

POPULATION

Notes

MINNESOTA STATE DEMOGRAPHER

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AS FARM NUMBERS CONTINUE TO FALL, FARMERS ARE OLDER AND MORE LIKELY TO WORK OFF THE FARM

- The decline in the number of Minnesota farms accelerated between 1982 and 1987, during which time the number of farms declined ten percent.
- Farms continued to grow larger and the proportion of farmland devoted to growing crops increased.
- The percentage of Minnesota farmers with off-farm jobs increased from 43 to 47 percent.
- The average age of Minnesota farmers increased for the first time since 1974.

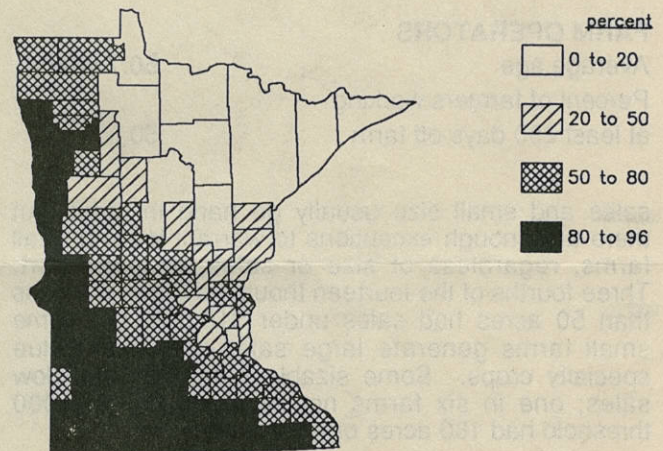
The 1980s agricultural depression accelerated the consolidation of farms, leaving Minnesota with older farmers who are more likely to rely on nonfarm jobs for their economic independence, according to the Minnesota Advance Report of the 1987 Census of Agriculture.

From 1981 to 1987, low agricultural prices, rising input costs, and plummeting agricultural land values squeezed many Minnesota farmers. Land values in the state's best farming regions fell to one-third their 1981 levels, eroding farmers' net worth. Many young farmers with high debt loads were forced out of farming. The number of Minnesota farms declined ten percent, from 94,382 in 1982 to 85,079 in 1987.

GEOGRAPHICAL OVERVIEW OF MINNESOTA FARMS

Most of Minnesota's farmland is located south and west of a line stretching along the Mississippi River from Winona to St. Cloud and then north toward Lake of the Woods (Figure 1). This is an area of fertile soils formed in drift deposited by glaciers, and in clays and silts which settled to the bottom of large lakes which formed as the glaciers melted. The largest of these lakes was Glacial Lake Agassiz, which formed the Red River Valley in northwestern Minnesota. From southeast to northwest across the state, climatic conditions favorable to corn and soybeans give way to cooler and

Figure 1.
Percent of Land Area in Farms
1987



drier conditions more favorable to small grains, including wheat. Many of the patterns mapped in this report reflect this general geographic pattern.

Two-thirds of Minnesota farms had at least \$10,000 in sales of agricultural products in 1987. These farms operated nearly 90 percent of the state's farmland and accounted for 98 percent of all agricultural products sold in 1987 (Table 1). These more market-oriented farms are usually larger and use more of their land for crops than farms not meeting the \$10,000 sales threshold. Most farms in the cash corn/bean areas of southcentral and southwestern Minnesota met the \$10,000 threshold in 1987 (Figure 2). A lower percentage of farms in the wheat growing areas of the west and northwest met the threshold, despite the larger size of farms in those areas. Less than half the farms on the geographical margin of Minnesota farming in eastcentral and northcentral Minnesota had sales reaching \$10,000.

Researchers sometimes use the \$10,000 sales threshold to distinguish serious, commercial farms from smaller, more casual operations. Low value of

TABLE 1. FARMS BY VALUE OF AGRICULTURAL PRODUCTS SOLD, 1987

	Below \$10,000		\$10,000 or More	
	Number	% of Total	Number	% of Total
FARMS AND FARMLAND				
Number of Farms	26,717	31.4%	58,362	68.6%
Land in Farms (acres)	2,816,261	10.6%	23,757,558	89.4%
Average acreage	105		407	
Cropland (acres)	1,527,731	7.0%	20,348,335	93.0%
Farms with cropland	23,424		56,037	
Percent of farms with cropland	87.7%		96.0%	
Average cropland acreage	65		363	
Percent of farmland in cropland	54.2%		85.6%	
MARKET VALUE OF OF AGRICULTURAL PRODUCTS SOLD (1000)				
	\$95,413	1.7%	\$5,580,963	98.3%
FARM OPERATORS				
Average age	50.7 years		47.5 years	
Percent of farmers working at least 200 days off farm	50.5%		14.6%	

sales and small size usually go hand in hand, but there are enough exceptions to warrant looking at all farms, regardless of size or sales, in this report. Three-fourths of the fourteen thousand farms with less than 50 acres had sales under \$10,000, but some small farms generate large sales with high value specialty crops. Some sizable farms generate low sales; one in six farms not reaching the \$10,000 threshold had 180 acres or more land.

