



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

Papers downloaded from AgEcon Search may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

The Financial Status of North Dakota Farmers and Ranchers: January 1, 1985, Survey Results

David L. Watt
James A. Larson
Glenn D. Pederson
Brenda L. Ekstrom

**Department of Agricultural Economics
Agricultural Experiment Station
North Dakota State University
Fargo, North Dakota 58105**

Preface

This report is an enumeration and analysis of results from the January 1, 1985, survey conducted by the North Dakota Crop and Livestock Reporting Service. Funding for the survey was provided by the North Dakota Department of Agriculture.

The report serves as a resource document to individuals seeking information on the financial position of North Dakota farmers. Many of the tables in this report use survey data to examine the farm financial situation from several different points of view. The authors hope that presenting the survey data in detail will help the reader understand the North Dakota farmer better.

The authors wish to thank Dr. Jerome Johnson, Dr. Roger Johnson, and Dr. F. Larry Leistritz for their useful comments on prior drafts of this report; Harvey Vreugdenhil for computer programming assistance throughout the study; and Jackie Grossman for diligence and patience in retyping drafts of this report. Errors in this report are the responsibility of the authors.

Table of Contents

	<u>Page</u>
List of Tables	iii
List of Figures	iii
Highlights	v
The Survey	2
Results and Discussion	4
Delinquency of Real and Nonreal Estate Loans	5
Delinquency by Primary Lender	5
Delinquency by Farm Size (Acreage)	7
Delinquency by Farm Size (Assets)	9
Delinquency by Owner Equity	10
Delinquency by Operator Age	12
Delinquency by Farm Enterprise Type	14
Delinquency by 1984 Gross Farm Receipts	14
Delinquency by 1984 Net Farm Income	17
Delinquency by Crop Reporting District	17
Delinquency by Number of Years Expected to Farm	19
Analysis of Financial Position	21
Farm Financial Position by Farm Size (Acreage)	24
Financial Position by Operator Age	26
Financial Position by Farm Enterprise Type	28
Financial Position by 1984 Gross Farm Receipts	30
Financial Position by 1984 Net Farm Income	34
Financial Position Information by Crop Reporting District	35
Loan Refusals	40
Farm Survival Expectations	42
United States and North Dakota Debt Comparisons	45
Appendix A: Questionnaire	48
Appendix B: Tables	51
References	55

List of Tables

<u>No.</u>		<u>Page</u>
1	COMPARISON OF FARMS BY SIZE, CENSUS, AND SURVEY	2
2	COMPARISON OF OPERATOR AGE, CENSUS, AND SURVEY	3
3	COMPARISON OF OPERATOR FARM EXPERIENCE, CENSUS, AND SURVEY	3
4	FARMERS REPORTING INTEREST RATES PAID BY LOAN CATEGORY	4
5	FARMS DELINQUENT ON REAL ESTATE LOANS BY LENDER	6
6	FARMS DELINQUENT ON NONREAL ESTATE LOANS BY LENDER	7
7	FARM LOAN DELINQUENCY BY FARM ACREAGE SIZE	8
8	FARM LOAN DELINQUENCY BY FARM ASSET SIZE	10
9	FARM LOAN DELINQUENCY BY OWNER EQUITY	11
10	FARM LOAN DELINQUENCY BY OPERATOR AGE	13
11	FARM LOAN DELINQUENCY BY FARM TYPE	15
12	FARM LOAN DELINQUENCY BY 1984 GROSS FARM RECEIPTS	16
13	FARM LOAN DELINQUENCY BY 1984 NET FARM INCOME	18
14	FARM LOAN DELINQUENCY BY CROP REPORTING DISTRICT	20
15	FARM LOAN DELINQUENCY BY YEARS EXPECTED TO FARM	21
16	FINANCIAL POSITION BY DEBT-TO-ASSET CATEGORY	23
17	FINANCIAL POSITION BY FARM ACREAGE SIZE	25
18	FINANCIAL POSITION BY OPERATOR AGE	27
19	FINANCIAL POSITION BY FARM TYPE	29
20	FINANCIAL POSITION BY 1984 GROSS FARM INCOME	31
21	GROSS FARM INCOME BY DEBT-TO-ASSET RATIO	33
22	GROSS FARM INCOME BY AGGREGATED DEBT-TO-ASSET RATIO	35
23	FINANCIAL POSITION BY 1984 NET FARM INCOME	36
24	NET FARM INCOME BY DEBT-TO-ASSET RATIO	37
25	FINANCIAL POSITION BY CROP REPORTING DISTRICT	38
26	REASONS FOR LOAN REFUSAL IN 1984	40
27	LOAN REFUSAL RATE BY OPERATOR AGE	41
28	LOAN REFUSAL RATE BY FARM ACREAGE SIZE	41
29	LOAN REFUSAL RATE BY TYPE OF FARM	41
30	FINANCIAL POSITION BY YEARS EXPECTED TO FARM	43
31	FARM SURVIVAL EXPECTATIONS BY CROP REPORTING DISTRICT	44
32	U.S. AND NORTH DAKOTA COMPARISONS BY FARM TYPE	47

List of Figures

1	North Dakota Crop Reporting Districts	19
2	U.S. and North Dakota Debt Comparisons	46

Highlights

This report is a detailed analysis of data obtained from a 1985 survey of over 1,300 North Dakota farmers. The major sections of the report discuss (1) real and nonreal estate delinquency and (2) financial position by debt-to-asset categories for various financial and demographic characteristics. Following are general highlights of the analyses of farm delinquency.

- Delinquency was a major problem in North Dakota in 1984. Six out of ten surveyed farmers reported a real estate or nonreal estate debt obligation. About 23 percent reported delinquency on principal and/or interest payments.
- As farm size increased in acreage and asset value, the percentage of farmers reporting debt increased and the percentage reporting not delinquent increased. There was no apparent relationship between the amount of owner equity and the percentage reporting a real estate debt obligation; however, as owner equity increased, the percentage reporting nonreal estate debt decreased. The incidence of loan delinquency decreased as owner equity increased.
- Farmers aged 35 to 44 reported the most financial problems; 18.2 percent were delinquent on real estate payments, and 24.3 percent were delinquent on nonreal estate payments. Older farmers reported the least delinquency.
- As gross receipts increased, the percentage of farms with debt also increased along with the percentage reporting not delinquent. Over one-fifth of the farmers surveyed reported a net income loss. Nearly 36 percent of them were delinquent on real estate payments, and over 40 percent were delinquent on nonreal estate payments. Generally, as net income rose, the percentage of farmers with debt also rose, but delinquency declined.
- Specific crop reporting districts reported delinquency rates that differed from the survey averages. Farmers in the Red River Valley had lower delinquency rates on real estate payments than farmers in the Southwest and South Central districts. Similar patterns were exhibited for nonreal estate delinquency.

Analyses were also performed of the financial position of farmers by various economic and demographic characteristics. Following are highlights of those analyses.

- On the average, North Dakota farmers had \$424,000 of assets and \$140,000 of liabilities. Their average debt-to-asset ratio was .35 to 1, and the real estate debt to total debt ratio was .55 to 1. An average of 12.6 percent of the farmers were delinquent on real estate loans, and 18.3 percent were delinquent on operating loans. North Dakota farmers reported an average of 12.1 percent of their total gross income as coming from nonfarm sources.
- Almost one-fourth reported no debt obligation. Interestingly, this group had the highest percentage of gross income coming from nonfarm sources. In contrast, 16.5 percent had debt ratios exceeding 70

percent. About 40 percent of this group were delinquent on real estate debts and nearly 50 percent were delinquent on operating loan payments. This group had a level of owner equity that was about 17 percent of the state average.

- A direct relationship was found between farm size and the following items: total assets and liabilities, debt ratio, interest paid, and delinquency on operating loans. There was an inverse relationship between farm size and the percentage of total gross income that came from nonfarm sources.
- Total asset and liability values peaked at the middle age group (35-54), and owner equity and debt ratio generally increased with age. Farmers under 34 were experiencing debt ratios over twice that of farmers over 55. Younger farmers had a higher percentage of real estate loan delinquency and a higher percentage of gross income coming from nonfarm sources.
- Crop enterprises had the highest reported assets, liabilities, owner equity, and accrued interest payments, and the lowest delinquency rates. Dairy farms appeared to have had the most financial problems; they had the highest debt ratio and the highest delinquency on real estate and operating loan payments.
- Assets, liabilities, debt ratio, and delinquency increased as total gross income increased. Half of all debt-free farms had gross incomes between \$10,000 and \$40,000. Conversely, the highest percentage of farms in the higher debt ratio categories had gross incomes between \$40,000 and \$100,000. In general, as gross income rose, the percentage farmers with no debt decreased and the percentage with higher debt ratios increased.
- As net income rose, the amount of owner equity rose and the real-estate-debt to total-debt ratio rose. However, the debt ratio declined along with delinquency rates and the percentage of gross income from nonfarm sources.
- Only 9.3 percent of the farmers had experienced a loan refusal in 1984 largely because of insufficient equity or farm income. Having the most problems were those under age 35, very small or very large farms, and beef farmers.
- Thirteen percent of surveyed farmers believed they would continue to farm for one year or less under current income and expense conditions. These farmers had a debt ratio of 60 percent and delinquency rates between 40 and 55 percent on real estate and operating loans, respectively. In contrast, 36.2 percent believed they could continue until retirement. Expectations became more positive as reported farm financial position improved. Also, farmers in the Northwest, West Central, and Red River Valley districts believed they would continue farming longer than those in the Southwest, South Central, and Central districts.

- In comparison to U.S. farmers, a higher percentage of North Dakota farmers fell into higher debt categories and represented a larger percentage of the total reported debt. In North Dakota, 37.5 percent had debt ratios over 40 percent, and they held 70.7 percent of farm debt. By comparison, 27.5 percent of U.S. farmers reported debt ratios over 40 percent, and they held 56.2 percent of the farm debt.

THE FINANCIAL STATUS OF NORTH DAKOTA FARMERS AND RANCHERS:
JANUARY 1, 1985, SURVEY RESULTS

David L. Watt, James A. Larson,
Glenn D. Pederson, and Brenda L. Ekstrom

The period 1981 to 1985 has been one of significant decline in the financial health of the United States' farm sector. Before 1981 farmers operated under economic conditions that were characterized by rapidly expanding farm exports, rapidly rising inflation, future high inflation expectations, and low or negative real interest rates. Farmers reacted to these conditions by significantly increasing their debt load by purchasing more capital equipment, buying farmland that was rapidly appreciating in value, and implementing new production practices.

Total U.S. farm debt during the 1970s increased by an average of over 10 percent per year (USDA 1985), but the increases were more than offset by increases in farmland value. As a result, average farm debt-to-asset ratios decreased during the 1970s. Farmland value inflation provided the incentive for farmers and lenders to justify increased debt levels. These circumstances set the stage for the financial problems some farmers have experienced during the first half of the 1980s.

Economic conditions have changed dramatically from those that were present during the 1970s. A changed monetary policy has reduced inflation and has led to record high real interest rates. A worldwide recession has contributed to slow demand for agricultural products in the United States and overseas. Large increases in world commodity stocks have occurred since 1981. In addition, the increased value of the dollar relative to other foreign currencies has caused U.S. agricultural exports to be more expensive in foreign markets. The combination of these factors has put downward pressure on U.S. farm prices and has resulted in a deterioration in total farm income.

Declining farm income has been evidenced by erosion in farm asset values, rising farm debt, reduced equity capital, rising farm loan delinquencies, voluntary liquidations, and foreclosures. Policymakers in the North Dakota Department of Agriculture were concerned about these impacts on the state's farm sector and funded a special farm finance survey. The survey was conducted by the North Dakota Crop and Livestock Reporting Service in January 1985, and the results were analyzed by the Department of Agricultural Economics at North Dakota State University.

The purpose of this analysis is to document the extent and severity of farm financial problems as perceived by farmers in the state at the time the survey was conducted. The report begins with a comparison of the survey sample with the 1982 Census of Agriculture. The remainder of the report presents survey results and discussion.

*Watt is assistant professor, Larson is graduate research assistant, and Ekstrom is research assistant of Agricultural Economics at North Dakota State University; Pederson is assistant professor of Agricultural and Applied Economics at the University of Minnesota.

The Survey

Information about the respondent, the farming operation, and current financial status was obtained from questionnaires mailed to 4,099 farmers and ranchers drawn at random. A total of 1,308 farmers or 31.9 percent responded to the survey either through the mail or through a follow-up telephone interview. Responses represented about 3.6 percent of the farm and ranch operations in the state. A copy of the questionnaire is in Appendix A.

Survey data were compared with the data from the 1982 Census of Agriculture to determine the representativeness of the respondents to the 1985 survey. This section compares the two data sources by farm size, operator's age, and length of time farming.

Survey respondents were not distributed in the same proportion by farm size as the 1982 Census (Table 1). Small farms under 500 acres were slightly underrepresented (accounting for only 17.2 percent of the survey respondents compared to 32.9 percent in the 1982 Census), and large farms over 1,000 acres were overrepresented (accounting for 56.0 percent of the survey respondents compared to 40.3 percent in the Census). Surveyed farms averaged 1,405 acres. One possible reason for the sample difference in farm size is a decrease in the profitability of small farm operations since 1982. Small farms have fewer acres over which to spread increases in fixed input costs. Small size coupled with a lack of off-farm income opportunities may have increased their vulnerability to declining income from the lower commodity prices during the first half of the 1980s. These difficult times may have prevented many young people from attempting to start farming operations. Data presented in Tables 2 and 3 may help support this reasoning.

TABLE 1. COMPARISON OF FARMS BY SIZE FROM 1982 CENSUS OF AGRICULTURE AND 1985 FARM FINANCE SURVEY

	Acres					
	Less Than 50	50- 179	180- 499	500- 999	1000- 1999	2000 or More
<u>1985 Survey</u>						
Number of farms	----- 49 -----		176	350	475	258
Percentage of farms	----- 3.7 -----		13.5	26.8	36.3	19.7
<u>1982 Census^a</u>						
Number of farms	2261	3178	6577	9758	10,042	4617
Percentage of farms	6.2	8.7	18.0	26.8	27.6	12.7

^aSOURCE: United States Department of Commerce 1984.

The age distributions in the 1985 survey and the 1982 Census were very similar (Table 2). The average age of surveyed farmers was 47.1 compared to 47.3 in the 1982 Census.

TABLE 2. COMPARISON OF OPERATOR AGE DISTRIBUTIONS FROM 1982 CENSUS OF AGRICULTURE AND 1985 FARM FINANCE SURVEY

Item	Operator Age in Years						Average Age
	Under 25	25-34	35-44	45-54	55-64	Over 64	
1985 Survey							
Number of farms	35	266	280	294	294	139	
Percentage of farms	2.7	20.3	21.4	22.5	22.5	10.6	47.1
1982 Census^a							
Number of farms	1974	6843	6774	7858	8594	4388	
Percentage of farms	5.4	18.8	18.6	21.6	23.6	12.0	47.3

^aSOURCE: United States Department of Commerce 1984.

TABLE 3. COMPARISON OF OPERATOR FARM EXPERIENCE FROM 1982 CENSUS OF AGRICULTURE AND 1985 FARM FINANCE SURVEY

Item	Years Operating a Farm ^a						Average Years Farming
	2 or Less	3-4	5-9	10-14	15-19	20-24	
1985 Survey							
Number of farms	5	70	187	202	120	110	613
Percentage of farms	0.4	5.4	14.3	15.5	9.2	8.4	46.9
						----- 80.0 -----	
1982 Census^b							
Number of farms	1837	2734	5022	-----	19742	-----	
Percentage of farms	6.2	9.3	17.1	-----	67.4	-----	20.1

^aThe 1982 Census of Agriculture asked for the number of "years on present farm". The 1985 survey asked for the number of "years operated a farm".

