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Farm Structural Trends in the 1980's

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In this report... *The farm sector seems to be recovering from the financial stress of the early to mid-1980's. Many individual farmers experienced considerable financial difficulties, but the recession did not cause major changes in the basic structure of U.S. farming: farm numbers and land in farms declined in the 1980's, while average farm size increased. These are following long-term trends, but the rates of change have slowed each decade. Asset values fell drastically during the recent recession, but the declines are moderating. The distribution of farmers by operator tenure, average age, principal occupation, and off-farm work practices changed little since 1982. However, there are significant geographic variations from the national trends in farm structure. This report contains 1987 Census of Agriculture data on various characteristics of farm structure in the 1980's and describes the farm economy as it enters the new decade.*

Following the boom times in agriculture during the 1970's, fueled largely by export expansion, the sector was hit hard in the early to mid-1980's by declining farm exports; drastic declines in farm asset values, particularly for land; and low

incomes. But by the end of the decade, the outlook for exports and farm income improved and the declines in asset values moderated.

Farm numbers and land in farms declined in the 1980's. Lower rates of loss in farmland acreage (farmland) than in farm numbers resulted in larger average farm sizes. These patterns of change are a continuation of long-term trends. This report uses census data to examine these and other patterns that characterize the Nation's farm economy as it recovers from the farm recession of the 1980's.

The number of U.S. farms has declined continuously since the mid-1930's, when, according to historical census of agriculture data, the number peaked at 6.8 million. The data for 1987 show a 6.8-percent drop to 2.1 million farms since the previous census was taken in 1982.

The amount of farmland also declined, while farm size increased. During 1982-87, land in farms fell 2.3 percent from 986.8 million acres to 964.5 million acres. Average farm size increased from 440 to 462 acres over the same period.

Findings

Census data indicate that farm structure follows long-term trends...

Declines in farm numbers and acreage continued in the 1980's.

As a result of lower rates of loss in farmland than in farm numbers, average farm size continued to increase.

But, the rates of decline in farm numbers and acreage are moderating.

Farm losses are concentrated in midsized farms, with lower rates of loss among smaller and larger farms.

And while the national trends remain relatively on track, some areas experienced considerable changes...

Extreme but opposite changes in farm numbers and farm sizes occurred in 295 counties. Of those, 127 had fewer but larger farms, and 168 had more but smaller farms.

Asset values fell most in areas hardest hit by the farm recession. Farmland values rose along the eastern seaboard; the largest increases occurred in New England, where machinery and equipment values also rose the most.

Trends in Farm Numbers and Farmland Vary Geographically

There are significant geographic variations from the national trends of declining farm numbers and increasing farm size. The largest declines in farm numbers from 1982 to 1987 were in the South Atlantic (12.5 percent) and the East South Central (11.8 percent) census divisions of the country.

National farm numbers and acreage continued to decline in the 1980's. Because of lower rates of loss in farmland than in farm numbers, average farm size increased. But, historical comparisons of rates of change in farm numbers and size suggest that the long-term trends may be converging toward equilibrium, as the rates have slowed in recent decades (table 1). The average rate of decline in farm numbers fell annually by 4 percent during the 1950's, 3 percent in the 1960's, 2 percent in the 1970's, and 1 percent in the 1980's. Growth in acreage per farm averaged just under 4 percent per year in the 1950's and has slowed by about a percentage point in each succeeding decade.

There are significant geographic variations from the 6.8-percent national decline in farm numbers. The largest declines in farm numbers from 1982 to 1987 were in the South Atlantic (12.5 percent) and the East South Central (11.8 percent) census divisions of the country. (Appendix table 1 shows data on farm numbers and acreage by division and State.) Farm numbers increased by 2 percent across the Mountain division, but Idaho lost slightly more than 2 percent of its farms. This was the only geographic division where farm numbers rose overall. But several States in other divisions gained farms: Massachusetts, New Jersey, Nebraska, Florida, Texas, California, Alaska, and Hawaii.

The amount of farmland fell in all divisions, but to differing degrees. The West North Central and Mountain divisions experienced only modest declines of about 1 percent. The West South Central and East North Central divisions had losses closest to the national loss of 2.3 percent. The largest declines took place in the South Atlantic (10.5 percent) division. New England also

had high losses (8.3 percent), even though Massachusetts gained farmland.

Because farmland declined slower than farm numbers, average acreage rose 5 percent. But not all geographic divisions saw increases. Average size fell by 1 to 5 percent in the Pacific, Mountain, and New England divisions. The West South Central division as a whole experienced no change, but average size increased in Arkansas, Louisiana, and Oklahoma and decreased in Texas. Average size increased by less than 1 percent in the Middle Atlantic division and by 2 percent in the South Atlantic division. Average farm size in the North Central and East South Central divisions rose by 5 to 8 percent, more in line with the national average.

Distinct geographic patterns emerge from mapping county-level changes in the 48 contiguous States (fig. 1). Farm numbers increased in most of the West and in Massachusetts, New Jersey, southern Florida, southern Texas, Nebraska, and the western parts of the Dakotas. The steepest declines took place along the South Atlantic coast and the Mississippi Delta. The Corn Belt, Lake States, and most of the Northeast had lower rates of loss in farm numbers.

A caution about the data: Some of the increase in Massachusetts and New Jersey is due to accounting and not to changes in structure. Changes observed in the census differed from expectations and past rates of change. The Census Bureau obtained a larger sample by using an additional mailing list from the National Agricultural Statistics Service of the U.S. Department of Agriculture. This improved coverage in these States and thereby increased farm counts.

Table 1--Changes in farm numbers and average size.

Farm numbers decreased while average acreage increased, but at slower rates each decade.

| Census year | Farms | Average acreage |
|-------------|---------------|-----------------|
| | <i>Number</i> | <i>Acres</i> |
| 1987 | 2,087,759 | 462 |
| 1982 | 2,240,976 | 440 |
| 1978 | 2,257,775 | 449 |
| 1974 | 2,314,013 | 440 |
| 1969 | 2,730,250 | 389 |
| 1964 | 3,157,857 | 352 |
| 1959 | 3,710,503 | 303 |
| 1954 | 4,782,416 | 242 |
| 1950 | 5,388,437 | 216 |

