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THE FINANCIAL CHARACTERISTICS OF SELECTED WISCONSIN
FARMS IN 1985 AND 1986

By

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Farmers in Wisconsin and other mid-western states have been experiencing varying degrees of financial stress since about 1981. As the financial problems of farmers became more severe, the public became concerned and began requesting information about the scope and magnitude of agriculture's "financial crisis." Such information was not readily available, in part because public institutions, like the University of Wisconsin, did not have access to the needed farm data. Lacking this data, it was difficult or impossible to accurately determine the extent of financial stress on Wisconsin farms.

The Farm Credit Service Research Program

In response to this information problem, the College of Agricultural and Life Sciences (CALs) entered into a cooperative working agreement with the Farm Credit Service of St. Paul (FCS). Under this project, researchers in CALs have controlled access to the annual farm business records of Wisconsin farmers who utilize FCS record-keeping services. This arrangement provided access to a rich and accurate data set that can be used to analyze and assess the financial condition of this important segment of Wisconsin farms.

This report is based on the FCS farm record data for 1985 and 1986. This study's main purpose was to measure how much the financial conditions of these Wisconsin FCS borrowers changed from 1985 to 1986. The results suggest that their financial condition generally improved from 1985 to 1986.

This report has three sections. The first contains a brief description of the FCS data that were used in the study. The second section has a detailed discussion of the results from the FCS farm record analysis. The final section addresses the implications of the findings.

The Data Used For The Study

The FCS record system has provisions to record beginning and ending inventories, home consumption, borrowings and loan repayments, capital sales and purchases, as well as farm operating receipts and expenditures. These provisions result in a set of comprehensive records that is reconcilable. The FCS records were checked for internal consistency and records were excluded from this analysis if: 1) a five percent difference existed between net cash flow and the observed change in reported cash balances, or 2) a 10 percent difference existed between the observed change in reported net worth and the sum of net earnings and asset revaluation. When these "accuracy criteria" were applied to FCS records, 1240 and 870 usable records were obtained for 1985 and 1986, respectively, and records for 681 farms were obtained for both years.

Throughout the report a variety of financial variables, reported in the FCS records, will be referred to as the financial characteristics of the sample farms are considered. These variables and their definitions are summarized in Table 1.

Comparing FCS and Census of Agriculture Farms

The FCS records were not obtained from a random sample of all Wisconsin farms. Rather these records came from farms that typically have some debt and a business relationship with FCS. The information contained in Table 2 compares FCS and Census of Agriculture published data and indicates that these FCS farms are not representative of all Wisconsin farms.

The data clearly show that the distribution of farms by level of sales in the 1985 FCS sample are different from the distribution exhibited by farms

in the 1982 Census of Wisconsin farms. The vast majority (83 percent) of Wisconsin farms had less than \$100,000 in annual sales while nearly 60 percent of the FCS sample farms had annual sales in excess of \$100,000. This substantial difference in the sales characteristics of these two farm groups strongly suggests that the FCS farm sample should not be considered a representative sample of all Wisconsin farms.^{1/}

Comparing FCS and USDA Farm Data

A second source of data for comparison with the FCS farms is from USDA surveys. The first two columns in Table 3 reflect the per farm financial characteristics of all Wisconsin farms in 1985 and 1986, and the last two columns are for the 681 farms in the FCS sample.^{2/}

The average assets of the FCS farms were about double the average for all farms, \$524,000 versus \$262,000 in 1986. The average debts of the FCS farms were three to four times greater than the average debts of all Wisconsin farms, and the debts of the FCS farms increased from 1985 to 1986 while those of all farms decreased. The FCS sample farms, on average, had more wealth than the average Wisconsin farm, nearly \$100,000 greater. These

^{1/} Differences in the sales characterization of these two farm groups should also be attributed to factors like price changes, production shifts, and farm consolidations between the two years represented. While these factors will also result in changes in the sales characteristics of Wisconsin farms, it is highly unlikely that the distribution of Wisconsin farms changed significantly as the result of changes in these factors.

