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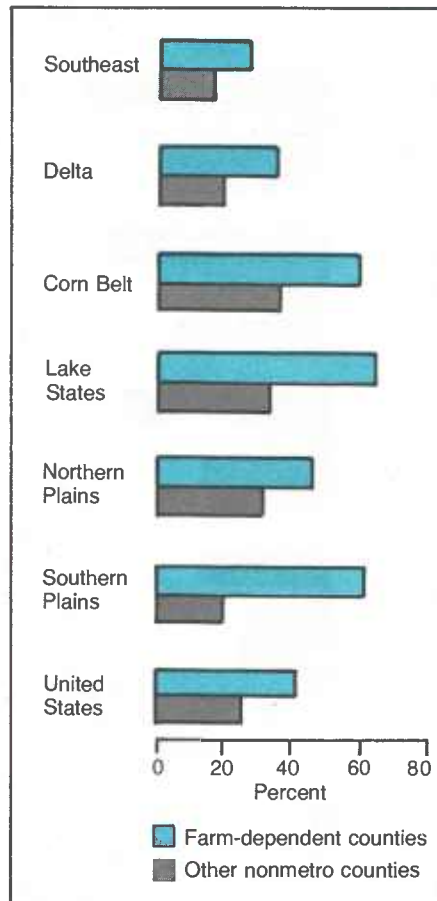
in the Midwest, effects will be uneven because dependence on agriculture is so varied.

Transition to a more diversified economy in farm-dependent counties is made difficult by their small population, their distance from most major urban markets, and their history of population decline, which has left them with a high proportion of elderly.

Over the past 30 years, the economic structure of rural America has become more diversified, significantly reducing its overall vulnerability to changes in natural resource markets, commodity prices, and farm conditions. Most rural areas' economic futures are now tied more to overall national growth than to any one sector's success or failure. That is much less true, however, for farm-dependent rural counties.

POP

Figure 8  
Proportion of counties losing population, 1982-84



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## North Dakota and Texas Farmers Who Are in Financial Stress

Many American farmers are facing their most severe financial crisis since the 1930's. An unprecedented proportion of farmers may be forced to quit within the next 5 years.

To see how farmers might adjust to the farm financial crisis and how those adjustments might affect farm-dependent rural communities, we conducted a

telephone survey of farmers in North Dakota and Texas. We asked them about their finances, their families (age, number of children, and so on), and their off-farm working experience. After initial screening, 1,953 farmers (933 in North Dakota and 1,020 in Texas) remained who were younger than age 65, considered farming their primary occupation, and sold \$2,500 or more of farm products in 1984.

### Good Farm Sales but Poor Bottom Line

About 72 percent of the North Dakota farms (table 1) had gross incomes in the range of \$40,000 to \$250,000, and 54 percent of Texas farms fell into this range. Although net cash farm income averaged \$14,987 in North Dakota and \$13,095 in Texas, 22 percent of farm operators in North Dakota and about

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Table 1—Gross farm income and net cash farm income of North Dakota and Texas farmers, 1984

Item	North Dakota	Texas
<i>Dollars</i>		
Gross farm income (average)	105,317	147,907
<i>Percent</i>		
Distribution of income:		
Less than \$40,000	21.1	30.5
\$40,000 to \$99,999	40.1	28.8
\$100,000 to \$249,999	31.6	25.5
\$250,000 and over	7.2	15.1
<i>Dollars</i>		
Net cash farm income (average)	14,897	13,095
<i>Percent</i>		
Distribution of income:		
Zero or negative	22.2	49.8
\$1 to \$9,999	21.6	21.0
\$10,000 to \$19,999	24.9	9.2
\$20,000 to \$49,999	23.8	13.4
\$50,000 and over	7.4	6.8

50 percent of those in Texas experienced zero or negative net cash farm income in 1984. Net cash farm income is gross farm income less gross cash farm expenses and depreciation. Net cash farm income does not take into account principal payments or changes in inventory of grain and livestock products during the year.

