



United States Department of Agriculture

Economic
Research
Service

Economic
Information
Bulletin
Number
164

December
2016

America's Diverse Family Farms

2016 Edition

The mission of USDA's Economic Research Service is to anticipate trends and emerging issues in agriculture, food, the environment, and rural America and to conduct high-quality, objective economic research to inform and enhance public and private decision making. ERS shapes its research program and products to serve those who routinely make or influence public policy and program decisions.

Follow us on Twitter
[@USDA_ERS](https://twitter.com/USDA_ERS)

www.ers.usda.gov



America's Diverse Family Farms

Broad descriptions of farms based on U.S. averages can mask variation among different sizes and types of farms. This report uses a farm classification, or typology, developed by USDA's Economic Research Service (ERS) that categorizes farms into more homogenous groupings to better understand conditions within the Nation's diverse farm sector. The classification is based largely on annual revenue of the farm, major occupation of the operator, and family/nonfamily ownership of the farm.



For further
information,
please contact:

Robert A. Hoppe
(202) 694-5572
rhoppe@ers.usda.gov

James M. MacDonald
(202) 694-5610
macdonal@ers.usda.gov

All images are from or are a derivative from iStock.

Use of commercial and trade names does not imply approval or constitute endorsement by USDA.

To ensure the quality of its research reports and satisfy government-wide standards, ERS requires that all research reports with substantively new material be reviewed by qualified technical research peers. This technical peer review process, coordinated by ERS' Peer Review Coordinating Council, allows experts who possess the technical background, perspective, and expertise to provide an objective and meaningful assessment of the output's substantive content and clarity of communication during the publication's review. For more information on the Agency's peer review process, go to: <http://www.ers.usda.gov/about-ers/peer-reviews.aspx>

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at [How to File a Program Discrimination Complaint](#) and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

USDA is an equal opportunity provider, employer, and lender.



Conclusions and Implications

- **Farming is still overwhelmingly comprised of family businesses.** Ninety-nine percent of U.S. farms are family farms, and they account for 89 percent of farm production.
- **Small farms make up 90 percent of the farm count and operate nearly half of the farmland.** The largest share of farm production, however, occurs on large-scale family farms.
- **Production has shifted to farms with gross cash farm income (GCFI) of \$1,000,000 or more since 1991.** Most farms this large are organized as family farms, however, and those organized as nonfamily corporations generally have no more than 10 stockholders.
- **Farm households in general are neither low-income nor low-wealth.**

For each type of farm household, both median household income and wealth are above the median for all U.S. households.

- **Conservation Reserve Program (CRP) payments go to different farms than other Government payments.** CRP targets environmentally sensitive cropland; its payments largely go to retirement, off-farm occupation, and low-sales farms. Commodity-related and working-land payments target production—directly or indirectly—and largely go to moderate-sales, midsize, and large farms. Most U.S. farms, however, do not receive Government payments and are not directly affected by them.
- **The distribution of indemnities from Federal crop insurance is roughly proportional to cropland.** As a result, midsize and large farms received 69 percent of indemnities in 2015.

Farm Typology

The farm typology, or classification, developed by ERS primarily focuses on the “family farm,” or any farm where the majority of the business is owned by the operator and individuals related to the operator. USDA defines a farm as any place that produced and sold—or normally would have produced and sold—at least \$1,000 of agricultural products during a given year. USDA uses acres of crops and head of livestock to determine if a place with sales of less than \$1,000 could normally produce and sell that amount. Farm size is measured by gross cash farm income (GCFI), a measure of the farm’s revenue that includes sales of crops and livestock, Government payments, and other farm-related income, including fees from production contracts.

Small Family Farms (GCFI less than \$350,000)

- **Retirement farms.** Small farms whose operators report they are retired, although they continue to farm on a small scale (346,489 farms; 16.8% of U.S. farms in 2015).
- **Off-farm occupation farms.** Small farms whose operators report a major occupation other than farming (868,523 farms; 42.2% of U.S. farms).
- **Farming-occupation farms.** Small farms whose operators report farming as their major occupation.
 - **Low-sales.** GCFI less than \$150,000 (521,350 farms; 25.3% of U.S. farms).
 - **Moderate-sales.** GCFI between \$150,000 and \$349,999 (110,593 farms; 5.4% of U.S. farms).

