Sept. 1982

MAURY FARM

A.E. Res. 82-24

# BUSINESS SUMMARY

New York 1981

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## A.E. Res. 82-24 Dairy Farm Management Business Summary New York, 1981 September 1982

## ERRATA SHEET

-\$2,218
\$123,752
\$4,947
\$4,947 per farm \$63 per cow
\$180,367 per farm
-\$2,218 per farm -\$28 per cow
Delete real estate (computations include all appreciation)
\$8,462
\$2,411
\$301,975

PAGE 38, TABLE 53, COLUMN 4 (70 TO 84 COWS) Dairy feed \$37,227 Taxes & ins. \$ 7,004 Elec. & phone \$ 3,874 interest paid \$15,991

## TABLE OF CONTENTS

Page
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INTRODUCTION	1
1981 Regional Summary Publications	1
Farm Inventory Values	2
Prices Received	3
Prices Paid	4
SUMMARY OF THE FARM BUSINESS	5
Business Characteristics and Resources Used	5
Farm Inventory Values	6
Machinery and Real Estate Calculations	7
Receipts	8
Expenses	10
Financial Summary of Year's Business	12
Farm Family Financial Situation	15
•	
ANALYSIS OF THE FARM BUSINESS	18
Size of Business	18
Rates of Production	20
Labor Efficiency	21
Capital Efficiency	22
Cost Control	23
Feed Costs	23
Machinery Costs	25
Labor Costs	26
Miscellaneous Costs	27
Combination of Factors	28
Farm Business Chart	29
SUPPLEMENTAL INFORMATION	30
Age of Individual Operators	31
Education of Operators	32
Financial Situation	34
Cost of Producing Milk	36
Farm Business Summary by Herd Size	38
Selected Business Factors by Herd Size	40
Farm Family Financial Situation by Herd Size	42
Comparison of Farms by Type of Barn and Herd Size	44
Selected Business Factors by Milking Systems	45
Farm Business Summaries for Individuals, Partnerships, & Corporations	46
Comparison of Same Farms for 1980 & 1981	48
Selected Farm Business Summary Factors, 1961, 1971, 1976, & 1981	50
Operating Statements:	
21 Dairy Farms With Over 200 Cows	51
30 Dairy-Cash Crop Farms	52
57 Dairy-Renter Farms	53
Top Ten Percent of 553 Dairy Farms (55 Farms)	54
Average of 553 Dairy Farms, 1981	55
Average Per Cow of 553 Dairy Farms, 1981	56



#### INTRODUCTION

Farm business management projects are a basic part of the agricultural extension program in New York State. The New York State College of Agriculture and Life Sciences at Cornell University, and the County Extension staffs, cooperate in sponsoring these projects. In 1981, about 700 dairyfarmers participated in these management projects. The records submitted by dairyfarmers from 49 counties provide the basis for extension educational programs and data for applied research studies.

Extension agents and specialists enrolled the cooperators and collected the records. Regional summary reports were prepared by the college staff for use by the agents. Each cooperator received a summary and analysis of his or her business, and a regional report for making comparisons. These extension activities aim to help the operators develop their managerial skills and solve business management problems.

The records from all regions of the state have been combined for use in an applied research study of the effects of changes in price, technology, and management on dairy farm incomes. This research also provides current farm business information for use by dairyfarmers, extension staff, teachers, and others concerned with the New York dairy industry.

A total of 553 farm business records have been included in the general dairy summary for 1981. These farms do NOT represent the "average" for all dairy farms in the state. Participation was on a voluntary basis so not all areas or types of operations were represented (see map on opposite page). The 553 farms represent a cross section of better than average commercial dairy farm owner-operators in the state. Dairy farm renters, dairy-cash crop farmers, and part-time dairy operators have been excluded from the main body of this report and summarized separately in the back of the publication.

#### 1981 Regional Summary Publications

Region	Publications	Author
Southeastern New York	A.E. Ext. 82-8	Stuart F. Smith
Oneida-Mohawk Region	A.E. Ext. 82-9	Eddy L. LaDue
Northern New York	A.E. Ext. 82-10	William F. Lazarus
Eastern Plateau Region	A.E. Ext. 82-11	Stuart F. Smith
Northern Hudson Region	A.E. Ext. 82-12	Stuart F. Smith
Columbia-Dutchess Counties	A.E. Ext. 82-13	Stuart F. Smith
Western Plateau Region	A.E. Ext. 82-14	Loren W. Tauer
Western Plain Region	A.E. Ext. 82-15	Wayne A. Knoblauch
Central Plain Region	A.E. Ext. 82-16	Wayne A. Knoblauch
Central New York	A.E. Ext. 82-17	Wayne A. Knoblauch
Eastern New York Dairy		•
Farm Renters	A.E. Ext. 82-20	Stuart F. Smith

#### Acknowledgement

The preparation of this report and the processing and organization of the data it contains has been successfully completed by the dedicated staff of The Farm Decision Network.

Inflation, appreciation, supply and demand all have a direct affect on the inventory values on New York dairy farms. Machinery and real estate prices have risen steadily during the past six years with machinery prices increasing more rapidly. Dairy cow prices have changed most dramatically since 1975 as the demand for replacements jumped in 1978 and 1979 and weakened in 1981.

	New York D	airy Cows	Machinery*	N.Y. Farm Rea	1 Estate
Year*	Value/Head	1977=100	1977=100	Value/Acre	1977=100
1975	\$ 450	91	82	\$510	88
1976	485	98	91	553	95
1977	495	100	100	587	100
1978	800	162	109	600	102
1979	1,105	223	122	670	113
1980	1,240	251	136	708	119
1981	1,120	226	152	149	126

Table 1, UNIT VALUES OF NEW YORK DAIRY FARM INVENTORY ITEMS, 1975-1981

\*Annual average for U.S.

Table 1 shows New York year end (December) price received for dairy cows (replacements), an index of the same cow prices, an index of U.S. machinery prices, and the average per acre value of New York farmland and buildings reported in February. Chart 1 illustrates the annual changes in cow, machinery, and real estate values that have occurred over the last six years.

Chart 1. ANNUAL CHANGES IN DAIRY COW, FARM MACHINERY, & FARM REAL ESTATE VALUES New York Dairy Farms, 1975-1981





The prices dairyfarmers receive for milk, cattle, and other commodities they sell have a major effect on dairy farm profits. Chart 2 shows what has happened to average milk and slaughter cow prices paid to New York farmers since 1970. Milk prices have increased at a more constant rate showing only one year of decline since 1970. Slaughter cow prices have shown wide fluctuations over the period but have not moved in the same direction for more than three consecutive years.

Table 2. PRICES RECEIVED BY NEW YORK DAIRYFARMERS, 1970-1981

	A11	Slaughter		Monthly Farm	Price Per
Year	Milk	Cows	Calves	100 Lbs. of I	Milk, 1981
	(cwt.)	(cwt.)	(cwt.)		
1970	\$ 5.99	\$20.70	\$34.70	January	\$14.00
1971	6.12	21.20	36.20	February	13.90
1972	6.33	24.50	44.80	March	13.60
1973	7.32	32.80	54.60	April	13.40
1974	8.35	27.10	40.80	May	13.20
				June	13.00
1975	8.71	20.60	26.20	July	13.50
1976	9.83	25.40	34.50	August	13.90
1977	9.75	25.00	37.50	September	14.10
1978	10.50	35.30	58.20	October	14.40
1979	11.90	49.80	88,80	November	14.20
				December	13.90
1980	13.00	46.30	78.00		
1981	13.80	41.30	66.20		

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t	1	

	Index 1977=100					
Year	Feed	Fert.	Fuel & Energy	Wage Rates	Taxes	Interest
1972	57	52	54	63	75	46
1973	86	56	57	69	77	54
1974	104	92	79	79	81	65
1975	100	120	88	85	87	76
1976	103	102	93	93	94	87
1977	100	100	100	100	100	100
1978	98	100	105	107	100	118
1979	110	108	137	117	107	144
1980	123	134	188	127	114	179
1981	134	144	213	136	124	195

Table 3. PRICES PAID BY FARMERS FOR SELECTED ITEMS, 1972-1980

SOURCE: USDA Agricultural Prices

The prices dairyfarmers pay for a given quantity of goods and services has a major influence on farm production costs. The astute manager will keep close taps on unit costs and substitute the most economical goods and services for those that are too expensive.

Table 3 shows the unit cost indexes of selected goods and services used on New York dairy farms. The changes in feed prices, fuels and energy costs, and wage rates between years are illustrated in Chart 3.



Although all three major cost items have increased since 1975. Feed prices have been through a cycle, fuel and energy costs show the greatest increases, and wage rates have increased at a relatively slow but constant rate.

#### SUMMARY OF THE FARM BUSINESS

#### Business Characteristics and Resources Used

Recognition of important business characteristics and a knowledge of the farm resources used helps in evaluating management performance. The combining of resources and management practices is known as farm organization. Important farm business characteristics, the number of farms reporting these characteristics, and the average use of labor and land resources, are presented in Table 4.

## Table 4.BUSINESS CHARACTERISTICS AND RESOURCES USED553 New York Dairy Farms, 1981

Type of Business	Number	r Percent	Business Records	Number	Percent
Sole Proprietorsh	ip 431	78	Account Book	216	39
Partnership	112	20	Agrifax	138	25
Corporation	10	2	CAMIS	80	14
-			Agway	49	9
Barn Type			Farm Bureau	11	2
Stanchion	355	64	Other	59	11
<b>Freestall</b>	171	31			
Other	27	5	Dairy Records		
			D.H.I.C.	386	70
Milking System			Owner Sampler	53	10
Bucket & Carry	11	2	Other	34	6
Dumping Station	115	21	None	80	14
Pipeline	253	46			
Herringbone	152	27			
Other Parlor	22	4			
Labor Force	My Farm	Average	Land Used	My Farm	Average
Operator		15 mo.	Total acres:		
Family		4 mo.	Owned		313
Family unpaid		3 mo.	Rented (445)		125
Hired		11 mo.	Tillable acres:		
Total months	addining	33 mo.	Rented (440)		104
			Total		257
Operators (712)		1.28			
Age		40 yrs.	Number of Cows		
Education		12 yrs.	Beg. of year		78
Estimated value		-	End of year		81
labor & mgmt.	\$	\$15,100	Ave. for year		79

The most typical dairy farm business was a sole proprietorship with a stanchion barn, milk transfer system, farm account book, and DHIC records. There were 712 operators on the 553 dairy farms for an average of 1.28 operators per farm. The operators averaged 40 years of age and 12 years of formal education. Their estimated value of labor and management averaged \$15,100 per operator.

All the 553 farm businesses summarized in the main body of this report own land and buildings. The dairy farm renters are summarized separately. However, 440 of the dairy farm owners rented an average of 104 acres of tillable land in 1981. The 553 farms averaged 257 total tillable acres per farm of which 82 acres were rented.

### Farm Inventory Values

My Farm			Average	553 Farms
Item	1/1/81	1/1/82	1/1/81	1/1/82
Livestock	\$	\$	\$118,805	\$121,534
Feed and supplies			31,521	32,831
Machinery and equipment			78,172	87,290
Land and buildings			204,181	218,106
TOTAL	\$	\$	\$432,679	\$459,761

 Table 5.
 CAPITAL INVESTMENT - FARM INVENTORY VALUES

 553 New York Dairy Farms, 1981

The value of total farm inventories increased an average of \$27,082 per farm or six percent during 1981. This is the smallest rate of growth that has occurred since 1975. From 1976 through 1980, farm inventory values increased at an annual rate of 12 percent.

The market value of livestock increased an average of \$2,729 per farm in 1981 even though dairy cattle prices declined during the year. The change in inventory caused by the decline in cattle prices averaged \$-1,565 per farm. If there had been no herd growth during the year, livestock inventory would have dropped an average of \$1,565 per farm. Herd growth did occur however.

Table 6.	CHANGES	IN LIVESTOCK	INVENTORY
	553 New	York Dairy F	arms, 1981

Item	Average 5	53 Farms
End of year market value inventory	\$121,534	
Beginning of year market value inventory	-118,805	
Total Increase in Inventory		\$2,729
End of year market value inventory	\$121,534	
End of year inventory at beginning prices	-123,099	
Change Due To Price Decline (Appreciation)		(1,565)
Change Due To Physical Growth in Inventory		\$4,294

The increase in livestock inventory caused by growth and maturity of the herd averaged \$4,294 per farm. Most of this increase can be attributed to the change in dairy cow numbers from 78 to 81 head per farm. The youngstock herd grew at the same rate as the cow herd in 1981.

Feed and supply inventories increased only four percent during 1981 after jumping at an annual rate of 19 percent over the three previous years. Lower quality and quantity of hay crops in storage at the end of the year was a major factor contributing to little inventory growth in 1981. Machinery and equipment and land and building inventory changes are examined on the following pages.

#### Machinery and Real Estate Inventory Calculations

Capital outlays for machinery and buildings usually occur in large uneven amounts, but depreciate gradually over a period of time. Machinery depreciation is a charge for using the machinery complement in production and is based on the farmer's income tax depreciation. Appreciation is the change in machinery inventory caused by inflation. It is calculated as a residual in Table 7.

#### CHANGES IN MACHINERY AND EQUIPMENT INVENTORY Table 7. 553 New York Dairy Farms, 1981

Item ·	Average 553 Farms
End of year market value	\$87,290
Beginning of year market value	\$78,172
Plus machinery purchased	+17,180
Less machinery sold	- 359
Less depreciation	-12,508
Net End Investment	\$82,485
Appreciation	\$ 4,805

The end of year market value of real estate is verified in Table 8 by starting with the beginning of year value, adjusting for purchases, sales, depreciation of buildings, and appreciation of land. Lost capital is the difference between the cost of new buildings and the amount these improvements added to the value of the farm. Lost capital is not included in farm expenses. Building depreciation is based on the full cost of new buildings and will account for lost capital over the life of the investments. Building depreciation is based on tax depreciation and is included as a farm expense. Real estate appreciation was estimated by each farm operator. It is the increase in value of real estate caused by demand and inflation.

553 New	York Dairy Farms, 1981
Item	Average 553 Farms
End of year market value	\$218,106
Beginning of year market value	\$204,181
Plus cost of new real estate	\$+16,290
Less lost capital	- 2,575
Value Added	+ 13,715
Less depreciation	- 5,319

CHA	NGES	IN	REA	AL	ESTA	<b>\TE</b>	INV	ENTORY
55	53 Nev	a Yo	ork	Da	iry	Far	ms,	1981

Table 8.

Begin	nning of year market value		\$204,181	
Plus	cost of new real estate	\$+16,290		
Less	lost capital	- 2,575		
	Value Added		+ 13,715	
Less	depreciation	- 5,319		
Less	real estate sold	<u>- 346</u>		
	Value Deducted		- 5,665	
	Net End Investment			212,231
	Appreciation			\$ 5,875

#### Receipts

All the cash received for products sold plus the increases in livestock and feed and supply inventories are included in total farm receipts. Farm receipts have also been computed by excluding inventory appreciation.

#### Table 9.

Table 10.

#### FARM RECEIPTS 553 New York Dairy Farms, 1981

		Average 5	53 Farms	
Item	My Farm	Per Farm	Per Cow	Percent
Milk sales	\$	\$156,043	\$1,975	90
Crop sales		1,823	23	1
Dairy cattle sold		11,008	139	6
Other livestock sales		2,757	35	2
Gas tax refunds		254	3	-
Government payments		348	5	
Custom machine work		218	3	
Miscellaneous		1,659	21	1
Total Cash Receipts	\$	\$174,110	\$2,204	100
Increase in livestock inventory*		4,294	54	
Increase in feed & supply inventory	and a second	1,310	17	
Total Farm Receipts Excluding Appreciation	\$	\$180,336	\$2,283	
Livestock appreciation		- 1,565	- 20	
Machinery appreciation	······	4,805	61	
Real estate appreciation		5,875	74	
Total Farm Receipts	\$	\$188,829	\$2,390	

\*Increase attributed to growth and maturity of herd (page 6).

The dairy herd generated 96 percent of the cash receipts on these dairy farms in 1981. Nearly 90 percent of all farm receipts can be attributed to the production, growth, and increase in value of the dairy herd.

## INCOME ANALYSIS 553 New York Dairy Farms, 1981

Item	My Farm	Average 553 Farms	Top 10%*
Average price per cwt. milk sold	\$	\$13.66	\$13.76
Milk sales per cow	\$	\$1,975	\$2,117
Milk and cattle sales per cow	\$	\$2,149	\$2,306
Total cash receipts per worker	\$	\$63,313	\$80,130

\*Fifty-five farms with the highest labor and management income per operator.

The average price received for milk sold on all the farms was \$13.66 per hundredweight in 1981, \$.85 above the 1980 average. The average price received for milk increased \$.91 per hundredweight in 1980, \$1.39 in 1979, and \$.75 in 1978. Milk sales averaged \$1,975 per cow in 1981 compared to \$1,838 in 1980. The <u>average or mean price per hundredweight of milk sold</u> is calculated by dividing the gross milk receipts for the year by the total pounds of milk sold. The average price for the 553 farms was \$13.66 but there was considerable variation among the individual farms. The variation in average price received and the distribution of farms around the mean is shown below.

### VARIATION IN AVERAGE MILK PRICE

Average PriceNumberReceived For Milkof Farms		Percent of Farms
Below \$12.50	14	3
\$12.50 to 12.99	28	5
13.00 to 13.49	180	32
13.50 to 13.99	218	40
14.00 to 14.49	73	13
14.50 to 14.99	22	4
15.00 and over		3
Total	553	100

Seventy-two percent of the farms received from \$13.00 to \$13.99 per hundredweight of milk sold. Twelve percent of the farms received \$14.00 or more per hundredweight while only eight percent got less than \$12.50 per hundredweight. Location and organization of markets are factors contributing to the variability of milk prices on these dairy farms. Management practices on farms as well as in milk companies also affect farm milk prices. Seasonality of production and butterfat test are two variables under the direct control of the farm manager.

<u>Total farm receipts</u> are sometimes used as a measure of size of business. The Census of Agriculture uses this measure in classifying farms. The distribution of total farm receipts of the 553 farms in 1981 is shown below.

#### DISTRIBUTION OF FARMS BY TOTAL FARM RECEIPTS

			Far	ms
Total Far	m Re	eceipts	Number	Percent
Under	5	\$ 50,000	10	2
\$ 50,000	to	99,999	116	21
100,000	to	149,999	151	27
150,000	to	199,999	100	18
200,000	to	249,999	53	10
250,000	to	299,999	40	7
300,000	to	349,999	19	3
350,000	to	399,999	25	5
400,000	and	over	39	7
		Total	553	100

One-half of the 553 farms had total farm receipts of less than \$150,000 but only two percent fell below \$50,000. The remaining 276 farms had total receipts ranging from \$150,000 to over \$400,000 in 1981.

## Expenses

Total cash farm expenses for the 553 farms averaged \$375 per day or \$4.75 per cow per day. Total farm expenses averaged more than \$500 per day. The average expenses per farm and per cow for each item are shown below.

