The Future of Our Farmland:
An Agricultural Inventory for Scott County, Minnesota

Prepared for the Scott County Planning Department

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I. Introduction

It is the goal of this report to evaluate the composition and strength of the agricultural sector in Scott County, as well as to examine the changes this sector is undergoing in light of projected population growth for the coming years. In light of the county's *2030 Comprehensive Plan Update*, approved by the Metropolitan Council in February 2009, the county will begin to prepare for future growth as designated in their Plan Update and subsequent land use, transportation, land preservation and public investment decisions.

The Metropolitan Council estimated that as of 2007, Scott County had a total population of 123,735, with an anticipated population of 221,000 by the year 2030. This large population growth will impact both the developed and undeveloped areas of Scott County, and will put a large demand on the need for housing, infrastructure, and other public services. Agricultural resources will feel the impact of population growth, by way of the physical development that will occur, in addition to an increased population with higher demands for food.

To analyze the depth of the agricultural sector in Scott County, both qualitative and quantitative measures were reviewed. Historical trends were documented, along with similar analysis of five other counties in Minnesota, four of which are located at the edge of the metropolitan region. The report considers the emerging trends in these areas, looking at issues such as the role of agriculture and bioenergy, local and organic food demands and conservation policies and techniques available to landowners. Prime agricultural lands are also taken into consideration, with spatial distributions examined across Scott County. An inventory of existing Scott County businesses associated with the agricultural industry is provided to illustrate the breadth of this sector's participation in the local economy.

II. Agricultural Overview—Scott County

A. Historical Change

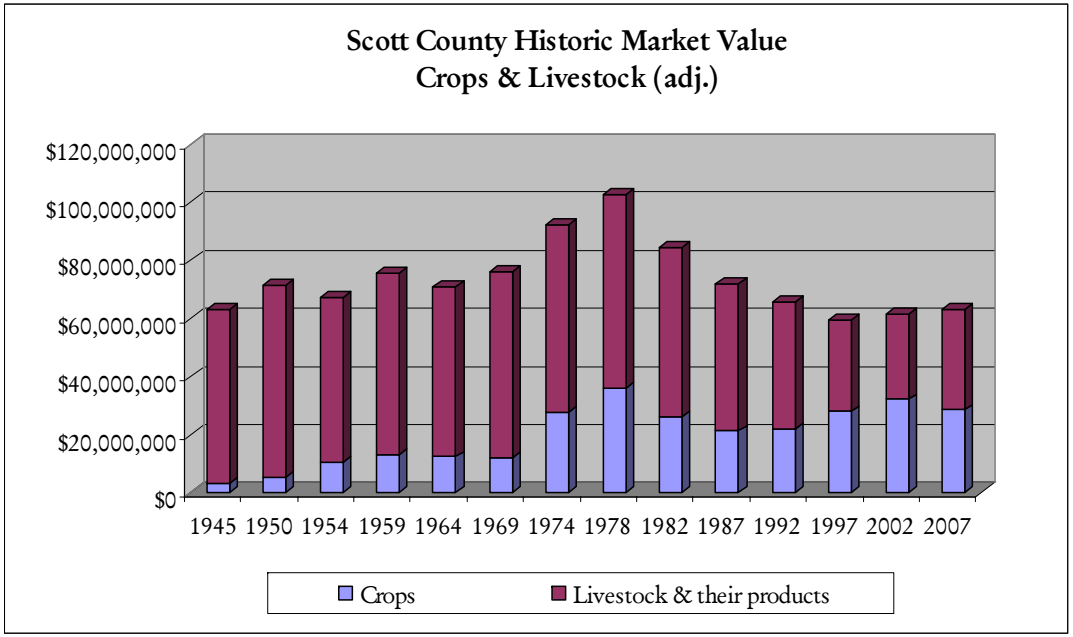


Figure 2.1: Scott County, Farms by Market Value of Sales (adjusted), 1945–2007. Source: Censuses of Agriculture, 1945–2007

Based on adjusted market value figures, overall market value has remained relatively stable since the 1940s. Although the bulk of market value in Scott County in the 1940s came from livestock and livestock products, crops have accounted for an increasing share of market value since that time. By 2002, the county posted a nearly even balance of market value from crops and livestock, which changed only slightly in 2007 when livestock again accounted for approximately 55% of the total market value for the county. This balance demonstrates the diverse variety of products grown and raised in Scott County.

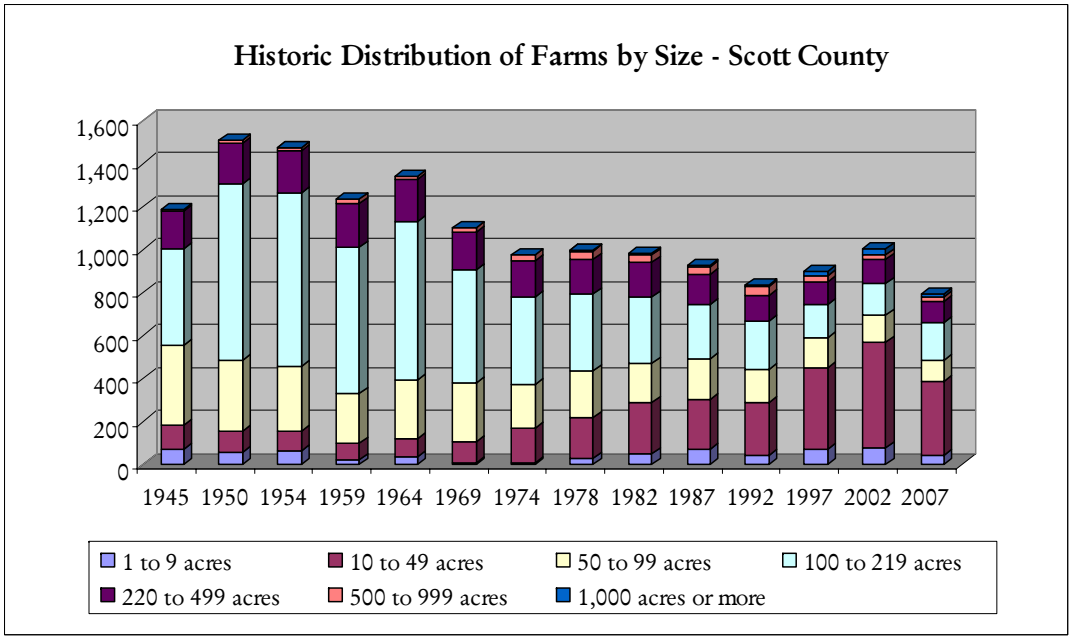


Figure 2.2: Scott County, Farms by Size, 1945–2007
Source: Censuses of Agriculture, 1945–2007

The historic trends in Scott County indicate a substantial increase in farms that are 10–49 acres in size, and a corresponding decrease in farms that are 50–99 acres and 100–219 acres. The number of very small farms (< 10 acres) and large to very large farms (> 220 acres) has remained relatively stable throughout the time period. Although 2007 saw a decrease in the overall number of farms in Scott County, the proportion of farms in each size category mirrored the 2002 data.

B. Current Trends

As of the 2007 Census of Agriculture, Scott County was home to 795 farms, a loss of about 200 farms since 2002 (**Table 2.1**). Spatially, these farms totaled 117,551 acres of pastures and harvested or forested land, a loss of about 13,000 acres since 2002. Although these numbers indicate a downturn in agricultural land and land use in Scott County, they are similar to the numbers posted in 1997, which may be attributable to the sampling technique used to conduct the census.

The average size of a farm in Scott County in 2007 was 148 acres, with a much smaller median farm size of 52 acres, which more realistically reflects the size of local farms. As shown in **Figure 2.3**, more than half of the farms in Scott County have less than 50 acres in total land area, and only 30 farms (roughly 4%) are larger than 1,000 acres.

Table 2.1: Scott County Farm Overview, 1997–2007

Scott County	1997	2002	2007	% Change '02 to '07
Farms	896	1,004	795	-20.8%
Land in Farms	117,830	130,889 acres	117,551 acres	-10.2%
Average Farm Size	146	130 acres	148 acres	+13.9%
Median Farm Size	59 acres	57 acres	52 acres	-8.8%

Source: 2007 Census of Agriculture, Table 1.

Scott County cultivates a wide variety of products and animals, with approximately 45% of market value coming from crops and 55% from livestock. The following crops and livestock are raised in Scott County (as reported in the Census of Agriculture):

- **Crops**: apples, apricots, barley, bedding garden plants, bell peppers, bulbs and tubers, cabbage, cantaloupes, cauliflower, cherries, chestnuts, chili peppers, Christmas trees, corn, cucumbers and pickles, cut flowers, eggplant, florist's greens, forage/hay, garlic, grapes, hazelnuts, herbs, indoor foliage plants, maple syrup. nursery stock, oats, onions, pears, peas, plums, potatoes, potted plants, prunes, pumpkins, raspberries, rhubarb, rye, short-rotation woody crops, snap beans, sod, soybeans, squash, strawberries, sweet corn, tomatoes, walnuts, watermelons, wheat, and wild rice.
- **Livestock**: alpaca, beef cows, bees and honey, bison, chickens (layers, pullets, broilers), dairy cows and products, deer, donkeys, ducks, elk, geese, goats (milk and meat), hogs and pigs, horses and ponies, llamas, mules, ornamental fish, pheasants, pigeons, quail, rabbits, sheep and lambs, and turkeys.

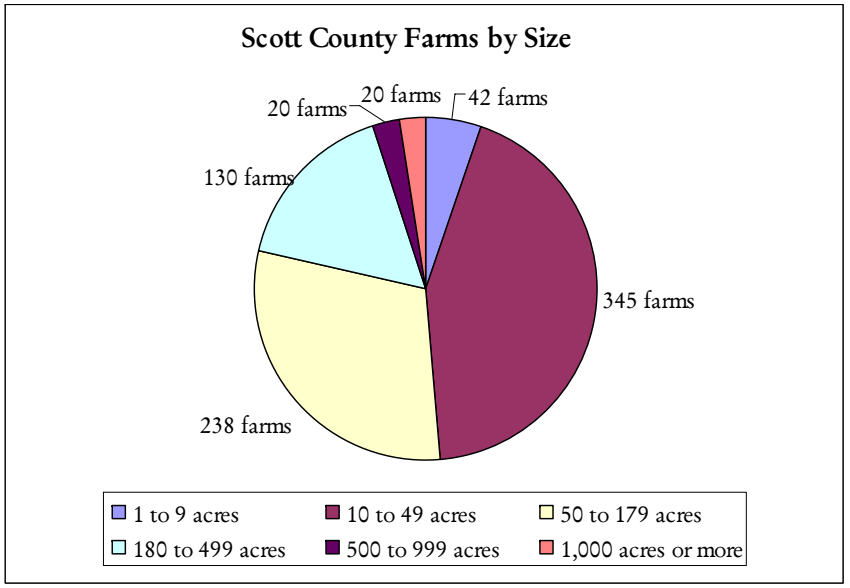


Figure 2.3: Scott County Farms by Size, 2007
Source: 2007 Census of Agriculture, Table 1

Table 2.2: Market Value of Various Agricultural Commodities in Scott County, 2007

Commodity	Farms	Market Value	Average Value per farm
Grain, oilseeds, dry beans and dry peas *Corn for grain, soybeans, greenchop, oats, wheat*	329	$24,208,000	$73,580
Milk and other Dairy Products	64	$15,549,000	$242,953
Cattle and Calves	220	$14,112,000	$64,145
Hogs and Pigs	42	$3,914,000	$93,190
Nursery, Greenhouse, Floriculture and Sod *Garden plants, nursery stock, flower seeds, sod*	24	$2,053,000	$85,541
Fruit, Tree Nuts, and Berries *Apples, raspberries, grapes, strawberries, plums*	21	$911,000	$43,380
Poultry and Eggs	60	$844,000	$14,066
Other Crops and Hay *Hay, grass seed, hops, hay and grass silage*	192	$632,000	$3,291
Vegetables, Melons, Potatoes *Peas, pumpkin, squash, sweet corn*	28	$598,000*	$21,357
Horses, Ponies, Mules, Burros and Donkeys	44	$242,000	$5,500
Other Animals and Animal Products *Honey, bison, elk, goats, llamas*	13	$94,000	$7,230
Sheep, Goats and their Products	42	$78,000	$1,857
Cut Christmas Trees and Short-rotation Woody Crops *Christmas trees, maple syrup and trees grown for paper production*	4	$68,000*	$17,000

Source: 2007 Census of Agriculture, Table 2.
* Indicates that 2007 market values were undisclosed to protect producers' privacy. 2002 market value data were used instead.

Farms and Market Value

The 2007 Census of Agriculture estimated the total market value of Scott County's agricultural production at $63,332,000. **Table 2.2** displays the market value of individual commodity groups in order of total market value.

Although the market value of various agricultural commodities produced in Scott County is an important measure of agricultural production, the popularity of certain commodities among producers and the average value per farm are also important considerations. The number of producers for the 13 commodity groups varies significantly, and this in turn may affect the market value of individual farms for each crop. Although many farmers grow corn and soybeans or raise cattle, only four farms in Scott County were dedicated to growing Christmas trees and similar products, creating their own 'niche' or specialized market. Although these niche markets produce higher values per farm than do the larger commodity products, the demand for these products (and further, for producers) is limited. In Scott County, this is especially true for dairy production, where the average value per farm is about $243,000—at least twice as high as any other commodity group.

Another notable commodity group is nursery and greenhouse products, which had

a total market value of approximately $7 million in 2002. The significant drop in sales value in this commodity group in 2007 stands out, particularly since the five comparison counties saw an increase in sales value in this market.

Table 2.3: Average Farm Acreage by Crop in Scott County, 2007

Crops & Commodity Groups	Average Acreage
Grains	
Corn	*141.0*
Soybeans	*121.1*
Wheat	*30.2*
Oats	*21.1*
Vegetables	
Sweet Corn	*10.8*
Pumpkin	*2.9*
Tomatoes	*1.5*
Fruits & Nuts & Berries	
Apples	*18.3*
Orchards	*16.2*
Nuts	*2.6*
Berries	*0.6*
Nursery, Sod, Floriculture, etc.	
Bedding/Garden Plants	*7,293.0*
Floriculture	*6,829.5*
Forage	*29.4*

Source: 2007 Census of Agriculture, Tables: 2, 11–38.

Farm Size

Given the diversity of products cultivated and raised in Scott County, assessing the average farm size of certain crops can help to illustrate how and what people are farming **(Table 2.3).** It is unsurprising that grains such as corn and soybeans account for the highest average farm size, as they are one of the highest grossing crops in Scott County and a farmer must raise large quantities to turn a profit from these crops. Fruits, vegetables, and orchards all have average acreages under 20 acres, with more land designated for apples, sweet corn, and orchards. Livestock and livestock products cannot be included in this analysis, as acreage for these products is not reported by the Census of Agriculture. Average acreage by crop for all crop groups is reported in **Appendix B**.

Statewide Rankings

Although Scott County's smaller farms do not earn as much money in sales as do smaller farms in other counties in the state, they do rank high within the state with respect to the market value of some products. Scott County is rated first in terms of market value from pigeons and squab and is ranked third for pheasants. Additionally, the county ranks fifth in production of fruits, tree nuts, and berries in the state, producing $911,000 of market value for the county and the 21 farms that cultivate these products.

III. Agricultural Overview—Comparison Counties

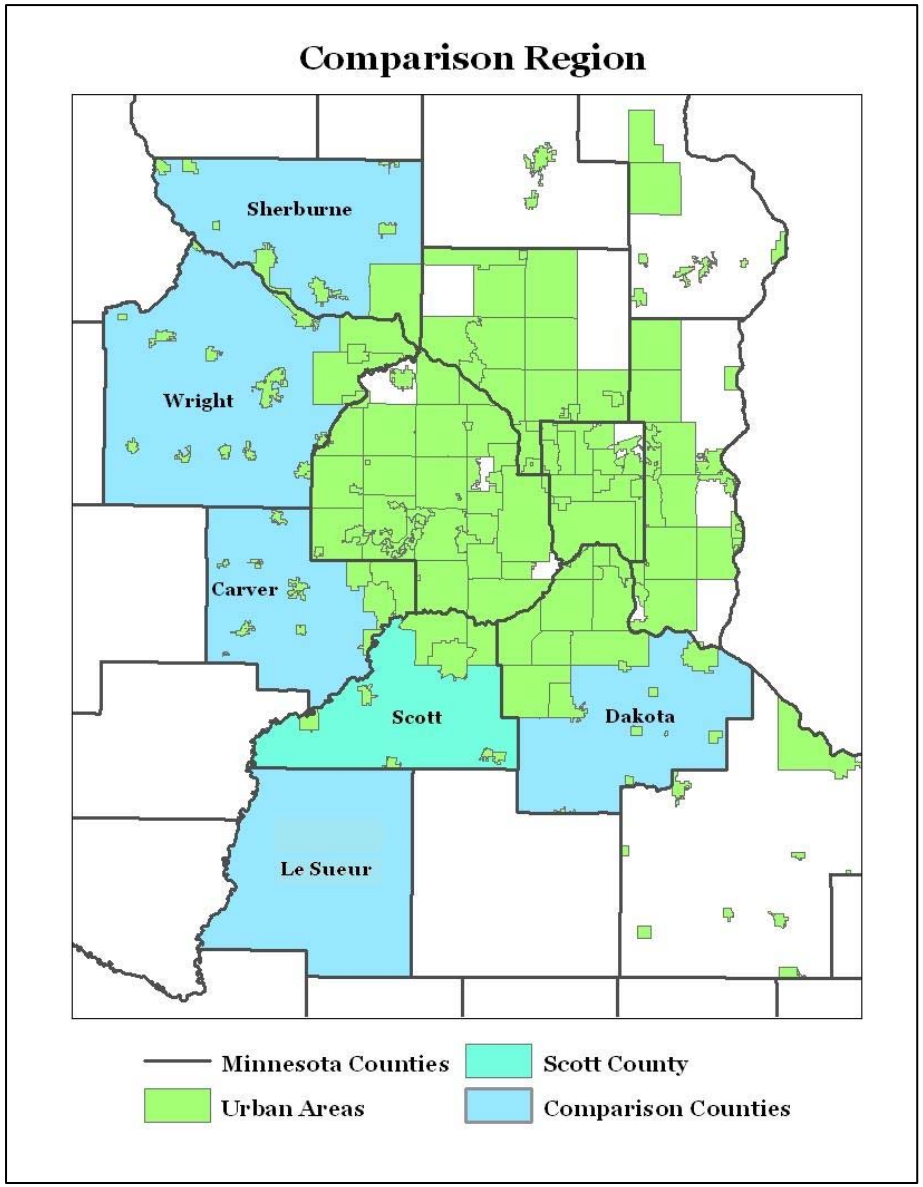


Figure 3.1: Scott County and its Comparison Region
Source: MetroGIS

To better evaluate the state of Scott County's agriculture sector, several other counties were chosen for comparison (**Figure 3.1**). They include Dakota and Carver Counties, which are both part of the seven-county Twin Cities metropolitan area; Wright and Sherburne Counties, two "collar counties" that lie northwest of the seven-county metro area, and that contain both rural and urban uses within their jurisdictions; and Le Sueur County, a rural county adjacent to Scott that has a strong agricultural sector.

