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Larry Janssen
South Dakota State University

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IMPLICATIONS FOR OUR CITIZENS*

by

Dr. Larry Janssen**
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**Dr. Janssen is an Assistant Professor of Economics with teaching and research appointments in agriculture policy, agriculture finance and marketing.

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CHANGING TIMES IN SOUTH DAKOTA AGRICULTURE: IMPLICATIONS FOR OUR CITIZENS

We are living in times of rapid change in agriculture and in rural America. Hog and beef confinement systems, automated feeding systems, pesticides, four-wheel drive tractors and personal computers are innovations that did not exist or were seldom seen on farms 25 years ago. Interstate highways, factories in small cities, subterminal elevators and consolidated schools are examples of the changing landscape in rural America.

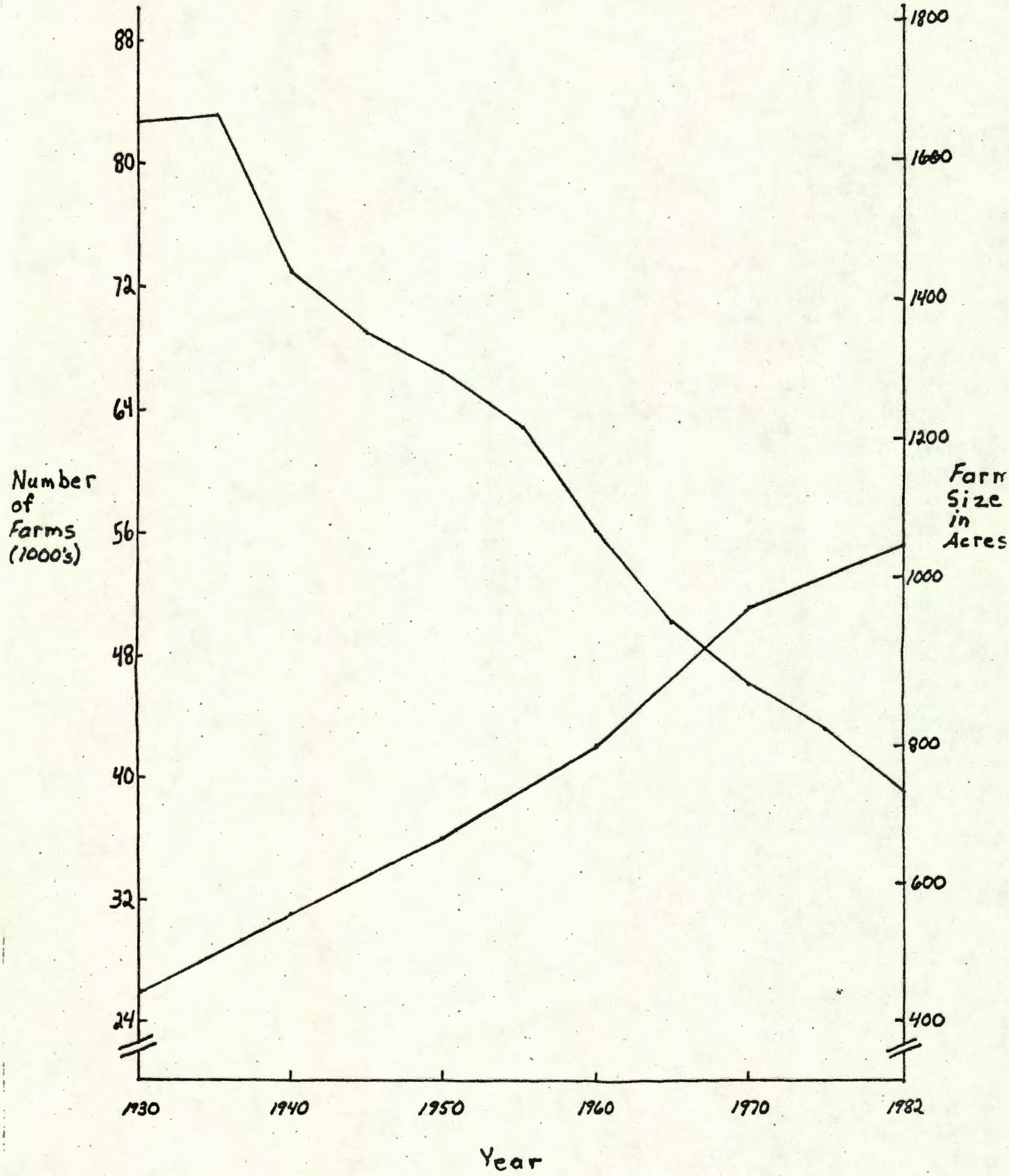
In times of rapid change, many people are concerned about the future of agriculture, family farms and rural communities. In this paper, recent trends in South Dakota agriculture are presented and analyzed. Major implications of these trends are then discussed.