#### Table 11.

FARM EXPENSES 553 New York Dairy Farms, 1981

Item         My Farm         Per Farm         Per Cow         Percent           Hired Labor         \$			Average 5	53 Farms	
Hired Labor       \$\$       \$ 13,639       \$ 173       10         Feed       Dairy concentrate       40,130       508       29         Other feed       1,196       15       11         Machinery       1,196       15       11         Machinery       1,383       18       1         Machinery repairs       7,663       100       6         Auto expense (farm share)       445       6          Gas & oil       7,081       90       5         Livestock       2,619       33       2         Replacement livestock       2,619       33       2         Veterinary & medicine       3,240       41       2         Mik marketing       4,566       58       3         Other livestock expense       2,617       33       2         Erops       2,617       33       2       3         Inmerace       2,617       33       2       3         Real Estate       2,617       33       2       3         Land, building, fence repair       2,461       31       2         Taxes       3,937       50       3       1         Ins	Item	My Farm_	Per Farm	Per Cow	Percent
Feed         40,130         508         29           Other feed         1,196         15         1           Machinery         1,196         15         1           Machine hire         1,383         18         1           Machinery repairs         7,863         100         6           Auto expense (farm share)         445         6            Gas & oil         7,081         90         5           Livestock         2,619         33         2           Replacement livestock         2,619         33         2           Westock         2,619         33         2           Veterinary & medicine         3,240         41         2           Milk marketing         4,566         58         3           Other livestock expense         2,340         30         2           Lime & fertilizer         8,245         104         6           Seeds & plants         2,340         30         2           Real Estate         2,401         31         2           Land, building, fence repair         2,401         31         2           Taxes         3,937         50         3	Hired Labor	\$	\$ 13,63 <b>9</b>	\$ 173	10
Dairy concentrate         40,130         508         29           Other feed         1,196         15         1           Machinery         1,196         15         1           Machine hire         1,383         18         1           Machinery repairs         7,863         100         6           Auto expense (farm share)         445         6            Gas & oil         7,081         90         5           Livestock         2,619         33         2           Replacement livestock         2,058         26         2           Veterinary & medicine         3,240         41         2           Milk marketing         4,566         58         3           Other livestock expense         2,617         33         2           Lime & fertilizer         8,245         104         6           Seeds & plants         2,340         30         2           Real Estate         2,461         31         2           Land, building, fence repair         2,461         31         2           Taxes         3,937         50         3           Insurance         2,309         29         2 <td>Feed</td> <td></td> <td></td> <td></td> <td></td>	Feed				
Other feed       1,196       15       1         Machinery       1,383       18       1         Machinery repairs       7,863       100       6         Auto expense (farm share)       445       6	Dairy concentrate		40,130	508	29
Machinery       1,383       18       1         Machinery repairs       7,863       100       6         Auto expense (farm share)       445       6          Gas & oll       7,081       90       5         Livestock       2,619       33       2         Replacement livestock       2,619       33       2         Wilk marketing       4,566       58       3         Other livestock expense       5,545       70       4         Crops       11me & fertilizer       8,245       104       6         Seeds & plants       2,617       33       2       2         Spray & other crop expense       2,617       33       2       3         Reat Estate       2,617       33       2       3       2         Land, building, fence repair       2,617       33       2       3       3       2         Taxes       3,937       50       3       2       3       3       2         Insurance       2,340       34       2       3       2       3       2       3       3       2         Interest paid       16,302       206       12 <t< td=""><td>Other feed</td><td></td><td>1,196</td><td>15</td><td>1</td></t<>	Other feed		1,196	15	1
Machine hire       1,383       18       1         Machinery repairs       7,863       100       6         Auto expense (farm share)       445       6          Gas & oil       7,081       90       5         Livestock       2,619       33       2         Replacement livestock       2,058       26       2         Veterinary & medicine       3,240       41       2         Milk marketing       4,566       58       3         Other livestock expense       5,545       70       4         Crops       Lime & fertilizer       8,245       104       6         Seeds & plants       2,617       33       2         Spray & other crop expense       2,617       33       2         Reat Estate       2,461       31       2         Land, building, fence repair       2,461       31       2         Taxes       3,937       50       3       2         Insurance       2,340       34       2         Other       -       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion l	Machinery				
Machinery repairs       7,863       100       6         Auto expense (farm share)       445       6          Gas & oll       7,081       90       5         Livestock       2,619       33       2         Breeding fees       2,058       26       2         Veterinary & medicine       3,240       41       2         Milk marketing       4,566       58       3         Other livestock expense       5,545       70       4         Crops       1ime & fertilizer       8,245       104       6         Seeds & plants       2,617       33       2         Spray & other crop expense       2,340       30       2         Real Estate       2,461       31       2         Taxes       3,937       50       3         Insurance       2,617       33       2         Rent       2,340       34       2         Other       16,302       206       12         Telephone (farm share)       561       7          Electricity (farm share)       3,118       39       2         Interest paid       16,302       206       12 <td>Machine hire</td> <td></td> <td>1,383</td> <td>18</td> <td>1</td>	Machine hire		1,383	18	1
Auto expense (farm share)       445       6          Gas & oll       7,081       90       5         Livestock       2,619       33       2         Replacement livestock       2,058       26       2         Veterinary & medicine       3,240       41       2         Milk marketing       4,566       58       3         Other livestock expense       5,545       70       4         Crops       Lime & fertilizer       8,245       104       6         Seeds & plants       2,617       33       2         Real Estate       2,617       33       2         Land, building, fence repair       2,461       31       2         Taxes       3,937       50       3         Insurance       2,617       33       2         Rent       2,617       33       2         Other       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27	Machinery repairs		7,863	100	6
Gas & oil       7,081       90       5         Livestock       2,619       33       2         Breeding fees       2,058       26       2         Veterinary & medicine       3,240       41       2         Milk marketing       4,566       58       3         Other livestock expense       5,545       70       4         Crops       1/1       2,617       33       2         Lime & fertilizer       8,245       104       6         Seeds & plants       2,617       33       2         Spray & other crop expense       2,340       30       2         Real Estate       2,461       31       2         Land, building, fence repair       2,461       31       2         Taxes       3,937       50       3         Insurance       2,617       33       2         Rent       2,340       34       2         Other       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100 <td>Auto expense (farm share)</td> <td></td> <td>445</td> <td>6</td> <td></td>	Auto expense (farm share)		445	6	
Livestock       2,619       33       2         Breeding fees       2,058       26       2         Veterinary & medicine       3,240       41       2         Milk marketing       4,566       58       3         Other livestock expense       5,545       70       4         Crops	Gas & oil		7,081	90	5
Replacement livestock       2,619       33       2         Breeding fees       2,058       26       2         Veterinary & medicine       3,240       41       2         Milk marketing       4,566       58       3         Other livestock expense       5,545       70       4         Crops       11me & fertilizer       8,245       104       6         Seeds & plants       2,617       33       2         Spray & other crop expense       2,340       30       2         Real Estate       2,461       31       2         Taxes       2,617       33       2         Insurance       2,617       33       2         Rent       2,340       34       2         Other       2,461       31       2         Taxes       2,617       33       2         Rent       2,340       34       2         Other       16,302       206       12         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100	Livestock				
Breeding fees       2,058       26       2         Veterinary & medicine       3,240       41       2         Milk marketing       4,566       58       3         Other livestock expense       5,545       70       4         Crops       2,617       33       2         Lime & fertilizer       8,245       104       6         Seeds & plants       2,617       33       2         Spray & other crop expense       2,340       30       2         Real Estate       2,461       31       2         Land, building, fence repair       2,461       31       2         Taxes       3,937       50       3         Insurance       2,617       33       2         Rent       2,340       34       2         Other       561       7          Telephone (farm share)       561       7          Electricity (farm share)       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100	Replacement livestock		2,619	33	2
Veterinary & medicine       3,240       41       2         Milk marketing       4,566       58       3         Other livestock expense       5,545       70       4         Crops       11me & fertilizer       8,245       104       6         Seeds & plants       2,617       33       2         Spray & other crop expense       2,340       30       2         Real Estate       2,461       31       2         Land, building, fence repair       2,461       31       2         Taxes       3,937       50       3         Insurance       2,617       33       2         Rent       2,617       33       2         Other       2,617       33       2         Rent       2,617       33       2         Other       12,617       33       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27       14       166       20         TOTAL FARM EXPENSES EXCLUDING	Breeding fees		2,058	26	2
Milk marketing       4,566       58       3         Other livestock expense       5,545       70       4         Crops       11me & fertilizer       8,245       104       6         Seeds & plants       2,617       33       2         Spray & other crop expense       2,340       30       2         Real Estate       2,617       33       2         Land, building, fence repair       2,461       31       2         Taxes       3,937       50       3         Insurance       2,617       33       2         Rent       2,617       33       2         Other       2,617       33       2         Taxes       3,937       50       3         Insurance       2,617       33       2         Rent       2,617       33       2         Other       10,802       2,617       33       2         Telephone (farm share)       561       7          Electricity (farm share)       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2	Veterinary & medicine		3,240	41	2
Other livestock expense       5,545       70       4         Crops       Lime & fertilizer       8,245       104       6         Seeds & plants       2,617       33       2         Spray & other crop expense       2,340       30       2         Real Estate       2,461       31       2         Land, building, fence repair       2,461       31       2         Taxes       3,937       50       3         Insurance       2,617       33       2         Rent       2,340       34       2         Other       2,340       34       2         Telephone (farm share)       561       7          Electricity (farm share)       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27       1       1         Machinery depreciation       1,606       20       1       1         TOTAL FARM EXPENSES EXCLUDING       1,606       20       1       1	Milk marketing		4,566	58	3
Crops       11me & fertilizer       8,245       104       6         Seeds & plants       2,617       33       2         Spray & other crop expense       2,340       30       2         Real Estate       2,461       31       2         Land, building, fence repair       2,461       31       2         Taxes       3,937       50       3         Insurance       2,617       33       2         Rent       2,340       34       2         Other       2,340       34       2         Telephone (farm share)       561       7          Electricity (farm share)       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27       1         Machinery depreciation       5,319       67       1         Unpaid labor       1,606       20       1       1         TOTAL FARM EXPENSES EXCLUDING       \$158,515       \$2,007       2       1	Other livestock expense	······	5,545	70	4
Lime & fertilizer       8,245       104       6         Seeds & plants       2,617       33       2         Spray & other crop expense       2,340       30       2         Real Estate       2,461       31       2         Land, building, fence repair       2,461       31       2         Taxes       3,937       50       3         Insurance       2,340       34       2         Other       2,340       34       2         Telephone (farm share)       561       7          Electricity (farm share)       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27         Machinery depreciation       12,508       158         Building depreciation       5,319       67         Unpaid labor       1,606       20         TOTAL FARM EXPENSES EXCLUDING       \$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344         TOTAL FAR	Crops				
Seeds & plants       2,617       33       2         Spray & other crop expense       2,340       30       2         Real Estate       2,340       30       2         Land, building, fence repair       2,461       31       2         Taxes       3,937       50       3         Insurance       2,617       33       2         Rent       2,617       33       2         Other       2,617       33       2         Telephone (farm share)       561       7          Electricity (farm share)       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27         Machinery depreciation       5,319       67         Unpaid labor       1,606       20         TOTAL FARM EXPENSES EXCLUDING       \$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344         TOTAL FARM EXPENSES       \$       \$185,693       \$2,351	Lime & fertilizer		8,245	104	6
Spray & other crop expense       2,340       30       2         Real Estate       1       1       2         Land, building, fence repair       2,461       31       2         Taxes       3,937       50       3         Insurance       2,617       33       2         Rent       2,340       34       2         Other       2,340       34       2         Telephone (farm share)       561       7          Electricity (farm share)       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27       1       100         Expansion livestock       2,108       27       1       100         Unpaid labor       1,606       20       1       1       1       100         TOTAL FARM EXPENSES EXCLUDING       1,606       20       1       1       1       1       1       1       1       1       1       1       1       1       1       1 </td <td>Seeds &amp; plants</td> <td></td> <td>2,617</td> <td>33</td> <td>2</td>	Seeds & plants		2,617	33	2
Real Estate       2,461       31       2         Land, building, fence repair       2,461       31       2         Taxes       3,937       50       3         Insurance       2,617       33       2         Rent       2,340       34       2         Other       2,340       34       2         Telephone (farm share)       561       7          Electricity (farm share)       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27       108       27         Machinery depreciation       12,508       158       158         Building depreciation       5,319       67       1,606       20         TOTAL FARM EXPENSES EXCLUDING       1,606       20       1       1         Interest on equity capital @ 9%       27,178       344       344         TOTAL FARM EXPENSES       \$       \$185,693       \$23,51	Spray & other crop expense		2,340	30	2
Land, building, fence repair       2,461       31       2         Taxes       3,937       50       3         Insurance       2,617       33       2         Rent       2,340       34       2         Other       2,340       34       2         Telephone (farm share)       561       7          Electricity (farm share)       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27       100         Machinery depreciation       5,319       67       1,606       20         TOTAL FARM EXPENSES EXCLUDING       1,606       20       1       100         INTEREST ON EQUITY CAPITAL       \$       \$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344       344         TOTAL FARM EXPENSES       \$       \$185,693       \$23,51	Real Estate				
Taxes       3,937       50       3         Insurance       2,617       33       2         Rent       2,340       34       2         Other       2,340       34       2         Telephone (farm share)       561       7          Electricity (farm share)       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27       100         Machinery depreciation       5,319       67       07         Unpaid labor       1,606       20       100       20         TOTAL FARM EXPENSES EXCLUDING       \$158,515       \$2,007       1         Interest on equity capital @ 9%       27,178       344       344         TOTAL FARM EXPENSES       \$       \$185,693       \$23,51	Land, building, fence repair		2,461	31	2
Insurance       2,617       33       2         Rent       2,340       34       2         Other       2,340       34       2         Telephone (farm share)       561       7          Electricity (farm share)       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27         Machinery depreciation       12,508       158         Building depreciation       5,319       67         Unpaid labor       1,606       20         TOTAL FARM EXPENSES EXCLUDING       \$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344         TOTAL FARM EXPENSES       \$       \$185,693       \$2,351	Taxes		3,937	50	3
Rent       2,340       34       2         Other       7       7       7         Telephone (farm share)       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27         Machinery depreciation       12,508       158         Building depreciation       5,319       67         Unpaid labor       1,606       20         TOTAL FARM EXPENSES EXCLUDING       \$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344         TOTAL FARM EXPENSES       \$       \$185,693       \$2,2351	Insurance	<u></u>	2,617	33	2
Other       561       7          Telephone (farm share)       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27         Machinery depreciation       12,508       158         Building depreciation       5,319       67         Unpaid labor       1,606       20         TOTAL FARM EXPENSES EXCLUDING       \$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344         TOTAL FARM EXPENSES       \$       \$185,693       \$22,351	Rent		2,340	34	2
Telephone (farm share)       561       7          Electricity (farm share)       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27         Machinery depreciation       12,508       158         Building depreciation       5,319       67         Unpaid labor       1,606       20         TOTAL FARM EXPENSES EXCLUDING       \$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344         TOTAL FARM EXPENSES       \$       \$185,693       \$2351	Other				
Electricity (farm share)       3,118       39       2         Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27         Machinery depreciation       12,508       158         Building depreciation       5,319       67         Unpaid labor       1,606       20         TOTAL FARM EXPENSES EXCLUDING       \$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344         TOTAL FARM EXPENSES       \$       \$185,693       \$22,351	Telephone (farm share)		561	7	
Interest paid       16,302       206       12         Miscellaneous       2,309       29       2         Total Cash Expenses       \$	Electricity (farm share)		3,118	39	2
Miscellaneous       2,309       29       2         Total Cash Expenses       \$       \$136,974       \$1,734       100         Expansion livestock       2,108       27         Machinery depreciation       12,508       158         Building depreciation       5,319       67         Unpaid labor       1,606       20         TOTAL FARM EXPENSES EXCLUDING       \$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344         TOTAL FARM EXPENSES       \$       \$185,693       \$22,351	Interest paid		16,302	206	12
Total Cash Expenses       \$\$136,974       \$1,734       100         Expansion livestock       2,108       27         Machinery depreciation       12,508       158         Building depreciation       5,319       67         Unpaid labor       1,606       20         TOTAL FARM EXPENSES EXCLUDING       \$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344         TOTAL FARM EXPENSES       \$       \$185,693       \$22,351	Miscellaneous		2,309	29	2
Expansion livestock       2,108       27         Machinery depreciation       12,508       158         Building depreciation       5,319       67         Unpaid labor       1,606       20         TOTAL FARM EXPENSES EXCLUDING       1,606       20         INTEREST ON EQUITY CAPITAL       \$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344         TOTAL FARM EXPENSES       \$       \$185,693       \$22,351	Total Cash Expenses	\$	\$136,974	\$1,734	100
Machinery depreciation       12,508       158         Building depreciation       5,319       67         Unpaid labor       1,606       20         TOTAL FARM EXPENSES EXCLUDING       1,606       20         INTEREST ON EQUITY CAPITAL       \$       \$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344         TOTAL FARM EXPENSES       \$       \$185,693       \$22,351	Expansion livestock		2,108	27	
Building depreciation       5,319       67         Unpaid labor       1,606       20         TOTAL FARM EXPENSES EXCLUDING       1,606       20         INTEREST ON EQUITY CAPITAL       \$       \$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344         TOTAL FARM EXPENSES       \$       \$185,693       \$2,251	Machinery depreciation	······································	12,508	158	
Unpaid labor       1,606       20         TOTAL FARM EXPENSES EXCLUDING       11,606       20         INTEREST ON EQUITY CAPITAL       \$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344         TOTAL FARM EXPENSES       \$185,693       \$2,251	Building depreciation		5,319	67	
TOTAL FARM EXPENSES EXCLUDING         INTEREST ON EQUITY CAPITAL \$       \$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344         TOTAL FARM EXPENSES       \$       \$185,693       \$2,2351	Unpaid labor		1,606	20	
INTEREST ON EQUITY CAPITAL \$\$158,515       \$2,007         Interest on equity capital @ 9%       27,178       344         TOTAL FARM EXPENSES       \$185,693       \$2,351	TOTAL FARM EXPENSES EXCLUDING				
Interest on equity capital @ 9% 27,178 344	INTEREST ON EQUITY CAPITAL	\$	\$158,515	\$2,007	
	Interest on equity capital @ 9%		27,178	344	
101AB FRAM EALENDED 0 0 0103,073 52,331	TOTAL FARM EXPENSES	\$	\$185,693	\$2,351	

The cash expense classifications used on page 10 have been used to summarize New York dairy farms for many years. Total cash expenses increased 14 percent per farm in 1981 when data from these 553 farms is compared to 1980 data collected from 600 dairy farms.

<u>Replacement livestock</u> purchased are included as cash operating expenses which is consistent with including the costs of raising replacement cattle as cash operating expenses. The purchase of cattle and livestock that increase herd size are classified as expansion livestock and are excluded from cash expenses.

<u>Interest paid</u> on farm indebtedness is included as a cash expense in these summaries. Debt payments usually include both interest and principal but only the interest portion is included in the expenses. Principal payments are an investment not an operating expense of the business.

Machinery and real estate depreciation charges are shown on page 7. Expenditures for machinery and buildings are usually made in large amounts. To include all the expenses in the year of purchase would inflate the farm expenses for that year.

Unpaid family labor refers to work done by members of the family who are not paid cash wages. The operator's labor is not included. Unpaid family labor is charged to the business at \$500 per month.

Interest on equity capital at nine percent has been included as a noncash expense item. This represents what the operator might have earned on his equity capital had he not had it invested in the farm business. This is often called an "opportunity cost". The end-of-year farm net worth (see page 15) is used as the equity capital for computing this interest charge.

Classifying farm expenses as <u>fixed and variable costs</u> is helpful in forward planning or budgeting. Fixed or overhead costs do not vary directly with changes in production and include some cash expenses, capital maintenance costs, and opportunity costs. Variable costs change with variations in units of input and are all cash operating expenses.

Fixed (overhead) Costs		Variable Costs	
Land & building repairs	\$ 2,461	Labor	\$ 13 <b>,639</b>
Real estate taxes	3,937	Feed Machinery repairs	41,326 7,863
Insurance	2,617	Gas & oil	7,081
Rent	2,708	Machine hire Auto	1,383 445
Interest paid	16,304	Livestock purchased	4,727
Fixed Cash Expenses	\$28,027	Livestock expenses Fertilizer & lime	15,409 8,245
Depreciation	17,827	Other crop expenses	4,957
Unpaid labor	1,606	Electricity Telephone	3,118 561
Interest on equity capital	27,178	Miscellaneous	2,309
Total Fixed Costs	\$74,638	Total Variable Costs	\$111,063

Several costs classified as fixed, including interest, repairs, rent, and utilities, may be partly variable depending upon the size and nature of the business.