Among the six counties, the total number of farms ranges from 549 to 1,531, and total farm acreage ranges from approximately 106,000 to 265,000 acres. Minnesota as a whole has about 81,000 farms and approximately 27,000,000 acres of land in farms.

Like Scott County, the comparison counties account for a similar share of total Minnesota farms and fall below the state average for farm size (332 acres). Additionally, with the exception of Le Sueur County, all of the counties are located in urbanizing areas similar to Scott County. These five counties can offer a reasonable basis for comparing agricultural production and economic value among the counties.

A. Historical Overview

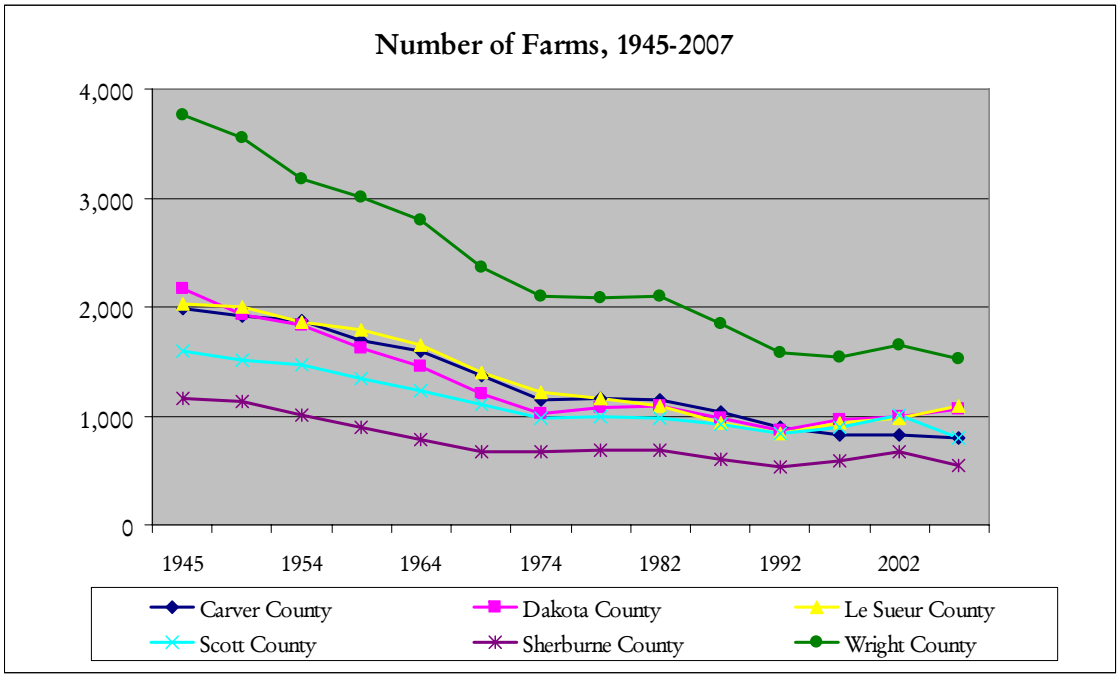


Figure 3.2: Number of Farms, 1945–2007

Figure 3.2: From the 1940s to the 1960s, there was a significant decline in the number of farms in all six counties. During the 1970s, the loss of farms slowed, and has remained relatively stable since the 1990s. In 2007, most of the counties had seen a slight decrease in the number of farms, with the exception of Dakota and Le Sueur Counties which gained about 100 farms since the last census. Overall, the six counties saw a 35–60% decline in the number of farms during the last 60 years (see **Appendix A**).

- Although Wright County lost nearly 2,000 farms between 1945 and 2007, it still has 500 more farms than any of the other five counties.

Figure 3.3: Just as the number of farms in the six counties has dropped since the 1940s, the number of acres of farmland has also declined—although at a steadier rate. Again, Dakota and Le Sueur Counties experienced a growth in farm acreage between the 2002 and 2007 Census of Agriculture. Overall, the six counties experienced a 13–50% decline in acres of farmland from 1945 to 2007 (see **Appendix A**).

- Wright County lost the most farmland acreage—approximately 152,000 acres from 1945 to 2007.

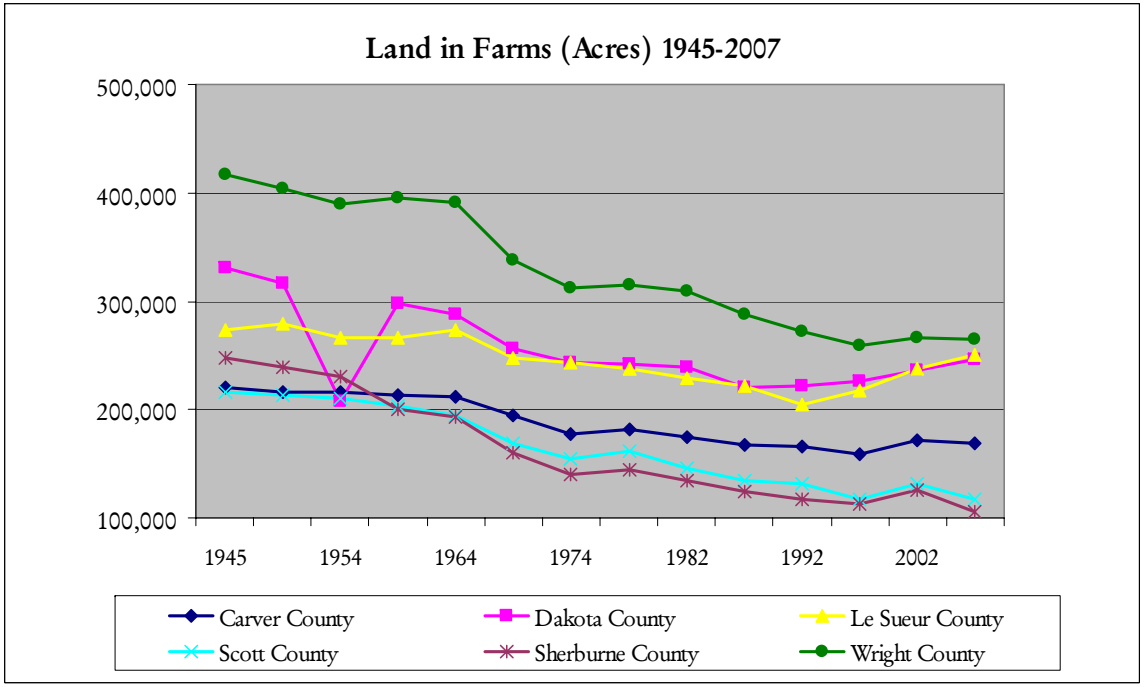


Figure 3.3: Land in Farms, 1945–2007
Source: 2007 Census of Agriculture.

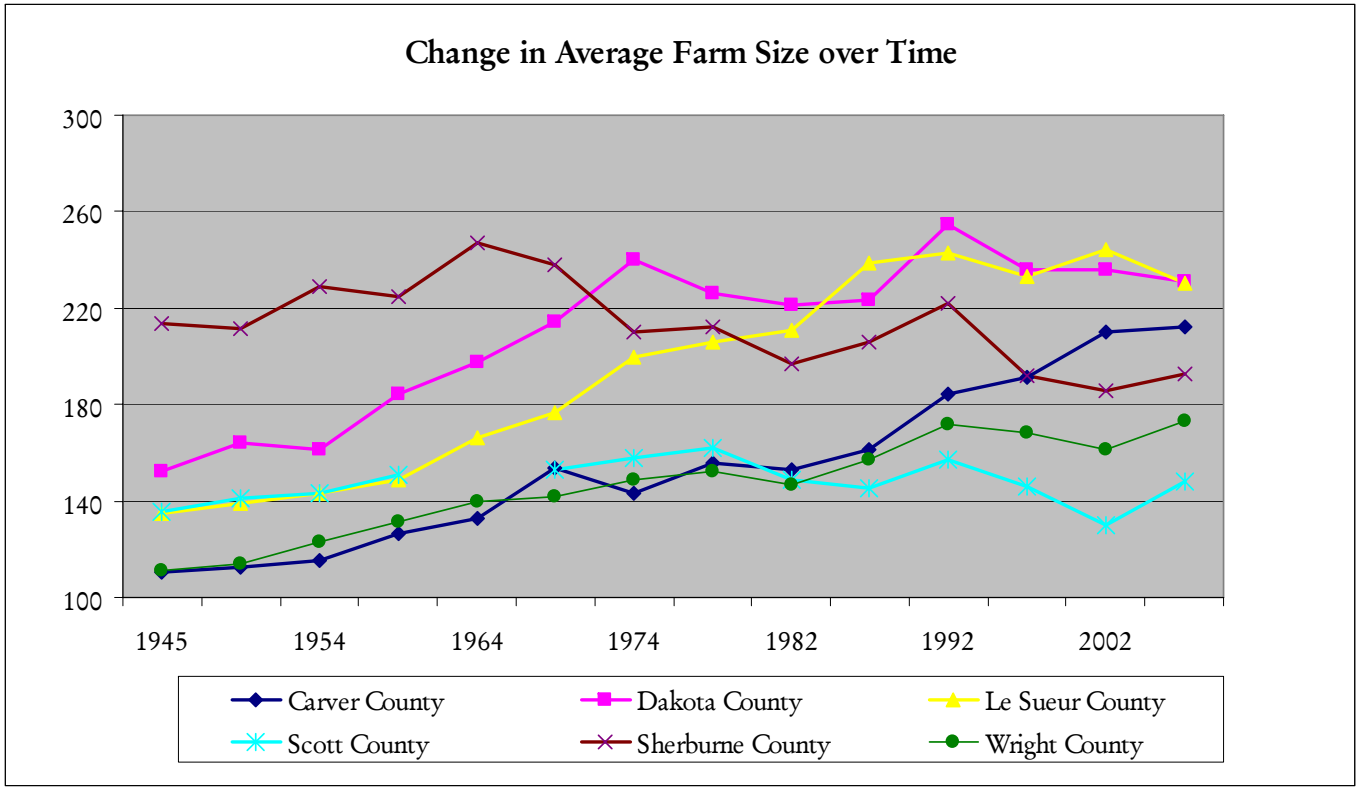


Figure 3.4: Change in Average Farm Size, 1945–2007
Source: 2007 Census of Agriculture, Table 1

Figure 3.4: Given the decline in the number of farms and acres of farmland in Scott County and the comparison counties, it is surprising that the average size of farms has remained quite stable for most of the counties. Although the number of farms has dropped quite dramatically, the loss of farmland acreage has been slower proportionally, resulting in a relative growth in average farm sizes for most of these counties. Dakota and Le Sueur Counties had the highest average farm size in 2007 (231 acres), whereas Scott County had the lowest average farm size (148 acres).

B. Current Trends

Table 3.1: Agricultural Characteristics for Scott County and the Five Comparison Counties, 2007

	Carver	Dakota	Le Sueur	Scott	Sherburne	Wright
Number of farms	800	1065	1091	795	549	1531
Pct. of all MN farms	0.98%	1.31%	1.34%	0.98%	0.67%	1.89%
Total acreage of farms	169,397	246,026	250,696	117,551	106,127	265,376
Average size of farm	212	231	230	148	193	173
Median size of farm	80	52	90	52	59	74
Acres rented (pct. of total acreage farmed)	62,050 (36.6%)	89,270 (36.2%)	88,366 (35.2%)	42,603 (36.2%)	35,738 (33.6%)	99,414 (37.4%)
Average age of farmer	55.6 years	55.5 years	57.4 years	55.9 years	58.4 years	55.4 years
Total farm operators	1,261	1,704	1,550	1,204	872	2,326
Number of female-operators (pct. of total farm operators)	357 (28%)	500 (29%)	344 (22%)	370 (30%)	277 (32%)	681 (29%)
Average number of years spent on farm	24.3years	23.5 years	26.7 years	24.1 years	24.6 years	23.2 years
Pct. of farmers whose primary occupation is farming	50.2%	46.2%	42.8%	42.6%	44.2%	42.0%

Source: 2007 Census of Agriculture, Tables: 1, 8, 46, 47

Other Characteristics

The impacts of Scott County's smaller farms are easily seen when compared to the five other counties in this study (**Table 3.1**). Some of the defining characteristics of Scott County's agricultural sector:

- Lowest average farm size
- Lowest median farm size
- Younger average age of farmers
- Few farmers identifying farming as primary occupation
- Low total county acreage of farmland
- High percentage of female farm operators

Among the six counties, average age of farmers (55–58 years) and average years spent on the current farm (23–26 years) are relatively similar. The median farm size ranges from a low of 52 acres in Scott and Dakota Counties to 90 acres in Le Sueur. Owing perhaps to its rural nature, Le Sueur County has fewer female farm operators, a higher average number of years spent on the current farm, and a larger average farm size than Scott County. Wright County boasts the most acreage rented, whereas Carver County is home to the most farmers claiming farming as their primary occupation. Wright County has the highest number of farm operators, as well as the most acreage dedicated to agriculture.

Current Farm Size

Scott County is unique, both with respect to the comparison counties and to Minnesota as a whole, with about 49% of its farms less than 50 acres in size. Dakota county has a similar proportion of small farms, but has more large farms than Scott County overall. As shown in **Figure 3.5**, Scott County also has the smallest share of farms of 500 acres or more at 5%. This is a smaller share than the comparison counties, which range from 8 to 12%, and falls far below the state average of 18%.

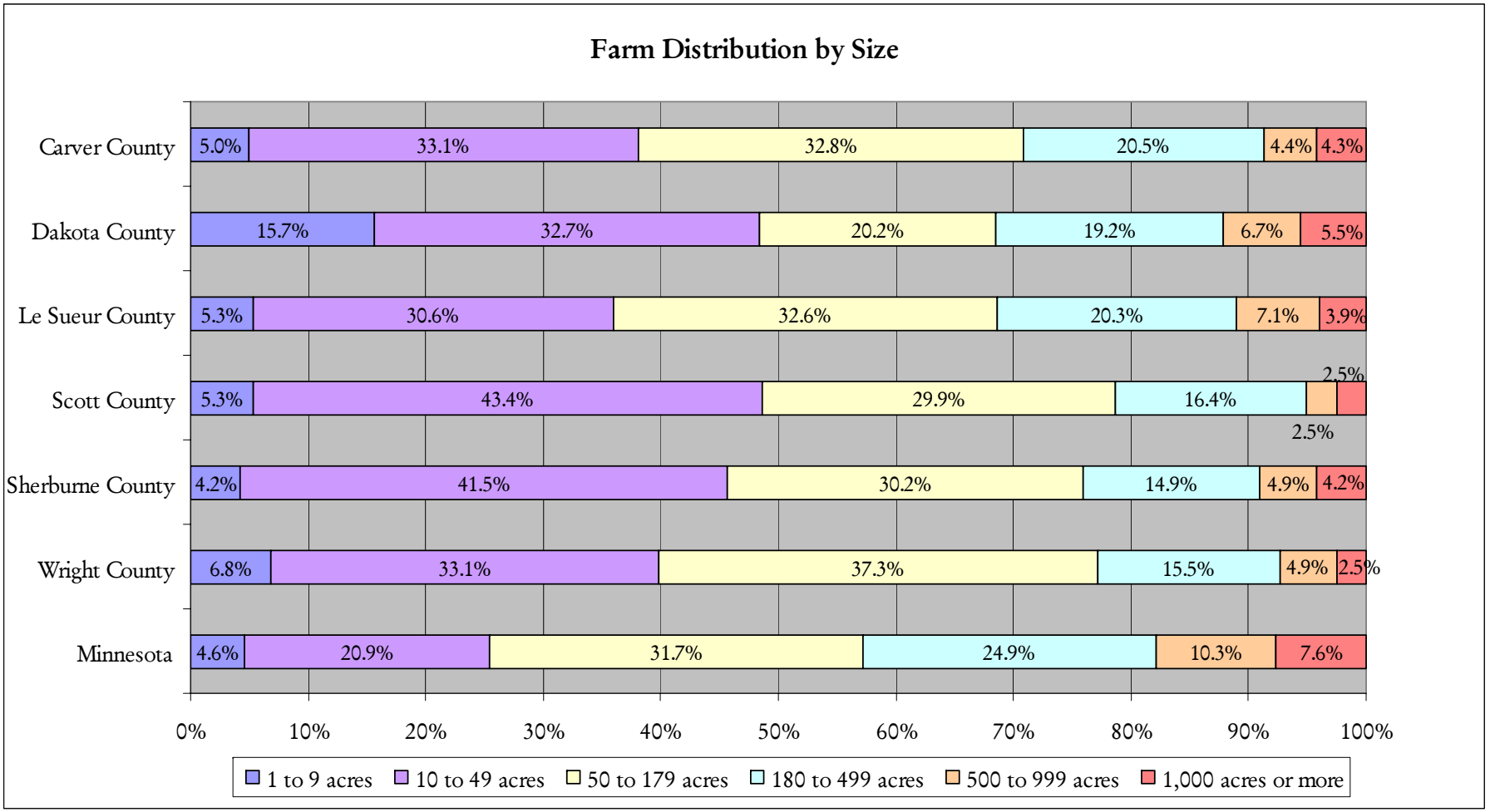


Figure 3.5: Farm Distribution by Size of Farm, 2007
Source: 2007 Census of Agriculture, Table 1

Current Market Value

The farm size differential can be seen in the value of sales from farms, especially in Scott County, with about 47% of the county's farms earning less than $5,000 from their products, and about 30% earning between $5,000 and $50,000 (**Figure 3.6**).[1] With the exception of Sherburne and Wright Counties, the other comparison counties had farms receiving more value from sales, with larger proportions of farms falling in the $50,000+ categories.

