

THE FAMILY FARM IN THE MIDST OF A CHANGING AMERICAN AGRICULTURE

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## Abstract

This report first defines a modern American "family farm." It then discusses recent changes in farms, including number and size, non-farm income, organization, ownership, management, new technology, farm debt, and resources used in farming. Each change is also accompanied by its suggested effect upon family farms. Finally, the report outlines major forces affecting U.S. farms.

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# THE FAMILY FARM IN THE MIDST OF A CHANGING AMERICAN AGRICULTURE<sup>1</sup>

## INTRODUCTION

America's agricultural heritage has been dominated by the Jeffersonian principle that "small landholders are the most precious part of a state" (Barr, 1978). Throughout the history of the United States, American agriculture has been predominantly characterized by the "family farm," a durable social institution kept intact by an agrarian ideology held very deeply by much of the farming community. To many, the family farm represents "democracy in its purest and most classic form" (Breimyer, 1978) and deserves credit for the success of American agriculture. In colonial times, family farms began in America as small, family owned and managed operations working primarily to produce the items needed by the families to be self-sufficient. Over the years, family farms have gradually changed into the large-scale commercial units of today which till the soil so that they can sell their products for others to consume. However, these changes are not unique to the family farm, but rather reflect the modernization and influx of new technology into all aspects of agriculture. These changes have not gone unnoticed, yet until recently few perceived an imminent crisis threatening the very survival of the family farm. Former Secretary of Agriculture Bob Bergland has brought the issue to

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<sup>1</sup>The report uses the Publication Manual of the American Psychological Association.

national attention, and now there is considerable debate as to the future of the family farm and what should be done.

The objective of this report is to describe the recent changes in the structure of American agriculture and to hypothesize the effect of these changes on the family farm. To accomplish this objective, one must first offer a workable, inclusive definition of the term family farm for the purposes of this report. A description follows of the recent changes in American agriculture, with suggestions as to the effect of these changes on the family farm in particular.<sup>2</sup> Finally, some of the major forces causing these changes in the structure of American agriculture are summarized.

#### DEFINING A FAMILY FARM

In order to be able to suggest what effect changes in American agriculture are having on family farms, one must first define what one is referring to as a family farm. However, such a definition is not easy to develop, and it is even more difficult to achieve a consensus of opinion on any one set definition. In addition, the definition cannot be overly specific and still apply to all of the many different regions of the United States. Finally, defining a family farm can be a controversial and important political issue, since the disbursement of

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<sup>2</sup>Suggestions rather than data because statistics specific to the family farm are not available.

some federal funds depends upon the number of family farms in each state.

Consensus can be achieved that the family farm concept basically amounts to a family producing unit, such as a family store. That is, the family owns, manages and works to produce something or provide a service, and in turn the family lives off the income provided by the business. After extensive research and consideration, the following definition has been drawn to describe the family farm in today's society. That is, a family farm:

- 1) Owns or leases the farm.
- 2) Provides at least half the labor.
- 3) Makes most of the management decisions.
- 4) Reaps the gains or suffers the losses.
- 5) Depends primarily on the farm as a source of income.

The first characteristic requiring that the family must own or lease the farm is to exclude hired managers, who operate the farm but are paid directly by the owners. Those farms which are operated by full owners, part owners, and tenants all meet the ownership criterion to be a family farm. The part owners and tenants must pay a fee or share part of the crop with the landowner for the use of his land, and so the land is leased to the operator and under his control. Thus, this requirement ensures that the farmer has invested his own capital or capital borrowed from another source to gain the control of the land.

The second characteristic requires that the members of the immediate family, not hired laborers, perform the work needed to accomplish the tasks of producing a crop. Farm labor is used in this context to include any work required by the farm, such as bookkeeping, marketing decisions, operating decisions and other similar work in addition to the regular field work. If over fifty percent of the labor is performed by non-family members, then the business is no longer primarily a family effort. Thus, the larger the area under cultivation, the greater the reliance on hired labor is likely to be, and the less likely that the operation is a family farm.

The third characteristic necessitates that the family and not some outside individual or organization make most of the management decisions for the farm. This provision excludes farms that take production contracts in which the buyer of the crop gains the authority to make most of the production decisions. It also excludes farms which submit most of these decisions to others in order to borrow needed capital. A third way for a farm to lose control of these decisions is by hiring consultants or farm managers. Finally, any combination of outside individuals whose influence determines more than fifty percent of the management decisions would exclude the farm from classification as a family farm. With this criterion, it is known that the family (usually the head of the family) is making a majority of the production decisions.

The fourth characteristic is related to the preceding three, in that the first three require that the family be in control of the land, labor, and management. Therefore, it is the family who should gain or



lose depending upon the productivity of their farm. In essence, this requirement ensures that the family has invested a large enough share of its own capital as opposed to borrowed capital that it will reap the benefits or suffer the losses on this investment. A farm which uses substantial amounts of outside capital would not suffer the brunt of a bad year nor would it necessarily prosper in a good year, and thus would not be considered a family farm.

The final characteristic requires that the main source of income for the family be the farm. This provision excludes farms whose operator works part time and receives more income from the outside job than is generated by the farm. It also excludes farms whose combined income from other sources exceeds the farm income. In such cases, the family is not dependent upon the farm for its livelihood, perhaps considering their farming endeavors a hobby or a way to get back to nature. Thus, this requirement necessitates that the farm's size and productivity be sufficient to provide the family with an acceptable standard of living.

The foregoing characteristics have been chosen as the important features of a family farm, and henceforth will encompass the institution referred to as a family farm. This definition may seem to be rather general, yet it is impossible to define a family farm "by acreage, income, sales, legal form, or any other readily available measurement" (U.S. Department of Agriculture, 1981). This is due to the heterogeneity within agriculture in the United States. Many organizations and individuals would differ in defining the family farm, but what remains important are the ideas behind the family farm and the

values attached to it. Therefore, the concern for the future of the family farm will be addressed in this report in that the report attempts to extrapolate the effect upon family farms resulting from the changes occurring throughout the structure of U.S. agriculture.

## RECENT CHANGES IN AMERICAN FARMS

Agriculture in the U. S. is currently undergoing a rapid and dramatic transformation. This many-faceted transformation has had particular impact on the family farm, traditionally the heart of American agriculture. To describe the recent changes, it will be necessary to consider all farms instead of singling out the family farm, due to the absence of information specific to the family farm. However, after each of the following changes is discussed, an attempt will be made to explain its effect upon the family farm. Although it is the intent of this report to show recent changes (arbitrarily beginning at 1970), the time scale has been moved back in some of the tables and figures so that the dramatic changes can be fully realized.

Today, we have fewer and larger farms requiring more capital and becoming increasingly more specialized and dependent on the non-farm sector to supply inputs. Tax laws are encouraging more and more farms to incorporate, while sophisticated management skills required on these modern farms are becoming of critical importance.

### Number and Size of Farms

Perhaps the most visible of the changes occurring on farms is the decreasing number and increasing size of farms. These two developments

will be treated together, since most of the land associated with the operations that have left farming has been incorporated into other farms.