#### Financial Summary of Year's Business

The financial summary of the year's business reflects the quality of management. Researchers have developed a number of ways to measure the returns from a farm business. Four common measures are reported here. The measure selected an any one time will depend on the purpose for which it is used.

Table	12.		NET	r casi	I FARM	INCOME		
		553	New	York	Dairy	Farms,	1981	

		Average 5	53 Farms
Item	My Farm	Per Farm	Per Cow
Cash Farm Receipts	\$	\$174,110	\$2,204
Cash Farm Expenses	·····	136,974	1,734
NET CASH FARM INCOME	\$	\$ 37,136	\$ 470

Net cash farm income is a measure of the cash available from the year's farm operations for family living, principal payments, and other uses. A family may have additional cash available if they have nonfarm income. Net cash income is not a good measure of farm business profits but it shows the cash flow situation and is useful in planning debt repayment programs and family budgets.

Table 13.	LABOR AND MANAGEMENT INCOME
	553 New York Dairy Farms, 1981
	Averag

		Average 5	53 Farms
Item	My Farm	Per Farm	Per Cow
Total Farm Receipts Excluding Appreciation	\$	\$180,367	\$2,283
Total Farm Expenses		185,693	2,351
LABOR & MANGEMENT INCOME Number of operators per farm LABOR & MANAGEMENT INCOME	\$	\$- 5,326 1.25	\$- 68 1.25
PER OPERATOR	\$	\$- 4,261	\$ <del>-</del> 54

Labor and management income measures the return to the operator for his or her efforts in operating the business. A nine percent charge for the use of equity capital (see explanation on page 11) is included as a farm expense. Labor and management income per operator is the measure generally used for comparing farm businesses. There were 691 operators on the 553 farms in 1981, for an average of 1.25 operators per farm.

Total farm receipts used to compute labor and management income in Table 13 exclude the appreciation of livestock, machinery, and real estate inventories that occurred during the year. The appreciation of these assets was caused by inflation which management had little control over. Therefore appreciation is not considered part of the return to labor and management. Appreciation is included as a return to ownership on page 13.

The increase, (or decrease), in livestock inventory is divided into two parts by first determining how much of the increase was caused by change in price (page 6). The increase in livestock inventory attributed to herd growth and increase in feed and supply inventories is included in farm receipts when computing labor and management income.

Labor and management income per operator averaged -\$4,261 on these 553 dairy farms in 1981 but the range was from less than -\$50,000 to more than \$40,000. Returns to labor and management were negative on more than one-half of the farms. Labor and management income per operator ranged from \$0 to \$19,999 on 34 percent of the farms while only seven percent showed labor and management incomes of \$20,000 or more per operator.

DISTRIBUTION OF LABOR INCOMES PER OPERATOR

	Fai	ms
Labor Income Per Operator	Number	Percent
Less than -\$50,000	15	3
-\$50,000 to - 40,001	14	2
- 40,000 to - 30,001	30	5
-30,000 to $-20,001$	43	8
-20,000 to $-10,001$	83	15
- 10,000 to - 1	142	26
0 to 9,999	123	22
10,000 to 19,999	65	12
20,000 to 29,999	18	3
30,000 to 39,999	9	2
40,000 or more	11	2

Labor, management, and ownership income per operator reflects the combined return to the farmer for his triple role of worker-manager, financier, and owner. This measure includes appreciation and interest on equity capital, as returns to ownership. This measure of farm profit includes the operator's gain in net worth as well as net farm income. The average labor, management, and ownership income per operator was \$24,251 in 1981.

Table 14.LABOR, MANAGEMENT, AND OWNERSHIP INCOME553 New York Dairy Farms, 1981

Item	My Farm	Average 55 Per Farm	3 Farms Per Cow
Total Farm Receipts	\$	\$188,829	\$2,390
Total Farm Expenses Excluding Interest on Equity Capital		158,515	2,007
LABOR, MANAGEMENT & OWNERSHIP INCOME	\$	\$ 30,314	\$ 383
Number of Operators		1.25	1.25
LABOR, MANAGEMENT & OWNERSHIP INCOME PER OPERATOR	\$	\$ 24,251	\$ <b>306</b>

Total farm receipts used to compute labor, management, and ownership income includes all appreciation in inventories as well as the increases caused by physical growth in the business. Total farm expenses shown in Table 14 do not include the nine percent charge for using equity capital in the business.

Return on equity capital can be computed with or without real estate appreciation. To calculate return on equity capital (including real estate appreciation), the estimated value of operator's labor and management is deducted from labor, management, and ownership income. This return to equity capital is divided by the farm net worth to get the rate of return on equity capital. To compute return on equity capital excluding appreciation, appreciation must be deducted from ownership income.

Table 15	•	RETUR	N ON	EQUITY	CAPITA	L
	553	3 New	York	Dairy	Farms,	1981

Item	My Fa	rm	Avera	ge 553	Farms
	Including	Rea1	Estate	Apprect	lation
Labor, Management, & Ownership Income (pg. 13	)\$		\$	30,314	
Value of Operator's Labor & Management (pg. 5	)	(1	.25)	19,441	
RETURN ON EQUITY CAPITAL Amount of Equity Capital RATE OF RETURN ON EQUITY CAPITAL*	\$ \$	%	\$ \$3	10,873 01,975 3.62	×
	Excluding	Rea1	Estate	Apprec	lation
Return on Equity Capital (from above)	\$		\$	10,873	
Appreciation				14,783	
RETURN ON EQUITY CAPITAL Amount of Equity Capital RATE OF RETURN ON EQUITY CAPITAL	\$ \$	%	\$ \$2	18,074 88,022 0.83	%

\*The rate of return on all capital was 5.6 percent.

The operators were asked to estimate the value of their labor and management on the basis of what they might be able to earn if they were to work for someone else in a similar position. The average estimated by the 691 operators was \$15,500. This is somewhat less than the value determined by using \$750 per month for the labor plus a management charge based on five percent of the cash receipts per operator (\$9,000 + \$8,705 = \$17,706). The value estimated by the farm operators is the one used in Table 15.

#### Returns Per Unit of Input

Income from a business can also be calculated in relation to various input units. For example, the labor and management return can be allocated to the entire labor force and figured on a per worker basis.

Returns To All Labor and Management

Labor & management income per farm Cost of hired labor Value of unpaid labor	-\$ 5,326 13,639 1,606
Total Returns to Labor & Management	\$ 9,919
Average worker equivalent	2.75
Returns per worker equivalent	\$ 3,607
Returns per hour (3,000 hours/worker/year)	\$ 1.20

### Farm and Farm Family Financial Situation

The financial situation is an important part of the farm business summary. It has a direct affect on current cash outflow and future capital investment decisions. A farmer may have a good labor income but a high debt payment schedule may seriously restrict management flexibility.

Table	16.	FARM	AND	FARM	FAMIL	Y FINA	NCIAL	SITUA	TION
		553 N	ew Yo	ork Da	airy F	arms,	Januar	y 1,	1982

			Average	553 Farms
Item	My Far	m	Amount	Percent
Assets				
Livestock Feed & supplies	\$	\$121 32	1,534 2,831	24 7
Machinery & equipment Land & buildings	**************************************	218	7,290 8,106 5,777	17 43 1
Accounts receivable Cash & checking accounts		1	3,272 2,328	2 1
Total Farm Assets	\$		\$481	,138 95
Savings accounts Cash value life insurance Stocks & bonds Nonfarm real estate Auto (personal share) All other	\$ 	\$	3,354 2,861 2,682 5,282 1,528 5,555	1 1 1  1
Total Nonfarm Assets	\$_		<u>\$ 21</u>	<u>,262</u> 100
TOTAL ASSETS	\$_		\$502	,400
Liabilities				
Real estate mortgage Liens on cattle & equipment Installment contracts Loans: More than 10 years 1 to 10 years Less than 1 year Other	\$	\$ 9 5	5,397 6,765 6,616 7,751 4,602 3,299 4,733	53 32 4 2 2 3
Total Farm Liabilities	\$_		\$179	,163
Nonfarm Liabilities	_			876
TOTAL LIABILITIES	\$_		\$180	,039
Farm Net Worth (equity capit	al) \$_	N <b>3</b>	\$301	,975
Family Net Worth	\$_		\$322	,361

Total farm assets accounted for 95 percent of the total assets. Real estate mortgages and other long term loans were the largest liability and accounted for 57 percent of all debts. Intermediate debt, including secured liens, installment contracts, and one to 10 year loans, accounted for 38 percent of all liabilities. Equity capital for the 553 farms averaged \$301,975 and the total family net worth exceeded \$322,000.

----------------

The ability to service debt is the most important consideration in determining if and how proposed investments can be financed. Debt payment capacity based on 1981 income is compared with debt service planned for 1982 in Table 17.

		Average 5	53 Farms
Item	My Farm	Per Farm	Per Cowl
Net cash farm income	\$	\$37,136	\$458
Interest paid		16,302	201
Off-farm income		1,227	15
CASH AVAIL. FOR DEBT PYMT. & LIVING	\$	\$54,665	\$675
Estimated family living expense <sup>2</sup>		18,964	234
CASH AVAIL. FOR DEBT PYMT. & CAP. PURCH	.\$	\$35,701	\$441
Debt payments planned	\$	\$38,649	\$472
Debt pymts. planned as % of milk sales	~ ~ %	25%	
Cash flow coverage ratio	<b>6.</b>	0.92	

Table 17.DEBT PAYMENT CAPACITY AND SCHEDULED COMMITMENTS553 New York Dairy Farms, January 1, 1982

<sup>1</sup>Based on 81 end of year cows per farm.

<sup>2</sup>Calculated at \$9,600 per family plus four percent of cash receipts.

<u>Cash available for debt service and living</u> is the net cash farm income plus interest paid, plus off-farm income contributed to family living. Average family living expenses have been estimated as indicated. Subtracting family living expenses from total cash available leaves <u>cash available for debt payments and</u> capital purchases made with cash.

<u>Debt payments planned</u> represent the outstanding commitments as of January 1, 1982. The reasonableness of the debt commitment can be more easily appraised by computing debt payments per cow and payments as a percent of milk sales.

The cash flow coverage ratio shows how well cash available for debt service covers the debt payment commitments. A ratio of less than 1.0 indicates that on the average these farmers will not be able to meet their 1982 repayment schedules.

Table 18.

MEASURES OF DEBT STRUCTURE 553 New York Dairy Farms, January 1, 1982

Measure	My Farm	Average 553 Farms
Percent equity		64%
Debt/asset ratio - long term		0.47
Debt/asset ratio - intermediate and short term		0.28
Debt per cow		\$2,212
-		

<u>Percent equity</u> is family net worth divided by total assets and indicates the general equity position of the family for credit purposes.

Debt asset ratios are computed by dividing debt by assets. The long term debt asset ratio shows the percentage of real estate assets covered by real estate debt. The intermediate and short term ratio is the percentage of all other farm assets covered with intermediate and short term debt excluding open accounts. The Farm Finance checklist is designed to help focus on financial management practices in use by all 553 New York dairyfarmers as compared to those used on the most profitable farms in 1981.

#### Table 19.

### A FARM FINANCE CHECKLIST 553 New York Dairy Farms, 1981

			198	31
			Ave. 553 New York	Ave. Top
		My Farm	Farms	Farms
Α.	How farm assets are being used:			
	1. Total inventory (capital) per cow 2. Farm assets in livestock	\$, %	\$5,676 25%	\$4,895 29%
	3. Farm assets in farm real estate	%	45%	42%
	4. Farm assets in machinery	~~~~~%	18%	16%
	5. Farm assets in cash & checking accts	%	<1%	<1%
в.	Characteristics of the debt structure:			
	1. Long-term debt as % of total	%	58%	55%
	2. Intermediate-term debt as % of total	%	38%	39%
	3. Short-term debt as % of total	%	2%	6%
c.	Have you borrowed to the limit?			
	1. Equity in the business	%	64%	65%
	2. Farm debt per cow	\$	\$2,212	\$1,876
	3. Long-term debt/asset ratio <sup>2</sup>		0.47	0.48
	4. Intermediate debt/asset ratio <sup>2</sup>		0.28	0.28
D.	How is your debt repayment schedule?			
	1 Cook flow company matrix	¢	<u>80.02</u>	e1 /2
	2 Sabadulad dabt payments per cow	\$	\$0.92 \$472	\$1.42
	3. Scheduled debt payments as % of	ې	Ş472	Q 4 1 =
	milk check	%	25%	20%
			Average of same	416 Farms
Ε.	What financial progress did you make		1980 and	1981
	last year?		Amount	Percent
	1. Change in farm assets	\$	+ \$28,245	+ 6%
	2. Change in farm debts	\$	+ \$13,679	+ 9%
	3. Change in farm net worth	\$	+ \$14,566	+ 5%
-				

<sup>1</sup>Fifty-five farms with highest returns to labor and management per operator.
<sup>2</sup>Long or intermediate debt divided by long or intermediate assets.
<sup>3</sup>Estimated amount available for debt service divided by planned debt payments.

The most profitable farms carried \$336 less debt per cow and a greater ability to make 1982 debt payments although their equity in their business was not significantly above average.

Farm debt grew faster than farm assets between 1980 and 1981 and net worth increased less than our annual rate of inflation.

#### ANALYSIS OF THE FARM BUSINESS

A systematic analysis of the operation helps to determine strengths and weaknesses in the business. In this section, five business factors are examined: size of business, rates of production, labor efficiency, capital efficiency, and cost control. The 1981 averages of selected measures for these factors for the 553 farms, and the average for the 10 percent with the highest labor and management incomes per operator, are reported along with general relationships of factors to labor income. Since the measures examined are interrelated, all factors should be studied before arriving at major conclusions.

#### Size of Business

Size has an affect on other factors such as labor efficiency, cost control, and capital efficiency. The prices received and paid are often affected by volume which is a function of size. Farm management studies show that in general larger farm businesses (when well managed) make larger labor incomes. Two basic reasons for this are that larger businesses make possible more efficient use of overhead inputs, such as labor and machinery, and there are more units on which to make a profit.

Table	20.	MEA	SURE	S 01	F SIZE	OF	BUSIN	NESS
		553	New	Yorl	k Dain	y F	arms,	1981

Measure	My Farm	Average 553 Farms	Average Top 10% Farms
Number of cows		79	128
Number of heifers		59	99
Worker equivalent		2.75	3.75
Total tillable acres		257	350
Pounds of milk sold		1,142,000	1,970,400
Total work units		869	1,376
Total cash receipts	\$	\$174,110	\$300,489
inventory)	\$	\$459,761	\$646,124

<u>Number of cows</u> is the average number in the herd for the year. Where available, the DHI annual average is used.

Total tillable acres includes all acres on which crops could have been grown during the 1981 year. It includes cropland pasture and idle cropland.

Worker equivalent is all of the labor used on the farm during the year in terms of full-time worker years. Work of part-time employees and family members is converted to full-time worker equivalent.

<u>Total work units</u> represents the number of productive worker days that would be required under average conditions to care for the acreage of crops grown and the number of livestock handled. One worker unit is the average amount of productive work accomplished in 10 hours of work. The relationship of business size to farm business profits can be observed in Tables 21 and 22. Farm size is measured by number of cows. In general, the larger the businesses, the higher the level of farm incomes. This relationship is consistent with that of earlier studies. A well managed large farm will provide the operator a higher income than a well managed small farm, but a large, poorly managed farm can lose more than a small one.

Table 21	. COWS	PER FA	RM AND	LABOR .	AND	MANAGE	MENT	INCOME
		553	New Y	ork Dai	ry F	arms.	1981	

Number of Cows	Ave. Number of Cows	Number of Farms	Percent of Farms	Labor & Mgmt. Income Per Operator
Under 40	34	82	16	-\$ 4,300
40 to 54	47	130	25	- 6,077
55 to 69	61	110	21	- 1,204
70 to 84	77	74	13	- 5,284
85 to 99	90	38	6	- 3,648
100 to 114	106	26	4	- 5,677
115 to 129	121	25	4	- 15,635
130 to 149	139	16	3	- 11,780
150 to 179	163	23	4	- 4,577
180 to 199	187	8	2	3,497
200 & over	267	21	2	11,178

Number of cows is a good measure of size on the dairy farm because it measures the variability in the key source of production, the dairy herd. As size of herd varied from less than 40 cows to 200 and more in 1981, labor and management income increased from -\$4,300 per operator to more than \$11,178.

There is a stronger relationship between size and farm income when net cash farm income and labor, management, and ownership income are compared with cows per farm. Net cash farm income increased 630 percent while labor, management, and ownership income per operator jumped 850 percent as herd size increased from less than 40 to over 200 cows per farm.

Ta	b1	.e	2	2	•
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FAPM SIZE AND FARM INCOME MEASURES 553 New York Dairy Farms, 1981

Number	Number	Worker	Net Cash	Labor, Management & Owner-
of Cows	of Farms	Equivalent	Farm Income	ship Income Per Operator
Under 40	82	1.6	\$16,333	\$ 9,125
40 to 54	130	2.1	22,287	14,718
55 to 69	110	2.3	32,662	22,121
70 to 84	74	2.8	36,932	22,525
85 to 99	38	3.3	47,296	27,166
100 to 114	26	3.4	49,670	24,688
115 to 129	25	3.9	38,306	24,612
130 to 149	16	4.2	64,819	35,614
150 to 179	23	4.3	68,648	37,439
180 to 199	8	5.5	99,644	65,474

### Rates of Production

Production per animal and per acre are major factors affecting farm profits. Milk sold per cow is the most reliable production measure used in dairy farm analysis.

			55	3 Farms		Ave. Yield
	My 1	Farm	Farms	Äver	age*	Top 10%
Item	Acres	Yield	Reporting	Acres	Yield	Farms
Milk sold per cow (lbs.)			553		14,456	15,394
All hay crops						
(tons dry matter/acre)			552	131	2.5	2.7
Corn silage (tons/acre) All forage crops			506	59	14.9	16.1
(tons dry matter/acre)		475-14-15	553	188	3.3	3.6
Grain corn (bu./acre)			324	71	91	100
Oats (bu, per acre)			148	26	51	66

Table 23. MEASURES OF RATES OF PRODUCTION 553 New York Dairy Farms, 1981

\*Average for farms reporting the crop.

Pounds of milk sold per cow is calculated by dividing the total pounds of milk sold for the year by the average number of cows. No adjustment is made for differences in the butterfat test of the milk.

Tons of hay crops per acre is calculated by adding the tons of dry matter from hay crop silage and green chop to dry hay and dividing by the total acres of cropland used for hay crops. Tons of dry matter per acre of all forages is determined by adding tons of dry matter of corn silage and hay crops, and dividing by total acres used for growing forages.

Studies have shown repeatedly that farms with higher rates of production tend to have higher profits. In 1981, the farms that sold more than 15,000 pounds of milk per cow had substantially higher profit margins with slightly higher than average herd sizes.

Pounds of Milk Sold Per Cow	Number of Farms	Number of Cows	Labor & Mgmt. Income/Oper.	Labor, Mgmt., & Owner- ship Income/Operator
Under 11,000 11,000 to 11,999	50 30	50 67	-\$ 8,642 - 5,687	\$ 5,165
12,000 to 12,999	48	76	- 17,052	9,159
13,000 to 13,999 14,000 to 14,999	96 117	78 83	- 5,925	20,818
15,000 to 15,999	109	89	302	32,468
16,000 to 16,999	52	82	2,142	30,451
18,000 & over	23	89	1,710	45,290

Table 24. MILK SOLD PER COW AND LABOR AND MANAGEMENT INCOME 553 New York Dairy Farms, 1981

#### Labor Efficiency

Labor inputs account for about one-sixth of the costs in producing milk. Therefore, it is important that labor be used efficiently. Output or productivity per worker is used to measure labor efficiency. This is an important factor affecting labor and management incomes.

