USDA Economic Research Service
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# Nonfamily Farm Operations and the Households That Operate Them

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## Abstract

Nonfamily farms (where no producer, household, or extended family owns at least 50 percent of the operation) constitute about 2 percent of total U.S. farms from 2018 to 2022. This report explores nonfamily farms and the households of their principal producers by farm size combining data collected from the annual Agricultural Resource Management Survey from 2018 to 2022. Statistics for nonfamily farms are compared with equivalently sized family farms. Findings show that 70 percent of all nonfamily farms were considered small, with less than $350,000 in gross cash farm income. Nonfamily farms accounted for 13.4 percent of the value of production from 2018 to 2022 (combined), but much of that production came from large-scale producers. Small nonfamily farms were less financially vulnerable compared with small family farms. Principal producer households of nonfamily farms had lower wealth, income, and debt compared with family farm principal producer households.

**Keywords**: nonfamily farms, farm typology, farm households, Agricultural Resource Management Survey (ARMS)

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## About the Authors

Katherine Lacy and Katherine Lim are research agricultural economists with USDA, Economic Research Service, Resource and Rural Economics Division, Farm Economy Branch. Their research focuses on various aspects of the farm household. David Williams is the director of Agriculture Research and Strategy with MetLife Investment Management. Christine Whitt is an agricultural policy analyst in the Library of Congress, Congressional Research Service.

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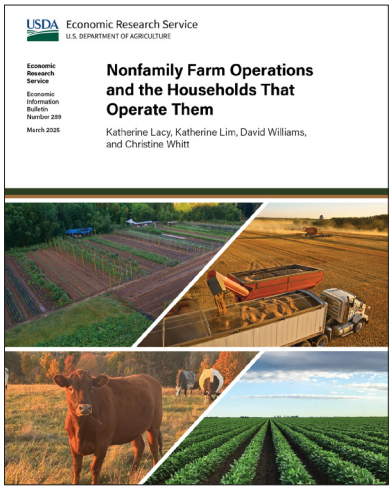



## What Is the Issue?

Between 2018 and 2022, about 2 percent of the 2 million U.S. farms were classified as nonfamily farms, which are operations where no producer, producer's household, or extended family owns at least 50 percent of the operation. Previous farm household research (based on the Agricultural Resource Management Survey (ARMS) data) does not include households operating nonfamily farms due to data limitations. This report provides information related to nonfamily farms and the households of their principal producers. Nonfamily farms, on average, represent 13.4 percent of U.S. agricultural value of production, and about 17 percent of these operations are considered large-scale (gross cash farm income of $1 million or more). There is a wide range of nonfamily farm operation types—spanning different sales classes, management types, and household situations.

## What Did the Study Find?

Nonfamily farms vary in their gross cash farm income and amount of acres operated.

- Gross cash farm income: Between 2018 and 2022, 70 percent of all nonfamily farms were considered small with less than $350,000 in gross cash farm income, compared with 91 percent of family farms that were considered small. However, 89 percent of the value of production from nonfamily farms was from large-scale operations.
- Acres: On average, small and large-scale nonfamily farms owned and operated more acres than similarly sized family farms, but midsized family and nonfamily farms operated similar acreage. There was no difference in the number of acres rented for similarly sized family and nonfamily farms.

There were notable differences between nonfamily and family farm operations after accounting for operation size.

- Specialization: Midsize and large-scale nonfamily farms are more concentrated in specialty crops and less concentrated in cash grains compared with family farms of similar size.
- Government payments: Large-scale nonfamily farms are less likely to participate in government agricultural programs, but those farms that do participate receive, on average, higher payments compared with family farms.

The principal producer households of large-scale and midsize nonfamily farms are generally less wealthy and have lower household incomes compared with their family farm household counterparts.

- Household income: On average, midsize and large-scale nonfamily farm households had lower household incomes compared with family farm households. This finding was mainly driven by lower household farming income to nonfamily farm households, which could be due to being apportioned a smaller share of farm profits.
- Household debt: Nonfamily farms of all sizes had lower household debt compared with family farms. This finding was driven by lower household farm debt.

## How Was the Study Conducted?

This study is based on pooled farm-level data from the 2018–22 Agricultural Resource Management Survey (ARMS). Although principal producers on nonfamily farms report household financial data, these values are not included when USDA, Economic Research Service summarizes farm households in the ARMS web tool or the Farm Household Income and Characteristics data product or topic pages. This report is the first to use household level data for principal producers on nonfamily farms. Five years of ARMS data are pooled to ensure a large enough sample size to report statistics by farm size for nonfamily farms.