^bSOURCE: United States Department of Commerce 1984.

The survey distribution of farm operator experience did not closely match the 1982 Census. Average operator experience in farming was 23.4 years in the survey and 20.1 years in the 1982 Census. The higher average in the 1985 survey may be due to a smaller number of young people entering farming because of unfavorable income and expense conditions. Fewer young people, fewer small operations, and greater longevity are all consistent with fewer

new entrants into farming. Survey demographic results may indicate the beginning of significant changes in the number of farms and farmers.

Results and Discussion

The remainder of this report presents the survey results and discussion from two perspectives:

1. Delinquency on real and nonreal estate loans
2. Analysis of financial position

Each is discussed by various demographic and financial characteristics (e.g., farm type, operator age, farm income). Final sections of the report present information on loan refusal rates and on farmers' expectations of their ability to continue to farm. The paper closes with a comparison of the financial position of North Dakota farmers with U.S. farmers.

Because interest rates are a factor in debt repayment, interest rates paid by farmers on real estate and nonreal estate loans are reported prior to the information on delinquency. For all surveyed farms, the average real estate interest rate reported was 10.08 percent. The average nonreal estate interest rate reported for all surveyed farms was 13.42 percent.

One-third (33.4 percent) of the farmers reporting real estate debt paid an average interest rate of between 12 and 14 percent (Table 4). About one-quarter (23.3 percent) paid real estate interest rates of between 10 percent and 12 percent, and over one-quarter (27.1 percent) reported average rates paid of between 7 and 10 percent.

TABLE 4. PERCENT OF FARMERS REPORTING VARIOUS INTEREST RATES PAID BY LOAN CATEGORY

Loan Type	Average Rate Paid (Percent)					
	Less Than 7	7-10	10-12	12-14	14-16	16-20
Real Estate Percentage of farms	12.3	27.1	23.3	33.4	3.6	0.3
Nonreal Estate Percentage of farms	0.1	4.0	7.5	35.2	49.6	3.6

Note: Number of farms reporting is not listed to maintain respondent anonymity. Percentages are based upon the number of farms reporting real estate or nonreal estate debt.

Almost one-half (49.6 percent) of the farmers reporting nonreal estate debt paid interest rates that were between 14 and 16 percent, and over

one-third (35.2 percent) reported rates paid of between 12 percent and 14 percent. Few respondents paid rates greater than 16 percent or less than 7 percent on nonreal estate loans.

Delinquency of Real and Nonreal Estate Loans

About 23 percent of all farmers and ranchers reported delinquency on principal or principal and interest payments of either real estate or nonreal estate loans.¹ Delinquency status on real estate and nonreal estate loans is discussed in this section by the following categories:

1. primary lender
2. farm size (acreage and assets)
3. owner equity
4. operator age
5. farm type (crop, beef, dairy, or mixed)
6. gross and net farm income
7. crop reporting district
8. years expected to farm

Delinquency by Primary Lender

Real Estate Debt. Nearly 60 percent of all surveyed farmers reported debt with a real estate lender. The largest percentage of farmers (20.8 percent) reported the Federal Land Bank (FLB) as their primary real estate lender (Table 5). Only 10.4 percent reported a real estate debt obligation with either the Farmers Home Administration (FmHA), a bank, or an insurance company. Another 26.9 percent reported a real estate debt obligation with a lender not listed on the questionnaire (other) or had real estate loans from more than one source (mixed).

Over 20 percent of the surveyed farmers reported real estate debt repayment problems. Specifically, 7 percent reported being delinquent on principal payment, and 14.6 percent reported being delinquent on principal and interest payments. The Farmers Home Administration (FmHA) and banks had the largest percentages of loans reported delinquent by farmers on principal payments only (19.8 percent and 12.5 percent, respectively). Federal Land Banks (FLBs) and insurance companies had the lowest percentages of the loans reported delinquent on principal payments (3.7 percent and zero percent, respectively). The FLB has a policy of holding a first mortgage and only lending up to 60 percent of the appraised value on real estate loans. In contrast, the FmHA's role has been as lender of last resort. Consequently, its loan portfolio is at a higher risk level than other lenders. These two factors may partially explain the composition of reported loan delinquencies in the survey.

Farms that have more than one real estate lender (mixed category) appear to have had the most problems with loan delinquency. Six out of ten

¹Nonreal estate debt was defined as operating loans and accounts at farm suppliers, machinery dealers, etc.

TABLE 5. FARMS DELINQUENT ON REAL ESTATE LOANS BY PRIMARY LENDER

Type of Delinquency	Primary Real Estate Lender ^a						Total
	FLB	FmHA	Bank	Insurance Companies	Other	Mixed	
<u>Total</u>							
Number of farms	272	81	48	6	182	170	759
Percentage of farms ^b	20.8	6.2	3.7	0.5	13.9	13.0	58.1
<u>Not Delinquent</u>							
Number of farms	262	65	42	6	157	63	595
Percentage of farms ^c	96.3	80.3	87.5	100.0	86.3	37.1	78.4
<u>Principal Only</u>							
Number of farms	10	16	6	0	11	10	53
Percentage of farms ^c	3.7	19.8	12.5	0.0	6.0	5.9	7.0
<u>Principal and Interest</u>							
Number of farms	0	0	0	0	14	97	111
Percentage of farms ^c	0.0	0.0	0.0	0.0	7.7	57.1	14.6

^aPrimary real estate lender is defined as carrying greater than 50 percent of respondent's total real estate debt.

^bPercent of all surveyed farms (1308).

^cPercent of all farms with outstanding real estate debt, January 1985.

(63 percent) reported real estate debt repayment problems. Specifically, 5.9 percent reported being delinquent on principal payments, and 57.1 percent reported being delinquent on principal and interest payments.

Nonreal Estate Debt. About 60 percent of all surveyed farmers also had nonreal estate debt (Table 6). Specifically, about one-third (31.1 percent) reported a bank and one-third (32.3 percent) reported the Production Credit Association (PCA) as their primary lender. A fraction (0.4 percent) reported the FmHA as their major nonreal estate lender.

More than one out of four surveyed farmers (28.7 percent) reported nonreal estate debt repayment problems. Specifically, 16.8 percent reported being delinquent on principal payments, and 11.9 percent reported being delinquent on principal and interest payments. Farmer responses indicated that banks had 14.7 percent, PCAs 18.7 percent, and the FmHA 20 percent of the loans reported delinquent on principal payments only. Banks had 13.5 percent and PCA's 10.4 percent of the loans reported delinquent on both principal and interest payments.

TABLE 6. FARM OPERATORS DELINQUENT ON NONREAL ESTATE LOANS BY PRIMARY LENDER

Type of Delinquency	Nonreal Estate Lendera			
	Bank	PCA	FmHA	Total
<u>Total</u>				
Number of farms reporting	407	423	5	835
Percentage of farms reporting ^b	31.1	32.3	0.4	63.8
<u>Not Delinquent</u>				
Number of farms	292	300	4	596
Percentage of farms ^c	71.7	70.9	80.0	71.4
<u>Principal Only</u>				
Number of farms	60	79	1	140
Percentage of farms ^c	14.7	18.7	20.0	16.8
<u>Principal and Interest</u>				
Number of farms	55	44	0	99
Percentage of farms ^c	13.5	10.4	0.0	11.9

^aPrimary nonreal estate lender is defined as carrying greater than 50 percent of respondent's total nonreal estate debt.

^bPercent of all survey farms (1308).

^cPercent of all farms with outstanding nonreal estate debt, January 1985.

Delinquency by Farm Size (Acreage)

The distribution of delinquency by farm size (acreage) is presented in Table 7. For all responding farms, four out of ten reported no real estate debt (41.8 percent). About seven of ten farms under 500 acres reported no real estate debt compared to only two out of ten farmers with more than 2,000 acres. Similarly, more than one in three farmers (36 percent) reported that they had no nonreal estate debt. About 60 percent of the farms under 500 acres reported no nonreal estate debt compared to 19.4 percent of those with farms larger than 2,000 acres. In summary, the data show that as the total number of acres operated increases, the percentage of farmers reporting both real and nonreal estate farm debt increases.

A similar pattern appears in the not delinquent real estate and nonreal estate debt subcategories. As farm size increases, the percentage of farms that reported no delinquency on debt increases. For farmers reporting real estate debt, one-fifth (18.4 percent) of farms 180 acres or less reported not being delinquent while two-thirds (62 percent) of farms over 2,000 acres reported not being delinquent. For farmers reporting nonreal estate debt, one-fifth (22.5 percent) of farms 180 acres or less reported not being delinquent while over one-half (59.7 percent) of farms 2,000 acres or more reported not being delinquent.

TABLE 7. FARM LOAN DELINQUENCY BY FARM ACREAGE SIZE

Type of Delinquency	Total Acres Operated						All Farms
	Less than 180	180-500	500-1000	1000-2000	2000 or More		
<u>Total</u>							
Number of farms	49	176	350	475	258		1308
Percentage of farms	3.7	13.5	26.8	36.3	19.7		100.0
<u>Real Estate</u>							
No debt							
Number of farms	35	122	173	162	54		546
Percentage of farms	71.4	70.1	49.4	34.2	20.9		41.8
Not delinquent							
Number of farms	9	42	134	250	160		595
Percentage of farms	18.4	24.1	38.3	52.7	62.0		45.6
Principal only							
Number of farms	2	7	12	22	10		53
Percentage of farms	4.1	4.0	3.4	4.6	3.9		4.1
Principal and interest							
Number of farms	3	3	31	40	34		111
Percentage of farms	6.1	1.7	8.9	8.4	13.2		8.5
<u>Nonreal Estate</u>							
No debt							
Number of farms	34	101	139	146	50		470
Percentage of farms	69.4	58.1	39.8	30.7	19.4		36.0
Not delinquent							
Number of farms	11	59	142	230	154		596
Percentage of farms	22.5	33.9	40.7	48.4	59.7		45.7
Principal only							
Number of farms	0	10	41	61	28		140
Percentage of farms	0.0	5.8	11.8	12.8	10.9		10.7
Principal and interest							
Number of farms	4	4	27	38	26		99
Percentage of farms	8.2	2.3	7.7	8.0	10.1		7.6

Delinquency rates on real estate loan principal payments showed no relationship to farm size; all farm size categories reported delinquency rates between 3 and 5 percent. However, delinquency on principal payments in the nonreal estate debt subcategory generally increased with farm size, from no reported delinquency in the less than 180-acre farm size category to 10.9 percent reporting delinquency in the over 2,000-acre farm size category.

Reported delinquency on real estate and nonreal estate principal and interest payments also increased with farm acreage size except for farms between 180 and 500 acres. The delinquency rates in this farm size category were considerably lower than in the other categories (1.7 percent and 2.3 percent, respectively). The highest reported delinquency rates were in the 2,000-acre or more farm size category (13.2 percent on real estate loans and 10.1 percent on nonreal estate loans).

Delinquency by Farm Size (Assets)

Four out of ten surveyed farmers (41 percent) reported total farm assets that were between \$200,000 and \$500,000, and another 29 percent reported total farm assets that were more than \$500,000 (Table 8). The distribution of farmers' responses in the real estate and nonreal estate debt subcategories suggests that farms with higher asset values were more likely to be in debt. About three-fourths of the surveyed farmers with over \$500,000 of reported total farm assets said that they had real estate and/or nonreal estate debt obligations (75.7 percent and 73 percent, respectively). In contrast, only 18.4 percent and 55.3 percent of the respondents with less than \$100,000 of assets reported real estate or nonreal estate debt, respectively.

Real Estate Debt. The percentage of farmers reporting not delinquent on real estate debt increased as total farm assets increased. Six out of ten farmers (60.2 percent) reporting over \$500,000 total farm assets stated they were not delinquent on real estate debt in contrast to only about one-tenth of the farmers (14 percent) with less than \$100,000 total farm assets.

Reported delinquency on real estate debt also increased as reported total farm assets increased. The highest percentages of farmers who reported delinquency on the principal and/or interest portion of their debt had over \$200,000 of total farm assets. More than twice as many farmers in these higher asset categories reported delinquency on their real estate payments. Farms with less than \$100,000 of assets had the lowest percentage who reported that they were delinquent on their principal and interest payments.

Nonreal Estate Debt. The percentage of farmers reporting not delinquent on nonreal estate debt repayments did not exhibit a pattern of increasing as farm asset size increased. For example, the highest percentage reporting not delinquent was 55.4 percent of the farmers with over \$500,000 of total farm assets. The lowest percentage reported was 40.7 percent of the farmers with total farm assets between \$200,000 and \$500,000.

Delinquency on nonreal estate loans exhibited patterns slightly different than real estate delinquency. Those with between \$200,000 and \$500,000 of assets exhibited the most delinquency. More than one out of five (22.6 percent) of these farmers reported being delinquent on nonreal estate debt repayments. Specifically, 13.1 percent were delinquent on principal payments, and 9.5 percent were delinquent on both principal and interest payments. On the other hand, only one out of eight farmers (12.6 percent) reporting total farm assets between \$100,000 and \$200,000 reported being delinquent on their debt payments. Specifically, 8.2 percent were delinquent on principal payments, and 4.4 percent were delinquent on principal and interest payments.

TABLE 8. FARM LOAN DELINQUENCY BY TOTAL FARM ASSET SIZE

Type of Delinquency	Total Farm Assets (\$000)				All Farms
	Less Than 100	100-200	200-500	Over 500	
<u>Total</u>					
Number of farms	179	207	526	374	1286
Percentage of farms	14.0	16.0	41.0	29.0	100.0
<u>Real Estate</u>					
No debt					
Number of farms	146	113	187	91	537
Percentage of farms	81.6	54.6	35.6	24.3	41.8
Not delinquent					
Number of farms	25	79	258	225	587
Percentage of farms	14.0	38.2	49.1	60.2	45.7
Principal only					
Number of farms	4	6	26	16	52
Percentage of farms	2.2	2.9	4.9	4.3	4.0
Principal and interest					
Number of farms	4	9	55	42	110
Percentage of farms	2.2	4.4	10.5	11.2	8.6
<u>Nonreal Estate</u>					
No debt					
Number of farms	80	87	193	101	461
Percentage of farms	44.7	42.0	36.7	27.0	35.9
Not delinquent					
Number of farms	76	94	214	207	591
Percentage of farms	42.5	45.4	40.7	55.4	46.0
Principal only					
Number of farms	16	17	69	37	139
Percentage of farms	8.9	8.2	13.1	9.9	10.8
Principal and interest					
Number of farms	7	9	50	29	95
Percentage of farms	3.9	4.4	9.5	7.8	7.4

Delinquency by Owner Equity

The distribution of farmers reporting delinquency on real estate or nonreal estate loans by their amount of owner equity reported is presented in Table 9. Equity is the portion of a farm's assets that are owned free and clear of debt by the operator, i.e., the difference between farm assets and

TABLE 9. FARM LOAN DELINQUENCY BY OWNER EQUITY

Type of Delinquency	Owner Equity (\$000)					All Farms
	Less Than 100	100- 200	200- 500	Over 500		
Total						
Number of farms reporting	397	235	456	198	1286	
Percentage of farms reporting	30.9	18.3	35.4	15.4	100.0	
Real Estate						
<u>No debt</u>						
Number of farms	179	97	179	82	537	
Percentage of farms	45.1	41.3	39.3	41.4	41.8	
<u>Not delinquent</u>						
Number of farms	143	100	238	106	587	
Percentage of farms	36.0	42.6	52.2	53.5	45.7	
<u>Principal only</u>						
Number of farms	22	12	13	5	52	
Percentage of farms	5.5	5.1	2.9	2.5	4.0	
<u>Principal and interest</u>						
Number of farms	53	26	26	5	110	
Percentage of farms	13.4	11.1	5.7	2.5	8.6	
Nonreal Estate						
<u>No debt</u>						
Number of farms	99	86	193	83	461	
Percentage of farms	24.9	36.6	42.3	41.9	35.9	
<u>Not delinquent</u>						
Number of farms	193	99	198	101	591	
Percentage of farms	48.6	42.1	43.4	51.0	46.0	
<u>Principal only</u>						
Number of farms	61	27	44	7	139	
Percentage of farms	15.4	11.5	9.7	3.5	10.8	
<u>Principal and interest</u>						
Number of farms	44	23	21	7	95	
Percentage of farms	11.1	9.8	4.6	3.5	7.4	

debt liabilities. Over 35 percent of all responding farmers reported owner equity that was between \$200,000 and \$500,000, and another 30.9 percent reported owner equity that was less than \$100,000. Only about 15.4 percent of the surveyed farmers reported owner equity that was greater than \$500,000.

