State that were kept for other uses such as police patrols, carriage rides, teaching, work, or retired as shown in Table 6. In Table 5, foals are included under "all other" uses.

Table 5. EQUINES BY PRIMARY USE AND DISTRICT, NEW YORK, 1988

District	Total Equines	Breeding	Competition or Sport	Racing	Pleasure	All Other
<u>Number</u>						
Northern	6,200	1,000	500	300	3,100	1,300
Northeast	4,600	900	400	200	2,000	1,100
Western	37,000	5,400	4,200	4,100	18,200	5,100
Central	28,500	4,500	2,800	1,700	15,100	4,400
Eastern	21,500	2,800	2,500	2,200	11,000	3,000
Southwest	13,500	1,900	1,400	700	8,100	1,400
Southern	12,500	1,600	1,500	700	7,400	1,300
Southeast	45,000	9,100	5,000	5,000	19,500	6,400
Long Island and NYC	13,200	1,300	1,000	4,500	3,800	2,600
STATE	182,000	28,500	19,300	19,400	88,200	26,600

Table 6. EQUINES BY PRIMARY USE AND BREED, NEW YORK, 1988

Breed	Total Equines	Primary Use of Inventory							
		Breeding		Foals of 1987	Foals of 1988	Competition	Pleasure	Other	Racing
		Brood Mares	Stallions						
Light Horse Breeds	105,800	9,500	2,800	2,600	3,000	14,700	66,400	6,800	-
American Quarter Horse	21,500	2,100	400	400	500	4,000	12,600	1,500	-
American Saddlebred	2,200	600	100	1/	100	100	1,300	1/	-
Appaloosa	12,400	1,200	600	200	500	1,100	8,400	400	-
Arabian	12,750	3,300	1,000	500	500	2,650	4,400	400	-
Half Arabian	4,650	200	1/	400	100	400	3,150	400	-
Morgan	8,000	1,200	500	300	200	2,400	3,200	200	-
Pinto or Paint	4,350	300	100	300	100	400	2,850	300	-
Warmbloods	1,550	100	50	1/	100	1,100	200	1/	-
Crossbred or Unknown	25,800	200	50	200	500	1,250	22,000	1,600	-
Other	12,600	300	1/	300	400	1,300	8,300	2,000	-
Race Horse Breeds	50,000	12,600	1,100	2,500	5,200	3,300	5,000	900	19,400
Standardbred	19,500	4,000	400	1,100	1,500	200	2,700	500	9,100
Thoroughbred	30,500	8,600	700	1,400	3,700	3,100	2,300	400	10,300
Draft Horse Breeds	7,200	1,100	300	400	300	500	2,000	2,600	-
Belgian	4,200	600	200	200	100	300	1,300	1,500	-
Percheron	1,400	300	1/	100	100	100	200	600	-
Other	1,600	200	100	100	100	100	500	500	-
Ponies	17,000	700	200	100	100	800	13,400	1,700	-
Donkeys and Mules	2,000	100	100	1/	1/	1/	1,400	400	-
TOTAL EQUINES	182,000	24,000	4,500	5,600	8,600	19,300	88,200	12,400	19,400

1/ Less than 50.

Table 7. LIGHT HORSES BY BREED AND DISTRICT, NEW YORK, 1988

District	All Light Breeds 1/	Racing Breeds		All Other Light Breeds						
		Standard-bred	Thoroughbred	American Quarter Horse	Appaloosa	Arabian	Morgan	Crossbred and Unknown	Other Breeds	
					<u>Number</u>					
Northern	4,400	350	200	650	550	300	500	1,200	650	
Northeast	3,600	200	500	700	350	400	200	1,050	200	
Western	33,000	3,900	6,400	4,600	3,150	4,000	1,400	3,300	6,250	
Central	23,000	1,800	2,950	4,000	2,300	2,300	2,050	3,800	3,800	
Eastern	18,700	4,850	1,750	2,300	1,000	550	800	1,700	5,750	
Southwest	10,300	1,100	400	1,900	1,500	1,100	450	1,350	2,500	
Southern	9,750	400	1,300	2,450	1,200	850	500	2,250	800	
Southeast	40,800	6,400	10,900	3,200	1,900	3,050	2,050	8,700	4,600	
Long Island & NYC	12,250	500	6,100	1,700	450	200	50	2,450	800	
STATE	155,800	19,500	30,500	21,500	12,400	12,750	8,000	25,800	25,350	

1/ Includes racing breeds.



**Table 8. EQUINE OPERATIONS BY TYPE AND DISTRICT,
NEW YORK, 1988**

District	Total	Primary Type				
		Commercial Breeding Farm	Crop, Livestock Farm	Non- Farm Residence	Commercial Boarding and Training	Other ^{1/}
		Number				
Northern	2,650	50	950	1,550	50	50
Northeast	1,100	50	400	550	100	<u>2/</u>
Western	8,000	400	2,350	4,100	1,050	100
Central	8,200	350	2,750	4,400	600	100
Eastern	4,500	200	1,400	2,350	500	50
Southwest	5,000	100	1,700	2,950	250	<u>2/</u>
Southern	3,350	150	900	2,050	200	50
Southeast	5,550	450	1,550	2,550	850	150
Long Island and NYC	650	50	100	300	200	<u>2/</u>
STATE	39,000	1,800	12,100	20,800	3,800	500

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

^{2/} Less than 50.

**EQUINE OPERATIONS
BY TYPE**

New York had 39,000 places with equines in 1988. A place is defined as anyone operating land on which equines are kept. Owners of equines boarding their animals on land not their own are excluded.

Operators of places with equines were asked which most important activity best described their operation. Over half of the operators, 53 percent, described their equine operation as a non-farm residence. The second most described place was a farm in which the major activity was deriving income from crops and/or livestock. Commercial boarding and training operations came in third with 3,800 places. Commercial breeding operations were next with 1,800 places.

