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Financial Characteristics of North Dakota Farms 1999-2001

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Abstract

The performance of over 530 North Dakota farms, 1999-2001, is summarized using 16 financial measures. Farms are categorized by geographic region, farm type, farm size, gross cash sales, farm tenure, net farm income, debt-to-asset, and age of farmer to analyze relationships between financial performance and farm characteristics. Farm financial trends for the 1992-2001 period are also presented.

Financial performance in 2001 declined for all 16 measures, except interest expense ratio, because of lower government subsidies, higher costs and continued low commodity prices. Financial performance in 2000 and 1999 was the highest since 1993 because low crop prices were offset by extraordinary government and crop insurance payments, good yields and improved beef cattle prices. Median net farm income was 27,729 in 2001, $45,085 in 2000 and $42,009 in 1999.

Keywords: Farm financial management, farm management, farm income, liquidity, solvency, profitability, repayment capacity, financial efficiency, financial benchmarks, tenure, North Dakota.

INTRODUCTION

Financial statements such as the balance sheet and income statement provide a structured format to summarize financial information so it is more manageable for decision making. It is helpful to further simplify or summarize information contained in financial statements into key measures of financial performance. However, the calculation of a financial measure can be fruitless unless there is a meaningful basis of comparison to evaluate the number. Two methods of comparison are:

❶ **Past performance**. The progress of a business can be monitored by constructing financial measures on a periodic basis and comparing present to past performance.

❷ **Industry benchmarks**. The average or median of a financial measure from several similar businesses provides a good point of reference. Currently there is no nationwide database of farm records. However, there are statewide farm record programs in some states, including North Dakota. Each farm has its own unique aspects, so the most appropriate comparison would be farms that have similar enterprises and resources.

Whatever method of comparison is used, it is imperative that the procedures for construction of financial statements and performance measures are consistent over time and between farms to ensure an "apples-to-apples" comparison.

The Farm Financial Standards Task Force (FFSTF) was formed by the American Bankers Association in 1989 to develop standards for construction of financial statements and measures of financial performance in agriculture. In 1991, the task force provided recommendations for financial statement construction and the calculation of 16 measures of financial performance. These recommendations were adopted, in most part, by the North Dakota Farm Business Management Education Program and are the basis for the benchmarks presented in this publication.

The purpose of this study is to provide information to producers, lenders, educators, and others on the financial performance of a sample of North Dakota farms from 1999-2001. Similar studies for 1991 through 1998 are referenced on page 27 of this report. Table 1 lists the median operator age, farm size and selected financial factors, 1992-2001. The data are from financial summaries of farms participating in the North Dakota Farm Business Management Education program. In this study the median and upper and lower quartiles of 16 financial performance measures are presented for all farms in the data set and for groupings of farms by characteristic such as farm type, farm size, and age of producer. The results can be used by producers and lenders to evaluate the financial performance of a farm. Also, trends can be identified and relationships between farm characteristics and financial measures can be analyzed. However, because of the small number of farms in this study, the results should be used cautiously and only be considered guidelines.

SOURCE OF DATA

About 700 farms are enrolled in the North Dakota Farm Business Management Education program. Instructors educate and assist producers in record keeping and review data for completeness and accuracy. Instructors use the Finpack farm financial management software program to generate financial summaries. From 1999-2001, the financial summaries of over 530 farms each year were considered usable for this study.

Most farms were represented in all three years (1999-2001) of this study, although there is a turnover of participants in farm management education programs and the number of farms that complete their annual records by a cutoff date varies from year to year.

The farms in this study are larger and the age of the farm operators younger than the state average. In 2001, there were 30,300 farms in North Dakota with gross agricultural sales of at least $1,000. Only 9,000, or 30%, had gross receipts greater than $100,000, whereas 84% of the 532 farms in this study exceed that sales volume (median gross sales was $216,697). The farms in the study are more representative of operations that provide the primary source of net family income. The average age of farm operators in this study is 44 compared to 51 for the state average.

DEFINITION OF FINANCIAL MEASURES

Sixteen measures of financial performance were calculated for each farm in this study. The recommendations of the farm financial standards council for calculating the ratios were followed as closely as possible, from the Finpack data.

The farm financial standards council stated that a more meaningful comparison between farms is achieved with market valuation of assets, but due to fluctuations in market values the cost method (acquisition cost less accumulated depreciation) is superior for comparisons over time for an individual farm operation. In fact, a dual column balance sheet is recommended: one column to value assets by the cost approach and a second column for market valuation of assets.

The valuation method used for current assets of farms in this study depended on what was most relevant and reliable. For example, current market value was used for grain and market livestock inventories, but prepaid expenses and supplies were listed at purchase cost.

Non-current asset valuation was:

- Machinery was valued at cost minus accumulated depreciation. Annual depreciation was 10 percent of un-depreciated value.
- Purchased breeding livestock was valued at cost. Raised replacement animals were valued at a conservative market value when they enter the breeding herd. This value remains constant until the animal leaves the herd.
- Generally, land was valued at cost. However, when a farmer enrolls in the farm business program there may be a one-time revaluing of land to a conservative market value.

Assets and liabilities not associated with the farm business are excluded from the calculation of farm financial performance measures. Accrued liabilities were included on the balance sheets but deferred tax liabilities were not.

The calculations of all financial measures, unless otherwise noted, are accrual adjusted. Examples are:

- Gross farm revenue is gross cash revenue plus the changes in crop and market livestock inventories and accounts receivable.
- Interest expense is cash interest plus the change in accrued interest.

LIQUIDITY

Current Ratio

Computation: Current assets divided by current liabilities.

Interpretation: This ratio measures the extent current assets will cover liabilities that are due during the next 12 months. The higher the ratio the more cushion the business has to meet short-run obligations without disrupting normal business operations. The current ratio's limitation as a measure of liquidity is that it does not match the timing of financial obligations with the liquidation of current assets, nor does it consider any new debt incurred or assets that may be generated during the 12 months after the balance sheet date.

Working Capital

Computation: Current assets minus current liabilities.

Interpretation: This measure shows the dollar amount that current assets can or cannot cover current liabilities. The amount of working capital necessary to provide an adequate cushion for meeting debt obligations must be related to the size of the business. Working capital as a measure of liquidity has similar limitations as the current ratio.

SOLVENCY

Debt-to-Asset

Computation: Total liabilities divided by total assets.

Interpretation: This ratio shows the proportion of assets owed to creditors. The lower the debt-to-asset ratio the higher the solvency of the

business. Solvency is a measure of risk exposure. As solvency decreases, the owner has less equity relative to debt, the ability to procure additional financing may decrease, and the business's ability to survive adverse outcomes is diminished. However, solvency should be viewed in connection with profitability. A low solvency position may be desirable if debt capital provides returns in excess of its cost.

Equity-to-Asset

Computation: Owner equity divided by total assets.

Interpretation: This ratio shows the portion of total assets represented by owner equity. It is another way of expressing solvency.

Debt-to-Equity

Computation: Total liabilities divided by owner equity.

Interpretation: This ratio shows the extent to which debt capital is combined with equity capital. It is another way of expressing solvency.

PROFITABILITY

Rate of Return on Assets (ROA)

Computation: Net farm income plus interest expense minus a charge for unpaid operator labor and management, divided by average total assets.

Interpretation: This ratio measures the pre-tax rate of return on farm assets and is used to evaluate whether assets are employed profitability in the business. Two important factors affecting this measure are valuation of assets and the charge for unpaid operator labor and management. A $15,000 charge per full time operator plus five percent of gross revenue was used in the 2001 analysis.

Rate of Return on Equity (ROE)

Computation: Net farm income minus a charge for unpaid operator labor and management, divided by average owner equity.

Interpretation: This ratio measures the pre-tax rate of return on equity capital employed in the business. Two important factors affecting this measure are valuation of assets and the charge for unpaid operator labor and management. A $15,000 charge per full time operator plus five percent of gross revenue was used in the 2001 analysis. This ratio should be evaluated carefully and used in conjunction with other ratios when analyzing a farm business. If ROE is greater than ROA, debt capital is being employed profitably—it is earning more than it costs in interest. A high ratio may indicate an undercapitalized or highly leveraged business, and a low ratio may indicate a more conservative, high equity business.

Operating Profit Margin

Computation: Net farm income plus interest expense minus a charge for unpaid operator labor and management, divided by the value of farm production. Value of farm production is gross farm revenue less purchase of market livestock and feed.

Interpretation: This ratio measures net farm income per dollar of farm production. It is a pre-tax measure of profit margin from the employment of assets. An important factor is the charge for unpaid operator labor and management. There is a relationship between operating profit margin, asset turnover rate, and ROA. Operating profit margin multiplied by asset turnover rate equals ROA.

Net Farm Income

Computation: Net farm income is total revenue earned minus the costs incurred to generate those revenues. It is cash revenue less cash expense and depreciation plus capital adjustments (gain or loss from sale of capital assets). Accrual adjustments for changes in inventories are included to properly match revenues and expenses to the time period for which net farm income is being measured.

Interpretation: Net farm income is the return to the operator for unpaid labor and management and equity capital used in the farm business. Net farm income is an absolute amount and it is difficult to assign a standard to all farms because of differences in the amount of unpaid operator labor and equity used.

REPAYMENT CAPACITY

Term Debt Coverage Ratio

Calculation: Net farm income plus depreciation and other capital adjustments plus non-farm income plus scheduled interest on term debt minus family living expense and income taxes, divided by scheduled term debt principal and interest payments.

Interpretation: This ratio measures the capacity of the borrower to cover all term debt payments. The more the ratio exceeds 1, the greater the margin to cover term debt payments. The business may have sufficient earnings but the timing of cashflows may not be adequate to make the payments on a timely basis. Also, the ratio does not contain any provision for replacement of capital assets.

Capital Replacement and Term Debt Repayment Margin

Calculation: Net farm income plus depreciation and other capital adjustments plus non-farm income minus family living expense, income taxes, and scheduled term debt principal payments.