Table 25.MEASURES OF LABOR EFFICIENCY553 New York Dairy Farms, 1981

Measure	My Farm	Average 553 Farms	Average Top 10% Farms
Number of cows per worker		29	34
Pounds of milk sold per worker		415,273	525,440
Work units per worker		316	367
Tillable acres per worker		94	91

<u>Pounds of milk sold per worker</u> is determined by dividing the total pounds of milk sold by the worker equivalent. This is the best measure of labor efficiency for dairy farms.

Labor productivity (efficiency) depends on a number of things. Among these are the amount of mechanization, the field and building layout, the work methods used, and the abilities of the workers. All of these are management items under the control of the operator.

The 10 percent of the farms with the highest labor and management incomes per operator were considerably above the average of all 553 farms in the four measures of labor efficiency. The top 10 percent sold 27 percent more milk per worker than the average of all farms.

The relationship of labor efficiency to labor, management, and ownership income was very positive on the 553 farms. The higher output per worker was achieved by more and better cows.

Table 26.	MILK SOLD	PER WORKER	AND LABOR	AND M	ANAGEMENT	INCOME
		553 New Yo	ork Dairy 🛛	Farms,	1981	

Pounds of M Sold Per Wor	Milk rker	Number of Farms	Number of Cows	Lbs. Milk Per Cow	Labor & Mgmt. Income Per Operator	Labor, Mgmt., & Ownership Income Per Operator
Under 2	250,000	68	44	11,609	-\$9,348	\$ 5,325
250,000 to 2	299,999	58	53	13,185	- 7,361	12,436
300,000 to 3	349,999	77	62	14,060	- 6,337	19,102
350,000 to 3	399,999	91	67	14,178	- 3,738	19,365
400,000 to 4	449,000	81	77	14,849	- 1,350	24,137
450,000 to 4	499,999	60	93	14,799	- 5,635	30,006
500,000 to 3	599,999	79	108	15,500	1,741	39,315
600,000 & or	ver	39	158	15,461	- 3,751	54,391

### Capital Efficiency

Capital is a major farm resource and it is important to analyze how efficiently it is used in the business. The measure of total capital examined here is the end-of-year total farm inventory which averaged \$459,761 per farm on the 553 farms. This includes both owned and borrowed capital for all farms. The use of borrowed capital or credit is part of capital management.

Table 27.MEASURES OF CAPITAL EFFICIENCY553 New York Dairy Farms, 1981

Measure	My Farm	Average 553 Farms	Average Top 10% Farms
Total capital per worker	s	\$167,186	\$172,300
Total capital per cow	Ś	\$5,676	\$4,895
Total capital per cwt. milk sold	\$	\$39	\$31
Machinery & equipment per cow	\$	\$1,078	\$809
Land & building inventory per cow	\$	\$2,693	\$2,164
tillable acre owned	\$	\$1,246	\$1,366
Capital turnover (capital + receipts)		2.4	1.9

The comparisons in Table 27 suggests that efficiency in the use of capital can be obtained by keeping more cows without increasing the capital investment. A high investment per worker equivalent does not necessarily mean strong capital efficiency. High investment per worker must be accompanied by high labor productivity to result in good farm profits.

Capital turnover is a good measure of capital efficiency as it shows the number of years of farm receipts required to equal or "turnover" capital investment. It is computed by dividing the year-end farm inventory by the year's total farm receipts. The relationship capital turnover has to labor and management income and other factors is shown in Table 28. As a general rule, dairyfarmers should aim for a capital turnover of 2.5 years or less.

			<b>,</b>		
Capital Turnover Rate - Years	Number of Farms	Number of Cows	Capital Per Cow	Investment Per Worker	Labor & Mgmt. Income Per
	- 01 00	0040	TEL OOW	ICI WOLKCI	operator
less than 1.5	9	111	\$3,369	\$104,662	\$ 22,725
1.5 to 1.99	87	114	4,565	151,288	8,817
2.0 to 2.49	183	82	5,406	167,094	-2,990
2.5 to 2.99	143	67	6.262	172,843	-6,860
3.0 to 3.49	73	69	7,014	190,300	-11,341
3.5 & over	58	52	7,344	182,757	-18,611

Table 28.CAPITAL TURNOVER AND LABOR AND MANAGEMENT INCOME553 New York Dairy Farms, 1981

## Cost Control

Successful dairy farm mangers are able to keep costs under control. Feed, machinery, labor, and capital are major cost items and are examined in detail in this section. Profitable businesses usually maintain a "tight" control on all costs, both large and small. But, cost control should not be so tight that the efficient and economical use of important farm inputs is restricted.

#### Feed Costs

Feed is the largest single expense item on New York dairy farms. Purchased dairy concentrates accounted for 29 percent of all cash operating expenses on the 553 dairy farms in 1981.

Dairy feed costs must be analyzed by examining the entire feed and forage situation. The make-up of the dairy herd will also affect feed costs so several measures must be studied and compared to make the analysis complete.

#### Table 29.

## ITEMS RELATED TO FEED COSTS 553 New York Dairy Farms, 1981

Item	My Farm	Average 553 Farms	Average Top 10% Farms
Feed bought per cow	\$	\$508	\$527
Crop expense per cow	\$	\$167	\$162
Feed bought per cwt. milk	\$	\$3.51	\$3.42
Feed & crop expense per cwt. milk	\$	\$4.67	\$4.47
Percent feed is of milk sales	%	26%	25%
Forage dry matter harvested per cow	Т	7.8T	7.5T
Tillable acres per cow		3.3	2.1
Fertilizer & lime per crop acre	\$	\$32	\$38
Heifers as percent of cow numbers	%	7 5%	76%

The average cost of feed bought per cow in 1981 was \$508 while in 1980 it was \$497. The percent that feed bought is of milk sales was 26 percent in 1981, down one percent from 1980.

The 1981 forage crop supply was down four percent from 1980. Dry matter produced per cow was 7.8 tons from 2.4 acres in 1981. In 1980, 8.1 tons of forage dry matter were produced from 2.5 acres.

Feed costs include all feed for cows and heifers. Per cow costs are influenced markedly by the number of replacements on hand. Heifers as percent of cow numbers must be considered when evaluating most of the per cow factors. There were 75 percent as many heifers as cows in 1981 and in 1980.

The 55 farms with highest labor and management incomes spent more on purchased feed per cow, but combined feed and crop expense were 20¢ less per hundredweight of milk sold than the average of all farms.

<u>Feed cost</u> is influenced by a number of factors. On the production side, it is affected by the amount of homegrown grains fed, quality and quantity of the roughage, and the number of youngstock. On the purchasing side, it is influenced by the farmer's ability to purchase concentrates at reasonable prices and to balance nutrients fed with energy and protein requirements.

<u>Feed bought per cow</u> is calculated by dividing the total expenses for dairy concentrate by the average number of cows. Because this also includes the amount spent for calf and heifer feed, it actually represents the feed cost per cow and the replacements being raised.

<u>Crop expense per cow</u> is the total spent for fertilizer and lime, seeds and plants, spray, and other crop expense divided by the average number of cows. It does not include a charge for land or machinery and fuel expenses.

Feed and crop expense per hundredweight of milk is one of the most useful feed cost measures because it accounts for variations in milk production between herds and it includes crop expenses that are associated with feed production.

<u>Feed purchased as percent of milk receipts</u> is calculated by dividing feed purchased by milk receipts. This is another useful measure of feed efficiency although variations in homegrown grains fed and milk prices can have an adverse affect.

Dry matter per cow is calculated by converting all hay crops and corn silage harvested to tons of dry matter, and dividing by the average number of cows.

<u>Heifers as percent of cow numbers is figured by dividing the number of</u> heifers by the number of cows and multiplying by 100.

Table	30.	PERCENT	PURCHA	ASED	FEED (	IS OF	MILK	RECEIPTS
		ANI	) LABOI	R AND	MANA	GEMEN'	r inco	OME
		53	53 New	York	Dairy	y Far	ms, 19	981

% Feed of M:	d is ilk	Number of Farms	Number of Cows	Dry Matter Per Cow	Lbs. Milk Per Cow	Labor & Management Income Per Operator
0ver	40%	32	61	7.0	14,300	\$-11,563
35 to	39	75	67	7.6	14,400	-8,798
30 to	34	108	79	7.7	14,600	-501
25 to	29	113	80	8.0	14,500	-4,169
20 to	24	99	88	7.9	14,800	-766
Under	20%	126	82	7.9	14,100	-6,155

Generally, the lower the percent of the milk check going for purchased feed, the higher the income. The 1981 data shows that it is possible to spend too little as well as too much on purchased dairy feed. Farmers spending between 20 and 35 percent of their milk receipts for purchased feed in 1981 appear to be practicing effective feed cost control.

#### Machinery Costs

Machinery accounted for 19 percent of the year-end farm inventory on these 553 farms and the new purchases averaged \$17,180 per farm in 1981. The cost of owning and operating machinery accounted for one-fifth of the total farm expenses.

MACHINERY COSTS

Table 31.

per hundredweight of milk sold

553 New	York Dairy	Farms, 1981		
Item	My Farm	Average 553	Farms	Average Top 10% Farms
	iiy laim		<u>rereent</u>	
Depreciation (from page 7)	ş	\$12,508	34	\$16,406
Interest @ 9% on average inventor	у	7,446	20	8,999
Machine hire	······	1,383	4	2,395
Machinery repairs	• <u>••••••</u> ••••	7,863	22	11,711
Auto expense (farm share)		445	1	440
Gas & oil		7,081	19	10,938
Total Machinery Costs	\$	\$36,726	100	\$50,889
Machinery cost:	ar ann ann ann ann ann ann ann ann ann a	n 1997 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 -		ng agan manu atau atau atau atau atau agan atau atau
per cow	Ś	\$465		\$398

Depreciation accounted for 34 percent of the total machinery costs and interest 20 percent. These two fixed cost items are often overlooked in a casual examination of machine operating costs. Repairs were the second largest cost item and one which must be kept in line if costs are to be kept under control. The cost of gasoline and oil increased 15 percent per cow in 1981 following increases of 28 percent in 1980 and 33 percent in 1979. Machinery costs averaged \$465 per cow, compared to \$425 in 1980 and \$344 in 1979.

\$3.22

\$2.58

There is a strong relationship between machinery costs per cow and returns to labor and management. As machinery cost per cow increased, labor costs per cow also increased. This indicates that if substitution of machinery for labor is occurring on these farms, major cost savings are not apparent.

Machinery	Number	Number	Labor Cost	Labor & Management
Cost Per Cow	of Farms	of Cows	Per Cow	Income Per Operator
Under \$300	44	80	\$298	\$ 7,668
\$300 to 349	62	82	314	1,273
350 to 399	71	77	320	-684
400 to 449	90	88	347	-914
450 to 499	71	75	324	-4,576
500 & over	215	76	354	-10,618

MACHINERY COST PER COW AND LABOR AND MANAGEMENT INCOME Table 32. 553 New York Dairy Farms, 1981

\$

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#### Labor Costs

Labor costs should not be overlooked in a farm business analysis even though the farm family provides a large part of the labor supply. On these 553 farms, the family (including paid family labor) provided 66 percent of the months of labor inputs, while hired nonfamily labor provided 33 percent (page 5). The operator's and other unpaid family labor are assigned values and included in Tables 33 and 34.

Table	33.	LABOR COSTS	LABOR COSTS		
		553 New York Dairy Farms,	1981		

Item	My Farm	Average 553 Farms	Average Top 10% Farms
Value operator's labor (@\$750/month) Hired labor expense (from page 10:	\$	\$11,258	\$11,700
includes paid family labor) Unpaid family labor (@ \$500/month)		13,639 1,606	29,382 1,245
Total Labor Costs	\$	\$26,503	\$42,327
Labor cost per cow	\$	\$335	\$331
Labor cost per cwt. milk	\$	\$2.32	\$2.15
Cost per month hired labor	\$	\$909	\$1,088
Cost per month all labor	\$	\$803	\$941

Although the top 10 percent farms paid \$179 per month more for hired labor and \$138 per month more for all labor than the average of the 553 farms, superior labor efficiency kept labor costs per cow and per hundredweight of milk sold well below average.

Labor and machinery operate as a "team" so the challenge is to get a combination that will give a reasonable cost per unit of milk sold. On these 553 farms the machinery costs were higher than labor costs. The labor and machinery costs for the top 10 percent farms were 81¢ per hundredweight of milk, less than the average for all farms.

## Table 34.LABOR AND MACHINERY COSTS553 New York Dairy Farms, 1981

Item	My Farm	Average 553 Farms	Average Top 10% Farms
Total labor costs	\$	\$26,503	\$42,327
Total machinery costs		36,726	50,889
Total Labor & Machinery Costs	\$	\$63,229	\$93,216
Labor & machinery costs per cow	\$	\$800	\$729
Labor & machinery costs per cwt. milk	\$	\$5.54	\$4.73

#### Miscellaneous Costs

Costs in addition to feed, machinery, and labor make up a sizeable amount on a dairy farm. The "cost conscious" manager checks on all cost items both large and small. Good cost management requires careful planning and priority spending on farm inputs that will pay dividends when the checkbook is balanced at the end of the month. A number of miscellaneous cost items are reported in Table 35 to help in a detailed checkup on all farm costs.

Table 35.	MISCELLANEOUS COST CONTROL MEASURES
	553 New York Dairy Farms, 1981

		Average	Average Top 10%
Item	My Farm	553 Farms	Farms
Livestock			
Breeding fees per cow	\$	\$26	\$29
Veterinary & medicine per cow	\$	\$41	\$47
Other livestock expense per cow	\$	\$70	\$66
Milk marketing per cow	\$	\$59	\$69
Milk marketing per cwt. milk	¢	40¢	45¢
Real Estate			
Taxes per cow	s	\$50	\$42
Taxes per \$1,000 year-end real		·	
estate value	\$	\$18	\$19
Insurance paid per cow	\$	\$33	\$28
Cash rent paid per cow	\$	\$34	\$42
Cash rent paid per acre rented	\$	\$2 <b>7</b>	\$30
Real estate expense per cow	\$	\$146	\$138
Capital Cost			
Interest paid per cow	s	\$206	\$181
Interest on equity per cow	\$	\$344	\$305
Interest paid as percent of		· · ·	
year-end debt	%	9.0%	9.3%
Depreciation per cow	\$	\$226	\$190
Fixed & Variable Costs			
Total fixed costs per cow	Ş	\$945	\$824
Total variable costs per cow	\$	\$1,406	\$1,444
Variable costs per cwt. of milk sold	\$	\$9.73	\$9.38

Nearly all capital and overhead costs on the top 10 percent farms were below the 553 farm average. Most of the livestock costs and rent paid were higher on the most profitable farms. This is related to more intensive use of cows and cropland on the top farms. Fixed costs per cow were 13 percent lower on the top farms indicating some efficiency in size and scale. Variable costs were four percent lower per hundredweight of milk sold on the top farms.

#### Combination of Factors

Individual factors representing size of business, rates of production, labor and capital efficiency, and cost control, have been examined in the analysis up to this point. It has been suggested that these factors are interrelated. On this page, the combination of four important factors is studied. The factors combined are the number of cows per farm, pounds of milk sold per cow, pounds of milk sold per worker, and percent purchased feed was of milk receipts.

For each factor, the farms were divided on the basis of whether they were above or below the average for the 553 farms. They were then grouped on the basis of the number of factors better than average. The combination of factors above or below average within the three middle groups varied.

The relationship between the number of factors better than average and labor and management income is shown in Table 36. As the number of factors better than average decreased, labor and management income decreased at a rapid rate.

Table 36.	COMBINATION OF FACTORS ABOVE AVERAGE*
	AND LABOR AND MANAGEMENT INCOME
	553 New York Dairy Farms, 1981

Number of Factors Above Average	Number of Farms	Percent of Farms	Labor Income Per Operator
4 factors better than average	59	11	\$3,600
3 factors better than average	97	18	- 4,400
2 factors better than average	160	29	- 7,200
1 factor better than average	161	29	- 6,500
O factors better than average	76	14	- 8,000

\*Factors were:

Size - number of cows - average 79.

Rates of production - pounds of milk sold per cow - average 14,456. Labor efficiency - pounds of milk sold per worker - average 415,273. Cost control - percent purchased feed was of milk receipts - average 26%.

Other business factors excluded from this combination have a strong affect on business profits. These include labor, machinery and crop expenses, capital efficiency, crop yields, and the receipts from milk and cattle sales.

It is important in managing a farm business to give attention to all major factors affecting the business. Concentrating on only one or two factors and neglecting the others will not give the kind of net return most farmers want.

#### Farm Business Chart

The Farm Business Chart is a tool which can be used in analyzing a business by drawing a line through the figure in each column which represents the current level of management performance. The figure at the top of each column is the average of the top 10 percent of the 553 farms for that factor. The other figures in each column are the average for the second 10 percent, third 10 percent, etc. Each column of the chart is independent of the others. The farms which are in the top 10 percent for one factor would not necessarily be the same farms which make up the top 10 percent for any other factor.

Size	of Bu	siness	Rates	Rates of Production		Labor	Efficiency
Worker	No.	Pounds	Pounds	Tons	Tons Corn	Cows	Pounds
Equiv-	of	Milk	Milk Sold	D.M./	Silage	Per	Milk Sold
valent	Cows	Sold	Per Cow	Acre	Per Acre	Worker	Per Worker
5.8	204	3,081,100	18,100	4.6	21	45	662,000
3.9	121	1,795,500	16,400	3.6	19	36	538,000
3.3	91	1,364,500	15,700	3.1	17	33	482,000
3.0	77	1,111,800	15,200	2.8	16	30	442,000
2.6	67	960,800	14,600	2.6	15	28	408,000
2.3	58	850,000	14,200	2.3	15	26	377,000
2.0	52	747,000	13,700	2.1	13	24	346,000
1.9	47	641,000	13,100	1.9	12	22	310,000
1.6	40	530,000	12,100	1.7	11	20	267,000
1.3	32	381,000	9,800	1.2	7	16	194,000
Feed		% Feed is	Machi	nery	Labor a	and	Feed and Crop
Bought		of Milk	Cos	st	Machine	ery	Expense Per

FARM	BUSINESS	CHART	FOR FARM	MANAGEMEN	T COOPERATORS
	553	New Yo	rk Dairy	Farms, 19	81

Feed	% Feed is	Machinery	Labor and	Feed and Crop
Bought	of Milk	Cost	Machinery	Expense Per
Per Cow	Receipts	Per Cow_	Cost Per Cow	Cwt. Milk
\$197	11%	\$251	\$ 520	\$2.66
313	17	334	632	3.54
387	20	373	688	3.94
440	23	408	739	4.24
485	25	437	775	4.50
533	28	469	815	4.79
583	30	513	859	5.06
635	33	552	924	5.35
699	35	611	1,002	5.75
834	40	762	1,199	6.59

The cost control factors are ranked from low to high, but the <u>lowest cost</u> <u>is not necessarily the most profitable</u>. In some cases, the "best" <u>management</u> position is somewhere near the middle or average. Many things affect the level of costs, and must be taken into account when analyzing the factors.

#### SUPPLEMENTAL INFORMATION

The farm business records include information in addition to that used in the summary and analysis sections. These data are useful in studies of dairy farming. Selected items are reported in the "supplemental information" section.

#### Age of Operators on Single Proprietorship Farms

Age of operator is a factor that affects management. Data on age of farm operators on 431 individually operated farms and related business factors are on page 31. Partnerships and corporate farms are excluded in this comparison.