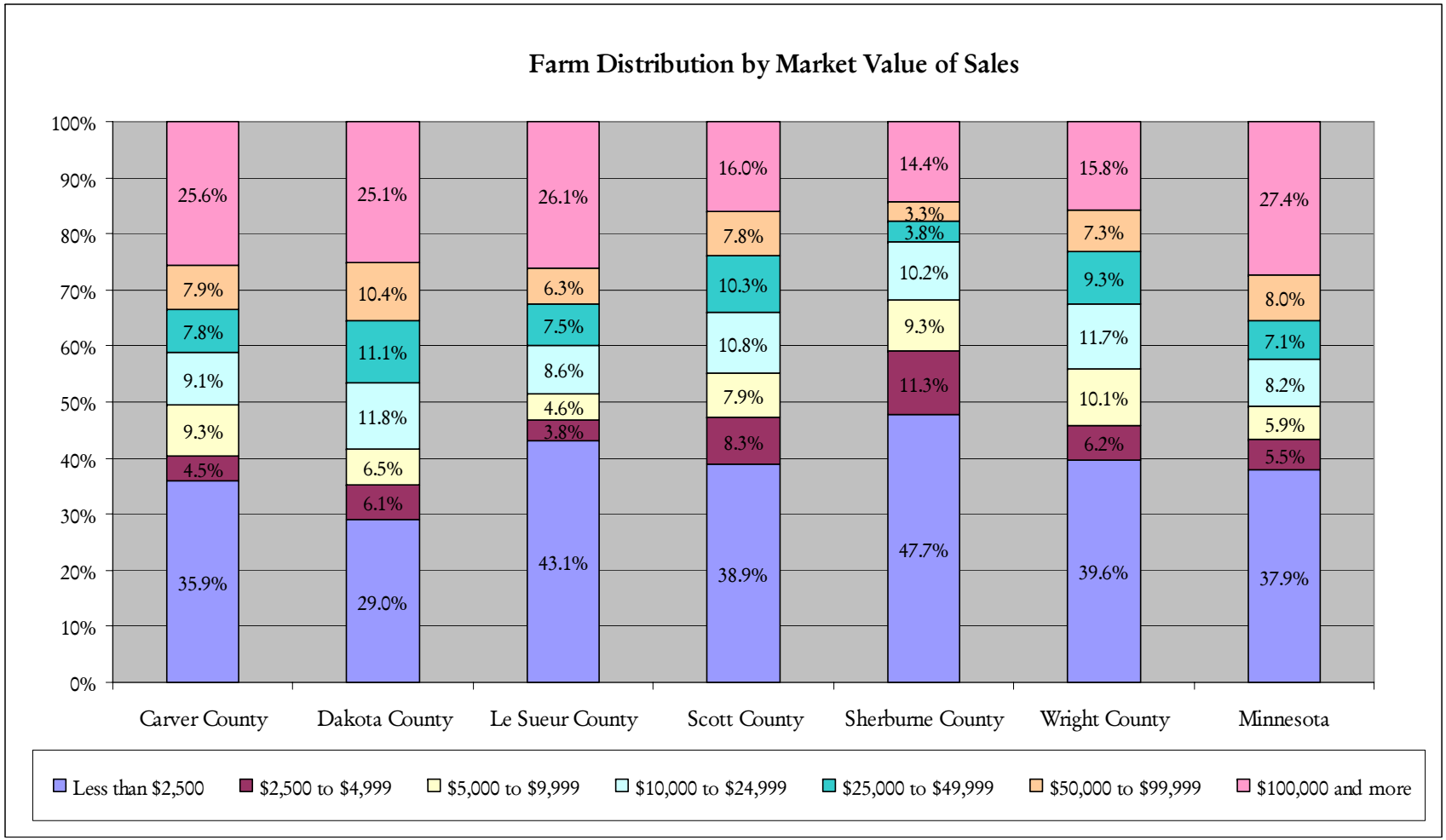


Figure 3.6: Farm Distribution by Market Value of all Sales, 2007
Source: 2007 Census of Agriculture, Table 1

[1] The Agriculture Census identifies 'farms' as properties that produce $1,000 or more worth of commodities, excluding small 'hobby' farms and others that might also contribute to the agricultural sector

Crops and Products

With respect to the crops produced, all six counties rely heavily on the production of grains, oilseeds, and dry beans (most notably corn and soybeans), as shown in **Figure 3.7**. These crops are used for animal feed, human consumption, and the production of biofuels. Additionally, nearly all of the comparison counties enjoy significant market value from other commodity groups as well. Dakota County stands out as a leader in market value from crops, especially grains and oilseeds, vegetables, and nursery crops.

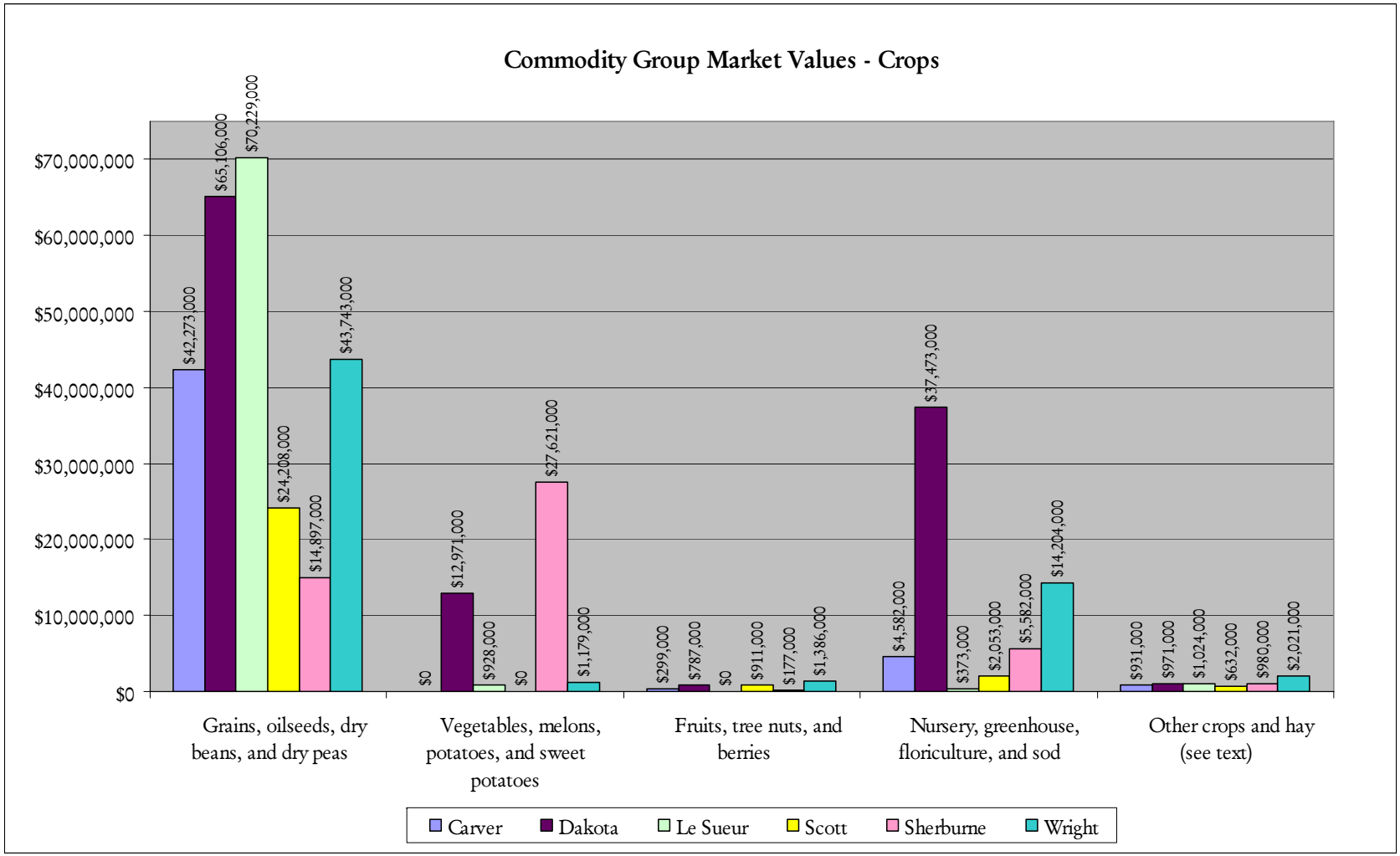


Figure 3.7: Market Value from Sales of Crops, 2007. Source: 2007 Census of Agriculture, Table 2.
Note: If no value appears, the data for that county were suppressed in the Agricultural Census to protect the privacy of individual farms or ranches.

The cultivation of livestock has a diverse impact on the six counties. As can be seen in **Figure 3.8,** Carver, Dakota, Le Sueur, and Wright Counties all have strong diversification in their livestock and livestock products, with each county leading in sales value from a particular livestock group. Although Scott County is not a leader in market value for livestock, it posts strong numbers for cattle, dairy, and hogs and pigs.

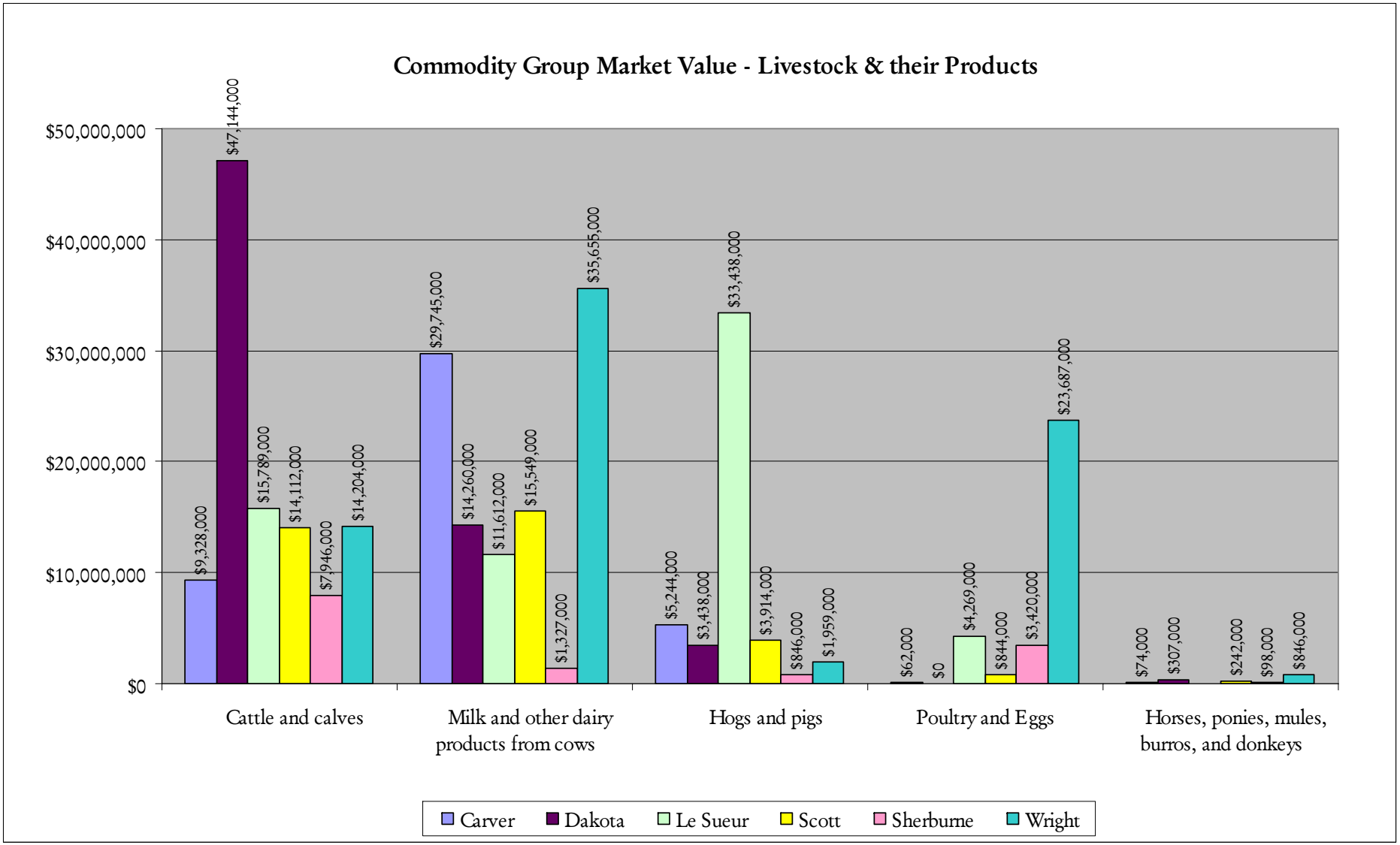


Figure 3.8: Market Value from Sales of Livestock and their Products, 2007. Source: 2007 Census of Agriculture, Table 2.
Note: If no value appears, the data for that county were suppressed in the Agricultural Census to protect the privacy of individual farms or ranches.

IV. Farm Income

A. National and State Trends

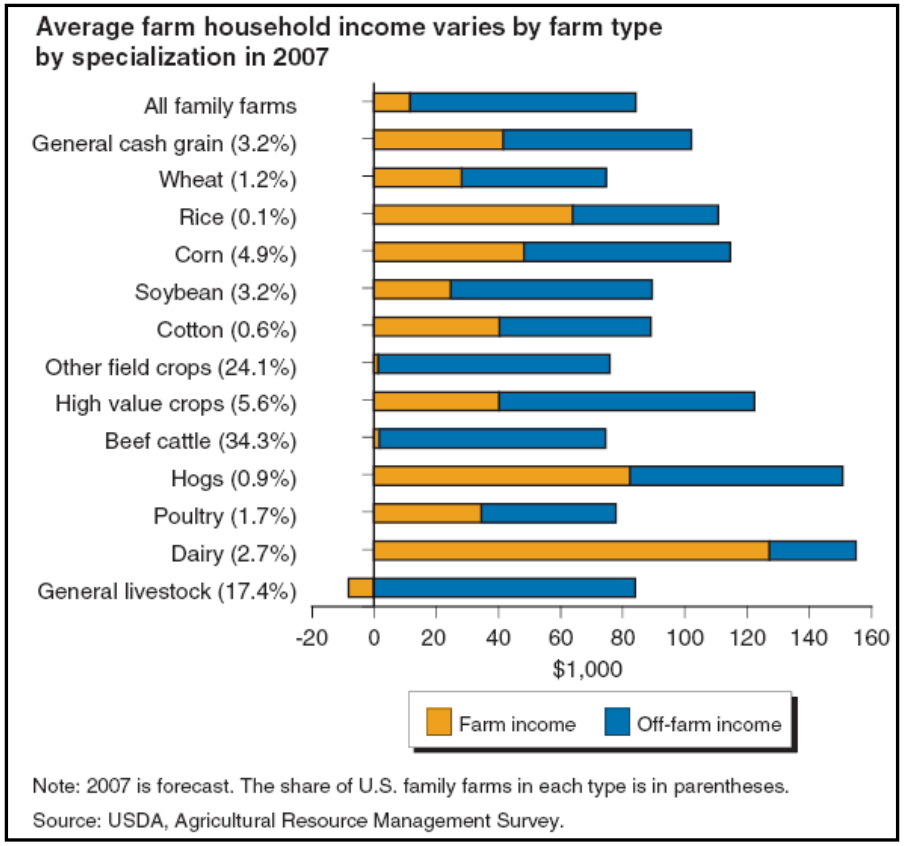


Figure 4.1: Average Farm Household Income, by source, 2007.