CONTINUED TREND TOWARD FEWER AND LARGER FARMS

The number of Minnesota farms has declined steadily since 1935, and has been cut in half since 1950 (Figure 3). The only pause in the decline came between 1974 and 1982 when strong prices and an influx of new farmers slowed the decline. The loss of farms accelerated again after 1982.

Figure 2.

Percent of Farms with Sales More than \$10,000
1987

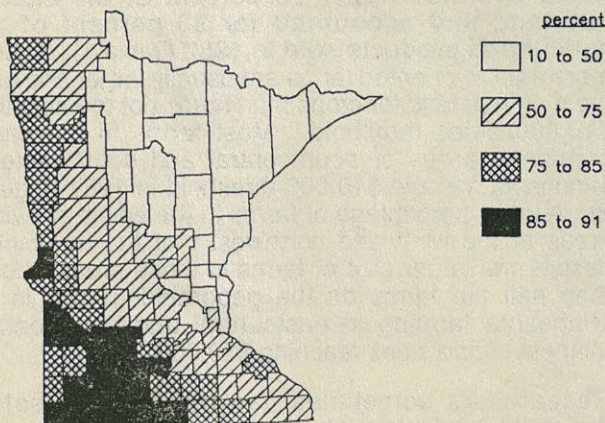


Figure 3.

Number of Farms in Minnesota
1935-1987

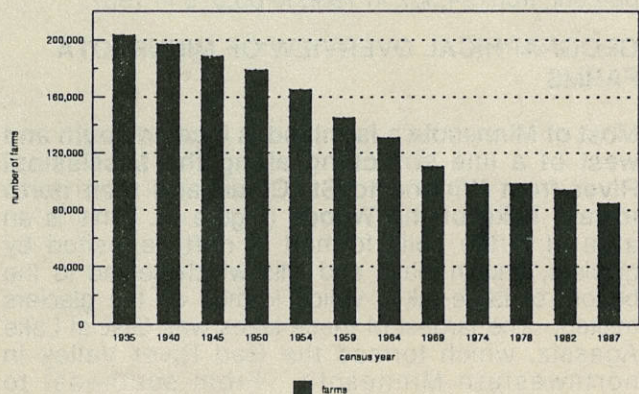
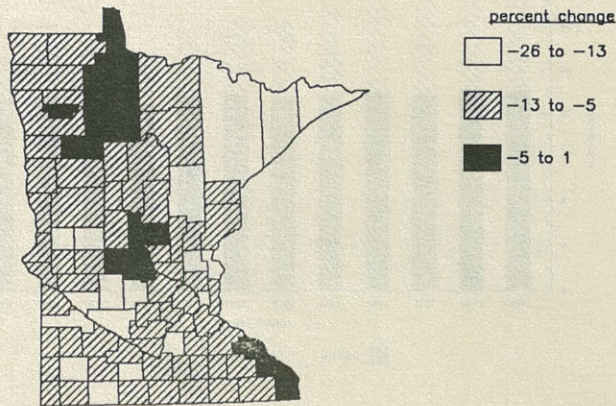


Figure 4.

Percent Change in Number of Farms, 1982-87



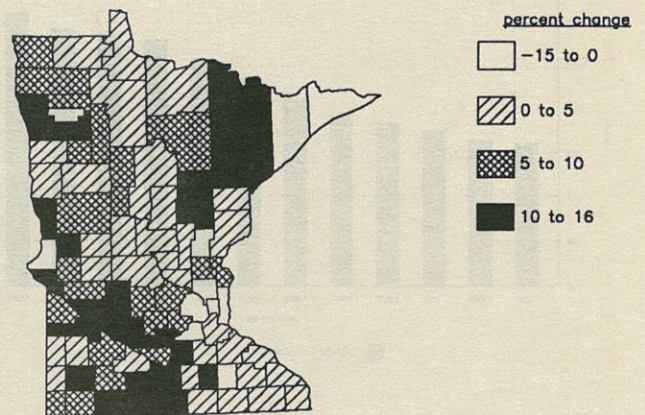
Farm numbers declined by as much as fifteen percent between 1982 and 1987 in some of the prime agricultural areas of southern and western Minnesota (Figure 4). Chippewa, Douglas, Meeker, Watonwan and Yellow Medicine counties, as well as Chisago County in eastcentral Minnesota, all lost more than fifteen percent of their farms. The greatest stability in farm numbers was in the Mississippi River counties of southeastern Minnesota and on the eastern margin of the Agassiz glacial lake plain in Lake of the Woods, Beltrami, Clearwater and Mahnomon counties in northwestern Minnesota.