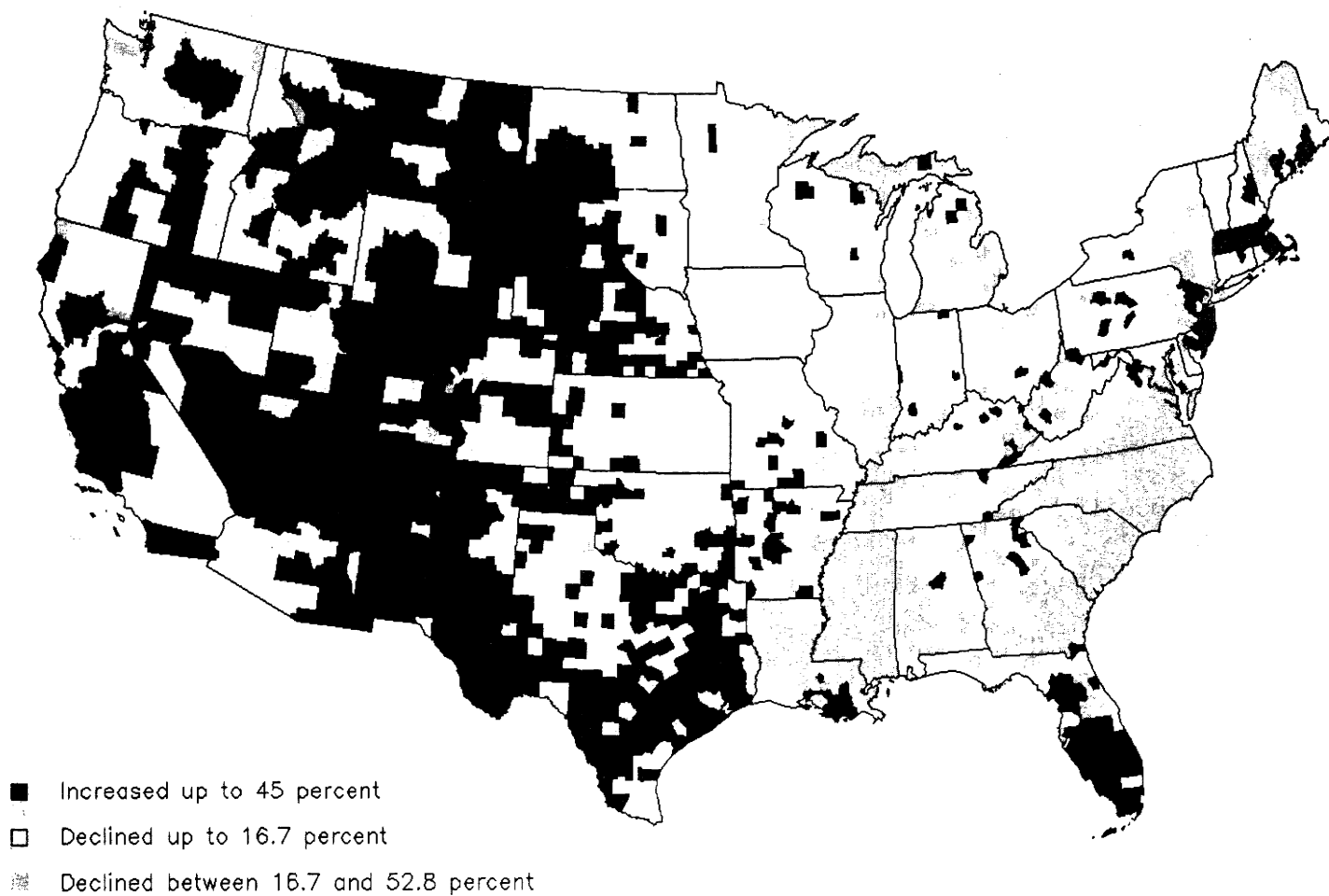
Note: The definition of a farm changed in 1959 and 1974, which may have affected the counts.

Source: 1987 Census of Agriculture and various earlier issues.
Bureau of the Census, U.S. Department of Commerce.

Figure 1

Change in farm numbers, 1982-87.

Two-thirds of the Nation's counties lost farms; the heaviest losses were in the eastern half of the Nation.



The Extent of Change in Some Areas Goes Well Beyond the National Totals

Some areas show extreme changes in farm numbers and average size. Despite the recent farm crisis, there is little indication of severe decline in counties in the farm States.

For most counties, relative changes in farm numbers and average size mirrored the national trends. But rates of change in farm numbers and size for some counties differed significantly from the national average. We separated counties into three groups, based on deviation from the national mean, to detect the extent of extreme changes. The mean change in farm numbers from 1982 to 1987 was -6.8 percent, with a standard deviation of slightly less than 10 percent. The mean change in average size was 2.4 percent, with a standard deviation of 12 percent.

Counties fall into one of three ranges (table 2). The middle range, our starting point, denotes no severe difference from the national mean. This range is the average of all changes, the mean plus and minus a standard deviation. The ranges on both ends of the spectrum are extreme changes for those counties—a standard deviation from the mean through either the largest increase or the largest decrease.

This classification indicates a high degree of concentration around the national average rates of change in farm numbers and average size (table 2). Only 26 percent of counties have changes in farm numbers that are more than a standard deviation away from the mean, with slightly more above the mean. In terms of average size, only 19 percent of counties fall more than a standard deviation from the U.S. mean, with more below than above. (Appendix figure 1 shows how relative change in farm numbers and size is distributed geographically.)

The set of counties falling significantly above or below the U.S. mean change in the number of farms and in average farm size was further divided according to the direction of change. Farm numbers in only 295 counties trended in a different direction than farm size (fig. 2). Of those counties, 127 had declining farm numbers and increasing farm size, and 168 had rising farm numbers and falling average size.

The extreme loss in the number of farms along the South Atlantic coast and Mississippi Delta appears to be associated with consolidation of smaller farms into larger operations (farm numbers decreased while average size increased). The opposite occurred in much of the western part of the country and in Massachusetts, New Jersey, Florida, and Texas (farm numbers increased while farm size decreased). Some farms may have split into smaller units as partnerships dissolved or as older operators retired and divided the farm among heirs.

While the farm recession undoubtedly affected major farm production States, it apparently resulted more in financial and debt restructuring than in declining farm numbers. During 1982-87, the period of and immediately following the farm recession, much more change occurred in regions not usually associated with major agricultural production. Notice, for example, the lack of shading in the Midwest. There is little indication of severe decline in these States.

Table 2--Ranges of relative change in farm numbers and average size.