As **Figure 4.2** illustrates, although average farm household incomes have risen steadily since 1984, the proportion of income earned through farming has remained relatively stable over time, ranging from approximately $2,000 to $12,000 on average per year.

According to a 2007 U.S. Department of Agriculture publication titled *Agricultural Income and Finance Outlook,* a significant portion of farm household income is earned through off-farm employment. **Figure 4.1** shows on-farm and off-farm income, broken down by crop or livestock specialization. There is wide variation among different specializations, with farms specializing in wheat, soybeans, and beef cattle contributing less than half of the household income, as opposed to dairy or hog operations which contribute more than half of household income.

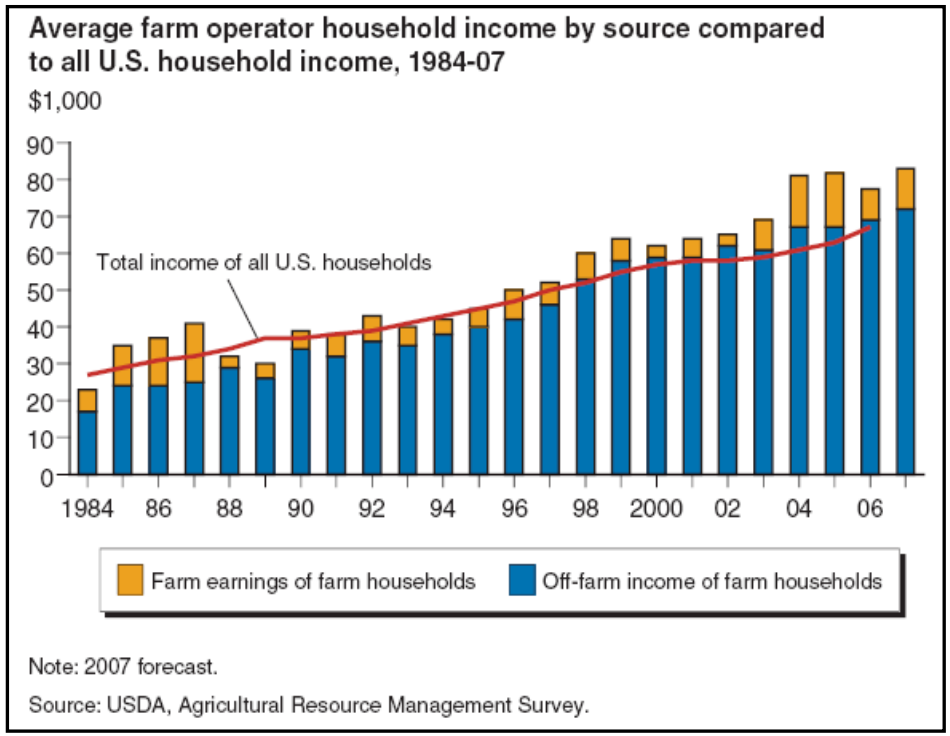


Figure 4.2: Farm household income v. U.S. household income, 1984-2007

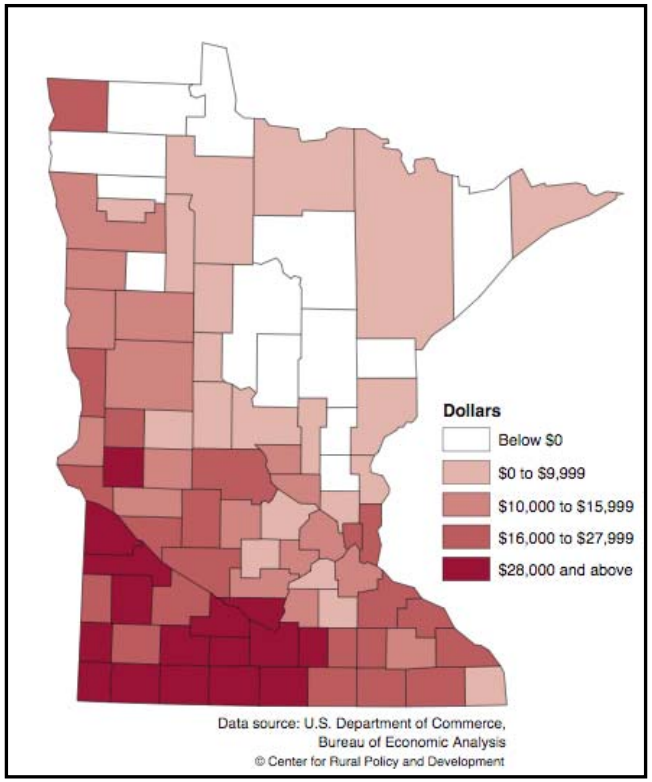


Figure 4.3: Average Earnings from Farm, 2005
Source: Center for Rural Policy Development, *Atlas of Minnesota*

With respect to average farm income from farming activities, Scott County has a relatively low figure with farms earning, on average, less than $10,000 from farming activities. **Figure 4.3**[2] shows the range of farm incomes in Minnesota by county. Scott County and Wright County have lower average farm incomes from farming activities than the other counties in the comparison region; the other four counties all fall in the $10,000–$15,999 range.

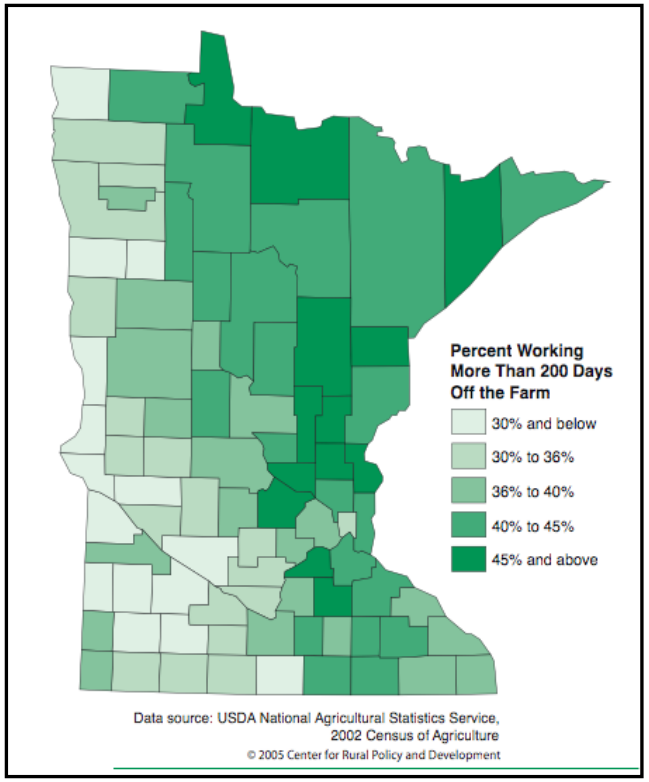


Figure 4.4: Off-farm Employment, 2002
Source: Center for Rural Policy Development, *Atlas of Minnesota*

Given the small contribution farming activities make to total household income in many counties in Minnesota, it is not surprising that farmers in these counties are increasingly seeking income through off-farm employment. **Figure 4.4** shows the percentage of farm households working more than 200 days off the farm. Among the six comparison counties, Scott, Sherburne and Wright Counties have the highest percentage of farmers working off-farm (45% and above). In Dakota County, the percentage is 40–45%, and in Carver and Le Sueur, 36–40%.

[2] Data and illustrations taken from the Center for Rural Policy Development's *Atlas of Minnesota*, http://www.mnsu.edu/ruralmn/pages/Publications/Atlas/Atlasonline/indexatlas/indexatlas.php.

B. Scott County—Farm Revenues and Expenses

According to the Bureau of Economic Analysis, farm income in Scott County in 2006 totaled $54.5 million from the sale of agricultural products (**Table 4.1**). In that same year, production costs for farmers totaled $55.2 million, for a net loss of $760,000 dollars. Although production expenses usually exceed the market value of products and result in a net loss, most farms receive government subsidies, along with rent and salaries for agricultural production labor. To offset the loss of income, the government provided $3.9 million in grant money to farmers in 2006, with an average payment of $5,321 to each farm receiving the subsidy (Census of Agriculture, 2002).

Table 4.1: Farm Income in Scott County, 2006

Item	Value
Total Cash Receipts (and other income)	+ $54,465,000
From Livestock	*$23,869,000*
From Crops	*$23,806,000*
From Government Payments	*$3,892,000*
Total Production Expenses	- $55,225,000
Realized Net Income	= - $760,000

Source: Bureau of Economic Analysis

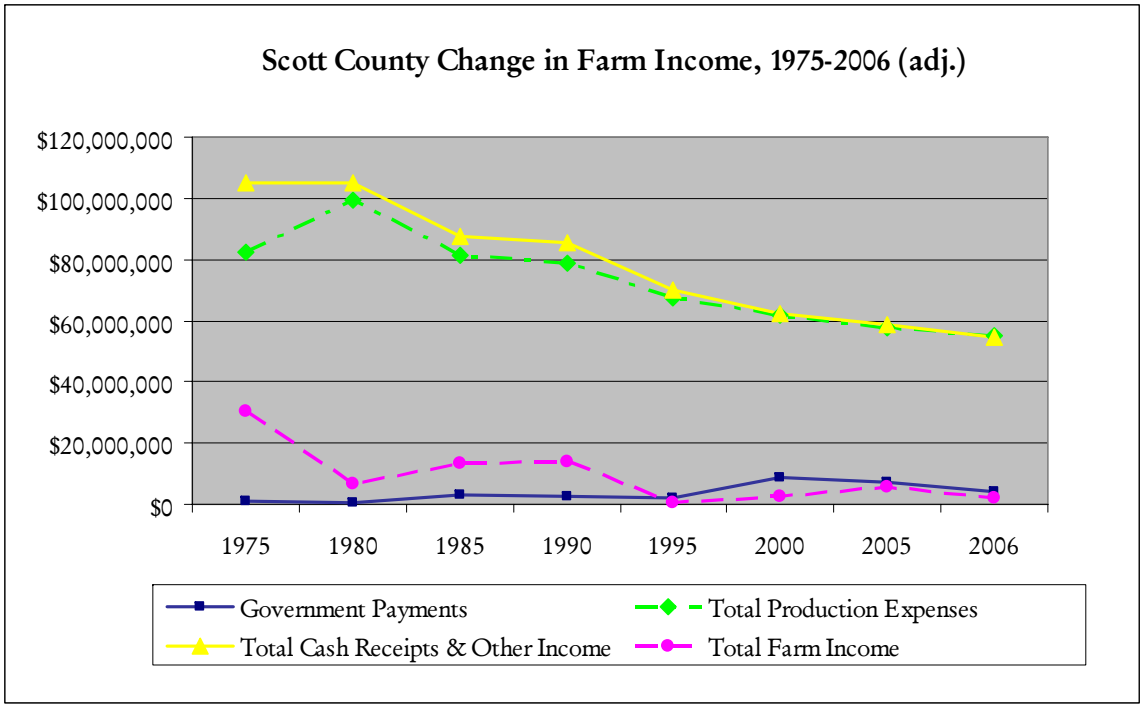


Figure 4.5 Scott County Farm Income, 1975-2006
Source: Bureau of Economic Analysis, Local Area Personal Income, 1975 - 2006

After adjusting farm income data for inflation, it can be seen that the industry as a whole (in Scott County) suffers from decreased income and profit in the farm sector over time (**Figure 4.5**). This decline in cash receipts can be attributed to the decline in the number of farms, acres in production, and products cultivated. Conversely, the decline in production costs can be attributed to the innovation that technology has brought to the farming sector.

C. Comparison Counties—Farm Revenues and Expenses

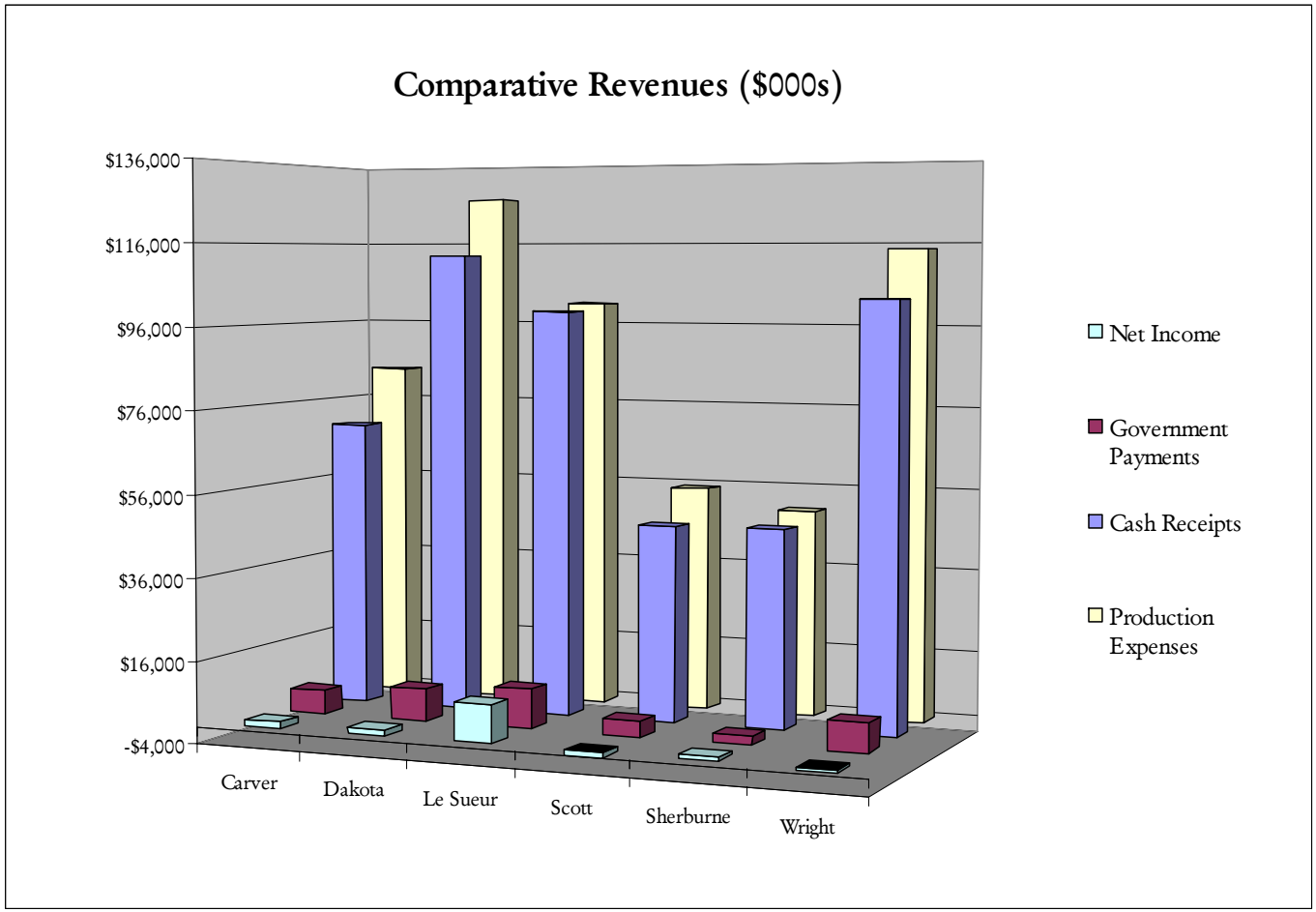


Figure 4.6 Farm Revenues, Comparison Counties, 2006
Source: Bureau of Economic Analysis, Local Area Personal Income, 2006

Farm income data from the Bureau of Economic Analysis (2006) was used to compare the farm revenues and incomes of the six counties. **Figure 4.6** shows government payments, production expenses, cash receipts, and total net income (from sales) for the six counties. Scott County has relatively low values in all four categories, and is the only county besides Wright with a negative net income value. Unsurprisingly, Carver, Dakota, and Le Sueur Counties, home to larger farms with higher market values, show higher production expenses and cash receipts than Scott County. In all counties, the production expenses are higher than the cash receipts received from sales.

V. Organic and Local Production

With epidemic increases in obesity, diabetes, and heart disease; growing concerns about food safety and security; and growing interest in organic and humanely raised food, local foods are gaining popularity in Minnesota and throughout the nation. As Fred Kirschenmann of the Leopold Center for Sustainable Agriculture explains in the Farm Credit Council's *Outlook for Local Food Systems*:

> A second major market...based on memory, romance and trust. Memory is when a customer eats a product and says "Wow, I want that again." Romance is the story behind the food's production. Trust means the days of consumers' passive acceptance are over. People wanting to know where food comes from represents an opportunity to form a relationship between the consumer and the producer.

The growth of the local and organic food sectors highlights this emerging market. Because these are recent trends, the Census of Agriculture only recently began measuring local food production and sales beginning in 1992, and organic production in 2002. Due to changes in methodology and sampling, comparisons before 2002 are unavailable.