Declining Farm Numbers

Declining numbers of farms is a continuing trend for South Dakota which has persisted from 1935 to the present. Prior to 1935 farm numbers were increasing and peaked at 83,000 farms. By 1982 there were 37,000 farms, a 55% decline in farm numbers (Figure 1).

The most rapid farm exodus occurred from 1935-1940 when a net reduction of 10,800 farms took place for a 2.8 percent annual decline. Since 1940, rates of decline in farm numbers has varied with changing national and farm economic conditions. Since 1969, the farm exodus has slowed to a 1.6 percent rate of annual decline.

Figure 1. Trends in South Dakota Farm Numbers and Farm Size, 1930-1982.



Rates of decline in farm numbers vary substantially by region over time in South Dakota. Since 1964, farm numbers in western counties declined at half the annual rate (0.9%) of farm numbers in eastern counties (2.1%) and two thirds the annual rate for central South Dakota counties (1.5%). The situation was reversed in earlier periods when farm numbers declined more rapidly in western and central South Dakota.

Technological change in agriculture and national prosperity which created many new nonfarm jobs are the primary explanations of declining farm numbers. Since the early 1960's technological change has occurred more rapidly in crops, livestock feeding and dairy enterprises than in rangeland agriculture. This is the main reason for higher rates of farm consolidation in eastern South Dakota.

Actual changes in farm numbers are determined by the numbers of farmers entering and leaving agriculture. Most farm operators start when they are 20 to 34 years of age. There is some increase in numbers of farmers until they reach 35 to 44 years of age. The net effects of changing occupation, retirement, disability and death gradually reduce the numbers of farmers over 45 years old with rapid declines after 65 years of age.

More young people entered farming in the 1970's than any time since the early 1950's. The annual entry rate of South Dakota's young farmers in the 1970's was 780 families compared to less than 560 young farm families in the 1960's. Higher incomes and growth prospects during the 1970's encouraged many young people to enter farming during this period.

However farm numbers have continued to decline because the number of senior farmers (55 years and older) exiting is greater than the number of young people (less than 35 years old) entering. The current exit rate of senior farmers - approximately 1,600 per year - has remained about the same for the past 30 years.

Future trends in farm numbers are sensitive to the age distribution of current farm operators and socio-economic conditions that determine the entry rates of younger people into farming. Today there are nearly 20,000 farm operators that are 45 - 64 years old and most will retire from farming by the year 2,000. However there are only 13,000 farm operators in the 25 - 44 year age group to replace them. Stabilizing South Dakota farm numbers at present levels would require an additional 600-800 entrants per year to offset the exit of senior farmers. This would require a doubling of current entry rates.

Increased farm size

Naturally as farm numbers in South Dakota have declined the average size (acres) per farm has increased since land in farms has remained about the same. In acres, the average South Dakota farm has increased from 674 acres in 1950 to 1,123 acres in 1978. The smallest farms are found in southeastern counties where average farm size is 300 to 600 acres. In western South Dakota average farm and ranch size varies from 2,000 to 6,000 acres in most counties.

A dual trend in farm sizes is emerging in all regions of South Dakota. Incrased average farm size is accompanied by an increased number of large acreage farms, an increased number of very small acreage farms and decreased numbers of all other farms. Since 1959, the numbers of farmers operating less than 140 acres has actually increased by 23% and accounts for one-sixth of all South Dakota farm operations. Farm operations exceeding 1,000 acres in eastern South Dakota, 2,000 acres in central South Dakota, and western South Dakota ranches of more than 5,000 acres have also increased in numbers.

Land tenure and ownership trends

The ownership and control of agricultural land has remained controversial throughout our nation's history and is an important issue today.

Land tenure involves the issue of who operates (controls) the land resource. Farm tenancy has dramatically declined from its peak in 1940 when 53 percent of South Dakota's farmers did not own any of the land that they farmed. By 1978 tenants were only 16 percent of farm operators (Table 1) and were usually younger farmers with small to medium sales volume.