# Nonfamily Farm Operations and the Households That Operate Them

## Introduction

USDA, Economic Research Service (ERS) developed a farm typology in 1998 to classify farms into homogeneous groups based on the farm producers' expectations from farming, stage in the producers' life cycle, and dependence on agriculture (Hoppe et al., 2000). This typology, which was updated in 2013 to include eight categories, was produced to include characteristics beyond only sales volume to be a more effective policy development tool (Hoppe & MacDonald, 2013). The farm typology focuses on family farms, which are defined as any farm where more than 50 percent of the operation is owned by one of the producers, the producer's household, or any individuals related to them.[1] Family farms are divided into seven categories based on the principal producer's primary occupation (retired, farming, off-farm) and operation size using gross cash farm income (GCFI). The eighth category is nonfamily farms, which are a heterogenous group that include nonfamily farms of any size and any primary occupation of the principal producer (figure 1). The purpose of this report is to explore the varied nature of nonfamily farms and compare their operations and households to similar sized family farms, as measured by GCFI.

Congress has long emphasized the symbolic family farm, sometimes resulting in different policies and the need to categorize nonfamily farms distinctly. Specifically, the Food and Agricultural Act of 1977 (7 U.S.C., 2266 et seq.) states: "Congress hereby specifically reaffirms the historical policy of the United States to foster and encourage the family farm system of agriculture in this country. Congress firmly believes that the maintenance of the family farm system of agriculture is essential to the social well-being of the Nation and the competitive production of adequate supplies of food and fiber. Congress further believes that any significant expansion of nonfamily owned large-scale corporate farming enterprises will be detrimental to the national welfare." The Act also requires the Secretary of Agriculture to provide Congress with a written report on family farming operations (Johnson & Ericksen, 1977). The two proceeding farm bills continued an emphasis on family farms and a requirement for a report on family farming operations (Johnson et al., 1982; Glaser, 1986). Due to congressional language, some programs, such as USDA, Farm Service Agency (FSA) farm loans are only available to family farm operations as defined by USDA, FSA.[2]

The USDA farm typology and other ERS studies have focused on family farms in part due to the small number of nonfamily farms in the United States and a lack of data on nonfamily farm households. From 2018 to 2022, only about 2 percent of U.S. farms were categorized as nonfamily farms, and these farms accounted for 13.4 percent of the value of production. Possible motivations for adopting a nonfamily farm

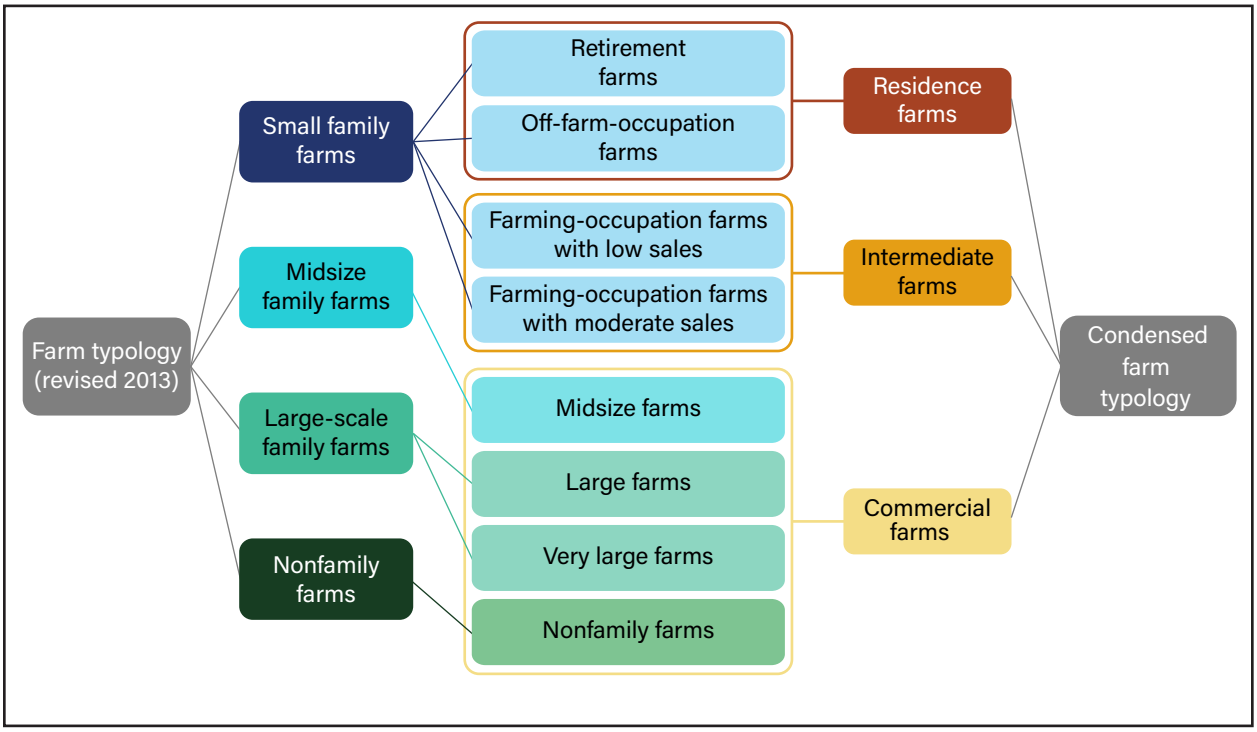
[1] Classifying farms into family or nonfamily is based on one yes or no question in the Agricultural Resource Management Survey (ARMS), which asks (using 2021 as an example year), "In 2021, was more than 50 percent of this operation owned by one of the producers of this operation, their household, or extended family? Select 'yes' if more than 50 percent of the assets of this operation are owned by any of the producers, members of his/her household, and/or other persons related to him/her by blood, marriage, or adoption, including relatives not residing in your household. Consider only farm or ranch assets owned—not rented or leased—by this operation, and exclude the assets held by nonfamily landlords and contractors."