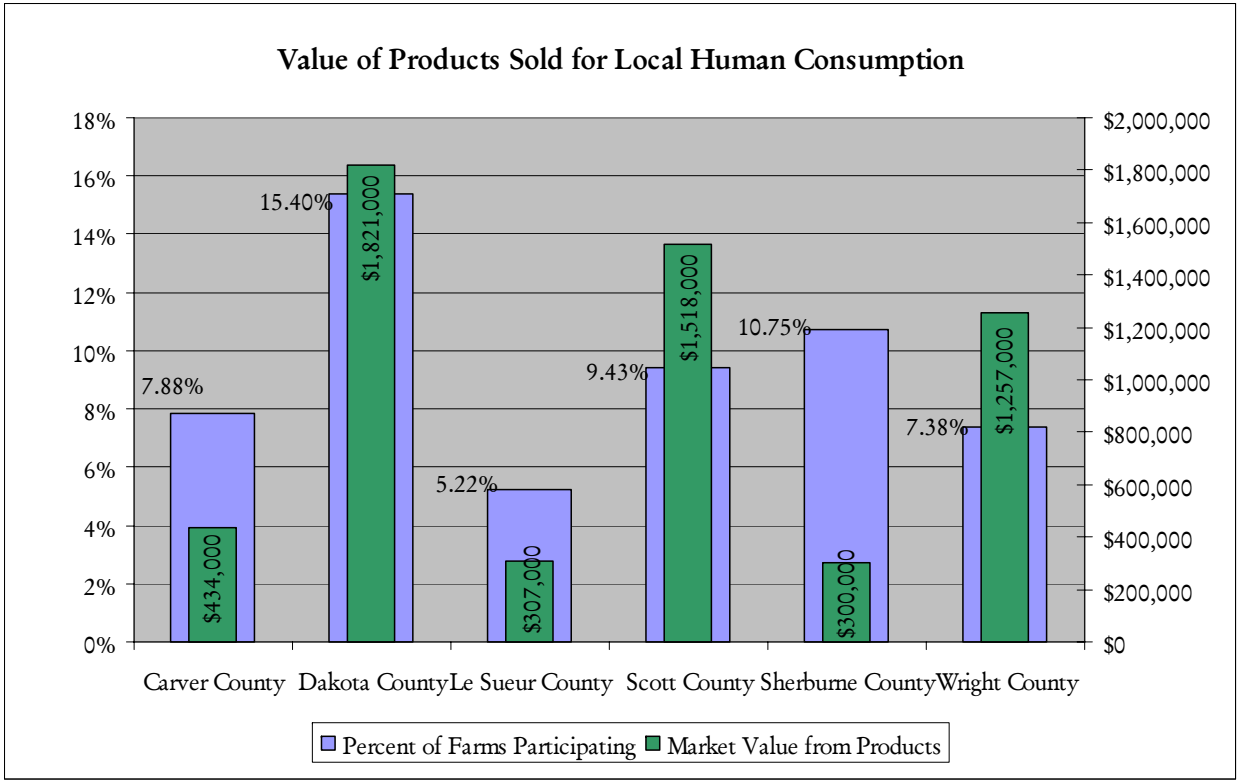


Figure 5.1: Market Value and Participation of Farms Selling Products for Local Consumption, 2007
Source: 2007 Census of Agriculture, Table 2

A. Local Production

Although the number of organic and local food producers is growing, both groups are battling competition. Organic producers are fighting import competition, whereas local food producers are swimming upstream for market recognition in a highly competitive field.

The Census of Agriculture measures the market value of "products sold directly to individuals for human consumption," which includes the value of sales for operations like farmers markets, roadside vegetable stands, and orchards. As can be seen in **Figure 5.1**, each of the six counties has some engagement in the local food market. Although the percentage of farms engaged in local food production is significant, the market value of local food sales is minimal. The overall low values are consistent with the types of

products typically sold in local markets, namely fruits and vegetables. When compared with the total market value of all agricultural products sold, local food sales represent only 0.2% to 2.3% of total sales.
Nonetheless, Scott County is the leader in these local sales, which make up 2.3% of its overall market value, the highest proportion of any county in the comparison region.

Programs like farmers markets and farm-to-school initiatives capitalize on local and organic food trends and help local farmers to sell their goods. In *Growing Opportunity: The Outlook for Local Food Systems,* the Farm Credit Council praises Kaiser Permanente for its nationwide push to locate farmers markets at its hospitals and for encouraging its members to eat locally grown foods. Additionally, the University of Minnesota–Morris has been recognized for its efforts to purchase $500,000 worth of food from local producers.

Table 5.1. Farms Marketing to Local Buyers

County	Number of Farms Listed
Carver	22
Dakota	28
Le Sueur	4
Scott	29
Sherburne	24
Wright	31

Source: Minnesota Grown Directory, 2008–2009

Another data source for analyzing local food production is the *Minnesota Grown Directory,*[3] which catalogs local food sources for consumers (**Table 5.1**). According to the 2008 directory, Scott County has 22 local producers that sell directly to consumers or buyers. Also included in the directory are orchards and agrotourism businesses, garden centers, Christmas tree farms, and farmers markets. Scott County has four farmers markets in Shakopee, Prior Lake, Savage, and New Prague.

With the exception of Le Sueur County, the other comparison counties have similar numbers of local producers and agrotourism enterprises. Most of the counties have a similar number of farmers markets; all located in their cities or rural growth centers. Dakota County is the exception, with 8 farmers markets within its borders.

[3] Information in the *Minnesota Grown Directory* is self-reported, and farms must pay $40 per listing to advertise in the directory.

B. Organic Production

The demand for organically grown and organically processed food is increasing exponentially across the nation, as well as in the Twin Cities region. According to the *Organic Trade Association 2008 Fact Sheet,* organic foods have become a $20 billion industry (2007), representing an increasingly larger share of the food market.

The Census of Agriculture measures organic production as those farms that are officially certified organic. Wright and Dakota counties lead the region with the most farms producing organic products (**Table 5.2**), while Dakota County leads the group in the market value from sales, with more than $1.2 million in sales from their 12 organic farms.

Table 5.2. Organic Production in Minnesota and the Comparison Region

	Number of Farms Producing Organic	Market Value
Minnesota	397	$8,330,000
Carver	3	undisclosed
Dakota	12	$1,286,000
Le Sueur	4	undisclosed
Scott	9	$316,000
Sherburne	6	$84,000
Wright	17	$292,000

Source: 2007 US Census of Agriculture, Table 43

Table 5.3. Organic Farms in Minnesota and the Comparison Region

Place	Number of Organic Farms
Minnesota	**593**
Carver	3
Dakota	8
Le Sueur	8
Scott	7
Sherburne	2
Wright	13

Source: Minnesota Department of Agriculture

Table 5.3 lists the number of farms certified as organic producers, based on a list compiled by the Minnesota Department of Agriculture. For reference, Stearns County, a state benchmark in the St. Cloud region, has the largest share of organic farms in the state, with 57 organic producers. The discrepancies in numbers of organic farms based on the Department of Agriculture and Census of Agriculture data may be due to producers not reporting their organic certification to the Minnesota Department of Agriculture.

In 2007, the Minnesota Department of Agriculture conducted a survey of organic farmers in Minnesota. A majority of respondents reported that organic production was more profitable than conventional farming. Farmers reported using organic methods because of the health and safety benefits, environmental benefits, and the price premiums for organic products. More than 80% of respondents reported personal satisfaction and pride from their organic farming methods.

Most of the farmers who responded to the survey reported that buyers found out about their products through "word of mouth," indicating a local market. One national study of organic foods indicated that nearly half of total organic food sales occur through grocery stores, supermarkets, and club stores. Another national study indicated that only 11% of organic shoppers use specialty grocers, whereas 57% purchase their organic food at mainstream stores (*Choices Magazine,* 2007). This has significant implications for organic producers in Scott County and the rest of the Twin Cities metro area; if they are able to access metro area grocery chains such as Byerlys, Lunds, Cub Foods, Kowalskis, Target, Sam's Club, and Rainbow Foods, they may realize much greater distribution and sales

Continued partnerships with research institutions can reinforce and strengthen the organic food movement in Minnesota. Greater public exposure to and education about organic production methods and certification can also help to increase patronage of organic producers (Minnesota Department of Agriculture, *Overview: Experiences & Outlook of Minnesota Organic Farmers,* 2007).

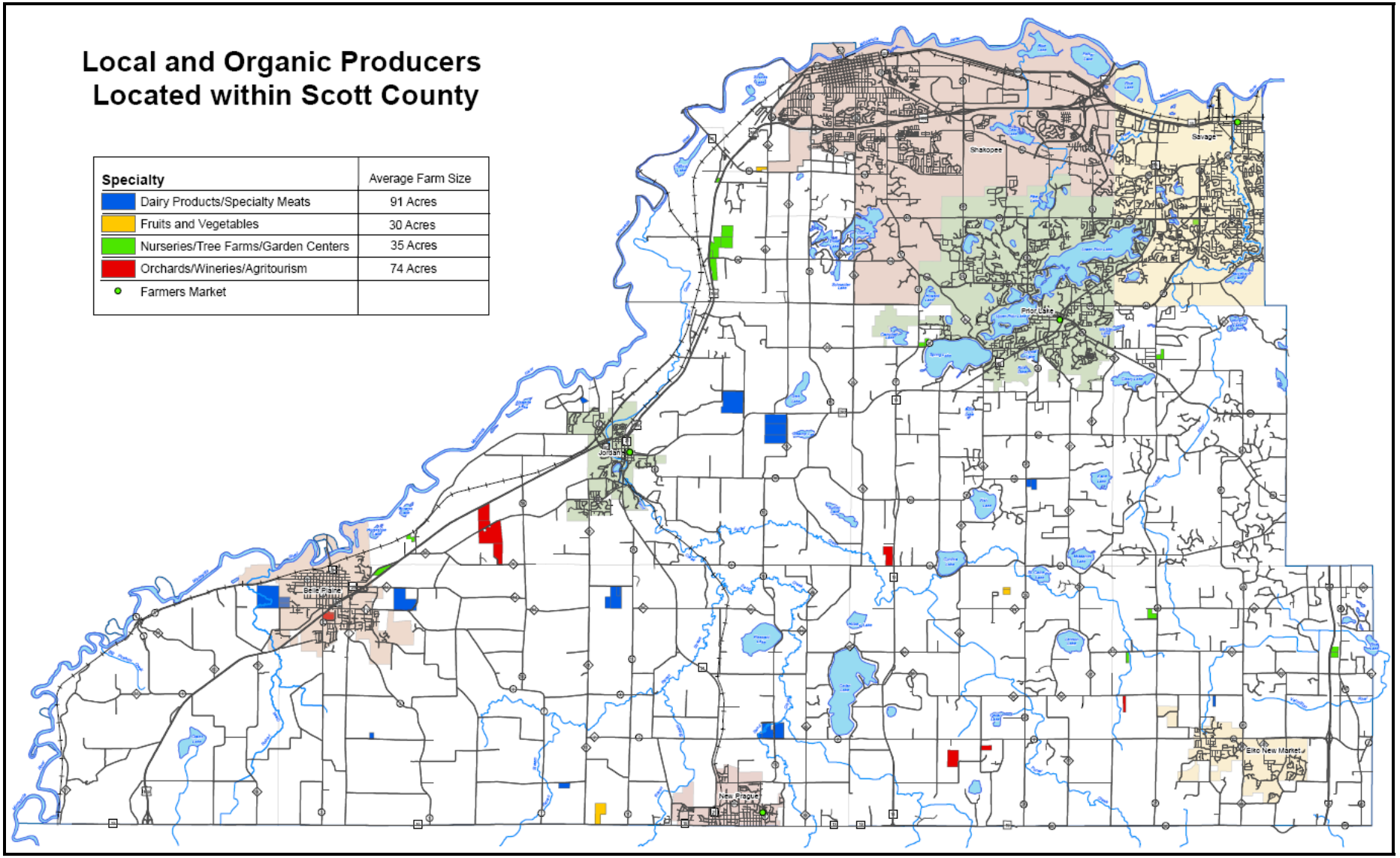
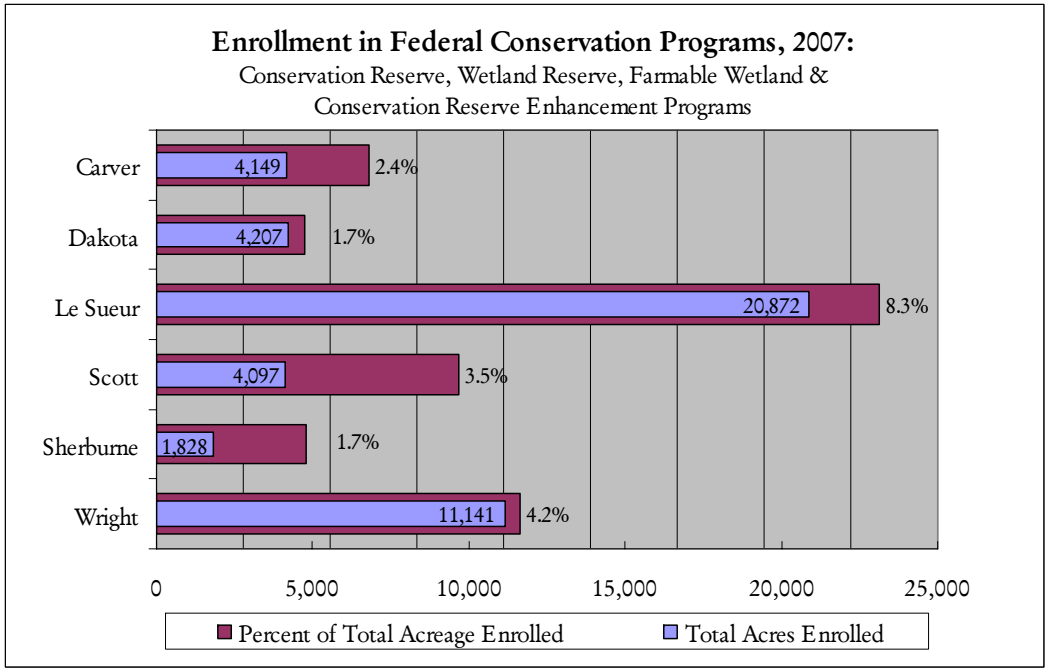


Figure 5.2: Local and Organic Producers, Scott County
Prepared by: Scott County GIS. Source: Minnesota Grown Directory, Minnesota Department of Agriculture and local sources

Because the local and organic food movement is still gaining momentum in Scott County, no complete list of producers is yet available. **Figure 5.2** shows all known local and organic producers in Scott County as reported by the State of Minnesota Certified Organic List, the *Minnesota Grown Directory*, and other sources. Most of these producers are in rural areas of the county, with the exception of several producers located in or near the city boundaries of Belle Plaine.

VI. Land Conservation

Figure 6.1 (right): Enrollment in Federal Conservation Programs, Comparison Region



Although multiple conservation programs exist in Minnesota, the Census of Agriculture only reports figures for federal conservation programs, including the Conservation Reserve (CRP), Wetland Reserve, Farmable Wetland and Conservation Reserve Enhancement programs. These programs provide subsidies to agricultural landowners in exchange for their adoption of conservation methods and efforts to enhance soil, water, and habitat quality. In Scott County, subsidies were approximately $360,000 amongst the 181 farms participating. As shown in **Figure 6.1** (at right), participation in this program among the six counties is relatively low, except Le Sueur County, which has much higher participation in the program.

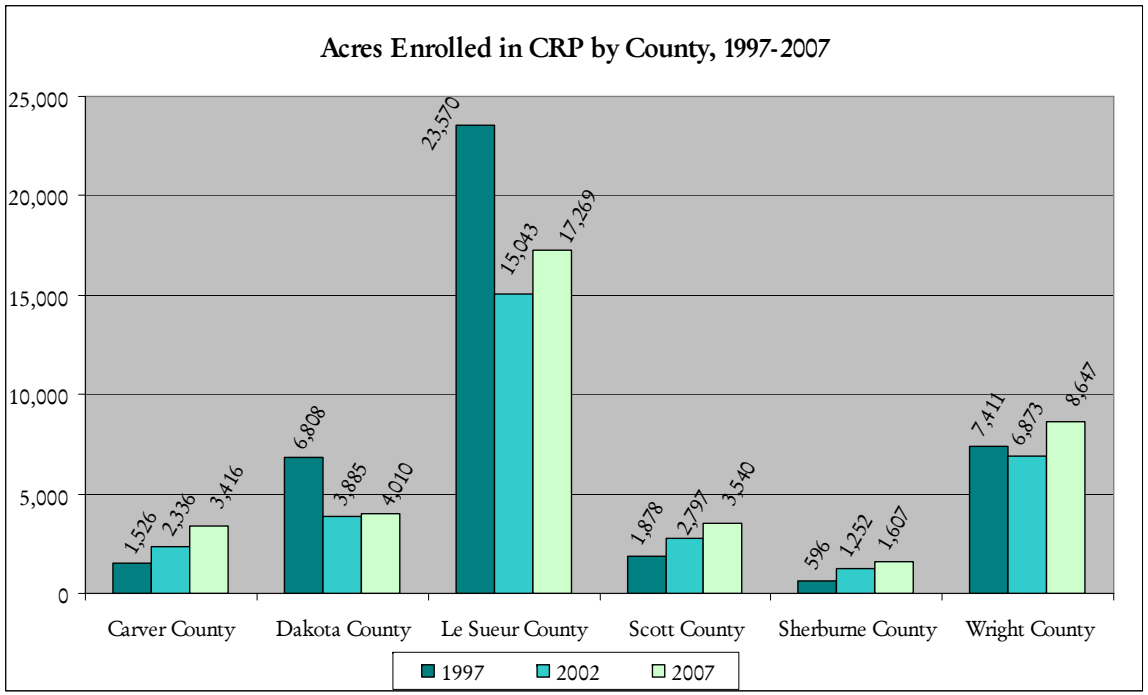


Figure 6.2 (left): Acres enrolled in the Conservation Reserve Program, Comparison Region 1997–2007
Source: U.S. Department of Agriculture

Data from the U.S. Department of Agriculture show that, during the last 10 years, the number of acres enrolled specifically in the Conservation Reserve Program has increased in some of the comparison counties (Carver, Scott, Sherburne, and Wright) and decreased in others (Dakota and Le Sueur) **(Figure 6.2, at left)**. The reductions in Dakota and Le Sueur may be a result of more land being put into production, or (in the case of Dakota County) land being developed—uses which are not permitted under the Conservation Reserve Program.