Respondents' estimates of the value of their total assets as of January 1, 1985, averaged \$423,042 for North Dakota and \$909,605 for Texas (table 2). Corresponding figures for average debt were \$139,870 and \$226,646. In other words, the average North Dakota operator was carrying about 33 cents of debt for every dollar of assets controlled, and the Texas operator, 31 cents.

At current prices, input costs, and asset values, most commercial farms begin to have difficulty meeting principal repayment commitments at debt-to-asset ratios (debt ratios) of about 40 percent. Above 70 percent, most farms have difficulty meeting even their interest payments and other current expenses. About 38 percent of the North Dakota producers and 24 percent of those in Texas had debt ratios above 40 percent (table 2).

To assess the relationship between the 1984 debt ratio and cash flow, we made two simulations using the survey data of North Dakota farm operators. In one, we subtracted family living expenses from total family income (that is, net cash farm and nonfarm income). This simulation provides a measure of the ability of farm families to meet immediate cash flow needs.<sup>1</sup>

In the second simulation, we subtracted both family living expenses and principal payments from total family income. This simulation measures the ability of farm families to meet both current expenses and to repay debt.

Forty percent of the North Dakota farm operators we surveyed had insufficient

levels of total family income to cover family living expenses. Even among farm operators with no debt, about 20 percent appear to be having problems meeting cash flow needs; about 60 percent of farmers with debt ratios over 70 percent were having difficulty (table 3).

When we assessed their ability to repay principal payments as well (the second

simulation), more than half of the operators surveyed had insufficient income to cover operating costs, family living expenses, and principal payments. About 90 percent of those with debt ratios over 70 percent could not cover these expenses. We have estimated that \$375 million would have been needed in North Dakota alone to offset the shortfall experienced by

**Table 2—Total assets and debt of North Dakota and Texas farmers, 1984**

Item	North Dakota	Texas
Total assets (average)	\$423,042	\$909,605
	Percent	
Distribution of assets:		
\$0 to \$99,999	13.1	12.6
\$100,000 to \$249,999	31.2	26.2
\$250,000 to \$499,999	32.6	28.2
\$500,000 to \$999,999	18.2	21.2
\$1,000,000 and over	4.9	11.8
Total debt (average)	\$139,870	\$226,646
	Percent	
Distribution of debt:		
No debt <sup>1</sup>	17.3	25.2
\$1 to \$49,999	25.2	28.7
\$50,000 to \$99,999	18.6	16.8
\$100,000 to \$249,999	23.9	17.3
\$250,000 and over	15.0	12.0
Debt/asset ratio (average)	33.1	30.6
Distribution of debt/asset ratio:		
No debt <sup>1</sup>	16.7	21.4
1-40 percent	45.2	54.3
41-70 percent	23.4	13.9
71-100+ percent	14.7	10.4

<sup>1</sup>Percentages differ because of differing numbers of respondents to different questions.

**Table 3—Cash flow analyses by debt/asset ratio, North Dakota**

Category	Debt/asset ratio				Total
	No debt	1%-40%	41%-70%	71%-100%	
Total farm family income less family living expenses (simulated)					
Average	\$30,023	\$13,243	\$701	\$ - 5,258	\$10,102
	Percent				
Distribution:					
Negative	19.8	35.9	53.6	60.1	41.0
0 to \$19,999	35.4	37.0	35.2	32.1	35.6
\$20,000 and over	44.9	27.1	11.2	7.8	23.5
Total farm family income less family living expense and principal payments (simulated)					
Average	\$30,023	\$4,909	\$ - 19,510	\$ - 31,496	\$ - 2,075
	Percent				
Distribution:					
Negative	19.8	51.2	80.5	89.1	58.2
0 to \$19,999	35.4	28.6	15.1	9.3	23.9
\$20,000 and over	44.9	20.3	4.4	1.6	18.0

<sup>1</sup>If a respondent's estimates of family living expenses were not given or were unrealistically low, we used the following values: \$6,000 for a single individual, \$8,000 for a two-person household, and \$12,000 for a household of three or more.

these farm operators in 1984; that amount is two-thirds the value of North Dakota's entire annual budget.