Interpretation: This is a measure of the business's ability to make payments on term debt. A positive margin indicates the amount available, after making term debt payments, for acquiring capital assets or servicing additional debt. The capital replacement and term debt repayment margin is a dollar amount, so it is impossible to establish a standard for all farm businesses.

FINANCIAL EFFICIENCY

Asset Turnover

Calculation: Value of farm production divided by average total assets. Value of farm production is gross farm revenue less purchase of market livestock and feed.

Interpretation: This is a measure of how efficiently assets are used in the business. The higher the number, the more production is created per dollar of assets. Asset turnover can vary significantly by type of farm and by asset base. For example, dairy and hog farms will typically have higher asset turnovers than cow-calf or cash grain operations. Asset turnover will probably be higher if capital assets, such as machinery and land, are rented instead of owned.

Operating Expense Ratio

Calculation: Total expense less interest and depreciation and capital adjustment divided by gross farm revenue.

Interpretation: This ratio measures how efficiently operating expenses are managed to generate gross farm revenue. The operating expense ratio will typically vary by farm type.

Depreciation Expense Ratio

Calculation: Depreciation and capital adjustments divided by gross farm revenue.

Interpretation: This ratio expresses depreciation and capital adjustment relative to gross farm revenue. It will vary by farm type and from year to year. Caution must be used when evaluating this ratio. It does not comply with the farm financial standards because the Finpack program, used to generate the farm financial summaries, calculates depreciation and capital adjustment as one number (ending inventory plus capital sales less the sum of beginning inventory and capital purchases). Therefore depreciation cannot be isolated.

Interest Expense Ratio

Calculation: Interest expense divided by gross farm revenue.

Interpretation: This ratio shows the portion of gross farm revenue necessary to cover interest expense. It is often used as a measure of financial risk.

Net Farm Income Ratio

Calculation: Net farm income divided by gross farm revenue.

Interpretation: This is a measure of how efficient the farm business is at generating net income from gross revenue. It is the portion of gross farm revenue left after operating expense, depreciation and capital adjustment, and interest expense have been removed.

INTERPRETATION OF RESULTS

Each financial measure was calculated for each farm. Farms were grouped by characteristics such as region, type of farm, and size and were sorted in order from strongest to weakest by each of the 16 financial measures. The **median** is the midpoint value of the financial measure: one-half of the farms in the category had a higher value and one-half had a lower value than the median. The **upper quartile** is the value that was exceeded by one-fourth of the farms, and the **lower quartile** is the value that was exceeded by three-fourths of the farms. (Another definition of lower quartile is the value for which one-quarter of the farms in the category had a weaker value.)

Individual farm operators and lenders can use the tables as a measure of comparison if their financial measures are calculated similarly. For example, a farm operator 30 years of age may compare his/her profitability and financial efficiency with those of other young operators. Or a lender may compare the solvency and repayment capacity of producers who rent all their crop land. The tables also can be used to look at relationships and trends. What is the relationship between age of farmer and rate of return on equity? How has operating profit margin of livestock farms changed over time?

One ratio is not sufficient to make conclusions about the overall financial performance of a farm business. For example, a livestock farm may have a debt-to-asset ratio of 60%, which is worse than the median value of 56.2% (shown on table 7) for that farm enterprise category. However, other factors such as profitability, total assets, and age of operator should also be considered.

Also, a farm can be adversely affected by extraordinary circumstances. Profitability in the low quartile may not be reflective of management capability if the farm had localized bad weather that was not experienced by many other producers in the farm category.

Caution must be used when analyzing the tables because a small number of farms increases the possibility that results may not be representative of a farm category. In this study, for 2001, there are only 80 Red River Valley farms, 79 farms with operators younger than 35 years, 95 mixed livestock-crop enterprise farms, and 96 livestock farms. Performance of the Red River Valley region may not be representative of the central or northern areas of the Red River Valley because nearly all valley farms in the study are from the south.

There are some strong correlations between two or more classifications, so it is difficult to associate a financial measure with an individual farm characteristic.

For example, the profitability of livestock, in comparison to crop farming, is reflected in farm categories that had a disproportionate number of livestock farms, such as the west region, farms with greater than 40% crop land ownership, and farms with less than $100,000 sales. Also, comparison of farms by enterprise type, farm size and gross sales can be affected by regional performance. The Red River Valley has the highest proportion, relative to other regions, of crop farms, farms of less than 1,600 acres, and farms with gross income greater than $250,000.

Tables 1 and 2 show the trends in financial performance and characteristics of North Dakota farms, 1992-2001. The trend has been for farms to get larger and for farmers to get older. In 2001, median farm acreage and gross cash revenue were 40% and 52% higher, respectively, than in 1992. Median age of operator was 44 in 2001 compared to 39 in 1992.

Financial performance in 2001 declined for all 16 measures, except interest expense ratio, because of lower government subsidies, higher costs and continued low commodity prices.

Financial performance in 2000 and 1999 was the highest since 1993 because low crop prices were offset by extraordinary government and crop insurance payments, good yields and improved beef cattle prices. The median net farm income, term debt coverage ratio, and working capital in 2000 was the highest in the decade. Performance was the poorest in 1997 and 1998 for the 1992-2001 period. Over one out of four farms had negative net farm income and over one-half of farms could not make scheduled term debt payments with the year's income.

FARM CLASSIFICATION AND HIGHLIGHTS

ALL FARMS

Highlights

- Some consistent trends over the past decade, 1992-2001, for farms enrolled in the North Dakota Farm Business Management Education Program are:
  - farms are getting larger; median acreage increased 40% to 1,937 acres, median gross revenue increased 52% and median farm assets and liabilities increased 45% and 76% to $543,860 and $287,068, respectively.
  - farmers are getting older; the median age increased from 39 to 44.
  - off-farm wages and salaries per farm household more than doubled.

- Median net farm income in 2001 was $27,729, 40% less than 2000, because of lower government subsidies and higher crop production costs. Net farm income in 2000 was the highest in the decade, but 1993 and 1992 had the highest profit after adjusting for inflation.

- Financial performance was strong in 2000 and 1999, despite very low crop prices, because of extraordinary government and crop insurance payments, higher beef prices and generally strong yields. Yields and acreage of corn, soybeans and sugarbeets were at record levels. Record yields of flax, potatoes, winter wheat and rye were also attained. Small grain, canola and sunflower yields were below trend line in 1999 but improved in 2000.

- The poorest financial performance was in 1997, 1998 and 1995 because of low cattle prices, weather related production problems with small grains in 1995 and 1997, low crop prices in 1998 and increasing crop production costs. In 1997, financial performance was poor regardless of farm type, acreage or level of gross sales. It was the only year when farms with gross sales less than $100,000 had better repayment capacity than farms with greater sales.

- Median current ratio of 1.2 in 2001 was similar to the 1996-1998 period but down from 1.4 in 2000 and 1999.

- Solvency deteriorated in 2001 after improving in 2000 and 1999. Solvency deteriorated each year from 46.4% in 1993 to 59.4% in 1998. The median debt-to-asset ratio was 55.5% in 2001.

- Median rates of return on equity and assets were 3.2% and 4.1%, respectively, in 2001. In the 1992-2001 period, the only years that ROE exceeded ROA, which indicated that debt capital was employed profitably, were 1993, 1999 and 2000.

- Median term debt coverage ratio of 1.0 in 2001 indicates financial stress. During 1992-2001, only 1997 and 1998 had median term debt coverage ratio below 1.0, which indicates over one-half of the farms were not able to make all scheduled term debt payments with farm and non-farm income.

- Two ways to increase profit are increasing sales while maintaining profit margins, or by increasing profit margins. In the 1992-2001 period median gross revenue increased from $142,262 to $216, 697 but profit margins have generally decreased. Median net farm income as a percent of gross revenue was the highest, averaging 25.4%, for the 1992-1994 period and lowest, averaging 13.8%, for the 1995-1998 period. Median net farm income as a percent of gross revenue was 14% in 2001.

REGION

Farms are classified in one of four geographic regions in North Dakota, based on the location of their Farm Business Management program. However, farms enrolled in the Bismarck program are classified as "west or "south central" according to which side of the Missouri River the farm is located. Also, some farms that are enrolled in the Kindred and Wahpeton programs are not in the Red River Valley and are classified as south-central. The southern area of the "west" region is better represented than the northern area. The northern area of the Red River Valley has had no representation since 1997. Locations of North Dakota Farm Business Management programs that participated in the 1999-2201 summaries are:

Red River Valley: Kindred and Wahpeton
North Central: Bottineau, Devils Lake, Garrison (1999, 2000), Minot, and Rugby
South Central: Bismarck, Carrington, Enderlin, Jamestown, Napoleon, Oakes (1999), and Valley City
West: Bismarck, Dickinson, Glen Ullin, and Stanley

Highlights

- In 2001 the median farm size increased from the Red River Valley (1,522 acres, all crop land) to the west region (2,481 acres, including pasture). Median size of farms in the north central region was about 1,950 total acres with 1,650 crop acres. Median farm size for the south central region was about 1,950 total acres with 1,500 crop acres.

- Several farm characteristics are strongly related to region. Red River Valley farms typically have smaller total acreage (crop land and pasture) and percent of crop land owned but have much larger total farm sales, assets and liabilities than farms in other regions. The incidence of livestock and mixed enterprise farms goes from a mere 1% in the Red River Valley to 68% in the west.

- Overall, financial performance in 2000 was similar to 1999. In 2001, all 16 measures of financial performance declined in each region except the median interest expense ratio improved in the west region. The north central region experienced the greatest decline in financial performance compared to 2000.

- Liquidity and repayment capacity declined in all regions in 2001compared to 2000. In the north central region the median current ratio dropped from 1.5 to 1.2 and the term debt coverage ratio plummeted from 1.6 to 0.7.

- Solvency improved in all regions in 2000 and 1999 but declined in 2001. Median debt-to-asset ranged from 49.9% in the Red River Valley to 58% in the north central region in 2001.

- Median net farm income was similar in 1999 and 2000 within regions, but in 2001 all regions declined by over 40%, except the west which declined 15% to $34,531.

