

Appendix 1— America’s Diverse Farms: More Detailed Information¹

Farms vary widely in size and other characteristics, ranging from very small retirement and residential farms to businesses with sales in the millions. Three distinct groups of farms have been identified—commercial, rural residence, and intermediate—to demonstrate the wide range of characteristics and financial circumstances that exist today. Even within these groups, there are important differences that further demonstrate the diversity of America’s farms.

Commercial farms consist of large family farms with sales above \$250,000 and some nonfamily enterprises that are organized as cooperatives or nonfamily corporations or have a hired manager. A large share (44 percent) of commercial farms are considered large family farms with gross sales between \$250,000 and \$500,000. Another 33 percent are very large family farms, with gross sales exceeding \$500,000, while the remaining 23 percent are nonfamily farms.

- Large family farms are most likely to specialize in cash grains, with 39 percent obtaining over 50 percent of revenue from those crops. In addition, other farms produce grain without specializing in it. Since cash grains have traditionally been supported by commodity programs,² large family farms receive a large share of government payments from commodity programs (22 percent),

and 80 percent of large family farms receive payments from government programs.

- Households operating large family farms depend on the farm for about 60 percent of their total income, and about two-thirds of these households rely on farming for at least half of their income. Nevertheless, these households receive an average of \$35,000 from off-farm sources, largely from earned sources. Average household income in 1999 was \$77,300, or 56 percent higher than the average for all U.S. households.

- Very large family farms specialize in a broader array of commodities than large family farms. About 23 percent of very large family farms specialize in poultry, compared with only 8 percent of large farms and 2 percent for all U.S. farms. Very large farms account for high shares of the production of poultry (68 percent), hogs (60 percent), high-value crops (48 percent), and milk (45 percent). The share of very large farms receiv-

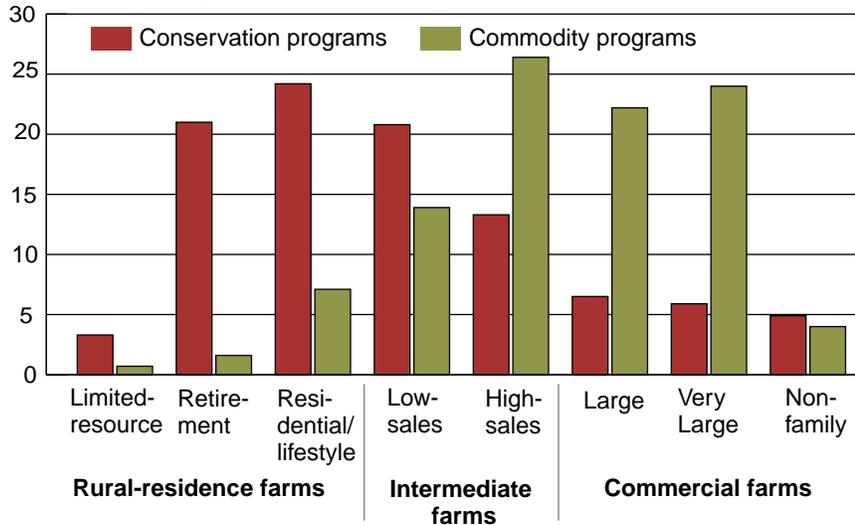
¹ Data are from the Agricultural Resource Management Study (ARMS) an annual survey conducted by USDA’s Economic Research Service and National Agricultural Statistics Service.

² Commodity programs include transition payments, loan deficiency payments, and agricultural disaster payments. Conservation programs include the Conservation Reserve Program, the Wetlands Reserve Program, and the Environmental Quality Incentive Program.

Figure A-1

Distribution of Government Payments by Typology Group (1999)

Percent of total payments



Conservation programs are the Conservation Reserve Program, the Wetlands Reserve Program, and the Environmental Quality Incentive Program. Other programs include agricultural disaster payments, loan deficiency payments, and transition payments.

ing commodity program payments is 67 percent, much lower than the 80 percent estimate for large family farms. Nevertheless, in 1999 large and very large farms received similar shares of all commodity program payments.