VII. Bioenergy

Agricultural producers in Scott County are increasingly turning soybeans and corn into resources for the production of biofuels. Biofuels are unique from other renewable energy sources in two ways: (1) they are used primarily for transportation fuel, and are therefore in much higher demand in the United States, and (2) they are derived from recently living animal or vegetable matter. Crops with a high content of sugar (sugarbeets) or starch (corn) are used to produce ethanol, whereas crops with high oil content (soybeans, palm oil, etc.) are used to produce biodiesel.

Ethanol production is a strong force in Minnesota, with 17 ethanol plants in production and demand spurring more growth. The state ranks fifth in the nation for ethanol production, producing 525 million gallons a year.

Grasses, crop residues, wood byproducts, and animal waste can also be used as feedstocks for biomass—the production of energy through combustion. The energy produced can be used for heat or electricity. Some studies suggest that biomass has the potential to supply half of the state's current energy needs (Union of Concerned Scientists; Clean Energy Resource Teams). There are various efforts throughout the state to promote the development of biomass capacity, which produces cleaner energy than does burning coal and reduces the amount of carbon dioxide released into the atmosphere.

Within Scott County, the Kodas Energy plant is using biomass technology to produce energy. The plant is a joint effort between Rahr Malting and the Mdewakanton Sioux community. The boiler was set to begin operation in December of 2008, and when fully operational, will provide enough electricity to power 14,000 homes. Obtaining the needed amounts of biomass feedstock has been difficult due to rising demand across the country. Crops like switchgrass are a relatively new commodity crop, and there are few producers in the region. The Kodas plant needs 180,000 tons of biofuels to fully operate its plant, an amount that could provide nearly $6.4 million in revenue for local producers. According to the National Renewable Energy Laboratory, the Midwest has great potential for production of biomass feedstock. Scott County has the potential to produce approximately 100,000 to 150,000 tons of feedstock per year. Amounts for the comparison counties range from 50,000 to 500,000 tons per year.

Some critics question whether producing ethanol from corn and soybeans is a net benefit for the environment because the inputs required for the production of these crops counteract the effects of the cleaner fuel source. Others have criticized the impact of growing corn and soybeans for fuel instead of food for humans and animals because of the increased food prices that result. And some argue that the large amounts of energy used in transporting and processing the materials for biofuels or biomass offsets any "green" benefit derived from using these non-carbon energy sources. There is growing interest and research into alternative sources of ethanol and biomass, such as native prairie grasses and trees. In addition to avoiding some of the pitfalls of using corn and soybeans for fuel, increased cultivation of grasses and trees would provide habitat for local wildlife, as well as other environmental benefits.

VIII. Past Comparison: Le Sueur County in 2002 versus Scott County in 1982

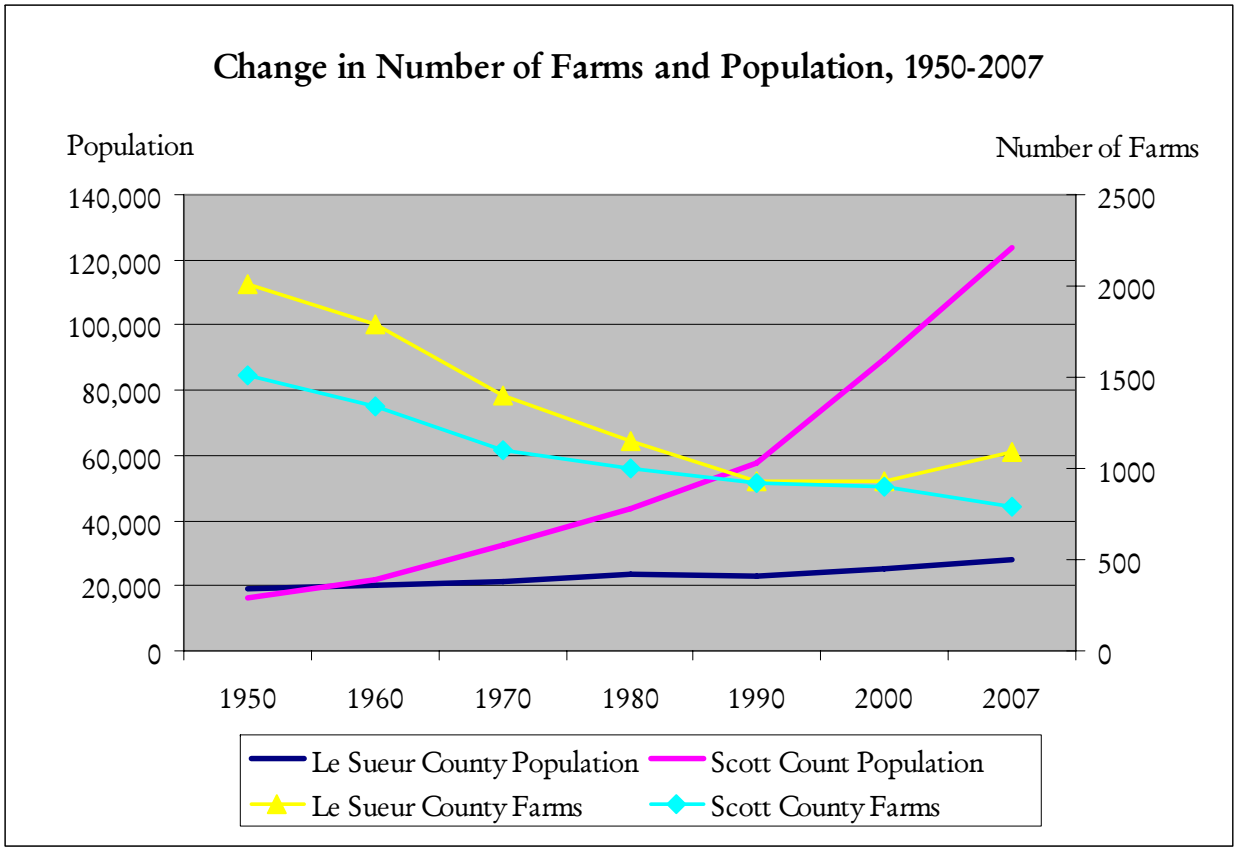


Figure 8.1: Le Sueur County versus Scott County Change in Farms and Population, 1950-2007.
Source: Census of Agriculture, U.S. Census, Minnesota State Demographic Center.

As part of this study, a comparison was made between the general state of farming in Le Sueur County today to that of Scott County twenty years ago – before the county experienced its biggest wave of rural and suburban development due to rapid outward growth of the Twin Cities region. This comparison is one way to assess the different impacts suburbanization is having on Scott County's farming profile, in addition to general trends in farming and agriculture (as evidenced by Le Sueur County).

Figure 8.1[4] shows that in the mid-1950s, the two counties had approximately the same population, with a similar number of farms. Since then, Le Sueur County's population has remained relatively flat, while the population of Scott County has grown exponentially beginning in the 1960s. Today, while Le Sueur County remains relatively rural, Scott County is urbanizing rapidly, and losing farms quickly.

[4] The Census of the Agriculture has been conducted on off-years since 1950. County farm numbers in Figure 8.1 are approximated as close to the date shown as possible. The data points are from the following years: 1950, 1959, 1969, 1978, 1987, 1997, and 2007. 2007 Population estimates were taken from the Minnesota State Demographic Center's 2007 State Estimates, accessed at: http://www.demography.state.mn.us/estimates.html .

Table 8.1 (p. 31) provides an overall comparison between the changes in Scott County versus those in Le Sueur County between 1982 and 2007. The overall change in form of Scott County illustrates the change brought on by the rapid suburbanization of the 1990s and 2000s, whereas Le Sueur's snapshot analysis from 1982 and 2007 provide a baseline for change experienced by a rural, agricultural county in Minnesota during this same time period.

Similarities do exist, speaking to the larger trends in agriculture, primarily in terms of: fewer farmers, who are older in age, with longer periods of time on their current farms. Additionally, both counties saw a loss in market value of their products sold, with declining value from livestock products, and increasing value of crops.

Other highlights include:

- Nearly identical results for the number of farms, and total and average market values of products for Le Sueur County between 1982 and 2007.
- An approximate 20% loss of farms and land in farms in Scott County between 1982 and 2007
- A large loss of Scott County farms with 50–1,000 acres, but a 150% increase in farms over 1,000 acres, whereas Le Sueur County saw an increase in its share of farms, 180 acres and larger.
- Large increase in value of land and buildings in Scott County, with relatively no increase for property in Le Sueur County

The data suggests these two counties experienced different trends throughout this time period because of the different role that agriculture played in the local community. In Le Sueur County, a larger number of farms with higher market values from sales (and further, higher average farm values) exists because agriculture is a more common use for land with more people working within the sector. Conversely, Scott County has smaller farms with lower market value, and is seeing a trend away from the larger, self-sufficient farms that characterize Le Sueur County.

Table 8.1. Comparison of Le Sueur and Scott County, 1982-2007

Le Sueur 1982	Le Sueur 2007	*% Change*	Measure	Scott 1982	Scott 2007	*% Change*
1,087	1,091	0.4%	Farms (number)	981	795	-19.0%
229,735	250,696	9.1%	Land in farms (acres)	146,327	117,551	-19.7%
76.9%	83.8%	—	Pct. of all land in farms (2002 Acreage)	68.1%	54.7%	—
211	230	9.0%	Average size of farms (acres)	149	148	-0.7%
46.8	57.4	22.6%	Average age of principle operator	48.0	55.9	16.5%
18.5	26.7	44.3%	Average years on present farm	16.5	24.1	46.1%
77	58	-24.7%	Farms of 1 to 9 acres	52	42	-19.2%
164	334	103.7%	Farms of 10 to 49 acres	236	345	46.2%
409	356	-13.0%	Farms of 50 to 179 acres	432	238	-44.9%
172	222	29.1%	Farms 180 to 499 acres	222	130	-41.4%
61	78	27.9%	Farms of 500 to 999 acres	31	20	-35.5%
24	43	79.2%	Farms of 1,000 acres or more	8	20	150.0%
$811,255,120 (adjusted)	$805,168	-0.8%	Avg. estimated market value of land and buildings per farm	$553,661 (adjusted)	$741,776	34.0%
$139,518,610 (adjusted)	$139,640,000	0.1%	Total market value of agricultural products sold	$84,363,480 (adjusted)	$63,332,000	-24.9%
$128,352 (adjusted)	$127,993	-0.3%	Avg. market value of agricultural products sold per farm	$85,998 (adjusted)	$79,663	-7.4%
$59,901,430 (adjusted)	$72,620,000	21.1%	Market value of agricultural products sold—crops	$26,281,940 (adjusted)	$28,498,000	8.4%
$79,617,180 (adjusted)	$67,020,000	-15.8%	Market value of agricultural products sold—livestock, poultry, and their products	$58,081,540 (adjusted)	$34,834,000	-40.0%
42.9%	52.01%	—	Pct. of value from crops	31.2%	45.00%	—
57.1%	47.99%	—	Pct. of values from livestock, poultry, and their products	68.8%	55.00%	—
1,566	1,082 (2006)	-30.9%	Total farm employment (BEA)	1,262	1,002 (2006)	-20.6%
69.4%	42.80%	—	Pct. of farmers whose primary occupation is farming	52.2%	42.64%	—

Source: Census of Agriculture, 1982 and 2007. Bureau of Economic Analysis, 1982 and 2006.

IX. Looking Forward

As the county moves ahead with addressing the conflicts over competing land uses, land use priorities will be needed to structure the policies that will guide the development of the community.

One tool for preserving important land uses and resources is through land conservation programs. Currently, there are a number of state and local programs available to encourage farmers in Scott County to conserve their land. These tools, along with corresponding planning and policy adopted at the local level, can help shape the manner in which Scott County grows and where and how that growth is directed.

Further, examining the spatial distribution of farms, prime agricultural soils and overlapping land use areas can help aid the consideration of where these policies are needed, and what alternatives are available for collaborating land uses. Political collaborations will be necessary in approaching these issues from a county-wide stance, as the local municipalities have planning and land use jurisdiction for their cities. While most farms lie outside of city boundaries, the growth pressures from within the cities will impact the unincorporated parts of the county and require consistent policies and actions in light of development.

A. State and Local Policies

The state **Right to Farm** law (Minnesota Statute 561.19) protects agricultural producers from nuisance complaints lodged by neighboring residents, especially complaints related to noise, odors, dust and residue, and the operation of farm equipment. It covers most agricultural land uses, except those involving processing or large-scale feedlots. Local governments may enhance these laws with further protections. In Scott County, five townships in the southern part of the county have enacted this type of policy: Helena, New Market, Belle Plaine, Cedar Lake, and St. Lawrence.

The **Metropolitan Agricultural Preserves** program, enacted through Minnesota Statute 473H, seeks to preserve metropolitan area farmland in light of growth pressures. Begun in the 1980s, the program applies only to parcels of 40 acres or more in size. Through a combination of preferential assessments for agricultural land, a restriction on special assessments, and a lower property tax rate, this program allows metro area farms to remain competitive with non-metropolitan farms and to avoid being taxed out of existence as development encroaches. The program requires local units of government to maintain agricultural zoning for farms to remain eligible for the program.

The **State Agricultural Land Preservation and Conservation Policy**, codified by Minnesota Statute 17.80–17.84, ensures that state and federal projects are reviewed by the Department of Agriculture (or another environmental review body) should they have an adverse impact on 10 or more acres of agricultural land. Alternative sites or environmental remediation options are then considered.

Minnesota Agricultural Property Tax law (Minnesota Statute 273.111), also known as the "Green Acres program," is a property valuation deferment program aimed at keeping agricultural land uses affordable for farmers in high growth areas. This program allows enrolled parcels of 10+ acres to defer the increase in property value (and subsequent increase in property taxes) when land values increase because of current or expected commercial or residential development. Recent changes to the program in 2008 may penalize farms that use uncultivated areas as buffers by making such undeveloped land ineligible for the program.

Within Scott County, the planning department has outlined two agriculturally-focused **land use** categories, and uses two main **agricultural zoning districts**:

- The land use categories, Agriculture Preservation and Agriculture Transition, encompass the southwestern portion of the county. These designations have the long-term goal of agriculture preservation. Landowners are unable to rezone their properties to accommodate non-farm development at densities higher than 1 unit per 40 acres or 4 units per 40 clustered acres, and must have an A-1 or A-3 zoning classification.

- The zoning districts, Agriculture Preservation (A-1) and Agriculture Preservation Density (A-3), allow a maximum density of one dwelling unit per 40 acres, with a minimum lot size of 40 acres, and strictly limit permitted and conditional uses. The A-3 district makes certain concessions for higher densities with cluster development. In mid-2008, there were approximately 57,000 acres in these two zoning districts. There are parcels zoned A-1 or A-3 that lie outside of the Agriculture Preservation or Transition land use categories. These landowners are permitted to petition to have their properties rezoned for higher densities.

Landowners in Scott County are eligible to participate in conservation programs aimed at preserving open space, habitat, and natural resources. The four programs shown in **Figure 9.1** are administered by state and national agencies, and have their own requirements and goals. In Scott County as a whole, roughly 9,636 acres (approximately 5% of all land) is enrolled in one of these four voluntary programs. The Minnesota Agricultural Preservation Program obviously covers the most land in the county, with nearly 7,000 acres, mostly in the western and southern parts of the county, enrolled in the program.