The data indicate that the percentage of farmers who reported no real estate debt obligations is not related to the amount of owner equity reported. Farmers reporting \$200,000 to \$500,000 of owner equity had the highest percentage reporting that they had real estate debt obligations (60.7 percent). For comparison, 58.2 percent of all survey farmers reported that they had real estate debt obligations. Farmers reporting under \$100,000 owner equity had the lowest percentage reporting that they had real estate debt obligations.

The percentage of farmers reporting nonreal estate debt, however, appears to be related to the amount of owner equity. About 75.1 percent of the farmers reporting less than \$100,000 owner equity said that they had nonreal estate debt compared to 64.1 percent reported for all surveyed farmers. In contrast, about 60 percent of the farmers in the higher owner equity categories reported a nonreal estate debt obligation.

The incidence of reported real estate loan delinquency decreased as owner equity increased. Farmers reporting less than \$100,000 owner equity had the highest real estate delinquency rates of any owner-equity category in the analysis. Two out of ten farmers (18.9 percent) in this category reported that they had real estate debt repayment problems, compared to 12.6 percent for all farms. In contrast, farmers reporting more than \$500,000 owner equity had the lowest real estate delinquency rate of any owner equity category in the analysis. Only 5 percent of the farmers in this category reported that they had real estate debt repayment problems.

The incidence of reported nonreal estate loan delinquency also decreased as owner equity increased. Farmers reporting less than \$100,000 owner equity had the highest nonreal estate delinquency rates of any owner equity category in the analysis, 26.5 percent compared to 18.2 percent for all farms. Farmers reporting more than \$500,000 owner equity had the lowest nonreal estate delinquency rates (7 percent) of any owner equity category in the analysis.

Delinquency by Operator Age

Reported delinquency by operator age on real estate and nonreal estate debt is presented in Table 10. Farmers aged 35 to 44 appear to be having the most financial problems. Almost three-fourths of the farmers aged 35 to 44 reported real estate debt obligations, compared to 58.2 percent for all farms. Farmers in the 35-44 age category also had the highest incidence of reported debt repayment problems in this analysis (followed closely by those under age 25). About two out of ten farmers (18.2 percent) between age 35 and 44 reported delinquency on their real estate debt payments (compared to 12.6 percent for all surveyed farmers), and about one-fourth of these farmers reported delinquency on their nonreal estate debt payments (compared with 18.3 percent for all surveyed farmers). On the other hand, more than one-half of the farmers in this age group reported that they were not delinquent on their real estate and nonreal estate loan payments.

Among the very youngest farmers (under age 25), almost one out of five (17.1 percent) reported that they were delinquent on their real estate debt payments, and 22.9 percent were delinquent on their nonreal estate debt

TABLE 10. FARM LOAN DELINQUENCY BY OPERATOR AGE

Type of Delinquency	Operator Age						All Farms
	Under 25	25-34	35-44	45-54	55-64	Over 64	
Total							
Number of farms reporting	35	266	280	294	294	139	1305
Percentage of farms reporting	2.7	20.3	21.4	22.5	22.5	10.8	100.0
Real Estate							
<u>No debt</u>							
Number of farms	17	93	77	95	152	112	546
Percentage of farms	48.6	35.2	27.5	32.3	51.7	81.2	41.8
<u>Not delinquent</u>							
Number of farms	12	139	152	156	117	19	595
Percentage of farms	34.3	52.7	54.3	53.1	39.8	13.8	45.6
<u>Principal only</u>							
Number of farms	2	8	18	11	11	3	53
Percentage of farms	5.7	3.0	6.4	3.7	3.7	2.2	4.1
<u>Principal and interest</u>							
Number of farms	4	24	33	32	14	4	111
Percentage of farms	11.4	9.1	11.8	10.9	4.8	2.9	8.5
Nonreal Estate							
<u>No debt</u>							
Number of farms	10	56	58	85	153	108	470
Percentage of farms	28.6	21.1	20.7	29.0	52.0	78.3	36.0
<u>Not delinquent</u>							
Number of farms	17	159	154	145	97	24	596
Percentage of farms	48.6	60.0	55.0	49.5	33.0	17.4	45.7
<u>Principal only</u>							
Number of farms	5	31	40	29	32	3	140
Percentage of farms	14.3	11.7	14.3	9.9	10.9	2.2	10.7
<u>Principal and interest</u>							
Number of farms	3	19	28	34	12	3	99
Percentage of farms	8.6	7.2	10.0	11.6	4.1	2.2	7.6

payments. Five out of ten young farmers reported that they had real estate debt obligations (51.4 percent), and 71.4 percent had nonreal estate obligations. One-third (34.3 percent) of the young farmers reported that they were not delinquent on their real estate loan payments, and about one-half (48.6 percent) were not delinquent on their nonreal estate loan payments.

Older farmers reported fewer financial problems. Farmers over age 64 had the smallest percentages of reported loan delinquency problems of any age category in the analysis. Only about one-fifth of them reported that they had any real estate or nonreal estate obligations. Slightly over 5 percent reported real estate loan delinquency, and 4.4 percent had nonreal estate delinquency.

Delinquency by Farm Enterprise Type

Delinquency reported by type of farm enterprise is presented in Table 11. A farm was categorized as a crop, beef, or dairy operation if more than 50 percent of its gross farm income was generated from that enterprise. Mixed enterprise operations were classified with "other."

Crop farms had the largest percentage of respondents that reported not having any real estate or nonreal estate debt (42.9 percent and 37.5 percent, respectively). They also had the largest percentage (47.1 percent) reporting no delinquency on their real estate loans followed by beef (43.5 percent), mixed (41.5 percent), and dairy (36.7 percent). Beef farms had the largest percentage of respondents reporting no delinquency on their nonreal estate loans (46.6 percent) followed closely by crops (46 percent), dairy (45 percent), and mixed (43.2 percent).

Dairy farms appear to have had the most problems with delinquency on debt payments. They had the lowest percentage of respondents reporting no real estate or nonreal estate debt (35 percent and 23.3 percent, respectively), and three out of ten (28.3 percent) reported real estate debt repayment problems. Specifically, 8.3 percent reported being delinquent on principal payments while 20 percent reported being delinquent on the principal and interest payments. Over one-third (36.6 percent) reported nonreal estate debt repayment problems.

Crop farms appear to have had the least problems with delinquency on debt payments. Only one out of ten (10 percent) reported real estate debt repayment problems, and less than two out of ten farmers (16.5 percent) reported nonreal estate debt repayment problems.

Delinquency by 1984 Gross Farm Receipts

Table 12 presents reported loan delinquency by gross farm receipts reported in 1984. The data suggest that the percentage of farms with no debt decreases as gross receipts increase. Two out of three farms with less than \$10,000 gross receipts reported no real estate and nonreal estate debt (67.5 percent and 65.9 percent, respectively), compared to 41.6 percent for all farms. By contrast, farms with over \$250,000 gross receipts had the smallest percentage of respondents reporting no real estate and nonreal estate debt (12.4 percent and 15.7 percent, respectively).

The percentage of farmers who reported they were not delinquent on their real estate and nonreal estate debt payments is directly related to gross receipts reported. For example, one-quarter (22.9 percent) of the farmers reporting less than \$10,000 gross farm receipts reported being not delinquent,

TABLE 11. FARM LOAN DELINQUENCY BY TYPE OF FARM ENTERPRISE TYPE

Type of Delinquency	Crops	Type of Farm		All Farms
		Beef	Dairy	Other
<u>Total</u>				
Number of farms reporting	951	147	60	147
Percentage of farms reporting	72.9	11.3	4.5	11.3
Percentage of farms reporting				100.0
<u>Real Estate</u>				
No debt				
Number of farms	408	56	21	61
Percentage of farms	42.9	38.1	35.0	41.5
Not delinquent				
Number of farms	448	64	22	61
Percentage of farms	47.1	43.5	36.7	41.5
Not delinquent				
Number of farms	595			
Percentage of farms	45.6			
Principal only				
Number of farms	30	7	5	11
Percentage of farms	3.2	4.8	8.3	7.5
Principal and interest				
Number of farms	65	20	12	14
Percentage of farms	6.8	13.6	20.0	9.5
Principal and interest				
Number of farms	111			
Percentage of farms	8.5			
<u>Nonreal Estate</u>				
No debt				
Number of farms	357	46	14	53
Percentage of farms	37.5	31.5	23.3	35.8
Not delinquent				
Number of farms	437	68	27	64
Percentage of farms	46.0	46.6	45.0	43.2
Not delinquent				
Number of farms	596			
Percentage of farms	45.7			
Principal only				
Number of farms	94	18	11	17
Percentage of farms	9.9	12.3	18.3	11.5
Principal and interest				
Number of farms	140			
Percentage of farms	10.7			
Principal and interest				
Number of farms	63	14	8	14
Percentage of farms	6.6	9.6	18.3	9.5
Principal and interest				
Number of farms	99			
Percentage of farms	7.6			

but over three-quarters (77.5 percent) of the farmers with more than \$250,000 gross farm receipts reported being not delinquent.

TABLE 12. FARM LOAN DELINQUENCY BY 1984 GROSS FARM RECEIPTS

Type of Delinquency	Gross Farm Receipts (in dollars)						All Farms
	Less Than 10,000	10,000-40,000	40,000-100,000	100,000-250,000	Over 250,000		
Total							
Number of farms	82	372	460	279	89	1282	
Percentage of farms	6.4	29.0	35.9	21.8	6.9	100.0	
Real Estate							
No debt							
Number of farms	56	220	179	74	11	540	
Percentage of farms	67.5	58.5	38.4	26.1	12.4	41.6	
Not delinquent							
Number of farms	19	113	226	167	69	594	
Percentage of farms	22.9	30.1	48.5	58.8	77.5	45.8	
Principal only							
Number of farms	3	17	21	9	3	53	
Percentage of farms	3.6	4.5	4.5	3.2	3.4	4.1	
Principal and interest							
Number of farms	5	26	40	34	6	111	
Percentage of farms	6.0	6.9	8.6	12.0	6.7	8.6	
Nonreal Estate							
No debt							
Number of farms	54	196	143	59	14	466	
Percentage of farms	65.9	52.1	30.6	20.8	15.7	35.9	
Not delinquent							
Number of farms	19	124	221	166	64	594	
Percentage of farms	23.2	33.0	47.3	58.5	71.9	45.8	
Principal only							
Number of farms	4	31	63	34	7	139	
Percentage of farms	4.9	8.2	13.5	12.0	7.9	10.7	
Principal and interest							
Number of farms	5	25	40	25	4	99	
Percentage of farms	6.1	6.7	8.6	8.8	4.5	7.6	

With few exceptions, real estate and nonreal estate loan delinquency rates did not vary significantly from the survey average. As a result, reported delinquency rates in these debt categories do not appear to be related to gross farm receipt size. Reported delinquency on principal and interest payments in the \$100-250 thousand gross farm income category was higher than the survey average, in both real and nonreal estate categories,

and the delinquency rate on principal and interest payments in the \$40-100 thousand category was higher in the nonreal estate category.

Delinquency by 1984 Net Farm Income

More than one out of five surveyed farmers (22.6 percent) reported a net farm income loss in 1984 (Table 13). Consequently, these farmers had the largest percentages of reported delinquency problems of any net farm income category. Although 41.4 percent reported that they were not delinquent on real estate debt, more than one-third of these farmers (35.9 percent) were delinquent. The remainder had no real estate debt. Similarly, less than four out of ten farmers (35.4 percent) reporting a net loss were not delinquent on nonreal estate debt, but almost one out of two farmers (45.6 percent) said that they were delinquent.

Slightly less than 40 percent of the surveyed farmers reported a net farm income that was between \$5,000 and \$20,000. These farmers reported the least delinquency problems of any net farm income category. Generally, about one-half of these farmers had no real estate debt, and about 43 percent had no nonreal estate debt. Those with net incomes lower than \$5,000 experienced about average debt and delinquency.

Slightly more than one out of ten surveyed farmers (13.2 percent) reported a net farm income that was between \$20,000 and \$50,000. These farmers reported real estate and nonreal estate debt repayment problems that were below the averages reported for all surveyed farms. Only 2.3 percent of these farmers reported that they were delinquent on their real estate debt payments, and only 3.6 percent were delinquent on their nonreal estate debt payments. This group had about average percentages of farmers with no real or nonreal estate debt, but higher percentages of farmers who were not delinquent on their payments.

Only 3.6 percent of all surveyed farms reported a net farm income that was more than \$50,000. Although this group had the lowest percentage of farmers with no debt, this income category also had the highest percentages of farmers reporting no delinquency on their real estate or nonreal estate loan payments. These farmers reported no real estate loan delinquency problems, and only 2.2 percent were delinquent on their nonreal estate loans.

Delinquency by Crop Reporting District

The distribution of delinquency reported by crop reporting district (Figure 1) is presented in Table 14. For all reporting districts, 41.8 percent had no real estate debt and 36.0 percent had no nonreal estate debt. Percentages of farmers with no real estate debt ranged from a low of under 40 percent in the Central, Southwest, and South Central districts to a high of over 47 percent in the West Central and South Red River Valley districts; percentages of farmers with no nonreal estate debt ranged from 28.6 percent in the Southwest to 40 percent and over in the Northwest and West Central districts.