^{2/} The data for all Wisconsin farms are from published reports from annual surveys conducted by the Economic Research Service, U.S. Department of Agriculture. They are based on random samples of about 400 farms. While they are the best statewide estimates available on an annual basis, they are recognized to under-sample smaller farms.

differences in the average assets, debt, and net worth are more indication that the FCS sample is not representative of all Wisconsin farms.

The values of production, operating expenses, and net farm earnings reported for the two farm groups show that there were some clear differences in the profitability of the two groups. The FCS farms' average value of production was approximately four times greater than for all Wisconsin farms. This difference in the reported values of production is further evidence that the FCS farms are large relative to the average Wisconsin farm. Although the FCS farms had higher value average of production, they were not as profitable as the average Wisconsin farm. In both 1985 and 1986 the average net farm earnings for all Wisconsin farms exceeded the average net farm earnings for the FCS farms. High levels of production evidently do not ensure high levels of profits.

The nonfarm earnings reported in Table 3 also show differences between the FCS farms and the average Wisconsin farm. The average nonfarm earnings of Wisconsin farms were nearly double those for the FCS farms, suggesting that the FCS farms were not the "part-time" operations that are commonly found in Wisconsin.

The uniqueness of the FCS sample means this data set cannot be used to form conclusions about the financial status of all Wisconsin farms. Therefore no such conclusions are offered in this report. Instead this report offers conclusions that only pertain to the farms in the FCS sample.

Financial Characteristics of Selected FCS Farms

We will now focus on the FCS farms and consider the financial characteristics of FCS farms that had different levels of assets, debts, or

farm earnings. This analysis should provide us a better understanding of why some FCS farms had financial positions that were preferable to the financial situations of other FCS farms.

FCS Farms Sorted by Assets The 1986 average financial characteristics of the FCS farms in the upper in the lowest quartiles based on assets are presented in table 4. The large farms had about \$790,000 more assets, \$350,000 more debt, and \$430,000 more equity than the smallest farms. However, the net farm earnings reported for the upper and lowest quartiles of farms were not statistically different in the farm earnings received by these two farm groups. The large farms earned roughly \$9300 of farm earnings while the small farms earned nearly \$6400. This minimal difference between the farm earnings of large and small farms is surprising given that the value of production for the large farms was about three times greater than for the small farms. One would expect this greater production from large farms to result in larger profits than for the small farms. This did not occur, however, because the large farms were apparently not able to control the costs associated with the greater amounts of products. Large farms produced \$1 of product for about 97 cents of operating expenses while small farms produced \$1 of product for about 94 cents.

The cash residuals show that large farms had cash flows more than \$30,000 greater than those for small farms. This difference is interesting given that the farm earnings for the two farm groups were nearly equal. The large farms had depreciation expenses much greater than those for small farms, accounting for a situation where farm earnings are equal but cash flows are different.

FCS Farms Sorted by Debt The information in Table 5 reflects the financial characteristics of the farms that had the highest (upper quartile) and lowest (lowest quartile) levels of debt in 1986. Using these values we will consider the similarities and differences that existed in the financial characteristics of high and low debt farms.

From the table we see that high and low debt farms had considerably different debt to equity positions. The high debt farms had nearly \$1.50 of debt per \$1 of equity and the low debt farms have roughly \$.20 of debt per \$1 of equity. This substantial difference in the debt to equity positions of these two farm groups suggests that high debt farms were more aggressive users of debt. This aggressive debt philosophy of the high debt farms has allowed them to acquire more assets but it also put high debt farms in more vulnerable financial positions.

The values of production reported in the table show that high debt farms produced approximately 2.5 times more products than low debt farms. This suggests that high debt farms were considerably larger than low debt farms. Although high debt farms were larger than low debt farms, they were not more profitable. The high debt farms earned nearly \$5200 in net farm earnings while low debt farms had net farm earnings of roughly \$10,000. These net farm earnings for high and low debt farms suggest that smaller operations with low debts were able to perform as well or better than larger operations with high debts.

FCS Farms Sorted by Net Farm Earnings The values reported in Table 6 reflect the financial characteristics of the farms that had the highest and lowest net farm earnings in 1986. The first column of values pertain to the farms

that had net farm earnings in the upper quartile and the other column of values is related to the farms with net farm earnings in the low quartile. These values were compiled so we could determine what similarities and differences existed between high and low earning farms.