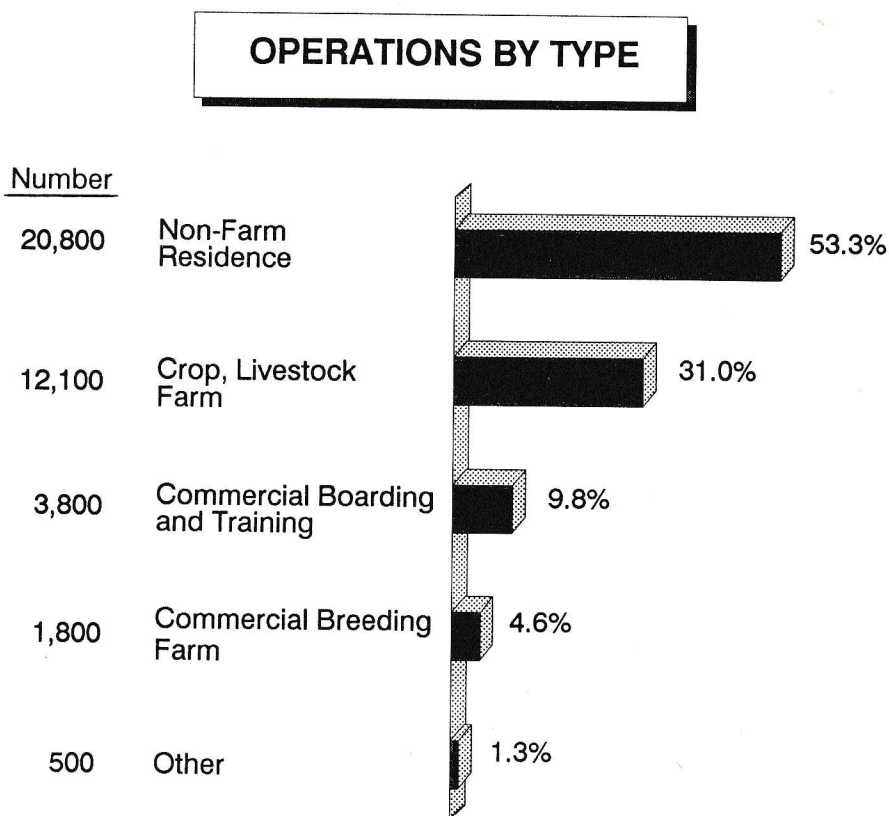


Table 9. EQUINE OPERATIONS BY LENGTH OF TIME IN EQUINE-RELATED USEAGE, NEW YORK, 1988

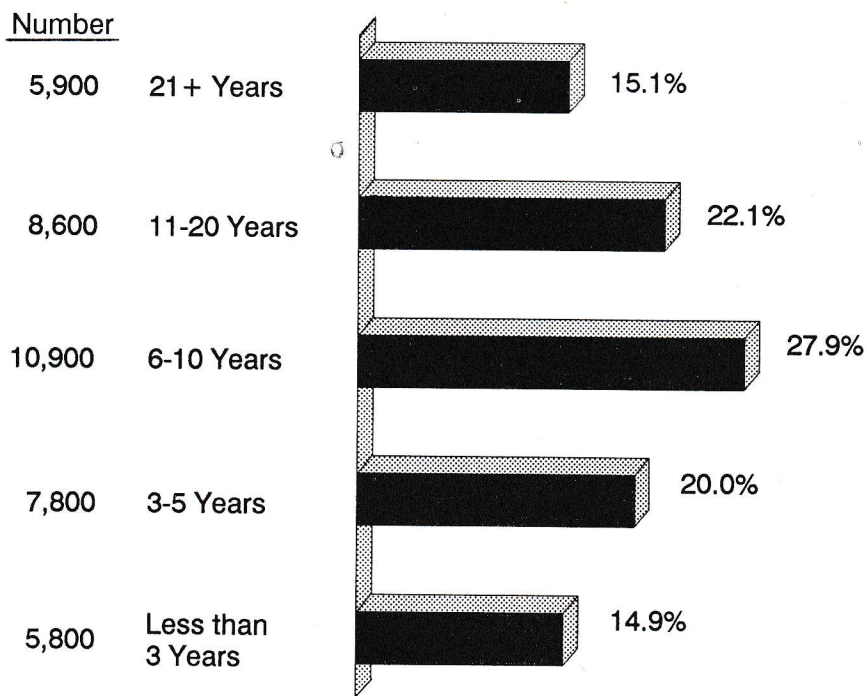
District	Total Operations	Less than 3 Years	3-5 Years	6-10 Years	11-20 Years	21 Years+	
		Number					
Northern	2,650	500	100	1,000	650	400	
Northeast	1,100	200	50	200	450	200	
Western	8,000	1,250	1,850	2,500	1,300	1,100	
Central	8,200	1,200	2,050	2,300	1,900	750	
Eastern	4,500	300	650	1,300	1,300	950	
Southwest	5,000	1,150	850	800	1,100	1,100	
Southern	3,350	600	650	700	800	600	
Southeast	5,550	550	1,550	1,700	1,000	750	
Long Island and NYC	650	50	50	400	100	50	
STATE	39,000	5,800	7,800	10,900	8,600	5,900	

EQUINE OPERATIONS

Many of New York's current equine operations are relatively new. Of the 39,000 places with equines in New York, a total of 13,600 have had equines five or less years. Operations that have had equines ten years or less represent 63 percent of all the places.

The proportion of newer operations has not occurred equally in all parts of the State. The Southwest District was the highest with 40 percent of their places having equines five years or less and only 16 percent having equines six to ten years. The area with the lowest proportion of newer operations is Long Island including New York City. Only 15 percent of the places have had equines five years or less compared with 62 percent of the places having equines six to ten years.

YEARS IN EQUINE USEAGE





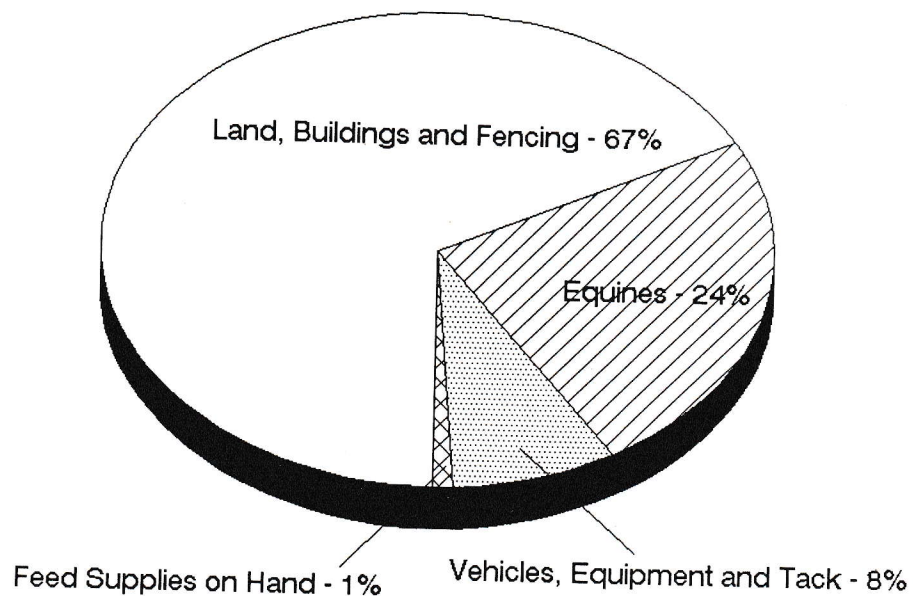
**Table 10. ACREAGE IN EQUINE RELATED USAGE AND VALUE,
BY DISTRICT, NEW YORK, 1988**

District	Total Acres Operated	Acres Devoted to Equines	Total Value of Equine Related Land, Fencing and Buildings	Average value per Equine Acre
	<u>Acres</u>	<u>Acres</u>	<u>Thousand dollars</u>	<u>Dollars</u>
Northern	390,000	60,200	48,000	800
Northeast	175,000	22,200	77,700	3,500
Western	750,000	134,300	416,000	3,100
Central	835,000	147,900	236,200	1,600
Eastern	460,000	96,200	144,000	1,500
Southwest	480,000	94,600	75,400	800
Southern	275,000	62,000	105,400	1,700
Southeast	610,000	175,500	1,175,150	6,700
Long Island and NYC	15,000	7,100	213,000	30,000
STATE	3,990,000	800,000	2,490,850	3,114

Table 11. VALUE OF EQUINE RELATED ASSETS, BY DISTRICT, NEW YORK, DECEMBER 31, 1988

District	Total Equine Related Assets	Value by category			
		Equines on Hand	Equine Related Land, Fencing and Buildings	Vehicles Equipment and Tack	Equine Feed and Supplies on Hand
Thousand dollars					
Northern	78,490	18,290	48,000	10,300	1,900
Northeast	104,917	16,537	77,700	9,500	1,180
Western	695,035	193,325	416,000	78,300	7,410
Central	396,507	113,287	236,200	41,800	5,220
Eastern	281,220	108,790	144,000	26,570	1,860
Southwest	144,187	45,427	75,400	20,100	3,260
Southern	164,797	42,687	105,400	14,800	1,910
Southeast	1,551,591	264,751	1,175,150	107,130	4,560
Long Island and NYC	312,661	91,131	213,000	8,140	390
STATE	3,729,405	894,225	2,490,850	316,640	27,690

EQUINE RELATED ASSETS



EQUINE RELATED LABOR

There were 11,400 equine related positions for which people were hired during 1988 in New York. Of this total, 53 percent, or 6,000 workers were considered part time. A part time or seasonal worker was defined as a person working less than 150 days in 1988.

Turn-over in a position was counted only once. Similarly, if a hired worker performed multiple duties, the person was counted only in the category for which the most important service to the operator was provided.

Cash labor expenditures of \$72.8 million, or \$400 per equine, included cash wages as well as the employer's cost of social security tax, workman's compensation, insurance, pensions, and unemployment compensation. The estimated value of non-cash items provided to workers during 1988 totaled \$5.9 million, or \$32.58 per equine. These non-cash items included such things as housing, meals, clothing, horse board, lessons, and other benefits. A total of 1,360 hired workers, or 12 percent, were provided housing.