- In 2001, median net farm income was $41,629 in the Red River Valley and about $22,200 in the central regions. One out of four farms in the central regions had negative net farm income.

- In 2001 all regions, except the west, had median operating expense greater than 70%. It was 63.8% in the west region.

FARM ENTERPRISE

Farms were classified as "crop" if 70% or more of total sales were from crops, and "livestock" if livestock sales accounted for 70% or more of total sales. The remaining farms were classified as "mixed."

Highlights

- During 1998-2001 about 64% of all farms statewide were in the crop category. In 2001, 18% of farms were classified as livestock and 18% were mixed enterprise farms.
- Ninety-nine percent of Red River Valley farms,76% of north central farms, 53% of south central farms and 32% of west region farms were classified as crop in 2001.
- Forty-four percent of the west region farms were classified as livestock in 2001.
- In 2001, financial performance declined for all farm types, especially crop farms, compared to 2000.
- In 2001, median net farm income for crop farms declined 45% to $28,042, but mixed enterprise and livestock farms only declined 30% and 15%, respectively. Median net farm income was $29,405for mixed enterprise farms and $24,917 for livestock farms.
- In the 1992-2001 period crop farms tended to have more total assets and liabilities and greater gross and net income than livestock and mixed enterprise farms. Profitability of livestock farms was similar to crop farms only in 1993, 1997 and 2001.
- In 2000 and 1999, financial performance of all farm types was much better than in 1998. Profitability of livestock and mixed farms was extremely weak in 1995-1998. In 1997 the performance of crop farms was also very poor.
- Every year, 1992-2001, crop farms had better solvency than other farm types. In 2001, crop farms had a median debt-to-asset ratio of 55.2%, mixed enterprise farms had 55.3% and livestock farms had 56.2%.
- Repayment capacity of all farm types in 2000 and 1999 had improved greatly from 1998, to the highest levels since 1993. However, repayment capacity declined sharply in 2001. Over one-half of all crop farms were not able to meet scheduled term debt payments with farm and non-farm income.
- The median asset turnover ratio was 0.45 for crop farms, 0.31 for mixed enterprise farms and 0.23 for livestock farms in 2001. A higher ratio for crop farms is typical. Most livestock farms are beef cow-calf operations.
- Financial efficiency, as measured by the median of net farm income as percent of gross revenue, was 18.5% for livestock farms, 16.4% for mixed enterprise farms and 12.5% for crop farms in 2001.
- Median interest expense as percent of gross revenue has typically been higher for livestock farms than for crop farms. This relationship held in 2001, although median interest expense as a percent of gross revenue declined to 8.9% for livestock farms and increased to 7.1% for crop farms.

FARM SALES

Farms were classified in one of three cash farm sales categories. Farm sales include cash receipts from crop and livestock sales, government payments, and other farm income.

The categories were: less than $100,000
$100,000 to $249,999
$250,000 or over

Highlights

- Median farm sales were $216,697 in 2001. Sales per farm have increased over time; about 42% of farms had sales in excess of $250,000, compared to 17% in 1992.
- Two-thirds of Red River Valley farms had sales in excess of $250,000, compared to 45% of south central farms, 37% of west region farms and 32% of north central farms in 2001.
- Farms in the north central and west tend to have lower sales than other regions.
- Farm type and sales are correlated. In 2001, over one-half of crop farms have sales in excess of $250,000 compared to one-fifth of livestock farms.
- As expected, young farmers typically have lower sales than older farmers. However, farmers between the ages of 35 and 45 were more likely to have farm sales greater than $250,000 than farmers older than 45 years.
- A strong relationship between gross sales and financial performance is typical. Every year, 1992-2001, median rates of return on assets and equity increased with sales volume.
- In 2001 and 2000, median current ratio improved as farm sales increased, but there has not been a clear relationship between farm sales and current ratio over the 1992-2001 period.
- Farms with low sales typically have higher debt-to-asset. In 2001, median debt-to-asset was 62.4%, 59.5% and 51.4% for low, medium and high farm sale groups, respectively.
- In 2001, median net farm income was $8,299 for farms with less than $100,000 sales, $23,515 for farms with $100,000 to $250,000 sales, and $56,278 for farms with greater than $250,000 sales.
- In 2001, farms with greater than $250,000 sales had the highest repayment capacity, but farms with less than $100,000 had slightly better repayment capacity than farms with $100,000-$250,000 sales. Typically, repayment capacity is directly related to amount of sales. However, low sale farms rely more heavily on non-farm income for repayment capacity than large sale farms. In 1997, when farms had poor profitability regardless of sales level, farms with less than $100,000 sales had the best repayment capacity.
- From 1997-1991, farms with sales under $100,000 had the best operating expense as percent of gross revenue, but had the worst interest expense ratio because of higher debt.

FARM SIZE

Both crop and pasture acres were included in determining farm size.

Farm size categories were: 1,600 acres or less
1,601 acres or more

Highlights

- Because of an increase in pasture land from east to west, median total farm acreage (crop land and pasture) ranged from 1,522 in the Red River Valley (all crop land) to 2,481 in the west region. Median farm crop acreage was lowest in the west region.
- In 2001, 64% of farms were greater than 1,600 acres, compared to 50% in 1996.
- In 1999, 2000 and 2001, mixed enterprise farms were slightly larger than crop or livestock farms.
- In 2001, only 38% of farmers under 35 years old operated more than 1,600 acres, compared to 72% of farmers between 35 and 45 years old and 65% of farmers over 45 years.
- As expected, farms with greater than 1,600 acres have greater assets, liabilities, sales and profitability than smaller farms. Larger farms also have better liquidity and solvency.
- In 2001, all financial performance measures deteriorated for both farm size categories, except solvency improved slightly for farms greater than 1,600 acres.
- In 2000 and 1999, all financial performance measures for both farm size categories were much better than in 1998.
- Each year, 1994-1999, the median current ratio for the large farm category was slightly better than for the small farm category. In 2001 and 2000 it was 1.3 and 1.5 for farms with greater than 1,600 acres, respectively, and 1.1 and 1.3 for smaller farms, respectively.
- In 2001, median debt-to-asset was 63.3% for farms with less than 1,600 acres and 51.8% for larger farms.
- In 2001, median net farm income was $18,392 for farms with less than 1,600 acres and $34,498 for farms with more than 1,600 acres.
- In 1999, 2000 and 2001, median term debt coverage ratio was better for farms with more than 1,600 acres than for smaller farms. However, in the four years 1995-1998, median term debt coverage was better for smaller farms. Although smaller acreage farms generate less cash income, they tend to have more non-farm income and lower payments than larger farms.
- Financial efficiency measures of farm size groups tend to be similar. This indicates that greater profitability of farms larger than 1,600 acres is due to larger sales volume and/or greater operator labor efficiencies not lower operating expenses per dollar of sales.

CROPLAND TENURE

This is a classification of the portion of crop land that is rented. Four categories were used.

Full tenant
1-20 percent owned
21-40 percent owned
41 percent or over owned

Highlights:

- Ownership of crop land is lowest in the Red River Valley. In 2001, about one-third of Red River Valley farms owned more than 20% of the crop land they operated, compared to about 60% of farms in other regions.

- Crop land ownership increases with age. In 2001, farmers older than 45 years were twice as likely to own more than 40% of their crop land than were farmers younger than 35 years. Also, 39% of farmers less than 35 years old rented all of their crop land, compared to 23% of farmers 35-45 years and only 12% of farmers older than 45 years old.

- Operators of livestock and mixed enterprise farms own a greater portion of their crop land than crop farms. About one-half of livestock and mixed enterprise farms own more than 40% of the crop land that they operate, compared to one-fourth of crop farms.

- Interestingly, small farms (less than 1,600 acres) were more likely to either own no crop land or to own more than 40% of crop land than were large farms (more than 1,600 acres).

- Farms that own some land, but not a lot, are typically the most profitable. Farms in the 1 to 20% crop land ownership category are also more likely to be crop farms, farm more acreage, and have larger sales.

- During the years 1992-2001 there is no clear relationship between the current ratio and land tenure except that the farms with greater than 40% crop land ownership tend to have a better median current ratio.

- Farms with greater than 40% crop land ownership typically had better solvency in the 1992-2001 period than other crop land ownership groups. In 2001, farms with no crop land ownership had a median debt-to-asset ratio of 63.8% compared to 51.4% for farms with crop land ownership greater than 40%.

- In 2001, median net farm income ranged from $22,230 for farms with all crop land rented, to $30,936 for operations which owned 1 to 20% of the crop land farmed.

- Farms with a smaller proportion of crop land ownership have fewer land assets and land interest costs and therefore have higher asset turnover ratios and lower interest expense ratios, but because of land rent costs they have higher operating expense ratios.

NET FARM INCOME

Four levels of net farm income were used to group farms.

Negative
$0 - $24,999
$25,000 - $49,999
$50,000 or more

Highlights

- Median net farm income fell to $27,729 in 2001, after it increased to $45,085 in 2000 and $42,009 in 1999 following two extremely low years, $19,491 in 1998 and $14,290 in 1997.
- In 2001 one-fifth of the farms had negative net farm income compared to one out of ten farms in 2000 and 1999.
- The Red River Valley region had the highest median net farm income every year from 1992 to 2001, except for 1993 and 1998.
- From 1992-2000, crop farms have been more profitable than livestock or mixed enterprise farms. In 2001, net farm income was similar by farm type. Median net farm income was $29,405 for mixed enterprise farms, $28,042 for crop farms and $24,917 for livestock farms.
- The strong associations between net farm income and farm type, farm sales, and farm size were renewed in 1998-2000 after being greatly reduced in 1997.
- In 2000, nearly 70% of the farms with sales greater than $250,000 had net farm income greater than $50,000, and only 15% had net farm income less than $25,000. Seventy-six percent of farms with sales less than $100,000, had net farm income below $25,000.
- In 2001, farms larger than 1,600 acres were over twice as likely to have net farm income greater than $50,000 than smaller farms.
- During the 1992-2000 period, farmers between the ages of 35 to 45 years were more profitable than farmers that were younger or older, but in 2001 older farmers had similar net farm income as farmers in the 35 to 45 age group.
- Solvency, liquidity, repayment capacity, and financial efficiency were strongly correlated with net farm income.
- In 1996-2000, low debt farms (less than 40% debt-to-asset) were three to four times as likely to have net farm income in excess of $50,000 than high debt farms (greater than 70% debt). In 2001, low debt farms were five times more likely to have net farm income greater than $50,000.