TABLE 13. FARM LOAN DELINQUENCY BY 1984 NET FARM INCOME

Item	Net Loss	Net Farm Income (in dollars)						All Farms
		Less Than 5,000 5,000	5,000- 10,000 10,000	10,000- 20,000 20,000	20,000- 50,000 50,000	Over 50,000 50,000		
Total								
Number of farms	290	268	274	234	169	46	1281	
Percentage of farms	22.6	20.9	21.4	18.3	13.2	3.6	100.0	
Real Estate								
No debt								
Number of farms	67	132	139	116	76	10	540	
Percentage of farms	22.7	48.2	50.2	49.6	44.4	21.7	41.6	
Not delinquent								
Number of farms	122	111	125	109	91	36	594	
Percentage of farms	41.4	40.5	45.1	46.6	53.2	78.3	45.8	
Principal only								
Number of farms	31	12	5	5	0	0	53	
Percentage of farms	10.5	4.4	1.8	2.1	0.0	0.0	4.1	
Principal and interest								
Number of farms	75	19	8	4	4	0	110	
Percentage of farms	25.4	6.9	2.9	1.7	2.3	0.0	8.5	
Nonreal Estate								
No debt								
Number of farms	56	98	120	102	73	17	466	
Percentage of farms	19.1	35.9	43.3	43.2	42.7	37.0	35.9	
Not delinquent								
Number of farms	104	126	128	115	92	28	593	
Percentage of farms	35.4	46.2	46.2	48	53.8	60.9	45.7	
Principal only								
Number of farms	68	30	23	14	3	1	139	
Percentage of farms	23.1	11.0	8.3	5.9	1.8	2.2	10.8	
Principal and interest								
Number of farms	66	19	6	5	3	0	99	
Percentage of farms	22.5	7.0	2.2	2.1	1.8	0.0	7.6	

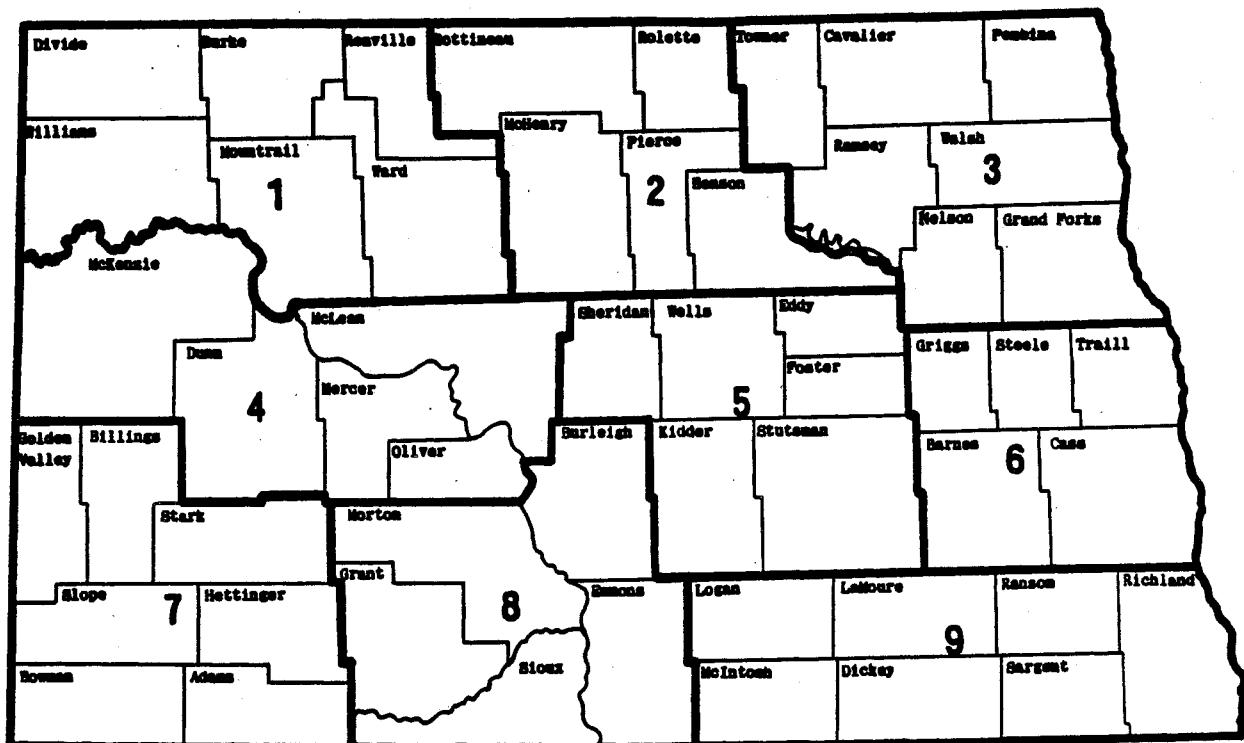


Figure 1. North Dakota Crop Reporting Districts.

Delinquency on debt averaged 12.6 percent on real estate and 18.3 percent on nonreal estate, statewide. Delinquency rates on real estate payments ranged from just over 9 percent in the North and South Red River Valley to around 20 percent in the Southwest and South Central regions. Nonreal estate delinquency showed similar patterns; percentages ranged from a low of 12.6 percent in the North Red River Valley to over 30 percent in the Southwest. Crop failures for the last three years in the Southwest and South Central regions may have contributed to the high percentage of farms reporting debt repayment problems.

Delinquency by Number of Years Expected to Farm

Table 15 presents the distribution of farmer expectations on their ability to stay in business by their real estate and nonreal estate loan delinquency status. Only four out of ten farmers who believed they could stay in business until retirement reported having any real estate and/or nonreal estate debt (40.7 percent and 40.5 percent, respectively). Almost four out of ten of these farmers reported not being delinquent on real estate or nonreal estate debt obligations (37.9 percent each). Consequently, less than 3 percent of these farmers reported real estate and/or nonreal estate debt repayment problems (2.8 percent and 2.6 percent, respectively).

In contrast, about eight out of ten farmers who expected to farm one year or less reported debt obligations. Specifically, 77.6 percent reported

TABLE 14. FARM LOAN DELINQUENCY BY CROP REPORTING DISTRICT

Type of Delinquency	Crop Reporting District ^a									
	NW	NC	NRRV	WC	C	EC	SW	SC	SRRV	STATE
<u>Real Estate</u>										
<u>No debt</u>										
Number of farms	73	57	100	48	46	67	35	38	82	546
Percentage of farms	43.2	44.9	40.5	47.5	33.8	43.0	36.1	38.4	47.4	41.8
<u>Not delinquent</u>										
Number of farms	78	51	123	40	71	73	43	41	75	595
Percentage of farms	46.2	40.2	49.8	39.6	52.2	46.8	44.3	41.4	43.4	45.6
<u>Principal only</u>										
Number of farms	6	2	7	5	4	6	10	7	6	53
Percentage of farms	3.6	1.6	2.8	5.0	2.9	3.9	10.3	7.1	3.5	4.1
<u>Principal and interest</u>										
Number of farms	12	17	17	8	15	10	9	13	10	111
Percentage of farms	7.1	13.4	6.9	7.9	11.0	6.4	9.3	13.1	5.8	8.5
<u>Total Delinquent</u>										
Number of farms	18	19	24	13	19	16	19	20	16	164
Percentage of farms	10.7	15.0	9.7	12.9	13.9	10.3	19.6	20.2	9.3	12.6
<u>Nonreal Estate</u>										
<u>No debt</u>										
Number of farms	77	50	87	40	44	49	28	32	63	470
Percentage of farms	45.3	39.7	35.2	40.0	32.4	31.4	28.6	32.3	36.4	36.0
<u>Not delinquent</u>										
Number of farms	64	50	129	47	59	78	40	47	82	596
Percentage of farms	37.7	39.7	52.2	47.0	43.4	50.0	40.8	47.5	47.4	45.7
<u>Principal only</u>										
Number of farms	15	14	18	10	14	22	20	11	16	140
Percentage of farms	8.8	11.1	7.3	10.0	10.3	14.1	20.4	11.1	9.3	10.7
<u>Principal and interest</u>										
Number of farms	14	12	13	3	19	7	10	9	12	99
Percentage of farms	8.2	9.5	5.3	3.0	14.0	4.5	10.2	9.1	6.9	7.6
<u>Total Delinquent</u>										
Number of farms	29	26	31	13	33	29	30	20	28	239
Percentage of farms	17.0	20.6	12.6	13.0	24.3	18.6	30.6	20.2	16.2	18.3

^aAbbreviations correspond to regions on Figure 1 as follows: NW = Region 1; NC = Region 2; NRRV = Region 3; WC = Region 4; C = Region 5; EC = Region 6; SW = Region 7; SC = Region 8; and SRRV = Region 9.

TABLE 15. FARM LOAN DELINQUENCY BY NUMBER OF YEARS EXPECTED TO FARM

Type of Delinquency	Number of Years Expected to Farm					All Farms
	One Year or Less	2-5 Years	6-10 Years	Until Retirement		
----- percentage of farms -----						
<u>Real Estate</u>						
No debt	22.4	32.5	42.2	59.3	41.6	
Not delinquent	36.5	53.5	54.1	37.9	45.7	
Principal only	8.2	6.0	1.8	0.9	4.1	
Principal and interest	32.9	8.0	1.8	1.9	8.6	
<u>Nonreal Estate</u>						
No debt	14.8	24.1	29.4	59.5	36.1	
Not delinquent	30.2	52.9	65.1	37.9	45.6	
Principal only	26.0	14.7	2.8	2.4	10.7	
Principal and interest	29.0	8.3	2.8	0.2	7.6	

Note: The number of responses is not published to maintain respondent anonymity. There were 1,297 responses to this question.

real estate debt and 85.2 percent reported nonreal estate debt. These were also the highest percentages reported by any category in the analysis. Four out of ten of these farmers (41.1 percent) reported real estate debt repayment problems, and 55 percent reported nonreal estate debt repayment problems. These were the highest reported delinquency rates reported in the analysis and three times the delinquency rates reported for all surveyed farmers.

In summary, there appears to be an inverse relationship between the number of years the farmers expected to remain in business and the percentage of farmers carrying debt or experiencing delinquency. As the number of years the farmers expected to remain in business increases, the percentage with debt or delinquency problems decreases.

Analysis of Financial Position

This second major section of the report presents an analysis of the financial position of North Dakota farmers by debt-to-asset ratio. After an overview of the financial position of all farmers, analyses are then presented by farm acreage size, operator age, farm type, gross and net farm income, and crop reporting district.

A summary of information on the financial position of all farmers responding to the survey is presented in Table 16. Almost one out of four North Dakota farmers (23.8 percent) reported not having any farm debt. These farmers reported average total farm assets of \$309,000, compared to the state average of \$424,000. Their total assets reported consisted of \$219,000 worth of real estate assets and \$90,000 worth of nonreal estate assets. This compares with the state average of \$286,000 worth of real estate assets and \$138,000 worth of nonreal estate assets. Because these farmers had no reported debt, they also reported no problems with real estate and operating loan delinquencies. In addition, their reported nonfarm income as a percentage of average total gross farm income was the highest of all debt ratio categories (15.2 percent).

In contrast, one-sixth (16.5 percent) of the farmers in North Dakota reported debt ratios exceeding 70 percent. The ERS (USDA 1985) suggests that farms with debt ratios above 70 percent could be classified as having extreme financial stress problems. Data from the survey appear to support the ERS definition; farms in this category reported the most problems with loan delinquency. Nearly half (48.1 percent) reported being delinquent on their operating debt obligations, and four out of ten (40.1 percent) reported being delinquent on their real estate debt obligations. Accordingly, estimated accrued interest payments per farm was the second highest of any debt category, \$39,000, compared to the state average of \$30,000.

Some interesting financial structure comparisons can be made between farmers reporting over 70 percent debt ratios and all farms reporting in North Dakota. Those with over 70 percent debt reported that their average total farm assets were \$356,000 (compared to the state average of \$424,000). In other words, their total assets amounted to only 84 percent of the state average; only those with no debt had lower total assets. Average total farm liabilities reported in the over 70 percent category were \$308,000, more than twice the state average of \$140,000. Farmers with over 70 percent debt ratios reported considerably less owner equity than any other debt ratio category in the survey. Indeed, reported average owner equity was about 17 percent of the state average of \$248,000. It should also be noted that the average debt ratio for all farms in the state is one-half (35 percent) the debt ratio of farmers in this debt category.

The ERS suggests that farmers who have debt ratios between 40 and 70 percent (21 percent of farms statewide) may also have serious financial stress problems. Table 16 data suggest that the financial problems in this debt category, while not as severe as the over 70 percent debt category, are still substantial. Reported real estate loan delinquencies vary from 15.8 percent to 23.8 percent, compared to the state average of 12.6 percent. Farmers reporting debt ratios between 50 and 60 percent and between 60 and 70 percent reported operating loan delinquencies of 30.3 percent and 33.8 percent, respectively. This compares with the state average of 18.3 percent. Moreover, farmers reporting a debt ratio between 60 and 70 percent reported the highest amount of estimated accrued interest payments per farm of any debt category (\$44,000). The estimated accrued interest payments per farm across these three debt categories varied from \$28,000 to \$44,000, compared to the state average of \$30,000.

TABLE 16. FINANCIAL POSITION OF ALL SURVEY FARMS BY DEBT-TO-ASSET RATIO CATEGORY

Item	Unit	Debt-To-Asset Ratio									All Farms
		.0	.0-.1	.1-.2	.2-.3	.3-.4	.4-.5	.5-.6	.6-.7	Over .7	
Number of completed reports ^a		306	147	117	123	111	101	89	80	212	1284
Percentage of farms		23.8	11.4	9.1	9.6	8.6	7.9	6.9	6.2	16.5	100.0
Assets	(\$000)	309.0	548.0	396.0	534.0	510.0	471.0	460.0	476.0	356.0	424.0
Real estate	(\$000)	219.0	377.0	270.0	335.0	362.0	290.0	301.0	312.0	244.0	286.0
Nonreal estate	(\$000)	90.0	171.0	126.0	199.0	148.0	181.0	159.0	165.0	112.0	138.0
Liabilities	(\$000)	0.0	28.0	59.0	131.0	178.0	207.0	250.0	309.0	308.0	140.0
Real estate	(\$000)	0.0	14.0	31.0	89.0	129.0	130.0	157.0	188.0	209.0	91.0
Nonreal estate	(\$000)	0.0	15.0	27.0	42.0	49.0	77.0	93.0	120.0	99.0	49.0
Equity	(\$000)	309.0	520.0	337.0	403.0	332.0	264.0	210.0	167.0	48.0	284.0
Real estate debt/total debt ratio		--	0.42	0.45	0.58	0.63	0.62	0.57	0.55	0.59	0.55
Interest paid ^b	(\$000)	--	7.0	10.0	20.0	24.0	28.0	33.0	44.0	39.0	30.0
Average interest rate paid for: ^b											
Real estate	(%)	--	9.41	9.92	10.20	10.55	10.43	10.04	10.30	9.79	10.08
Nonreal estate	(%)	--	13.23	13.36	13.78	13.59	13.47	13.40	13.30	13.31	13.42
Income from nonfarm sources ^c	(%)	15.2	10.0	10.4	13.7	11.8	10.3	10.1	12.6	10.1	12.1
Real estate loans delinquent	(%)	N.A.	0.6	3.4	4.9	13.5	15.8	18.0	23.8	40.1	12.6
Operating loans delinquent	(%)	N.A.	3.4	11.1	14.6	21.6	17.8	30.3	33.8	48.1	18.3

^aComplete reports include asset and debt information.^bEstimates based only on farms reporting an average interest paid and farm debt as of January 1, 1985.^cExpressed as percent of total gross farm income.

Average total farm assets across the 40 to 70 percent debt categories were above the state average of \$424,000 (ranging from \$460,000 to \$476,000). Moreover, their average total farm liabilities were above the state average of \$140,000 (ranging from \$207,000 to \$309,000). They also reported considerably more owner equity than farmers in the over 70 percent debt category; however, they were still below the state average of \$284,000. Reported nonfarm income as a percentage of total gross farm income varied from 10.1 percent to 12.6 percent across the debt categories and reflected the state average of 12.1 percent.

The ERS suggests that farmers with a less than 40 percent debt ratio generally do not have any apparent financial stress problems resulting from indebtedness. Table 16 data do confirm that farm financial problems in this debt category are not as severe as other categories. Reported farm delinquency rates in general were lower, but significant problems were still apparent in some debt subcategories. Farmers in the 30 to 40 percent debt subcategory reported the most loan delinquency problems of this group. Indeed, 21.6 percent reported operating loan problems, and 13.5 percent reported real estate loan problems. Moreover, farmers reporting debt ratios from 10 to 20 percent and from 20 to 30 percent reported significant operating debt problems (11.1 percent and 14.6 percent delinquencies, respectively).