#### Education of Operators

The 1981 records included data on years of formal education of the operators on 516 of the 553 farms. This data and related business factors are on pages 32 and 33.

## Financial Situation

Information on percent equity and debt per cow and its relation to business factors is reported on pages 34 and 35.

#### Cost of Producing Milk

The average cost of producing milk in 1981, calculated from the farm business summaries for the 553 farms, and comparisons by herd size and rates of production, are on pages 36 and 37.

#### Comparison by Herd Size

The business summary, business factors, and financial situation for nine herd size groups, are shown on pages 38 to 43.

## Farms With Freestall Barns

The 1981 summary reported 171 farms with freestall barns. Comparisons of the farms with freestall and stanchion barn facilities are on page 44.

### Milking Systems

Cooperators report the kind of milking system they use. The 553 farms were sorted by type of milking system and factors are reported on page 45.

## Type of Business Organization

Summaries for the three business types; individual operators (single proprietorships), partnerships, and corporations, are on pages 46 and 47.

## Same Farms For 1980 and 1981

Of the 553 farms in the 1981 summary, 416 were in the 1980 summary. A 1980 and 1981 comparison of these farms is on pages 48 and 49.

## Trends

One way to observe trends is to compare similar business studies that have been made. On page 50, selected farm business summary factors are given for 1961, 1971, 1976, and 1981.

#### Operating Statements

Operating statements for several groups of farms are on pages 51 to 56. These include: farms with over 200 cows, dairy-cash-crop farms, dairy renters, top 10 percent farms based on labor incomes, and the average of the 553 farms.

431 New York Dairy Farms, 1981							
Age of	Numbe	er of	Lbs. Mill	k Sold Per	Labor and Management Income		
Operator	Farms	Cows	Cow	Worker	Per Operator		
Under 30	53	54	13,900	346,600	-\$ 5,447		
30 to 34	55	66	14,400	406,900	- 2,092		
35 to 39	89	67	14,200	409,700	- 5,182		
40 to 44	81	76	14,400	423,600	- 5,047		
45 to 49	66	73	14,700	389,900	- 6,873		
50 to 54	49	83	14,400	399,600	- 11,387		
55 to 59	26	72	14,500	368,400	- 10,682		
60 & over	12	76	13,300	327,900	- 22,677		

## Age of Operators on Single Proprietorship Farms

## Table 37. AGE OF OPERATORS AND LABOR AND MANAGEMENT INCOME

Table 38. AGE OF OPERATOR AND RELATED BUSINESS FACTORS 431 New York Dairy Farms, 1981

Age of Operator	Percent Freestall Barns	Total Capital Per Cow	Feed Bought Per Cow	Machinery Cost Per Cow	Labor Cost Per Cow	Total Expense Per Cow
Under 30	41	\$5,700	\$519	\$460	\$326	\$2,300
30 to 34	18	5,600	541	437	313	2,300
35 to 39	25	5,700	50 <del>9</del>	451	324	2,300
40 to 44	28	5,600	528	465	323	2,300
45 to 49	32	5,600	500	489	352	2,400
50 to 54	43	5,900	506	485	355	2,400
55 to 59	31	5,600	512	465	384	2,400
60 & over	33	5,600	384	542	429	2,500

#### Table 39. AGE OF OPERATOR AND FINANCIAL SITUATION 431 New York Dairy Farms, 1981

Age of Operator	Total Farm Inventory	Percent Equity	Debt Per Cow	% Milk For Debt Payment	Available For Debts & Living
Under 30	\$313,910	54%	\$2,800	27%	\$35,400
30 to 34	379,120	48	3,100	30	46,000
35 to 39	394,240	57	2,600	29	46,700
40 to 44	436,800	65	2,100	25	52,400
45 to 49	419,780	67	2,000	23	49,000
50 to 54	503,450	75	1,600	22	55,400
55 to 59	412,020	78	1,400	17	43,000
60 & over	434,880	89	700	12	35,100

#### Education of Operators

The years of operator's education was requested again for 1981. Operators on 516 of the 553 farms reported years of formal education. The average education of all operators reporting was 13 years. In the tables below, the years of education of the senior operator on farms with partnerships or corporations was used for sorting the farms.

Table 40.	EDUCATION (	OF OP	ERATOR	AND	LABOR	AND	MANAGEMENT	INCOME
		516	New Yo	rk I	Dairy D	Farms	s, 1981	

Years Education	Farms		Estimated Value of Operator's	Labor and Management	
of Operator	Number	Percent	Labor & Management*	Income/Operator	
Less than 12	50	10	\$12,800	-\$1,938	
12	244	47	14,700	- 4,092	
13 to 14	112	22	15,400	- 5,796	
15 to 16	95	18	17,000	- 3,691	
over 16	15	3	19,200	- 1,144	

\*Estimates by farm operator.

## Table 41.EDUCATION OF OPERATOR AND RELATED BUSINESS FACTORS516 New York Dairy Farms, 1981

Years Education	Average Age of	Average Nu	umber	Pounds	Milk Sold
of Opeator	Operator*	Operators	Cows	Per Cow	Per Worker
Less than 12	49	1.33	77	14,300	399,000
12	43	1.25	69	14,300	381,600
13 to 14	41	1.25	86	14,300	445,700
15 to 16	41	1.25	97	15,100	462,900
over 16	37	1.17	55	15,100	399,200

\*Senior partner if more than one operator.

## Table 42.EDUCATION OF OPERATOR AND FINANCIAL SITUATION516 New York Dairy Farms, 1981

Years Education of Operator	Total Farm Inventory 1/82	Percent Equity	Farm Debt Per Cow	Debt Payment As Percent of Milk Receipts
Less than 12	\$467,440	68%	\$2,000	25%
12	406,110	66	2,100	24
13 to 14	479,480	61	2,300	27
15 to 16	569,380	63	2,300	24
over 16	362,290	63	2,648	25

There is no strong correlation between years of education and labor and management income, farm productivity or financial management on these farms. However, operators with 13 or more years of education had more cows, more capital invested, and higher debt loads.

Operator's Age & Years	Operators		Cows Per	Lbs. 1	Labor & Mgt. Income Per	
of Education	Number	Percent	Farm	Per Cow	Per Worker	Operator
Under 40						
Less than 12	8	2%	59	13,800	374,500	-\$9,778
12	91	18	5 <b>9</b>	14,200	372,100	- 3,100
13 or more	121	23	84	14,400	453,600	- 2,817
40 to 49						
Less than 12	19	4	71	14,600	388,300	- 5,316
12	81	16	74	14,600	405,200	- 3,246
13 or more	59	11	93	15,200	435,100	- 4,821
50 & over						
Less than 12	23	4	87	14,300	404,600	2,179
12	72	14	74	14,300	363,200	- 5,944
13 or more	42	8	98	14,400	444,400	- 8,619

Table 43.	OPERATOR'S	AGE	AND	EDUCATION	AND	RELATED	FACTORS
	51	l6 Ne	w Yo	ork Dairy	Farms	<b>5,</b> 1981	

The amount of formal education has increased over the years, therefore, the younger farmers have more years of education. Fifty-five percent of the 220 operators under 40 years of age have some college education, but, only 31 percent of the 37 farmers 50 years of age and older have had some college training. In the 40 to 49 year age group, 37 percent of the operators reported 13 or more years of formal education.

Farms owned by operators under age 40 showed a dramatic increase in herd size as years of education moved from 12 to 13 or more. This group of 121 young farmers also excels in labor efficiency, has the greatest capital investment, highest debt load, and lowest equity position.

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	<b>UL</b>			

## OPERATOR'S AGE AND EDUCATION AND FINANCIAL SITUATION 516 New York Dairy Farms, 1981

Operator's Age & Years of Education	Total Farm Inventory	Percent Equity	Farm Debt Per Cow	Percent Debt Payment is of Milk	Available For Debt & Living
Under 40					
Less than 12 12 13 or more	\$396,340 346,740 479,980	64% 56 53	\$2,500 2,600 2,800	29% 28 30	\$36,600 43,100 55,400
40 to 49					-
Less than 12 12 13 or more	432,710 436,900 539,730	58 65 69	2,600 2,200 1,900	34 24 22	51,900 54,100 65,800
50 & over			-		•
Less than 12 12 13 or more	520,870 446,480 554,900	76 77 74	1,400 1,500 1,600	18 20 21	65,400 50,100 70,100

#### Financial Situation

Table 46.

Each cooperator submits a financial statement as a part of the business record. A general summary is on pages 15 and 16. A simple comparison of the relationship debt per cow has to other business factors is reported here.

Farm Debt	Numbe	Number of		4ilk Sold	Labor & Management	
Per Cow	Farms	Cows	Per Cow	Per Worker	Income Per Operator	
None	23	53	15,000	340,100	<del>-</del> \$ 45	
\$ 1 to \$ 599	49	66	14,800	391,100	- 385	
600 to 1,199	73	95	14,800	444,800	- 833	
1,200 to 1,799	75	84	14,500	405,300	- 3,725	
1,800 to 2,399	92	80	14,500	421,100	- 4,619	
2,400 to 2,999	76	87	14,400	429,100	- 1,991	
3,000 to 3,599	72	77	14,200	408,400	- 10,786	
3,600 to 4,199	38	75	14,100	408,700	- 7,239	
4,200 to 4,799	32	69	14,600	401,900	- 3,955	
4,800 & over	23	57	14,300	350,600	- 13,118	

FARM DEBT PER COW AND LABOR AND MANAGEMENT INCOME Table 45. 553 New York Dairy Farms, 1981

Four percent of the farms reported no debt, and four percent reported debt per cow of \$4,800 or more. There appears to be little relationship between debt per cow and farm size, production, labor efficiency, or labor and management income. Farms with less than \$1,200 debt per cow had the best returns to labor and management and the best levels of milk output per cow.

FARM DEBT PER COW AND RELATED BUSINESS FACTORS

Farm Debt	Age of	Percent	Debt Pa	ayment	Available For
Per Cow	Operator	Equity	Per Cow	% Milk	Debts & Living
None	47	100%	\$ O	0%	\$42,900
\$ 1 to \$ 599	45	95	156	8	48,200
600 to 1,199	41	83	304	15	65,300
1,200 to 1,799	44	75	364	19	57,500
1,800 to 2,399	39	64	460	24	53,800
2,400 to 2,999	36	53	532	28	60,300
3,000 to 3,599	37	50	648	34	50,600
3,600 to 4,199	35	41	740	39	50,000
4,200 to 4,799	36	37	789	43	53,200
4,800 & over	33	34	1,029	50	44,700

Debt per cow has a close relationship to percent equity, debt payment, and cash available for family living and investment. The farms with the highest debt loads are owned by young operators with relatively low equities and high debt payment commitments.

On the average, the 165 dairyfarmers with \$3,000 or more debt per cow cannot meet their 1982 planned payment schedules.

The relationship of farm family equity (percent equity) to production, farm income, debt payments, and cash available for family living, is shown in Tables 47 and 48. Percent equity is determined by dividing the family net worth by total farm family assets.

PERCENT EQUITY AND LABOR AND MANAGEMENT INCOME 553 New York Dairy Farms, 1981

Percent Nu		Numbe	r of	Lbs. 1	Milk Sold	Labor & Management	
Equity*	•	Farms	Cows	Per Cow	Per Worker	Income Per Operator	
Less than	40%	76	80	14,000	418,100	-\$1,448	
40 to	49	68	69	14,000	397,800	- 5,508	
50 to	59	100	86	14,400	423,200	- 4,107	
60 to	69	87	80	14,500	398,400	- 6,522	
70 to	79	79	85	14,700	415,700	- 6,550	
80 to	89	66	86	14,900	440,100	- 3,483	
90 to	99	54	68	15,200	413,600	- 2,686	
1	.00	23	53	15,000	340,100	- 45	

\*Based on family net worth.

Seventy-six or 14 percent of the 553 farms had less than 40 percent equity and 26 percent reported less than 50 percent equity. The variation in milk output per cow and per worker was much greater within equity groups than it was between the average of each group. Equity appears to have little direct affect on labor and management income. One reason is the opportunity cost (nine percent) charged for using equity capital in the business.

Tab1	Le 4	48	•
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PERCENT EQUITY AND RELATED BUSINESS FACTORS 553 New York Dairy Farms, 1981

Percent	Age of	Debt	Debt Pa	yments	Available For	
Equity*	Operator	Per Cow	Per Cow	% Milk	Debt & Living	
Less than 40%	36	\$3,930	\$740	41%	\$52,265	
40 to 49	36	3,360	660	37	48,517	
50 to 59	37	2,760	560	29	60,235	
60 to 69	41	2,120	460	24	52,992	
70 to 79	45	1,530	370	19	54,721	
80 to 89	45	1,020	310	15	63,425	
90 to 99	49	420	180	9	53,327	
100	47	0	0	0	42,900	

\*Based on family net worth.

Percent equity has a strong relationship with debt payments and cash available for family living.

Farm operators with less than 60 percent equity have heavy debt commitments and on the average, will not be able to meet their 1982 debt commitments. The farmers with 70 percent or more equity appear to be in a relatively strong cash flow position.

### Cost of Producing Milk

The "farm unit" method is used here to compute cost of producing milk. Farm expenses include all costs except the operator's labor and management. Nonmilk receipts are deducted on the assumption they were produced at cost.

Table 49.

FAF	RM CO	OST	OF	PRODU	JCING	MILK
55 <b>3</b>	New	Yor	k I	Dairy	Farms	3, 1981

Item	Average	553 Farms	My Farm
Total cash farm expenses (p.10)	\$136,974		\$
Expansion livestock*	2,108		
Machinery depreciation	12,508		
Building depreciation	5,319		
Unpaid labor	1,606		
Interest on equity capital @ 9%	27,178		
TOTAL FARM EXPENSES	\$185,693		\$
Value operator's labor @ \$750/mo.	11,250		
TOTAL COST OF PRODUCTION (1)		\$196,943	\$
Total cash farm receipts (p.8)	\$174,110		\$
Less: Milk sales	156,043		
Nonmilk cash receipts	\$ 18,067		\$
Increase in feed & supplies	1,310		
Increase due to herd growth	4,947		
TOTAL OTHER INCOME (2)		24,324	·····
COST OF PRODUCING MILK (1 minus 2)		\$172,619	\$
Hundredweights of milk sold (p.18)	\$ 11,420		
COST OF PRODUCING CWT. MILK		\$15.12	\$\$
Management charge @ 5% cash receipts	\$8,706		\$
Management charge cwt. milk	76		¢
COST OF PRODUCING MILK WITH			A second and a s
MANAGEMENT CHARGE		\$15.88	\$

\*The change in dairy cattle inventory attributed to herd expansion and improved quality (page 6) is classified as a nonmilk receipt.

The cost of producing milk is shown in Table 49 with and without a charge for management included. The rational for including a management charge is presented at the top of page 37. The cost of producing milk, including the management fee, exceeded the price received by \$2.22 or 16 percent in 1981.

Table 50.	COST	OF	PRODUCING	MILK	AND	PRICES	RECEIVED,	1976-1981
			New	York	Stat	e Dairy	Farms	

	Value	Operator's	Cost/Cwt. Wi	th Management	Average Price
Year	Labor	Management*	Excluded	Included	Received
1976	\$6,000	\$5,162	\$ 9.87	\$10.42	\$ 9.90
1977	7,200	5,212	10.55	11.09	9.76
1978	7,800	5,862	10.74	11.34	10.51
1979	7,800	7,317	12.10	12.78	11.90
1980	9,000	7,787	13.67	14.39	12.81
1981	9,000	8,706	15.12	15.88	13.66

\*Estimated at five percent of cash receipts.

Farm expenses do not include any charge for management. The farm operator's labor is valued at hired worker rates. The management input is an important part of any business operation and is traditionally a part of the costs in business accounting. In this analysis, a management charge was computed on the basis of five percent of the cash receipts. In some areas, management services are provided for absentee owners on the basis of five to eight percent of the receipts. The management charge amounted to an average of 76 cents per hundredweight of milk.

	Cost/Cwt. Wit	th Management	Average
Number of Cows	Excluded	Included	Price Received
Under 40	\$16.67	\$17.42	\$13.57
40 to 54	16.17	16.92	13.50
55 to 69	15.05	15.81	13.66
70 to 84	15.30	16.06	13.66
85 to 99	15.29	16.08	13.87
100 to 114	15.10	15.87	13.77
115 to 129	15.52	16.29	13.76
130 to 149	14.90	15.65	13.49
150 & over	14.04	14.81	13.70

Table 51.FARM COST OF PRODUCING MILK BY HERD SIZE553 New York Dairy Farms, 1981

Size is an important factor in the analysis of farm businesses. The costs of producing milk were computed for nine herd size groups (Table 51). In general, the larger herds had lower costs. The average cost excluding management was \$16.67 for herds with under 40 cows, while it was \$14.04 for those with 150 and more cows, or a difference of \$2.63 per hundredweight.

The level of milk production is closely related to the cost of producing milk as indicated by the data in Table 52. Farms selling less than 10,000 pounds of milk per cow had an average cost of production (excluding management) of \$18.50, while those selling 15,000 pounds and over averaged approximately \$14.30 for a difference of \$4.20 per hundredweight.

Table	52.	FARM	COST	OF	PROI	DUCING	; MILK	BY	MILK	SOLD	PER	COW
			5	553	New	York	Dairy	Fa	rms.	1981		

Pounds of Milk	Cost Per Cwt. N	With Management	
Sold Per Cow	Excluded	Included	Average Price Received
Under 11,000	\$18.50	\$19.27	\$13.94
11,000 to 11,999	16.23	17.00	13.95
12,000 to 12,999	16.69	17.45	13.66
13,000 to 13,999	15.58	16.35	13.81
14,000 to 14,999	15.16	15.92	13.60
15,000 to 15,999	14.42	15.18	13.58
16,000 to 16,999	14.37	15.14	13.71
17,000 to 17,999	14.27	15.02	13.53
18,000 & over	14.10	14.85	13.55

Table 53.