Since 1940, the total number of farms has shrunk from almost 6.3 million to a 1981 total of 2.4 million, a decrease of 40 percent. This marked downward trend can be seen in Table I. Meanwhile, the average number of acres per farm has steadily climbed upward from 175 acres in 1940 to 431 acres in 1981, an increase of 41 percent. The amount of change in farm numbers and size is graphically illustrated in Figures 1 and 2, respectively. However, due to the wide range in productivity of U.S. farmland, acreage is not the best method for classifying farm size.

A more accurate method to classify farms is by their cash receipts and net income. Referring to Table II and Figure 3, it can be seen that in 1981 farms with annual sales of \$200,000 and over accounted for only 4.6 percent of the farms, yet they earned 49.3 percent of the cash receipts and 89.6 percent of the net income. Thus, the lion's share of farm earnings is garnered by a relatively few large farms. Since these large farms deal in high volume, they may be able to obtain price concessions in both input and market prices, giving them a distinct advantage over their smaller competitors. On the other end of the spectrum, farms with annual sales under \$20,000 amounted to 60.4 percent of the farms but earned less than 6.5 percent of the cash receipts and received -8.2 percent of the net income.

Looking back to Table I, the number of farms actually increased in 1981 over 1980, but this increase was due mainly to an increase in the

Table I. Number and Size of Farms, U.S., 1940-81.<sup>1</sup>

<u>YEAR</u>	<u>NUMBER</u>	<u>AVERAGE ACRES PER FARM</u>
1940	6,102,417	175
1950	5,388,437	216
1959	3,710,503	303
1969	2,730,250	389
1979	2,478,642	429
1980	2,428,000	429
1981	2,436,000	431

<sup>1</sup>From Agricultural Statistics by U.S. Department of Agriculture, 1982, Washington, D.C.: U.S. Government Printing Office.

Figure 1. Number of Farms<sup>1</sup>

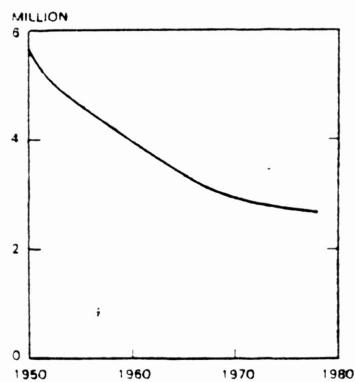
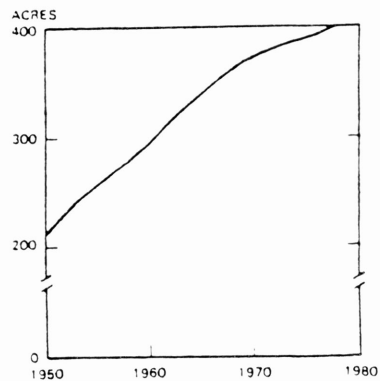


Figure 2. Average Size of Farms<sup>1</sup>



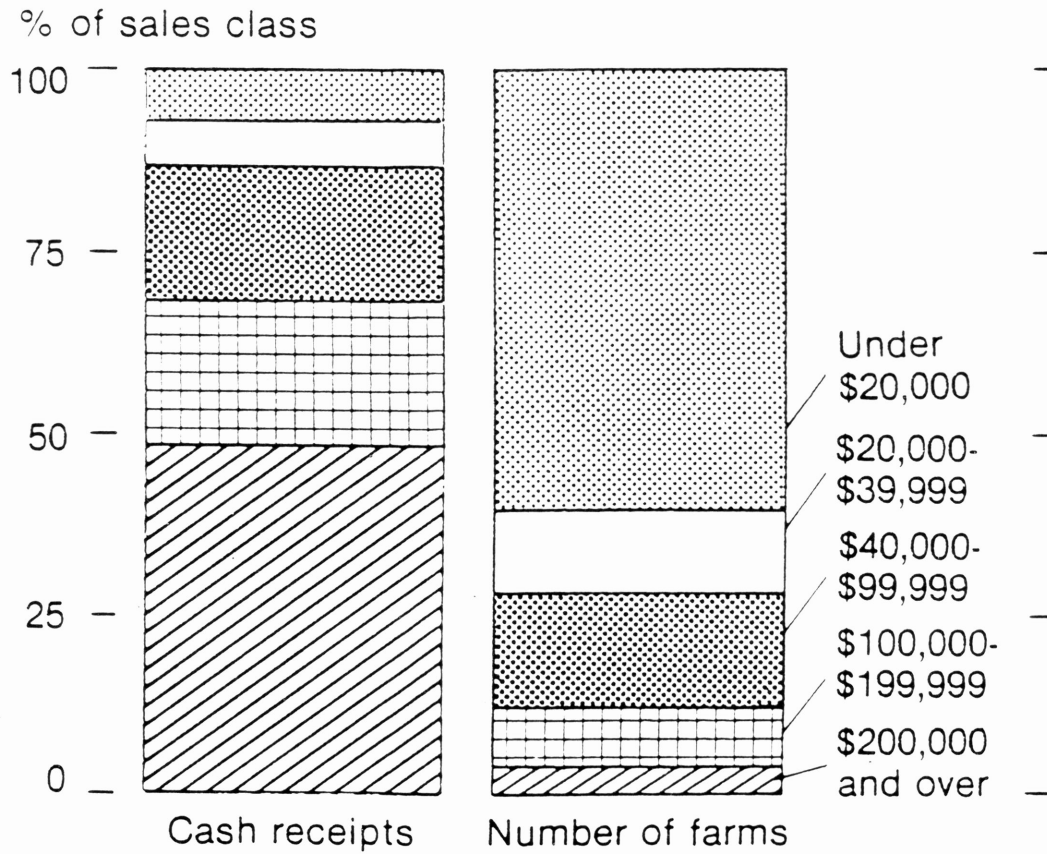
<sup>1</sup>From Another Revolution in U.S. Farming? by L.P. Schertz and others, 1979, Washington, D.C.: U.S. Government Printing Office.

Table II. Cash Receipts, Net Income, and Farms by Sales Class<sup>1</sup>

	Cash receipts	Net income	Farms
	Million dollars		Thousands
Farms with annual sales of:			
\$200,000 and over	72,583	16,961	112
\$100,000-\$199,999	28,150	2,949	186
\$40,000-\$99,999	27,983	1,509	396
\$20,000-\$39,999	9,042	-244	278
Under \$20,000	9,574	-1,586	1,464
All farms	147,332	19,589	2,436
	Percentage of total sales		
\$200,000 and over	49.3	86.6	4.6
\$100,000-\$199,999	19.1	15.1	7.6
\$40,000-\$99,999	19.0	7.7	16.3
\$20,000-\$39,999	6.1	-1.2	11.4
\$Under \$20,000	6.5	-8.2	60.4
All farms	100.0	100.0	100.0

<sup>1</sup>From 1982 Handbook of Agricultural Charts by U.S. Department of Agriculture, 1982, Washington, D.C.: U.S. Government Printing Office.

Figure 3. Cash Receipts and Farms by Sales Class<sup>1</sup>



1981 data.