DEBT-TO-ASSET RATIO

Three ranges of debt-to-asset ratio were used to group farms.

0 - 40 percent
41 - 70 percent
71 percent or more

Highlights

- After improving in 2000 and 1999, median debt-to-asset increased to 55.5% in 2001. Prior to 1999 solvency had deteriorated each year since 1993.
- There is a strong inverse relationship between level of debt and liquidity, repayment capacity, profitability and financial efficiency measures. As debt-to-asset increases, these measures deteriorate.
- In 2001, farms in the low debt category had the best median current ratio, 3.5, interest percent ratio, 3.9%, and term debt coverage ratio, 2.2, compared to any of the 26 farm categories used in this study.
- Median net farm income for the low, medium, and high debt categories in 2001 was $52,196, $32,069 and $7,123, respectively.
- In 2001, 75% of farms with high debt had net farm income less than $25,000.
- Red River Valley farms, crop farms, large farms (greater than 1,600 acres) and farms with high sales (greater than $250,000 sales) had lower median debt-to-asset than other regions, farm types, farm size and farm sales groups, respectively, during the years 1996-2001.
- About 37% of farms with sales less than $100,000 sales were in the high debt group compared to 22% of farms that had sales greater than $250,000.
- As expected, percent debt-to-asset tended to decrease as age of farmer increased.

FARMER AGE

Three groups were used to classify farms by age of operator:

34 years or less
35 - 44 years
45 years or older

Highlights

- In 2001, 15% of farm operators were under 35 years old and 37% were between 35 and 45 years old. The percent of farmers older than 45 has steadily increased from 25.7% in 1992 to 48.3% in 2001.

- Prior to 1999, the age of farmers tended to increase slightly from east to west, but in 1999 to 2001 the age distribution of farm operators has been similar for all regions.

- In 2001, only 5% of mixed enterprise farm operators were less than 35 years old compared to 16% for crop farms and 20% for livestock farms.

- Farmers in the middle age group typically had more total farm liabilities, higher gross sales, larger farms and were more profitable than the younger or older age groups. In 2001, net farm income was similar between the middle and older age groups.

- Median total assets were greatest, 1992-2001, for farm operators older than 45 years and least for farmers under 35 years old. However, median total assets of the middle age group of farmers (35 to 45 years) is close to the asset level of the older farmer group.

- As expected, as the age of the farm operator increases there is a higher percent of the crop land in the farm that is owned, and the percent of farm debt tends to decrease. In 2001, median debt-to-asset was 64.3% for farmers less than 35 years old, 56% for farmers in the 35 to 45 age group and 51.4% for farmers older than 45.

- In 2001, 1998 and 1997 the younger farmers had the best median current ratio, 1.3. In 2000 the median current ratio was 1.4 for all age groups and in 1996, 1994 and 1993 the middle age group had the best liquidity measures.

- In 2001, median net farm income decreased to $22,622 for farmers under 35 years, $29,405 for farmers between 35 and 45 years old and $28,428 for farmers older than 45 years. The largest decrease was for farmers between 35 and 45 years old.

- In each year, 1992-2001, the young age group of farmers employed assets more efficiently than farmers older than 45 years. The young group had better median measures of ROA, ROE, term debt repayment coverage ratio, asset turnover and interest expense and net farm income as percent of gross revenue despite having much fewer total assets and higher debt-to-asset.

TABLE 1. MEDIAN FARM SIZE, FARM OPERATOR AGE, AND FINANCIAL FACTORS OF FARMS PARTICIPATING IN THE NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION PROGRAM, 1992-2001.

	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992
Number of Farms	532	553	539	535	560	551	596	536	539	516
	----------Median----------									
Age of Operator	44	44	43	42	42	41	41	40	39	39
Farm Size (acres)	1,937	1,916	1,921	1,882	1,729	1,601	1,576	1,517	1,429	1,388
Gross Cash Revenue	216,697	205,659	190,676	173,972	179,052	177,152	165,134	162,427	161,426	142,262
Total Farm Assets	543,860	549,636	520,094	499,496	485,094	469,587	438,289	439,749	409,839	374,013
Total Farm Liabilities	287,068	274,640	266,401	270,802	263,406	251,480	225,793	201,037	178,509	163,132
Current Ratio	1.2	1.4	1.4	1.2	1.2	1.2	1.3	1.4	1.5	1.6
Working Capital	21,910	36,612	29,643	12,095	11,207	19,042	18,984	27,598	33,387	29,527
Debt-to-asset (%)	55.5	53.9	55.5	59.4	58.6	55.6	51.5	49.8	46.4	48.4
Rate of Return on Farm Assets (%)	4.1	7.6	8.4	4.0	2.5	6.5	4.7	6.4	8.6	6.8
Rate of Return on Farm Equity (%)	3.2	7.7	9.0	0.0	-1.4	4.9	2.2	5.8	10.1	6.0
Operating Profit Margin (%)	12.1	20.6	21.6	11.5	8.3	17.3	14.5	17.9	23.7	16.4
Net Farm Income	27,729	45,085	42,009	19,491	14,290	31,063	23,463	32,523	42,484	40,998
Term Debt Coverage Ratio	1.0	1.6	1.5	0.9	0.7	1.2	1.1	1.3	1.9	1.4
Term Debt & Capital Repayment Margin ($)	301	17,768	17,973	-2,680	-8,995	5,024	1,652	7,069	17,634	8,767
Asset Turnover Ratio	0.38	0.42	0.38	0.36	0.34	0.39	0.36	0.4	0.4	0.4
Operating Expense Ratio (%)	70.9	63.3	61.2	71.9	73.3	66.0	67.4	64.9	60.9	58.4
Depreciation Expense Ratio (%)	5.9	5.3	5.7	5.7	6.0	5.6	5.7	4.7	4.6	4.5
Interest Expense Ratio (%)	7.6	7.8	8.4	9.6	9.9	8.9	8.8	7.6	6.9	7.8
Net Farm Income Ratio (%)	14.0	21.7	22.4	12.7	8.1	18.0	16.2	21.7	26.6	28.0

TABLE 2. PERCENT DISTRIBUTION OF FARMS BY FARM GROUP CATEGORY, NORTH DAKOTA FARM BUSINESS MANAGEMENT PROGRAM, 1992-2001.

Farm Group/Category	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992
All Farms	532	553	539	535	560	551	596	536	539	516
	----------Percentage----------									
Region										
Red River Valley	15.0	13.0	12.8	12.7	17.0	16.7	20.5	23.3	23.0	21.1
North Central	37.0	36.2	36.2	36.1	31.8	30.3	25.8	25.2	26.7	25.1
South Central	28.2	30.2	30.2	33.1	33.6	33.9	35.9	35.1	31.9	34.8
West	19.7	20.6	20.8	18.1	17.7	19.1	17.8	16.4	18.4	19.0
Farm Enterprise										
Crop	64.1	63.3	64.6	63.9	65.4	66.4	66.9	68.5	66.4	52.8*
Livestock	18.0	19.9	20.0	20.6	17.5	17.2	23.8	22.8	23.0	22.8*
Mixed	17.9	16.8	15.4	15.5	17.1	16.3	9.2	8.8	10.6	24.4*
Farm Sales										
$99,999 or less	16.4	17.7	20.0	23.2	20.7	26.3	26.0	24.1	23.0	29.0
$100,000 - $249,999	41.5	43.8	44.0	45.6	46.4	43.6	47.3	51.9	53.6	53.6
$250,000 or over	42.1	38.5	36.0	31.2	32.9	30.1	26.7	24.1	23.3	17.4
Farm Size										
1,600 acres or less	36.1	36.3	36.0	39.3	44.3	50.1	30.7**	34.1	35.8	36.9
1,600 acres or over	63.9	63.7	64.0	60.7	55.7	49.9	69.3**	65.9	64.2	63.1
Cropland Tenure										
Full tenant	20.1	17.1	17.8	18.2	19.6	20.8	20.7	22.0	23.1	22.5
1-20 percent owned	26.7	26.2	23.2	26.1	25.2	23.0	22.3	19.0	17.5	16.8
21-40 percent owned	20.0	22.2	24.7	21.8	20.7	20.8	19.9	20.3	22.5	21.3
41 percent or over owned	33.3	34.4	34.2	33.8	34.5	35.4	37.1	38.6	36.9	39.4
Farm Income										
Negative	21.2	10.3	8.0	25.6	29.5	18.0	22.1	12.9	9.6	7.4
$0-$24,999	25.9	20.6	23.2	29.7	32.1	25.0	24.2***	23.7	18.2	16.8
$25,000 - $49,000	22.6	23.5	25.6	20.4	21.4	20.9	16.4***	21.5	20.2	24.8
$50,000 or more	30.3	45.6	43.2	24.3	17.0	36.1	37.2***	42.0	57.9	51.1
Debt-to-asset Ratio										
0-40 percent	26.9	29.3	28.8	24.3	28.4	28.9	33.6	35.8	39.1	37.5
41-70 percent	43.8	45.9	44.5	41.9	39.1	42.6	42.4	45.1	44.0	42.0
71 percent or more	29.3	24.8	26.7	33.8	32.5	28.5	24.0	19.0	16.9	20.5
Farmer Age										
34 years or younger	14.8	15.0	17.8	18.5	20.0	18.7	22.1	25.6	26.8	28.6
35-44 years	36.8	40.0	39.7	41.9	40.9	44.3	43.0	43.7	46.1	45.6
45 years or older	48.3	45.0	42.5	39.6	39.1	37.0	34.9	30.8	27.2	25.7

* For 1992, 60%, not 70%, of total sales was the criteria to determine farm type.