Midsize Family Farms (GCFI between \$350,000 and \$999,999)

- **Family farms with GCFI between \$350,000 and \$999,999** (126,331 farms; 6.1% of U.S. farms).

Large-Scale Family Farms (GCFI of \$1,000,000 or more)

- **Large family farms.** Farms with GCFI between \$1,000,000 and \$4,999,999 (53,268 farms; 2.6% of U.S. farms).
- **Very large family farms.** Farms with GCFI of \$5,000,000 or more (5,747 farms; 0.3% of U.S. farms).

Nonfamily Farms

- **Any farm where the operator and persons related to the operator do not own a majority of the business** (26,973 farms; 1.3% of U.S. farms).

Farms, Production, and Farmland



Most U.S. farms are small; small farms operate nearly half of farmland but account for only 24 percent of production.

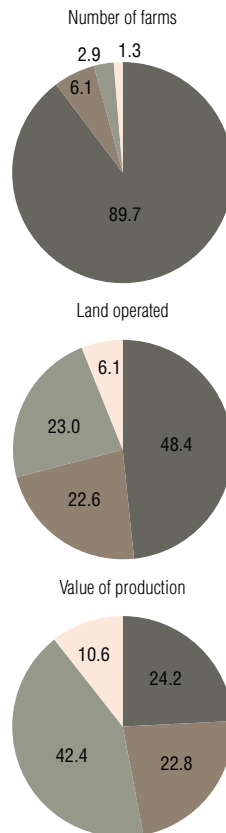
- Ninety percent of farms are small, and these farms accounted for 48 percent of the land operated by farms in 2015.
- Large-scale family farms accounted for the largest share of production, 42 percent.
- Nevertheless, small family farms accounted for a large share of two commodities in 2015: poultry and eggs (57 percent)—mostly under production contracts—and hay (52 percent).
- Family farms of various types together accounted for 99 percent of farms and 89 percent of production in 2015.

Differences among farm types are illustrated in this report using 2015 data from the Agricultural Resource Management Survey (ARMS), an annual survey conducted by USDA's National Agricultural Statistics Service and Economic Research Service. The analysis in this report is based on a sample of 19,600 farms. For more information on ARMS, see <http://www.ers.usda.gov/data-products/arms-farm-financial-and-crop-production-practices>.

Distribution of farms, value of production, and land operated by farm type, 2015

Percent of U.S. farms, acres operated, or value of production

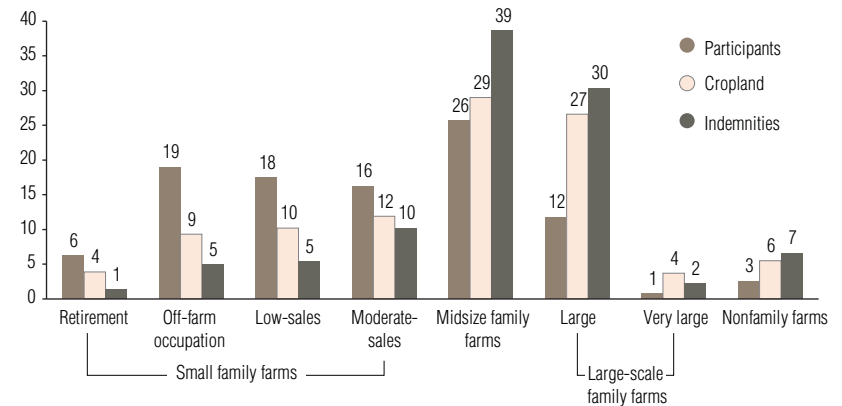
● Small family farms ● Large-scale family farms
● Midsize family farms ● Nonfamily farms



Source: USDA, National Agricultural Statistics Service and Economic Research Service, 2015 Agricultural Resource Management Survey.