<sup>1</sup>From 1982 Handbook of Agricultural Charts by U.S. Department of Agriculture, 1982, Washington, D.C.: U.S. Government Printing Office.

number of small farms. These small-scale farms are predominantly operated by part time farmers, who may suffer a loss on their farming enterprise, yet the loss is often recaptured in tax benefits available to farmers. Many part time farmers have the intention of supplementing their off-farm income while maintaining a rural residence and taking up farming as a hobby.

So how does this affect family farms? Between these small farms and the large farms is a group of mid-sized farms including many of the family farms. These family farms are being displaced "in number by the smaller farms, the majority of which are part time, and in volume of marketings by large corporate or agribusiness farms" (Hayes, 1982). Thus, there is a trend towards a dual agriculture, with the mid-sized farms appearing to be too large for part time farms and too small for full time farms. Under pressure to adjust, a few of the mid-sized farms have expanded, some have scaled down, and the others have managed to continue despite the pressures.

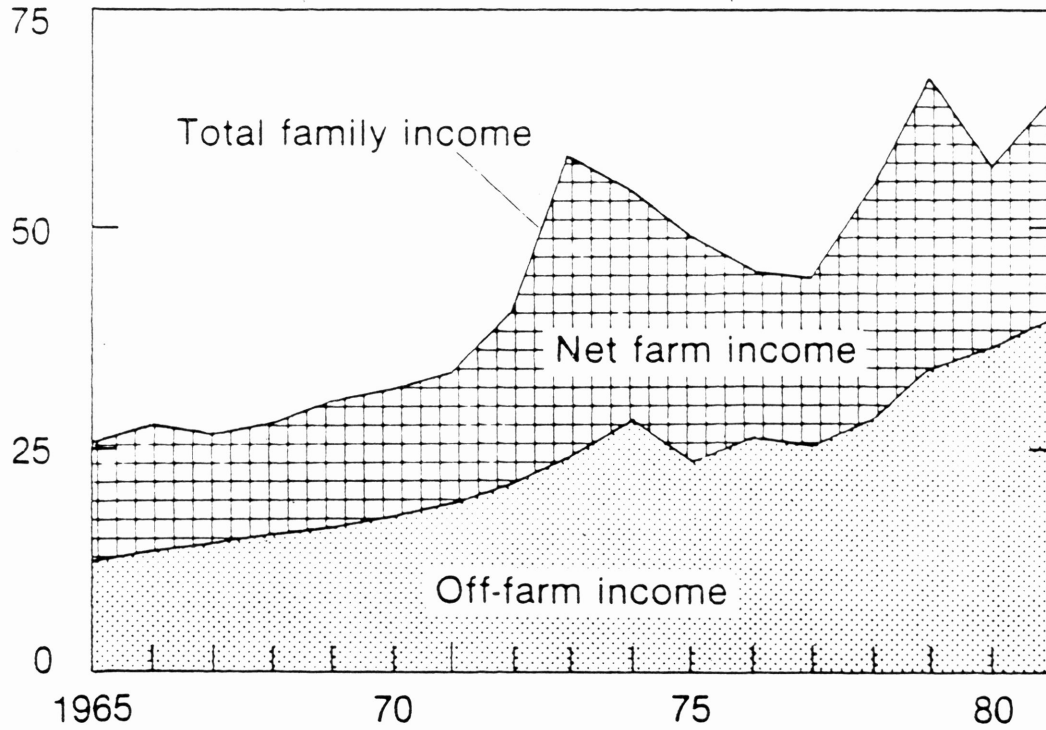
#### Non-Farm Income

Out of the necessity to make ends meet, many farm families have had to obtain outside income to support the family and to keep the farm in business. Net farm income dropped from \$32 billion in 1979 to \$19.8 billion in 1980 (Stone, 1983). Since farmers tend to enjoy farming and be optimistic that the future must improve, they and other family members have increasingly found other part time employment to pull them through the current farm crisis.

Figure 4 shows that farm families earned a total of \$64 billion in 1981, but well over half of this income came from non-farm sources.

Figure 4. Income of Farm Operator Families<sup>1</sup>

\$ billion



Net farm income includes an adjustment for changes in year-end crop and livestock inventories and represents returns to operator families' labor, capital, and management.

<sup>1</sup>From 1982 Handbook of Agricultural Charts by U.S. Department of Agriculture, 1982, Washington, D.C.: U.S. Government Printing Office.



However, it must be noted that the U.S. Department of Agriculture defines a farm as "a place that sells or normally would sell \$1,000 of agricultural produce" (U.S. Department of Agriculture, 1982a). Therefore, many of the farms included here do not meet the family farm criteria used in this report. Despite this, Figure 4 does give a good indication that farms are presently relying heavily on non-farm income. Serving as a stimulus to encourage non-farm employment, many industrial enterprises have moved to rural areas, providing convenient access for farm families. Under the definition used in this report, farms that exceed the 50 percent earnings from non-farm sources would no longer be considered family farms. But, if and when prosperity returns to U.S. agriculture, many farmers will probably leave their other employment and once again their farm would be classified as a family farm.

#### Farm Organization

Over the years, three primary forms of business organization have characterized farming operations: 1) sole proprietorships (individual or family), 2) partnerships, and 3) corporations. The U.S. farm sector has long been dominated by sole proprietorships exemplifying competitive free enterprise norms. However, this dominance has recently given way to a marked increase in the number of corporations.

Table III illustrates the number of farms and acres encompassed in the different organizational forms which have sales of \$2,500 or more for the years 1969, 1974, and 1978. The number of individual or family farms increased by 118,300 from 1969 to 1978, but showed a decrease of over 21.3 million acres during the same period. The increase in the

Table III. Operators by Type of Organization for Farms with Sales of \$2,500 or More: 1978, 1974, and 1969<sup>1</sup>

	1978	1974	1969
	<u>Farms</u>	<u>Farms</u>	<u>Farms</u>
Individual or Family.....farms	1,598,865	1,517,573	1,480,565
acres	643,938,279	678,081,579	665,238,893
Partnership.....farms	209,688	144,969	221,535
acres	155,928,620	124,479,156	163,387,960
Corporation.....farms	49,684	28,656	21,513
acres	119,702,647	96,781,155	80,831,188
Family held:			
More than 10 stockholders.....farms	1,236	(NA)	(NA)
10 or less stockholders.....farms	42,734	(NA)	(NA)
Other than family held:			
More than 10 stockholders.....farms	1,121	(NA)	(NA)
acres	5,535,443	(NA)	(NA)
10 or less stockholders.....farms	4,593	(NA)	(NA)
acres	10,535,443	(NA)	(NA)
Other--cooperative, estate or trust, institutional, etc.....farms	6,450	3,849	1,070
acres	7,315,939	6,298,217	8,400,584

<sup>1</sup>From 1978 Census of Agriculture--U.S. Data, by the Bureau of Census, 1978, Washington, D.C.: U.S. Government Printing Office.

number of individual or family farms (as defined by the U.S. Department of Agriculture) is due to the previously mentioned increase in part time farmers. Thus, farms in this group drastically reduced in size and many are no longer family farms under the definition of this report, since many would be too small to be the family's primary source of income.