- Average household income for households with very large farms is \$201,200, or about four times the average for all U.S. households and substantially higher than the average for any other group of farm households. Most (83 percent) of the income of these farm households comes from farming.

- Nonfamily farms are a diverse group including large corporate farms as well as sole proprietorships with a hired manager. About 24 percent of nonfamily farms specialize in high-value crops, about three times the comparable percentage for all U.S. farms. Nonfamily farms produce about 25 percent of fruits, vegetables, and nursery crops.

Intermediate farms have sales below \$250,000 and the operator reports farming as his or her major occupation. Intermediate farms can be divided into two groups: those with sales under \$100,000 (73 percent of intermediate farms) and those with high sales between \$100,000 and \$250,000 (27 percent).

- Operators of low-sales intermediate farms have a fairly high average age—59 years—and 39 percent of them are at least 65 years old. Some of them have already scaled back their operations in preparation for retirement. Most of their income comes from off-farm, about half earned and half unearned. Their most common specialization is beef (40 percent of low-sales farms). Average household income is just under \$40,000, or three-fourths of the average for all U.S. households. Low-sales farms receive about 21 percent of conservation program payments.

- The most important specializations for high-sales intermediate farms are cash grains (38 percent of the group) and dairy (22 percent). About 81 percent of farms in the group receive commodity program payments, and high-sales farms receive about 26 percent of the payments from these programs, the largest percentage received by any group. Unlike other small farms, high-sales farms receive a substantial share (50 percent) of their income from farming, and 58 percent receive at least half of their income from farming. In 1999 average household income was \$53,300, about the same as the average for all U.S. households. With respect to their specialization, program participation, and reliance on farming for income, high-sales farms are more like large family farms than low-sales intermediate farms.

Rural-residence farms have gross sales below \$250,000 where farming is considered a secondary activity both in terms of resources invested in the farm and the amount of income it contributes to the farm household. Rural-residence farms can be divided into three groups. The first is limited-resource farms (10 percent of total rural-residence farms), with sales less than \$100,000, farm assets less than \$150,000, and total household income less than \$20,000. The second group is made up of farms whose operators report that they are retired (20 percent of the total), and the third group is made up of residential/lifestyle farms whose operators report a non-farm occupation (70 percent of the total).

Two characteristics that these groups share is reliance on off-farm income and heavy specialization in beef cattle. At least 40 percent of each of these groups specializes in beef cattle. Beef production, particularly cow-calf enterprises, has relatively flexible and low labor requirements that mesh well with off-farm work or retirement.

- Operators of limited-resource farms, as a group, are fairly old. Their average age is 59 and 47 percent are at least 65 years old. This group also has the highest percentage of operators with less than a high school education. Average household income for the group (\$9,500) is 17 percent of the average for all U.S. households. Considering their needs, limited resources, education levels, and age, operators in this group are the most difficult for the USDA and other agencies to serve.

- As one would expect, operators of retirement farms have the highest average age (69 years) and 71 percent were at least 65 years old. Average household income was \$40,600, about the same as for low-sales households. Most of their income came from off-farm, largely from unearned sources, such as Social Security and investments. Not only have these farmers retired, but so has some of their land. Retirement farms receive about 21 percent of their payments from conservation programs, made up largely of the Conservation Reserve Program.

- Households operating residential/lifestyle farms participate more heavily in the off-farm labor market than households operating other types of farms. In addition to the operators working off farm, 63 percent of households also had a spouse working off-farm. Households operating residential/lifestyle farms had an average household income of \$83,800. They were the only small farm households to earn an income above the average for all U.S. households.