The asset, debt, and equity values show that there was not a significant difference in the balance sheets of high and low earning farms. This means low (high) debts and/or high (low) equity were not in themselves the reasons that farms experienced high (low) net farm earnings.

The difference in the net farm earnings for these two farm groups appears to be related to the values of production for these two groups. Notice that the value of production for high earning farms was nearly \$75,000 greater than the low earning farms' value of production. This difference in the values of production is approximately equal to the difference that existed between the net farm earnings of the high and low earning farms. This latter finding suggests that earnings problems are related to sub-par production.

The operator draws reported in the table are interesting because they suggest that withdrawals are related to farm earnings. Notice that high earning farms had average withdrawals of roughly \$24,000 while low earnings farms had average withdrawals of nearly \$11,000. This apparent relationship between farm earnings and withdrawals suggests that farmers are willing to spend more (less) money on themselves and their families when more (less) farm profits are available for consumption.

Financial Characteristics of FCS Farms By Cash Flow Characteristics

Thus far we have considered the financial characteristics of all the FCS and we have observed the financial characteristics of farms that had specific asset, debt, or farm earnings characteristics. We will now consider some information that was obtained when the FCS farms were sorted into groups based on their 1985 and 1986 cash flow characteristics.

Table 7 is a matrix that summarizes the cash flow characteristics of 681 FCS farms in 1985 and 1986. The values reported in the rows pertain to 1985 and the values in the columns are for 1986. From this matrix we see that the number of farms experiencing positive cash flows increased from 1985 to 1986. A total of 418 farms had positive cash flows in 1985 and 541 farms had positive cash flows in 1986. This increase in the number of farms with positive cash flows is important because it suggests that there was a reduction in the incidence of financial stress in Wisconsin farms.

The values in the table indicate that 355 of the 681 farms in the FCS sample experienced positive cash flows in both 1985 and 1986. This means nearly 52 percent of the sample farms had no cash flow problems in the 1985-86 period. A total of 77 farms had negative cash flows in both the years that were observed. These farms represented approximately 11 percent of the total sample.

Between 1985 and 1986, the cash flows of 186 farms went from negative to positive and the cash flows of 63 farms went from positive to negative. These shifts in farm cash flows are the reason that there were 123 more farms experiencing positive cash flows in 1986.

The information in Table 8 is from 355 farms that had positive cash flows in both 1985 and 1986. These farms comprised of roughly 240 acres and

55 cows. These farms had positive net farm earnings in 1985 and 1986 and their farm earnings rose by nearly \$11,000 from 1985 to 1986. This increase in net farm earnings appears to be the result of an increase in production because the value of production for these farms increased by nearly \$15,000 during the period in question. This increase in the value of production and the small increase in operating expenses suggests that these farms improved their operating efficiency in 1986.

Table 9 contains information about the 186 farms that had negative cash flows in 1985 and positive cash flows in 1986. These farms consisted of approximately 280 acres and 62 cows. These farms substantially increased their value of production and they held their operating expenses nearly constant from 1985 to 1986. As a result, the net farm earnings for these farms increased from roughly -\$26,000 in 1985 to nearly \$15,000. This increase of almost \$41,000 in net farm earnings is the reason these farms were able to improve their cash flow positions.

Financial characteristics for the 63 farms that had positive and negative cash flows in 1985 and 1986, respectively, are presented in Table 10. These farms had approximately 40 cows and their acreage decreased from nearly 280 acres in 1985 to 230 acres in 1986. Given this acreage reduction, one would expect the value of production for these farms to be lower in 1986 than it was in 1985. This expected change in the value of production occurred but there was also an unexpected increase in the operating expense of these farms. Notice that the operating expenses increased from nearly \$162,000 in 1985 to approximately \$175,000 in 1986. This increase in operating expenses as acreage declined is an indication that the efficiency of these farms declined substantially in 1986. This loss of efficiency is a

reason the net farm earnings of these farms fell from roughly \$19,000 to nearly -\$26,000.