** For 1992-1995 farm sizes were 1,200 acres or less, and 1,201 acres or more.

*** For 1992-1995 farm income categories were negative, $0-$19,999, $20,000-$39,999, and $40,000 or more.

TABLE 3. FARM CLASSIFICATIONS AND PERCENT DISTRIBUTION OF FARM TYPES WITHIN REGIONS, NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION PROGRAM, 2001.

			Farm Group Category Breakout by Region			
Farm Group Category	Number of Farms (532)	Percentage	Red River Valley	North Central	South Central	West
Region			80	197	150	105
Red River Valley	80	15.0				
North Central	197	37.0				
South Central	150	28.2				
West	105	19.7				
Farm Enterprise			----------percentage----------			
Crop	341	64.1	98.8	75.6	52.7	32.4
Livestock	96	18.0	0.0	13.7	15.3	43.8
Mixed	95	17.9	1.3	10.7	32.0	23.8
Farm Sales						
$99,999 or less	87	16.4	7.5	21.3	10.7	21.9
$100,000 - $249,999	221	41.5	25.0	46.7	44.0	41.0
$250,000 or over	224	42.1	67.5	32.0	45.3	37.1
Farm Size						
1,600 acres or less	192	36.1	53.8	35.0	33.3	28.6
1,600 acres or over	340	63.9	46.3	65.0	66.7	71.4
Cropland Tenure						
Full tenant	106	20.1	23.8	20.4	15.3	23.3
1-20 percent owned	141	26.7	42.5	29.1	24.0	13.6
21-40 percent owned	106	20.0	20.0	20.4	20.0	19.4
41 percent or over owned	176	33.3	13.8	30.1	40.7	43.7
Farm Income						
Negative	113	21.2	12.5	23.9	24.7	18.1
$0 - $24,999	138	25.9	17.5	31.0	27.3	21.0
$25,000 - $49,999	120	22.6	21.3	24.4	20.0	23.8
$50,000 or more	161	30.3	48.8	20.8	28.0	31.1
Debt-to-asset Ratio						
0 - 40 percent	143	26.9	23.8	26.4	29.3	26.7
41 - 70 percent	233	43.8	52.5	43.1	38.7	45.7
71 percent or more	156	29.3	23.8	30.5	32.0	27.6
Farmer Age						
34 years or younger	79	14.8	15.0	16.8	12.0	15.2
35 - 44 years	196	36.8	35.0	39.1	33.3	39.0
45 years or older	257	48.3	50.0	44.2	54.7	45.7

TABLE 4. CURRENT ASSETS AND CURRENT LIABILITIES, QUARTILE VALUES FOR 2001, MEDIAN VALUES FOR 1999 AND 2000, NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION PROGRAM PARTICIPANTS

Farm Group	2001 Upper Quartile	2001 Lower Quartile	2001 Median	2000 Median	1999 Median	2001 Upper Quartile	2001 Lower Quartile	2001 Median	2000 Median	1999 Median
	Current Farm Assets ($)					Current Farm Liabilities ($)				
All Farms	229,423	79,550	138,633	136,837	119,906	47,868	168,084	98,804	87,013	79,133
Region										
Red River Valley	363,291	133,856	218,795	236,860	234,088	74,147	232,232	142,996	141,932	124,495
North Central	181,082	71,520	116,444	126,638	109,041	38,020	145,888	81,555	82,048	64,393
South Central	229,423	91,477	136,612	123,374	125,087	62,979	183,741	108,956	91,274	86,585
West	234,532	72,846	136,788	120,156	104,906	27,619	135,832	75,340	59,820	58,989
Farm Enterprise										
Crop	253,873	90,682	148,129	150,353	137,658	58,037	182,998	109,535	102,677	98,026
Livestock	188,510	49,391	97,498	98,770	89,145	26,846	122,014	64,165	55,334	50,911
Mixed	211,828	85,780	128,620	125,378	110,034	52,185	135,832	88,542	79,493	71,674
Farm Sales										
$99,999 or less	77,517	29,465	49,310	40,449	43,436	19,576	60,687	36,285	29,744	32,391
$100,000-$249,999	158,837	79,543	112,004	117,014	108,599	47,574	130,216	85,064	79,739	69,668
$250,000 or over	368,768	161,413	239,022	260,491	236,798	89,330	245,405	161,967	148,322	148,247
Farm Size										
1,600 acres or less	120,738	45,159	79,543	69,423	63,128	30,638	107,234	62,810	50,498	45,507
1,601 acres or over	276,911	117,348	173,123	180,742	162,030	65,988	201,575	120,587	114,145	99,027
Cropland Tenure										
Full tenant	175,040	67,099	119,612	116,889	91,446	38,813	144,550	95,195	77,095	57,738
1-20 percent owned	270,768	107,328	164,345	194,846	177,009	72,113	216,012	135,648	125,253	112,303
21-40 percent owned	259,804	90,827	160,467	145,050	138,040	52,185	177,194	98,804	100,788	84,155
41 percent or over owned	214,607	71,520	119,701	114,797	94,365	35,000	141,454	76,604	61,000	63,036
Net Farm Income										
Negative	144,207	52,745	94,872	64,400	78,664	56,813	189,135	107,881	86,037	97,310
$0-$24,999	143,070	52,549	99,781	70,294	60,239	34,865	140,835	72,810	49,474	47,038
$25,000-$49,999	183,821	90,827	138,655	108,461	105,501	47,280	144,959	83,694	78,983	71,674
$50,000 or more	397,969	177,991	248,026	207,229	205,445	58,037	200,186	113,230	112,845	109,090
Debt-to-Asset Ratio										
0-40 percent	306,881	103,929	206,953	167,765	154,964	22,842	104,278	53,985	46,912	40,011
41-70 percent	224,361	89,810	142,660	148,176	121,371	65,293	182,492	109,535	100,788	88,888
71 percent or more	162,453	62,325	96,521	101,864	89,952	72,113	203,282	124,404	112,349	98,026
Farmer Age										
34 years or younger	151,084	61,772	93,994	107,907	98,078	40,455	103,207	69,441	57,124	51,510
35-44 years	259,268	91,228	157,724	176,192	161,931	58,533	189,135	116,895	110,689	95,182
45 years or older	239,762	79,550	139,414	132,415	116,986	44,616	168,181	101,486	84,868	80,039

TABLE 5. LIQUIDITY MEASURES, QUARTILE VALUES FOR 2001, MEDIAN VALUES FOR 1999 AND 2000, NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION PROGRAM PARTICIPANTS.

Farm Group	2001 Upper Quartile	2001 Lower Quartile	2001 Median	2000 Median	1999 Median	2001 Upper Quartile	2001 Lower Quartile	2001 Median	2000 Median	1999 Median
			Current Ratio					Working Capital($)		
All Farms	2.2	0.9	1.2	1.4	1.4	85,830	-9,708	21,910	36,612	29,643
Region										
Red River Valley	2.3	1.0	1.3	1.4	1.3	151,876	-9,033	31,973	63,837	53,870
North Central	2.1	0.9	1.2	1.5	1.4	67,215	-12,264	15,037	39,058	27,387
South Central	2.0	0.8	1.2	1.3	1.3	77,643	-19,702	18,343	26,294	33,810
West	2.9	1.1	1.4	1.5	1.4	114,982	8,419	38,517	38,621	25,083
Farm Enterprise										
Crop	2.2	0.9	1.2	1.3	1.3	86,788	-15,489	17,967	35,412	29,641
Livestock	2.5	1.1	1.4	1.6	1.5	77,643	3,555	24,571	36,351	28,049
Mixed	1.9	1.0	1.3	1.5	1.4	84,083	-2,748	33,710	41,449	37,735
Farm Sales										
$99,999 or less	2.2	0.9	1.2	1.2	1.3	22,047	-6,851	9,413	6,748	10,009
$100,000-$249,999	1.9	0.8	1.2	1.4	1.4	60,405	-12,940	20,527	33,056	32,996
$250,000 or over	2.6	1.0	1.3	1.5	1.3	179,441	-10,017	52,266	80,410	57,052
Farm Size										
1,600 acres or less	2.3	0.8	1.1	1.3	1.3	31,973	-12,264	10,450	12,996	12,212
1,601 acres or over	2.2	1.0	1.3	1.5	1.4	114,543	-8,849	36,621	54,071	42,777
Cropland Tenure										
Full tenant	1.6	0.8	1.2	1.3	1.3	50,523	-13,188	13,223	31,131	25,802
1-20 percent owned	1.9	0.9	1.1	1.4	1.4	92,905	-16,221	21,209	47,683	43,554
21-40 percent owned	2.0	1.0	1.2	1.4	1.3	116,416	-7,526	25,878	34,797	36,627
41 percent or over owned	2.8	1.0	1.4	1.5	1.4	98,045	-3,827	29,378	36,612	19,855
Net Farm Income										
Negative	1.0	0.6	0.8	0.9	0.8	2,689	-51,287	-16,275	-13,485	-13,578
$0-$24,999	1.7	0.8	1.2	1.2	1.2	36,066	-11,138	10,450	11,327	7,937
$25,000-$49,999	2.2	1.1	1.3	1.3	1.3	70,784	4,720	28,335	26,891	22,666
$50,000 or more	3.9	1.3	1.9	1.8	1.6	208,790	35,516	103,880	88,463	74,848
Debt-to-Asset Ratio										
0-40 percent	6.4	2.0	3.5	3.4	3.6	211,153	57,646	123,086	111,695	102,792
41-70 percent	1.6	0.9	1.2	1.3	1.3	61,131	-4,834	21,947	35,969	29,641
71 percent or more	1.1	0.7	0.9	1.0	1.0	12,339	-41,610	-13,188	-2,987	3,180
Farmer Age										
34 years or younger	2.1	1.0	1.3	1.4	1.4	58,841	540	22,047	29,454	27,077
35-44 years	2.1	0.9	1.2	1.4	1.4	91,545	-14,721	18,293	42,198	40,631
45 years or older	2.3	0.9	1.2	1.4	1.3	96,115	-9,731	25,448	33,244	20,427