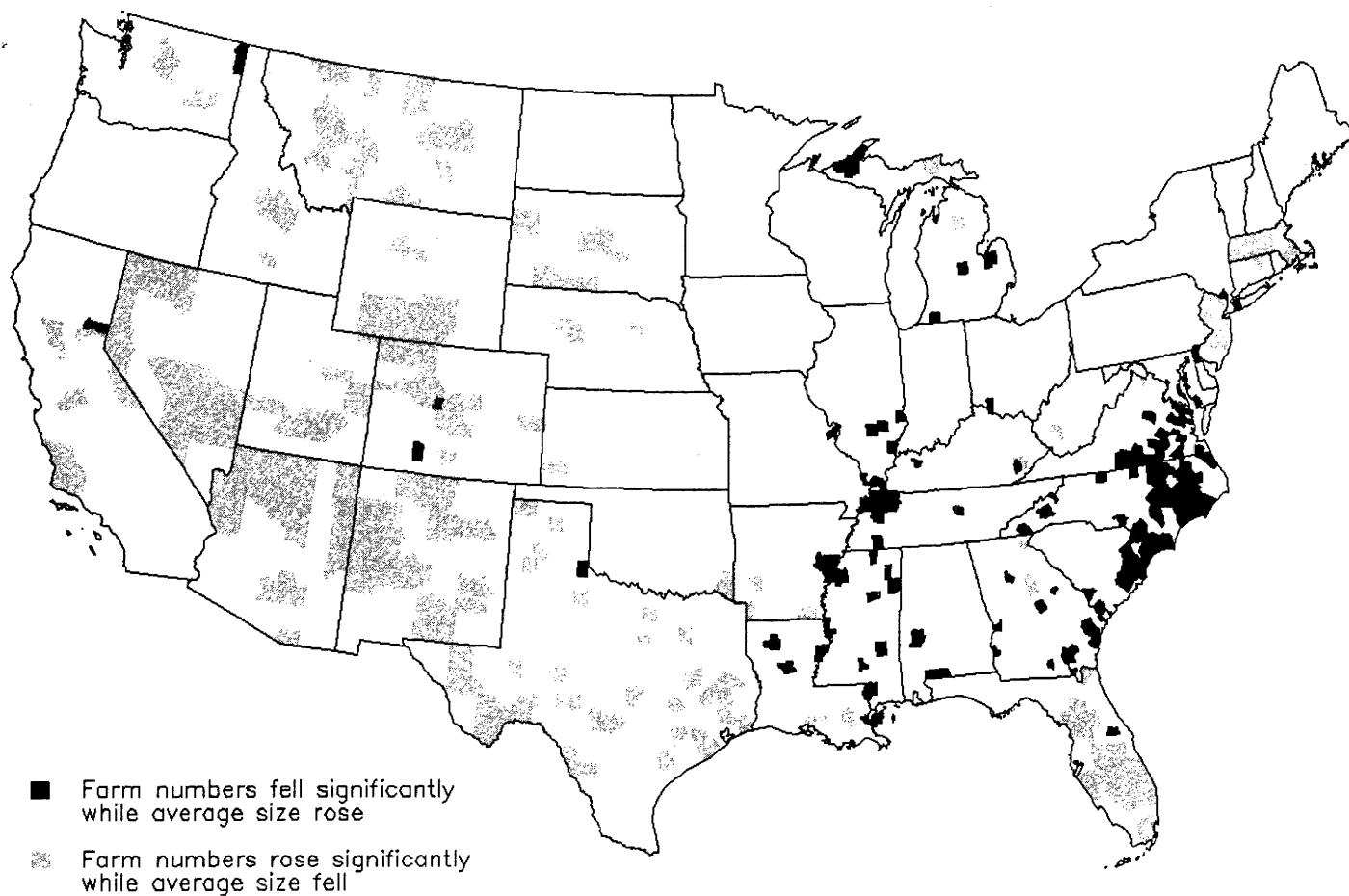
The first and last group of each set of three ranges represent counties with extreme change.

| Relative change | Range | Counties |
|-----------------|-----------------|----------|
| Farm numbers: | | |
| Extreme decline | -52.8 to -16.7 | 379 |
| Moderate change | -16.7 to +3.2 | 2,249 |
| Extreme growth | +3.2 to +45.5 | 418 |
| Average size: | | |
| Extreme decline | -100.0 to -10.0 | 313 |
| Moderate change | -10.0 to +14.7 | 2,480 |
| Extreme growth | +14.7 to +105.3 | 253 |

Figure 2

295 counties had extreme and opposite changes in farm numbers and average size between 1982 and 1987.

Yet, there is little evidence of severe decline in the farm States in the Midwest.



A Look at Farm Sales and Size Sheds Light on Structural Changes

Farm losses are concentrated in the middle of the farm-size distribution, whether classified by sales class or by acreage class.

Changes in total sales, sales per farm, and the size distributions of farms by sales and acreage (acre size) in the divisions differ significantly from the national average.

Total Sales

The total value of sales of farm products in 1987 was \$136 billion, up from \$132 billion in 1982 (app. table 2). Three divisions experienced declines in total sales during 1982-87. The largest decrease, nearly 5 percent, took place in the East North Central division, although values increased in Ohio and Wisconsin. In contrast, total sales in the West North Central division declined less than 2 percent, with declines in only Minnesota, Iowa, and South Dakota. Values went down by about 3 percent in the East South Central division; Alabama was the only State there to have an increase.

The highest percentage increases in sales were in the New England (11 percent) and West South Central (14 percent) divisions. Louisiana was the only State in these divisions with a decline in total sales during 1982-87.

The Pacific and North Central divisions had the largest shares of total product sales, accounting for over half the national total in 1987. The West North Central division had the largest share (27 percent), despite its declining sales since 1982. The New England (1 percent) and Middle Atlantic (4 percent) divisions had the smallest shares (fig. 3).

Sales Per Farm

Average sales rose 10.7 percent from \$58,858 to \$65,165 (app. table 2) across the Nation during 1982-87. But while average sales rose in all divisions, the increases ranged from 4.6 percent in the West North Central division to 21.3 percent in the South Atlantic division. Only in the East and West North Central and Mountain divisions were increases much lower than the national average; all these were around 5 percent.

Farm-Size Distributions

A look at farm size, either by sales class or by acre size, further clarifies where the farm losses and other changes occurred.

Sales class. The 1982-87 loss in the number of farms was heavily concentrated in the size range considered to be small commercial farms; those are farms with annual product sales of \$25,000-\$99,999 (table 3). This group lost 12.5 percent of its farms, which accounts for about 40 percent of the total decline.

Noncommercial farms, those with annual sales under \$25,000, made up over half the national loss. However, the rate of decline was less than half that of small commercial farms. As a result, the number of noncommercial farms fell but the share increased from 64 to 65 percent of all farms, while the number of small commercial farms decreased from 22 to 21 percent of the total.

Large commercial farms, those with annual sales of \$100,000 or more, experienced relatively little change in farm numbers. This group included about 14 percent of all farms in both years.

Acreage class. The number of farms with 50-499 acres dropped substantially during 1982-87, accounting for 75 percent of the national loss (table 3). A sizable decline (24 percent of the national drop) also occurred in farms with 10-49 acres. There were small decreases in the number of farms with fewer than 10 acres and in the number with 500-999 acres and a slight offsetting increase in the number of farms with 1,000 or more acres.

Taken together, the changes in the distribution of farms by acreage and sales class reinforce the concept of an emerging dual structure in U.S. agriculture. Both measures show farm losses concentrated in the middle of the farm-size distribution, with much lower rates at the small and large ends of the size spectrum.

This continuing trend toward a dual agricultural structure implies a farm sector composed of two distinct parts. One part is the commercial farm sector, from which most agricultural production originates. The second part constitutes the majority of U.S. farms. These are small farms producing only a small portion of total output, existing primarily as a means of preserving a rural lifestyle for operators and their families.

Figure 3

Share of farm product sales, 1987.

Even with declining value of sales since 1982, the West North Central division maintains the highest share.

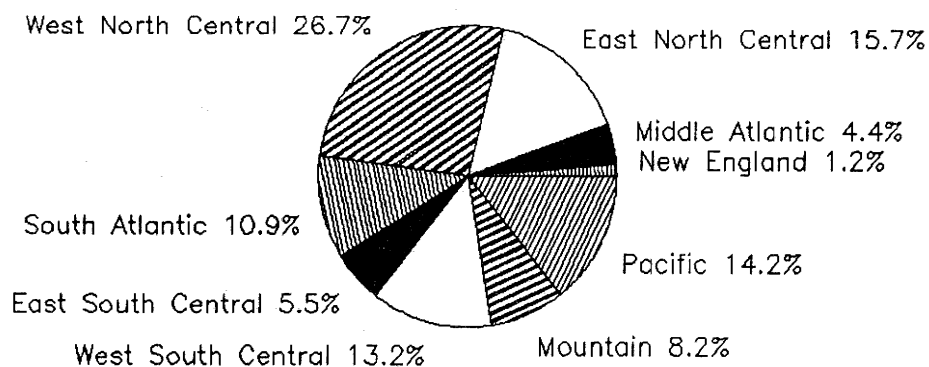


Table 3--Losses of farms by two measures of farm size.