Full owners have declined in actual numbers but have increased as a proportion of all farm operators and ownership of land in farms. Full owners are generally older farmers with lower farm product sales volume. Nearly one-fourth of full owners also are landlords renting some of their farmland to others. Over 30 percent of full owner families rely on nonfarm income or farm rental income for most of their family living expenses. Part owners and tenants rely more heavily on current farm income for family living expense and for reinvestment in the farm operation.

Since World War II, part-owners have emerged as the largest tenure class in terms of farm numbers (45% of all farm operators in 1978) and generally operate larger farm units than full-owners and tenants (Table 1.)

Part-owners are at the cutting edge of commercial family farming today. Part owners are most likely to be middle aged, and generate relatively high livestock and crop sales. Part-owners dominate among farmers expanding in acres operated. They are likely to have substantial amounts of real estate loans and operating loans. Very few part-owners rely on nonfarm income as their major source of income for family living expenses.

Part-ownership has emerged as the dominant trend in land tenure for three interrelated reasons: (1) farm real estate credit availability has increased, (2) farmers needed to expand by obtaining more land, and (3) many owners wanted to keep their land even if they were not farming it because they viewed land ownership as an effective inflation hedge.

Over two-thirds (69.3%) of South Dakota farm and ranchland is owned by farm and ranch operators. South Dakota is one of the top states in percentage of farm and ranchland owned by farmers and ranchers. For the United States, 56.5% of agricultural land is owned by farmers and ranchers.

Table 1. Farmland Tenure Trends in South Dakota, 1959 and 1978.

Tenure Class[a]	Number of Farms 1959	Number of Farms 1978
	----Percent----	
Full owner	32	39
Part owner	41	45
Tenant	27	16
Total	100	100
Thousands of farm reporting	55.7	39.7

	Average size of farm/ranch 1959	Average size of farm/ranch 1978
	----number of acres------	
Full owner	426	849
Part owner	1,260	1,516
Tenants	494	684
All Farms	805	1,123

[a] Full owner - Farmers who own all of the land they operate. They may also rent land to other farmers.
Part owners - Farmers who own some of the land they operate and also rent additional land.
Tenants - Farmers who rent all of the land they operate.

Source: U.S. Census of Agriculture, South Dakota, 1978 and 1959 report.

Three-fourths of South Dakota's farmland is owned by husband and wives or as sole proprietors. Most of the remaining land is owned by family partnerships and family corporations.

Farm and ranchland ownership is concentrated in the hands of older people. Roughly one-fourth of South Dakota and U.S. farmland is held by each of four age groups: Less than 45 years old, 45-54 years, 55-64 years and 65 years and 65 years and over.

The principal farmland buyers during the past 30 years have been established farmers who already owned some farmland and perhaps rented additional land. Despite the present "financial storms" expanding farm operators probably will continue to dominate the farmland market.

Farm corporations

Farm corporations are increasing in numbers and importance. In 1978, they represented 3 percent of South Dakota farms and marketed 11 percent of the states agricultural products. The typical farm corporation marketed $250,000 of farm products compared to $50,000 for other farm types. Farm corporations sold one-half of the states poultry products, one-fourth of its fat cattle, 15 percent of all cattle and calves and 5 percent of grains.

Most (90-95%) of South Dakota farm corporations are family-farm corporations. Major reasons for increased incorporation of family farms are related to tax, estate planning and transfer of management responsibilities. As farm size continues to increase and farm financial planning becomes more sophisticated the trend to more farm corporations should continue.

Increase sales volume and concentration

Average gross sales per farm in South Dakota has more than doubled in each of the last two decades - from $9,200 in 1959 to $20,900 in 1969 to $48,100 in 1978. (Gross farm sales is the total dollar volume of farm product sales before any expenses are deducted). Inflation and economic pressures for increased farm size to maintain acceptable profit and net cash flow are the major contributing factors.

Distribution of farms by sales class reveals the increased disparity of farms by size. Large farms with sales of $200,000 or more numbered 2.5% of South Dakota farms in 1978 and sold 24.8% of the dollar volume of farm product sales (Table 2.) At the other extreme, very small farms each selling less than $10,000 of farm products numbered 23.5% of South Dakota farms and sold only 2.3% of farm products.

Small farms have the highest percentage (40.2%) of farm numbers while medium size farms sell a majority (53.5%) of farm products.