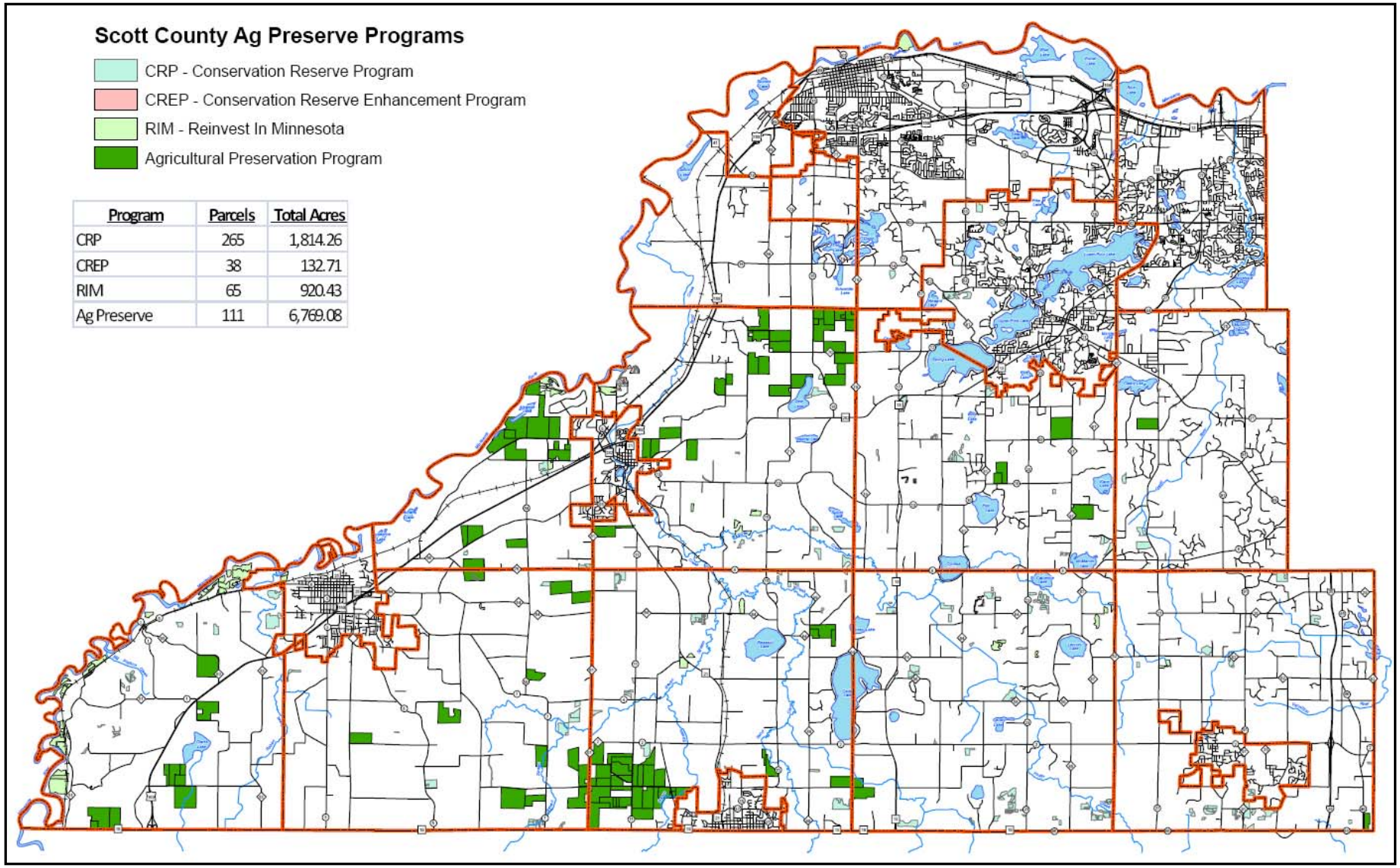


Figure 9.1: Land Enrolled in Conservation Programs, Scott County
Prepared by: Scott County GIS

B. Scott County 2030 Comprehensive Plan and Prime Farmland

Scott County has completed its *2030 Comprehensive Plan Update*, which was approved by the Metropolitan Council in February 2009. Given this approval, Scott County will formally adopt the plan and begin drafting policies and ordinances to implement the goals of the plan. According to the plan, approximately 53% of land in the county is categorized as "Agriculture/Undeveloped." Two-thirds of this land lies in unincorporated areas, which are under the jurisdiction of the county planning and zoning authority. **Table 9.1** indicates the distribution of land within the *2030 Plan* land use categories (percentages are approximate):

Table 9.1: County Land by Land Use Category
(Approx. 2/3 of total land under county jurisdiction)

Land Use Category	Percent
Urban Expansion Area	19%
Urban Transition Area	17%
Rural Residential Area	9%
Rural Residential Growth or Rural Residential Staged Growth Area	10%
Agricultural Transition or Agricultural Preservation Area	14%

Source: Scott County 2030 Comprehensive Plan Update, Land Use Section, pg 42, V-16.

The 2030 Comprehensive Plan Update guides for future development many areas of the county that are currently rural and agricultural. To understand the impact of these changes, it is important to know how much prime farmland is located in each of the Planned Land Use categories in the 2030 Plan. This analysis can provide policymakers with a better understanding of how development will impact agriculture, and what the environmental cost of development may be.

Prime farmland is a function of many factors, including moisture-holding capacity, permeability, natural fertility, topographic slope, and chemical composition. For purposes of this analysis, prime farmland was identified based on soil classifications provided by the U.S. Department of Agriculture's Natural Resource Conservation Service (NRCS). This agency assigns one of five soil class values to each soil mapping unit in the United States:

1. **All areas are prime farmland.** Prime farmland is defined as areas of land that possess the ideal combination of physical and chemical properties for producing row crops for food, feed, forage, fiber, and oilseed. These soils are considered to be nationally significant.
2. **Farmland of statewide importance.** These are soils that, although they do not attain national significance, are considered of statewide importance for agriculture.
3. **Prime farmland if drained.** These are soils that would qualify as prime farmland if drained. Typically they are located in low-lying areas or depressions in the landscape.
4. **Prime farmland if not flooded**. These are soils that are occasionally or frequently flooded. Most of these soils are located in floodplains.
5. **Not prime farmland**. These soils are not considered prime farmland by any criterion.

Because of the cost involved in draining areas that are considered prime but too wet to farm, only soils in the first and second category were considered prime for this analysis. Table **9.2** shows the amount of prime farmland in each of the 2030 Planned Land Use categories in Scott County.

Table 9.2: Amount of Prime Farmland by 2030 Planned Land Use Areas, Scott County

2030 Planned Land Use	Total Land Area (Acres)	Prime Farmland (Acres)	Pct. Prime Farmland
Agricultural Preservation	16,259	5,718	35.2%
Agricultural Transition	16,283	7,558	46.4%
City	50,631	20,623	40.7%
Commercial/Business Reserve	5,497	2,068	37.6%
Commercial-Industrial	2,660	830	31.2%
Public Lands	10,191	3,653	35.8%
Rural Residential Growth	8,635	3,451	40.0%
Rural Residential Growth—Staged	16,219	6,711	41.4%
Rural Residential Reserve	20,827	8,556	41.1%
Urban Expansion	46,362	22,633	48.8
Urban Transition	41,312	20,403	49.4%
TOTAL	**234,876**	**102,204**	**43.5%**

This analysis overestimates the amount of prime farmland in each planning area because it does not exclude such things as already developed parcels that are unavailable for agricultural use, parcels with land cover types that make conversion to farmland cost-prohibitive or impractical (e.g., forest, woodland, wetland, etc.), small or isolated parcels where any form of large-scale farming would be difficult or inefficient, or areas where agricultural uses would risk environmental degradation through erosion or through contamination of surface water or groundwater.

Based on **Table 9.2** and **Figure 9.2**'s designation of prime farmland, it can be seen that prime farmland is distributed evenly across the various land use categories, with a range of 31.2–49.4% of the acreage designated as 'prime' farmland. Although two land use categories are devoted to agricultural use, the highest percentage of prime farmland lies in the Urban Expansion and Urban Transition areas, which surround the local cities and are designated for the first waves of future growth.

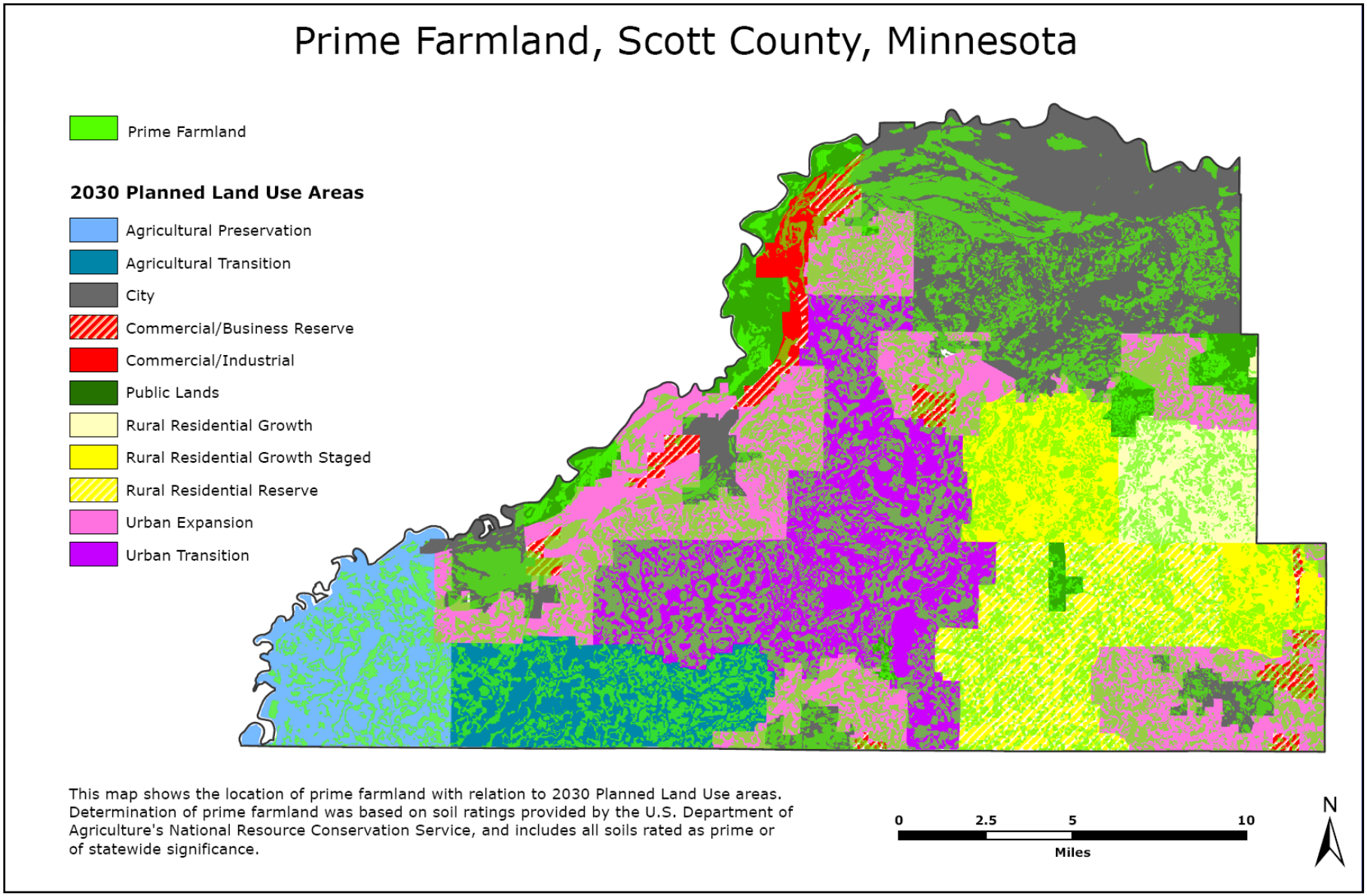
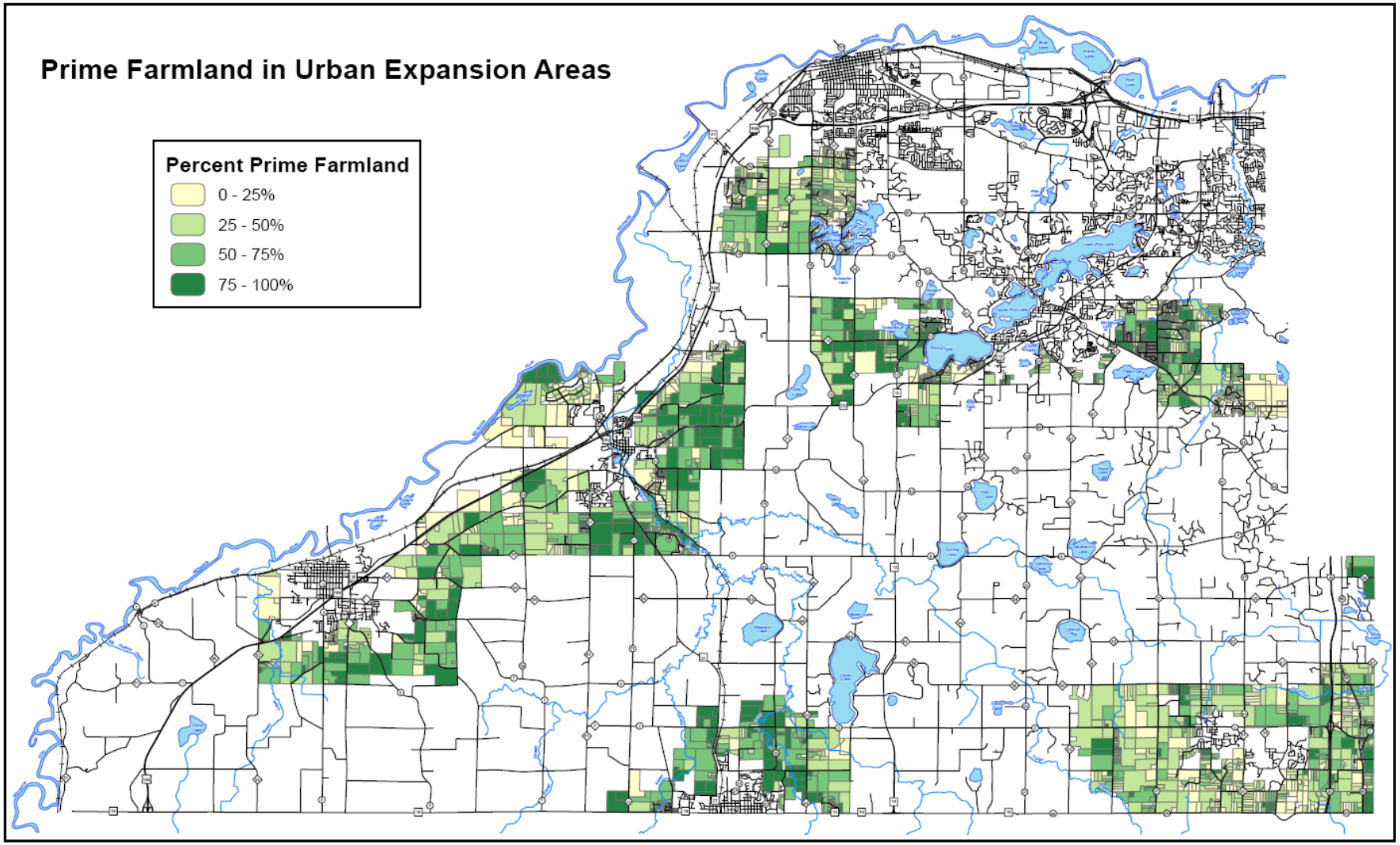


Figure 9.2: Prime Farmland within the 2030 Land Use Areas, Scott County
Prepared by: Mike Greco, U-CGO
Source: Scott County, U.S. Department of Agriculture, Natural Resource Conservation Service

As can be seen in **Figure 9.3**, the prevalence of prime farmland near developing areas of Scott County presents an immediate policy question for the leaders and residents of Scott County. The Urban Expansion areas surround the local municipalities and are set aside to accommodate future residential growth with special consideration for sanitary sewer system plans. The high rates of prime farmland around these cities point out the locations in which agricultural land uses and higher-density residential land uses will conflict. Measures taken to support existing landowners of prime farmland, such as the conservation methods previously discussed, may help direct new development towards less productive soils.



X. Conclusions

This report has provided a baseline analysis of the type, quantity, value and impact of agriculture in Scott County. As the county continues to grow, these factors will influence where development will take place and the fiscal and environmental cost of the growth. The trends towards smaller farms with more specialized products have led to a more diverse agricultural sector and increasing market value from sales to consumers and organic products. As the populated areas of the county begin to merge with agricultural land uses, policy makers and communities will be forced to decide on issues surrounding permitted land uses, nuisances and property taxation. Equal participation from members the agricultural and non-agricultural sectors will need to begin formulating a vision for the county, safeguarding the beauty and resources of the land while welcoming a growing community.

In the fall of 2008, a concurrent study researching planning and policy strategies for preserving farmland was released by the University of Minnesota, Community Growth Options program. The study outlined the efforts of five regions throughout the United States to preserve agricultural lands in light of development pressures. This study has provided Scott County, along with the Jordan Area Visioning Alliance (JAVA) with examples of programming and policy initiatives aimed at solving the issues currently facing Scott County.

Further studies are being undertaken to examine the feasibility of local food markets, along with the nature of the prime farmlands in Scott County. These studies will further illustrate the options and resources available to these communities as they move forward in finding a balance between new growth and existing farmland.