Losses are concentrated in the middle of the size spectrum.

| Measure of farm size | Proportion of farms, 1987 | Rate of change since 1982 | Share of national loss since 1982 |
|----------------------|---------------------------|---------------------------|-----------------------------------|
| <i>Percent</i> | | | |
| Value of sales: | | | |
| Under \$25,000 | 64.9 | -5.7 | 54.3 |
| \$25,000-\$99,999 | 21.0 | -12.5 | 41.3 |
| \$100,000 or more | 14.2 | -2.2 | 4.4 |
| Acreage size: | | | |
| Under 10 | 8.8 | -2.3 | 2.9 |
| 10-49 | 19.8 | -8.2 | 24.0 |
| 50-499 | 53.8 | -9.3 | 75.1 |
| 500-999 | 9.6 | -1.9 | 2.5 |
| 1,000 or more | 8.1 | +4.3 | -4.5** |

** = The increase in the number of these farms offset the national loss by 4.5 percent.

Source: 1987 Census of Agriculture.

Some Farm Asset Values Fell Dramatically

Declines in the value of land and buildings and the value of machinery and equipment hit some parts of the country hard while values in other areas increased.

The drop in asset values shows the lower wealth of some farmers after the financial crisis. The largest declines occurred for land and buildings, which are 85 percent of total farm assets.

Land and Buildings

The national value of land and buildings averaged \$289,387 per farm in 1987, down from \$345,869 in 1982. The national value per acre fell from \$784 in 1982 to \$627 in 1987. These changes reflect falling land values, which were a major cause of the 1980's farm financial crisis.

Values varied widely from about \$156,000 per farm in 1987 in the East South Central division to \$506,000 in the Mountain division (table 4). Part of the variation is due to the difference in the average size of farms (183 acres in the East South Central versus 1,965 acres in the Mountain division). Per acre values were lowest in the Mountain division (\$258) and highest in New England (\$1,851), partly due to population density and competition for potential nonagricultural uses.

The national value of land and buildings per farm declined by 16 percent, while the per acre value declined by 20 percent. Both per farm and per acre values rose along the eastern seaboard. The largest increases in these highly urbanized areas occurred in New England, where per farm values rose 51 percent and per acre values rose 59 percent (fig. 4). Increases in the Middle Atlantic and South Atlantic divisions were less dramatic: per farm values rose 14 and 6 percent, respectively, and per acre values rose 13 and 4 percent, respectively.

Land and building values fell the most in the West North Central division: 32 percent per farm and 35 percent per acre. This division was among the hardest hit by the farm crisis. Other divisions declining faster than the national trend were the East North Central, Mountain, and Pacific divisions, where declines per farm ranged from 19 to 21 percent. Per acre values declined more than average in the North Central divisions and slightly less than average in the Mountain and Pacific

divisions. Per acre values of land and buildings in the South Central divisions also declined (10 percent in the east and 12 percent in the west).

Machinery and Equipment Per Farm

The national average value of machinery and equipment per farm fell from \$41,919 to \$41,227 between 1982 and 1987. The highest values were in the West North Central division, but this area suffered the greatest decline (fig. 4). In 1982, the average value of machinery and equipment per farm was \$55,000. But the value fell over 8 percent to just over \$50,000 in 1987. In contrast, the average value in New England increased over 10 percent, from roughly \$34,000 in 1982 to almost \$38,000 in 1987.

The lowest values for machinery and equipment were in the East South Central division, but the 1987 value of \$25,000 was 4 percent higher than in 1982. The lowest State value was in West Virginia. Even though the value there increased almost 9 percent during 1982-87, the average value reached only slightly over \$17,000 per farm.

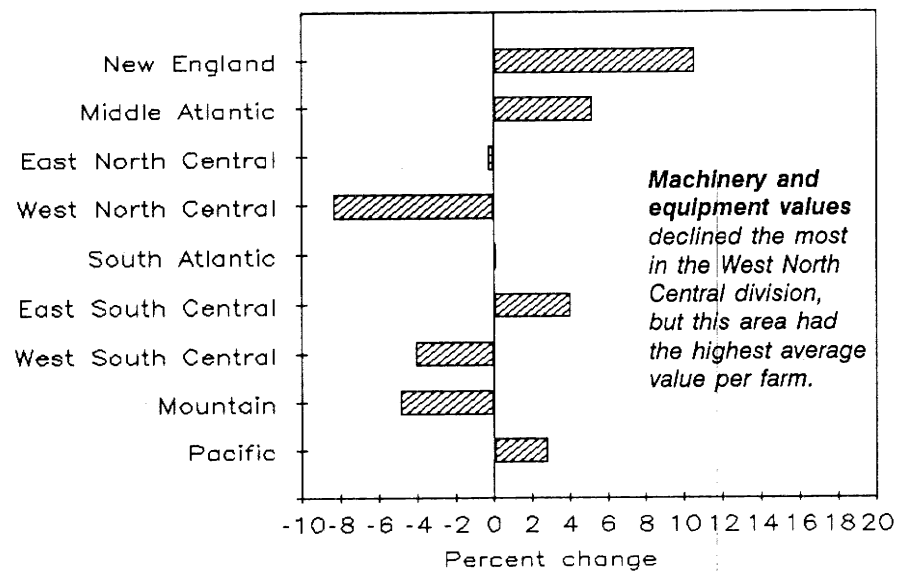
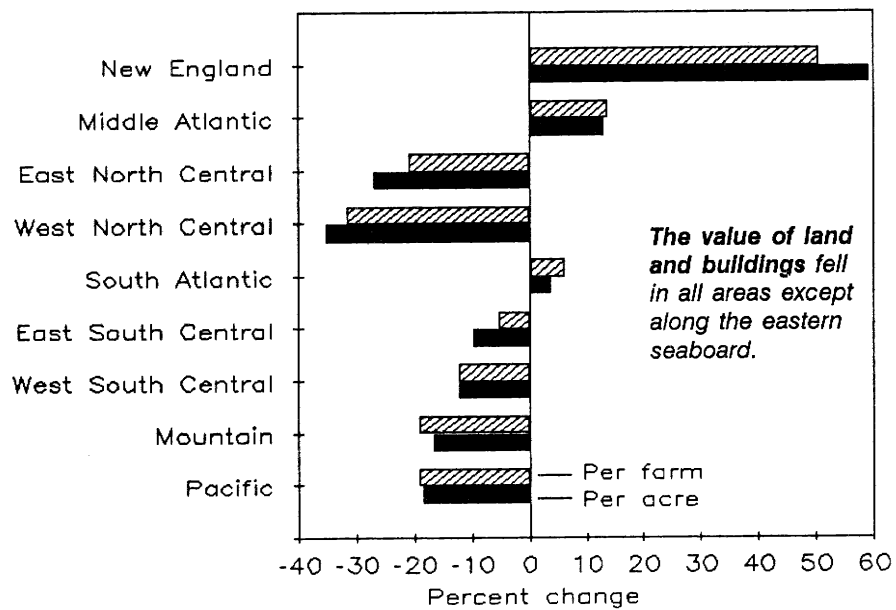
Table 4--Per farm values of land and buildings and of machinery and equipment, 1987.