[2] USDA, FSA offers loans to farm operations that would otherwise not be able to attain financing from traditional sources. Some of the loan programs include Direct Farm Ownership Loans, Operating Loans, Emergency Loans, and Guaranteed Loans. The first eligibility requirement in the USDA, FSA Farm Loans Overview Fact Sheet is to "be a family farmer" (USDA, FSA, 2023). However, the family farm definition used by USDA, FSA is not the same as the USDA, ERS definition.

organization and management structure are vast and include farms operated by cooperatives, hired managers on behalf of nonproducer owners, large corporations with diverse ownership, or small groups of unrelated producers. While the Agricultural Resource Management Survey (ARMS) collects data on principal producer households of nonfamily farms, that data have previously been excluded for the purpose of characterizing farm households' financial well-being.

This document is the first report to describe nonfamily farms, compare them with similarly sized family farms, and use household-level data on nonfamily farm principal producers to describe their financial health. To compare nonfamily to family farms, the authors disaggregate farms into three size categories used within the USDA, ERS typology: small, midsize, and large-scale. Small farms have a GCFI of less than $350,000, midsize farms have a GCFI of between $350,000 and $999,999, and large-scale farms have a GCFI of $1 million or more.

Figure 1
**USDA, Economic Research Service farm typology classification**




Note: Small family farms have a gross cash farm income (GCFI) of below $350,000. Small family farms are divided into four categories (retirement farms, off-farm-occupation farms, farming-occupation farms with low sales, and farming-occupation farms with moderate sales) based on both sales and the occupation of the principal producer. Retirement farms have a principal producer who is retired from farming, and off-farm occupation farms have a principal producer whose primary occupation is off the farm. Farming occupation farms with low sales have a principal producer with farming as a primary occupation and a GCFI of below $150,000. Farming occupation farms with moderate sales have a principal producer with farming as a primary occupation and a GCFI of between $150,000 and $349,999. Midsize farms have a GCFI of between $350,000 and $999,999. Large-scale farms have a GCFI of at least $1 million, with large farms having a GCFI of between $1 million and $4,999,999 and very large farms having a GCFI of at least $5 million. Nonfamily farms are farms of any size where no producer, producer's household, or extended family owns at least 50 percent of the operation. Nonfamily farms are a heterogenous group, but all are considered commercial farms in the ERS typology, even though they include farms with similar GCFI as small or midsize family farms.

Source: USDA, Economic Research Service using Updating the ERS farm typology (Report No. EIB-110). U.S. Department of Agriculture, Economic Research Service.

## Data and Methods

This report uses the Agricultural Research Management Survey (ARMS) Phase 3 data from 2018 through 2022. ARMS is an annual survey jointly conducted by USDA, National Agricultural Statistics Service (NASS) and USDA, Economic Research Service (ERS). The Phase 3 portion of the survey collects whole-farm-operation finance information and producer characteristics information for a calendar year. The target population for the ARMS is all agricultural establishments with more than $1,000 in agricultural sales (or potential sales) in the 48 contiguous U.S. States. From 2018 through 2022, the family farm question in ARMS remained unchanged, and the pooling of 5 years of data increased the sample size of nonfamily farm operations.[3] For each year, sampling weights were calculated to make the sample representative of the number of farms by sales class and commodity specialization at the national level.