Table 12. EQUINE RELATED LABOR, NEW YORK, 1988

Category	Full Time (150 days or more)	Part Time and/or Seasonal (Less than 150 days)	Total
<u>Number of workers</u>			
<u>Type of Worker</u>			
Manager, Assistant Manager	950	250	1,200
Trainer, Assistant Trainer	600	600	1,200
Groom, Exercise Rider, etc.	1,550	750	2,300
General Farm Worker	2,300	4,400	6,700
TOTAL HIRED WORKERS	5,400	6,000	11,400
Workers For Whom Housing Was Provided			1,360
<u>Expenditures for Hired Labor During 1988</u>			
Cash Labor Expenditures			\$ 72,800,000
Value of Non-Cash Items Provided to Workers			\$ 5,930,000
TOTAL LABOR EXPENDITURES			\$ 78,730,000

EQUINE RELATED EXPENDITURES

Total equine related expenses have been broken into three main categories: operating expenses excluding hired labor, capital expenses, and hired labor expenses. Operating expenses totaling \$313 million during 1988 accounted for 57 percent of the total equine related expenditures. This may be conservative because although miscellaneous costs include ads, entertainment, and magazines it does not include expenses for items of wearing apparel. For instance, apparel such as Western hats, English boots, etc. cost much more than regular "street wear" and would almost certainly not be worn if horses were not involved. Even non-riding family members buy "horsey clothes" in addition to their normal wardrobe. Also, the cost of attending auctions or meetings was not included.

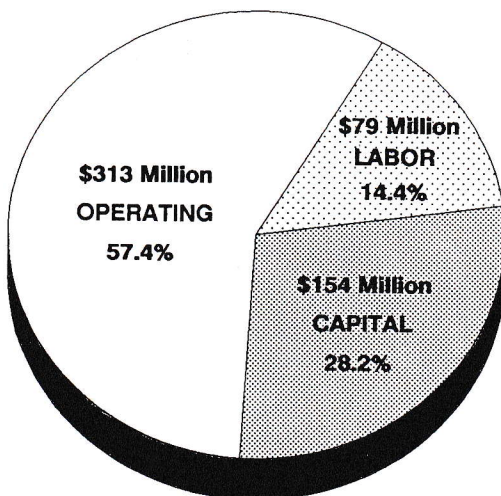
As might be expected, feed represented the largest single expense item. Equine feed expenditures in New York during 1988 totaled \$91.0 million. This is an average of \$500 per equine during 1988 and includes the cost of home grown feed. If feed was home grown, the owner was asked to estimate its value.

The next largest single expenditure was \$72.8 million for hired labor. Equipment purchases during 1988 in New York ranked third on the expenditure list. Included as equine related equipment purchases during the year were tractors, manure spreaders, horse vans, trailers, portable stalls, starting gates, hot walkers, treadmills, sulkies, carts, buggies, motor homes, campers, pick-ups, and autos.

Fourth on the list of largest single expenditures was \$53.7 million during 1988 for the purchase of equines. This also included the share price of any partial ownership of an equine. The fifth largest expenditure was \$47.3 million for boarding and training fees. These fees are expenditures by the equine owner paid to others for boarding including stall fees and fees paid for the training of equines and/or individuals.

Average expenditures per equine as given on page 6 and in Table 13 should be used with caution as sample size for obtaining economic data was not large enough to allow reliable estimates at the district level. Generally, costs will be higher in the urban and agri-urban areas while rural areas will have below average costs.

TOTAL EQUINE RELATED EXPENDITURES



LEADING EQUINE EXPENDITURES

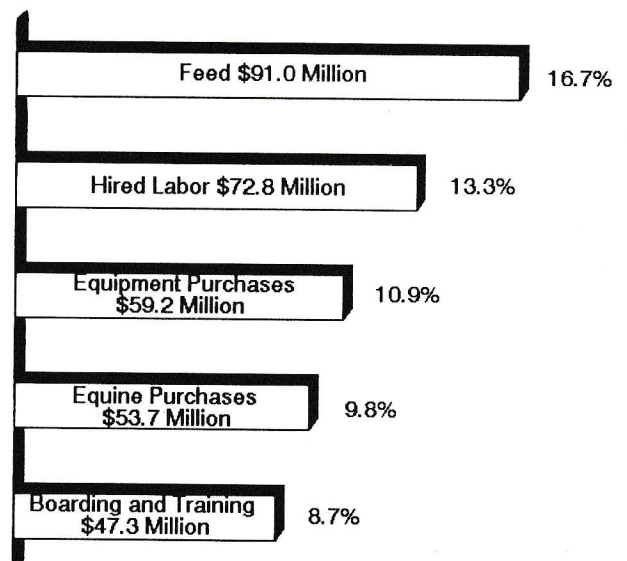


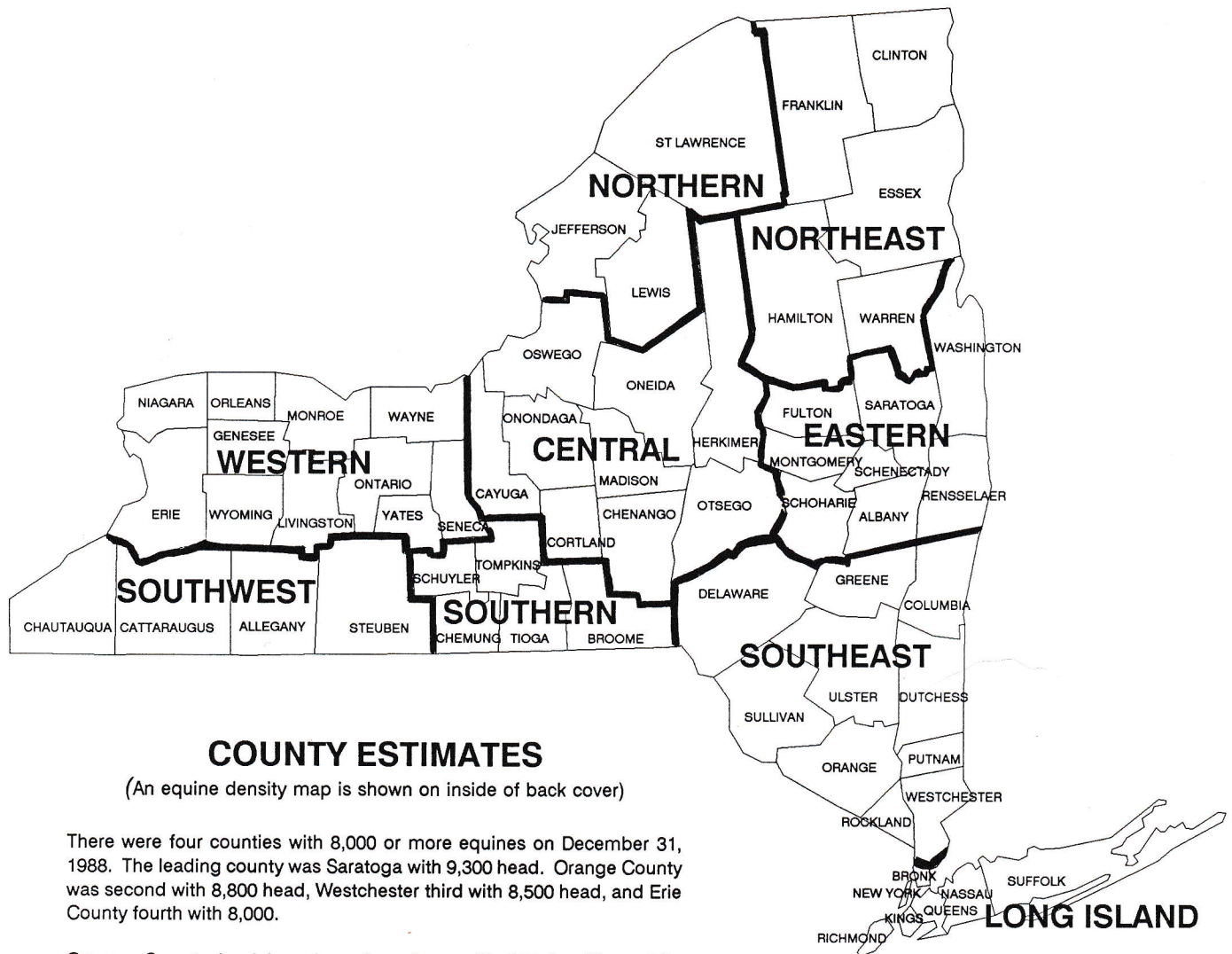
Table 13. EQUINE RELATED EXPENDITURES, NEW YORK, 1988