Values vary widely from one part of the country to another.

| Division | Land and buildings | Machinery and equipment |
|--------------------|--------------------|-------------------------|
| <i>Dollars</i> | | |
| New England | 312,657 | 37,888 |
| Middle Atlantic | 245,912 | 44,143 |
| East North Central | 263,914 | 49,685 |
| West North Central | 265,087 | 50,427 |
| South Atlantic | 270,706 | 31,729 |
| East South Central | 155,519 | 24,898 |
| West South Central | 311,045 | 31,416 |
| Mountain | 506,439 | 49,594 |
| Pacific | 475,704 | 45,876 |

Source: 1987 Census of Agriculture.

Figure 4
Geographic change in the value of assets, 1982-87.
Values fell most in areas hardest hit by the farm recession.



Trends in Operator Characteristics Remain on Track

While the total number of farmers declined, the distribution of farm operators by tenure, average age, principal occupation, and off-farm work practices changed little since 1982.

Although national trends in operator characteristics remain relatively on track, some geographic divisions experienced considerable changes.

Farm Operator Tenure

Operator tenure reflects ownership interest in the land farmed. Tenure is commonly summarized by three groups: full owners own all the land they operate, part owners own some land and rent the rest, and tenants rent all the land or work on shares for others. The national distribution of farms by operator tenure was relatively stable from 1982 to 1987. About 60 percent of operators were full owners in both periods, almost 30 percent were part owners, and just over 10 percent were tenants.

But while the distribution of the total remained constant, the total shrank. During 1982-87, the number of full owners fell by 6.6 percent. Over half of the overall decline in farm numbers occurred on farms operated by full owners. The number of part owners and tenants each declined by 7.2 percent, accounting for another 31 and 12 percent, respectively, of the decline in farm numbers.

The West North Central division had the lowest proportion of full owners (just under half in 1987), and the Pacific and East South Central divisions had the highest (about 70 percent each) (table 5). The Pacific had the lowest proportion of part owners (18 percent), and the West North Central division had the highest (35 percent). New England had the smallest share of tenants (6 percent), while the West North Central division had the largest share (16 percent).

Several notable changes in operator tenure status took place within geographic divisions during 1982-87. In the Mountain division, the number of tenants increased 12.7 percent, while full and part owners increased less than 1 percent. In Arizona alone, tenants increased by 39.1 percent to constitute 14 percent of all farms in the State. Declines in the number of tenants elsewhere ranged from less than 1 percent in New England to 22 percent in the South Atlantic.

Declines in part owners ranged from 2.5 percent in the West South Central division to 14.3 percent in the South Atlantic. Declines in full owners ranged from less than 1 percent in the West South Central to 10.4 percent in both the South Atlantic and East South Central divisions.

Age

The average age of farm operators rose 1.5 years from 1982 to 1987. The average farmer in 1987 was 52 years of age. Division-level estimates derived from State data indicate that the average age of operators in eight of the nine divisions rose from 1.3 to 1.5 years during this 5-year period, while the average in the Pacific rose 1.8 years (table 5).

Operators in the Mountain division were the same average age as the national average, but operators in the New England, Middle Atlantic, and North Central divisions were younger than average. Operators in the remaining divisions were comparatively older, with the oldest in the South Atlantic and West South Central divisions. The West North Central division had the youngest operators, averaging 50.3 years.

Principal Occupation

Part-time farming has become increasingly important to some operators as a means of maintaining the farming operation. Many have spare-time jobs to supplement farm income, but others are employed primarily in nonfarm jobs and farm only on a part-time basis. (Information on the principal occupation of operators is used to separate full-time from part-time farmers. Those who spend 50 percent or more of their worktime farming are considered principally employed in farming.) In 1987, 54.5 percent of the Nation's farmers reported farming as their principal occupation, down from 55.1 percent in 1982. This small loss in the proportion of those principally employed in farming reflects a 7.8-percent loss in the number in that group.

Table 5 shows considerable geographic variation in the proportion of operators principally employed in

farming. The proportions ranged from 67 percent in the West North Central division to just 42 percent in the East South Central division. More opportunities for off-farm jobs and smaller farms that are often operated in conjunction with off-farm employment underlie the East South Central's comparatively low share of operators principally employed in farming.

The number of operators principally employed in farming increased slightly since 1982 in three divisions: the West South Central (up 0.9 percent), Mountain (up 1.5 percent), and Pacific (up 1.4 percent). The numbers in the remaining divisions declined, with the most severe losses in the East South Central (down 15.3 percent) and South Atlantic (down 14.6 percent) divisions.

Off-farm Work

The number of days worked off the farm is another indication of a farmer's involvement in farming. In

1987, 53.4 percent of all operators reported some off-farm work. This represents a slight change since 1982 (53 percent), but a big change from 1950 when the proportion was only 38.9 percent.

Although the proportion of operators working off the farm remained constant since 1982, the numbers dropped. About 72,000 fewer farm operators had some off-farm work in 1987 than in 1982, a 6-percent drop. The decline was slightly less, just 4.9 percent, among those who worked 200 or more days off the farm.

Off-farm work is more pronounced in some parts of the country than in others (table 5). Geographic patterns generally follow those of principal occupation. Farmers in the three southern and Pacific divisions were most likely to work off the farm, and those in the West North Central division were least likely to do so.

Table 5--Changes and geographic variation in farm operator characteristics, 1987 and 1982.
Part-time farming remains most pronounced in the southern divisions of the country.

| Year and division | Tenure of operator | | | Days worked off farm | | Principal occupation farming ¹ | Average age of operator |
|------------------------------|--------------------|----------------|---------|----------------------|----------------|---|-------------------------------|
| | Full owners | Part owners | Tenants | Any | 200 or more | | |
| <i>Percent of area total</i> | | | | | | | |
| <i>Years</i> | | | | | | | |
| 1987: | | | | | | | |
| New England | 64.8 | 28.8 | 6.4 | 54.6 | 34.4 | 53.6 | 51.9 |
| Middle Atlantic | 62.0 | 29.8 | 8.2 | 50.4 | 32.8 | 57.9 | 51.4 |
| East North Central | 55.3 | 32.9 | 11.8 | 51.9 | 34.7 | 58.3 | 50.6 |
| West North Central | 49.4 | 35.0 | 15.6 | 46.3 | 27.3 | 67.0 | 50.3 |
| South Atlantic | 66.0 | 26.1 | 7.9 | 56.4 | 40.1 | 46.9 | 53.8 |
| East South Central | 69.9 | 22.4 | 7.7 | 60.0 | 43.2 | 41.6 | 53.1 |
| West South Central | 60.5 | 27.9 | 11.6 | 58.3 | 40.0 | 46.2 | 53.7 |
| Mountain | 56.9 | 31.0 | 12.1 | 52.5 | 31.3 | 59.1 | 52.0 |
| Pacific | 70.0 | 18.3 | 11.7 | 56.8 | 37.3 | 50.6 | 52.9 |
| 1982: | | | | | | | |
| New England | 63.7 | 30.1 | 6.2 | 53.1 | 33.8 | 55.0 | 50.6 |
| Middle Atlantic | 61.8 | 30.4 | 7.8 | 50.9 | 33.1 | 57.4 | 50.1 |
| East North Central | 55.3 | 32.6 | 12.1 | 51.9 | 34.0 | 58.3 | 49.2 |
| West North Central | 49.7 | 34.8 | 15.5 | 44.1 | 24.6 | 69.5 | 48.9 |
| South Atlantic | 64.5 | 26.6 | 8.9 | 55.5 | 38.9 | 48.1 | 52.3 |
| East South Central | 68.8 | 22.7 | 8.5 | 59.1 | 41.2 | 43.2 | 51.6 |
| West South Central | 60.1 | 28.1 | 11.8 | 59.4 | 41.4 | 45.1 | 52.3 |
| Mountain | 57.5 | 31.5 | 11.0 | 52.1 | 31.5 | 59.5 | 50.7 |
| Pacific | 71.1 | 18.7 | 10.2 | 58.4 | 38.8 | 48.8 | 51.1 |

¹About 6 percent of all operators in 1987 and 9 percent in 1982 did not report on this item in the census.
Source: 1987 Census of Agriculture.