## Young Farmers Have Highest Debt Levels

A high debt ratio is strongly associated with younger farmers. Of the operators with no debt, about 60 percent are over age 55 and 82 percent are over 45. Of those with debt ratios over 70 percent, 67 percent are under age 45. Similarly, of the operators with no debt, 70 percent began farming before 1959 while about 64 percent of those with debt ratios over 70 percent began farming after 1969.<sup>2</sup> Other surveys of Texas and Ohio farmers support the conclusion that financial stress is falling more heavily on younger farmers.

The more highly leveraged farmers also have above-average numbers of school-age children. If farm families from the more highly leveraged groups are forced to leave their rural communities, school enrollments could drop substantially.

## Many Farmers Lack Nonfarm Work Experience

We asked the respondents about their off-farm employment for two reasons. Off-farm employment can supplement inadequate farm income. And if they must leave the farm, off-farm employment experience (by the operator and spouse) may affect the ease (or difficulty) they have in making the transition to the nonfarm labor market.

About 25 percent of the North Dakota farm operators we surveyed held a nonfarm job in 1984 (fig. 1). Sixteen percent of operators with no debt worked off the farm compared with 36 percent of those with debt ratios over 70 percent. In addition to the operators who worked off the farm in 1984, another 10 percent of the North Dakota farmers said they planned to seek off-farm work in 1985 (23 percent of those with debt ratios over 70 percent). Similar patterns of off-farm employment were

noted for farm operators' spouses and for operators and spouses in Texas.

The experience of North Dakota farm operators in full-time nonfarm work is rather limited; 43 percent of all operators we surveyed had never worked in a full-time nonfarm job. Among the more highly leveraged groups, the degree of off-farm work experience was

greater, but more than 60 percent of the operators in the two most highly leveraged groups had 3 years or less of nonfarm work experience.

## Implications

Farm operators have several options for dealing with financial stress:

Figure 1  
**Highly leveraged farm families more likely to work off the farm**

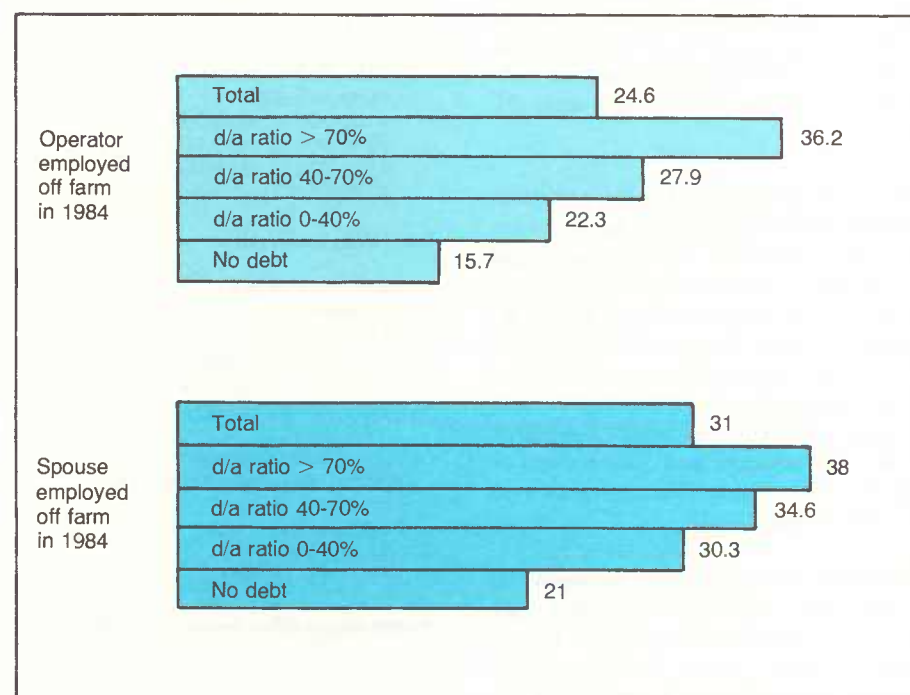


Table 4—Age of respondent and year started farming by debt/asset ratio, North Dakota, 1984