Farmers reporting debt ratios between 0 and 10 percent reported the largest amount of average total farm assets (\$548,000), which was significantly above the state average of \$424,000. Consequently, they reported the largest average owner-equity of any debt subcategory (\$520,000), considerably more than the state average of \$284,000. In addition, they reported the lowest percentages of delinquency on loans.

Average reported farm interest rates paid on real estate and nonreal estate loans did not have any apparent pattern across the debt subcategories in Table 16. Average real estate interest rates paid varied little, ranging from 9.41 percent in the 0 to 10 percent subcategory to 10.55 percent in the 30 to 40 percent subcategory. Average nonreal estate interest rates paid varied from 13.23 percent in the 0 to 10 percent subcategory to 13.78 percent in the 20 to 30 percent subcategory.

Farm Financial Position by Farm Size (Acreage)

An examination of financial data by farm acreage size (Table 17) reveals that 36.3 percent of the responding farms reported a farm size between 1,000 and 2,000 acres. Their level of assets and liabilities was fairly representative of the average for all surveyed farmers. As stated in an earlier discussion of Table 7, 34.2 percent of these farmers with 1,000 to 2,000 acres had no real estate debt obligations. They had estimated average accrued farm interest payments of \$24,000 (well below the \$30,000 estimated survey average), and they reported nonfarm incomes (expressed as a percentage of total gross farm income) that were less than two-thirds the survey average (7.4 percent compared to 12.1 percent). Nevertheless, these farmers reported significant problems with debt repayment. About 21 percent reported difficulty in the repayment of their operating loan obligations, and 13.1 percent reported real estate loan delinquency.

TABLE 17. FINANCIAL POSITION BY FARM ACREAGE SIZE

Item	Unit	Total Acres in Farm					
		Less than 180	180-500	500-1000	1000-2000	2000 or More	All Farms
Number of complete reports ^a		47	175	345	468	254	1289
Percentage of farms		3.6	13.6	26.8	36.3	19.7	100.0
Assets	(\$000)	94.0	178.0	272.0	441.0	826.0	424.0
Real estate	(\$000)	57.0	124.0	193.0	292.0	553.0	286.0
Nonreal estate	(\$000)	35.0	54.0	79.0	149.0	273.0	138.0
Liabilities	(\$000)	14.0	38.0	81.0	134.0	323.0	140.0
Real estate	(\$000)	10.0	24.0	52.0	86.0	215.0	91.0
Nonreal estate	(\$000)	4.0	15.0	28.0	49.0	108.0	49.0
Equity	(\$000)	79.0	139.0	192.0	307.0	503.0	284.0
Debt/asset ratio ^b		0.20	0.34	0.35	0.34	0.41	0.35
Real estate debt/total debt ratio		0.63	0.45	0.52	0.55	0.61	0.55
Interest paid ^c	(\$000)	6.0	16.0	19.0	24.0	51.0	30.0
Average interest rate paid for: ^c							
Real estate	(%)	10.82	10.46	9.78	9.92	10.43	10.08
Nonreal estate	(%)	13.79	13.49	13.52	13.31	13.44	13.42
Income from nonfarm sources ^d	(%)	44.1	24.7	11.9	7.4	6.5	12.1
Real estate loans delinquent	(%)	10.2	6.3	12.3	13.1	17.1	12.6
Operating loans delinquent	(%)	8.2	8.0	19.4	20.8	20.9	18.3

^aComplete reports include asset and debt information.

^bDebt-to-asset ratio reflects the average of individual debt ratios for each respective category and will be slightly different from an average-debt to average-asset ratio.

^cEstimates based only on farms reporting an average interest paid and farm debt as of January 1, 1985.

^dExpressed as a percentage of total gross farm income.

About 20 percent of the surveyed farmers reported a farm size greater than 2,000 acres. These farmers reported total farm assets, total farm liabilities, and average owner equity that were almost twice the survey averages and twice that of any other farm size category. These farmers had the highest debt ratio (41 percent) of any farm size category, the second highest real-estate-debt to total-debt ratio, the highest estimated accrued farm interest payments per farm, and the lowest percentage of income from nonfarm sources. As stated earlier in Table 7, 79.1 percent of these farmers had real estate debt obligations. About 17 percent were delinquent on these payments, and about 21 percent were delinquent on their operating loan payments.

A very small percentage (3.6 percent) of the survey farms reported that they had farm sizes that were 180 acres or less. These small-sized farms had average reported total farm assets that were about one-fifth (\$94,000) the average reported for all surveyed farms and liabilities that were only about one-tenth (\$14,000) the statewide average. Although their debt-to-asset ratio was the lowest of any farm size category (20 percent), their real-estate-debt to total-debt ratio was the largest of any farm size category (0.63 to one). As reported earlier in Table 7, though, more than two-thirds (71.4 percent) of these farmers had no farm debt. Over 40 percent of these small farms' total gross farm income was obtained from nonfarm sources--a percentage level almost twice that of any other farm size group.

In summary, there is a direct relationship between farm size and the following items: total assets, total liabilities, debt-to-asset ratio, interest paid, and delinquency on operating loans. Except for farms under 180 acres, there is also a direct relationship between farm size and delinquency on real estate loans. An inverse relationship appears between farm size and the percentage of total gross income that comes from nonfarm sources.

Financial Position by Operator Age

According to the financial data by operator age (Table 18), farmers over 64 years old reported the least problems with loan repayment. Their real estate loan delinquency rate was only 5 percent, less than half the 12.6 percent delinquency rate reported for all surveyed farmers. Their operating loan delinquency rate was also low--only 4.3 percent or about one-fourth the 18.3 percent delinquency rate reported by all surveyed farmers. Farmers over 64 years old reported about three-fourths the total average farm assets of all surveyed farmers, but they also had the smallest reported amount of total farm liabilities of any age category, which was less than one-third that of the survey average of \$140,000. These farmers reported an average debt ratio of only 7 percent, the lowest of any age category and only one-fifth the reported survey average of 35 percent. The low amount of farm assets and liabilities reported by farmers over age 64 may be consistent with the goals of farmers leaving or retiring from agriculture (Boehlje and Eidman 1984). These goals could include (1) risk aversion, i.e., reducing one's debt obligations, or (2) security, i.e., reinvesting the farm assets into other income-earning investments or liquidating the farm assets for a source of retirement income.

Farmers under 25 years old have more reported problems with debt repayment. They are most likely beginning farmers with goals that are

TABLE 18. FINANCIAL POSITION BY OPERATOR AGE

Item	Unit	Operator Age						All Farms
		Under 25	25-34	35-44	45-54	55-64	Over 64	
Number of complete reports ^a		35.0	264.0	274.0	289.0	289.0	139.0	1290.0
Percentage of farms		2.7	20.5	21.2	22.4	22.4	10.8	100.0
Assets	(\$000)	201.0	295.0	468.0	544.0	448.0	334.0	424.0
Real estate	(\$000)	127.0	176.0	294.0	375.0	327.0	243.0	286.0
Nonreal estate	(\$000)	74.0	119.0	173.0	168.0	121.0	92.0	138.0
Liabilities	(\$000)	120.0	143.0	204.0	183.0	82.0	41.0	140.0
Real estate	(\$000)	86.0	94.0	126.0	125.0	53.0	26.0	91.0
Nonreal estate	(\$000)	34.0	49.0	78.0	58.0	29.0	15.0	49.0
Equity	(\$000)	81.0	152.0	264.0	360.0	367.0	293.0	284.0
Debt/asset ratio ^b		0.50	0.56	0.44	0.32	0.22	0.07	0.35
Real estate debt/Total debt ratio		0.48	0.52	0.55	0.58	0.57	0.50	0.55
Interest paid ^c	(\$000)	25.0	23.0	34.0	35.0	24.0	37.0	30.0
Average interest rate paid for: ^c								
Real estate	(%)	9.70	9.65	9.91	10.31	10.54	10.27	10.08
Nonreal estate	(%)	13.18	13.14	13.34	13.72	13.62	13.09	13.42
Income from nonfarm sources ^d	(%)	14.1	15.0	10.4	12.3	10.4	12.9	12.1
Real estate loans delinquent	(%)	17.1	12.4	18.2	14.6	8.5	5.0	12.6
Operating loans delinquent	(%)	22.9	18.8	24.3	21.4	15.0	4.3	18.3

^aComplete reports include asset and debt information.

^bDebt-to-asset ratio reflects the average of individual debt ratios for each respective category and will be slightly different from an average-debt to average-asset ratio.

^cEstimates based only on farms reporting an average interest paid and farm debt as of January 1, 1985.

^dExpressed as a percent of total gross farm income.

different from retiring farmers, i.e., the difficult task of acquiring resources to establish the farm so it has a chance to grow and survive. More than one-fifth (22.9 percent) of these farmers reported operating loan repayment problems, and 17.1 percent had real estate loan delinquency.

Younger farmers (under the age of 35) reported farm asset sizes that are smaller than the statewide average, but they reported about average levels of liabilities. Consequently, younger farmers had average owner equity considerably below the survey average and debt-to-asset ratios considerably higher. Farmers under 25 years old had less than one-third (\$81,000) the average reported owner equity of all survey farms (\$284,000), and farmers between the ages of 25 and 34 years old had about one-half (\$152,000) the average owner-equity. Debt-to-asset ratios were over 50 percent compared to 35 percent for the survey average. Interestingly, these younger farmers reported higher percentages of their total gross farm income as coming from nonfarm sources.

Farmers between the ages of 35 and 54 reported significant debt repayment problems and the highest total asset and liability values. They had above acreage percentages of delinquency on both real estate and operating loans.

In summary, total asset and liability values of surveyed farmers peaked at the middle age group (35-54), and owner equity generally increased with age. Debt-to-asset values decreased with age; farmers under 34 were experiencing debt ratios over twice that of farmers over 55. Perhaps to compensate for these high debt loads, younger farmers reported higher percentages of gross farm income as coming from nonfarm sources. Delinquency rates on real estate loans appear to decrease with age, yet with the exception of those over 64, delinquency on operating loans was rather evenly dispersed among the age groups.

Financial Position by Farm Enterprise Type

Survey farms were again classified into one of three major enterprises: crops, beef, and dairy, if more than 50 percent of total gross farm income came from that enterprise. Farms not having any enterprise that comprised more than 50 percent of its gross farm income were classified as mixed.

About 72.8 percent of the farms in the survey were crop farms (Table 19). Only 4.6 percent were dairy farms, and the remainder was divided evenly between beef and mixed (11.3 percent each). The general financial position of these four enterprise types will be discussed below. More specific information by debt-to-asset ratio categories can be found in Appendix B Tables 1-3.

Crop enterprise farming operations had the highest reported average total farm assets (\$442,000), total farm liabilities (\$145,000), owner-equity (\$297,000), and accrued interest payments (\$32,000). They were the only enterprise classification reporting above-average values for these items. Crop enterprise farming operations also had the lowest reported loan delinquency rates, 10.1 percent on their real estate loans and 16.5 percent on their operating loans.

TABLE 19. FINANCIAL POSITION BY FARM ENTERPRISE TYPE

Item	Unit	Type of Farm			All Farms
		Crops	Beef	Dairy	
Number of complete reports ^a		939	146	59	145
Percentage of farms		72.8	11.3	4.6	11.3
Assets	(\$000)	442.0	416.0	364.0	335.0
Real estate	(\$000)	298.0	283.0	233.0	229.0
Nonreal estate	(\$000)	144.0	133.0	131.0	106.0
Liabilities	(\$000)	145.0	139.0	143.0	102.0
Real estate	(\$000)	96.0	85.0	96.0	61.0
Nonreal estate	(\$000)	49.0	54.0	47.0	41.0
Equity	(\$000)	297.0	277.0	221.0	232.0
Debt/asset ratio ^b		0.35	0.37	0.40	0.30
Real estate debt/total debt ratio		0.55	0.53	0.53	0.55
Interest paid ^c	(\$000)	32.0	27.0	27.0	20.0
Average interest rate paid for: ^c					
Real estate	(%)	10.29	8.97	10.14	9.88
Nonreal estate	(%)	13.36	13.43	13.65	13.69
Income from nonfarm sources ^d	(%)	11.5	18.1	2.4	14.4
Real estate loans delinquent	(%)	10.1	18.4	28.3	16.9
Operating loans delinquent	(%)	16.5	21.8	31.7	20.9
					18.3

^aComplete reports include asset and debt information.

^bDebt-to-asset ratio reflects the average of individual debt ratios for each respective category and will be slightly different from an average-debt to average-asset ratio.

^cEstimates based only on farms reporting an average interest paid and farm debt as of January 1, 1985.

^dExpressed as a percent of total gross farm income.

Beef enterprises reported about average total assets and liabilities but above-average delinquency rates on real estate and operating loans. In addition, they also reported the highest percentage of gross farm income coming from nonfarm sources.

Dairy enterprise farming operations appear to have had the most financial problems. They had the highest reported average debt ratio (40 percent), the highest reported delinquency rate on real estate debt (28.3 percent), and the highest reported delinquency rate on operating debt (31.7 percent). Furthermore, dairy operations had the lowest reported average owner equity (\$221,000), the second lowest reported average total farm assets (\$364,000), and the second highest total farm liabilities (\$143,000). Dairy enterprise farm operations had, by far, the lowest reported nonfarm income as a percent of average total gross farm income (2.4 percent). It appears that dairy farms in the state may have considerable problems adjusting to possible income and expense changes.

Mixed enterprise farming operations had the lowest reported average total farm assets (\$335,000), total farm liabilities (\$102,000), debt ratio (30 percent), and estimated accrued farm interest payments (\$20,000). They also reported slightly above-average delinquency rates on loans and an above-average percentage of gross income attributed to nonfarm income.

The real-estate-debt to total-debt ratio did not vary significantly among enterprise classifications; however, estimated accrued interest payments per farm did vary from the average of \$30,000. Values ranged from \$20,000 in the mixed enterprises to \$32,000 in the crop enterprises.

Reported average real estate interest rates paid also varied among enterprise classifications. Crop farms reported the highest rate paid on real estate loans (10.29), and beef farms reported the lowest rate paid (8.97 percent). On the other hand, average nonreal estate interest rates reported varied only one-fourth of a percent from the average for all surveyed farms.

Financial Position by 1984 Gross Farm Receipts

The distribution of gross farm receipts (defined here to include both farm and nonfarm income) indicates that over one-third (35.8 percent) of surveyed farmers had gross incomes that were between \$40,000 and \$100,000 (Table 20). About 30 percent reported gross farm receipts that were between \$10,000 and \$40,000, and just over 20 percent (21.7 percent) reported gross farm receipts that were between \$100,000 and \$250,000. Only 6.4 percent of the farmers reported gross farm receipts of \$10,000 or less, and another 6.9 percent had gross receipts of more than \$250,000.

Total gross farm assets and liabilities showed a pattern of increasing in size as total gross income reported increased. For example, total farm assets ranged from \$126,000 in the \$10,000-or-less gross income category to \$1,259,000 in the over-\$250,000 gross income category. Likewise, total farm liabilities reported increased from \$28,000 in the \$10,000-or-less gross income category to \$524,000 in the over-\$250,000 category. These patterns occurred in both the real estate and nonreal estate farm asset subcategories. As expected, owner equity reported also increased as gross receipts reported increased, ranging from \$98,000 to \$735,000 over the income categories.