The values in Table 11 pertain to the 77 farms that had negative cash flows in both 1985 and 1986. These farms had approximately 44 cows on average and their acreage ranged from 286 acres in 1985 to 267 acres in 1986. These farms had negative net farm earnings in 1985 and 1986 but their losses in 1986 were lower than they were the preceding year. Despite this small improvement in farm earnings, the cash flows of these farms dropped from -\$21,974 in 1985 to -\$24,504 in 1986. This decline in cash flows suggests that these farms were having serious financial problems.

Table 12 contains information that will provide a better understanding of why farms experienced positive or negative cash flows in 1985. The first two columns pertain to farms with positive cash flow and the last two columns are for farms with negative cash flows in 1985. There were significant differences in the levels of production between positive and negative farm groups in 1985. The farms with positive cash flows had production levels significantly higher than farms with negative cash flows, suggesting that highly productive farms were less likely to be experiencing cash flow problems. There were no significant differences in the operating expenses of the positive cash flow farms and the negative cash flow farms.

Farms with positive 1985 cash flows had nonfarm incomes that were significantly higher than received by those with negative cash flows. This finding is consistent with the expectation that cash flows improve as nonfarm earnings rise.

The acreage operated and dairy cow numbers show no clear relationship between cash flow and farm size by these measures. Cash flow problems were

experienced by farms with high or low numbers of cows. These findings show that in 1985 "large" farms and "small" farms experienced both cash flow problems (columns 3 and 4), and positive cash flows (columns 1 and 2).

The information in Table 13 pertain to the year of 1986. The first two columns contain the average financial characteristics of the farms that had positive cash flows in 1986 and the last two columns the farms that had negative cash flow positions in 1986.

The beginning financial positions for 1986 of the farm groups are reflected by the asset, debt, and equity values reported for the end of 1985. There were no significant differences among the groups in the assets that were held, while there were some significant differences in the debts. The farms with positive cash flows in 1985 and 1986 had debts that were significantly lower than the debts that those for the farms with negative cash flows, in 1985 and 1986. This finding, in itself, suggests that high (low) debts result in positive (negative) cash flow. This general conclusion is inappropriate however because the debts of the farms with negative and positive cash flows in 1985 and 1986, respectively, were also significantly higher than the debts for the farms with positive cash flows in both years. Thus there does not appear to be a clear-cut relationship between debts and cash flows.

The values of production and operating expenses in Table 13 again show that differences in production levels are the primary reasons that differences occur in cash flows. Notice that operating expenses are equal across groups while the values of production are considerably higher for the farms with positive cash flows in 1986. This finding again suggests that

cash flows are highly related to the productivity and efficiency of farm businesses.

Summary and Conclusions

This report summarizes some of the key information that was obtained from some farm level financial records that the Farm Credit Services of St. Paul shared with the Department of Agricultural Economics of the University of Wisconsin-Madison. In general these farm record data suggested that the financial condition of some Wisconsin farms improved from 1985 to 1986.

A variety of interesting information was obtained when the FCS farm records were analyzed. One interesting finding was that the net farm earnings of farms with low amounts of assets were essentially equal to the net farm earnings for farms with relatively large amounts of assets. This finding is important because it seems to refute the claim that larger farms are prospering while smaller farms are failing.

Another finding of this analysis seems to refute the claim that the net farm earnings of low debt farms will exceed those for high debt farms. The 1986 records of the farms in the FCS sample showed there was no significant difference in the net farm earnings of high and low debt farms. This finding is evidence that high (low) debt levels do not, in themselves, result in low (high) farm earnings.

The financial characteristics of high and low earning farms were observed and these data indicated that the farms in these two groups had essentially the same levels of assets, debts, equity, and operating expenses. These farms did not, however, have the same values of production. The farms with high farm earnings had values of production that were roughly \$80,000

higher than the values of production for low earning farms. This latter finding is evidence that productivity is a major determinant of whether a farm has high or low earnings.

The cash flow characteristics of the FCS sample farms indicated that roughly 60 and 80 percent of these farms experienced positive cash flows in 1958 and 196, respectively. This increase in the percentage of farms with positive cash flows suggests that financial stresses in Wisconsin farms generally decreased in 1986.