TABLE 6. TOTAL ASSETS AND TOTAL LIABILITIES, QUARTILE VALUES FOR 2001, MEDIAN VALUES FOR 1999 AND 2000 NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION PROGRAM PARTICIPANTS

Farm Group	2001 Upper Quartile	2001 Lower Quartile	2001 Median	2000 Median	1999 Median	2001 Upper Quartile	2001 Lower Quartile	2001 Median	2000 Median	1999 Median
			Total Farm Assets($)					Total Farm Liabilities($)		
All Farms	883,122	367,137	543,860	549,636	520,094	164,236	437,350	287,068	274,640	266,401
Region										
Red River Valley	1,303,854	484,284	833,862	714,742	753,157	224,942	614,413	389,476	368,246	388,383
North Central	740,997	325,558	508,048	517,231	486,637	147,105	390,127	262,075	256,791	238,985
South Central	894,633	383,308	525,730	527,892	525,562	186,922	428,356	296,070	267,315	269,355
West	769,224	343,992	549,193	527,146	470,232	161,882	416,398	259,034	254,486	231,772
Farm Enterprise										
Crop	960,064	375,822	576,724	595,034	569,907	164,963	450,835	292,847	282,791	272,748
Livestock	701,589	325,558	477,006	468,560	453,253	155,745	382,632	260,389	251,888	237,930
Mixed	733,615	380,357	539,633	509,242	444,915	177,068	389,939	281,070	262,145	266,417
Farm Sales										
$99,999 or less	375,822	185,590	290,499	279,141	275,160	84,082	222,508	164,005	157,532	161,018
$100,000-$249,999	590,981	349,776	459,624	472,070	465,568	156,038	357,734	256,410	254,484	241,489
$250,000 or over	1,249,010	623,220	915,842	886,118	839,211	267,721	614,413	403,818	395,491	397,166
Farm Size										
1,600 acres or less	511,640	217,949	367,137	356,698	331,881	130,735	311,460	200,384	193,362	187,337
1,601 acres or over	1,006,608	467,991	700,265	668,915	632,877	222,356	504,173	340,189	330,960	328,028
Cropland Tenure										
Full tenant	508,048	198,442	316,279	308,388	256,883	97,267	300,558	216,630	183,999	150,751
1-20 percent owned	883,122	399,639	562,851	569,119	573,919	204,945	467,827	329,254	299,497	321,073
21-40 percent owned	1,041,629	445,338	629,079	585,240	544,244	177,068	464,334	316,698	313,931	295,720
41 percent or over owned	960,064	409,505	657,631	601,338	561,646	164,005	477,493	305,929	261,302	269,898
Net Farm Income										
Negative	704,628	258,596	438,396	472,397	425,336	190,499	446,653	305,098	370,415	295,502
$0-$24,999	567,492	289,034	396,498	345,274	320,568	133,065	382,632	240,288	205,453	201,476
$25,000-$49,999	703,523	386,362	517,755	443,632	443,688	178,230	395,696	261,083	229,179	262,012
$50,000 or more	1,275,641	620,719	915,842	722,070	738,907	188,324	523,864	329,900	317,271	327,983
Debt-to-Asset Ratio										
0-40 percent	1,041,629	489,987	717,702	667,285	615,257	68,582	238,906	144,037	131,578	126,912
41-70 percent	894,301	397,345	618,779	576,111	560,973	217,009	480,251	319,826	311,697	319,841
71 percent or more	538,365	265,970	383,308	395,686	389,769	240,288	485,984	354,597	366,913	345,488
Farmer Age										
34 years or younger	502,118	215,795	344,575	375,419	326,471	129,721	297,595	222,508	210,959	185,253
35-44 years	894,633	384,280	563,957	569,119	541,243	188,416	457,158	314,602	300,828	310,624
45 years or older	965,164	417,704	628,784	598,700	562,023	152,653	466,284	287,950	276,267	274,693

TABLE 7. SOLVENCY MEASURES, QUARTILE VALUES FOR 2001, MEDIAN VALUES FOR 1999 AND 2000, NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION PROGRAM PARTICIPANTS.

	2001					2001					2001				
Farm Group	**Upper Quartile**	**Lower Quartile**	**Median**	**2000 Median**	**1999 Median**	**Upper Quartile**	**Lower Quartile**	**Median**	**2000 Median**	**1999 Median**	**Upper Quartile**	**Lower Quartile**	**Median**	**2000 Median**	**1999 Median**
	Debt-to-Asset (%)					**Equity-to-Asset (%)**					**Debt-to-Equity**				
All Farms	37.9	73.7	55.5	53.9	55.5	62.1	26.3	44.5	46.1	44.5	0.6	2.8	1.2	1.2	1.2
Region															
Red River Valley	40.7	69.9	49.9	49.9	52.3	59.3	30.1	50.1	50.1	47.7	0.7	2.3	1.0	1.0	1.1
North Central	38.3	75.0	58.0	52.7	55.9	61.7	25.0	42.0	47.3	44.1	0.6	3.0	1.4	1.1	1.3
South Central	35.2	75.5	56.4	55.0	55.1	64.8	24.5	43.6	45.0	44.9	0.5	3.1	1.3	1.2	1.2
West	35.8	71.9	54.9	54.6	55.8	64.2	28.1	45.1	45.4	44.2	0.6	2.6	1.2	1.2	1.3
Farm Enterprise															
Crop	37.6	73.4	55.2	52.5	53.9	62.4	26.6	44.8	47.5	46.1	0.6	2.8	1.2	1.1	1.2
Livestock	39.6	74.5	56.2	54.9	57.9	60.4	25.5	43.8	45.1	42.1	0.7	2.9	1.3	1.2	1.4
Mixed	34.2	72.4	55.3	55.5	55.5	65.8	27.6	44.7	44.5	44.5	0.5	2.6	1.2	1.2	1.2
Farm Sales															
$99,999 or less	41.5	78.0	62.4	60.7	61.4	58.5	22.0	37.6	39.3	38.6	0.7	3.5	1.7	1.5	1.6
$100,000-$249,999	40.6	79.3	59.5	55.8	55.5	59.4	20.7	40.5	44.2	44.5	0.7	3.8	1.5	1.3	1.2
$250,000 or over	32.5	66.4	51.4	49.4	51.8	67.5	33.6	48.6	50.6	48.2	0.5	2.0	1.1	1.0	1.1
Farm Size															
1,600 acres or less	42.4	81.4	63.3	59.0	58.5	57.6	18.6	36.7	41.0	41.5	0.7	4.4	1.7	1.4	1.4
1,601 acres or over	35.8	67.2	51.8	52.2	54.5	64.2	32.8	48.2	47.8	45.5	0.6	2.0	1.1	1.1	1.2
Cropland Tenure															
Full tenant	44.0	83.1	63.8	60.4	58.8	56.0	16.9	36.2	39.6	41.2	0.8	4.9	1.8	1.5	1.4
1-20 percent owned	41.1	75.3	56.6	54.9	56.8	58.9	24.7	43.4	45.1	43.2	0.7	3.0	1.3	1.2	1.3
21-40 percent owned	34.1	70.4	53.4	53.8	53.4	65.9	29.6	46.6	46.2	46.6	0.5	2.4	1.1	1.2	1.1
41 percent or over owned	29.4	68.2	51.4	50.6	55.1	70.6	31.8	48.6	49.4	44.9	0.4	2.1	1.1	1.0	1.2
Net Farm Income															
Negative	53.4	94.2	71.2	80.2	72.0	46.6	5.8	28.8	19.8	28.0	1.1	16.2	2.5	4.1	2.6
$0-$24,999	41.9	81.5	64.4	64.7	64.2	58.1	18.5	35.6	35.3	35.8	0.7	4.4	1.8	1.8	1.8
$25,000-$49,999	40.4	68.2	57.1	57.9	59.3	59.6	31.8	42.9	42.1	40.7	0.7	2.1	1.3	1.4	1.5
$50,000 or more	27.0	54.7	43.3	45.9	47.1	73.0	45.3	56.7	54.1	52.9	0.4	1.2	0.8	0.8	0.9
Debt-to-Asset Ratio															
0-40 percent	9.4	32.4	24.7	24.6	23.6	90.6	67.6	75.3	75.4	76.4	0.1	0.5	0.3	0.3	0.3
41-70 percent	47.4	62.5	54.7	55.0	55.8	52.6	37.5	45.3	45.0	44.2	0.9	1.7	1.2	1.2	1.3
71 percent	75.5	97.3	85.5	86.6	85.1	24.5	2.7	14.5	13.4	14.9	3.1	36.0	5.9	6.5	5.7
Farmer Age															
34 years or younger	47.3	81.4	64.3	59.7	56.5	52.7	18.6	35.7	40.3	43.5	0.9	4.4	1.8	1.5	1.3
35-44 years	39.6	75.2	56.0	55.0	54.9	60.4	24.8	44.0	45.0	45.1	0.7	3.0	1.3	1.2	1.2
45 years or older	29.9	69.6	51.4	51.4	55.0	70.1	30.4	48.6	48.6	45.0	0.4	2.3	1.1	1.1	1.2

TABLE 8. RATE OF RETURN ON ASSETS AND RATE OF RETURN ON EQUITY PROFITABILITY MEASURES, QUARTILE VALUES FOR 2001, MEDIAN VALUES FOR 1999 AND 2000, NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION PROGRAM PARTICIPANTS.