Debt-to-asset ratios were also directly related to gross farm receipts. Ratios ranged from 21 percent in the less-than-\$10,000 gross receipts range to 45 percent in the over-\$250,000 gross receipts range. With the exception of

TABLE 20. FINANCIAL POSITION BY 1984 GROSS FARM INCOME

Item	Unit	Gross Farm Income (in dollars)				
		Less Than 10,000 10,000	10,000- 40,000	40,000- 100,000	100,000 250,000	Over 250,000
Number of complete reports ^a		82	375	460	279	89
Percentage of farms		6.4	29.2	35.8	21.7	6.9
Assets	(\$000)	126.0	233.0	369.0	590.0	1259.0
Real estate	(\$000)	92.0	166.0	260.0	388.0	784.0
Nonreal estate	(\$000)	33.0	67.0	109.0	202.0	475.0
Liabilities	(\$000)	28.0	52.0	111.0	215.0	524.0
Real estate	(\$000)	21.0	35.0	72.0	141.0	338.0
Nonreal estate	(\$000)	7.0	17.0	40.0	74.0	186.0
Equity	(\$000)	98.0	181.0	258.0	375.0	735.0
Debt/asset ratio ^b		0.21	0.32	0.36	0.39	0.45
Real estate debt/ total debt ratio		0.60	0.53	0.53	0.56	0.63
Interest paid ^c	(\$000)	11.0	15.0	20.0	35.0	76.0
Average interest rate paid for: ^c						
Real estate	(%)	13.32	9.70	9.83	10.34	11.00
Nonreal estate	(%)	14.08	13.35	13.37	13.48	13.32
Income from nonfarm sources ^d	(%)	42.3	18.5	7.5	4.7	4.5
Real estate loans delinquent	(%)	9.6	11.6	13.1	15.1	10.1
Operating loans delinquent	(%)	10.8	14.8	22.1	20.8	12.4

^aComplete reports include asset and debt information.

^bDebt-to-asset ratio reflects the average of individual debt ratios for each respective category and will be slightly different from an average-debt to average-asset ratio.

^cEstimates based only on farms reporting an average interest paid and farm debt as of January 1, 1985.

^dExpressed as a percentage of total gross farm income.

the less-than-\$10,000 category, the real-estate-debt to total-debt ratios also increased across the total gross income categories, but within a much narrower range. The ratio varied from 53 percent to 63 percent.

Somewhat similar patterns of values rising with gross income can be found for total interest payments and for interest rates on real estate loans. With the exception of the under-\$10,000 category (which reported an average real estate interest rate over 13 percent), interest rates ranged from 9.7 to 11.0 percent. Average nonreal estate interest rates varied little across the gross income categories.

The percentage of gross farm income that came from nonfarm sources varied markedly in the analysis and decreased as gross income increased. Farmers with less than \$10,000 gross receipts reported the highest percentage of gross income coming from nonfarm sources (42.3 percent). By contrast, farmers reporting over \$250,000 gross receipts reported the lowest percentage of income from nonfarm sources (4.5 percent). Multiplying the average nonfarm income percentage by each gross receipt range yields an upper and lower limit on the actual dollar average of nonfarm income for each range. The estimated nonfarm income ranges are as follows.

<u>Gross Income</u>	<u>Estimated Nonfarm Income</u>
Less than \$10,000	Up to \$4,230
\$10,000 - \$40,000	\$1,850 - \$7,400
\$40,000 - \$100,000	\$3,000 - \$7,500
\$100,000 - \$250,000	\$4,700 - \$11,750
Over \$250,000	Over \$11,250

Farmers with gross incomes between \$40,000 and \$250,000 reported the highest percentages of delinquency on operating and real estate loans. Over 20 percent reported delinquency on operating loans, and 13 to 15 percent were delinquent on real estate payments. In contrast, farmers reporting less than \$10,000 gross receipts had the least problems with delinquency, followed closely by those with over \$250,000 gross income.

An interesting relationship between reported debt-to-asset ratios and reported gross farm income is evident from the data in Table 21. The number of farmers reporting debt ratios over 40 percent tends to increase as reported gross farm income increases. Previously reported survey data suggest that farmers reporting a larger debt ratio tend to report more debt delinquency problems than farmers reporting a smaller debt ratio. Consequently, there is a direct relationship between larger reported gross farm income, larger debt ratios, and debt delinquency problems. The implications are that moderate to large gross income farms may have more potential financial risk than smaller income farms in North Dakota. However, when compared to moderate to large gross income farms, farms with very high gross income (over \$250,000) appear to have fewer delinquency problems although they have a relatively high debt ratio.

TABLE 21. GROSS FARM INCOME BY DEBT-TO-ASSET RATIO

Item	Unit	Debt-To-Asset Ratio									Over .7	All
		.0	.0-.1	.1-.2	.2-.3	.3-.4	.4-.5	.5-.6	.6-.7			
Less than \$10,000	Number of farms	44	4	1	8	4	7	2	3	9	82	
	Percentage of farms	<u>14.5</u>	2.7	0.9	<u>6.5</u>	3.6	<u>6.9</u>	2.3	3.8	4.3	6.4	
\$10,000- \$40,000	Number of farms	143	44	37	19	28	17	18	14	52	372	
	Percentage of farms	<u>47.0</u>	<u>30.1</u>	<u>31.6</u>	15.5	25.2	16.9	20.2	17.7	24.5	29.0	
\$40,000- \$100,000	Number of farms	83	56	51	46	41	39	27	32	85	460	
	Percentage of farms	27.3	<u>38.4</u>	<u>43.6</u>	<u>37.4</u>	<u>36.9</u>	<u>38.6</u>	30.3	<u>40.5</u>	<u>40.1</u>	35.9	
\$100,000- \$250,000	Number of farms	30	32	27	34	24	32	32	20	48	279	
	Percentage of farms	9.9	21.9	<u>23.1</u>	<u>27.6</u>	21.6	<u>31.7</u>	<u>36.0</u>	<u>25.3</u>	<u>22.6</u>	21.8	
Over \$250,000	Number of farms	4	10	1	16	14	6	10	10	18	89	
	Percentage of farms	1.3	6.8	0.9	<u>13.0</u>	<u>12.6</u>	5.9	<u>11.2</u>	<u>12.7</u>	<u>8.5</u>	6.9	

Note: Underlined percentages display higher than average incidence than their category.

As stated earlier, almost one out of four survey farmers (23.8 percent) reported not having any farm debt (Table 16). Although farms with gross income between \$10,000 and \$40,000 represented less than one-third of all farms, they accounted for almost half (47 percent) of all debt-free farms (Table 21). Furthermore, farms with gross incomes between \$40,000 and \$100,000 accounted for 35.9 percent of all farms but only for 27.3 percent of debt-free farms. Thus, about three-fourths of all debt-free farms reported moderate gross incomes.

As also stated earlier, farmers with over 70 percent debt are classified by ERS as having extreme financial stress problems, and those with debt ratios between 40 and 70 percent as having serious financial stress. The largest percentages of farmers falling into these two categories reported a total gross farm income of between \$40,000 and \$100,000. Almost equal percentages of farmers with over 70 percent debt fell into adjacent higher and lower gross income categories (22.6 percent and 24.5 percent, respectively), but of those with 40 percent to 70 percent debt, almost twice as many fell into the higher gross income categories (above \$100,000) as below (under \$40,000).

Farmers with under 40 percent debt are having substantially less financial stress. About 39 percent of all farmers fell into this category, and most reported gross farm incomes between \$40,000 and \$100,000.

Examining the distribution of farmers by gross incomes reveals that of those under \$10,000 over half had no debt, about 21 percent had between 1 and 40 percent debt, 15 percent had between 40 and 70 percent debt, and only 11 percent had over 70 percent debt. Table 22, representing gross income by aggregated debt-to-asset ratio categories, indicates that the distribution of farmers into the various debt categories changes considerably as gross income rises. Specifically, as gross income rises, the percentage of farmers with no debt decreases and the percentage with higher debt levels increases.

Financial Position by 1984 Net Farm Income

Farms reporting net incomes over \$50,000 (3.5 percent of all farms statewide) reported the largest average total farm assets (\$1,141,000), over two and one-half times the survey average of \$424,000 (Table 23). Although their total liabilities were also the largest of any income category, their debt-to-asset ratio was one of the lowest, only 23 percent. Their ratio of real estate debt to total debt was, however, the highest--70 percent compared to a survey average of 55 percent. Farmers in this net income category reported the highest average owner equity (\$862,000) of any category, over three times the state average of \$284,000. In addition, these farmers reported no delinquency on real estate loans and the lowest operating loan delinquency rate (2.2 percent) of any category in the analysis. Farmers with debt in this category reported the highest estimated average accrued interest payments per farm (\$52,000) compared to the state average of \$30,000.

In contrast, farmers with a net income loss (22.7 percent of all farms statewide) reported that they had considerable problems with loan delinquency. More than one out of three (35.9 percent) reported being delinquent on their real estate loans, and about half (45.4 percent) reported being delinquent on their operating loans. These delinquency rates were over two and one-half

TABLE 22. GROSS FARM INCOME BY AGGREGATED DEBT-TO-ASSET RATIO

Gross Income	Debt-To-Asset Ratio			Over
	No Debt	.1-.40	.41-.70	
Under \$10,000	53.7	20.7	14.6	11.0
\$10,000-40,000	38.4	34.4	13.2	14.0
\$40,000-100,000	18.0	42.2	21.3	18.5
\$100,000-250,000	10.8	41.9	30.1	17.2
Over \$250,000	4.5	46.1	29.2	20.2

times statewide average delinquency rates. Those reporting a net loss had average total assets that were the third highest of the income categories but equal to the state average of \$424,000. These farmers also reported very high average total liabilities--\$214,000 compared to the state average of \$140,000. Thus, farmers in this income category had the highest reported debt-to-asset ratio (51 percent) of any income category. Their estimated accrued interest payments per farm (\$34,000) were the second largest reported for any category in the analysis and above the survey average of \$30,000.

In summary, several observations can be made. As net income rose, the amount of owner equity also rose, and the delinquency rate on real estate and operating loans declined. In addition, the percentage of gross income that came from nonfarm sources generally declined across the income categories. With the exception of those farmers reporting a net loss, the real-estate-debt to total-debt ratio also rose as net income increased.

Examining net income by debt-to-asset ratio reveals an inverse relationship (Table 24). The percentage of farmers reporting a larger net income tends to decrease as the reported debt ratio increases. Almost half of the farmers (45.8 percent) reporting a debt ratio that exceeded 70 percent reported a net farm income loss. At the other end of the spectrum, less than one out of ten (8.9 percent) farmers with no debt reported a net income loss. Both percentages are significantly different from the 22.6 percent reported by all survey farms. The percentage of farmers reporting a net income loss generally tends to increase as their reported debt ratio increases.

Farm Financial Information by Crop Reporting District

Average total farm assets and liabilities varied considerably among crop reporting districts in the state (Table 25). (See Figure 1 for a map of the districts.) North Red River Valley district farmers reported the highest average assets per farm (\$507,000) while South Central district farmers reported the lowest average assets per farm (\$323,000). The average total assets reported for all surveyed farmers was \$424,000. Reported average total

TABLE 23. FINANCIAL POSITION BY 1984 NET FARM INCOME

Item	Unit	Net Loss	Net Farm Income (in dollars)						All Farms
			Less Than 5,000	5,000-10,000	10,000-20,000	20,000-50,000	Over 50,000		
Number of complete reports ^a		291	269	275	234	169	46	1284	
Percentage of farms		22.7	21.0	21.4	18.2	13.2	3.5	100	
Assets	(\$000)	424.0	301.0	320.0	393.0	628.0	1141.0	424.0	
Real estate	(\$000)	291.0	208.0	222.0	269.0	408.0	721.0	286.0	
Nonreal estate	(\$000)	133.0	92.0	99.0	124.0	220.0	420.0	138.0	
Liabilities	(\$000)	214.0	111.0	103.0	102.0	131.0	279.0	140.0	
Real estate	(\$000)	133.0	72.0	69.0	67.0	85.0	210.0	91.0	
Nonreal estate	(\$000)	82.0	38.0	34.0	35.0	45.0	68.0	49.0	
Equity	(\$000)	210.0	190.0	217.0	291.0	497.0	862.0	284.0	
Debt/asset ratio ^b		0.51	0.38	0.33	0.25	0.22	0.23	0.35	
Real estate debt/total debt ratio		0.56	0.51	0.53	0.54	0.56	0.70	0.55	
Interest paid ^c	(\$000)	34.0	24.0	26.0	24.0	31.0	52.0	30.0	
Average interest rate paid for: ^c									
Real estate	(%)	10.36	9.79	9.93	9.92	10.08	10.61	10.08	
Nonreal estate	(%)	13.53	13.37	13.40	13.41	13.36	13.16	13.42	
Income from nonfarm sources ^d	(%)	15.4	19.1	10.1	7.9	5.4	7.7	12.1	
Real estate loans delinquent	(%)	35.9	11.3	4.7	3.8	2.3	0.0	12.6	
Operating loans delinquent	(%)	45.4	17.9	10.4	8.1	3.5	2.2	18.3	

^aComplete reports include asset and debt information.^bDebt-to-asset ratio reflects the average of individual debt ratios for each respective category and will be slightly different from an average-debt to average-asset ratio.^cEstimates based only on farms reporting an average interest paid and farm debt as of January 1, 1985.^dExpressed as a percentage of total gross farm income.

TABLE 24. NET FARM INCOME FARMS BY DEBT-TO-ASSET RATIO

Item	Unit	Debt-To-Asset Ratio									Over .7	All
		.0	.0-.1	.1-.2	.2-.3	.3-.4	.4-.5	.5-.6	.6-.7			
Net Loss	Number	27	13	23	22	27	30	23	28	97	290	
	Percentage	8.9	9.0	19.7	17.9	24.3	29.7	25.8	35.4	45.8	22.6	
Less than \$5,000	Number	67	29	18	24	28	21	23	14	44	268	
	Percentage	22.0	20.0	15.4	19.5	25.2	20.8	25.8	17.7	20.8	20.9	
\$5,000 - \$10,000	Number	82	34	27	25	19	14	17	17	39	274	
	Percentage	27.0	23.4	23.1	20.3	17.1	13.9	19.1	21.5	18.4	21.4	
\$10,000 - \$20,000	Number	74	29	25	25	19	16	12	14	20	234	
	Percentage	24.3	20.0	21.4	20.3	17.1	15.8	13.5	17.7	9.4	18.3	
\$20,000 - \$50,000	Number	49	26	19	18	12	19	13	4	9	169	
	Percentage	16.1	17.9	16.2	14.6	10.8	18.8	14.6	5.1	4.3	13.2	
Over \$50,000	Number	5	14	5	9	6	1	1	2	3	46	
	Percentage	1.6	9.7	4.3	7.3	5.4	1.0	1.1	2.5	1.4	3.6	

TABLE 25. FINANCIAL POSITION BY CROP REPORTING DISTRICT

Item	Units	Crop Reporting District									
		NW	NC	NRRV	WC	C	EC	SW	SC	SRRV	STATE
Number of complete reports ^a		167	122	245	100	133	155	98	99	170	1289
Percentage of farms		12.9	9.5	19.0	7.8	10.3	12.0	7.6	7.7	13.2	100.0
Assets	(\$000)	363.0	330.0	507.0	403.0	460.0	481.0	415.0	323.0	424.0	424.0
Real estate	(\$000)	256.0	229.0	324.0	271.0	322.0	321.0	285.0	210.0	292.0	286.0
Nonreal estate	(\$000)	107.0	102.0	182.0	132.0	137.0	160.0	130.0	113.0	132.0	138.0
Liabilities	(\$000)	102.0	113.0	151.0	121.0	160.0	159.0	147.0	124.0	163.0	140.0
Real estate	(\$000)	73.0	79.0	98.0	78.0	108.0	101.0	91.0	72.0	104.0	91.0
Nonreal estate	(\$000)	29.0	34.0	52.0	43.0	52.0	59.0	56.0	51.0	59.0	49.0
Equity	(\$000)	261.0	217.0	357.0	282.0	300.0	322.0	269.0	199.0	261.0	284.0
Debt/asset ratio ^b		0.33	0.35	0.32	0.30	0.35	0.36	0.38	0.48	0.34	0.35
Real estate debt/total debt ratio		0.62	0.56	0.56	0.53	0.59	0.51	0.51	0.53	0.49	0.55
Interest paid ^c	(\$000)	24.0	24.0	32.0	26.0	30.0	34.0	27.0	24.0	40.0	30.0
Average interest rate paid for: ^c											
Real estate	(%)	10.84	9.52	10.56	9.14	9.70	10.40	9.67	8.85	10.65	10.08
Nonreal estate	(%)	13.79	13.42	13.27	13.36	13.53	13.48	13.52	13.14	13.30	13.42
Income from nonfarm sources ^d	(%)	16.8	16.0	11.2	20.6	5.8	9.2	10.4	13.7	8.7	12.1
Real estate loans delinquent	(%)	10.6	15.0	9.7	12.9	14.0	10.8	19.4	20.2	9.2	12.6
Operating loans delinquent	(%)	17.1	20.5	12.6	12.9	24.3	18.5	30.6	20.2	16.2	18.3

^aComplete reports include asset and debt information.^bDebt-to-asset ratio reflects the average of individual debt ratios for each respective category and will be slightly different from an average-debt to average-asset ratio.^cEstimates based only on farms reporting an average interest paid and farm debt as of January 1, 1985.^dExpressed as a percentage of total gross farm income.

liabilities per farm were highest in the South Red River Valley district (\$163,000) and lowest in the Northwest district (\$102,000). Average total liabilities reported for all surveyed farms was \$140,000 per farm.