Federal crop insurance participants, cropland, and indemnities by farm type, 2015

Percent of U.S. participants, acres of cropland, and indemnities (bars of a given color sum to 100%)



Indemnities are payments from insurance to compensate for losses. Participants are farms paying premiums. Cropland excludes land enrolled in land-retirement programs. Source: USDA, National Agricultural Statistics Service and Economic Research Service, 2015 Agricultural Resource Management Survey.

Indemnities from Federal crop insurance are roughly proportional to acres of cropland.

- Midsize and large farms together received 69 percent of indemnities while accounting for 56 percent of cropland in 2015. Very large farms received just 2 percent of indemnities, reflecting their small share of U.S. farms (0.3 percent) and cropland (4 percent).
- About two-thirds of midsize farms and three-fourths of large farms participated in Federal crop insurance, compared with only one-sixth of all U.S. farms.
- Grain farms—the most common specialization among midsize and large family farms—accounted for 63 percent of all participants in Federal crop insurance and 59 percent of cropland in 2015.

| Farm type | Participating (% of all farms in group) |
|---------------------|---|
| Retirement | 6.1 |
| Off-farm occupation | 7.3 |
| Low-sales | 11.3 |
| Moderate-sales | 49.5 |
| Midsize | 68.1 |
| Large | 74.1 |
| Very large | 44.3 |
| Nonfamily farms | 32.5 |
| All farm households | 16.3 |

- The amount of land insured nearly tripled from 102 million acres in 1989 to 297 million acres in 2015, and indemnities exceeded Government payments for the first time from 2011 to 2013. During these years, adverse weather reduced yields while high commodity prices raised the level of indemnities necessary to compensate for losses.

Government Payments and Federal Crop Insurance

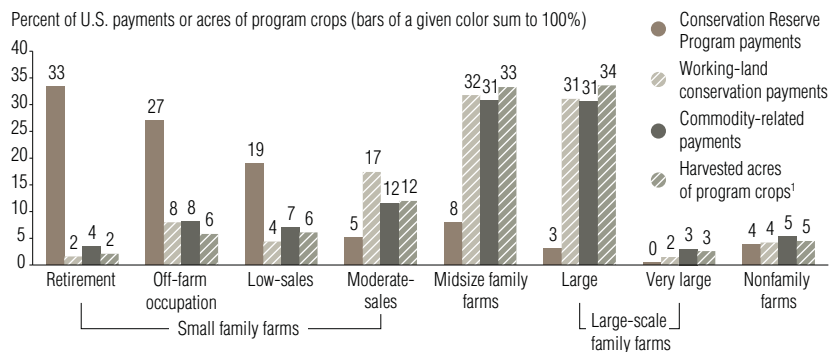
Most payments from commodity-related and working-land conservation programs go to moderate-sales, midsize, and large family farms.

- Commodity program payments are targeted at production of specific commodities and reflect acreage in crops historically eligible for support. Seventy-four percent of these payments went to moderate-sales, midsize, and large family

farms in 2015, roughly proportional to their 79-percent share of acres in program crops.

- Eighty percent of working-land conservation payments went to the same groups: moderate-sales, mid-size, and large family farms. These programs also target production, indirectly, by focusing environmental practices on lands in production.
- The Conservation Reserve Program (CRP), however, targets environmentally sensitive land; retirement, off-farm occupation, and low-sales farms received 79 percent of these payments in 2015.
- Seventy-two percent of all farms received no farm-related Government payments in 2015.

Distribution of Government payments by farm type, 2015



Conservation programs:

Conservation Reserve Program—Conservation Reserve Program and Conservation Reserve Enhancement Program.

Working-land programs—Environmental Quality Incentives Program, Conservation Security Program, and Conservation Stewardship Program.

All other Federal conservation programs—Includes the Agricultural Conservation Easement Program and other miscellaneous conservation payments (about 2 percent of Government payments, not presented separately).

Commodity-related programs—Direct Counter-cyclical Payment and Average Crop Revenue Election programs, cotton transition payments, loan deficiency payments, marketing loan gains, net value of commodity certificates, and agricultural disaster payments.