Appendix table 1--Geographic distribution of U.S. farms and farmland, 1987 and 1982

| Area | Farms | | Land in farms | | Average acreage | |
|--------------------|-----------|-----------|---------------|-------------|-----------------|-------|
| | 1987 | 1982 | 1987 | 1982 | 1987 | 1982 |
| <i>Number</i> | | | | | | |
| United States | 2,087,759 | 2,240,976 | 964,470,625 | 986,796,579 | 462 | 440 |
| New England | 25,158 | 25,958 | 4,248,963 | 4,632,224 | 169 | 178 |
| Maine | 6,269 | 7,003 | 1,342,588 | 1,468,674 | 214 | 210 |
| New Hampshire | 2,515 | 2,757 | 426,237 | 469,582 | 169 | 170 |
| Vermont | 5,877 | 6,315 | 1,407,868 | 1,574,441 | 240 | 249 |
| Massachusetts | 6,216 | 5,401 | 615,185 | 612,819 | 99 | 113 |
| Rhode Island | 701 | 728 | 58,685 | 62,466 | 84 | 86 |
| Connecticut | 3,580 | 3,754 | 398,400 | 444,242 | 111 | 118 |
| Middle Atlantic | 98,324 | 106,019 | 17,176,943 | 18,403,603 | 175 | 174 |
| New York | 37,743 | 42,207 | 8,416,228 | 9,189,559 | 223 | 218 |
| New Jersey | 9,032 | 8,277 | 894,426 | 916,331 | 99 | 111 |
| Pennsylvania | 51,549 | 55,535 | 7,866,289 | 8,297,713 | 153 | 149 |
| East North Central | 364,872 | 403,457 | 86,618,368 | 88,600,735 | 237 | 220 |
| Ohio | 79,277 | 86,934 | 14,997,381 | 15,404,054 | 189 | 177 |
| Indiana | 70,506 | 77,180 | 16,170,895 | 16,294,268 | 229 | 211 |
| Illinois | 88,786 | 98,483 | 28,526,664 | 28,726,114 | 321 | 292 |
| Michigan | 51,172 | 58,661 | 10,316,861 | 10,942,172 | 202 | 187 |
| Wisconsin | 75,131 | 82,199 | 16,606,567 | 17,234,127 | 221 | 210 |
| West North Central | 497,110 | 529,379 | 263,849,468 | 265,617,606 | 531 | 502 |
| Minnesota | 85,079 | 94,382 | 26,573,819 | 27,708,456 | 312 | 294 |
| Iowa | 105,180 | 115,413 | 31,638,130 | 32,611,964 | 301 | 283 |
| Missouri | 106,105 | 112,447 | 29,209,187 | 29,266,609 | 275 | 260 |
| North Dakota | 35,289 | 36,431 | 40,336,869 | 40,206,005 | 1,143 | 1,104 |
| South Dakota | 36,376 | 37,148 | 44,157,503 | 43,810,988 | 1,214 | 1,179 |
| Nebraska | 60,502 | 60,243 | 45,305,441 | 44,961,371 | 749 | 746 |
| Kansas | 68,579 | 73,315 | 46,628,519 | 47,052,213 | 680 | 642 |
| South Atlantic | 239,687 | 273,825 | 51,199,309 | 57,225,830 | 214 | 209 |
| Delaware | 2,966 | 3,338 | 608,245 | 655,465 | 205 | 196 |
| Maryland | 14,776 | 16,183 | 2,396,629 | 2,557,728 | 162 | 158 |
| Virginia | 44,799 | 51,859 | 8,676,336 | 9,436,854 | 194 | 182 |
| West Virginia | 17,237 | 18,742 | 3,372,955 | 3,559,051 | 196 | 190 |
| North Carolina | 59,284 | 72,792 | 9,447,705 | 10,320,832 | 159 | 142 |
| South Carolina | 20,517 | 24,929 | 4,758,631 | 5,589,799 | 232 | 224 |
| Georgia | 43,552 | 49,630 | 10,744,718 | 12,291,885 | 247 | 248 |
| Florida | 36,556 | 36,352 | 11,194,090 | 12,814,216 | 306 | 353 |

See note at end of table.

Continued--

Appendix table 1--Geographic distribution of U.S. farms and farmland, 1987 and 1982--
Continued

| Area | Farms | | Land in farms | | Average acreage | |
|--------------------|---------|---------|---------------|-------------|-----------------|-------|
| | 1987 | 1982 | 1987 | 1982 | 1987 | 1982 |
| <i>Number</i> | | | | | | |
| East South Central | 249,556 | 283,070 | 45,636,029 | 49,276,413 | 183 | 174 |
| Kentucky | 92,453 | 101,642 | 14,012,700 | 14,179,284 | 152 | 140 |
| Tennessee | 79,711 | 90,565 | 11,731,386 | 12,474,931 | 147 | 138 |
| Alabama | 43,318 | 48,448 | 9,145,753 | 10,200,547 | 211 | 211 |
| Mississippi | 34,074 | 42,415 | 10,746,190 | 12,421,651 | 315 | 293 |
| West South Central | 334,608 | 339,696 | 184,407,553 | 187,291,299 | 551 | 551 |
| Arkansas | 48,242 | 50,525 | 14,355,611 | 14,682,960 | 298 | 291 |
| Louisiana | 27,350 | 31,628 | 8,007,173 | 8,928,827 | 293 | 282 |
| Oklahoma | 70,228 | 72,523 | 31,541,977 | 32,369,206 | 449 | 446 |
| Texas | 188,788 | 185,020 | 130,502,792 | 131,310,306 | 691 | 710 |
| Mountain | 124,210 | 121,777 | 244,062,828 | 246,101,061 | 1,965 | 2,021 |
| Montana | 24,568 | 23,570 | 60,203,993 | 60,539,209 | 2,451 | 2,568 |
| Idaho | 24,142 | 24,714 | 13,931,875 | 13,921,639 | 577 | 563 |
| Wyoming | 9,205 | 8,861 | 33,595,135 | 33,500,453 | 3,650 | 3,781 |
| Colorado | 27,284 | 27,111 | 34,048,433 | 33,537,998 | 1,248 | 1,237 |
| New Mexico | 14,249 | 13,484 | 46,018,005 | 47,096,085 | 3,230 | 3,493 |
| Arizona | 7,669 | 7,334 | 36,287,794 | 37,752,534 | 4,732 | 5,148 |
| Utah | 14,066 | 13,984 | 9,989,073 | 9,772,942 | 710 | 699 |
| Nevada | 3,027 | 2,719 | 9,988,520 | 9,980,201 | 3,300 | 3,671 |
| Pacific | 154,234 | 157,795 | 67,271,164 | 69,647,808 | 436 | 441 |
| Washington | 33,559 | 36,080 | 16,115,568 | 16,469,678 | 480 | 456 |
| Oregon | 32,014 | 34,087 | 17,809,165 | 17,739,782 | 556 | 520 |
| California | 83,217 | 82,463 | 30,598,178 | 32,156,894 | 368 | 390 |
| Alaska | 574 | 570 | 1,026,732 | 1,323,953 | 1,789 | 2,323 |
| Hawaii | 4,870 | 4,595 | 1,721,521 | 1,957,501 | 353 | 426 |

Source: 1987 Census of Agriculture.