Average farm owner equity reported on a statewide basis was \$284,000. As with liabilities and assets, equity reported varied considerably among districts in the state. Farmers in the North Red River Valley district also reported the highest average equity per farm (\$357,000). On the other hand, South Central district farmers reported the lowest average equity per farm (\$199,000). The low average equity reported in the South Central district probably reflects several years of severe weather that caused poor crop yields.

There was also considerable variation in the debt ratios reported among crop reporting districts in the state. Farmers in the South Central district reported the highest average total debt ratio in the state (48 percent), compared to West Central district farmers who reported the lowest debt ratio, 30 percent.

The average real-estate-debt to total-debt ratio across the state was 0.55 to one. Northwest district farmers reported the highest average farm real-estate-debt to total-debt ratio (0.62:1) in the analysis, compared to South Red River Valley farmers who reported the lowest ratio (0.49:1). In general, northern regions of the state had ratios greater than the state average, and southern regions of the state had ratios less than the state average.

For the farmers who reported debt in the survey, the estimated average dollar amount of interest paid was \$30,000 per farm. Farms reporting debt in the South Red River Valley district averaged the most interest paid per farm (\$40,000). By contrast, farms reporting debt in the Northwest, North Central, and South Central districts averaged the least interest paid per farm (\$24,000 each).

The average interest rates paid by farmers in the state were 10.08 percent on real estate loans and 13.42 percent on nonreal estate loans. Real estate interest rates reported by farmers varied somewhat among districts in the state. Farmers in the Northwest district reported the highest interest rate on their real estate loans (10.8 percent), and South Central district farmers reported the lowest interest rate on their real estate loans (8.85 percent). Average nonreal estate interest rates reported by farmers did not vary markedly among crop reporting districts. All districts reported nonreal estate interest rates that were between 13 and 14 percent.

Nonfarm income reported as a percentage of average total gross farm income varied considerably among crop reporting districts. Farmers in the West Central district reported the highest average percentage (20.6 percent), and farmers in the Central district reported the lowest average percentage (5.8 percent). The average nonfarm income reported by all surveyed farmers was 12.1 percent of total gross farm income.

There was a sharp contrast in loan delinquencies reported by farmers in different parts of the state. All surveyed farmers reported 12.6 percent delinquency on real estate loans. Farmers in the South and North Red River

Valley districts reported the lowest real estate loan delinquency rates (9.2 percent and 9.7 percent, respectively). This contrasts with Southwest and South Central district farmers who reported the highest real estate loan delinquency rates (19.4 percent and 20.2 percent, respectively). Two out of ten (18.6 percent) operating loans were also reported delinquent by all survey farmers. Again, as with the real estate delinquency category, there is a marked contrast in operating loans reported delinquent for different areas of the state. Three out of ten (30.6 percent) Southwest district farmers reported operating loan delinquency--the highest percentage reported in the analysis. By contrast, reported delinquencies in the North Red River Valley and West Central districts were the lowest in the state (12.6 percent and 12.9 percent, respectively).

Loan Refusals

This section presents information on loan refusals for farmers by age, farm size (acreage), and farm type. Farmers reporting a loan refusal were asked to check one of the five following reasons for the loan refusal:

1. Insufficient equity
2. Low farm income
3. Lender not interested in making agricultural loans
4. Previous loan repayment problems
5. Other reasons

Overall, only 9.3 percent of surveyed farmers had experienced a loan refusal in 1984 (Table 26), largely because of insufficient equity or farm income.

TABLE 26. REASONS FOR LOAN REFUSAL IN 1984

Item	Percent
Not refused	90.7
Insufficient equity	3.8
Low farm income	2.8
Lender not interested in agricultural loans*	--
Previous repayment problems	1.4
Other	1.3
Total	100.0

*Insignificant number reporting.

Although farmers in all age categories had been refused loans, farmers under 35 years appear to have had more problems with loan refusal (Table 27). The other three age categories had reported loan refusal rates that were below the survey average of 9.3 percent. Farmers in the 55 to 64 year age category

TABLE 27. LOAN REFUSAL RATE BY OPERATOR AGE

Item	Operator Age					Total
	Under 25	25-34	45-54	55-64	Over 64	
Not refused	88.5	88.0	91.4	95.2	94.3	90.7
Refused	11.5	12.0	8.6	4.8	5.7	9.3

had the least problems with loan refusal; only 4.8 percent said that they had been refused.

Farmers who had very small farm sizes (less than 180 acres) or very large farm sizes (2,000 or more acres) appear to have had the most problems with loan refusal, although mid-size farms (500-1,000 acres) also experienced above-average refusal rates (Table 28).

TABLE 28. LOAN REFUSAL RATE BY FARM ACREAGE SIZE

Item	Total Acres in Farm					Total
	Less Than 180	180-500	500-1000	1000-2000	2000 or More	
Not refused	87.5	91.4	86.6	92.8	88.3	90.7
Refused	12.5	8.6	10.4	7.2	11.7	9.3

Beef farmers appear to have had the most problems with being refused a loan; 12.7 percent reported that they had been turned down by a lender (Table 29). By contrast, crop farmers appeared to have had the least problems with being turned down; only 8.5 percent said that they had been refused.

TABLE 29. LOAN REFUSAL RATE BY TYPE OF FARM

Item	Type of Farm				Total
	Crop	Beef	Dairy	Other	
Not refused	92.5	87.3	89.4	89.5	90.7
Refused	8.5	12.7	10.6	10.5	9.3

Farm Survival Expectations

This section is a discussion of farmers' expectations of remaining in business under current income and expense conditions. Less than one out of six surveyed farmers (13 percent) believed they could continue to stay in business less than one year (Table 30). These farmers reported the second highest average total assets (\$421,000), the largest average total liabilities (\$263,000), and the smallest average owner-equity (\$158,000) for any time period category in the analysis. As a result, these farmers reported the highest average debt-to-asset ratio, 60 percent. These farmers also reported the highest average interest rates paid (10.32 percent on real estate and 13.75 percent on nonreal estate). Consequently, they had the largest estimated amount of accrued interest payments per farm in the analysis (\$40,000). Delinquency rates on loans were extremely high for this group; over 40 percent were delinquent on real estate loans, and about 55 percent were delinquent on operating loans.

In contrast, more than one-third of the surveyed farmers (36.2 percent) expected to farm until retirement. They reported the largest total average assets (\$447,000), the smallest average total liabilities (\$73,000), and the largest average owner equity of any time period category in the analysis. As a result, these farmers had the lowest debt-to-asset ratio (18 percent) for any category in the analysis, and they also reported interest rates paid that were the lowest of any category in the analysis. Consequently, the farmers in this category who reported debt had the smallest estimated amount of accrued interest payments per farm in the analysis (\$24,000). Less than 3 percent of these farmers reported loan delinquency problems.

In summary, reported farmer expectations on ability to stay in business were closely related to the reported financial position of the farm. Expectations became more positive (negative) as reported farm financial position improved (worsened).

Responses by crop reporting district (Table 31) varied somewhat across the districts. Of those who believed they would be able to farm for only one year or less, percentages ranged from around 9 percent of the farmers in the North Red River Valley and West Central regions to over 15 percent in the South Red River Valley, East Central, and Southwest regions, compared to a statewide average of 13.1 percent. The statewide average percentage of farmers who expected to farm for two to five years is 42.5 percent. Values ranged from 36.3 percent in the South Red River Valley to near 50 percent in the Southwest. Just over 8 percent of all surveyed farmers believed they would continue farming for six to ten years. These values ranged from about 4 percent of the farmers in the Southwest to over 14 percent in the South Red River Valley. Finally, 36 percent of the farmers believed they could farm until retirement. Just over 40 percent of farmers in the North Red River Valley believed they would farm until retirement compared to only 31.6 percent in the Southwest. In general, farmers in the Northwest, West Central, and Red River Valley districts believed they would continue farming for a longer period of time than farmers in the Southwest, South Central, and Central districts.

TABLE 30. FINANCIAL POSITION BY NUMBER OF YEARS ABLE TO FARM

Item	Unit	Number of Years Able to Farm			
		One Year or Less	2-5 Years	6-10 Years	Until Retirement
Number of complete reports ^a		167	542	109	465
Percentage of farms		13.0	42.2	8.6	36.2
Assets	(\$000)	421.0	408.0	397.0	447.0
Real estate	(\$000)	296.0	274.0	265.0	298.0
Nonreal estate	(\$000)	125.0	133.0	132.0	149.0
Liabilities	(\$000)	263.0	157.0	150.0	73.0
Real estate	(\$000)	172.0	102.0	106.0	46.0
Nonreal estate	(\$000)	91.0	55.0	44.0	27.0
Equity	(\$000)	158.0	251.0	247.0	374.0
Debt/asset ratio ^b		0.60	0.42	0.33	0.18
Real estate debt/ total debt ratio		0.57	0.54	0.54	0.55
Interest paid ^c	(\$000)	40.0	27.0	32.0	24.0
Average interest rate paid for: ^c					
Real estate	(%)	10.32	10.11	9.88	9.93
Nonreal estate	(%)	13.75	13.40	13.28	13.26
Income from nonfarm sources ^d	(%)	10.2	12.6	10.5	12.8
Real estate loans delinquent	(%)	41.2	14.1	3.7	2.8
Operating loans delinquent	(%)	54.7	23.0	5.5	2.6

^aComplete reports include asset and debt information.

^bDebt-to-asset ratio reflects the average of individual debt ratios for each respective category and will be slightly different from an average-debt to average-asset ratio.

^cEstimates based only on farms reporting an average interest paid and farm debt as of January 1, 1985.

^dExpressed as a percentage of total gross farm income.

TABLE 31. FARM SURVIVAL EXPECTATIONS BY CROP REPORTING DISTRICT

Crop Reporting District	Number of Years Able to Farm			
	One Year or Less	2-5 Years	6-10 Years	Until Retirement
Northwest	21	66	17	66
Number of responses	12.4	38.8	10.0	38.8
Percentage of all responses				
North Central				
Number of responses	18	53	12	43
Percentage of all responses	14.3	42.1	9.5	34.1
North Red River Valley				
Number of responses	23	107	16	100
Percentage of all responses	9.3	43.5	6.5	40.7
West Central				
Number of responses	9	44	12	36
Percentage of all responses	8.9	43.6	11.9	35.6
Central				
Number of responses	18	63	8	44
Percentage of all responses	13.5	47.4	6.0	33.1
East Central				
Number of responses	24	65	10	58
Percentage of all responses	15.3	41.4	6.4	36.9
Southwest				
Number of responses	15	48	4	31
Percentage of all responses	15.3	49.0	4.1	31.6
South Central				
Number of responses	14	45	6	33
Percentage of all responses	14.3	45.9	6.1	33.7
South Red River Valley				
Number of responses	28	62	24	57
Percentage of all responses	16.4	36.3	14.1	33.3
State				
Number of responses	170	553	109	468
Percentage of all responses	13.1	42.5	8.4	36.0

United States and North Dakota Debt Comparisons

This final section of the report presents a comparison of the financial position of North Dakota farmers to all farmers in the United States. Comparisons are made by debt-to-asset ratio categories and by farm type.

As stated earlier, the Economic Research Service (USDA 1985) defines farmers with under 40 percent debt as having no apparent financial stress. Those with debt ratios between 40 and 70 percent may be having serious financial stress, and those with over 70 percent debt may be experiencing extreme financial stress.

About 63 percent of all farmers in the North Dakota survey reported debt ratios under 40 percent, but these farms held only 29.3 percent of the total debt reported in North Dakota (Figure 2). In comparison, 82.3 percent of U.S. farmers reported similar debt ratios, and they held 43.8 percent of the debt.

In the 40 to 70 percent debt category were about one-fifth of North Dakota farmers compared to about one-tenth of U.S. farmers. The North Dakota and U.S. farmers in this category, however, held about the same percentage (close to one-third) of all debt.

Just over 16 percent of all North Dakota farmers had debt ratios over 70 percent, and they held about one-third of the total debt. By comparison, only 6.6 percent of all U.S. farmers were in this debt category, and they held about one-fourth of the total debt.

Thus, in comparison to U.S. farmers, a higher percentage of North Dakota farmers fell into the higher debt categories and represented a larger percentage of reported farm debt. In North Dakota 37.5 percent of all surveyed farmers had debt ratios over 40 percent, and they held 70.7 percent of farm debt. By comparison, 27.5 percent of U.S. farmers reported debt ratios over 40 percent, but they held 56.2 percent of the farm debt.

The distribution of debt by farm type is presented in Table 32. Because crop farmers accounted for about 78 percent of all North Dakota farmers, the percentage of crop farmers falling into the various debt categories is nearly identical to the North Dakota survey averages. However, it appears that crop farmers in the higher debt categories were holding slightly less of the total debt of all crop farmers, when compared to survey averages. A higher percentage of beef and dairy farmers fell into the upper debt categories, and they were holding slightly more of the total debt of beef and dairy farmers, when compared to all North Dakota farmers. Finally, a higher percentage of farms classified as mixed fell into the lower debt categories, but these farmers were holding about the same percentage of total debt as all North Dakota farmers.