Category	Debt/asset ratio				Total
	No debt	1%-40%	41%-70%	71%-100%	
Percent					
Age of respondent:					
Less than 25	2.7	2.3	3.4	5.4	3.1
25-34	8.2	17.1	29.3	33.1	20.8
35-44	6.8	24.8	30.3	28.5	23.6
45-54	21.8	29.3	24.0	20.0	25.5
55-64	60.5	26.6	13.0	13.1	27.0
Year started farming:					
1980 and after	4.8	7.5	9.6	16.9	8.9
1970-1979	14.3	26.6	39.4	46.9	30.5
1960-1969	10.9	23.6	26.4	15.4	20.9
1950-1959	29.9	25.3	18.8	11.5	22.5
Before 1950	40.1	17.1	5.8	9.2	17.1

<sup>2</sup>It should be noted, however, that approximately a fifth of North Dakota farm operators in every age category had zero or negative net cash farm income in 1984.

restructuring their debts, restructuring their assets, working off the farm, managing more efficiently. Yet, liquidating the farm operation and moving to nonfarm employment may be the only viable alternative for many highly leveraged operators.

Farm families forced to seek nonfarm employment will likely face extensive adjustment problems. They may be forced to relocate to larger urban areas, even to other States, in search of employment. And they may find that their skills are not highly marketable in urban labor markets. For such farm families, grants, loans, and other programs to cover some of their costs of training, job search, and relocation could be very helpful.

The effect of farm failures on a rural community's private and public sectors will depend in part on whether the liquidations reduce the number of farms in the area and on whether the displaced farm families leave the community or remain. In rural areas close to larger urban places, the only farms left may be the very large commercial farms or the very small farms whose operators live on farms but work elsewhere: what economists call a bimodal distribution. In areas where commercial farming predominates and there are few off-farm job opportunities, the primary effect of current financial conditions may be to accelerate farm consolidation.

Even though an area experiences a substantial decline in farm numbers, its population base could be maintained if other jobs are created. Displaced farm families generally prefer to remain in their community.

In many agriculturally dependent areas, however, nonfarm job opportunities are unlikely to grow as the impacts of reduced agricultural income are felt by the agribusiness sector and other local trade and service firms. In North Dakota, for example, taxable retail sales (measured in constant dollars) fell 20 percent from 1979-84, while towns under 10,000 population experienced a 31-percent decline in sales.

Unless alternative job opportunities can be developed, a substantial decline

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***"In many agriculturally dependent areas, however, nonfarm job opportunities are unlikely to grow as the impacts of reduced agricultural income are felt by the agribusiness sector and other local trade and service firms."***

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*The most highly leveraged farmers tend to be young with an above-average number of school-age children. If they have to give*

in farm numbers could significantly affect such public services as primary and secondary schools. The fact that a high percentage of the most highly leveraged farmers are younger than 45 years and have above-average numbers of school-age children suggests that the effects on schools could be disproportionately large.

For all public services, local officials are likely to be confronted with the problem of providing services with a revenue base that may be static or even declining. Expanded economic development programs to attract industry to rural areas could benefit displaced

up their farms and leave the community, school enrollments could drop substantially.

farmers, and also provide support for the economy and service structure of rural communities.

Policy responses currently being proposed focus on measures to assist financially troubled farmers to remain in farming. Although such measures are needed, they fail to address the fact that a substantial percentage of farmers cannot continue to farm. Programs to facilitate the transition of farmers to alternative employment and to assist rural communities in coping with the impacts of agricultural restructuring should be implemented as well.

**FDP**