¹Program crops include corn, peanuts, rice, sorghum, soybeans, barley, oats, wheat, canola, other oilseeds, and dry edible beans/peas/lentils.

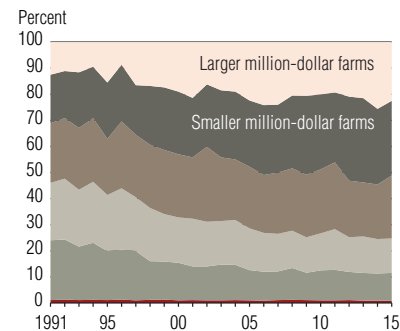
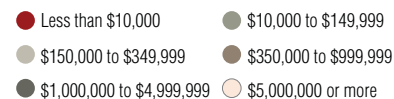
Source: USDA, National Agricultural Statistics Service and Economic Research Service, 2015 Agricultural Resource Management Survey.

The Upward Shift of Production to Larger Farms

Since 1991, agricultural production has shifted to million-dollar farms—those with gross cash farm income (GCFI) of \$1,000,000 or more—including both family and nonfamily farms. Million-dollar farms now account for half of farm production, up from a third in 1991.

- Larger million-dollar farms (GCFI of \$5,000,000 or more) nearly doubled their share of production from 13 percent in 1991 to 23 percent by 2015.
- At the same time, smaller million-dollar farms (GCFI of \$1,000,000 to \$4,999,999) also increased their share, from 19 to 29 percent.
- Different types of farms make up the two groups. Thirty-eight percent of larger million-dollar farms specialize in specialty crops (vegetables, fruits/tree nuts, and nursery/greenhouse products) and another 25 percent specialize in dairy production, while 46 percent of smaller million-dollar farms specialize in cash grains.
- Most million-dollar farms (90 percent) are family farms. Only 3 percent are nonfamily corporations, and 80 percent of these corporations report no more than 10 shareholders.

Value of production by gross cash farm income (GCFI) class, 1991-2015



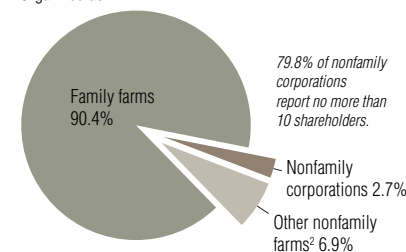
GCFI is expressed in constant 2015 dollars, using the Producer Price Index for farm products to adjust for price changes.

Source: USDA, National Agricultural Statistics Service and Economic Research Service, 1991-1995 Farm Costs and Returns Survey and 1996-2015 Agricultural Resource Management Survey.

Organization of million-dollar farms, 2015

Total million-dollar farms = 65,300¹

Organized as:



¹Million-dollar farms in this graph (and the previous graph) include both family and nonfamily farms. Large-scale family farms in the typology also have GCFI of \$1 million or more, but exclude nonfamily farms. As a result, the number of large-scale family farms is slightly smaller than the number of million-dollar farms.

²Farms other than nonfamily corporations where the principal operator and individuals related to the operator do not own a majority of the farm. For example, farms equally owned by two unrelated business partners, as well as farms operated by a hired manager for a family of absentee owners. Source: USDA, National Agricultural Statistics Service and Economic Research Service, 2015 Agricultural Resource Management Survey.