PERCENT

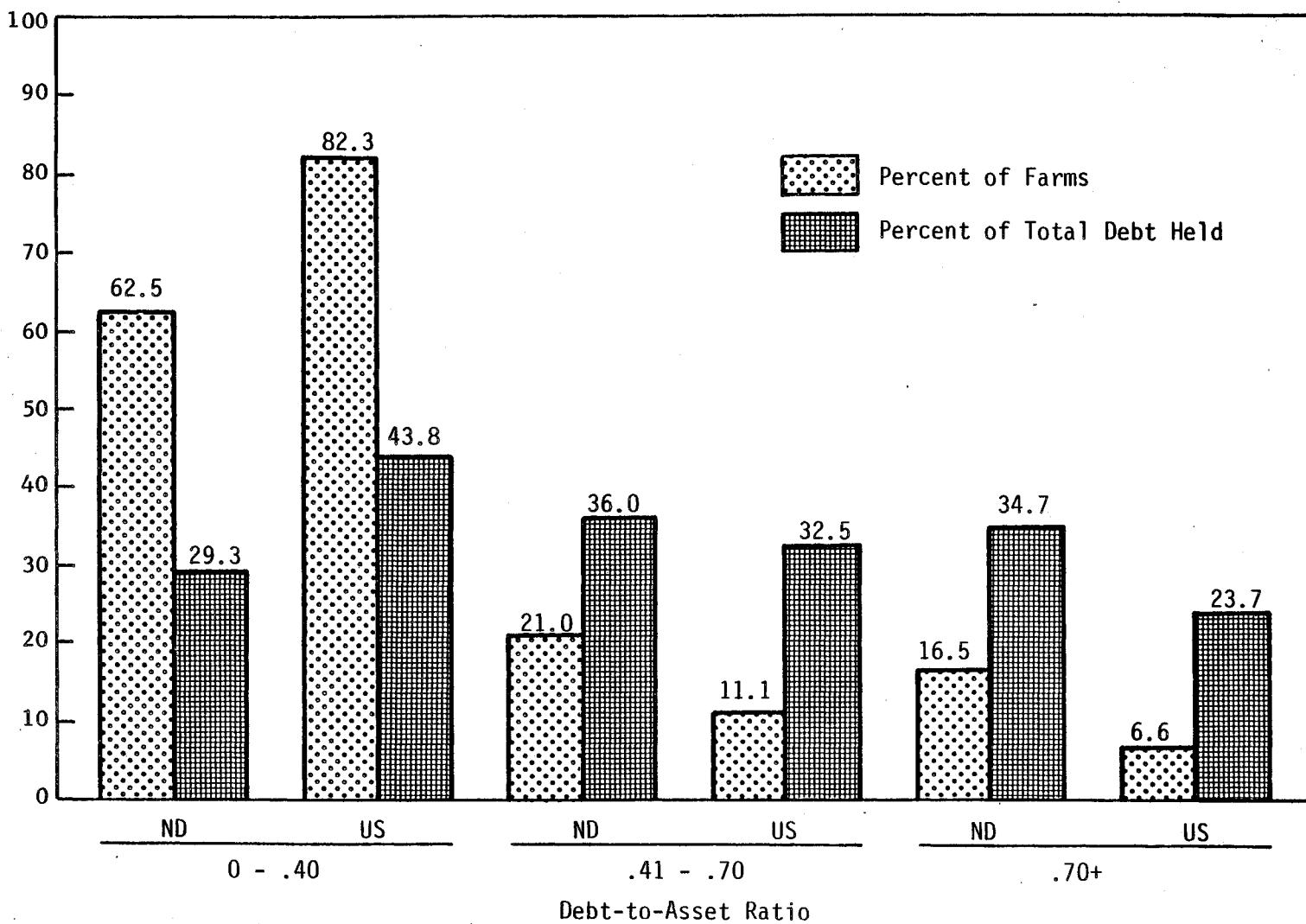


Figure 2. U.S. and North Dakota Debt Comparisons.

SOURCE: United States Department of Agriculture, 1985 and this survey.

TABLE 32. U.S. AND NORTH DAKOTA DEBT COMPARISONS BY FARM TYPE

Category	Debt-to-Asset Ratios					
	Under .40		.40 - .70		Over .70	
	Farms	Debt Held	Farms	Debt Held	Farms	Debt Held
----- percent -----						
All U.S. farms ^a	82.3	43.8	11.1	32.5	6.6	23.7
All N.D. farms	62.5	29.3	21.0	36.0	16.5	34.7
N.D. crop farms	62.7	36.7	21.3	31.5	16.0	31.8
N.D. beef & dairy farms	57.1	21.9	21.0	36.0	21.9	42.1
N.D. mixed & other farms	69.0	28.1	19.3	36.4	11.7	35.5

^aSOURCE: United States Department of Agriculture 1985.

APPENDIX A

Questionnaire

North Dakota

 Crop &
 Livestock
 Reporting Service

P.O. Box 3166, Fargo, North Dakota 58108
 Telephone: (701) 237-5771 Ext. 306

U.S. Department of Agriculture
 Statistical Reporting Service

Cooperating
 North Dakota State University
 Agricultural Experiment Station
 Dept. of Agricultural Economics

January 1985

FARM FINANCE INQUIRY

Farm finances have recently become a subject for a great deal of discussion.

Specific information, however, relative to the location and severity of farm financial problems is nonexistent. We would appreciate your cooperation in answering the following questions about your operation. This will provide factual information to help develop methods to combat financial problems where they exist.

Your report will be kept strictly confidential and used only in combination with other reports. If you have questions or concerns about this survey, please give me a call at 237-5771, ext. 306.

Sincerely,

Robert F. Carver
 Robert F. Carver
 Statistician in Charge

1. Your Age

001

2. How many years have you operated a farm?

002

3. What is the total land in your farming and/or ranching operation?
 (Include land owned and rented, but exclude land rented to others.)

Acres Owned

003

Acres Rented from Others

004

Total Acres Operated

005

4. Do you have any outstanding Real Estate Loans?

006

007

Yes

No

a) If yes, are your principal & interest payments current?

008

009

Yes

No

b) If your principal and interest payments are not current, are you current with the interest payments only?

010

011

Yes

No

c) Percent of real estate loans from:

Federal Land Bank

012

%

FmHA

013

%

Commercial Bank

014

%

Insurance Company

015

%

Other (specify)

016

%

5. Do you have any outstanding Non-Real Estate debts?
 (Operating loans and accounts at farm suppliers, machinery dealers, etc.)

017

018

Yes

No

a) Are all your principal & interest payments current?
 b) If your principal & interest payments are not current, are you current with the interest payments only?

019

020

Yes

No

c) Percent of your non-real estate debt with:

Commercial Banks

021

%

Production Credit Association

022

%

FmHA

023

%

CCC

024

%

Suppliers & dealers

025

%

Other (specify)

026

%

027

%

028

%

Please Continue on Back

6. Considering all of your farm loans, what is the average interest rate you are paying on: (Your best estimate) All Real Estate Loans

All Non-Real Estate Loans

029			
030			
031	Yes	032	No

7. Were you turned down when applying for a new or additions to existing loans for the 1984 operating year?

If yes, what reason was given? (Check one)

(1) Insufficient equity

(4) Previous loan repayment problems

(2) Low farm income

(5) Other (specify) _____

(3) Lender not interested in making agricultural loans

Office Use

033

8. What percent of your gross farm income (including government payments) is earned from the following major enterprises? Crops

Beef Cattle

Dairy

Other (specify) _____

034	%
035	%
036	%
037	%

9. What was the gross farm income (including government payments) from your operation in 1984? (Check one)

(1) Less than \$10,000

(4) \$100,000 - \$250,000

(2) \$10,000 - \$40,000

(5) Over \$250,000

(3) \$40,000 - \$100,000

Office Use

038

10. What was the net farm income (including government payments) from your operation in 1984? (Check one)

(1) Net loss

(4) \$10,000 - \$20,000

(2) Less than \$5,000

(5) \$20,000 - \$50,000

(3) \$5,000 - \$10,000

(6) Over \$50,000

Office Use

039

11. What percent of your 1984 total gross income (farm plus non-farm) was from non-farm sources?

040	%
-----	---

12. Farm Financial Balance Sheet Question (as of January 1, 1985)

a) What are your total farm assets? Real Estate

Non-Real Estate

b) What are your total farm liabilities? Real Estate

Non-Real Estate

Total Dollars

041	\$
042	\$
043	\$
044	\$

13. If current trends in income and expenses continue, how long will you be able to farm? (Check one)

(1) 1 year or less (3) 6 - 10 years

(2) 2 - 5 years (4) Until retirement

Office Use

045

COMMENTS: _____

NAME _____

DATE _____

Thank You

APPENDIX B

Tables

APPENDIX TABLE 1. FINANCIAL POSITION OF CROP FARMS BY DEBT-TO-ASSET RATIO CATEGORY

Item	Unit	Debt-To-Asset Ratio								Over .7	All Farms
		.0	.0-.1	.1-.2	.2-.3	.3-.4	.4-.5	.5-.6	.6-.7		
Number of complete reports ^a		232	106	87	86	76	79	59	61	150	936
Percentage of farms		24.8	11.3	9.3	9.2	8.1	8.5	6.3	6.5	16.0	100.0
Assets (\$000)		310.0	540.0	429.0	603.0	576.0	489.0	477.0	502.0	371.0	424.0
Real estate (\$000)		220.0	374.0	292.0	374.0	403.0	296.0	320.0	328.0	260.0	286.0
Nonreal estate (\$000)		90.0	166.0	137.0	229.0	173.0	193.0	157.0	174.0	111.0	138.0
Liabilities (\$000)		N.A.	27.0	64.0	149.0	201.0	215.0	260.0	323.0	320.0	140.0
Real estate (\$000)		N.A.	12.0	35.0	103.0	147.0	136.0	166.0	203.0	221.0	91.0
Nonreal estate (\$000)		N.A.	15.0	28.0	46.0	54.0	79.0	94.0	120.0	98.0	49.0
Equity (\$000)		310.0	513.0	365.0	454.0	375.0	274.0	216.0	179.0	51.0	284.0
Real estate debt/total debt ratio		N.A.	0.41	0.47	0.56	0.65	0.62	0.60	0.55	0.60	0.55
Interest paid ^b (\$000)		N.A.	6.0	11.0	22.0	28.0	29.0	35.0	49.0	41.0	30.0
Average interest rate paid for: ^b											
Real estate (%)		N.A.	9.68	10.26	10.29	10.98	10.33	10.42	10.48	10.02	10.08
Nonreal estate (%)		N.A.	13.01	13.41	13.59	13.42	13.46	13.34	13.47	13.25	13.42
Income from nonfarm sources ^c (%)		13.5	9.3	11.9	10.8	12.5	10.0	11.5	12.2	8.8	12.1
Real estate loans delinquent (%)		N.A.	0.9	2.3	3.5	6.6	11.4	16.9	21.3	34.0	12.6
Operating loans delinquent (%)		N.A.	2.8	12.6	11.6	15.8	13.9	27.1	32.8	48.0	18.3

^aComplete reports include asset and debt information.

^bEstimates based only on farms reporting an average interest paid and farm debt as of January 1, 1985.

^cExpressed as a percentage of total gross farm income.

APPENDIX TABLE 2. FINANCIAL POSITION OF BEEF AND DAIRY FARMS BY DEBT-TO-ASSET RATIO CATEGORY

Item	Unit	Debt-To-Asset Ratio									All Farms
		.0	.0-.1	.1-.2	.2-.3	.3-.4	.4-.5	.5-.6	.6-.7	Over .7	
Number of complete reports ^a		36	26	15	23	17	11	19	13	45	
Assets (\$000)		348.0	610.0	265.0	449.0	403.0	382.0	450.0	432.0	317.0	424.0
Real estate (\$000)		244.0	400.0	171.0	313.0	291.0	269.0	275.0	305.0	202.0	286.0
Nonreal estate (\$000)		104.0	210.0	94.0	137.0	112.0	113.0	175.0	127.0	115.0	138.0
Liabilities (\$000)		N.A.	35.0	38.0	106.0	139.0	169.0	248.0	291.0	269.0	140.0
Real estate (\$000)		N.A.	19.0	11.0	75.0	85.0	13.0	146.0	164.0	181.0	91.0
Nonreal estate (\$000)		N.A.	16.0	27.0	32.0	54.0	56.0	102.0	127.0	89.0	49.0
Equity (\$000)		348.0	576.0	228.0	343.0	264.0	214.0	202.0	141.0	47.0	284.0
Real estate debt/total debt ratio		N.A.	0.43	0.30	0.62	0.51	0.58	0.56	0.55	0.57	0.55
Interest paid ^b (\$000)		N.A.	15.0	6.0	17.0	20.0	26.0	27.0	36.0	35.0	30.0
Average interest rate paid for: ^b											
Real estate (%)		N.A.	9.20	8.14	10.03	8.58	10.97	8.69	9.82	9.33	10.08
Nonreal estate (%)		N.A.	13.99	12.95	14.48	13.65	13.62	12.24	13.00	13.34	13.42
Income from nonfarm sources (%)		22.3	12.3	7.7	12.7	12.6	10.9	4.9	9.7	14.3	12.1
Real estate loans delinquent (%)		N.A.	0.0	6.7	8.7	35.3	45.5	15.8	23.1	53.3	12.6
Operating loans delinquent (%)		N.A.	7.7	6.7	26.1	29.4	36.4	36.8	30.8	46.7	18.3

^aComplete reports include asset and debt information.^bEstimates based only on farms reporting an average interest paid and farm debt as of January 1, 1985.^cExpressed as a percentage of total gross farm income.

APPENDIX TABLE 3. FINANCIAL POSITION OF MIXED ENTERPRISE FARMS BY DEBT-TO-ASSET RATIO CATEGORY

Item	Unit	Debt-To-Asset Ratio									All Farms
		.0	.0-.1	.1-.2	.2-.3	.3-.4	.4-.5	.5-.6	.6-.7	Over .7	
Number of complete reports ^a		38	15	15	14	18	11	11	6	17	-----
Percent farmers		26.3	10.3	10.3	9.7	12.4	7.6	7.6	4.1	11.7	-----
Assets	(\$000)	265.0	496.0	336.0	250.0	329.0	429.0	387.0	306.0	337.0	424.0
Real estate	(\$000)	189.0	363.0	243.0	138.0	258.0	271.0	244.0	155.0	221.0	286.0
Nonreal estate	(\$000)	76.0	133.0	93.0	112.0	71.0	158.0	143.0	151.0	115.0	138.0
Liabilities	(\$000)	N.A.	29.0	50.0	62.0	117.0	183.0	197.0	200.0	309.0	140.0
Real estate	(\$000)	N.A.	13.0	29.0	32.0	90.0	102.0	125.0	91.0	180.0	91.0
Nonreal estate	(\$000)	N.A.	16.0	21.0	30.0	27.0	81.0	73.0	109.0	129.0	49.0
Equity	(\$000)	265.0	467.0	286.0	188.0	213.0	246.0	190.0	106.0	28.0	284.0
Real estate debt/Total debt ratio		N.A.	0.46	0.49	0.59	0.64	0.64	0.50	0.58	0.51	0.55
Interest paid ^b	(\$000)	N.A.	4.0	5.0	10.0	13.0	22.0	31.0	23.0	37.0	30.0
Average interest rate paid for: ^b											
Real estate	(%)	N.A.	8.19	9.59	10.00	10.38	10.68	10.66	9.71	8.77	10.08
Nonreal estate	(%)	N.A.	13.46	13.57	13.97	14.16	13.38	13.93	12.33	13.78	13.42
Income from nonfarm sources	(%)	18.8	11.1	4.1	33.4	7.8	11.8	11.2	22.5	10.6	12.1
Real estate loans delinquent	(%)	2.6	0.0	6.7	7.1	22.2	18.1	27.3	50.0	58.8	12.6
Operating loans delinquent	(%)	0.0	0.0	6.7	14.3	38.9	27.3	36.4	50.0	52.9	18.3

^aComplete reports include asset and debt information.^bEstimates based only on farms reporting an average interest paid and farm debt as of January 1, 1985.^cExpressed as a percentage of total gross farm income.

References

Boehlje, Michael D., and Vernon R. Eidman. 1984. Farm Management. New York: John Wiley and Sons.

United States Department of Agriculture, Economic Research Service. 1985. The Current Condition of Farmers and Farm Lenders. Agriculture Information Bulletin No. 490. Washington, D.C.: Government Printing Office.

United States Department of Commerce, Bureau of the Census. 1984. 1982 Census of Agriculture, Preliminary Report, North Dakota. Washington, D.C.: Government Printing Office.