The assets, debts, equity and operating expenses for the farms with positive cash flows were generally the same as those for the farms with negative cash flows but the values of production for positive cash flow farms were substantially higher than the values of production for negative cash flow farms. Thus differences in farm productivity also appear to be the primary reason for differences in the cash flow positions of farms.

This report has presented a variety of information about the financial status of some Wisconsin farms. While there is considerable information in this report there is still a great deal of information to be gained from the FCS record data. Hopefully this report is the first of many reports that can be used to monitor and assess the financial status of Wisconsin farms.

TABLE 1: DEFINITIONS FOR THE VARIABLES THAT REFLECT THE FINANCIAL CHARACTERISTICS OF THE FCS SAMPLE FARMS

Total Assets --	Everything of value owned by a farm business (feed, livestock, machinery, real estate, etc.)
Total Debts --	Everything owed to the creditors of a farm business (unpaid bills, operating loans, mortgages, etc.)
Total Equity --	The difference between assets and debts (net worth).
Value of Production --	The value of all products produced by a farm business in one year. These products may have been sold during the year or they may be in inventory at the end of the year.
Operating Expenses --	All the cash and noncash costs that were incurred to produce the products reflected by the value of production (fertilizer, seed, feed, depreciation, interest on debt, etc.)
Net Farm Earnings --	The amount by which the value of production exceeds the operating expenses. This value reflects accrued earnings versus cash earnings.
Operator Withdrawals --	The capital withdrawn from a farm business during a year. This capital is primarily used to cover living expenses. [Is the rationale that this is a factor payment for operator and unpaid family labor?]
Non-Farm Earnings --	Cash earnings from nonfarm activities. This is supplemental income for farm operators.
Net Earnings --	Capital that remains after operator withdrawals are deducted from the sum of farm and nonfarm earnings.
Cash Residual --	Variable that reflects the net cash position of a farm business for a business year. A positive (negative) value indicates a farm business was (was not) able to cover living expenses and required debt payments.

TABLE 2: DISTRIBUTION OF ALL WISCONSIN FARMS AND FCS FARMS BY SALES CLASS

SALES CLASS (\$)	PERCENTAGE OF FARMS IN SALES CLASS	
	1982 CENSUS OF AGRICULTURE ^{a/}	1985 FARM CREDIT SERVICE SAMPLE ^{b/}
0- 19,999	41.4	1.5
20,000- 39,999	13.8	4.4
40,000- 99,999	27.9	33.6
100,000-249,999	14.4	48.0
250,000-	2.5	12.5
TOTAL	100.0	100.0

SOURCES: ^{a/} 1982 Census of Agriculture: Wisconsin; U.S. Dept. of Commerce; Volume 1, Part 49, March 1984; pg. B1.

^{b/} Data from 1240 FCS farms with records that satisfied the accuracy requirements.

TABLE 3: FINANCIAL INFORMATION FOR ALL WISCONSIN FARMS AND THE FARMS IN THE FCS SAMPLE, 1985 AND 1986

FINANCIAL VARIABLE	ALL WISCONSIN FARMS ^{a/} (PER FARM AVERAGE)		FCS SAMPLE FARMS ^{b/} (PER FARM AVERAGE)	
	1985	1986	1985	1986
Assets	\$285,035	\$261,155	\$550,050	\$523,854
Debts	82,793	74,667	247,372	307,612
Equity	202,242	186,488	302,709	289,637
Value of Production	68,342	70,740	155,065	172,081
Operating Expenses	55,708	51,693	160,620	164,484
Net Farm Earnings	12,634	19,084	-5,645	7,596
Non-Farm Earnings	13,458	14,320	6,516	6,735

SOURCES: ^{a/} U.S. Department of Agriculture, Economic Research Service. "Economic Indicators of the Farm Sector, State Financial Summary, 1986".

^{b/} Data from 681 FCS farms whose records passed accuracy checks for both 1985 and 1986.