Most of the remaining farms became larger, usually by incorporating land from farms which went out of business. **The average Minnesota farm grew from 294 acres to 312 acres between 1982 and 1987.** These averages are held down by a large number of small farms. Fourteen thousand Minnesota farms had fewer than 50 acres in 1987. Many of these smaller farms are hobby farms or marginal commercial farms. Farms reaching the \$10,000 sales threshold averaged 407 acres.

The largest percentage increases in farm size were generally in the cash grain areas of southwestern Minnesota (Figure 5). Average farm size increased fifty or more acres in Murray, Chippewa, Lac Qui Parle, Grant, Polk and Kittson counties, and by over 100 acres in Wilkin County.

Outside the cash grain region, several counties stretching from extreme southeastern Minnesota northward toward the Twin Cities area and into eastcentral Minnesota had little or no growth in farm size. Average farm size actually decreased in some areas, most notably in counties encompassing the suburban fringe of the Twin Cities, perhaps reflecting proliferation of hobby farms.

Figure 5.

Percent Change in Average Farm Size (acres)
1982-87

Average farm size exceeds 340 acres in a band stretching from southcentral Minnesota northwesterly toward the Red River Valley (Figure 6). Cash grain farming and mixed grain-livestock farming characterize this area. **The largest farms are in westcentral and northwestern Minnesota, where average farm size exceeds 500 acres.** Kittson County ranks first with an average farm size of 865 acres, followed by Wilkin County at 846 acres. Farms are smaller in the dairy belt stretching from southeastern Minnesota toward north central Minnesota. Average farm size is less than 200 acres in many of the counties just to the west and north of the Twin Cities.

Figure 6.

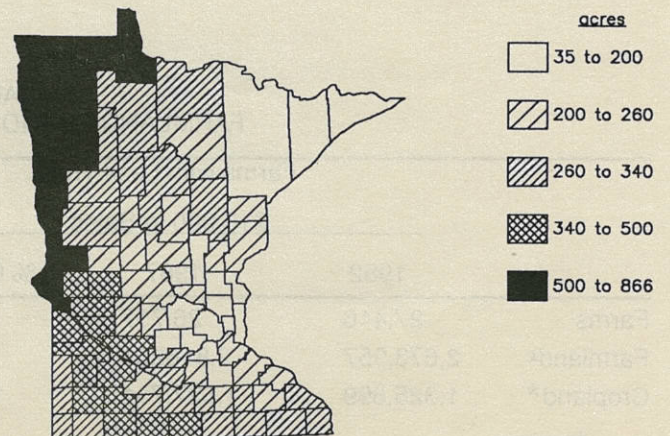
Average Farm Size in Acres
1987

Figure 7.

Average Minnesota Farm Size
1935-1987

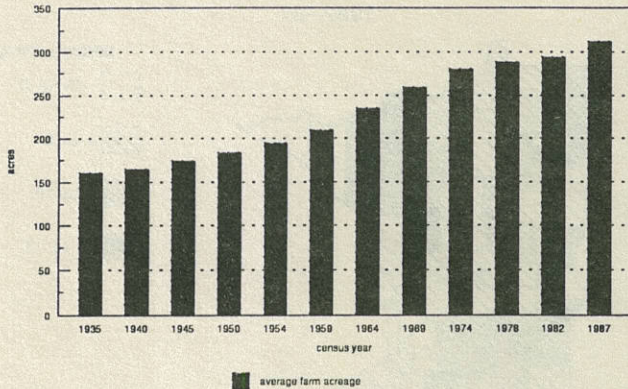
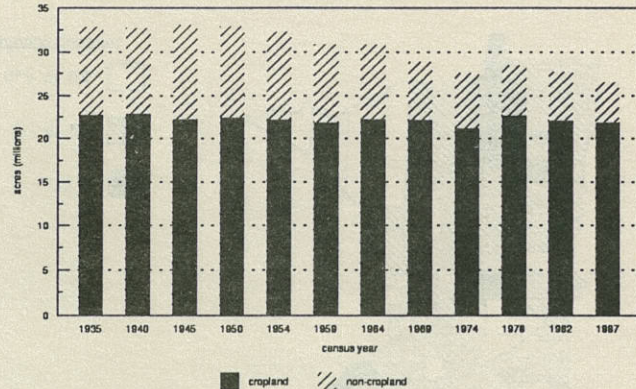


Figure 8.