Farm Group	2001 Upper Quartile	2001 Lower Quartile	2001 Median	2000 Median	1999 Median	2001 Upper Quartile	2001 Lower Quartile	2001 Median	2000 Median	1999 Median
	Return on Farm Assets(%)					Return on Equity(%)				
All Farms	8.0	-0.5	4.1	7.6	8.4	11.7	-7.1	3.2	7.7	9.0
Region										
Red River Valley	9.9	1.2	6.3	9.5	9.6	16.6	-2.2	6.8	12.7	14.4
North Central	6.7	-1.5	3.3	8.4	9.4	7.7	-11.8	1.4	8.7	10.4
South Central	8.1	-1.3	3.3	6.6	8.3	12.3	-10.0	2.5	5.8	6.4
West	9.2	0.6	5.0	7.5	6.6	16.0	-2.8	6.4	7.6	6.5
Farm Enterprise										
Crop	8.1	-1.3	4.0	8.3	9.2	11.5	-7.5	2.6	8.8	10.3
Livestock	8.4	0.4	4.5	6.8	6.9	14.6	-5.1	4.1	5.9	6.4
Mixed	7.7	-0.4	4.2	7.0	6.5	10.7	-7.9	3.8	6.5	4.1
Farm Sales										
$99,999 or less	5.1	-4.6	0.3	3.4	2.6	7.6	-23.6	-4.6	0.0	0.0
$100,000-$249,999	8.1	-1.3	3.6	8.0	8.3	13.2	-7.7	3.8	8.2	8.8
$250,000 or over	8.7	1.8	5.4	9.9	10.7	11.5	-3.7	4.3	11.0	15.0
Farm Size										
1,600 acres or less	7.4	-2.4	2.7	6.6	5.9	14.9	-11.7	2.1	5.4	3.0
1,601 acres or over	8.3	0.6	4.6	8.5	9.7	10.7	-5.5	3.5	9.2	11.2
Cropland Tenure										
Full tenant	9.9	-4.9	3.7	10.1	9.9	18.9	-18.2	5.1	9.2	10.6
1-20 percent owned	8.6	0.2	4.0	10.4	11.3	14.4	-8.8	2.9	13.2	16.5
21-40 percent owned	7.2	-0.4	4.7	7.3	8.5	8.9	-5.5	3.1	6.8	9.1
41 percent or over owned	7.3	0.4	4.0	6.5	5.6	10.2	-4.8	2.8	5.7	3.6
Net Farm Income										
Negative	-2.3	-9.2	-4.7	-3.5	-4.0	-8.1	-54.5	-21.2	-28.3	-20.7
$0-$24,999	3.6	-0.2	1.6	2.9	3.0	1.0	-10.1	-3.4	-2.3	-1.4
$25,000-$49,999	7.3	3.9	5.5	7.2	7.5	9.4	2.1	4.8	6.5	7.2
$50,000 or more	13.4	6.9	9.3	12.3	13.1	19.5	7.4	11.3	17.2	19.1
Debt-to-Asset Ratio										
0-40 percent	8.6	1.8	5.1	7.9	8.5	9.1	0.9	4.9	8.3	9.1
41-70 percent	8.4	0.6	4.9	8.5	8.9	10.9	-6.6	2.8	10.3	11.4
71 percent or more	6.2	-5.3	0.7	5.7	6.5	32.3	-48.0	-3.6	0.0	0.0
Farmer Age										
34 years or younger	8.8	0.0	4.3	9.7	9.2	18.3	-7.1	4.8	13.3	10.4
35-44 years	8.3	-0.8	4.1	9.0	9.6	14.4	-10.8	4.1	10.5	11.1
45 years or older	7.4	-0.3	4.1	6.1	6.9	10.1	-5.1	2.5	5.1	5.7

TABLE 9. OPERATING PROFIT MARGIN AND NET FARM INCOME PROFITABILITY MEASURES, QUARTILE VALUES FOR 2001, MEDIAN VALUES FOR 1999 AND 2000, NORTH DAKOTA FARM BUSINESS MANAGEMENT PROGRAM PARTICIPANTS.

Farm Group	2001 Upper Quartile	2001 Lower Quartile	2001 Median	2000 Median	1999 Median	2001 Upper Quartile	2001 Lower Quartile	2001 Median	2000 Median	1999 Median
	Operating Profit Margin(%)					Net Farm Income($)				
All Farms	21.1	-1.6	12.1	20.6	21.6	58,696	4,437	27,729	45,085	42,009
Region										
Red River Valley	20.8	3.1	13.6	17.7	20.6	106,320	16,881	41,629	78,759	78,755
North Central	20.3	-3.0	9.5	22.6	24.2	41,545	324	22,230	46,219	41,769
South Central	20.2	-3.9	11.7	17.6	18.3	57,165	1,009	22,167	37,923	38,064
West	28.1	1.3	15.9	23.2	20.9	69,917	7,981	34,531	40,388	35,927
Farm Enterprise										
Crop	18.6	-2.9	10.1	18.9	21.0	61,316	4,652	28,042	50,700	50,027
Livestock	29.1	0.9	17.1	23.2	24.1	52,598	5,654	24,917	29,446	34,796
Mixed	21.9	1.2	13.2	23.2	21.6	50,599	1,009	29,405	42,241	31,497
Farm Sales										
$99,999 or less	16.9	-15.8	5.3	11.3	12.3	22,622	-3,813	8,299	13,806	14,051
$100,000-$249,999	22.5	-4.4	11.7	22.6	23.2	42,820	1,114	23,515	42,484	39,603
$250,000 or over	21.1	4.1	13.4	21.3	23.9	97,816	14,740	56,278	89,862	86,893
Farm Size										
1,600 acres or less	20.6	-8.8	8.5	18.6	17.0	36,215	-1,464	18,392	29,055	24,382
1,601 acres or over	21.3	1.5	12.8	22.3	24.4	70,378	8,794	34,498	57,202	61,476
Cropland Tenure										
Full tenant	17.5	-6.8	6.5	17.1	18.6	41,088	-2,039	22,230	36,518	35,005
1-20 percent owned	16.9	0.4	9.7	18.6	22.3	64,693	5,281	30,936	66,495	64,129
21-40 percent owned	21.2	-0.9	12.2	20.8	23.1	66,848	8,256	30,720	48,086	49,205
41 percent or over owned	25.2	2.3	16.1	23.1	22.3	61,035	5,700	27,729	38,035	32,652
Net Farm Income										
Negative	-6.7	-23.3	-13.1	-10.7	-12.2	-6,021	-31,364	-14,514	-14,170	-13,107
$0-$24,999	11.8	-0.4	4.6	9.6	9.7	20,129	7,594	12,959	15,110	14,429
$25,000-$49,999	20.8	10.7	15.6	18.2	21.2	41,139	29,431	34,572	37,471	36,603
$50,000 or more	29.4	16.5	22.5	28.4	28.4	114,964	63,833	81,200	93,316	87,426
Debt-to-Asset Ratio										
0-40 percent	24.0	6.5	17.8	22.7	24.4	90,265	22,970	52,196	62,244	62,021
41-70 percent	21.3	1.6	13.4	22.1	22.3	60,075	8,794	32,069	52,075	48,315
71 percent or more	12.9	-11.4	1.8	12.3	16.7	25,125	-12,252	7,123	20,710	22,641
Farmer Age										
34 years or younger	20.6	-0.1	10.9	22.6	20.9	34,498	8,014	22,622	39,634	34,705
35-44 years	20.0	-2.5	12.2	20.7	21.9	57,585	953	29,405	54,045	52,577
45 years or older	21.7	-0.2	12.2	20.0	21.5	66,424	4,147	28,428	39,868	39,770

TABLE 10. REPAYMENT CAPACITY MEASURES, QUARTILE VALUES FOR 2001, MEDIAN VALUES FOR 1999 AND 2000, NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION PROGRAM PARTICIPANTS.

Farm Group	2001 Upper Quartile	2001 Lower Quartile	2001 Median	2000 Median	1999 Median	2001 Upper Quartile	2001 Lower Quartile	2001 Median	2000 Median	1999 Median
	Term Debt Coverage Ratio					Term Debt and Capital Repayment Margin($)				
All Farms	1.8	0.4	1.0	1.6	1.5	26,995	-23,628	301	17,768	17,973
Region										
Red River Valley	2.0	0.7	1.0	2.0	1.6	39,851	-17,030	3,029	44,270	35,838
North Central	1.5	0.1	0.7	1.6	1.5	10,568	-29,696	-10,636	16,771	13,070
South Central	2.1	0.4	1.1	1.3	1.6	31,099	-25,526	1,897	9,768	14,592
West	2.1	0.8	1.4	1.6	1.6	32,236	-8,208	11,547	22,620	15,260
Farm Enterprise										
Crop	1.8	0.2	0.9	1.6	1.7	29,672	-26,821	-4,888	19,483	21,499
Livestock	1.8	0.6	1.3	1.4	1.5	26,976	-12,317	6,688	8,981	18,282
Mixed	2.1	0.6	1.2	1.6	1.4	26,552	-17,171	6,108	18,082	9,966
Farm Sales										
$99,999 or less	1.6	0.3	1.0	1.2	1.3	6,921	-14,640	-908	2,912	4,545
$100,000-$249,999	1.7	0.3	0.9	1.5	1.5	21,107	-24,757	-3,511	15,156	13,750
$250,000 or over	2.1	0.5	1.2	1.9	1.9	54,751	-25,928	7,509	43,577	46,738
Farm Size										
1,600 acres or less	1.7	0.3	1.0	1.3	1.4	15,620	-20,068	-908	5,110	10,821
1,601 acres or over	2.0	0.5	1.1	1.7	1.7	37,168	-25,408	2,611	25,435	27,192
Cropland Tenure										
Full tenant	1.9	0.1	1.0	1.6	2.0	20,403	-24,466	1,391	10,574	19,191
1-20 percent owned	1.9	0.1	1.0	1.7	1.7	31,624	-28,602	-2,103	24,260	28,365
21-40 percent owned	1.8	0.3	1.0	1.6	1.6	29,672	-25,113	556	18,737	25,389
41 percent or over owned	2.0	0.6	1.1	1.5	1.3	31,421	-16,046	1,698	16,637	9,932
Net Farm Income										
Negative	0.5	-0.4	0.1	0.3	0.1	-13,848	-66,587	-32,998	-17,844	-32,082
$0-$24,999	1.3	0.2	0.7	1.0	1.2	4,396	-24,857	-10,455	-1,313	3,626
$25,000-$49,999	1.8	0.8	1.2	1.4	1.4	21,879	-8,098	5,196	14,069	12,518
$50,000 or more	3.1	1.2	2.0	2.3	2.3	82,798	11,472	40,021	53,344	48,869
Debt-to-Asset Ratio										
0-40 percent	4.5	1.0	2.2	2.9	2.5	56,198	-265	24,844	38,650	36,997
41-70 percent	1.6	0.5	1.0	1.5	1.5	25,429	-20,351	560	18,868	20,710
71 percent or more	1.1	-0.1	0.6	0.9	1.0	1,888	-37,084	-16,403	-4,083	2,384
Farmer Age										
34 years or younger	1.8	0.6	1.1	2.0	1.8	15,602	-11,802	1,483	20,558	13,070
35-44 years	1.8	0.3	1.0	1.6	1.6	31,099	-26,673	-1,743	22,620	22,831
45 years or older	2.0	0.4	1.0	1.4	1.5	31,421	-25,526	165	12,533	15,251

TABLE 11. ASSET TURNOVER AND OPERATING EXPENSE AND DEPRECIATION EXPENSE EFFICIENCY MEASURES (AS A PERCENTAGE OF GROSS FARM INCOME), QUARTILE VALUES FOR 2001, MEDIAN VALUES FOR 1999 AND 2000, FARM BUSINESS MANAGEMENT EDUCATION PROGRAM PARTICIPANTS.