TABLE 4: CHARACTERISTICS OF UPPER AND LOWER QUANTILES OF FCS FARMS BY ASSETS, 1986

FINANCIAL VARIABLE ^{a/}	UPPER QUANTILE	LOWEST QUANTILE
Assets	\$992,364	\$202,190*
Debts	<u>464,705</u>	<u>106,054*</u>
Equity	527,659	96,137*
Value of Production	306,372	95,370*
Operating Expenses	<u>297,013</u>	<u>88,980*</u>
Net Farm Earnings	9,359	6,390
Net Earnings	-1,578	-5,281
Withdrawal	18,254	16,615
Cash Residual	35,297	4,248*

*95 percent level of confidence that means for large and small farms are statistically different (t-Test).

^{a/} See Table 1 for definition of terms.

TABLE 5: CHARACTERISTICS OF UPPER AND LOWEST QUANTILES OF FCS FARMS BY DEBT, 1986

FINANCIAL VARIABLE ^{a/}	UPPER QUANTILE	LOWEST QUANTILE
Assets	\$901,971	\$328,015*
Debts	<u>535,211</u>	<u>56,519*</u>
Equity	366,759	271,494*
Value of Production	293,938	111,586*
Operating Expenses	<u>288,721</u>	<u>101,476*</u>
Net Farm Earnings	5,216	10,109
Net Earnings	-6,607	-1,935
Operator Withdrawal	18,463	16,701
Cash Residual	25,871	15,228

*95 percent level of confidence that means for high and low debt farms are statistically different (t-Test).

^{a/} See Table 1 for definitions.

TABLE 6: CHARACTERISTICS OF UPPER AND LOWER QUANTILES OF FCS FARM BY NET FARM EARNINGS, 1986

FINANCIAL VARIABLE ^{a/}	UPPER QUANTILE	LOWEST QUANTILE
Assets	614,583	584,493
Debts	267,843	296,400
Equity	346,740	288,093
Value of Production	239,419	164,348*
Operating Expenses	193,979	194,163
Net Farm Earnings	45,440	-29,185*
Net Earnings	24,425	-33,777*
Operator Withdrawal	24,997	11,347*
Cash Residual	43,963	-6,861*

*95 percent level of confidence that means for high and low earning farms are statistically different (t-Test).

^{a/} See Table 1 for definitions.

TABLE 7: CASH FLOW CHARACTERISTICS OF THE FCS FARMS IN 1985 & 1986

	POSITIVE CASH FLOW 1986	NEGATIVE CASH FLOW 1986	TOTAL
Positive Cash Flow 1985	355	63	418
Negative Cash Flow 1985	186	77	263
Total	541	140	681

TABLE 8: FINANCIAL CHARACTERISTICS OF FCS FARMS WITH POSITIVE CASH FLOWS IN BOTH 1985 AND 1986

VARIABLE	1985	1986
Assets	\$566,322	\$544,101
Debts	222,461	214,165
Equity	343,920	329,935
Value of Production	169,450	185,241
Operating Expenses	164,732	169,938
Net Farm Earnings	4,546	15,304*
Non-Farm Earnings	7,294	7,444
Operator Withdrawal	16,828	17,465
Cash Flow Residual	26,095	32,840*
Acres Operated	240	240
Number of Dairy Cows	58	54

* 95 percent level of confidence that 1986 mean value is statistically different from 1985 mean value (t-Test).

TABLE 9: CHARACTERISTICS OF FCS FARMS WITH CASH FLOWS THAT WERE NEGATIVE IN 1985 AND POSITIVE IN 1986

VARIABLE	1985	1986
Assets	\$524,604	\$502,962
Debts	276,855	286,719
Equity	247,750	234,244
Value of Production	128,360	169,686*
Operating Expenses	154,826	155,218
Net Farm Earnings	-26,467	14,467*
Non-Farm Earnings	4,570	5,897
Operator Withdrawal	18,961	18,228
Cash Flow Residual	-19,203	21,782*
Acres Operated	283	276
Number of Dairy Cows	62	62

* 95 percent level of confidence that 1986 mean value is statistically different from 1985 mean value (t-Test).