Partnerships decreased both in numbers and in acreage. Due to the large capital investment required to enter farming, partnerships are frequently used by established farmers to bring a son or other person into the business. In fact, 42 percent of all partnerships had at least one older family member and one or two partners of a younger generation (Breimyer, 1982). However, given the current poor conditions in farming, fewer young people desire to enter farming and thus the percentage of partnerships has diminished.

The number of corporations increased by 28,171 and their acreage by almost 38.9 million. Most of this increase can be attributed to the incorporation of sole proprietorships and partnerships for tax reasons and other advantages. Many family farmers have incorporated to overcome problems of instability, cyclical inefficiency and the loss of equity capital over time. Unincorporated family farms are born and die in each generation, with the farm generally reaching its peak efficiency in the middle of the cycle. In corporate family farms, the stock is merely transferred to the heir and the farm business goes on uninterrupted. Incorporation also helps avoid large inheritance taxes, since the farm's assets are owned by the corporation and never change ownership. For these reasons and others, many farmers are choosing the

corporate form of organization over the traditionally dominant sole proprietorship.

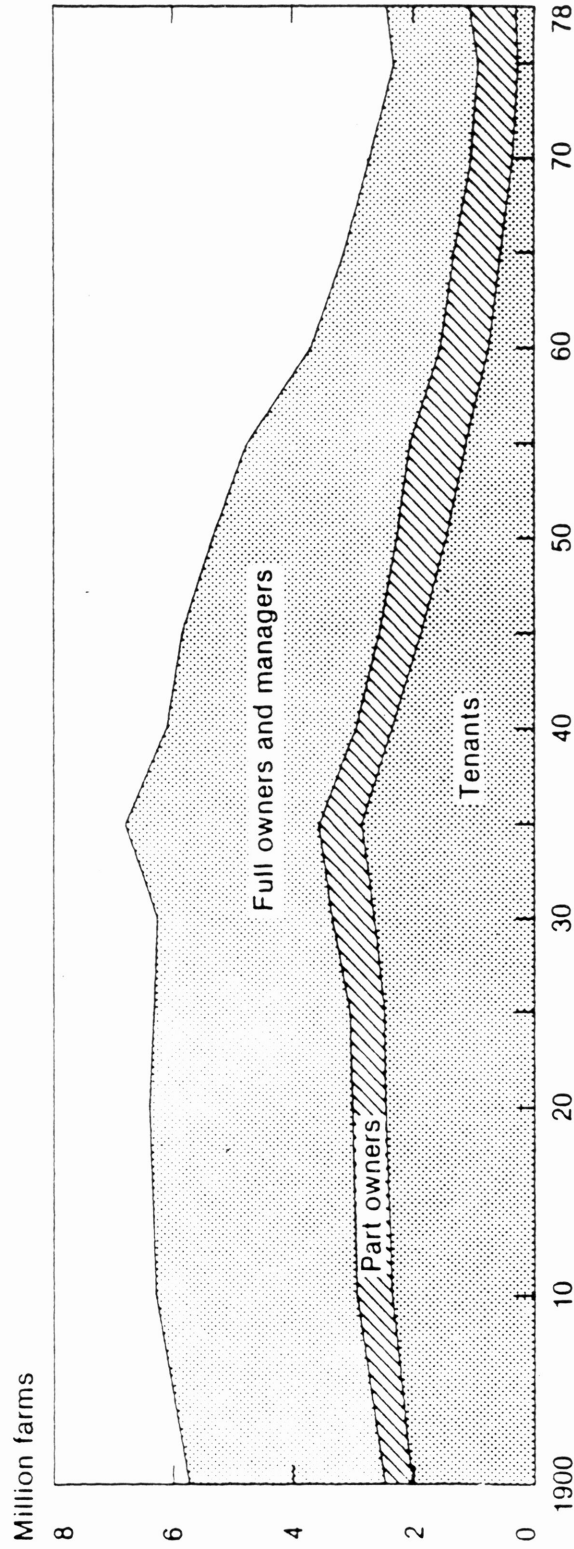
Within the corporate ranks, family held corporations with ten or fewer stockholders dominate substantially in both numbers and acreage, as seen in Table III. This supports the theory that farming corporations tend to be closely held, with many of them meeting the criteria to be considered a family farm. In fact, "Eighty percent of all privately held farming corporations had five or fewer shareholders, and 79 percent were family oriented, with family members directly involved in daily operations" (U.S. Department of Agriculture, 1979).

#### Ownership

The relationship of farm operators to the land they farm has been changing, as farmers and other investors compete for land ownership. Farmers are especially concerned about their classification as owners, tenants, or wage earners, but skyrocketing land values and other factors have decreased their ability to own the land they farm. Farms operated by part owners, who combine land they own with rented land, have increased in number and now account for 29 percent of all farms. Meanwhile, full owners (owning all land) and tenants (renting all land) have both decreased in number and now constitute 58.6 percent and 12.7 percent respectively of all farm operators (U.S. Department of Agriculture, 1982b). Figure 5 illustrates this increased proportion of farms operated by part owners.

Figure 6 further indicates that the amount of acreage farmed by part owners has drastically increased at the expense of full owners and tenants. Another point worth consideration is that approximately

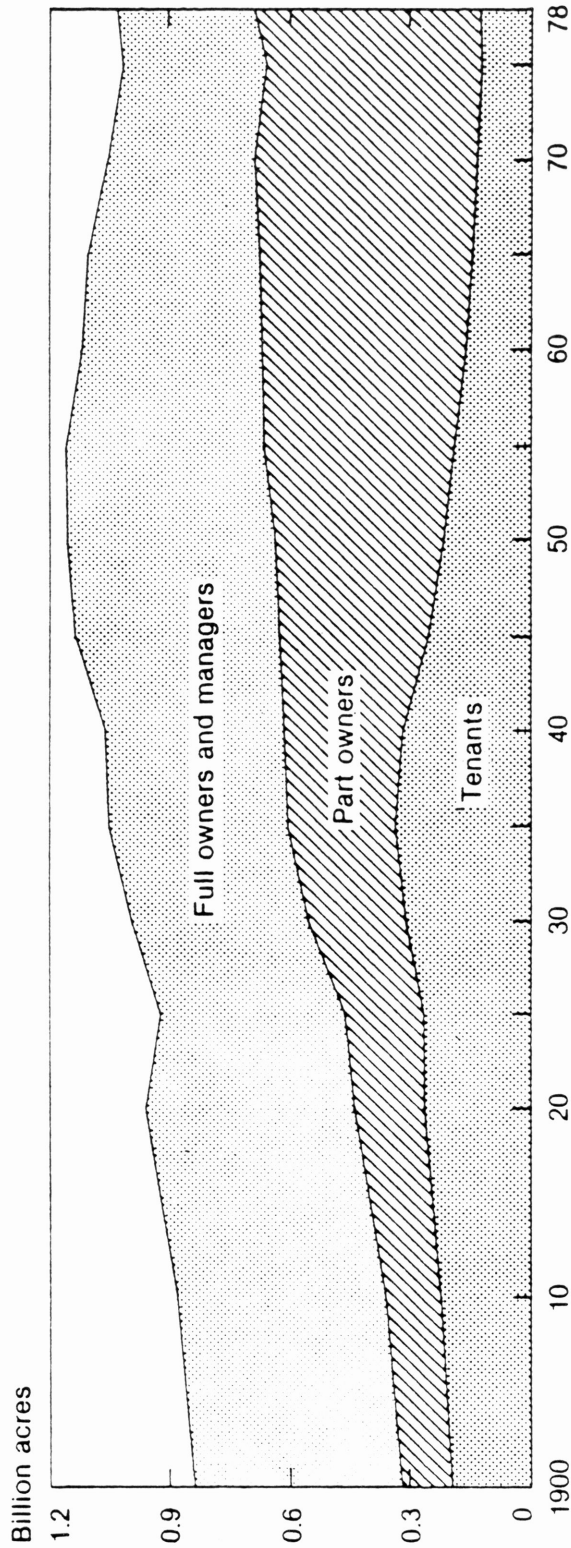
Figure 5. Number of Farms by Tenure of Operator<sup>1</sup>