	2001					2001					2001				
Farm Group	**Upper Quartile**	**Lower Quartile**	**Median**	**2000 Median**	**1999 Median**	**Upper Quartile**	**Lower Quartile**	**Median**	**2000 Median**	**1999 Median**	**Upper Quartile**	**Lower Quartile**	**Median**	**2000 Median**	**1999 Median**
	Asset Turnover					**Operating Expense(%)**					**Depreciation Expense (%)**				
All Farms	.52	.26	.38	.42	.38	61.7	82.0	70.9	63.3	61.2	3.3	10.0	5.9	5.3	5.7
Region															
Red River Valley	.59	.34	.47	.51	.49	64.3	78.7	72.2	69.2	66.5	3.9	9.0	5.7	4.7	5.6
North Central	.51	.26	.37	.39	.36	62.2	83.9	72.4	61.5	56.8	2.6	7.8	4.8	4.5	4.6
South Central	.53	.27	.37	.43	.42	62.4	84.4	70.9	66.8	64.4	4.0	11.8	6.7	5.8	6.3
West	.46	.23	.33	.33	.32	56.8	73.9	63.8	60.4	60.3	4.0	11.8	7.8	5.8	7.6
Farm Enterprise															
Crop	.57	.32	.45	.49	.45	64.4	84.2	72.7	65.1	62.7	3.6	8.8	5.7	5.4	5.6
Livestock	.35	.18	.23	.26	.28	52.8	75.1	60.3	59.8	56.8	-0.2	15.7	6.7	5.2	6.0
Mixed	.39	.24	.31	.33	.31	59.3	76.9	67.6	60.9	60.5	2.7	12.0	6.5	5.0	5.8
Farm Sales															
$99,999 or less	.41	.15	.24	.26	.26	57.2	78.5	65.9	59.6	58.7	2.3	14.1	6.2	6.3	5.8
$100,000-$249,999	.48	.26	.35	.39	.35	59.3	82.4	69.3	61.0	59.6	3.0	10.0	6.0	4.9	5.1
$250,000 or over	.56	.32	.44	.50	.50	64.4	81.8	72.1	67.5	63.3	3.7	9.0	5.7	5.2	6.0
Farm Size															
1,600 acres or less	.52	.23	.35	.39	.35	59.2	82.3	70.3	62.8	62.9	3.1	11.1	5.7	5.5	5.6
1,601 acres or over	.52	.27	.39	.43	.40	62.8	81.5	70.9	63.7	60.7	3.5	9.7	6.1	5.1	6.0
Cropland Tenure															
Full tenant	.77	.38	.57	.56	.57	63.9	85.1	73.9	66.3	66.3	3.3	10.0	6.0	4.5	4.3
1-20 percent owned	.57	.40	.49	.54	.52	64.9	84.4	75.2	67.1	63.2	3.8	8.5	5.9	4.8	5.6
21-40 percent owned	.45	.29	.36	.41	.37	62.2	84.2	71.5	63.6	62.1	2.9	9.9	5.0	5.6	5.8
41 percent or over owned	.33	.20	.26	.28	.26	57.5	73.4	65.1	59.5	56.8	3.0	11.2	6.2	5.7	6.5
Net Farm Income															
Negative	.46	.20	.31	.25	.31	82.0	96.8	88.2	85.9	89.0	5.4	14.0	9.4	8.3	10.5
$0-$24,999	.54	.23	.37	.32	.29	64.4	83.9	75.2	68.7	66.2	3.5	9.1	5.7	5.9	7.6
$25,000-$49,999	.49	.26	.37	.43	.35	58.8	72.4	66.8	63.0	60.3	3.3	10.9	5.9	5.4	6.3
$50,000 or more	.56	.31	.43	.48	.48	57.3	71.0	63.6	59.6	58.6	2.8	7.4	4.9	4.2	5.0
Debt-to-Asset Ratio															
0-40 percent	.43	.24	.32	.37	.35	58.7	73.6	65.7	59.8	60.0	3.4	10.4	6.7	6.2	7.2
41-70 percent	.50	.26	.38	.41	.38	60.3	78.4	68.9	62.4	59.6	3.5	9.8	5.8	5.0	5.6
71 percent or more	.67	.30	.45	.46	.41	68.3	88.2	78.6	71.0	66.6	3.0	10.0	5.7	4.1	5.3
Farmer Age															
34 years or younger	.69	.36	.46	.48	.44	62.1	78.9	72.3	63.3	62.6	2.5	7.5	4.9	4.2	4.1
35-44 years	.55	.28	.40	.48	.45	62.2	84.3	71.1	64.6	62.6	3.5	10.3	6.4	5.0	5.4
45 years or older	.46	.24	.33	.35	.31	61.3	80.1	69.1	62.4	59.9	3.5	10.5	6.0	5.9	6.8

TABLE 12. INTEREST EXPENSE AND FARM INCOME EFFICIENCY MEASURES (AS A PERCENTAGE OF GROSS FARM INCOME), QUARTILE VALUES FOR 2001, MEDIAN VALUES FOR 1999 AND 2000, NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION PROGRAM PARTICIPANTS.

	2001					2001				
Farm Group	Upper Quartile	Lower Quartile	Median	2000 Median	1999 Median	Upper Quartile	Lower Quartile	Median	2000 Median	1999 Median
	Interest Expense(%)					Net Farm Income (%)				
All Farms	4.9	11.7	7.6	7.8	8.4	24.2	1.9	14.0	21.7	22.4
Region										
Red River Valley	3.9	9.3	6.1	5.7	6.5	21.5	5.7	14.1	19.9	21.1
North Central	5.0	13.5	8.4	8.0	9.7	24.2	0.4	13.5	24.8	27.6
South Central	4.7	11.4	7.6	7.4	7.8	22.4	0.8	12.8	17.8	19.5
West	5.4	11.1	8.2	9.7	9.6	29.8	7.3	17.7	22.3	20.1
Farm Enterprise										
Crop	4.3	10.7	7.1	6.5	7.7	22.0	1.7	12.5	20.8	22.5
Livestock	5.6	14.8	8.9	11.2	10.7	30.2	4.4	18.5	23.0	24.4
Mixed	5.9	13.2	9.0	8.8	10.8	24.7	1.6	16.4	24.4	20.4
Farm Sales										
$99,999 or less	6.8	17.5	11.1	12.0	11.8	26.2	-6.6	14.4	18.4	20.4
$100,000-$249,999	5.3	11.8	8.4	8.5	9.4	25.2	0.7	14.9	24.5	23.2
$250,000 or over	3.9	9.4	6.5	6.0	7.2	22.0	3.8	13.8	20.1	22.4
Farm Size										
1,600 acres or less	5.3	13.1	8.3	8.2	9.0	25.5	-1.4	14.0	22.1	21.1
1,601 acres or over	4.7	10.9	7.4	7.3	8.2	23.0	3.4	13.9	21.5	22.7
Cropland Tenure										
Full tenant	4.1	8.9	6.6	5.3	5.7	23.0	-1.5	14.4	20.4	21.1
1-20 percent owned	4.9	10.1	6.7	6.2	7.3	19.8	1.5	11.4	20.7	22.6
21-40 percent owned	5.3	11.1	8.3	8.2	8.9	25.1	3.3	12.7	21.3	22.6
41 percent or over owned	5.6	16.3	10.3	10.6	11.9	27.6	4.8	16.5	24.6	22.5
Net Farm Income										
Negative	8.2	17.9	12.0	15.9	15.3	-3.8	-22.3	-10.2	-7.5	-9.5
$0-$24,999	5.4	13.0	8.2	11.6	12.0	15.5	3.6	8.5	10.2	12.8
$25,000-$49,999	5.5	10.6	7.7	7.3	9.0	26.6	12.1	18.3	19.6	22.4
$50,000 or more	3.0	7.5	5.4	5.9	6.9	31.5	18.7	25.0	30.3	28.9
Debt-to-Asset Ratio										
0-40 percent	1.8	6.4	3.9	4.0	4.4	31.5	13.2	22.7	29.2	29.0
41-70 percent	6.1	12.3	8.8	8.5	9.3	22.7	4.2	14.9	21.8	21.7
71 percent or more	7.1	14.8	9.8	11.3	12.3	13.6	-7.8	3.3	13.0	14.9
Farmer Age										
34 years or younger	5.0	9.7	6.8	6.9	7.5	25.5	7.6	14.8	24.5	24.2
35-44 years	4.6	10.8	7.7	7.2	7.7	23.7	1.3	13.8	21.7	22.5
45 years or older	5.0	12.8	8.1	8.5	9.8	24.3	1.9	13.8	20.3	21.1

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