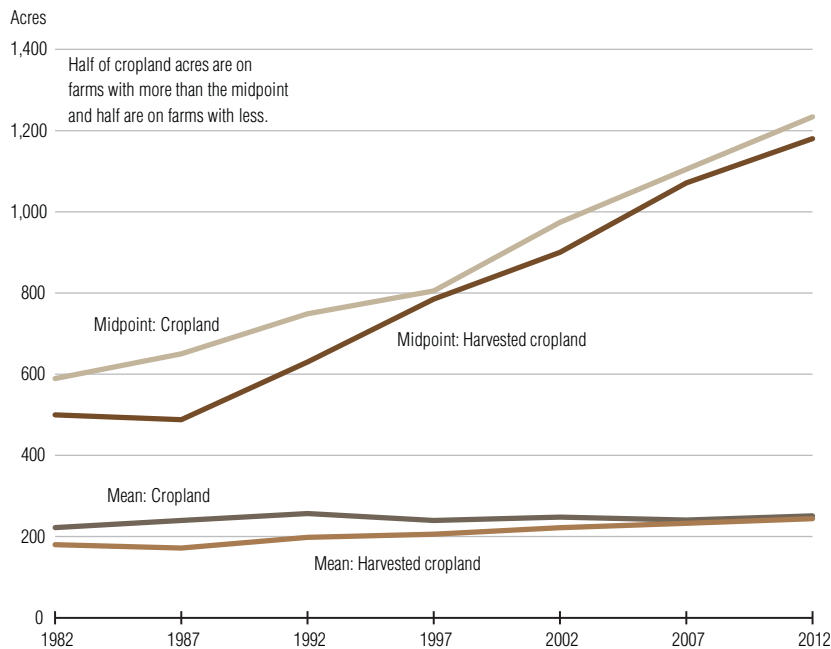
The shift in production to larger farms is reflected by an increase in the midpoint acreage for cropland.

- Between 1982 and 2012, the average acres of cropland and harvested cropland changed little.
- Acreage averages have been stable because the largest and smallest crop farms grew in number while farms in the middle declined. With only small changes in total cropland and total crop farms, average acreages changed minimally.
- The trend in midpoint acreage—at which half of all cropland acres are on farms with more cropland than the midpoint and half are on farms with less—captures the consolidation of cropland better than average acreage.
- The midpoint acreage for cropland and harvested cropland roughly doubled from 600 and 500 acres, respectively, between 1982 and 2012 to about 1,200 acres for both. This shift was aided by technologies that allowed a single farmer or farm household to farm more acres.

Making Income and Wealth Comparisons

We use estimates of household income and wealth from the Survey of Consumer Finances (SCF) to compare with the corresponding estimates for farm households from ARMS. SCF is used because it provides consistent estimates of income and wealth for all U.S. households and households with a self-employed head. The 2013 SCF—the most current version of the survey—collected 2012 income data and 2013 wealth data. We updated the SCF income and wealth estimates to 2015 using changes in household income from the Current Population Survey (CPS) for income and changes in the Consumer Price Index for wealth. The SCF-generated income estimate for all U.S. households in 2015 is 8 percent lower than the corresponding CPS estimate, generally used by ERS to indicate the level of income for all U.S. households.

Midpoint acreage and mean (average) acreage for all cropland and harvested cropland, 1982 to 2012



For more information about midpoint acreages, see *Farm Size and the Organization of U.S. Crop Farming* (ERR-152, U.S. Dept. Agr., Economic Research Service, August 2013).
Source: U.S. Bureau of the Census, 1982-1992 Censuses of Agriculture; and USDA, National Agricultural Statistics Service, 1997-2012 Censuses of Agriculture.



Wealth—as well as income—is important to farm household well-being, and farm household wealth compares favorably with that of U.S. households in general.

- Median wealth for all operator households was \$827,300 in 2015, and median wealth was higher for each type of farm household than that for all U.S. households (\$82,600) and U.S. households with a self-employed head (\$365,200).
- Only 3 percent of farm households had less wealth than the median for all U.S. households, with little variation by type of farm.
- In contrast, 21 percent of farm households had lower wealth than U.S. households with a self-employed head, including about a fourth of off-farm occupation and low-sales farms.

- Farm households have substantial farm assets, reflecting the value of their farmland, and most have relatively low farm debt. Farm real estate accounts for about 79 percent of the assets of family farms.