A separate classification for managed farms was discontinued in 1969. Such farms are now classified by tenure based on whether the land is owned or rented.  
Source: 1978 Census of Agriculture

<sup>1</sup>From 1982 Handbook of Agricultural Charts by U.S. Department of Agriculture, 1982, Washington, D.C.: U.S. Government Printing Office.

Figure 6. Land in Farms by Tenure of Operator<sup>1</sup>



A separate classification for managed farms was discontinued in 1969. Such farms are now classified by tenure based on whether the land is owned or rented.  
 Source: 1978 Census of Agriculture.

<sup>1</sup>From 1982 Handbook of Agricultural Charts by U.S. Department of Agriculture, 1982, Washington, D.C.: U.S. Government Printing Office.

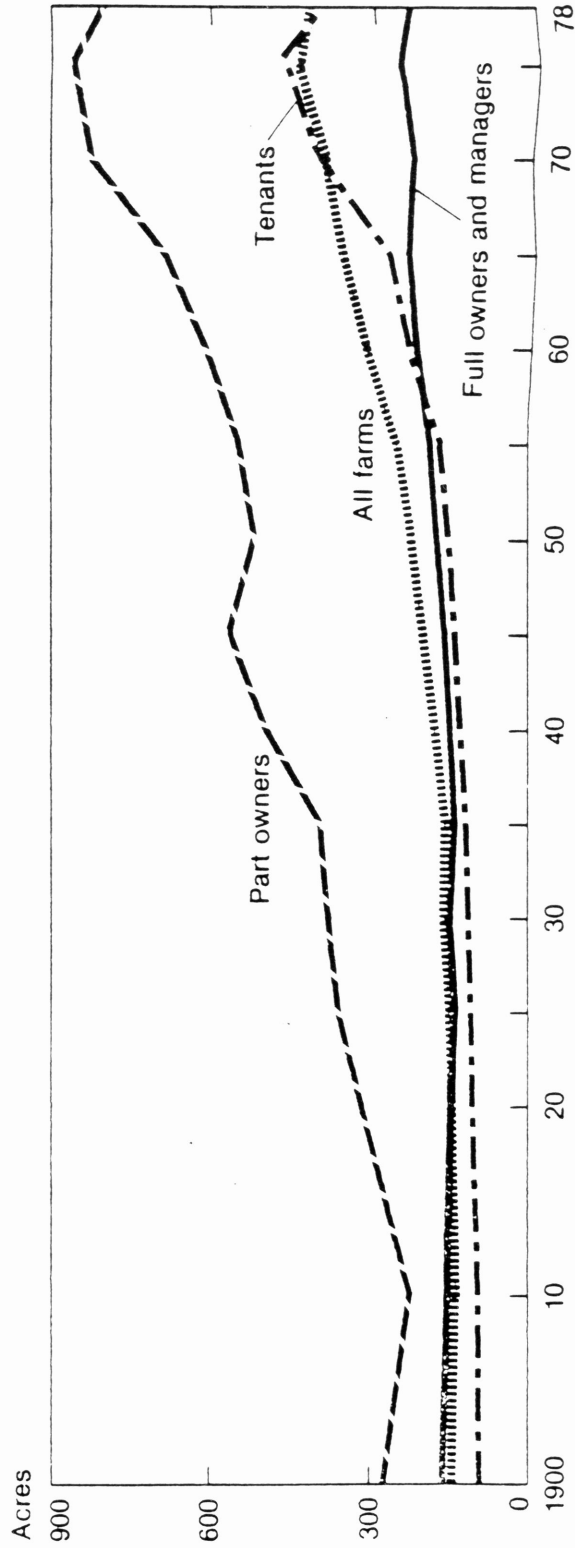
one-third of U.S. farmland is owned by persons not involved in farming (Gardner, 1981). These individuals purchase land for investment purposes and reap a significant return on their tenants' labors. Unfortunately, some landlords have little concern for farming or their tenants, thus threatening the farmers' future access to the land.

Corresponding to the increased acreage operated by part owners is the increase in size of farms operated by part owners in relation to full owners and tenants, which is illustrated in Figure 7. The average size of farms for part owners is approximately 870 acres, compared to a meager 270 acres for full owners. Thus, the family farmers who are full owners may find it difficult to support their families on such small farms. On the other hand, family farmers who are part owners have increasingly leased more land to reach the economies of scale where efficiency is found, and are also better equipped to provide comfort and security for the family without outside income.

### Management

Managerial skills of farmers have become of prime importance with rising production costs and fluctuating commodity prices reducing profit margins. However, some farmers are losing the authority to manage their farms as outside entities negotiate for the management role. Those who lend money, provide inputs, and purchase the commodities are three examples of non-farm entities using the farmer's dependence upon them to erode his decision-making authority. Lending institutions can deny a loan request and thus dictate to a farmer what he can and can not do. Also, farm input industries are often directing farmers' actions with regard to applying new technology. Thus, the

Figure 7. Size of Farms by Tenure of Operator<sup>1</sup>



A separate classification for managed farms was discontinued in 1969. Such farms are now classified by tenure based on whether the land is owned or rented.  
 Source: 1978 Census of Agriculture

<sup>1</sup>From 1982 Handbook of Agricultural Charts by U.S. Department of Agriculture, 1982, Washington, D.C.: U.S. Government Printing Office.



experts or suppliers of the new technology are often found making the technical decisions and supplying the management guidance.

Perhaps the most significant shift towards outside management is due to the increase in contract integration. In the past, family farmers traditionally bought supplies from a nearby dealer and sold products in an open market. However, in recent years, the local market relationships have been replaced by integrated markets. "Contract integration exists when a firm establishes a legal commitment that binds the producer to certain production or marketing practices" (Knutson, R., Penn, J. and Boehm, W., 1983). Some contracts merely require that the farm operator market the product with the buyer, but the concern here is with contracts that contain additional commitments binding the operator "to specified production practices and sources of inputs" (Knutson, R., Penn, J., and Boehm, W., 1983). In such cases, the contract "is a device used by large food-processing and marketing firms to gain control over the farmer and in effect make him an employee of the processing or marketing firm (U.S. Department of Agriculture, 1979). Under the definition used in this report, farm operators submitting most of their management decisions would no longer meet the criteria of a family farm. Unfortunately, family farmers may be indirectly forced to sign contracts in order to sell their products.