Expense Category	Total Expenditures	Average Per Equine ^{1/}
	Thousand Dollars	Dollars
Operating Expenses	313,050	1,720
Boarding and Training Fees (stall fees and fees paid for training equines and/or individuals)	47,320	260
Feed (grain, hay and supplements)	91,000	500
Bedding	15,110	83
Health (veterinarian fees, medicines, parasite control, lab work, etc.)	20,020	110
Supplies (clippers, soaps, oils, sprays, brushes, tack, etc.)	8,550	47
Farrier	15,290	84
Breeding Fees	11,470	63
Maintenance/Repair (contracted labor and materials for maintenance of buildings, facilities, fencing, equipment, etc.)	20,020	110
Insurance Premiums (equine related - liability, collision, mortality, etc.)	14,200	78
Utilities (equine related - telephone, water, natural gas, heating oil, electricity, etc.)	10,190	56
Taxes (property tax on equine related land)	27,300	150
Rent/Lease (land, buildings, equines, equipment, etc.)	6,190	34
Fees and Payments (equine registration, entry and membership fees, etc.)	5,460	30
Shipping and Travel (air travel, fuel, truck and car expenses, meals, shipping of equines, etc.)	15,830	87
Miscellaneous (cost of ads, entertainment, pamphlets, subscriptions, etc.)	5,100	28
Capital Expenses	153,790	845
Purchases of Equines	53,690	295
Real Estate Purchases and Improvement	40,950	225
Equipment Purchases	59,150	325
TOTAL EXPENSES (Equine Related) ^{2/}	466,840	2,565

^{1/} Based on total equine on hand.

^{2/} Excludes hired labor.

REPORTING DISTRICTS



COUNTY ESTIMATES

(An equine density map is shown on inside of back cover)

There were four counties with 8,000 or more equines on December 31, 1988. The leading county was Saratoga with 9,300 head. Orange County was second with 8,800 head, Westchester third with 8,500 head, and Erie County fourth with 8,000.

Orange County lead in value of equines with \$51.8 million while Westchester was second with \$50.0 million. The inventory value of equines within a county depends not only on the number of equines but also on the makeup of the total by breed.

**Table 14. EQUINE INVENTORY AND VALUE BY COUNTY,
NEW YORK, DECEMBER 31, 1988**

County	Total Equines	Rank in State	Inventory Value	Rank in State
	Number		Thousand dollars	
Albany	2,500	31	12,650	26
Allegany	2,500	31	8,412	39
Broome	3,400	19	11,611	29
Cattaraugus	3,800	15	12,787	24
Cayuga	2,400	33	9,540	35
Chautauqua	4,500	12	15,142	20
Chemung	1,500	42	5,122	50
Chenango	3,100	25	12,322	27
Clinton	1,000	52	3,595	55
Columbia	4,400	13	25,887	10
Cortland	1,500	42	5,963	44
Delaware	3,300	21	19,415	16
Dutchess	6,500	6	38,242	5
Erie	8,000	4	41,800	4
Essex	1,500	42	5,393	49
Franklin	700	55	2,516	56
Fulton	1,000	52	5,060	51
Genesee	2,700	27	14,108	21
Greene	2,200	36	12,943	23
Hamilton 1/				
Herkimer	1,400	46	5,565	48
Jefferson	2,200	36	6,490	43
Lewis	500	57	1,475	57
Livingston	3,400	19	17,765	17
Madison	2,700	27	10,732	31
Monroe	7,200	5	37,620	6
Montgomery	1,500	42	7,590	41
Nassau	4,800	11	33,139	8
New York City	3,200	22	22,092	13
Niagara	3,000	26	15,675	19
Oneida	6,000	7	23,850	12
Onondaga	5,500	8	21,863	14
Ontario	3,800	15	19,855	15
Orange	8,800	2	51,773	1
Orleans	2,100	38	10,972	30
Oswego	2,700	27	10,732	31
Otsego	3,200	22	12,720	25
Putnam	1,200	49	7,060	42
Rensselaer	2,400	33	12,144	28
Rockland	1,000	52	5,883	45
St. Lawrence	3,500	18	10,325	33
Saratoga	9,300	1	47,058	3
Schenectady	1,100	50	5,566	47
Schoharie	2,000	39	10,120	34
Schuyler	1,400	46	4,781	53
Seneca	700	55	3,657	54
Steuben	2,700	27	9,086	37
Suffolk	5,200	9	35,900	7
Sullivan	4,200	14	24,710	11
Tioga	2,400	33	8,196	40
Tompkins	3,800	15	12,977	22
Ulster	4,900	10	28,829	9
Warren	1,400	46	5,033	52
Washington	1,700	41	8,602	38
Wayne	3,200	22	16,720	18
Westchester	8,500	3	50,009	2
Wyoming	1,800	40	9,405	36
Yates	1,100	50	5,748	46
STATE	182,000		894,225	

1/ Less than 50 equines.

EQUINE SURVEY PROCEDURES

PURPOSE

The 1988 survey objectives as set forth by representatives from the Department of Agriculture and Markets, Cornell University, and Morrisville College were to: (1) provide new and updated information on equine numbers by breed, use, location and type of operation, including acreage used for equine purposes and employment in the industry. (2) gather economic data from horse owners on horse values, investment in capital items, and expenses associated with horse ownership.

DESIGN

The survey was designed in a manner to insure reliable coverage of all places with equines. A comprehensive list of all horse owners was compiled from many sources including veterinarians and equine organizations. A duplication free list of 23,100 names of equine owners was attained.

To compensate for any incompleteness in the list, a land area sample consisting of 528 segments of land was selected. Each segment was from about one-tenth to one square mile (64-640 acres) in size and was canvassed for equines. Names of all persons with equines inside the segment were matched against the list of 23,100 names. The horses in segments for those persons not found on the list were expanded to give a measure of incompleteness of the list. This is known as multi-frame sampling. Trained enumerators started screening the special area segments for equines in late December 1988.

METHODOLOGY

A stratified systematic sample of 3,000 names was selected from the universe list of 23,100 equine owners. Most names on the list had an approximate number of equines associated with it. This made it possible to classify the list into six strata or size groups: unknown number, 1-4, 5-9, 10-19, 20-49, and 50 or more equines or commercial horse operations. Sampling rates varied from five percent for the 1-4 equine size group to 100 percent of the commercial horse operations.

Questionnaires were mailed in early January 1989 to all persons on the universe list. The eight page questionnaire asking economic questions in addition to inventory was mailed to the sample of 3,000 persons. This same version was also used for persons with equines in the area segments. A condensed two page version consisting of inventory and value questions was mailed to the 20,100 remaining persons on the list. Second requests were mailed January 24 to non-respondents from the sample of 3,000. Reminder cards were mailed January 25 to the remaining non-respondents on the list. After February 10, all non-respondents in the sample of 3,000 were assigned to field enumerators. All data collection was completed by April 1, 1989.

SUMMARIZATION

All questionnaires were manually reviewed before being computer edited and summarized. Data from the list sample of 3,000 were expanded by size groups and summarized. Then the data from

all persons within the 528 area segments that did not match any of the 23,100 names on the universe list were expanded and added to the results of the list summary. This resulted in a multi-frame indicator which was rounded and published as an estimate. Inventory data from the 9,971 usable list respondents returning questionnaires were expanded and summarized by county. This was the indicator used to produce county level estimates. There were 136 questionnaires returned unusable as the list respondent refused to cooperate in the survey.