TABLE 10: CHARACTERISTICS OF FCS FARMS WITH CASH FLOWS THAT WERE POSITIVE IN 1985 AND NEGATIVELY IN 1986

VARIABLE	1985	1986
Assets	\$555,162	\$513,259
Debts	240,983	268,262
Equity	314,178	244,997
Value of Production	181,377	149,076
Operating Expenses	162,340	174,900
Net Farm Earnings	19,037	-25,824*
Non-Farm Earnings	11,015	6,910*
Operator Withdrawal	17,603	18,318
Cash Flow Residual	30,482	-25,539*
Acres Operated	282	230
Number of Dairy Cows	45	41

* 95 percent level of confidence that 1986 mean value is statistically different from 1985 mean value (t-Test).

TABLE 11: CHARACTERISTICS OF FCS FARMS WITH NEGATIVE CASH FLOWS IN BOTH 1985 AND 1986

VARIABLE	1985	1986
Assets	\$532,314	\$489,646
Debts	296,233	298,747
Equity	236,081	190,899
Value of Production	131,727	136,015
Operating Expenses	154,251	153,207
Net Farm Earnings	-22,524	-17,191
Non-Farm Earnings	3,954	5,343
Operator Withdrawals	14,523	13,575
Cash Flow Residual	-21,974	-24,504
Acres Operated	286	267
Number of Dairy Cows	44	43

TABLE 12: 1985 FINANCIAL CHARACTERISTICS OF THE SAMPLE FARMS BY THEIR 1985 AND 1986 CASH FLOW CHARACTERISTICS

	--1985/1986 CASH FLOW CHARACTERISTIC*--			
	+/+ POS/POS	POS/NEG	NEG/POS	NEG/NEG
Value of Production	169,450 ^(3,4)	181,377 ^(3,4)	128,360 ^(1,2)	131,727 ^(1,2)
Operating Expenses	164,732	162,340	154,826	154,251
Net Farm Earnings	4,546 ^(2,3,4)	19,037 ^(1,3,4)	-26,467 ^(1,2)	-22,524 ^(1,2)
Non-Farm Earnings	7,294 ^(3,4)	11,015 ^(3,4)	4,570 ^(1,2)	3,954 ^(1,2)
Operator Withdrawal	16,828	17,603	18,961 ⁽⁴⁾	14,523 ⁽³⁾
Cash Flow Residual	26,095 ^(3,4)	30,482 ^(3,4)	-19,203 ^(1,2)	-21,974 ^(1,2)
Acres Operated	240 ⁽³⁾	282	283 ⁽¹⁾	286
Number of Dairy Cows	58 ^(2,4)	45 ^(1,3)	62 ^(2,4)	44 ^(1,3)

* Numbers in parentheses denote the groups with values that are statistically different from the reported value (from t-Test for 95% level of confidence).

TABLE 13: 1986 FINANCIAL CHARACTERISTICS OF THE SAMPLE FARMS BY THEIR 1985 AND 1986 CASH FLOW CHARACTERISTICS

	--1985/1986 CASH FLOW CHARACTERISTIC*--			
	POS/POS	NEG/POS	POS/NEG	NEG/NEG
Assets End of 1985	566,322	524,604	555,162	532,314
Debt End of 1985	222,461 ^(2,4)	276,855 ⁽¹⁾	240,983	296,233 ⁽¹⁾
Equity End of 1985	343,920 ^(2,4)	247,750 ⁽¹⁾	314,178	236,081 ⁽¹⁾
Value of Production	185,241 ^(3,4)	169,686 ⁽⁴⁾	149,076 ⁽¹⁾	136,015 ^(1,2)
Operating Expenses	169,938	155,218	174,900	153,207
Net Farm Earnings	15,304 ^(3,4)	14,467 ^(3,4)	-25,824 ^(1,2)	-17,191 ^(1,2)
Non-Farm Earnings	7,444	5,897	6,910	5,343
Operator Withdrawal	17,465 ⁽⁴⁾	18,228 ⁽⁴⁾	18,318 ⁽⁴⁾	13,575 ^(1,2,3)
Cash Flow Residual	32,840 ^(2,3,4)	21,782 ^(1,3,4)	-25,539 ^(1,2)	-24,504 ^(1,2)
Acres Operated	240	276	230	267
Number of Dairy Cows	54 ⁽³⁾	62 ^(3,4)	41 ^(1,2)	43 ⁽²⁾

* Numbers in parentheses denote the groups with values that are statistically different from the reported value (from t-Test for 95% level of confidence).