### New Technology

New technology has played a significant role in the transformation of U.S. farms to larger and more specialized units. The technological revolution has allowed farms to expand, becoming better equipped to survive the cash flow problems brought on by decreasing profit margins.

Some examples of new technology include four-wheel drive tractors, electronically monitored planting devices, electronic harvesting equipment, and computerized systems for managing farms and monitoring crop conditions.

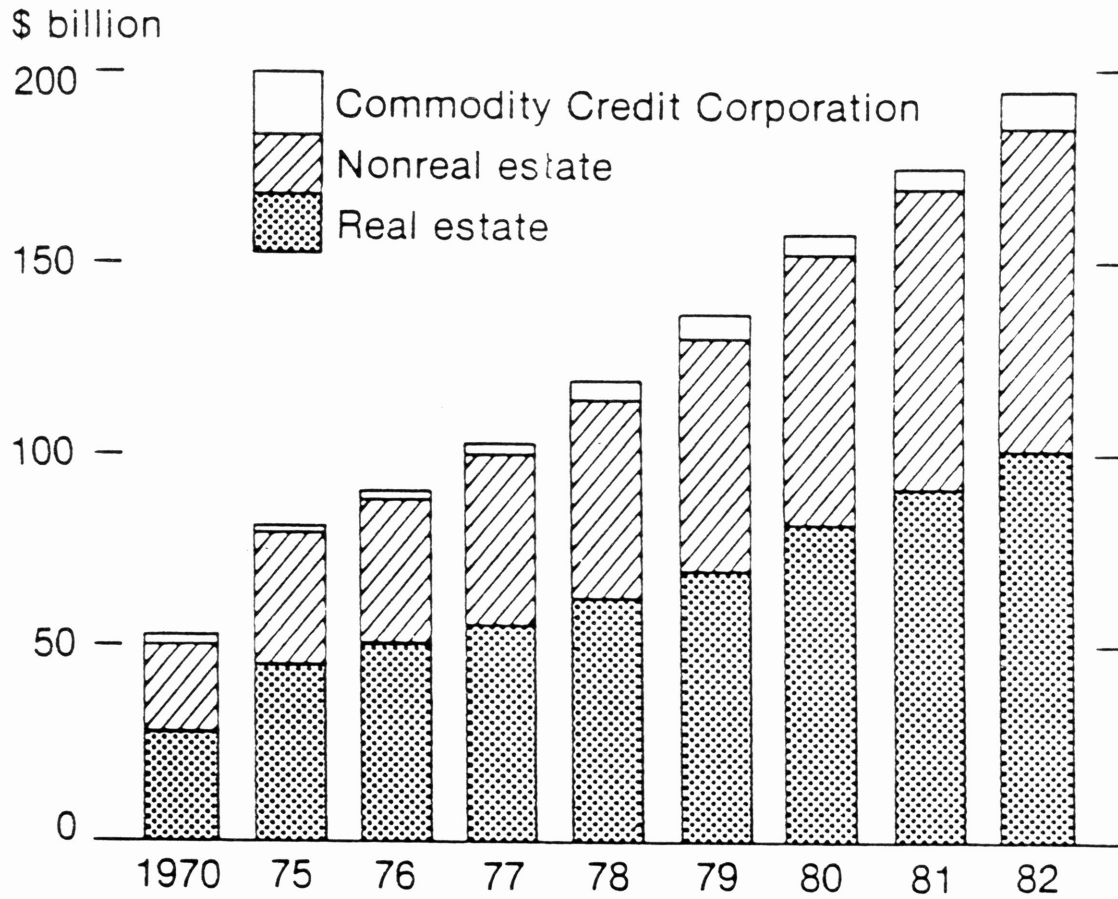
New technology that has been adopted lowers the unit costs of production for farmers. However, technology's cost is significant, forcing weaker farmers out of business and encouraging remaining farms to expand to minimize cost per acre. Thus, new technology tends to increase farm size, specialization, and production concentration. However, new technology can also benefit family farms.

As stated by Hiram Drache, professor of history at Concordia College, "the four-wheel-drive tractor is the family farmer's way of overcoming his reluctance to employ hired labor, and it also gives him equality with industry" (Drache, 1978). Four-wheel-drive tractors pulling large implements allow one man to accomplish more work, as do many of the other developments of technology. Thus, family farmers who effectively apply new technology can successfully compete and continue to farm.

#### Farm Debt

Farm debt has increased phenomenally since 1970, as Figure 8 shows. With farms increasing in size, specialization, and use of new technology, the amount of borrowed capital or farm debt has almost quadrupled from \$50 billion in 1970 to just under \$200 billion in 1982. Many farmers are leveraged far beyond their capabilities. Many others have gone bankrupt or suffered foreclosure, and still others remain in deep financial trouble.

Figure 8. Farm Debt<sup>1</sup>



1982 preliminary. Farm loans outstanding January 1.

<sup>1</sup>From 1982 Handbook of Agricultural Charts by U.S. Department of Agriculture, 1982, Washington, D.C.: U.S. Government Printing Office.

One method to measure the financial solvency of a business is the liquidity ratio, which divides cash assets such as deposits, currency, and savings bonds by total indebtedness. In 1950, farmers had a liquidity ratio of 111 percent. By 1970, this ratio had fallen to 29 percent, and by 1981 it had plummeted to 10 percent, with cash assets of \$19.9 billion and a total debt of \$194 billion (Stone, 1983).

Part of the reason for this enormous debt was the increased availability of institutional credit. The 1970's was a decade of high inflation which increased the monetary value of the farmer's assets and thus his net worth. Many farmers used their inflated net worth as collateral to borrow large sums, but when inflation subsided and decreased their net worth, the highly leveraged farmers were left with big loans at high interest rates. Thus, many farmers are now facing large repayments of principal and interest, with depressed commodity prices worsening the situation.

Many farms are in trouble, but it may be the mid-sized family farms which feel the worst effects. Small farms can use their non-farm income to make the payments and pull them through. Large farms may be financed by landlords or by big corporations, using capital funds from non-farm financial sources to survive the hard times. However, family farmers tend to be more dependent on their farms for a livelihood and often do not have other sources of income or capital on which to fall back. Thus, the financial pressures resulting from farm debt threaten to further decrease the number of family farmers.