RESULTS

The estimate from a sample survey will vary depending upon the units selected in the sample. The variation in the expansions are measured by the relative error of the estimate which is the estimate divided by the statistical sampling error. The relative error gives an indication of the confidence that can be assigned to the survey expansion.

Statistically, this survey was designed to estimate the equine population at the State level. Results at this level were gratifying. The relative error for the total number of equines was 6.4 percent compared with 6.9 percent in 1978. For light horses, the relative error was 7.7 percent compared with 7.8 percent 10 years ago. The relative error for ponies was 11.4 percent. Higher relative errors were produced for draft horses, donkeys and mules due to the low number of sampling units. District estimates have larger relative errors than the State reliability given above.



**NEW YORK
AGRICULTURAL
STATISTICS SERVICE**

Fact Finding
for Agriculture

1988 EQUINE SURVEY

(LIST FRAME)

1 Winners Circle
Albany, New York 12235
Phone (518) 457-5570

Dear Reporter:

The economic importance of the horse industry has grown in recent years. The last comprehensive inventory of New York equines was conducted in 1978 but economic data has been virtually non-existent. This survey will provide new information on both the number of equines and their value.

Regardless of whether you have just one horse or a large operation, we need your cooperation. Results of this survey will be provided to anyone interested in New York's equine industry.

Please make corrections in name, address and zip code, if necessary.

Your response to this survey is voluntary, but your cooperation is extremely important in compiling accurate estimates. Your reported data will represent your own and other equine operations throughout the state. The information you provide will be kept **STRICTLY CONFIDENTIAL** and used only for compiling state and county estimates. Thank you for your cooperation.

Robert E. Schooley
State Statistician

INSTRUCTIONS

1. If you receive more than one questionnaire please return all questionnaires together, to help eliminate duplication.
2. Please report all value and expense to the nearest whole dollar.
3. Land operated: Includes land owned and operated, plus land rented from others, but excludes land rented to others.
4. If you do not have exact data for a question, please give your best estimate.

SECTION I - SCREENING

1. Is this operation known by any name other than (see label)?

NO - Continue YES - Enter name _____ and continue

2. On any land you owned or rented in 1988 (on a per acre basis) did you produce any crops or keep any livestock, including horses?

NO - Go to item 4 YES - Enter Total Acres Operated and Continue

Acres

100

3. Were there any equines, regardless of ownership, on the land you operated in 1988?

NO - Continue YES - Go to SECTION II

4. Did you own any equines or have any equine related expenses during 1988?

NO - Go to SECTION VII YES - Enter Total Equines and Continue

Number

966

5. Where are these equines kept or boarded? (Record name and address where boarded and go to SECTION V)

Name _____
Street Address _____
City, State, Zip _____

SECTION II - GENERAL

1. Are the day-to-day decisions for this equine operation made by:

An individual operator? A hired manager?

Partners? (*Partners jointly operate land and share in decision making*)
Please identify the other person (s) in this partnership.

(Name) (Address)

(Name) (Address)

Office Use
425

2. Which of the following best describes the **MOST IMPORTANT ACTIVITY** of your operation?
(*Commercial activity is activity for the purpose of earning current or future income.*)

CHECK ONE: Commercial boarding, training, riding, lessons, show, racing, livery
 Commercial breeding
 Farm (*crops/livestock*)
 Residence only (*non-commercial/non-farm*)
 Other (*specify*) _____

Office Use
110

3. How long have you had equines at your present location? (*CHECK ONE*)

Less than 3 years 3-5 years 6-10 years 11-20 years 20 years +

Office Use
12_ 1

4. How had your equine related property last been used before you got involved with equines? (*CHECK ONE*)

Mostly Crop Farming Mostly Livestock Farming (*exclude equines*) Horse Farm Land was not used for Agricultural Purposes Don't Know

Office Use
13_ 1

5. How many of the acres you operate (*Section I, item 2*) are used for equine related purposes?

(*Include hay, pasture, cropland, training areas, buildings, etc.*)

Acres
104

6. What is the home county for your operation? _____
(County)

091

7. Do you make any day-to-day decisions for any other operation where equines are kept?

NO - GO TO SECTION III.
 YES - List name and address of the other operation (s) and continue

INSTRUCTIONS FOR COMPLETING SECTION III - EQUINE INVENTORY

Please record by breed the total number and corresponding estimated value of equines located on the total acres operated, regardless of equine ownership, as of December 31, 1988. Then, break down the total breed number by recording the number for each category. If a horse is used for more than one purpose, such as a stallion, that is also used for pleasure riding, please list that horse only once in the category for which the horse provides the most important service to you.

PLEASE READ THE DEFINITIONS BELOW BEFORE RECORDING INVENTORY NUMBERS

- A. Estimated Value - should reflect the price one would pay to purchase these equines in today's market.
- B. Broodmare - a female that is being kept primarily for breeding, now or in the future.
- C. Stallion - a male that is being kept primarily for breeding, now or in the future.
- D. Foals of 1987 - born during calendar year 1987.
- E. Foals of 1988 - born during calendar year 1988.
- F. Competition\Sport - equines used primarily for showing, polo, eventing, etc.
- G. Pleasure - equines used primarily for pleasure and trail riding, for hunting, pleasure driving, 4-H and other youth programs, and other recreational use.
- H. Other - equines used for work, carriage rides, police patrols, teaching, any retired horses, etc.
- I. Racing - any horse being kept primarily for the intention of racing whether or not a parimutuel event. Report foals in their own category.

SECTION III - EQUINE INVENTORY ON THE LAND YOU OPERATE - DECEMBER 31, 1988
(See Instructions on Opposite Page)

Equine Category	Total Number	Total Estimated Value (Dollars)	Of the total reported, how many were primarily used for:							
			Breeding		Foals of 1987	Foals of 1988	Competition or Sport	Pleasure	Other	Racing
			Brood Mares	Stallions						
A. LIGHT HORSE BREEDS	908	801	802	803	804	805	806	807	808	
1. American Quarter Horse . . .										
2. American Saddlebred	909	811	812	813	814	815	816	817	818	
3. Appaloosa	910	821	822	823	824	825	826	827	828	
4. Arabian	911	831	832	833	834	835	836	837	838	
5. Half Arabian	912	841	842	843	844	845	846	847	848	
6. Morgan	913	851	852	853	854	855	856	857	858	
7. Palomino	915	871	872	873	874	875	876	877	878	
8. Pinto or Paint	916	881	882	883	884	885	886	887	888	
9. Warmbloods	917	891	892	893	894	895	896	897	898	
10. Crossbred or Unknown . . .	918	931	932	933	934	935	936	937	938	
11. Other (Specify) _____ .	919	941	942	943	944	945	946	947	948	
B. RACE HORSE BREEDS	920	951	952	953	954	955	956	957	958	959
1. Standardbred										
2. Thoroughbred	921	971	972	973	974	975	976	977	978	979
C. DRAFT HORSE BREEDS	925	741	742	743	744	745	746	747	748	
1. Belgian										
2. Percheron	926	751	752	753	754	755	756	757	758	
3. Clydesdale	927	761	762	763	764	765	766	767	768	
4. Other (Specify) _____ .	928	771	772	773	774	775	776	777	778	
D. PONIES	904	781	782	783	784	785	786	787	788	
E. DONKEYS AND MULES	905	791	792	793	794	795	796	797	798	
F. TOTAL EQUINES (Sum of A+B+C+D+E)	965	701	702	703	704	705	706	707	708	709

2. Number of equines (reported in F.) that are totally or partially owned by you? Number

967

SECTION IV - ASSETS

1. What is your estimate of the **CURRENT VALUE** of all equine related land, fencing and buildings on your operation?

Dollars
601

2. What is your estimate of the **CURRENT VALUE** of all vehicles, equipment and tack related to your equine operation that you own? *(Include trailers, saddles, harnesses, grooming equipment, tools, tractors, manure spreaders, starting gates, hot walkers, treadmills, etc.)*

Dollars
602

3. What is your estimate of the **CURRENT VALUE** of all equine feed and supplies on hand that you own? *(Include grain, hay, straw, other bedding, seeds, fertilizers, feed additives, vitamins, minerals, etc.)*

Dollars
604

4. How many horse trailers and/or horse vans do you own?

Number
607

SECTION V - EQUINE RELATED EXPENDITURES FOR ANIMALS TOTALLY OR PARTIALLY OWNED BY YOU

A. OPERATING EXPENSES INCURRED BY YOU DURING 1988 *(Estimate for entire year)*

1. BOARDING AND TRAINING FEES PAID TO OTHERS *(Include stall fees and fees paid for training equines and/or individuals)*

Dollars

608

IMPORTANT: If you listed expenses as "boarding and training fees," the only other expenses that should be listed are those not included in "boarding and training." Do **NOT** list a "boarding and training" total and then break it down in the answer cells below.