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APPENDIX A: Change in Agricultural Characteristics in the Comparison Counties, 1945–2007

	1945	1950	1954	1959	1964	1969	1974	1978	1982	1987	1992	1997	2002	2007	Total Pct. Change
No. of Farms															
Carver	1,987	1,917	1,875	1,689	1,596	1,364	1,146	1,166	1,141	1,038	901	831	820	800	-59.7%
Dakota	2,172	1,932	1,839	1,618	1,459	1,199	1,015	1,073	1,084	986	869	962	997	1065	-51.0%
Le Sueur	2,028	2,006	1,863	1,794	1,644	1,397	1,219	1,155	1,087	932	845	934	975	1091	-46.2%
Scott	1,590	1,509	1,471	1,342	1,225	1,103	975	997	981	924	838	896	1,004	795	-50.0%
Sherburne	1,162	1,130	1,009	889	783	672	667	682	684	604	530	588	677	549	-52.8%
Wright	3,762	3,556	3,177	3,011	2,795	2,369	2,104	2,081	2,094	1,841	1,584	1,541	1,646	1531	-59.3%
Land in Farms (acres)															
Carver	219,998	215,806	216,227	213,745	212,308	195,252	176,792	181,882	175,005	167,532	165,961	159,012	171,913	169,397	-23.0%
Dakota	330,645	316,647	206,856	298,074	288,403	256,576	243,172	242,645	239,207	219,920	221,193	226,753	235,763	246,026	-25.6%
Le Sueur	273,694	279,029	266,450	266,540	273,757	247,258	243,598	237,672	229,735	222,523	205,031	217,338	238,076	250,696	-8.4%
Scott	215,721	212,890	210,895	203,574	195,271	168,526	154,325	161,940	146,327	134,420	131,753	117,830	130,889	117,551	-45.5%
Sherburne	248,040	239,173	230,909	199,741	193,376	159,656	139,870	144,702	134,690	124,288	117,701	113,104	125,798	106,127	-57.2%
Wright	417,265	404,632	389,957	395,944	390,432	337,363	312,517	315,334	308,681	288,429	272,540	258,783	265,605	265,376	-36.4%
Average Farm Size (acres)															
Carver	**111**	113	115	127	133	154	143	156	153	161	184	191	210	212	+91.0%
Dakota	152	164	161	184	198	214	240	226	221	223	255	236	236	231	+52.0%
Le Sueur	135	139	143	149	167	177	200	206	211	239	243	233	244	230	+70.4%
Scott	136	141	143	151		153	158	162	149	145	157	146	130	148	+8.8%
Sherburne	214	212	229	225	247	238	210	212	197	206	222	192	186	193	-9.8%
Wright	111	114	123	132	140	142	149	152	147	157	172	168	161	173	+55.9%

APPENDIX B: Average Acreage per Farm in Scott County by Crop Group, 2007

Table B.1: Average Acreage by Crop, 2007

Crop Group	Avg. Acres Per Farm
Bedding/garden plants	7,293.0
Floriculture	6,830.0
Corn for grain	141.0
Soybeans for beans	121.1
Corn for silage/greenchop	36.8
Wheat for grain	30.3
Forage (land used for hay, grass silage, and greenchop)	29.5
Oats for grain	21.1
Apples	18.4
Land in orchards	16.2
Vegetables harvested for sale	12.8
Sweet corn	10.8
Pumpkins	2.9
Grapes	2.8
Nuts	2.6
Tomatoes	1.6
Squash	1.0
Berries	0.6

Source: The 2002 US Census of Agriculture.

Please note: Average acres per farm were calculated by dividing total acreage by the number of farms. For many categories, the number of farms is not listed to protect the privacy of those farmers. In those cases, an average was not calculated.

Appendix C: Characteristics of Farm Operators, Scott County, 2007

While the population of Scott County has remained relatively homogenous, increasingly farmers are coming from diverse backgrounds. Over time, the numbers of farmers in Scott County seeking work away from farming has increased, while fewer and fewer farmers recognize farming as their primary occupation.

Table C.1: Farming as Primary Occupation, Scott County, 1945–2007

Scott County	Year	Farming	Off-farm/ Other	Total	% Primary Occupation Farming	% Primary Occupation Other
Total Operators and Operators with Time worked Off Farm	**1945**	1,357	223	1,580	*85.9%*	*14.1%*
	1950	1,214	289	1,503	*80.8%*	*19.2%*
	1954	1,021	450	1,471	*69.4%*	*30.6%*
	1959	952	390	1,342	*70.9%*	*29.1%*
	1964	724	501	1,225	*59.1%*	*40.9%*
	1969	545	558	1,103	*49.4%*	*50.6%*
Primary Occupation Farming or Other – Totals as reported in this table	**1974**	661	310	971	*68.1%*	*31.9%*
	1978	560	437	997	*56.2%*	*43.8%*
	1982	512	469	981	*52.2%*	*47.8%*
	1987	471	453	924	*51.0%*	*49.0%*
	1992	434	404	838	*51.8%*	*48.2%*
	1997	340	556	896	*37.9%*	*62.1%*
	2002	494	510	1,004	*49.2%*	*50.8%*
	2007	339	456	795	*42.6%*	*57.4%*

Source: Historic Census of Agriculture, 1945–2007. The measure of this characteristic changed in 1974, when the Census of Agriculture started measuring Primary Occupation, rather than time worked off-farm.

Appendix D: 2007 Market Value by Commodity Group, Comparison Counties

Commodity	CARVER COUNTY			DAKOTA COUNTY			LE SUEUR COUNTY		
	Farms	Market Value	Average Value per Farm	Farms	Market Value	Average Value per Farm	Farms	Market Value	Average Value per Farm
Grain, oilseeds, dry beans and dry peas *Corn for grain, soybeans, greenchop, oats, wheat*	387	$42,273,000	$109,233	474	$65,106,000	$137,354	501	$70,229,000	$140,178
Milk and other Dairy Products	121	$29,745,000	$245,826	41	$14,260,000	$347,805	44	$11,612,000	$263,909
Cattle and Calves	294	$9,328,000	$31,728	275	$47,144,000	$171,433	216	$15,789,000	$73,097
Nursery, Greenhouse, Floriculture and Sod *Garden plants, nursery stock, flower seeds, sod*	22	$4,582,000	$208,273	62	$37,473,000	$604,403	14	$373,000	$26,643
Hogs and Pigs	30	$5,244,000	$174,800	31	$3,438,000	$110,903	86	$33,438,000	$388,814
Other Crops and Hay *Hay, grass seed, hops, hay and grass silage*	184	$931,000	$5,060	156	$971,000	$6,224	141	$1,024,000	$7,262
Fruit, Tree Nuts, and Berries *Apples, raspberries, grapes, strawberries, plums*	18	$299,000	$16,611	36	$787,000	$21,861	10	n/a	--
Vegetables, Melons, Potatoes *Peas, pumpkin, squash, sweet corn*	16	n/a	---	177	$12,971,000	$73,282	38	$928,000	$24,421
Horses, Ponies, Mules, Burros and Donkeys	20	$74,000	$3,700	48	$307,000	$6,396	19	n/a	--
Other Animals and Animal Products *Honey, bison, elk, goats, llamas*	14	$96,000	$6,857	20	$256,000	$12,800	13	$1,170,000	$90,000

Commodity	SHERBURNE COUNTY			WRIGHT COUNTY		
	Farms	Market Value	Average Value per Farm	Farms	Market Value	Average Value per Farm
Grain, oilseeds, dry beans and dry peas *Corn for grain, soybeans, greenchop, oats, wheat*	178	$14,897,000	$83,691	602	$43,743,000	$72,663
Milk and other Dairy Products	11	$1,327,000	$120,636	126	$35,655,000	$282,976
Cattle and Calves	102	$7,946,000	$77,902	464	$14,204,000	$30,612
Nursery, Greenhouse, Floriculture and Sod *Garden plants, nursery stock, flower seeds, sod*	21	$5,582,000	$265,810	34	$14,204,000	$417,765
Hogs and Pigs	14	$846,000	$60,429	48	$1,959,000	$40,813
Other Crops and Hay *Hay, grass seed, hops, hay and grass silage*	161	$980,000	$6,087	379	$2,021,000	$5,332
Fruit, Tree Nuts, and Berries *Apples, raspberries, grapes, strawberries, plums*	19	$177,000	$9,316	36	$1,386,000	$38,500
Vegetables, Melons, Potatoes *Peas, pumpkin, squash, sweet corn*	47	$27,621,000	$587,681	40	$1,179,000	$29,475
Horses, Ponies, Mules, Burros and Donkeys	25	$98,000	$3,920	57	$846,000	$14,842
Other Animals and Animal Products *Honey, bison, elk, goats, llamas*	15	$131,000	$8,733	26	$721,000	$27,731

Source: The 2007 U.S. Census of Agriculture. Table 2: Market Value of Agricultural Products Sold Including Direct and Organic.

Appendix E: Inventory of Local Agricultural Products in Scott County, 2008

CROPS	
Grain	corn, barley, oats, rye, sorghum, wheat, wild rice
Silage or greenchop	corn, sorghum
Beans	dry edible beans (excluding limas) and soybeans
Potatoes	
Forage	greenchop, grass silage, hay (alfalfa, small grain, tame, wild), sod
Vegetables	bell peppers, broccoli, cabbage, cauliflower, chili peppers, cucumbers and pickles, garlic, herbs, onions, peas, pumpkins, snap beans, squash, sweet corn, tomatoes, mixed vegetables, watermelons
Fruit/Orchards	apples, apricots, cantaloupe, cherries, grapes, pears, plums, prunes, rhubarb
Berries and Nuts	Chestnuts, hazelnuts, strawberries, raspberries, walnuts
Nursery and Garden Floriculture	bedding garden plants, bulbs and tubers, cut flowers and florist's greens, flower seeds, greenhouse vegetables, indoor foliage plants, nursery stock, potted flowering plants, sod, vegetable seeds
Woodland Crops	Cut Christmas trees, short rotation woody crops, maple syrup

LIVESTOCK AND THEIR PRODUCTS	
Poultry and eggs	ducks, geese, pheasant, pigeons, quail, chickens (layers, pullets, broilers), turkeys
Bison	
Elk	
Cattle and calves	beef cows, milk cows
Milk and other dairy products from cows	
Hogs and pigs	
Sheep, goats, and their products	Meat goats, milking goats
Other	Alpaca, ornamental fish, bees and honey, horses, ponies, llamas, mules, deer, burros, donkeys, rabbits and their pelts

Appendix F: Inventory of Local Agricultural Infrastructure in Scott County, 2008

The inventory of local business associated with the agricultural sector was created using the Dunn and Bradstreet Million Dollar Database. This database updates its information on a rolling basis, and provides information about over 1.6 million companies worldwide. Companies were found based on two and four (when needed) digit SIC codes, which classify businesses by industry.
Please note: This list is not exclusive, and no intention was made to exclude other firms or companies.

INFRASTRUCTURE	
Education	Minnesota School of Business Globe College—Shakopee Carver-Scott Educational Cooperative—Chaska
Farm Equipment & Machinery	Bayer Cropscience LP—Shakopee Ditch Witch of MN, Inc.—Shakopee Generation II—Shakopee Hot-Shot—Savage Lano Equipment, Inc.—Shakopee Pave Tech Inc.—Prior Lake Siemon Implement Inc.—Belle Plaine St. Joseph's Equipment—Shakopee Tractor Supply—Prior Lake Waconia Farm & Home Supply—Shakopee Ziegler Cat Used Construction Equipment and Used Parts—Shakopee
Farmers Markets	New Prague, Prior Lake, Savage, Shakopee
Farm Events and Agrotourism	Scott County Fairgrounds—Jordan Schoenbauers Country Corral—New Prague
Food Processors	Cargill—Savage Doall Co. —Savage Dorrel Torsch Sales—Prior Lake International Seal Co. Inc. —Shakopee Kraft Foods Global, Inc. —Shakopee Lettieris, Inc. —Shakopee Midwest Food Processing & Supplies—New Prague Mooncom LLC—Shakopee Rahr Malting—Shakopee Ruck's Meat Market and Processing Center—Belle Plaine Echo Creek Vineyard and Winery—Prior Lake

Seeds, Feed, Fertilizer & Other Supplies	Bayer Cropscience LP—Shakopee Belle Plaine Cooperative—Belle Plaine Chaska Chemical Co. Inc. —Savage Conagra Fertilizer Co. —Shakopee Conklin Co. —Shakopee Fertimix—Jordan GLH Seeds Inc.—Shakopee L & F Phelan Inc.—Shakopee New England Fertilizer Company—Shakopee Palma Feed—Shakopee Prairie Farm Supply—Belle Plaine Quali Trade, Inc.—Shakopee Sampson Farms Inc.—Prior Lake Shakopee Feed & Supply—Shakopee Ten Brook Pork LLP—Prior Lake Waderich Feed & Garden—Prior Lake Windmill Feed & Pet Supply—New Market Whitebox Commodities SHKP Elevator—Shakopee Whitebox Riverport—Savage
Trucking & Transportation	Buckingham Trucking Inc.—Prior Lake Canard Aerospace Corp.—Shakopee C H S Inc.—Savage JDF Trucking—Shakopee Klingberg Trucking Inc.—Jordan Koch Trucking—Shakopee Northland Transportation—Prior Lake Meyer Trucking Inc.—Savage Mullin Trucking Inc.—Jordan Pat Fruth Inc.—Belle Plaine Royal Rose Logistics Inc.—Savage Schrader Inc.—Jordan Summit Holdings Corp.—Shakopee

Landscaping	AB Environmental Corp.—Belle Plaine A-Scape Inc.—Shakopee All Around The Yard Inc.—Prior Lake Arteka Co's LLC—Shakopee Curbside Lawn Care—Savage Dasen Contracting Co. Inc.—Lakeville Outdoor Environments Inc.—Savage Mickelson Black Dirt—Savage Minnesota Green Landscaping—Shakopee Minnesota Valley Landscape Inc.—Shakopee Mom's Landscaping & Design LLC—Shakopee
Other Machinery and Repair	Alloy Hardfacing and Engineering Co. Inc.—Jordan Aqueous Equipment & Supply—Savage Bayer Cropscience LP—Shakopee Bolt Shakopee LLC—Shakopee Busch Brothers Machining Inc. —New Prague Conklin Co Inc.—Shakopee Continental Lift Truck Corp.—Jordan Filtra Tech Systems Inc.—Shakopee Ford Boyer Trucks Inc.—Savage H & W Equipment Co.—New Prague Interlock Concrete Products—Jordan Neotech Solutions Inc.—Jordan North Star Machine Co.—Savage Phillips & Temro Industries—Prior Lake Quality Flow Systems Inc.—New Prague Quality Forklift Sales & Services—Shakopee Scott Equipment Co.—New Prague STS Operating Inc.—Savage Webb Pallet Service Corp.—Jordan Zigler Power Systems—Shakopee

Construction	Airgas North Central Inc.—Savage Compressor & Pump Repair Services—New Prague Mc Carthy Well Co.—Shakopee Neil Dornbusch & Associates—New Prague S M Hentges & Sons Inc.—Jordan Shop Sabre—Elko
Warehousing	Cargill Inc.—Shakopee
ANIMAL-RELATED INDUSTRIES	
Veterinarians	Belle Plaine Animal Care—Blaine Belle Plaine Veterinary Services—Blaine Cleary Lake Equine Small Animal Medical Center—Prior Lake Jordan Veterinary Clinic—Jordan Kreuser Veterinary Clinic—Jordan Main Street Veterinary Services—Shakopee New Prague Animal Care—New Prague Prior Lake Pet Hospital—Prior Lake River Valley Veterinary Service—Prior Lake West River Veterinary—Belle Plaine
Other	Radon Inc.—New Prague Belle Plaine Commission—Belle Plaine Genex Cooperative, Inc.—New Prague Marlett Stables—Prior Lake Minnesota Horse & Hunt Club—Prior Lake

FINANCE	
Financial Institutions	Citizen's State Bank of Shakopee—Shakopee
	Community Security Bank—New Prague
	Farm Bureau Financial—New Prague
	First Community Bank—Savage
	Flagship Bank—Jordan
	Guaranty Bank—Shakopee
	Klein Bank—Shakopee
	New Market Bank Inc.—New Market
	Prime Security Bank—Shakopee
	Prior Lake State Bank Inc.—Prior Lake
	Riverland Bank—Jordan
	South Metro Federal Credit—Prior Lake
	TCF National Bank—Shakopee, Savage
	Valley Bank Minnesota—Jordan
	Voyager Bank—Shakopee
	Wells Fargo Bank, National—Savage, Prior Lake
Lending Institutions	American Truck Finance Inc.—Shakopee
	Ameriprise Financial Services—Shakopee
	Wells Fargo Financial—Savage
	First Choice Mortgage Inc.—Savage
	State Bank of Belle Plaine—Belle Plaine
Insurance	Illinois Mutual—Prior Lake
	Insurance Paramedical Services—Prior Lake
	Lake Prior State Agcy—Prior Lake
	New Market Agency Inc.—New Market
	Rtw Inc.—Prior Lake
	Speiker & Co. Ltd.—Prior Lake
	Unison Insurance—Prior Lake

FOOD DISTRIBUTORS /RETAILERS/ WHOLESALERS	
Retailers	Art Berens & Sons Inc.—Shakopee Broadway Market Inc.—Jordan C M G C Inc.—Savage Farmers Union Oil Co.—New Prague Holiday Stationstores Inc.—Savage, Prior Lake, Shakopee Hubers Super Value—Belle Plaine Kwik Trip Inc.—Savage Morris-Walker Ltd. (Emma Krumbees)—Belle Plaine Nash-Finch Co.—New Prague Panzantlla—Shakopee Polka Dot Dairy Inc.—Savage Prestige Foods of Iowa, LLC—Jordan Radermachers Foods Inc.—Jordan Roundy's Supermarkets Inc.—Savage Shakopee Cub Foods—Shakopee Shakopee Mdewakanton Dakota—Prior Lake Speedway Superamerica LLC—Shakopee, Savage Target Corp.—Savage Twin Cities Stores Inc.—Belle Plaine Von Hansons Meats—Savage
Wholesales/ Distributors	Diversified Snack Distribution—Prior Lake Home Juice Citrus Products—Savage Jordan Beverage Inc.—Jordan Locher Bros Inc.—Shakopee R & W Food Service Sales Inc.—Savage Tri County Beverage & Supply—New Prague Kallberg Inc.—Savage Voyager Vend Supply Inc.—Savage Wendt Laboratories Inc.—Belle Plaine