### Resources Used in Farming

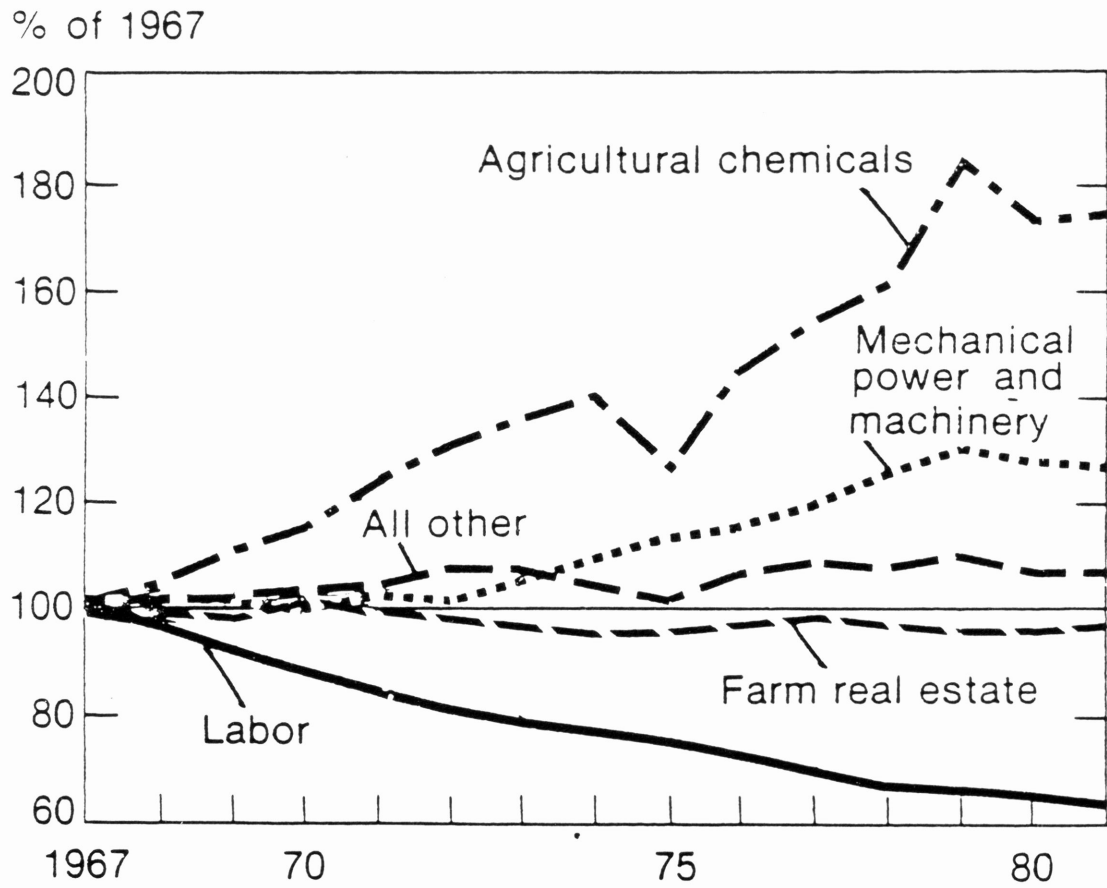
"The substitution of capital goods incorporating new and different technologies for labor and land has been a prominent feature" (Schertz and others, 1979) of the changing structure of U.S. farms. The changes in the resources used in farming relate to the increase in farm debt and use of new technology, in that farms have borrowed money to buy equipment implementing new technology and other inputs which are being used to replace land and labor requirements. Referring to Figure 9, the amount of labor usage has declined 37 percent and land usage about 3 percent since 1967. Yet during this same time period, the use of agricultural chemicals has increased by 76 percent and mechanical power and machinery by 28 percent. Figure 10 singles out pounds of fertilizer used per acre since 1955, showing a significant increase in this period.

The changes in resources used in farming have allowed farmers to produce more while using less land and labor. These changes have come in response to the increasing costs of land and labor, making it practical to replace them with other inputs. Like new technology, the increased use of other resources enables the small and mid-sized family farmers to compete with larger farms and produce enough on fewer acres to meet the family's needs.

### MAJOR FORCES AFFECTING AMERICAN FARMS

Many forces influence the decisions that farmers make which are changing the structure of American agriculture. These forces are

Figure 9. Use of Selected Farm Inputs<sup>1</sup>

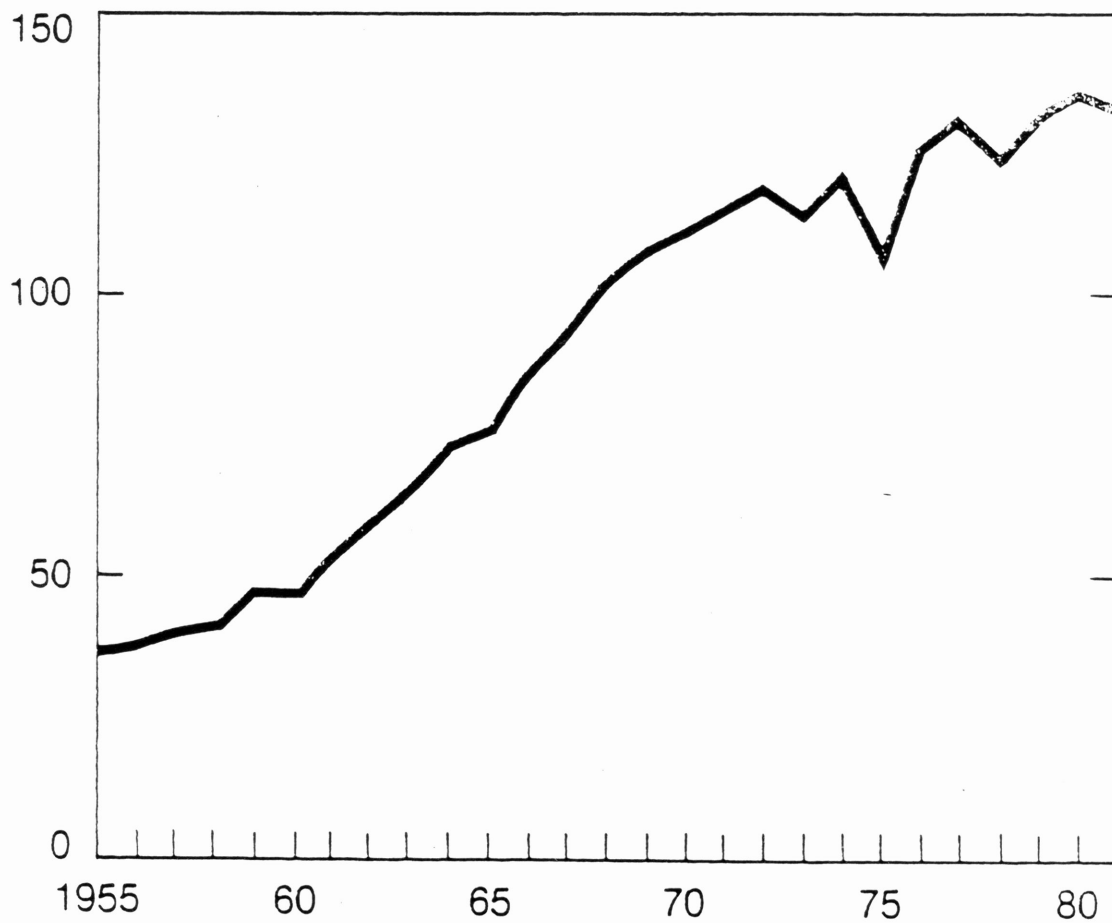


1981 preliminary.