2. FEED *(If home grown, estimate value) (Include grain, hay and supplements)*
3. BEDDING *(If home-grown, estimate value)*
4. HEALTH *(Include veterinarian fees, medicines, parasite control, lab work, etc.)*
5. SUPPLIES *(Include clippers, soaps, oils, sprays, brushes, tack, etc.)*
6. FARRIER
7. BREEDING FEES
8. MAINTENANCE/REPAIR *(Include contracted labor and materials for maintenance of buildings, facilities, fencing, equipment, etc.)*
9. INSURANCE PREMIUMS *(equine related - liability, collision, mortality, etc.)*
10. UTILITIES *(equine related - telephone, water, natural gas, heating oil, electricity, etc.)* ..
11. TAXES *(Include property tax on equine related land)*
12. RENT/LEASE *(Include rental of land and buildings, rental of equines, rental of equipment, etc.)*
13. FEES & PAYMENTS *(Include equine registration, entry and membership fees, etc.)*
14. SHIPPING & TRAVEL *(Include air travel, fuel, truck & car expenses, meals, shipping of equines, etc.)*
15. MISCELLANEOUS *(Include cost of ads, entertainment, pamphlets, subscriptions, etc.)*

Dollars

609
610
611
612
613
614
615
616
617
618
619
620
621
622

B. CAPITAL EXPENSES INCURRED BY YOU DURING 1988 *(Estimate for entire year)*

1. PURCHASES OF EQUINES *(Include partial ownerships)*
2. REAL ESTATE PURCHASES AND IMPROVEMENT *(Include materials for construction of or additions to equine related buildings, fences, etc.)*
3. EQUIPMENT PURCHASES *(Include tractors, manure spreaders, motor homes, campers, pick-ups, autos, horse vans, trailers, portable stalls, starting gates, hot walkers, treadmills, sulkies, carts, buggies, etc.)*

Dollars

623
624
625

SECTION VI - EMPLOYMENT DURING 1988

NOTE: If a hired worker performs multiple duties, please list the worker only once in the category for which the worker provides the most important service to you.

PAID WORKERS

Full Time (150 days or more)	Part Time and/or Seasonal (Less than 150 days)
Number	Number
626	627
628	629
630	631
632	633
634	635

1. Total number of workers paid in either cash or non-cash items
 - a. Manager, assistant manager
 - b. Trainer, assistant trainer
 - c. Groom, exercise rider, etc.
 - d. General farm worker

2. Total cash labor expense for **entire year** (Include cash wages and employer cost of social security tax, worker's compensation, insurance, pensions, unemployment compensation, etc.)

Dollars

636

3. Estimated value of non-cash items provided to workers for **entire year** (Include housing, meals, clothing, horse board, lessons and other benefits)

Dollars

637

4. How many workers did you provide housing for during 1988 (exclude owners)?

Number

639

SECTION VII - SURVEY RESULTS

Would you like to receive a free copy of the results of this Equine Survey?

- NO**

 YES - Enter a 1 in the box

638

That completes the survey. Thank you for your help.

Reported by _____ Phone () _____

Title _____ Date _____
(Owner, Manager, President, Secretary)

FOR OFFICE USE

RESPONSE CODE

SUP/ENUM

- 1 - M 7 - TR
 2 - T 8 - IR
 3 - I 9 - INAC
 6 - MR 10 - EST

410

098

**THE STANDARDBRED BREEDING INDUSTRY IN
NEW YORK STATE
1988**



**Prepared by Mary Smargiassi and William Lesser
Department of Agricultural Economics
Cornell University**

SUMMARY

The Standardbred Breeding Industry in New York State, 1988

INTRODUCTION

Standardbred horses account for approximately 11 percent of the total equine population and 39 percent of the population of racing horses in New York State. Used in harness racing events at pari-mutuel tracks, standardbreds are classified as either pacers (*with a lateral gait*) or trotters (*with a diagonal gait*).

STRUCTURE OF THE STANDARDBRED BREEDING INDUSTRY

Operations with standardbreds are concentrated most heavily in the eastern, southeastern and western regions of New York State. Together, these three regions contain nearly 78 percent of the total population of 19,500 standardbreds in New York State. The northern, northeastern and southern regions have the fewest standardbred operations.

Approximately 24 percent, or 4,635 horses, of the total standardbred population are boarded at commercial breeding operations. As one would expect, the majority of standardbreds at commercial operations are brood mares. These mares account for 46 percent of the standardbreds while current year foals account for an additional 23 percent.

Nearly 10 percent, or 430, of the standardbreds on commercial breeding farms are used primarily for racing. The remainder of the horses are stallions and previous year foals as well as horses used primarily for competition, sport, and pleasure.

Of the 3,380 standardbred farms in New York recorded by the 1988 Equine Survey, 270 are primarily breeding operations. The average number of horses on breeding operations, 17.2 per farm, is three times the average number of horses on all standardbred farms. Despite the fact that commercial breeding operations averaged fewer total acres, 81.5 compared to 94.7, the number of acres devoted to equine activities is a great deal higher, 55.6 compared to 34.3 acres. It appears that standardbred breeding operations are more dedicated to equine related activities than other standardbred operations.

Operations dedicated to standardbred breeding tend to be fairly young. Nearly half of these farms have been in equine use for less than five years. More than 70 percent of the farms are ten years old or less, which means that these operations were not even in existence for the 1978 Equine Survey (*Table 1*).

Furthermore, almost half of these farms were previously crop or livestock farms. Due to declining farm prices in other agricultural sectors, producers may have switched their operations to standardbred breeding. Nearly a third of the operations were previously non-agricultural. It appears that standardbred breeding operations are aiding in preserving and even adding land to the agricultural sector. In total, 15,000 acres in 1988 were used for activities related to the breeding of standardbreds.

Table 1. AGE OF STANDARDBRED BREEDING FARMS IN NEW YORK, 1988

	Years of Operation					Total
	Under 3	3-5	6-10	11-20	21 +	
Number of Operations	30	95	70	15	60	270

ESTIMATES OF THE CONTRIBUTION OF THE STANDARDBRED BREEDING INDUSTRY TO THE NEW YORK STATE ECONOMY

ASSETS AND EXPENSES

The assets held by commercial horse breeding operations include the horses themselves, fixed assets such as land, fences, buildings, vehicles, and equipment, and feed and supplies held at the end of the reporting period. The total value of equines on standardbred breeding operations was estimated to be over \$48 million or approximately 40 percent of total assets. The average farm had nearly \$180,000 invested in horses on their farms at the end of 1988 with an average value of \$10,000 per horse. However, because the value was calculated for all categories of horses, including 1988 foals, this figure may be lower than the average value of horses of breeding age (Table 2).

Total investment in fixed assets - land, fences, building, vehicles, and equipment - on commercial breeding operations was estimated at \$74 million at the end

of 1988, for an average investment of \$274,000 per farm. Each horse required over \$15,000 in investments in fixed assets. Non-fixed assets - feed and supplies - averaged \$150 per horse, or \$2,600 per farm, at the end of 1988 (Table 2).