Appendix table 2--Value of agricultural products sold from U.S. farms, 1987 and 1982

| Area | Value of sales | | Average sales | |
|--------------------|-------------------|-------------|-------------------|---------|
| | 1987 | 1982 | 1987 | 1982 |
| |\$1,000..... | |Dollars..... | |
| United States | 136,048,516 | 131,900,223 | 65,165 | 58,858 |
| New England | 1,624,075 | 1,468,470 | 64,555 | 56,571 |
| Maine | 405,484 | 399,412 | 64,681 | 57,034 |
| New Hampshire | 107,102 | 102,520 | 42,585 | 37,185 |
| Vermont | 375,537 | 369,402 | 63,899 | 58,496 |
| Massachusetts | 340,464 | 281,436 | 54,772 | 52,108 |
| Rhode Island | 37,786 | 30,376 | 53,903 | 41,726 |
| Connecticut | 357,702 | 285,324 | 99,917 | 76,005 |
| Middle Atlantic | 6,015,386 | 5,711,109 | 61,179 | 53,869 |
| New York | 2,441,860 | 2,426,936 | 64,697 | 57,501 |
| New Jersey | 496,003 | 435,966 | 54,916 | 52,672 |
| Pennsylvania | 3,077,523 | 2,848,207 | 59,701 | 51,287 |
| East North Central | 21,333,496 | 22,370,819 | 58,468 | 55,448 |
| Ohio | 3,434,064 | 3,387,461 | 43,317 | 38,966 |
| Indiana | 4,067,684 | 4,226,930 | 57,693 | 54,767 |
| Illinois | 6,376,801 | 7,313,529 | 71,822 | 74,262 |
| Michigan | 2,545,078 | 2,588,317 | 49,736 | 44,123 |
| Wisconsin | 4,909,869 | 4,854,582 | 65,351 | 59,059 |
| West North Central | 36,299,620 | 36,964,457 | 73,021 | 69,826 |
| Minnesota | 5,676,376 | 5,939,629 | 66,719 | 62,932 |
| Iowa | 8,926,799 | 9,828,932 | 84,872 | 85,163 |
| Missouri | 3,644,988 | 3,606,856 | 34,353 | 32,076 |
| North Dakota | 2,188,158 | 2,294,326 | 62,007 | 62,977 |
| South Dakota | 2,719,498 | 2,478,111 | 74,761 | 66,709 |
| Nebraska | 6,667,132 | 6,625,742 | 110,197 | 109,984 |
| Kansas | 6,476,669 | 6,190,861 | 94,441 | 84,442 |
| South Atlantic | 14,878,122 | 14,007,934 | 62,073 | 51,157 |
| Delaware | 443,575 | 370,562 | 149,553 | 111,013 |
| Maryland | 989,061 | 1,029,244 | 66,937 | 63,600 |
| Virginia | 1,588,770 | 1,606,915 | 35,464 | 30,986 |
| West Virginia | 270,639 | 242,127 | 15,701 | 12,919 |
| North Carolina | 3,541,419 | 3,500,750 | 59,737 | 48,093 |
| South Carolina | 878,683 | 968,554 | 42,827 | 38,853 |
| Georgia | 2,814,592 | 2,767,679 | 64,626 | 55,766 |
| Florida | 4,351,383 | 3,522,103 | 119,033 | 96,889 |

See note at end of table.

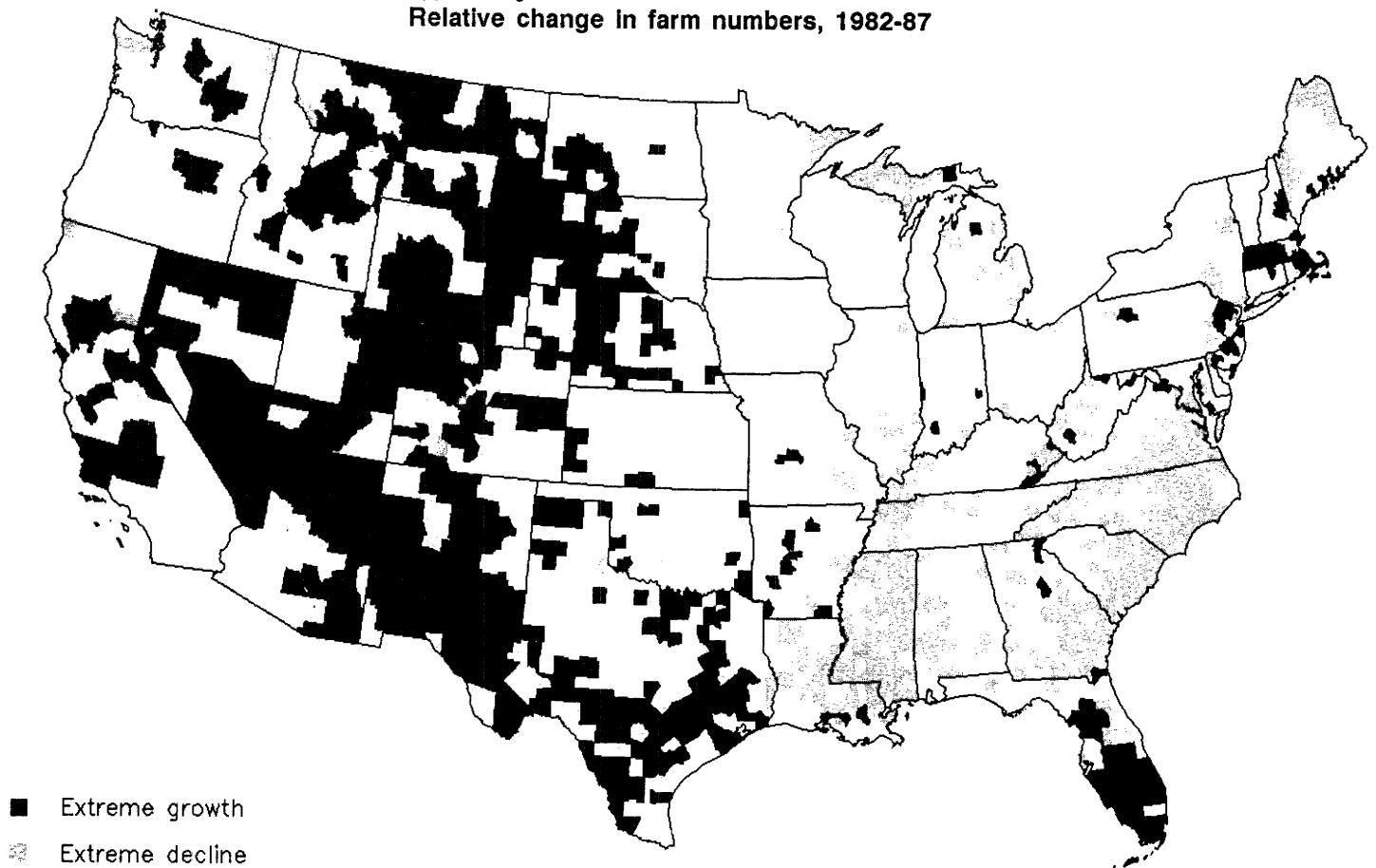
Continued--

Appendix table 2--Value of agricultural products sold from U.S. farms, 1987 and 1982--Continued