Large farms are rapidly increasing in numbers and proportion of sales volume while small farms are declining in numbers and proportion of sales volume. Medium size farms have maintained their share of farm numbers and sales volume but their operators are experiencing the greatest adjustment pressures. Many of these farms are not large enough to generate adequate net incomes, yet they are large enough to prevent most farm operators from assuming off-farm employment opportunities.

Sales concentration has increased for South Dakota and U.S. farms. Almost all of the increase in sales concentration has

Table 2. Distribution of South Dakota Farm Numbers and Farm Product Sales by Farm Size, 1978

Farm size	Sales Class Gross farm sales	1978 percent of farms	1978 percent of sales
Large	$200,000 and over	2.5	24.8
Medium	$ 40,000 - 199,999	33.8	53.4
Small	$ 10,000 - 39,999	40.2	19.5
Very Small	$ 1,000 - 9,999	23.5	2.3
	Total	100.0	100.0

Source: U.S. Census of Agriculture, South Dakota, 1978 reports.

Table 3. Sales Volume Concentration of South Dakota Farms, 1959 and 1978.

Proportion of Farmers Ranked by Sales Volume	Proportion of Gross Farm Sales 1959	Proportion of Gross Farm Sales 1978[a]
	----percent----	
Largest 10%	35.2	48.9
Middle 40%	40.2	38.5
Bottom 50%	24.6	12.6
	100.0	100.0

[a] In 1978, the largest 10% generated $130,000 or more of farm product sales. The middle 40% generated $30,000 - 130,000 of farm product sales, while the bottom 50% sold less than $300,000 of farm product sales, while the bottom 50% sold less than $30,000 of product in a year. These amounts have increased by early 1984 but the same trends are continuing.

Source: Derived from statistics reported in the U.S. Census of Agriculture, South Dakota, 1959 and 1978 reports.

been generated by the largest 10% of South Dakota farms (Table 3.) These farms have increased their share of farm product sales from 35.2% in 1959 to 48.9% in 1978. The next (middle) 40% of farms have maintained between 38 - 42% of total sales during this period. Meanwhile the smallest 50% of farms have dropped from one-fourth of farm product sales in 1959 to one-eighth of farm product sales in 1978.

Growing Use of Farm Debt

The combination of declining farm numbers and rapid growth of capital requirements in agriculture has led to phenomenal growth in capital and credit use per farm. In 1970, the average South Dakota farm operator controlled $138,000 in assets and had debts of $26,500. By 1982, asset values had increased by 390% to $538,000 while debts increased 455% to $120,000 per farm. Over one-half of the increase in asset values is due to appreciation in land values while all of the rise in debt reflects increased cash flow commitments. Debt servicing costs have increased even faster since interest rates on farm loans in the early 1970's were 8-9% compared to 14-17% in 1982 and 11-15% in early 1984.

Financially, today's farmers are a diverse breed. Approximately 30 percent of South Dakota's farmers are equity financed (debt-free) while 20 percent are high debt farmers (with debt-to-asset ratios exceeding 50 percent). The other half use debt capital but most are not financially at risk.

Financial conditions vary by sale class. The largest commercial farms with annual gross sales over $200,000 per farm are less than 5 percent of all farms but use 40 percent of farm debt capital. Compared to other sales classes, a much higher percentage of these farmers financially at risk. Most small farms with annual gross sales of less than $40,000 use low amounts of debt capital (in relation to assets) or are debt-free.

Young farmers and middle-aged farmers operating medium-to-large commercial farms are the ones most likely to use large amounts of debt and have the highest proportion of farmers in financially risky positions.

Farm operators assume 90-95 percent of farm debts but own only two-thirds of the farm assets in South Dakota. Landlords own one-third of the farm assets and assume 5-10 percent of farm debts.

Overall, South Dakota has a higher proportion of indebted farmers and highly leveraged farmers than is found in most other states. Compared to the U.S., the average South Dakota farm has similar amount (value) of total assets but uses 50 percent more debt capital, primarily for operating, machinery and livestock loans.

Furthermore, South Dakota farmers are more dependent on current farm income to service their debts than farmers in many other states. Also, farm incomes in South Dakota are more volatile. Annual income variation is not as troublesome as the tendency for agriculture to have several years in a row of relatively low returns and incomes. Farmers must rely on their savings, other sources of income and management skills in order to survive until good years return.

Growing importance of off-farm income

Income received from nonfarm (off-farm) sources is a major component of net income earned by many farm families. Since 1964, a majority of net income earned by farm families in the U.S. has originated from nonfarm sources. Off-farm income is concentrated among farmers with less than $40,000 of gross farm sales.