Table A-1

Farm and Household Characteristics by 3 Farm Groups, 1999

<i>Item</i>	<i>Farm typology grouping</i>			<i>48-State total</i>
	<i>Rural-residence farms</i>	<i>Intermediate farms</i>	<i>Commercial farms</i>	
Number of farms	1,356,047	655,812	175,091	2,186,950
Share of farms (percent)	62.01	29.99	8.01	100.00
Total value of production (\$ billion)	13.7	42.0	120.3	176.0
Average value of production (\$)	10,074	64,117	687,065	80,481
Share of value of production (percent)	7.76	23.89	68.35	100.00
Total number of acres owned (million)	149	230	134	513
Average number of acres owned	110	351	767	235
Share of acres owned (percent)	28.98	44.86	26.16	100.00
Total number of acres operated (million)	204	390	277	871
Average number of acres operated	150	595	1,581	398
Share of acres operated (percent)	23.39	44.82	31.78	100.00
Gross cash farm income (\$/farm)	11,718	68,044	589,470	74,865
Gross farm income (\$/farm)	17,952	76,237	609,810	82,815
Net farm income (\$/farm)	2,310	12,998	115,832	14,603
Government payments (\$/farm)	1,437	9,254	41,218	6,966
Share of government payments (percent)	12.79	39.84	47.37	100.00
Household earnings (\$/household) ¹	67,371	43,390	135,397	64,347
Farm earnings (\$/household) ¹	-3,384	7,046	100,380	6,359
Off-farm earnings (\$/household) ¹	70,754	36,343	35,017	57,988
Wages and salaries (\$/household) ¹	43,229	16,825	17,513	33,541
Other off-farm earnings (\$/household) ¹	27,526	19,518	17,504	24,447
Distribution of farms by size				
Less than \$100,000	98.66	73.26	13.44	84.22
\$100,000–\$250,000	1.34	26.74	*3.24	9.11
\$250,000 or more	na	na	83.32	6.67
Distribution of farms by cost				
Low cost (percent)	19.28	20.91	54.29	22.58
Mid cost (percent)	10.66	29.05	30.22	17.74
High cost (percent)	70.06	50.04	15.49	59.68

¹ Excludes nonfamily farms

*The relative standard error exceeds 25 percent but is no more than 50 percent.

Table A-2

Farm and Household Characteristics by Sales Class, 1999

<i>Item</i>	<i>Sales class</i>			<i>48-State total</i>
	<i>Less than \$100,000</i>	<i>\$100,000 - \$250,000</i>	<i>\$250,000 or more</i>	
Number of farms	1,841,901	199,163	145,886	2,186,950
Share of farms (percent)	84.22	9.11	6.67	100.00
Total value of production (\$ billion)	26.1	31.0	118.9	176.0
Average value of production (\$)	14,184	155,668	814,878	80,481
Share of value of production (percent)	14.84	17.61	67.54	100.00
Total number of acres owned (million)	289	105	119	513
Average number of acres owned	157	529	815	235
Share of acres owned (percent)	56.33	20.51	23.15	100.00
Total number of acres operated (million)	408	203	259	871
Average number of acres operated	221	1,021	1,779	398
Share of acres operated (percent)	46.85	23.35	29.80	100.00
Distribution of farms by type				
Rural residence farms (percent)	72.64	9.10	na	62.01
Intermediate farms (percent)	26.08	88.05	na	29.99
Commercial farms (percent)	1.28	*2.85	100.00	8.01

*The relative standard error exceeds 25 percent but is no more than 50 percent.

Table A-3
Characteristics of Farms, by Farm Typology Group, 1999

Item	Rural-residence farms			Intermediate farms		Commercial farms			All U.S. farms
	Limited-resource	Retirement	Residential/lifestyle	Farming Low-sales	Farming High sales	Large family farms	Very large family farms	Nonfamily farms	
Farms	126,920	297,566	931,561	480,441	175,370	77,314	58,403	39,374	2,186,950
Land operated per farm	128	145	155	435	1,033	1,444	2,093	1,089	398
Sales less than \$10,000	78.7	80.8	74.3	36.6	0.0	0.0	0.0	33.1	55.9
Mean gross cash farm income	7,838	9,456	12,969	34,252	160,621	321,084	989,377	523,292	74,865
Farms by specialization:									
Cash grain	7.6	6.0	9.3	20.8	37.8	36.9	17.8	20.0	14.9
Other field crops	22.2	30.4	22.0	16.5	11.3	13.1	12.3	22.6	20.5
High value crops ¹	*8.8	6.5	5.8	7.6	7.1	7.1	12.3	24.4	7.1
Beef	41.1	45.1	41.4	40.5	12.2	9.2	9.9	16.0	36.9
Hogs	d	d	d	d	2.3	5.7	9.1	d	1.4
Dairy	d	d	d	5.3	22.4	16.7	14.3	*2.1	4.2
Other livestock	17.1	11.6	20.2	8.5	6.8	11.3	24.4	12.9	14.9