Percent of farm households with wealth below U.S. median, 2015

| Farm type | All U.S. households | Self-employed households |
|---------------------|---------------------|--------------------------|
| Retirement | 1.4 | 15.6 |
| Off-farm occupation | 3.4 | 24.1 |
| Low-sales | 3.3 | 26.0 |
| Moderate-sales | 4.4 | 10.3 |
| Midsize | 3.3 | 7.7 |
| Large | 1.4 | 3.0 |
| Very large | 1.7 | 3.4 |
| All farm households | 3.0 | 20.8 |

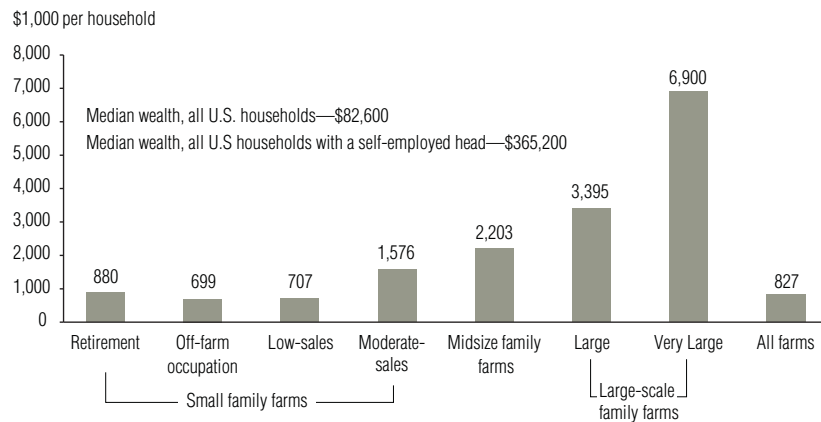


Farm Financial Performance

Small farms are more likely to have an operating profit margin (OPM) (see figure on next page for definition) in the red zone—indicating a higher risk of financial problems—but some are more profitable.

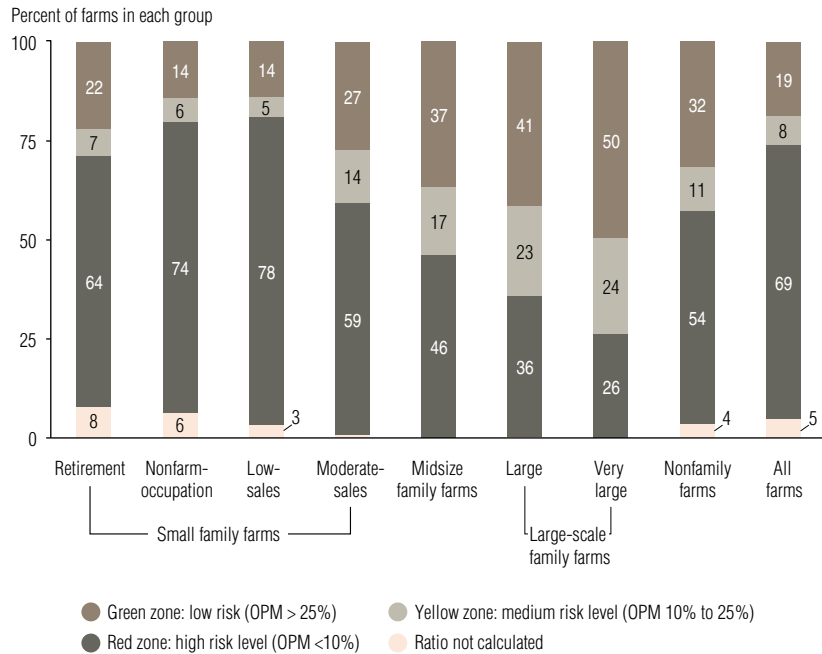
- Of the farms in each small farm type, 59 to 78 percent were in the red zone in 2015, with an OPM of less than 10 percent. Most small farms in the red zone had a negative operating margin, the result of losses from farming.
- Other small farms were more profitable: 14 to 27 percent of each small farm group had an OPM in the low-risk green zone, with a margin greater than 25 percent.
- Nevertheless, an even greater share of midsize (37 percent) and large-scale farms (41 and 50 percent) had an OPM greater than 25 percent. In addition, a majority of midsize and large-scale farms operated outside the red zone.

Median operator household wealth by farm type, 2015



Household wealth is not estimated for nonfamily farms. Operator household wealth is defined as household net worth, the difference between the household's assets and liabilities, considering farm and nonfarm assets and liabilities. Median wealth falls at the midpoint of the distribution of households ranked by wealth; half of households rank above the median and half below it. Source: USDA, National Agricultural Statistics Service and Economic Research Service, 2015 Agricultural Resource Management Survey for farm households. Federal Reserve Board, 2013 Survey of Consumer Finances for all U.S. households and all U.S. households with a self-employed head.