## FARM BUSINESS SUMMARY BY HERD SIZE 553 New York Dairy Farms, 1981

· · ·	Farms with:						
	Less than	40 to	55 to	70 to			
Item	40 cows	54 cows	69 cows	84 cows			
Lapital investment (end of year)	e 52 371	e 75 220	¢ 95 724	\$118 244			
	3 J2, J71	\$ 75,220 16 472	24 160	32 895			
reed a supplies	3,201 42 623	50 011	76 336	90,171			
Machinery & equipment	42,023	151 006	170,330	226 394			
Land & Dulldings	$\frac{114,121}{0019,076}$	<u>c202</u> 700	6366 953	\$467 704			
IUIAL INVESIMENT	\$210,570	3302,733	Ş300,933	9407 <b>,</b> 704			
Receipts	A 62 279	A 99 345	6121 644	6151 338			
	\$ 02,370 / 210	₹ 00,34J € 217	ξ121,044 7 00/	10 766			
Dairy cattle sold	4,510	0,317	1 070	1 059			
Other livestock sales	1,413	1,735	1,570	1,550			
Crop sales	540 701	1 21 2	2 2/9	2 0/1			
miscellaneous receipts	791	$\frac{1,312}{0.09.447}$	<u>2,240</u>	$\frac{2,041}{6167,554}$			
Total Cash Receipts	\$ 09,232 0 096	3 <b>30,44</b> 7	ş134,071 6 996	3107,JJ4 / 597			
Increase in fivestock	2,220	2, 340	4,220	7,527			
Increase in reed & supplies	1 260	5 027	7,073				
TOTAL EADM DECEIDES	÷ 72 663	$\frac{5,327}{6107,069}$	$\frac{7,093}{61/7,309}$	6179 591			
TOTAL FARM RECEIPID	\$ 72,003 \$ 71 / 23	\$107,009	\$147,303	\$179,391			
FURDERED	Ş /1,425	ŞIUI, 142	Ş140 <b>,</b> 210	91/2,114			
Hired labor	\$ 2.262	\$ 4 242	\$ 7.009	¢ 11 709			
Defaur food	\$ 2,202 18 560	5 4,242 26 410	30,201	37 229			
Other feed	10,000	24,413 647	774	1 000			
Maabina bira	/42	897	1 350	1 310			
Machine Hile	2 4 5 9	4 013	5 013	8 180			
Auto ornonco (form charo)	2,433	4,015	<i>J</i> , <i>J</i> J	432			
Gee & of 1	2 660	4 045	5 453	6 706			
Poplacement animals	1 307	1 703	2,455	1 722			
Breading food	918	1 108	1 740	1 919			
Veterinery & medicine	1 1 9 4	1 797	2 421	2,821			
Milk marketing	1 753	2 628	3 329	4 858			
Ather livectock expense	2 167	3 242	4 780	5 356			
Fertilizer & lime	2,107	3,242	6 286	8,550			
Seede & nlente	721	1 330	2,023	2 449			
Spray & other crop expense	550	1,000	1 607	2,449			
Land bldg, fence repair	964	1 425	1 996	2,075			
Taxes & insurance	3 005	4 165	4 847	4 200			
Electricity & phone (farm share)	2 171	2 367	2 946	2,804			
Interest naid	6 728	9 740	12 460	3,871			
Miscellaneous expenses	1,465	3,096	3,728	4,920			
Total Cash Expenses	\$ 52 899	\$ 76 160	\$102 209	\$130 617			
Expansion livestock	891	713	1 723	1 234			
Machinery depreciation	5 965	8 147	10,268	12 494			
Building depreciation	1 534	2,861	4 048	5 375			
Unnaid family labor	1 610	2,001	2 073	1 264			
Interest on equity 0 9%	13,125	18,195	21,364	27 841			
TOTAL FARM EXPENSES	\$ 76,024	\$108 191	\$141 685	\$178 825			
Financial Summary	φ /0 <b>,</b> 024	<i>v</i> 100,171	<b>9141,00</b>	<i><b>Q</b>170,025</i>			
NET CASH FARM INCOME	\$ 16.333	\$ 22.287	\$ 32,662	\$ 36,937			
Labor & Management Income	\$ -4,601	\$ -7.049	\$ -1.469	\$ -6.711			
Number of Operators	1.07	1.16	1.22	1.27			
LABOR & MGT. INCOME/OPER.	\$ -4.300	\$ -6.077	\$ -1.204	\$ -5.284			
LABOR, MGT. & OWNSHP. INC./OPER.	\$ 9,125	\$ 14,718	\$ 22,121	\$ 22,525			

Table 53

continued

FARM BUSINESS SUMMARY BY HERD SIZE

553 New York Dairy Farms, 1981

· · · · · · · · · · · · · · · · · · ·	-	Farms with:				
	85 to	100 to	115 to	130 to	150 or	
Item	99 cows	114 cows	129 cows	149 cows	more cows	
Conital Investment (and of we						
Livesteek	45) 01/6 703	0165 777	6170 626	A215 066	e 212 010	
Food & guppling	3140,703	\$10 <b>5,</b> 777	Ş170,424 55 663	\$213,000	5 512,010 08 76/	
Machinery & caudement	105 101	41,771	101 005	150 640	102 606	
Machinery & equipment	105,131	112,020	121,923	150,040	183,404	
Land & Duildings	$\frac{257,713}{6569,612}$	209,002	$\frac{302,713}{6650,725}$	341,352	504,471	
TOTAL INVESTMENT	\$340,413	\$590,250	\$050,725	\$113,303	\$1,099,449	
Kecelpts Mill and a	A100 0/0	AA17 517	AAAA A/7	A00/ 07/	ALOC LCO	
Milk sales	\$182,249	\$217,517	\$232,247	\$284,274	\$420,409	
Dairy cattle sold	14,0/1	14,/82	14,947	18,041	31,330	
Uther livestock sales	3,944	5,842	4,900	3,804	5,455	
Crop sales	2,858	3,640	3,612	3,319	5,938	
Miscellaneous receipts	3,262	2,897	$\frac{5,757}{1000}$	4,253	0,209	
Total Cash Receipts	\$206,984	\$244,678	\$261,463	\$314,551	\$4/0,45/	
Increase in livestock	3,455	3,600	7,395	(4,3/8)	20,746	
Increase in feed & supplies	2,936	(2,978)	(1,166)	(450)	11,319	
Appreciation	11,775	8,938	13,937	22,536	20,869	
TOTAL FARM RECEIPTS	\$225,150	\$254,238	\$281,629	\$332,259	\$529,391	
TOT. FARM REC. EXCL. APPREC	•\$213,375	\$245,300	\$267,692	\$337,087	\$508,522	
Expenses	* 15 / 50	+ 10 000	+ 00 57/			
hired labor	\$ 15,450	\$ 18,923	\$ 29,576	\$ 34,543	\$ 53,791	
Dairy feed	46,227	57,012	60,101	/4,456	105,499	
Other feed	1,155	2,820	2,410	1,207	3,079	
Machine hire	1,324	1,690	1,649	1,710	4,031	
Machinery repair	9,950	9,545	13,826	16,272	21,866	
Auto expense (farm share)	715	371	472	339	482	
Gas & oil	9,187	10,169	12,324	12,216	18,436	
Replacement animals	1,455	7,070	3,599	1,931	5,739	
Breeding fees	2,406	3,006	2,882	3,323	5,592	
Veterinary & medicine	3,576	4,223	4,965	5,563	10,124	
Milk marketing	5,024	6,339	8,431	7,124	12,178	
Other livestock expense	6,777	6,293	8,996	7,977	14,833	
Fertilizer & lime	11,110	11,761	13,292	15,077	23,925	
Seeds & plants	3,384	3,163	4,370	6,633	7,407	
Spray & other crop expense	2,639	4,030	4,534	6,450	7,053	
Land, bldg., fence repair	3,136	2,714	3,790	4,007	6,515	
Taxes & insurance	8,248	8,630	10,222	9,794	15,986	
Elec. & phone (farm share)	4,604	4,553	5,528	5,426	8,048	
Interest paid	17,768	23,224	25,594	30,506	43,001	
Miscellaneous expenses	<u> </u>	9,472	<u> </u>	5,178	14,860	
Total Cash Expenses	\$159,688	\$195,008	\$223,157	\$249,732	\$382,445	
Expansion livestock	2,232	1,056	1,673	1,666	10,357	
Machinery depreciation	14,583	15,239	17,254	19,083	31,290	
Building depreciation	6,779	6,442	9,105	10,893	14,892	
Unpaid family labor	1,934	962	660	313	760	
Interest on equity @ 9%	33,521	34,788	34,761	44,763	65,653	
TOTAL FARM EXPENSES	\$218,737	\$253,475	\$286,610	\$326,450	\$505,397	
Financial Summary						
NET CASH FARM INCOME	\$ 47,296	\$ 49,670	\$ 38,306	\$ 64,819	\$ 94,012	
Labor & Management Income	\$ -5,362	\$ -8,175	\$-18,918	\$-16,727	\$ 3,125	
Number of Operators	1.47	1.44	1.21	1.42	1.54	
LABOR & MGT. INCOME/OPER.	\$ -3,648	-5,677	\$-15,635	\$-11,780	\$ 2,029	
LABOR, MGT. & OWNSHP. INC./OP	.\$ 27,166	\$ 24,688	\$ 24.612	\$ 35.614	\$ 58.212	
• •	-	· •	· · ·	• • •		

Table 54.

## SELECTED BUSINESS FACTORS BY HERD SIZE 553 New York Dairy Farms, 1981

	Farms with:				
	Less than	40 to	55 to	70 to	
Item	40 cows	54 cows	69 cows	84 cows	
Number of farms	82	130	110	74	
Size of Business					
Number of cows	34	47	61	77	
Number of heifers	26	35	43	59	
Pounds of milk sold	459,600	654,500	890,800	1,107,800	
Worker equivalent	1.58	2.08	2.33	2.75	
Total work units	375	528	669	858	
Total tillable acres	121	177	206	264	
(Tillable acres rented)	(31)	(46)	(66)	(86)	
Rates of Production					
Milk sold per cow	13,518	13,926	14,603	14.387	
Tons hav crop per acre	1.8	2.2	2.5	2.7	
Tons corn silage per acre	13.2	13.6	14.3	14.1	
Bushels of oats per acre	33.8	51.9	48.5	48.9	
Labor Efficiency					
Cows per worker	22	23	26	28	
Pounds milk sold per worker	290.886	314,663	382.318	402.836	
Work units per worker	237	254	287	312	
Feed Costs					
Feed purchased per cow	\$546	\$520	\$495	\$483	
Crop expense per cow	\$104	\$133	\$163	\$169	
Feed cost per cwt. milk	\$4.04	\$3.73	\$3.39	\$3.36	
Feed & crop exp. per cwt. milk	\$4.81	\$4.69	\$ <b>4</b> •50	\$4 <b>.</b> 53	
% feed is of milk receipts	30%	28%	25%	25%	
Hay equivalent per cow	6.7	7.9	7.7	8.0	
Tillable acres per cow	3.6	3.8	3.4	3.4	
Fertilizer & lime per crop acre	\$19	\$22	\$31	\$32	
Machinery & Labor Costs					
Total machinery costs	\$15,686	\$ <b>22,</b> 504	\$29,974	\$36,870	
Machinery cost per cow	\$461	\$479	\$491	\$479	
Machinery cost per cwt. milk	\$3.41	\$3.44	\$3.36	\$3.33	
Labor cost per cow	\$397	\$357	\$328	\$317	
Labor cost per cwt. milk	\$2.94	\$2.56	\$2.25	\$2.20	
Capital Efficiency					
Investment per worker	\$138,213	\$145,576	\$157,491	\$170,074	
Investment per cow	\$6,066	\$6,443	\$5,825	\$5,920	
Investment per cwt. milk	\$48	\$46	<b>\$41</b>	\$42	
Land & buildings per cow	\$3,170	\$3,084	\$2,710	\$2,866	
Machinery investment per cow	\$1,254	\$1,223	\$1,212	\$1,141	
Capital turnover	3.0	2.8	2.5	2.6	
Other					
Price per cwt. milk sold	\$13.57	\$13.50	\$13.66	\$13.66	
Acres hay crops	80	107	108	137	
Acres corn silage	17	28	40	51	

Table 54 continued

.

SELECTED BUSINESS FACTORS BY HERD SIZE

553 New York Dairy Farms, 1981

			Farms wi	th:	
	85 to	100 to	115 to	130 to	150 or
Item	99 cows	114 cows	129 cows	149 cows	more cows
Number of farms	38	26	25	16	52
Size of Business					
Number of cows	90	106	121	139	208
Number of heifers	70	78	94	105	158
Pounds of milk sold	,313,900	1,580,200	1,688,400	2,106,600	3,113,000
Worker equivalent	3.25	3.42	3.92	4.17	5.58
Total work units	1,013	1,150	1,358	1,524	2,256
Total tillable acres	309	312	384	440	585
(Tillable acres rented)	(85)	(125)	(147)	(146)	(210)
Rates of Production					
Milk sold per cow	14,599	14,908	13,954	15,155	14,966
Tons hay crop per acre	2.7	2.7	2.7	2.9	2.9
Tons corn silage per acre	15.3	15.0	14.9	16.1	16.1
Bushels of oats per acre	52.1	69.0	50.1	62.1	58.7
Labor Efficiency					
Cows per worker	28	31	31	33	37
Pounds milk sold per worker	404,277	462,047	430,714	505,180	557,885
Work units per worker	312	336	346	365	404
Feed Costs					
Feed purchased per cow	\$514	\$5 <b>3</b> 8	\$4 <b>9</b> 7	\$536	\$5 <b>07</b>
Crop expense per cow	\$190	\$1 <b>7</b> 9	\$183	\$203	\$185
Feed cost per cwt. milk	\$3.52	\$3.61	\$3.56	\$3.53	\$3.39
Feed & crop exp. per cwt. mil	lk \$4.82	\$4.81	\$4.87	\$4.87	\$4.62
% feed is of milk receipts	257	۶۵۶ کا ۲۶	د 26% م	5 267	5 <u>2</u> 5%
Tillable cares per co	₩ 8.4	7.5	8.3	7.9	7.0
Fertilizer & lime per crop av	J.4	2•9 ¢38	3.2	634	\$41
Machinery & Lober Costa	JIE - \$50	\$ <b>90</b>	<b>C</b> CÇ	÷CÇ	ŶŦŦ
Total machinery easts	61.1. 61.1.	¢46 714	055 701	662 50%	01 622
Machinery cost per cov	344,044 ¢/06	540,714 ¢7/1	\$22,791 ¢461	\$02,394 ¢450	\$91,022
Machinery cost per cwt. milk	\$490	\$2.96	\$401	\$2,97	\$2,94
Labor cost per cow	\$340	\$310	\$340	\$343	\$329
Labor cost per cwt. milk	\$2.33	\$2.08	\$2.44	\$2.26	\$2.20
Capital Efficiency	·		·	·	·
Investment per worker	\$168.742	\$172.588	\$166.001	\$185,507	\$197.034
Investment per cow	\$5,961	\$5,366	\$5,164	\$5,298	\$5,211
Investment per cwt. milk	\$42	\$35	\$39	\$37	\$35
Land & buildings per cow	\$2,801	\$2,453	\$2,402	\$2,341	\$2,391
Machinery investment per cow	\$1,143	\$1,024	\$968	\$1,032	\$86 <b>9</b>
Capital turnover	2.4	2.3	2.3	2.3	2.1
Other					
Price per cwt. milk sold	\$13.87	\$13.77	\$13.76	\$13.49	\$13.70
Acres hay crops	157	153	173	195	248
Acres corn silage	58	69	103	97	164

Table 55

FARM FAMILY FINANCIAL SITUATION BY HERD SIZE 553 New York Dairy Farms, January 1, 1982

			Farms wi	th:	
	Less than	40 to	55 to	70 to	85 to
Item	40 cows	54 cows	69 cows	84 cows	99 cows
Number of farms	82	130	110	74	38
Assets					
Livestock	\$ 52,371	\$ 75,220	\$ 95,724	\$118,244	\$146,783
Feed & supplies	9,261	16,572	24,160	32,895	38,786
Machinery & equipment	42,623	59,911	76,336	90,171	105,131
Land & buildings	114,121	151,096	170,733	226, 394	257,713
Co-op investment	1,321	3,838	3,375	6,380	5,264
Accounts receivable	4,876	6,810	11,045	12,316	15,753
Cash & checking accounts	1,164	2,046	2,220	3,132	2,890
Total Farm Assets	\$225,737	\$315,493	\$383,593	\$489,532	\$572,320
Savings accounts	3,255	2,374	2,578	4,223	3,567
Cash value life insurance	1,894	2,306	2,464	2,326	2,243
Stocks & bonds	1,440	1,377	1,755	3,655	1,121
Nonfarm real state	2,177	2,444	8,011	3,670	5,592
Auto (personal share)	1,221	1,282	1,641	1,654	2,157
All other	6,178	5,068	4,604	5,745	7,290
Total Nonfarm Assets	\$ 16,165	\$ 14,851	\$ 21,053	\$ 21,273	\$ 21,970
TOTAL ASSETS	\$241,902	\$330,344	\$404,646	\$510,805	\$594,290
Liabilities					
Real estate mortgage	\$ 45,107	\$ 60,018	\$ 80,703	\$105,055	\$113,429
Liens on cattle & equipment	23,393	32,022	47,212	49,371	64,972
Installment contracts	2,432	3,779	5,395	8,459	4,979
Other loans over 10 years	2,518	10,297	2,425	4,160	2,605
Other loans 1 to 10 years	2,158	2,366	4,477	6,319	6,611
Other loans less than 1 year	1,680	1,423	2,228	1,464	2,074
Feed store & other accounts	2,614	3,423	3,776	5,358	5,190
Total Farm Liabilities	\$ 79,902	\$113,328	\$146,219	\$180,186	\$199,860
Total Nonfarm Liabilities	676	365	390	264	1,342
TOTAL LIABILITIES	\$ 80,578	\$113,693	\$146,219	\$180,450	\$201,202
Farm Net Worth (Eq. Cap.)	\$145,835	\$202,165	\$237,374	\$309,346	\$372,460
FAMILY NET WORTH	\$161,324	\$216,651	\$258,037	\$330,355	\$393,088
Financial Measures					
Percent equity	67%	66%	64%	65%	66%
Farm debt per cow	\$2,220	\$2,313	\$2,321	\$2,281	\$2,172
Available for debt service					
& living	\$24,730	\$33,275	\$46,030	\$54,038	\$65,197
Scheduled annual debt payment	t \$16,167	\$23,951	\$31,547	\$37,419	\$40,826
Scheduled debt payments/cow	\$434	\$47 <b>9</b>	\$496	\$472	\$434
Payment as % of milk check	25%	27%	26%	25%	22%
Debt/Asset ratio - long term	0.42	0.47	0.49	0.48	0.45
Debt/Asset ratio - intermedia	ate 0.28	0.25	0.29	0.26	0.25
Cash flow coverage ratio	0.72	0.76	0.92	0.94	1.05

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Table	55
cont	inued

FARM FAMILY FINANCIAL SITUATION BY HERD SIZE 553 New York Dairy Farms, January 1, 1982

		222	New	IOLK	Dairy	Farms,	January	г,	1982	
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	Farms with:				
_	100 to	115 to	130 to	150 or	
Item	114 cows	129 cows	149 cows	more cows	
Number of farms	26	25	16	52	
Assets					
Livestock	\$165,777	\$170,424	\$215,066	\$ 312,810	
Feed & supplies	41,971	55,663	66,107	98,764	
Machinery & equipment	112,620	121,925	150,640	183,404	
Land & buildings	269,882	302,713	341,752	504,471	
Co-op investment	7,353	10,893	12,207	17,021	
Accounts receivable	19,073	19,110	25,115	37,577	
Cash & checking accounts	2,190	1,833	2,474	3,803	
Total Farm Assets	\$618,866	\$682,561	\$813,361	\$1,157,850	
Savings accounts	6,020	5,710	7,242	2,550	
Cash value life insurance	3,117	6,255	6,592	4,923	
Stocks & bonds	4,241	6,827	3,388	6,634	
Nonfarm real state	2,692	9,866	19,813	8,184	
Auto (personal share)	656	1,638	2,181	1,987	
All other	3,439	7,350	8,000	5,709	
lotal Nonfarm Assets	\$ 20,165	\$ 37,546	\$ 47,216	ş 29,987	
TOTAL ASSETS	\$639,031	\$720,107	\$860,577	\$1,187,837	
Liabilities					
Real estate mortgage	\$119,203	\$169,160	\$159,605	\$200,187	
Liens on cattle & equipment	77,937	92,350	80,407	161,000	
Installment contracts	20,229	15,710	15,709	8,454	
Other loans over 10 years	642	4,635	34,847	26,495	
Other loans 1 to 10 years	5,429	5,268	11,044	7,683	
Other loans less than 1 year	4,212	3,610	3,241	15,727	
Feed store & other accounts	4,682	7,591	11,145	8,827	
Total Farm Liabilities	\$232,334	\$296,324	\$315,998	\$428,373	
Total Nonfarm Liabilities	44	42	5,438	3,445	
TOTAL LIABILITIES	\$232,378	\$296,366	\$321,436	\$431,818	
Farm Net Worth (Equity Cap.)	\$386,532	\$386,237	\$497,363	\$729,477	
FAMILY NET WORTH	\$406,653	\$423,741	\$539,141	\$756,019	
Financial Measures					
Percent equity	64%	5 <b>9</b> %	63%	64%	
Farm debt per cow	\$2,112	\$2,352	\$2,164	\$2,030	
Available for debt service					
& living	\$73,017	\$65 <b>,9</b> 60	\$ <b>96,7</b> 50	\$139,223	
Scheduled annual debt payment	\$54,285	\$61,515	\$65,379	\$98,993	
Scheduled debt payments/cow	\$493	\$488	\$445	\$466	
rayment as % of milk check	25%	26%	23%	23%	
Debt/Asset ratio - long term	0.44	0.57	0.57	0.45	
Debt/Asset ratio - intermediate	0.31	0.31	0.25	0.30	
Cash flow coverage ratio	0.91	0.71	1.08	1.06	