d = Data suppressed due to insufficient observations. *The relative standard error exceeds 25 percent but is no more than 50 percent.

¹Vegetables, fruits, tree nuts, and horticultural specialties.

Appendix 2— Farm Resource Regions

Groupings that follow political boundaries, primarily State or multi-State areas, are typically used to capture regional variation in production and other farm characteristics. Such groupings, while convenient, provide little insight into the inherent physical and environmental production capability of different land areas. A more effective grouping merges information about characteristics of land areas with information about types of commodities produced. This results in geographic areas that, while cutting across State boundaries, are more homogeneous with regard to both resource and production activities. These regions provide a snapshot of the regional diversity in farms, farmers, and farm households by combining “like” counties, based on commodities produced and

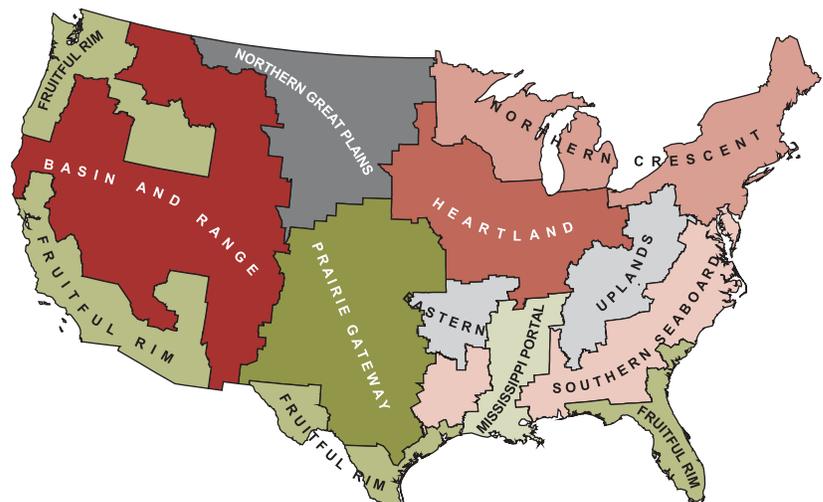
underlying climate, soil, water, and topography (table A-4). Several variables—including the proportion of farms and the value of production, farm income and the portion of that income derived from farming, and a rough cataloging of the types of farms in terms of size, income source, and type of farming activity—illustrate the variation in economic factors across regions (figure A-2).

One in five U.S. farms is located in the **Heartland** region, which accounts for one-quarter of cropland and a similar share of total production. This region, which has a mix of commercial farms, rural-residence farms, and intermediate farms, has the highest concentration of corn and soybean production. Hog farm operations are also more common in this region than elsewhere in the country.

The **Eastern Uplands** contains 16 percent of farms—mostly rural-residence farms—contributing only 7 percent of total farm output. Beef cattle, tobacco, and other field crops are the major commodities. This region had the highest percentage of farm households with incomes below the U.S. average for all households, at 68 percent.

Figure A-2

Geographic Areas Based on Land Resources and Commodity Concentration



The **Fruitful Rim** has 12 percent of farms, but contains a large proportion of commercial farms. The topography and climate are extremely diverse in this region, but are generally favorable to the production of fruits, vegetables, and other high-value crops. In many areas of the West and Southwest, production is possible only with irrigation. Freeze-free growing seasons are long, ranging generally from 200 to 365 days, and more than 60 percent of cropland is irrigated. Household incomes in the Fruitful Rim are the highest of any region.