South Dakota farmers receive a lower proportion of their family income from nonfarm sources than farmers in any other state. Income from nonfarm sources is 25 to 30 percent of net income earned by South Dakota farm families compared to 50 to 60 percent of net income earned by U.S. farm families.

The difference in relative importance of off-farm income to farm families in South Dakota and the United States is very significant and has important implications. First, South Dakota farm families and rural communities are more dependent on farm economic conditions compared to most other states. Improved farm incomes is essential to economic well-being in South Dakota.

Second, off-farm income is growing in importance to many South Dakota farm families. However, South Dakota is not likely to have the number and range of off-farm opportunities found in more densely populated and urbanized states. The long distances to larger towns makes it difficult for many farm family members to be employed in town.

Third, net incomes received by farm families are likely to be highly variable since farm incomes are subject to the uncertainties of weather, farm exports and changing government farm programs.

<u>Implications</u>

There are numerous implications of these structural trends concerning the future of South Dakota agriculture and family farms.

What we call family farms has dramatically changed over the years. The traditional family farm has been viewed as small, independent, diversified, self-sufficient, family operated unit that provided most of the family's material needs. The traditional family farm has been replaced by fewer modern commercial family farms and many other low resource farmers. The modern commercial family farms that produce most of our food are anything but self-sufficient, diversified or independent. Most do not own all of the land that they farm. Financially, they have relied more heavily on borrowed funds and have substantial debt servicing requirements. They rely on international markets that are subject to shifts in foreign policy and world weather conditions; they are specialized and capital-intensive and operate on narrow profit margins. Farming has become big business in addition to being a way of life.

The <u>average</u> size farm in South Dakota requires more than a half million dollars in assets. Many larger farms require 1-3 million dollars of assets. Farming has become increasingly difficult to enter unless one inherits a farm or is able to work within and gradually assume management of a continuing family operation. Increased incorporation reflects an increased interest in intergenerational transfer of family farm units.

Farm income is characterized by increased instability with a few very good years preceded and followed by several poor years in a row. Initial success in farming may simply be related to one's timing in entering this profession.

Structural trends indicate that concentration and specialization of farm production and marketing is continuing and increasing. Economic pressures for greater coordination between producers, handlers, processors, wholesalers and retailers will increase in the future. The future control of key production decisions may likely be vested in those who control farm markets and finances.

Business firms working daily with farmers (seed companies, fertilizer and chemical companies, machinery dealers, agricultural lenders and many other main street businesses) have also had to adjust to changing times in agriculture. Local merchants find it increasingly difficult to service the varied needs of the increasingly diverse farming community. Farmers often need more timely services and consistent management advice. At the same time merchants and lenders are struggling with rising operating costs and changing economic fortunes in their own business. Accounts receivable management, and greater income and cash flow planning has taken on more importance in these businesses. The markets for main street businesses serving farmers has become much more competitive and business people must pay much closer attention to the financial side of their firm if they are to survive, grow and prosper.

Declining farm numbers mean declining farm votes and fewer legislators primarily representing agricultural interests. Farmers are in a new ball game, politically, and must increasingly work in coalitions and alliances with other groups to achieve their political goals.

As farming changes, rural communities must also change in order to survive. Many rural communities are faced with declining numbers of main street businesses and increased costs of providing public services as their customer population shrinks and as farm incomes have become more variable. Rural communities faced with these problems have four basic options:

(1) Decline economically as the population base declines;

(2) Attract a larger proportion of local residents to trade locally and capture an increased share of their spending;

(3) Expand the trade area by providing services to surrounding communities to off-set declining farm numbers; and

(4) Develop manufacturing or other production sectors which do not depend upon the number of farm operators in the local area.

The latter three options require investment of time and money. So, the solution selected will vary depending on the resources opportunities, leadership and values of each community.

These are a few key implications of changing economic trends in South Dakota agriculture. The implications suggest a more sophisticated and technical family farm unit than in the past, and one that is more vulnerable to changing conditions in markets and finance. These economic trends are likely to lead to changes in marketing and the politics of farm and food policy. In turn, rural communities will be faced with many adjustment pressures.

However the future of agriculture, family farms and rural communities will be shaped by the people who become involved - through improvement of their management skills, through their investment decisions, through community leadership activities, and through influencing the direction of public policies.