Expenses incurred for equine related activities by standardbred breeding operations include equine purchases, land and equipment purchases, operating expenses-e.g., feed, bedding, veterinary care, and stud fees-and labor expenses. Nearly \$5 million was spent by the industry for all asset purchases in 1988. However, asset purchases may be high that year due to growth of the industry, as noted above. Approximately half of that amount was spent on purchases of additional horses for a per farm average of about \$9,000. The remaining half of expenses was spent on real estate and equipment improvements and purchases.

The bulk of 1988 expenditures by commercial standardbred breeding operations was operating and labor expenses of nearly \$17 million. Operating expenses averaged \$46,000 per farm for an average of \$2,700 per horse. On the other hand, labor expenses averaged \$17,000 per farm for an average of \$1,000 per horse.

One can assess the contribution of the standardbred breeding industry to the New York State economy through the use of a multiplier. A multiplier of 3.03, as estimated by the U.S. Bureau of Economic Analysis for miscellaneous livestock including equines, is used in this case. The total expenditures by the standardbred breeding industry can be calculated to have contributed \$65.7 million to the New York State economy in 1988. This amount includes both inter- and intra-industry transactions.

Table 2. ASSETS AND EXPENDITURES OF THE STANDARDBRED BREEDING INDUSTRY, NEW YORK, 1988

	Equines	Real Estate and Improvements	Vehicles and Equipment	Feed and Operating Expenses	Labor	Total
	Thousand dollars					
Assets	48,350	62,590	11,370	690	-	123,000
Expenses	2,395	1,355	1,105	12,295	4,530	21,680

If 1988 equine purchases are excluded, the value is \$7 million lower.

A second approach to calculating the contribution is to compute the depreciated value (30 years for structures, 10 years for vehicles) of fixed assets rather than using the 1988 expenditures on real estate and vehicles. This alternative approach gives a longer term indication of economic contribution than does the actual expenditures in any one year. However, as the value of annual expenditures on fixed assets are virtually identical at between \$2.0-2.5 million, there is little practical difference between the two approaches. *(This result is based on the assumption that half of the assets recorded as "real estate and improvements" represents structures and half is land which is not depreciated.)*

EMPLOYMENT AND LABOR EXPENSES

An additional method by which the standardbred breeding industry contributes to the New York State economy is through the employment of labor, especially in rural areas. Although the majority of labor payments is made in the form of cash payments, some non-cash payments are made in kind including housing, horse boarding, or other benefits. The standardbred breeding industry employed over 400 part-time and full-time employees in 1988 for an



average of one and a half employees per farm. The majority of these individuals were general farm workers, but many of the individuals had specific positions such as manager, trainer, or groom.

Employees received a total of \$4.53 million in payments during 1988 of which over 90 percent were in cash. Average labor expenses per worker were \$11,180 including over \$10,000 of cash expenses. However, it must be pointed out that this average includes both part-time and full-time employees. Labor expenses for full-time employees would average much higher.

CONCLUSION

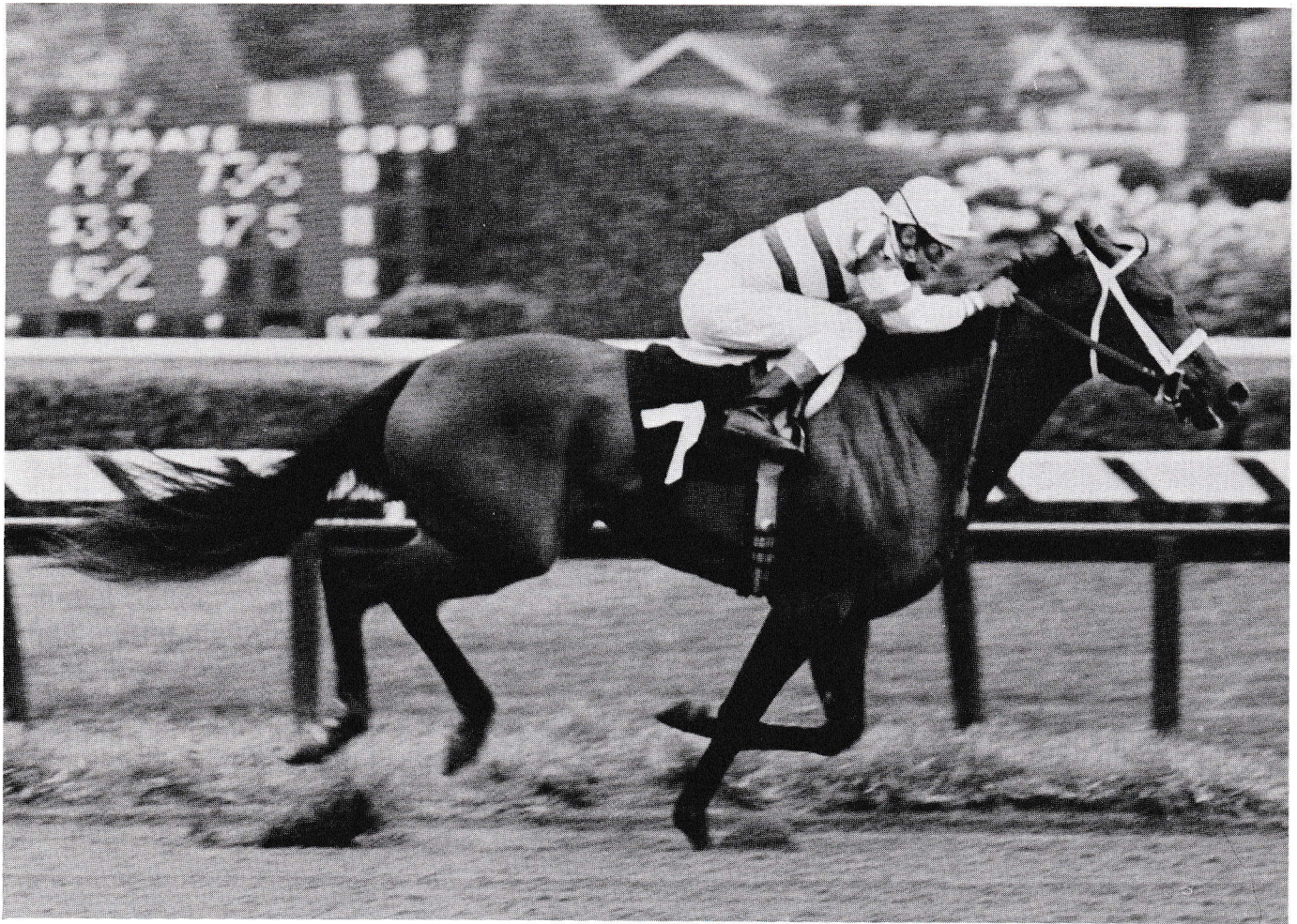
Although standardbred horses make up only 11 percent of the total equine population in New York State, and commercial

breeding operations make up only 24 percent of the standardbred industry, the standardbred breeding industry contributes much to the state economy. Expenditures by industry participants of \$22 million are estimated to contribute \$66 million to the New York State economy as the initial expenditures cycle through the industry and through other industries within the state.

Furthermore, the standardbred breeding industry employs over 400 part-time and full-time employees for total labor payments of \$4.5 million. These labor payments are especially important in rural areas where employment is often limited. In light of decreasing farm land prices, commercial breeding operations are one alternative agriculture option and help to keep land in the agricultural sector.

**THE THOROUGHBRED BREEDING INDUSTRY IN
NEW YORK STATE**

1987



**Prepared by Hugh Sawyer-Cann and William Lesser
Department of Agricultural Economics
Cornell University**

SUMMARY

The Thoroughbred Breeding Industry in New York State, 1987

INTRODUCTION

The 1988 Equine Survey indicated Thoroughbred horses account for 17 percent of the total equine population and 61 percent of the racing breed horses in New York State. New York has become widely recognized as a producer of winning thoroughbreds. The thoroughbred breeding industry has produced the ninth highest level of stakes winners in the United States, and standing stallions in the state have ranked in the top 100 progeny earners nationally. Additionally, the thoroughbred breeding industry contributes to the New York State economy through the economic activity it generates and through the employment of workers, especially in rural areas.