<sup>1</sup>From 1982 Handbook of Agricultural Charts by U.S. Department of Agriculture, 1982, Washington, D.C.: U.S. Government Printing Office.

Figure 10. Fertilizer Nutrients Used per Acre<sup>1</sup>

Pounds per cropland acre



<sup>1</sup>From 1982 Handbook of Agricultural Charts by U.S. Department of Agriculture, 1982, Washington, D.C.: U.S. Government Printing Office.

complex and interrelated, combining to transform U.S. farms in a different manner than would each acting separately.

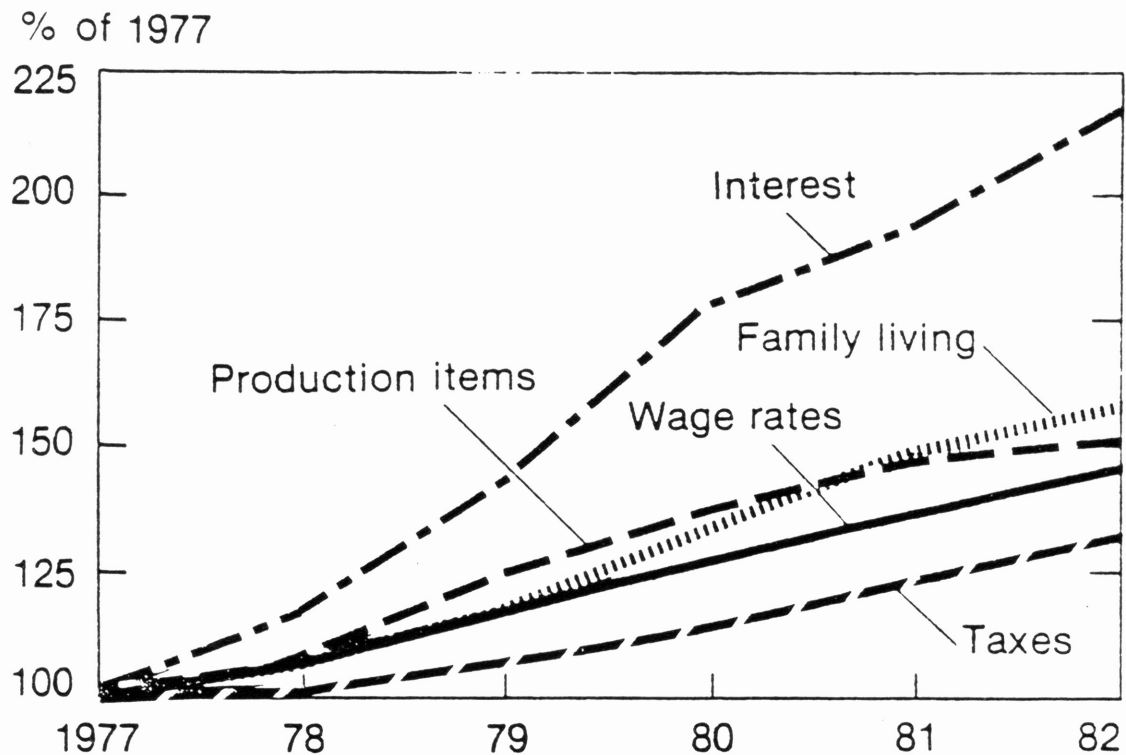
Some of the forces have been mentioned earlier in the report. Particularly significant among these forces are the high interest rates which have reduced farmers' net income and forced them to cut costs and increase efficiency. Figure 11 shows the dramatic increase in interest since 1977, as well as other costs that are burdening farmers. To ease these burdens, non-farm employment opportunities have provided means for farmers to earn the income needed to stay in business. The development of new technology by government and privately sponsored research has encouraged increases in concentration of production, farm size, and capital outlays. Lending institutions have provided the needed additional credit, resulting in a soaring farm debt. Finally, shifts in the relative prices of land, labor, and capital items have increased the intensity of farming.

Other forces not previously mentioned are also playing a powerful role in the changes occurring on farms. General economic conditions in the country have had marked effects upon farms, which are increasingly interdependent with the rest of the economy. Fluctuations in the demand for U.S. agricultural exports have caused problems, as farmers expand production to meet the needs and then face a decrease in demand. Also, past grain embargoes and trade restrictions have stimulated increased foreign production and left the U.S. with huge surpluses and depressed commodity prices.

Government farm programs tend to encourage farmers to expand their operations, since payments are related to individual farm size and



Figure 11. Prices Farmers Pay<sup>1</sup>



1981 preliminary, 1982 projected. Components of the index of prices paid by farmers for commodities, services, interest, taxes, and wage rates. Interest is that payable per acre on farm real estate debt. Taxes are those payable per acre on farm real estate.

<sup>1</sup>From 1982 Handbook of Agricultural Charts by U.S. Department of Agriculture, 1982, Washington, D.C.: U.S. Government Printing Office.

acreage planted. Therefore, even though government programs are designed to help the small and medium-sized farmers, it is often the large farmers who receive much of the payments. Farm programs also reduce the risk associated with expansion and specialization by guaranteeing support prices and payments.

Another way government policy influences U.S. farm structure is through tax laws which have worked to the detriment of the family farm. "Federal tax laws have historically extended special treatment to individuals engaged in agricultural production" (Knutson, R.D., Emerson, P.M., and Black, W.E., 1980). These tax advantages associated with farming have created incentives for non-farm capital to enter agriculture. Also, farmers, with high farm incomes can realize significant tax savings by incorporating and expanding their production. Thus, tax laws have encouraged large-scale, capital-intensive farming.

Still another major force affecting farms has been inflation, which increased the demand for land by investors wishing to profit through the land's appreciating value. A second devastating effect of inflation was the rising cost of production, putting the price squeeze on farmers. This price squeeze stimulated increased pressures for price supports, which tend to help the larger farmers the most. Thus, the complex interaction of forces is evident, and government solutions seem only to increase the family farmers' competition.

#### CONCLUSION

In summary, the American family farm continues to be a part of a

complex and ever changing agricultural system. In defining a family farm, the report has suggested the concept that a family must not only devote its time and energy to their farm, but should also be in control of the management and other resources. Due to the influence of many complex forces, features that characterize U.S. farm structure have undergone significant changes in recent years. These forces have had varying degrees of impact on different sizes and types of farms, and thus hypothesis were offered as to the particular effect these changes have had on family farms. Some of the recent changes were found to have benefited family farms, others worked to its detriment, while some managed to influence family farms in both positive and negative ways.

So what does the future of agriculture look like and how does the family farm fit in? Former Secretary of Agriculture Bob Bergland has said:

I am deeply concerned about what I see happening to the structure of agriculture. I am deeply concerned also about why it is happening. And I am concerned most of all with the desperate need to ask ourselves if what is happening is what we want... or what the Nation truly needs (Hayes, 1982).

In this era of rapidly changing technology and pressures on the traditional forms of organization, the questions he raises are important not only to family farmers, but to the entire nation. American agriculture has made ours a land of plenty which is the envy of the world. It is not enough that we perceive the changes and understand the forces afflicting our farm economy today. We must work together to shape a future for American agriculture as successful as its past.

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