Farms by operating profit margin (OPM) and farm type, 2015



Operating profit margin (OPM) = $100\% \times (\text{net farm income} + \text{interest paid} - \text{charge for operator and unpaid labor} - \text{charge for management}) \div \text{gross farm income}$.

Note: Farm group percentages may not add to 100 due to rounding.

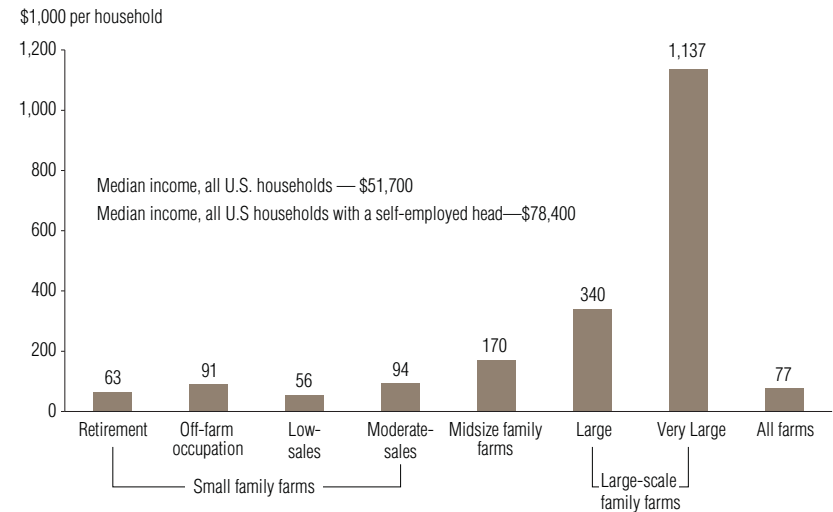
Source: USDA, National Agricultural Statistics Service and Economic Research Service, 2015 Agricultural Resource Management Survey.

Farm Operator Household Income and Wealth

Farm households in general are not low income when compared with all U.S. households and U.S. households with a self-employed head.

- Comparison with all U.S. households is most relevant for farm households operating retirement, off-farm occupation, and low-sales farms. Virtually all of these farms' income comes from off-farm wage/salary jobs and unearned income (dividends, interest, rent, Social Security, other public programs, private pensions, etc.) rather than farm or off-farm self-employment.
- Median income is higher for each farm household category than median income for all U.S. households in 2015 (\$51,700).

Median operator household income by farm type, 2015



Household income is not estimated for nonfamily farms.

Operator household income includes both farm and off-farm income received by household members. Median income falls at the midpoint of the distribution of households ranked by income; half of households rank above the median and half below it.

Source: USDA, National Agricultural Statistics Service and Economic Research Service, 2015 Agricultural Resource Management Survey for farm households. Federal Reserve Board, 2013 Survey of Consumer Finances for all U.S. households and all U.S. households with a self-employed head.

- Overall, only 31 percent of farm households had income below the median for all U.S. households, but the share was larger for households operating retirement farms or low-sales farms—39 percent and 46 percent, respectively.
- Considering all types of farms, median operator household income (\$76,700) is practically the same as that for U.S. households with a self-employed head (\$78,400). Households operating retirement and low-sales farms, however, had median incomes less than the median for all U.S. self-employed households in 2015.

Percent of farm households with income below U.S. median, 2015

| Farm type | All U.S. households | Self-employed households |
|---------------------|---------------------|--------------------------|
| Retirement | 38.9 | 64.4 |
| Off-farm occupation | 21.6 | 40.2 |
| Low-sales | 45.9 | 72.8 |
| Moderate-sales | 30.4 | 42.8 |
| Midsize | 21.7 | 28.5 |
| Large | 13.6 | 16.7 |
| Very large | 13.0 | 14.2 |
| All farm households | 31.0 | 51.4 |