THOROUGHBRED BREEDERS SURVEY

Prior to the 1988 New York Equine Survey an independent mail survey of Thoroughbred breeders was designed and conducted by Cornell researchers in the fall of 1988. Information collected was for calendar year 1987. The majority of the figures reported in this section are from that survey. Two groups were identified for inclusion in the study. The first group consisted of 601 breeding farms identified by the New York State Breeding and Development Fund as having registered mares whose foals would be New York bred. All of these operations were

mailed a questionnaire. The second group consisted of breeders and stallion owners who were not associated with the ownership or management of any farm as identified by the New York State Breeding and Development Fund. Of 1,943 names on this list, 340 were mailed questionnaires. Responses were received from 202 breeding operations and 81 individuals and breeders. Using statistical survey procedures, it was estimated that there were 446 major thoroughbred breeding farms in the state in 1987. The 1988 Equine Survey indicated 855 breeding operations with one or more Thoroughbred animals on hand at the end of 1988. The difference of 409 operations between the two surveys consists largely of those breeding operations primarily involved with other breeds such as Arabians, Quarter Horses, Morgan, etc., but which had some Thoroughbreds as well.

STRUCTURE OF THE THOROUGHBRED BREEDING INDUSTRY

The size of breeding farms is often categorized based on the number of brood mares on a farm. The bulk of New York State thoroughbred breeding farms would, thus, be categorized as small operations since 71 percent of the respondents had from one to five brood mares. Of the remainder, 10 percent had 6 to 10 mares, 12 percent had 11 to 24 mares, and 7 percent had 25 or more mares (*Table 1*). The number of brood mares was estimated at 4,100.

An average of 7.35 foals per farm were born in 1987 for a total of 2,600 births. Almost half of these foals were sired by the farms' own stallions or for stud fees of \$3,000 or less. In contrast, nearly 40 percent of the foals were sired by stallions

Table 1: SIZE DISTRIBUTION OF THOROUGHBRED BREEDING FARMS, NEW YORK, 1987

Number mares	Percent	Number farms
1-5	71	317
6-10	10	44
11-24	12	53
25+	7	31
TOTAL	100	446

Source: Thoroughbred Breeders Survey.

with a stud fee of more than \$5,000 per service.

Almost 80 percent of the foals produced in 1987 were New York bred and sired, for a total of 2,000 New York State bred and sired foals produced in New York State. A nearly equal proportion of farm owners felt that the number of New York bred and sired foals was increasing compared to those who felt the number was decreasing.

An average of two stallions were reported standing on thoroughbred breeding farms which kept stallions in 1987. An estimated total of 250 stallions were standing in New York State. More than 40 percent of these stallions were valued at \$25,000 or less although more than 30 percent were valued at \$100,000 or more. Another method of evaluating the quality of a stallion is based on its stud fee. Over 80 percent of the stallions had a stud fee of \$3,000 or less per service with the remainder between \$3,000 and \$15,000 per service.

Stallion owners indicated that 63 percent of the stallions on breeding farms covered 15 or fewer mares in a season, yet an average stallion should be able to cover 30 to 40 mares. This indicates that the state's stallions may be under-utilized. However, the majority of stallion owners and managers felt that the demand for stud service on their farms had increased.



ECONOMIC STRUCTURE OF THE THOROUGHBRED BREEDING INDUSTRY IN NEW YORK STATE

The economic structure of the thoroughbred breeding industry can be described in terms of the land held by operators, fixed assets invested in equine-related structures, and gross income of equine operations.

Although land values vary widely based on location within the state, the average value of land held by thoroughbred breeding operations was estimated at \$486,000 in 1987. These operations hold land with a total value of approximately \$220 million. All together, thoroughbred breeding operations contribute around \$2.5 million to the state per year in property taxes.

With an average farm size of 111 acres, total land used for equine-related activities by thoroughbred breeders in New York State is estimated at 50,000 acres. About one third of the breeding farms are small with 26

or fewer acres, one third are large farms with 76 to 451 acres, and the final third are distributed among medium and very large farms.

The value of fixed assets such as buildings and fences averaged \$268,000 per farm, and the value of machinery and equipment averaged \$41,000 per farm. Combined with non-fixed assets such as feed and bedding, thoroughbred breeding farms are estimated to have held \$142 million in assets at the end of 1987 excluding the value of the horses (Table 2). Based on a useful life of 30 years for buildings and 10 years for machinery and equipment, and using the straight line method of depreciation, depreciation expenses averaged \$13,000 per farm. The industry-wide total is estimated at \$5.8 million in 1987.

The industry was estimated to have spent approximately \$27.2

million on non-labor expenses associated with their operations in 1987. The largest portion, nearly \$4.8 million, was spent on capital improvements. Another \$4.6 million was spent on stud fees with 85 percent of these fees paid to farms within New York State. Health care, feed, bedding, and insurance (primarily on large farms) made up most of the rest of the expenses.

More than half of the respondents declined to state their gross income; however, smaller farms more often omitted their gross income than larger farms. Based on results obtained, it appears thoroughbred breeding operations are fairly evenly distributed across income categories. The majority of income is derived from stock sales and horse board payments, but stallion fees are also an important source of income.

Table 2. ASSETS AND EXPENSES OF THE THOROUGHBRED BREEDING INDUSTRY, NEW YORK, 1987

	Equines 1/	Real Estate and Improvements	Vehicles and Equipment	Feed and Operating Expenses	Labor	Total
	Thousand dollars					
Assets	160,260	119,678	18,420	3,549	-	301,907
Expenses	10,555	-----	27,200	-----	12,700	50,455

Source: Thoroughbred Breeders Survey.

1/ The asset value of equines on hand and the expense of equines purchased represents all breeding operations with one or more thoroughbreds on hand from the 1988 Equine Survey.

THE EFFECT OF THE THOROUGHBRED BREEDING INDUSTRY ON THE NEW YORK STATE ECONOMY

The effect of the thoroughbred breeding industry on the total state economy can be analyzed in terms of the income it generates in other sectors of the economy and the labor it employs within the state.

The contribution of an industry to the economy can be determined through the use of a multiplier. When an equine operation purchases equipment, supplies, or other items, it generates income for the stores supplying these products and services. These stores pay part of their income to their employees who in turn purchase goods from other stores. Therefore, the original purchase by an equine operator will generate several other purchases in the state economy. By using the most appropriate multiplier of 3.03, which was estimated by the U.S. Bureau of Economic Analysis for miscellaneous livestock including equines; total 1987 expenditures of the thoroughbred breeding industry of \$46 million contributed approximately \$140 million to the New York State economy. The \$46 million in annualized costs are composed of \$4.8 million in depreciation costs, \$12.7 million in labor expenses, and \$27.2 million in other expenses. About half of this contribution circulated back through the equine industry (*as payments for stud fees or other equine related*

expenses), and half contributed to other industries.

It should be noted that this contribution is much larger than the \$12 million distributed by the New York State Breeding and Development Fund in 1987.

The industry also affects the state economy through the

employment of local labor, especially in rural areas. On average, each thoroughbred breeding farm in New York State employs six full-time and part-time employees. The thoroughbred breeding industry paid approximately \$12.7 million in wage payments in 1987 for an average of \$72,000 per farm with paid employees.



THE ROLE OF SMALL OPERATORS IN THE NEW YORK STATE THOROUGHBRED BREEDING INDUSTRY

Small thoroughbred breeding operations are important for the industry as a whole because they comprise a large proportion of the farms in the industry. Nearly three quarters of the New York bred horses that earned money in state races in 1987 were bred on small farms.

It appears it is not necessary for an operation to be large to produce quality equines. These farms are important in maintaining land in the agricultural sector, especially since many small farms are found adjacent to urban areas.

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