Farmland and Cropland Acreage
1935-87



Farm sizes have been increasing since the 1930s. The rate of increase in farm size slowed during the 1970s, but accelerated again in the 1980s (Figure 7). Average farm size has nearly doubled since 1935. The average amount of cropland per farm has grown at a similar rate.

The trend toward fewer and larger farms is more evident among the more market-oriented farms (Table 2). There was a 13 percent decline between 1982 and 1987 in the number of farms with sales of at least \$10,000, compared with only a three percent decline for lower value sales farms. The number of acres in farms with at least \$10,000 in sales declined five percent, while the acres in farms with less than \$10,000 in sales actually increased five percent. These divergent trends may be explained, in part, by an increase in the number of hobby farms. However, some of the increase in farmland and cropland among farms with less than \$10,000 in sales may have been from farms which had declining sales, and fell below the \$10,000 threshold.

LAND IN FARMS DECLINES MODESTLY, BUT MORE USED FOR CROPS

Because remaining farms have expanded, the exodus from farming has not dramatically reduced the amount of land used for farms. A ten percent decline in the number of Minnesota farms only translated into a 4.1 percent decline in farm acreage.

Farmland acreage declined most dramatically in an area extending from the margins of the Twin Cities north through eastcentral Minnesota. This is generally the same area in which farm size was fairly stable, suggesting that abandoned farms were not incorporated into surviving farms. The amount of land in farms declined over ten percent in Dodge, Rice, Washington, Ramsey, Hennepin, Anoka and Chisago counties, probably reflecting the breakup of farms for exurban development and the higher economic returns promised by competing urban and residential land uses.

Elsewhere in the state's principal farming areas, only Douglas and Norman counties had farm acreage declines over ten percent. The smallest declines in

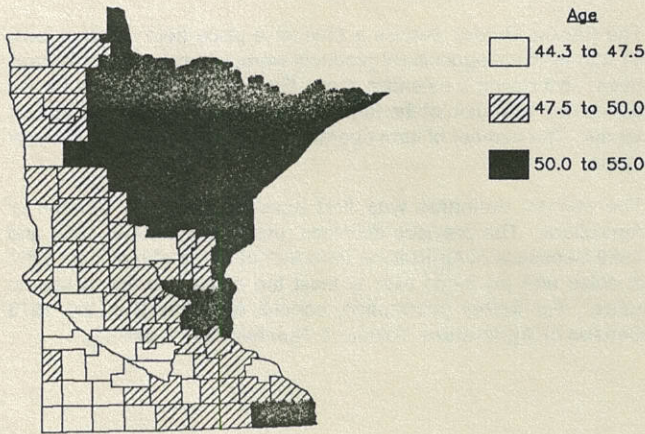
TABLE 2.
FARMLAND TRENDS BY VALUE OF SALES

	Farms with Less Than \$10,000 in Sales			Farms with \$10,000 or More in Sales		
	1982	1987	% Change	1982	1987	% Change
Farms	27,416	26,717	-2.5%	66,966	58,362	-12.8%
Farmland*	2,673,957	2,816,261	5.3%	25,034,499	23,757,558	-5.1%
Cropland*	1,325,699	1,527,731	15.2%	20,863,593	20,348,335	-2.5%

*acres

Figure 9.

Average Age of Farm Operators
1987



farm acreage were generally in southwestern Minnesota and the eastern margins of the northwestern Minnesota glacial lake plain.

The amount of land in farms has generally declined since 1954, except for an increase in farmland during the strong export years of the 1970s (Figure 8). Minnesota farms contained nearly two million fewer acres in 1987 than in 1978.