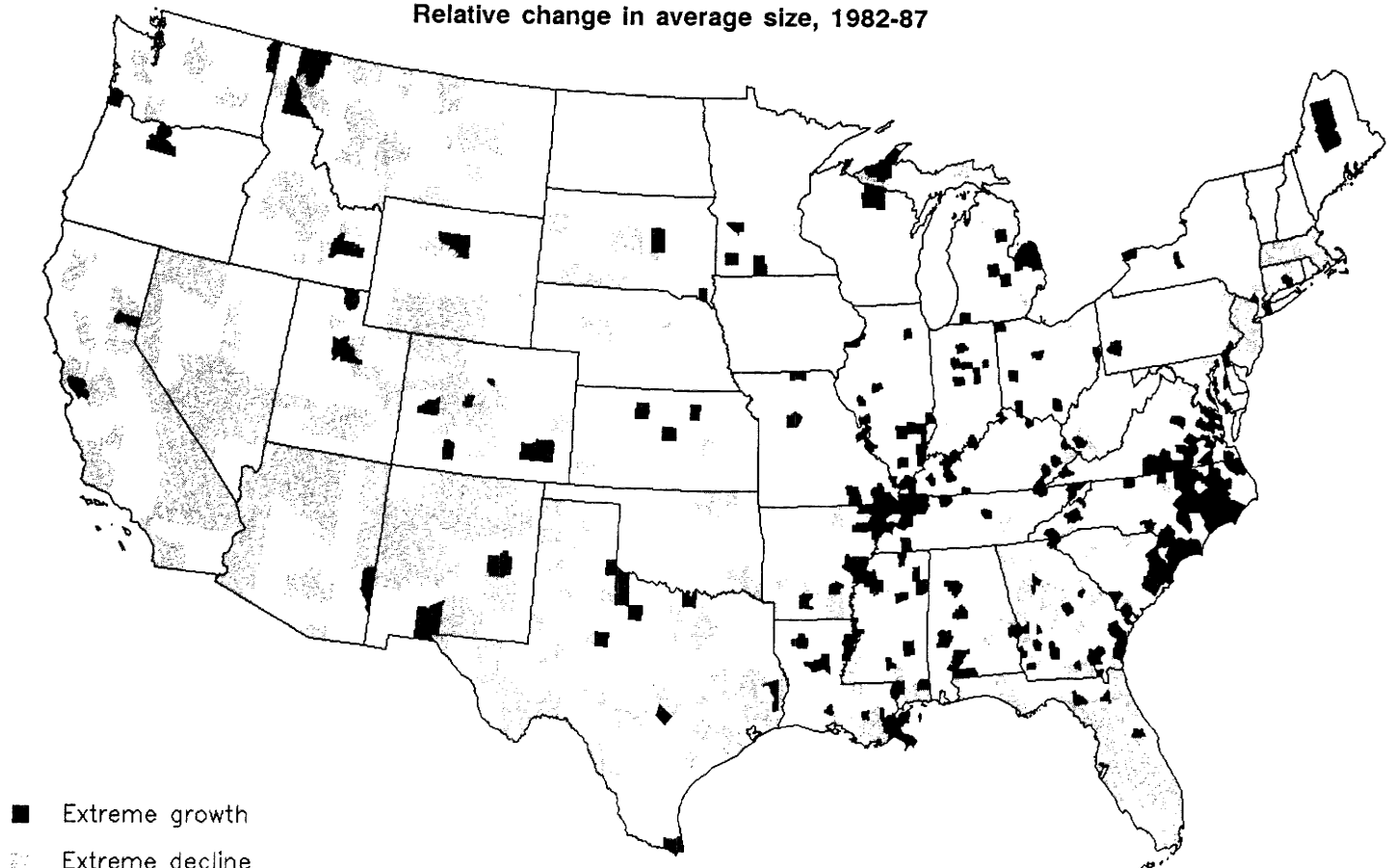
| Area | Value of sales | | Average sales | |
|--------------------|-------------------|------------|-------------------|---------|
| | 1987 | 1982 | 1987 | 1982 |
| |\$1,000..... | |Dollars..... | |
| East South Central | 7,464,413 | 7,683,380 | 29,911 | 27,143 |
| Kentucky | 2,075,571 | 2,376,882 | 22,450 | 23,385 |
| Tennessee | 1,617,636 | 1,683,852 | 20,294 | 18,593 |
| Alabama | 1,908,303 | 1,704,160 | 44,053 | 35,175 |
| Mississippi | 1,862,903 | 1,918,486 | 54,672 | 45,231 |
| West South Central | 17,924,219 | 15,699,379 | 53,568 | 46,216 |
| Arkansas | 3,320,258 | 2,826,497 | 68,825 | 55,943 |
| Louisiana | 1,340,162 | 1,406,458 | 49,000 | 44,469 |
| Oklahoma | 2,714,892 | 2,530,061 | 38,658 | 34,886 |
| Texas | 10,548,907 | 8,936,363 | 55,877 | 48,299 |
| Mountain | 11,193,538 | 10,461,475 | 90,118 | 85,907 |
| Montana | 1,547,286 | 1,547,160 | 62,980 | 65,641 |
| Idaho | 2,269,404 | 2,231,605 | 94,002 | 90,297 |
| Wyoming | 676,721 | 606,327 | 73,517 | 68,426 |
| Colorado | 3,143,131 | 2,940,897 | 115,201 | 108,476 |
| New Mexico | 1,060,112 | 850,562 | 74,399 | 63,079 |
| Arizona | 1,628,544 | 1,526,915 | 212,354 | 208,197 |
| Utah | 617,882 | 555,428 | 43,927 | 39,719 |
| Nevada | 250,458 | 202,581 | 82,741 | 74,506 |
| Pacific | 19,315,647 | 17,533,198 | 125,236 | 111,114 |
| Washington | 2,919,634 | 2,831,159 | 87,000 | 78,469 |
| Oregon | 1,846,067 | 1,640,590 | 57,664 | 48,129 |
| California | 13,922,234 | 12,491,442 | 167,300 | 151,479 |
| Alaska | 17,972 | 11,399 | 31,309 | 19,999 |
| Hawaii | 609,740 | 558,608 | 125,203 | 121,569 |

Source: 1987 Census of Agriculture.

Appendix figure 1
Relative change in farm numbers, 1982-87



Relative change in average size, 1982-87



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