· · · · · · · · · · · · · · · · · · ·	Herd Size (number of cows)					
Item	Under 55	55-69	70-99	100-149	150 & Over	
Number of farms						
Freestall	9	17	48	48	49	
Other	203	92	64	19	3	
Number of workers						
Freestall	2.2	2.5	2.8	3.8	5.6	
Other	1.8	2.3	3.0	3.8	4.4	
Land & bldgs, per cow						
Freestall	\$2,767	\$2,417	\$2,813	\$2,434	\$2,385	
Other	\$3,177	\$2,780	\$2,855	\$2,294	\$2,331	
Tons hav arong por some			, ,			
Ereestall	2.0	2 /	2 0	27	2 0	
Other	2.1	2.5	2.5	2.9	2.5	
	~ • I	2.05	2.0	2	2.5	
Lbs. milk sold per cow		15 1/0	1/ 107			
freestall Other	14,64/	15,160	14,18/	14,767	14,948	
Uther	13,6/1	14,456	14,590	14,093	15,472	
Lbs. milk sold/worker						
Freestall	317,235	375,960	421,095	470,392	565,233	
Other	313,770	378,455	389,067	428,427	553,054	
Labor cost per cow						
Freestall	\$404	\$332	\$308	\$329	\$329	
Other	\$365	\$327	\$337	\$333	\$315	
Machinery cost per cow						
Freestall	\$508	\$508	\$490	\$468	\$435	
Other	\$469	\$487	\$478	\$402	\$570	
Veterinary cost por con	·		·	•	1	
Freestall	628	636	¢ 37	641	640	
Other	\$37	\$40	\$38	\$41	\$45 \$38	
Food 6 amon and 4	<i>4</i> – 1	<i>ų</i> ,,,	<b>4</b> 50	<i>401</i>	çso	
Freed & crop expense/cow	6740	4710	A ( 7 (	4710		
Other	\$74Z \$663	\$/1Z \$646	\$6/6	\$/19	\$694 ¢640	
	3040	Ş040	<b>Ş004</b>	\$077	Ş049	
Debt per cow	+1 050					
Freestall Other	\$1,850	\$1,986	\$2,202	\$2,305	\$2,025	
other	\$2,341	\$2,397	\$2,263	\$1,955	\$1,990	
Labor & management income						
per operator	\$-2,920	\$2,341	\$-4,557	\$-12,070	\$2,287	
Freestall	\$ <b>-</b> 5,550	\$-1,908	\$-4,750	\$-7,074	\$-1,126	
Uther						

Table 56.COMPARISON OF FARMS BY TYPE OF BARN AND HERD SIZE553 New York Dairy Farms, 1981

A total of 123 of the 553 farms in this study reported having freestall barns. A comparison has been made by size of herd and type of barn for selected business factors.

Table 57.SELECTED BUSINESS FACTORS BY MILKING SYSTEMS553 New York Dairy Farms, 1981

	Bucket	-,,		Herring-	
	and	Dumping	Pine-	bone	Other
Item	Carry	Station	line	Parlor	Parlors
Number of farms	11	115	253	152	22
Percent of farms	2%	21%	46%	27%	4%
Capital Investment (end of yea	r)				
Idvestock	ć 40 122	¢ 67 999	¢101 7/0	¢105 3/1	\$150 342
Food & supplies	5 49,122 10 658	\$ 07,222 13 130	25 834	59.011	46,494
Machinery & equipment	33 864	48 095	78,322	134,076	98,779
Land & buildings	119,121	130,220	188,675	335,241	256,163
TOTAL INVESTMENT	\$212,765	\$258,667	\$394,571	\$723,669	\$560,778
Financial Summary	, , ,				
Total farm recolate	A63 206	CO0 750	0165 700	¢306 071	\$243 065
Total farm expenses	\$03,200 66 645	303,733 0/ 207	314J,722	311 850	246 894
iotal laim expenses	00,045	34,237	151,550		240,004
Labor & Management Income	\$-3,439	\$ <b>-</b> 4,538	\$ -5,616	ş —5,788	ş <b>-</b> 3,829
Number of operators	1.0	1.2	1.2	1.4	1.2
LABOR & MANAGEMENT INCOME	A 2 / 20	A 2 0/C	A 1 566	A 4 225	A _3 301
PER OPERATOR	\$-3,439	Ş-3,840	Ş <b>-</b> 4,300	\$ -4,225	\$ -3,301
Size of Business					
Number of cows	32	46	63	130	98
Number of heifers	25	33	48	98	/6
Pounds of milk sold	399,600	586,700	927,300	1,920,100	1,509,200
worker equivalent	1./	2.1	2.0	3.8	3.0 31/
Crop acres	1/8	10/	212	397	514
Kates of Production					
Milk sold per cow (lbs.)	12,488	12,754	14,719	14,770	15,400
Tons hay crops per acre	1.7	2.0	2.6	2.8	2.6
Tons corn silage per acre	10.5	12.7	14.7	15.7	14.2
Labor Efficiency					
Cows per worker	19	22	25	34	27
Lbs. milk sold per worker	239,281	282,067	370,920	501,332	421,564
Costs					
Feed purchased per cow	\$380	\$497	\$507	\$515	\$546
% feed is of milk receipts	2.3%	29%	25%	265	κ 25%
Machinery cost per cow	\$423	\$410	\$497	\$459	\$463
Labor cost per cow	\$402	\$356	\$336	\$328	\$369
Capital Efficiency					
Investment per worker	\$127.404	\$124.359	\$157.828	\$188.948	\$156.642
Investment per cow	\$6.447	\$5,504	\$6.070	\$5.401	\$5,498
Land & buildings per cow	\$3.610	\$2.771	\$2,903	\$2,502	\$2,511
Machinery investment per cow	\$1,026	\$1,023	\$1,205	\$1,001	\$968
Other	· •		· -	· •	
Price per cwt. milk sold	\$13.38	\$13.55	\$13.69	\$13.64	\$13.93
The bes cuc. WITH BOID	413.30	φ <b>τ</b> υ <b>•</b> υυ	Y 4 9 8 0 9	410.04	~~~~~~~~

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Table 58.

FARM BUSINESS SUMMARIES FOR INDIVIDUALS, PARTNERSHIPS, AND CORPORATIONS 553 New York Dairy Farms, 1981

			-					
<b>T</b> .			A	verages fo	or:	100		
ltem	431 Ind	ividuals	112 Part	nerships		10 Corpo	ora	tions
CAPITAL INVESTMENT	1/1/81	1/1/82	1/1/81	1/1/82	1	/1/81		1/1/82
Livestock	\$106,198	\$108,157	\$155,865	\$161,331	\$	247,062	\$	252,384
Feed & supplies	27,115	27,980	43,796	46,604		83,921		87,685
Mach. & equipment	71,561	80,104	95,398	106,575		170,154		181,045
Land & buildings	182,051	192,721	259,102	284,432		542,832		569,320
TOTAL INVESTMENT	\$386,925	\$408,962	\$554,161	\$598,942	\$1,	043,969	\$1	,090,434
EXPENSES								
Hired Labor Feed	\$ 12,	524	\$ 15 <b>,</b>	731		\$ 38	3,2	99
Dairy concentrate	35,	988	54,	540		57	7,2	94
Hay & other	1.	092	1,	527		•	1,9	83
Machinery	,		,					
Machine hire	1,	261	1,	911			7	45
Machinery repair	6,	790	10,	776		22	1,4	95
Auto expense	-	443	-	436			6	04
Gas & oil	6,	319	9,	301		15	5,0	61
Livestock								
Replacement livestoc	k 2,	568	2,	963			9	30
Breeding fees	1,	774	2,	973		L	4,0	81
Veterinary & medicin	e 2,	761	4,	703		-	7,4	93
Milk marketing	4,	145	5,	919		-	7,5	41
Other livestock expe	nse 4,	826	7,	958		9	9,5	18
Crops	_							
fertilizer & lime	7,	023	11,	771		21	1,4	62
Seeds & plants	2,	250	3,	608			7,3	11
Spray & other	1,	829	3,	304		13	3,5	77
Keal Estate							_ ,	
Tauca	epair 2,	180	3,	282			5,4	08
Thourse	<u>ک</u>	462	5,	000		17	2,3	09
Rent	<i>Z</i> ,	2/2	J,	469			1,5	88
Other	۷,	202	з,	//4		e e	5,2	20
Telephone (farm shar	e)	554		557			0	24
Elec. (farm share)	2	812	4	043			5 9 5 9	24 50
Interest paid	14	528	21	871		3(	י, י ר ז	50
Miscellaneous	2	075	21 <b>,</b> 2	935			ן, ן קין	84
Total Cash Expenses	<u> </u>	779	\$182,	352		\$283	3,7	<u>63</u>
Expansion livestock	1	1.27		001				0
Machinery depressiont	11,	4J/ 183	4,	001 219		20	<u> </u>	0
Building depreciation	011 II, ~ /	105	10,	210		20	5,∪ 7 3	67
Unnaid labor (\$500/m	n 4,	247	/,	Z1Z 7/1		1.	/, 3 ?	50
Interest on farm our	0•) ⊥, 1tv	002		/ 41			2	
@ 9 percent	23.	882	35.	520		7	5.7	74
TOTAL FARM EXPENSES	<u></u> , ¢167	690	<u> </u>	924		<u> </u>	5 1	63
ALANI DAI MOLO	φ107 <b>,</b>	0.00	ې <b>۲</b> 40,	744		Ş40:	1,1	0.0

## Table 58 continued

FARM BUSINESS SUMMARIES FOR INDIVIDUALS, PARTNERSHIPS, AND CORPORATIONS 553 New York Dairy Farms, 1981

		Averages for	:
Item 74	31 Individuals	112 Partnerships	10 Corporations
RECEIPTS			
Milk sales	\$137,470	\$212,588	\$323,222
Crop sales	1,456	2,627	8,648
Dairy cattle sold	9,570	15,564	21,936
Livestock sales	2,277	4,149	7,842
Gas tax refund	214	363	753
Government payments	350	361	109
Custom machine work	195	309	159
Miscellaneous	1,416	2,169	6,427
Total Cash Receipts	\$152,948	\$238,130	\$369,096
Increase in livestock	3,990	8,434	7,140
Increase in feed & supplies	865	2,808	3,764
Appreciation	7,002	12,524	25,925
TOTAL FARM RECEIPTS	\$164,805	\$261,896	\$405,925
TOTAL FARM DECEMPTS	Ş104,005	<i>4201</i> ,000	Ç 103 <b>,</b> 2 = 2
EXCLUDING APPRECIATION	\$157,803	\$249,372	\$380,000
FINANCIAL SUMMARY			
Total Cash Receipts	\$152,948	\$238,130	\$369,096
Total Cash Expenses	121,779	182,352	283,763
NET CASH FARM INCOME	\$ 31,169	\$ 55,778	\$ 85,333
Total Farm Receipts			
Excluding Appreciation	\$157,803	\$249,372	\$380,000
Total Farm Expenses	164,690	\$246,924	\$405,163
LABOR & MGMT, INCOME PER FARM	\$ -6 887	\$ 2 448	¢-25 163
Number of Operators	458) 1 04	<i>3 2</i> ,440 <i>(223)</i> 1 08	(21) 2 03
LABOR & MGMT. INCOME PER OPER.	s -6.622	(223) 1.98 \$ 1.236	(21) 2.05 \$-12,396
BUSINESS FACTORS	+ -,	ų <b>-,</b>	·,
Worker equivalent	2.6	3 /	<i>k k</i>
Number of cows	70	104	162
Number of heifers	52	79	134
Acres of hay crops	124	154	215
Acres of corn silage	53	76	99
Total tillable acres	234	321	518
Pounds of milk sold	1,007,500	1,551,900	2.350.100
Pounds of milk sold per cow	14,393	14,922	14,507
Tons hay crops per acre	2.5	2.7	3.2
Tons corn silage per acre	14.5	15.9	17.1
Cows per worker	27	30	37
Lbs. of milk sold per worker	390,504	453,772	531,697
% feed is of milk receipts	26%	26%	18%
Feed & crop expense per cwt. mill	k \$4.67	\$4.72	\$4.24
Fertilizer & lime per crop acre	\$30	\$37	\$41
Machinery cost per cow	\$469	\$459	\$504
Average price per cwt. milk	\$13.64	\$13.70	\$13.75

Table 59. COMPARISON OF FARM BUSINESS SUMMARIES FOR 1980 & 1981 Same 416 New York Dairy Farms

Item	Average	es 1980	Averages	1981
CAPITAL INVESTMENT	1/1/80	1/1/81	1/1/81	1/1/82
Livestock	\$103,748	\$119.038	\$118,744	\$119,770
Feed & supplies	25,692	30,256	30,537	31,950
Machinery & equipment	68,155	78,293	78,392	87,168
Land & buildings	181,260	198,481	201,150	213,159
TOTAL INVESTMENT	\$378,855	\$426,068 <sup>1</sup>	\$428,823 <sup>1</sup>	\$452,047
EXPENSES				
Hired Labor	\$ 12	2,017	\$ 13,	661
Feed				
Dairy concentrate	37	7,668	40,	026
Hay & other	1	1,305	1,	246
Machinery		-	-	
Machine hire	1	,271	1,	422
Machinery repair	(	5,959	7,	720
Auto expense		414	·	459
Gas & oil	1	5,802	6,	931
Livestock		-	-	
Purchased animals	2	2,811	2,	560
Breeding fees	1	,767	2,	037
Veterinary & medicine	2	2,710	3,	110
Milk marketing		3,612	4,	262
Other livestock expense	1	5,087	5,	541
Crops			-	
Fertilizer & lime	-	7,252	7,	802
Seeds & plants	2	2,218	2,	550
Spray & other	1	l,762	2,	266
Real Estate				
Land, building, fence repair	2	2,363	2,	424
Taxes		3,332	3,	885
Insurance		2,466	2,	565
Rent	2	2,164	2,	589
Other				
Telephone (farm share)		492		563
Electricity (farm share)	2	2,517	3,	066
Interest paid	1:	2,269	15,	366
Miscellaneous		L,883	2,	263
Total Cash Expenses	\$120	0,141	\$134,	314
Expansion livestock	t	L,491	2,	009
Machinery depreciation	10	),946	12,	489
Building depreciation	4	4,433	5,	123
Unpaid labor @ \$500 per month	]	L,500	1,	502
Interest on farm equity @ 9%	26	5,223	27,	534
TOTAL FARM EXPENSES	\$164	4,734	\$182,	971

<sup>1</sup>Operators often make adjustments in values "between" years.

Table 59

continued COMPARISON OF FARM BUSINESS SUMMARIES FOR 1980 & 1981 Same 416 New York Dairy Farms

Item	Averages 1980	Averages 1981
RECEIPTS		
Milk sales	\$139,084	\$154,037
Crop sales	1,826	1,684
Dairy cattle sold	10,904	11,003
Livestock sales	2,855	2,818
Gas tax refund	139	225
Government payments	445	341
Custom machine work	172	215
Miscellaneous	1,414	1,461
Total Cash Receipts	\$156,839	\$171,784
Increase in livestock	6,112	3,826
Increase in feed & supplies	4,564	1,413
Appreciation	24,420	7,121
TOTAL FARM RECEIPTS	\$191,935	\$184,144
TOTAL FARM RECEIPTS		
EXCLUDING APPRECIATION	\$167,515	\$177,023
FINANCIAL SUMMARY		
Total Cash Receipts	\$156.839	\$171.784
Total Cash Expenses	120,141	134,314
NET CASH FARM INCOME	\$ 36,698	\$ 37,470
Total Farm Receipts	· · · · · · · ·	
Excluding Appreciation	\$167,515	\$177 023
Total Farm Expenses	164,734	182.971
LABOD & MONTH THOME DED HADM	<u> </u>	
LABOR & MGMI. INCOME PER FARM	\$ 2,/81	\$ - <b>0,948</b>
NUMBER OF OPERATORS	(337) 1.3	(337) 1.3
RUSINESS FACTORS	\$ 2,223	\$ -4,758
Worker equivalent	2.6	2 8
Number of cows	75	78
Number of beifers	57	60
Acres of hay crops	128	131
Acres of corn silage	60	57
Total tillable acres	244	254
Pounds of milk sold	1,087.300	1,129,200
Pounds of milk sold per cow	14,400	14,477
Tons hay crop dry matter per acre	2.5	2.5
Tons corn silage per acre	14.7	15.1
Cows per worker	29	28
Lbs. of milk sold per worker	421,400	410,618
% feed is of milk receipts	27%	26%
Feed & crop expense per cwt. milk	\$4.50	\$4.66
Fertilizer & lime per crop acre	\$30	\$31
Machinery cost per cow	\$426	\$468
Average price per cwt. milk	\$12.79	\$13.64

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Table 60.

SELECTED FARM BUSINESS SUMMARY FACTORS New York Dairy Farms, Selected Years, 1961-1981

	Year						
Item	1961	1971	1976	1981			
Number of farms	490	569	615	553			
Financial Summary							
Total capital investment	\$55,113	\$147,378	\$251,830	\$459,761			
Total farm receipts	\$22,505	\$64,682	\$108,876	\$188,829			
Total farm expenses*	\$18,811	\$55,173	\$99,037	\$185,693			
Labor & mgmt. income/operator	\$3,352	\$8,127	\$7,973	\$-4,261			
Size of Business							
Number of cows	38	67	71	79			
Pounds of milk sold	378,684	861,700	950,600	1,142,000			
Tillable acres	<b>9</b> 9	185	209	257			
Worker equivalent	1.8	2.2	2.5	2.75			
Total work units	516	729	784	869			
Rates of Production							
Milk sold per cow, 1bs.	9,970	12,900	13,400	14,500			
Tons hay crops/acre (dry matter	) 2.3	2.4	2.8	2.5			
Tons corn silage per acre	12	16	13	14.9			
Labor Efficiency							
Cows per worker	21	30	28	29			
Pounds milk sold per worker	210,380	391,700	380,240	415,300			
Work units per worker	287	331	314	309			
Cost Control Factors							
Machinery cost per cow	\$107	\$173	\$243	\$465			
Machinery cost per cwt. milk	\$1.07	\$1.34	\$1.82	\$3.22			
Feed bought per cow	\$125	\$194	\$363	\$508			
Feed bought per cwt. milk	\$1.25	\$1.51	\$2.71	\$3.51			
Feed & crop expense/cwt. milk	\$1.53	\$1.95	\$3.47	\$4.67			
% feed is of milk receipts	28%	24%	27%	26%			
Capital Efficiency							
Total investment per worker	\$30,618	\$69,680	\$105,258	\$167,186			
Total investment per cow	\$1,450	\$2,290	\$3,706	\$5,676			
Machinery investment per cow	\$291	\$478	\$694	\$1,078			
Land & buildings per cow	\$680	\$1,125	\$1,964	\$2,693			
Capital turnover (years)	2.4	2.4	2.4	2.4			
Other							
Price per cwt. milk	\$4.47	\$6.21	\$9.90	\$13.66			
Acres hay crops	/0	155	11/	131			
Acres corn silage	15	51	59				
Total tillable acres per cow	2.6	2.8	2.9	3.3			
rert. & lime exp./tillable acre	ş/	\$13	\$22	\$32			
Net cash tarm income per cow	\$204	\$319	\$36L	\$470			
Labor & mgmt. income per cow	<b>\$9</b> 7	\$14 <b>2</b>	\$138	Ş <b>-</b> 67			

\*Includes an interest charge on average farm capital of five percent in 1961, seven percent in 1971, interest paid, plus interest on equity capital at seven percent in 1976, and interest paid plus interest on equity capital at nine percent in 1981.