While the amount of land in farms has been in decline, the amount of land used for cropland has been relatively stable since the 1930s. Cropland declined a modest 1.4 percent between 1982 and 1987. Cropland includes land planted to crops, as well as land in fallow, grass, or pasture that is part of a multi-year crop rotation, but excludes permanent pasture, woodland, and building sites. **The percentage of farmland used for cropland has increased over the last 25 years. The trend toward more intensive use of land for crops reflects a longterm decline in livestock numbers and a shift toward cash grain farming.**

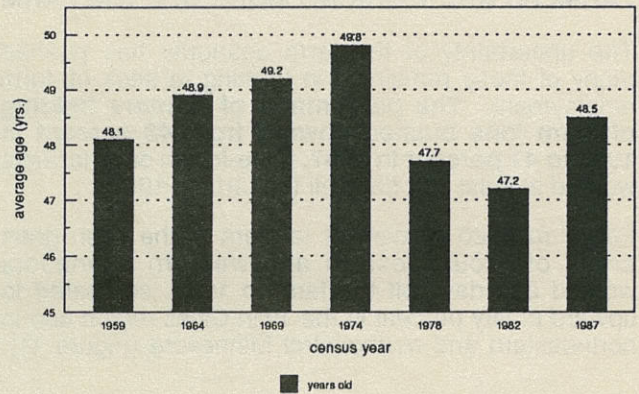
TREND TOWARD YOUNGER FARMERS REVERSED IN 1980s

The average age of Minnesota farm operators increased by 1.3 years between 1982 and 1987, reversing the trend of the previous fifteen years (Figure 9). Minnesota farmers were younger in 1982 than at any time since the Census Bureau first reported age data in 1959.

The average age of Minnesota farmers increased from 1959 to 1974, reflecting diminished numbers of young farmers. The number of farm operators under 35 years old declined 34 percent between 1959 and 1969, while the number of farm operators over age 55 declined only 15 percent.

Figure 10.

Average Age of Minnesota Farm Operators
1935-87

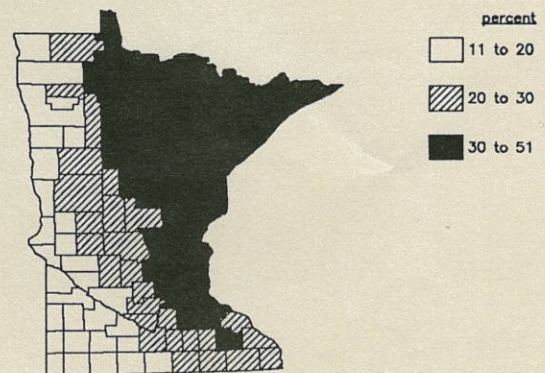


Baby boomers swelled the ranks of young farmers between 1974 and 1982. By 1982, 23 percent of farm operators were under age 35, the highest percentage since 1959. There were nearly 7,000 more farmers under age 35 in 1982 than in 1974. At the same time, the number of operators over age 55 had declined by 10,500. Part of the upward swing in land prices during the late 1970s was attributed to demand generated by farmers acquiring land to get their baby boomer children started in farming.

The increase in average farmer age since 1982 probably reflects both smaller numbers of young farmers starting out and failures of young, debt-laden

Figure 11.

Percent of Farm Operators Working 200 Days off Farm
1987



farmers during the farm depression of the 1980's. **The aging of the farmer population is most pronounced in the marginal farming areas from eastcentral to northcentral Minnesota, presumably because few young farmers are entering farming in those areas.** Average ages were fairly steady or actually declined in some prime farming areas, notably southwestern Minnesota, which has the youngest farmer population in the state (Figure 10).

FARMERS ARE WORKING MORE OFF THE FARM

The uncertainty of the farm economy has pushed many of those remaining in farming to seek off-farm employment. **The percentage of farmers holding off-farm jobs pushed upward from 43 percent in 1982 to 47 percent in 1987.** One-fourth of all farmers worked at least 200 days off the farm in 1987.

Fewer than 20 percent of farmers in the cash grain areas of southwestern and western Minnesota worked 200 days off the farm in 1987, compared to upward of fifty percent in the Twin Cities region and in northeastern and northcentral Minnesota (Figure 11).

Farms are larger in the cash grain areas than in the dairy and mixed grain-livestock areas of southeastern and central Minnesota, perhaps making off-farm employment less necessary or practical. The high proportion of farmers working off the farm in southeastern and eastcentral Minnesota may reflect the greater availability of off-farm jobs in the Twin Cities area and other urban centers.

A Note on the Definition of "Farms"

The Census Bureau defines a farm as a place from which at least \$1,000 worth of agricultural products were, or normally would have been, sold during a calendar year. The person responsible for the day-to-day operation of the farm is designated the farm operator, or farmer. The number of farm operators is the same as the number of farms.

The current definition was first used in the 1974 Census of Agriculture. The previous definition, used for the 1959, 1964 and 1969 Censuses of Agriculture, included (a) farms with at least \$250 in sales and (b) farms with at least ten acres and fifty dollars in sales. For further information, consult Appendix B of the **1978 Census of Agriculture**, Volume 1, Number 23 (Minnesota).



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