The **Northern Great Plains** region of the country is characterized by the Nation's largest farms, as measured by the number of acres operated per farm. Almost half the farms in this region are considered intermediate farms, with the remaining farms predominantly commercial operations. Farmers in this region reported working about 500 hours more per year than the average. Operator household incomes were well below the national average and the lowest of any region. Farmers here are most dependent of any region on farm earnings, which make up 26 percent of total earnings. Wheat, oats, and barley are the most common crops.

The **Northern Crescent** accounts for 14 percent of farms and a similar share of farm output. The region has a high share of rural-residence and intermediate farms. Dairy farms represent 17 percent of the region's farms, compared with 4 percent nationally. Other major farm types include general field crop (24 percent) and high-value crop (13 percent) farms. Reflecting the region's focus on dairy and specialty crop production, farmers reported working an average of 1,710 hours on their farms, the second highest among regions and more than 200 hours above the national average. This region is also the most urbanized and, along with portions of the other coastal regions (Southern Seaboard and Fruitful Rim), faces the greatest

pressures from urban sprawl and, conversely, the greatest demand for farmland preservation.

The **Southern Seaboard** accounts for 11 percent of farms, but only 9 percent of farm output. This region has a dichotomy of farms, with a large concentration of rural-residence farms and a similarly large occurrence of commercial farms. More than two-thirds of farms in this region specialize in livestock production (beef cattle, poultry, and hogs).

The **Prairie Gateway's** mix of commercial farms, rural-residence farms, and intermediate farms mirrors the Nation's. Although this region accounts for the second largest share of cropland, beef cattle and other types of livestock are the primary farm commodities.

The **Mississippi Portal** is comprised largely of the flood plains and low terraces of the Mississippi River south of its confluence with the Ohio River. The climate and soils are favorable for crop production, although many soils require drainage for successful crop production. Much like the Southern Seaboard region, there is a dichotomy of farms between rural-residence farms and those that are more commercially engaged. This region has a large concentration of commercial cotton, rice, soybean, and poultry operations. Most of the rural-residence farms raise beef cattle.

Rugged mountain ranges, high valleys, plateaus, plains, and large basins characterize the **Basin and Range** region. In terms of land in farms, operations here are the second largest on average. Beef cattle and other livestock farms are prevalent, accounting for 63 percent of farms. Farms producing field crops are the second most common type (24 percent). This region contains only 5 percent of total cropland and includes large areas of Federal land holdings.

Table A-4
Farm and Household Characteristics, 1999, by ERS Land Resource Regions

Item	ERS Land Resource Regions										48-State total
	Heartland	Northern Crescent	Northern Great Plains	Prairie Gateway	Eastern Uplands	Southern Seaboard	Fruitful Rim	Basin and Range	Mississippi Portal		
Total farms (% of total)	21	14	4	14	16	11	12	4	4	100	
Value of production (% of total)	24	13	5	14	7	9	21	5	3	100	
Household earnings (\$/household)	62,743	55,962	58,707	67,148	59,174	59,446	90,936	59,345	59,874	64,347	
Farm earnings (% of total)	17	10	26	9	1	1	13	9	8	10	
Households with lower than US average income (% of total)	57	62	63	62	68	61	57	61	64	61	
Typology											
Rural-residence farms	54	57	38	65	72	70	61	62	72	62	
Intermediate farms	35	35	52	28	24	23	29	30	18	30	
Commercial farms	11	8	10	7	4	7	10	8	10	8	
Specialization											
Cash grains	42	11	29	14	na	4	2	6	13	15	
Other field crops	17	24	25	18	22	21	17	24	25	21	
High-value crops	2	13	na	2	3	6	28	7	na	7	
Livestock	40	52	46	67	74	68	53	63	60	57	

Note: U.S. average income in 1999 was \$54,842 as measured by the CPS.