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Table 61.

BUSINESS SUMMARY OF FARMS WITH OVER 200 COWS 21 New York Dairy Farms, 1981

CAPITAL INVESTMENT			RECEIPTS	
	1/1/81	1/1/82	Milk sales	\$556,821
<b>.</b>	+ 00/ 107		Crop sales	11,257
Livestock	\$ 384,135	\$410,311	Dairy cattle sold	39, 598
Feed & supplies	115,528	134,062	Livestock sales	9,954
Machinery & equipment	nt 180,649	206,198	Gas tax refund	1,321
Land & buildings	615,525	681,462	Government navments	44
TOTAL INVESTMENT	\$1 295 835	\$1,432,033	Custom machine work	394
	Ŷ <b>I,2</b> //,0//	91,452,055	Miccollaneous	6 128
EXPENSES				0,120
Labor			TOTAL CASH RECEIPTS	\$625,517
Hired		\$ 76 939	Increase in livestock	37,340
Food		ų <i>10,535</i>	Increase in feed & supplies	18,534
Dairy concentrate		140 923	Appreciation	20,727
Hay & other		2 383	TOTAL FARM RECEIPTS	\$702 118
Machinery		2,000	TOTAL FARM DECEIPTS EXCLUDING	<i>vi02</i> ,110
Machine hire		4 801	APPRECIATION	\$6.81 3.91
Machinery repair		27 773	MI MOINTION	,,,,,,
Auto expense		593	RTNANCTAL SUMMARY	
Gas & ofl		23.065	TIMMOTAL DOMINAT	
Livertock		23,005	Total Cash Receipts	\$625,517
Replacement lives	tock	5 4 50	Total Cash Expenses	505,875
Breeding fees	LUCK	7,393	NET CASH FARM INCOME	\$119,642
Veteringry medic	Ine	15,020		<b>~~~,</b> ~ ~
Milk marketing		13,375	Total Farm Receipts Excluding	
Other livestock ex	vnense	18,736	Appreciation	\$681,391
Crops	npenoe	20,700	Total Farm Expenses	666,301
Lime & fortilizer		32 795	LABOR & MONT, INCOME PER FARM	\$ 15 090
Seeds & plants		9,410	Number of operators (3	1) 1.35
Spray & other		10,516	LABOR & MGMT, INCOME PER OPER.	\$ 11.178
Real Estate		10,510		ų 11 <b>,</b> 170
Land, building, for	ence repair	8,548	BUSINESS FACTORS	
Taxes		12,577		
Insurance		8,421	Worker equivalent	6.9
Rent		10,012	Number of cows	264
Other		•	Number of heifers	206
Telephone (farm sl	hare)	1,171	Acres of hay crops	270
Electricity (farm	share)	8,699	Acres of corn silage	228
Interest paid		60,143	Total tillable acres	728
Miscellaneous		7,132	Pounds of milk sold	4,079,900
			Pounds of milk sold per cow	15,454
TOTAL CASH EXP	ENSES	\$505,875	Tons hay crops per acre	3.0
<b>.</b>			Tons corn silage per acre	16.1
Expansion livesto	ck	22,038	Lbs. of milk sold per worker	589,581
Machinery deprecia	ation	37,576	Cows per worker	38
Building depreciat	tion	19,044	% feed is of milk receipts	25%
Unpaid labor		595	Feed & crop expense per cwt. mi	1k \$4.75
Interest on farm o	equity @ 9%	81,173	Fertilizer & lime/tillable acre	\$45
			Machinery cost per cow	\$421
TOTAL FARM EXP	ENSES	\$666,301	Average price per cwt. milk	\$13.65

Table 62.

FARM BUSINESS SUMMARY

	30 New Y	ork Dairy-Ca	ash Crop Farms,* 1981	
CAPITAL INVESTMENT		***************************************	RECEIPTS	
	1/1/81	1/1/82	Milk sales	\$172,459
<b>T</b> #	A101 0E7	<u></u>	Crop sales	37,032
Livestock	\$121,957	\$130,370	Dairy cattle sold	11,837
feed & supplies	57,874	53,335	Livestock sales	3,118
Machinery & equipment	121,093	137,294	Gas tax refund	231
Land & Duildings	290,412		Government payments	1,701
TOTAL INVESTMENT	\$597,938	\$655,359	Custom machine work Miscellaneous	609 3,623
EXPENSES			TOTAL CASH RECEIPTS	\$230,660
Labor			Inercess in livesteek	10 312
Hired		\$ 22,523	Increase in fivestock	(4 539)
Feed			Increase in feed a supplies	23 483
Dairy concentrate		30,444	Appreciation	
Hay & other		2,231	TOTAL FARM RECEIPTS	\$259,916
Machinery			TOTAL FARM RECEIPTS EXCLUDING	
Machine hire		4,695	APPRECIATION	\$236,433
Machinery repair		11,029		
Auto expense		346	FINANCIAL SUMMARY	
Gas & oil		10,705	Total Cash Receipts	\$230,660
Livestock			Total Cash Expenses	173 837
Replacement livesto	ck	2,413		à 56 000
Veterinary modicin	<u>^</u>	1,000	NET CASH FARM INCOME	\$ 50,825
Milk marketing	e	4,600	Total Farm Receipts Excluding	
Other livestock exp	aneo	6 294	Appreciation	\$236,433
Crops	ense	0,204	Total Farm Expenses	246,193
Lime & fertilizer		17.124	LABOR & MGMT, INCOME PER FARM	s -9.760
Seeds & plants		6,397	Number of operators (4	3) 1.42
Spray & other		6,260	LABOR & MGMT, INCOME PER OPER.	\$ -6.873
Real Estate		•		
Land, building, fen	ce repair	2,469	BUSINESS FACTORS	
Taxes	-	5,445		3 /
Insurance		3,532	worker equivalent	J•4 85
Rent		4,688	Number of cows	65
Other			Number of her arong	142
Telephone (farm sha	re)	485	Acres of may crops	57
Electricity (farm s	hare)	3,630	Total tillable sares	452
Interest paid		20,808	Pounds of milk sold	1 274 100
Miscellaneous		2,512	Pounds of milk sold per cow	14,989
TOTAL CASH EXPEN	SES	\$173,837	Tons hay crops per acre	2.8
Expansion livestock		4,991	Tons corn strage per acre The of milk sold per worker	372 544
Machinery depreciat	ion	19,947	Cour per worker	25
Building depreciati	 07	6,885	vous per worker 9 food is of milk receipts	18%
Unpaid labor	~··	767	Food & gron avonge per cut mi	1k \$4.73
Interest on farm en	uity @ 9%	39.766	Fortilizer & lime/tillable acre	\$38
			Machinery cost per cow	\$687
TOTAL FARM EXPEN	SES	\$246,193	Average price per cwt. milk	\$13.54

\*Farms where crop sales amounted to 10 percent or more of milk sales.

52

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57 New York Dairy-Renter Farms,\* 1981

CAPITAL INVESTMENT			RECEIPTS	
	1/1/81	1/1/82	Milk sales	\$147,179
T dans a tra sla	A102 / 57	<u>+10( 000</u>	Crop sales	1,205
Livestock	\$103,457	\$106,809	Dairy cattle sold	9,934
Feed & supplies	27,130	28,438	Livestock sales	2,423
Machinery & equipment	54,093	59,057	Gas tax refund	240
Land & buildings			Government payments	265
TOTAL INVESTMENT	\$197,737	\$211,516	Custom machine work	150
		, <b>,</b>	Miscellaneous	2,552
EXPENSES			TOTAL CASH RECEIPTS	\$163,948
Labor			Increase in livestock	5,788
Hired		\$ 10 <b>,</b> 231	Increase in feed & supplies	1,308
Feed		(1 202	Appreciation	51
Dairy concentrate		41,382		A171 005
Hay & other		3,381	TOTAL FARM RECEIPTS	\$171,095
Machinery		1 205	TOTAL FARM RECEIPTS EXCLUDING	A171 044
Machine hire		1,385	APPRECIATION	\$171,044
Machinery repair		0,040	PTNANCTAL CIRCLARY	
Cas & ofl		6 545	FINANCIAL SUMMARI	
Jas a Uli		0,040	Total Cash Receipts	\$163,948
Benlagement livestor	- k	4 130	Total Cash Expenses	133,490
Broeding fees	_ <b>N</b>	2 288	NET CASH FARM INCOME	\$ 30 458
Veterinary, medicing	2	3,010	NET CASH FARM INCOME	ç 30,430
Milk marketing	-	5 973	Total Farm Receipts Excluding	
Other livestock ern		6,272	Appreciation	\$171,044
Crops	-1100	0,272	Total Farm Expenses	160,560
Lime & fertilizer		7,491	LABOR & MGMT, INCOME PER FARM	\$ 10,484
Seeds & plants		1.841	Number of operators (8	2) 1.44
Spray & other		1.735	LABOR & MGMT, INCOME PER OPER.	\$ 7.281
Real Estate				• · <b>,</b> - • -
Land, building, fend	ce repair	1,837	BUSINESS FACTORS	
Taxes	-	1,750		0.4
Insurance		1,970	Worker equivalent	2.6
Rent		11,206	Number of cows	72
Other			Number of heliers	115
Telephone (farm shar	re)	399	Acres of nay crops	115
Electricity (farm sh	nare)	2,782	Acres of corn sliage	190
Interest paid		8,933	Devede of milk cold	1 050 400
Miscellaneous		2,684	Pounds of milk sold	1,039,400
TOTAL CASH EXPENS	SES	\$133 490	Tong how arong non tong	14,/14
		Ş <b>133,</b> 470	Tons hay crops per acre	2.5
Expansion livestock		2,603	tons corn strage per acre	14.0 410 490
Machinery depreciate	noi	8,944	LOSS OF METR SOLD PER WORKER	410,020
Building depreciation	 011	1,266	Vowe per worker % food is of milk monotote	ፈር ኃይማ
Unpaid labor		982	A LEEU IS OF MILLE LECEIPES	20%
Interest on farm equ	iity @ 9%	13,275	Fortilizor & lime/tillable acro	67U Tr 93+2T
	-, 10		Machinery cost per cow	6302
TOTAL FARM EXPENS	SES	\$160,560	Average price per cwt. milk	\$13.89

\*A farm was classified as a renter if no real estate was owned or if all tillable land was rented.

Table 64.

FARM BUSINESS SUMMARY

Top 10 Percent of the Farms by Labor & Management Income Per Operator 55 New York Dairy Farms, 1981

CAPITAL INVESTMENT			RECEIPTS	
	1/1/81	1/1/82	Milk sales	\$271,030
<b>T (</b> )			Crop sales	1,754
Livestock	\$182,385	\$195,366	Dairy cattle sold	19,483
Feed & supplies	46,222	58,423	Livestock sales	4,652
Machinery & equipment	93,244	106,743	Gas tax refund	333
Land & buildings	261,016	285,592	Government payments	396
TOTAL INVESTMENT	\$582,867	\$646.124	Custom machine work	170
	, <b>,</b>	· · · · · · · · · · · · · · · · · · ·	Miscellaneous	2,671
EXPENSES				+200 / 80
Labor			TOTAL CASH RECEIPTS	\$300,489
Hired		\$ 29 382	Increase in livestock	17,663
Feed		φ <b>2</b> 9,302	Increase in feed & supplies	12,201
Dairy concentrate		67 421	Appreciation	9,743
Hav & other		1 989	TOTAL FARM DECEIDES	\$340.096
Machinery		-,,00	TOTAL FARM RECEIPTS FYCUIDING	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Machine hire		2.395	APPRECIATION	, \$330,353
Machinery repair		11,711		<i></i>
Auto expense		440	FINANCIAL SUMMARY	
Gas & oil		10,938		
Livestock			Total Cash Receipts	\$300,489
Replacement livesto	ck	1,651	Total Cash Expenses	222,521
Breeding fees		3,650	NET CASH FARM INCOME	\$ 77 <b>,9</b> 68
Veterinary, medicine	5	5,993		
Milk marketing		8,838	lotal Farm Receipts Excluding	A220 253
Other livestock expe	ense	8,504	Appreciation	300,303
Crops			local farm Expenses	290, 343
Lime & fertilizer		13,465	LABOR & MGMT. INCOME PER FARM	\$ 40,010
Seeds & plants		3,696	Number of operators (7	2) 1.30
Spray & other		3,561	LABOR & MGMT. INCOME PER OPER.	\$ 30,777
Keal Estate				
Land, building, fend	ce repair	3,424	BUSINESS FACTORS	
laxes		5,404	Worker equivalent	3.8
Insurance		3,545	Number of cows	128
At the second se		5,338	Number of beifers	97
Tolophone (form show		(70	Acres of hay crops	163
Flootrigity (form a)	ce)	6/8	Acres of corn silage	105
Interest and	iare)	4,503	Total tillable acres	350
Miscellanoous		23,104	Pounds of milk sold	1,970,400
niscerianeous		2,891	Pounds of milk sold per cow	15,394
TOTAL CASH EXPENS	SES	\$222,521	Tons hay crops per acre	2.7
			Tons corn silage per acre	16.1
Expansion livestock		3,189	Lbs. of milk sold per worker	525,440
Machinery depreciati	lon	16,406	Cows per worker	34
Building depreciation	on	7,955	% feed is of milk receipts	25%
Unpaid labor	-	1,245	Feed & crop expense per cwt. mi	1k \$4.47
interest on farm equ	ıity @ 9%	39,027	Fertilizer & lime/tillable acre	\$38
			Machinery cost per cow	\$398
IUIAL FARM EXPENS	SES	\$290,343	Average price per cwt. milk	\$13.76

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Table 65.

FARM BUSINESS SUMMARY

Average 553 New York Dairy Farms, 1981

CAPITAL INVESTMENT			RECEIPTS	
	1/1/81	1/1/82	Milk sales	\$156.043
			Crop sales	1.823
Livestock \$	118,805	\$121,534	Dairy cattle sold	11,008
Feed & supplies	31,521	32,831	Livestock sales	2,757
Machinery & equipment	/8,1/2	87,290	Gas tax refund	254
Land & buildings	204,181	218,106	Government payments	348
TOTAL INVESTMENT \$	432,679	\$459,761	Custom machine work	218
	•		Miscellaneous	1,659
EXPENSES			TOTAL CASH RECEIPTS	\$174,110
Labor			Increase in livestock	4,947
Hired		\$ 13,639	Increase in feed & sunnites	1,310
Feed			Appreciation	8,462
Dairy concentrate		40,130	Appreciation	
Hay & other		1,196	TOTAL FARM RECEIPTS	\$188,829
Machinery			TOTAL FARM RECEIPTS EXCLUDING	+100 0/7
Machine hire		1,383	APPRECIATION	\$180,367
Machinery repair		/,863	TTNINGTAL ORDEADY	
Auto expense		445	FINANCIAL SUMMARY	
Gas & Oll		7,001	Total Cash Receipts	\$174,110
Replacement livesteck		2 610	Total Cash Expenses	136,974
Breeding fees		2,019	NET CACH FARM INCOME	\$ 37 136
Veterinary, medicine		3,240	NEI CASH FARM INCOME	ş 57,150
Milk marketing		4,566	Total Farm Receipts Excluding	
Other livestock expen	se	5,545	Appreciation	\$180,367
Crops		-,	Total Farm Expenses	185,693
Lime & fertilizer		8.245	LABOR & MGMT, INCOME PER FARM	\$ -5,326
Seeds & plants		2,617	Number of operators (71	2) 1.25
Spray & other		2,340	LABOR & MGMT. INCOME PER OPER.	\$ -4.261
Real Estate		•		
Land, building, fence	repair	2,461	BUSINESS FACTORS	
Taxes		3,937		2 0
Insurance		2,611	worker equivalent	2.8
Rent		2,708	Number of cows	/9
Other			Acres of her cross	121
Telephone (farm share	)	561	Acres of corp silare	50
Electricity (farm sha	re)	3,118	Total tillable scree	257
Interest paid		16,302	Pounde of milk sold	1 142 000
Miscellaneous		2,309	Pounds of milk sold per cow	14 456
TOTAL CASH EXPENSE	S	\$136,974	Tons hav crops per acre	2.5
		, ,	Tons corn silage per acre	14.9
Expansion livestock		2,108	Lbs. of milk sold per worker	415,273
Machinery depreciatio	n	12,508	Cows per worker	29
Building depreciation		5,319	% feed is of milk receipts	26%
Unpaid labor		1,606	Feed & crop expense per cwt. mi	1k \$4.67
Interest on farm equi	ty @ 9%	27,178	Fertilizer & lime/tillable acre	\$32
			Machinery cost per cow	\$465
TOTAL FARM EXPENSE	S	\$185,693	Average price per cwt. milk	\$13.66

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Table 66.

# FARM BUSINESS SUMMARY Average Per Cow, 553 New York Dairy Farms, 1981

CAPITAL INVESTMENT		RECEIPTS	
1/1/81	1/1/82	Milk sales	\$1,975
Livestock \$1.50/	ė1 539	Crop sales	23
Fred $\xi$ supplies 309	31, JJO 416	Dairy cattle sold	139
Machinery & equipment 990	1 105	Livestock sales	35
Land & buildings 2.585	2,761	Gas tax refund	3
		Government payments	4
TOTAL INVESTMENT \$5,478	\$5,820	Custom machine work	3 01
EVDENCEC		Miscellaneous	
LAFENSES		TOTAL CASH RECEIPTS	\$2,204
Labor	A 170	Increase in livestock	63
Hired	Ş 173	Increase in feed & supplies	17
<u>Peed</u>	500	Appreciation	107
Hav & other	508		62 390
Machinery	15	TOTAL FARM RECEIPTS	32,550
Machine hire	18	APPRECIATION	\$2,283
Machinery repair	100	ALLADIATION	<i>ų</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Auto expense	6	FINANCIAL SUMMARY	
Gas & oil	90		A2 204
Livestock		Total Cash Receipts	\$2,204
Replacement livestock	33	Total Cash Expenses	1,734
Breeding fees	26	NET CASH FARM INCOME	\$ 47 <b>0</b>
Veterinary, medicine	41	Total Farm Receipts Excluding	
Milk marketing	58	Appreciation	\$2,283
Other livestock expense	70	Total Farm Expenses	2,351
Lino ( fortilizer	104		<u> </u>
Seeds & plants	104	LABOR & MGMT. INCOME PER FARM	5 - 07
Spray & other	30	NUMBER OF OPERATORS (/	s -54
Real Estate	50	LADOR & MORIT. INCOME TER OTER.	Ş 34
Land, building, fence repair	31	BUSINESS FACTORS	
Taxes	50		
Insurance	33	Worker equivalent	.035
Rent	34	Number of cows	(79)
Other		Number of heifers	.8
Telephone (farm share)	7	Acres of hay crops	1.7
Electricity (farm share)	39	Acres of corn silage	.7
Interest paid	206	Total tillable acres	3.3
Miscellaneous	29		
TOTAL CASH EXPENSES	\$1,734	Pounds of milk sold	14,456
		Tons hay crops	4.2
Expansion livestock	27	Tons corn silage	11.1 8675
Machinery depreciation	158	reed & crop expense	<b>۵۱</b> ۵۸ خ
Building depreciation	67	Lime & leftlilzer	\$104 \$465
Unpaid labor	20	machinery cost	0.0 + 0
Interest on farm equity @ 9%	344	Total debt	\$2,212
TOTAL FARM EXPENSES	\$2,351	Debt payment	\$472