As seen in figure 1, nonfamily farms are treated as a separate group in the full farm typology. USDA, ERS also developed a condensed typology with three categories of farms. In the condensed typology, nonfamily farms were grouped with family farms with a gross cash farm income (GCFI) of $350,000 or more, regardless of their actual revenues. To evaluate the heterogeneity of nonfamily farms, the authors disaggregated the farms into the three size categories used within the typology and then compared the farms within the categories to their family farm counterparts. These three size categories are small, midsize, and large-scale. Small farms have a GCFI of less than $350,000, midsize farms have a GCFI of between $350,000 and $999,999, and large-scale farms have a GCFI of $1 million or more.

All reported means, coefficients, values, or observations were weighted to reflect sample selection probabilities. All standard errors were estimated using the delete-a-group jackknife method to account for complex sample design.[4] While this report may refer to results generally—all results, findings, and conclusions are in strict reference to the entire 2018–22 sample period and are not necessarily reflective of past or future periods or individual years within the sample period.

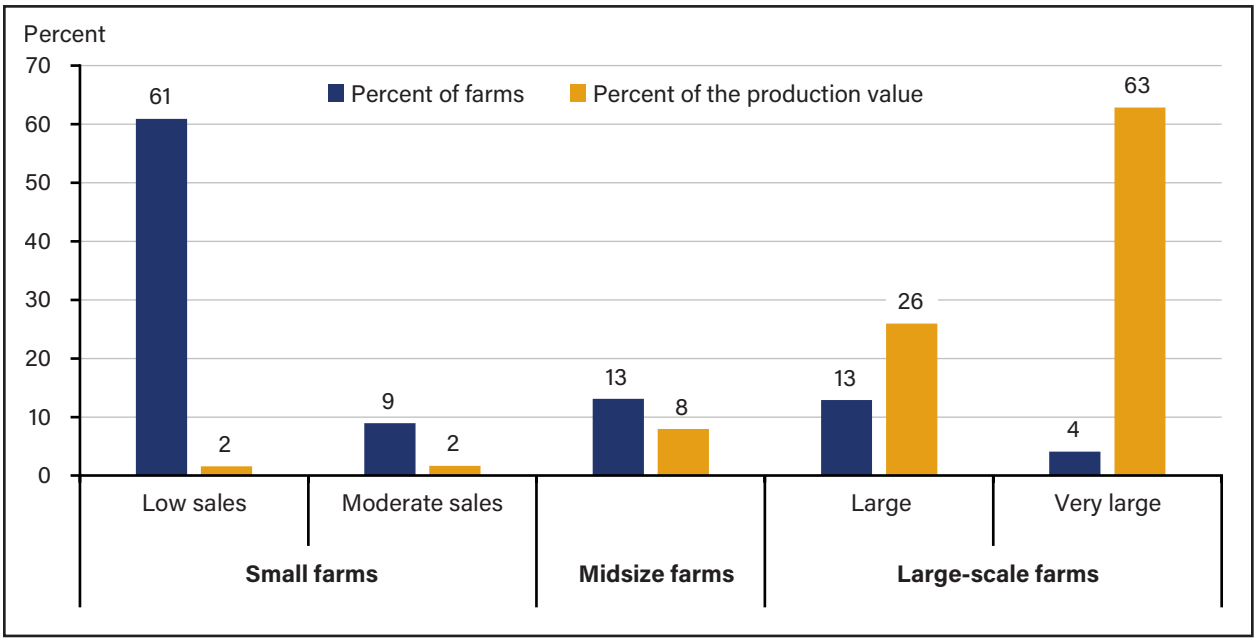
## Characteristics of Nonfamily Farm Operations

Between 2018 and 2022, most nonfamily farms were small farms with a gross cash farm income (GCFI) of less than $350,000 (figure 2). Specifically, 70 percent of nonfamily farms were small farms compared with 4 percent of nonfamily farms that were very large farms (GCFI of at least $5 million). However, a majority (63 percent) of the value of production from nonfamily farms came from very large farms. Similarly, 91 percent of family farms were small, but 54 percent of the value of production for family farms was from large-scale operations. In the USDA, ERS typology, family farms are already categorized by size, but the disparity between size and value of production could skew statistics when presented for nonfamily farms as a whole. For example, in 2018–22, the median GCFI for nonfamily farms was $60,750 compared with the average GCFI of $1,109,226 for nonfamily farms. Therefore, when comparing nonfamily farms to family farms in the next section, farm characteristics by farm size will be used.

[3] In each year, approximately 2 to 3 percent of operations are classified as nonfamily farms. This number leads to a very small sample size, which annually will not produce reliable statistics to compare with family farm operations by different farm sizes.

[4] USDA's NASS recommends the use of the delete-a-group jackknife variance estimation when analyzing NASS Survey data, including ARMS (Kott, 1998).

Figure 2
**Percent of nonfamily farms and production value by sales class, 2018–22**

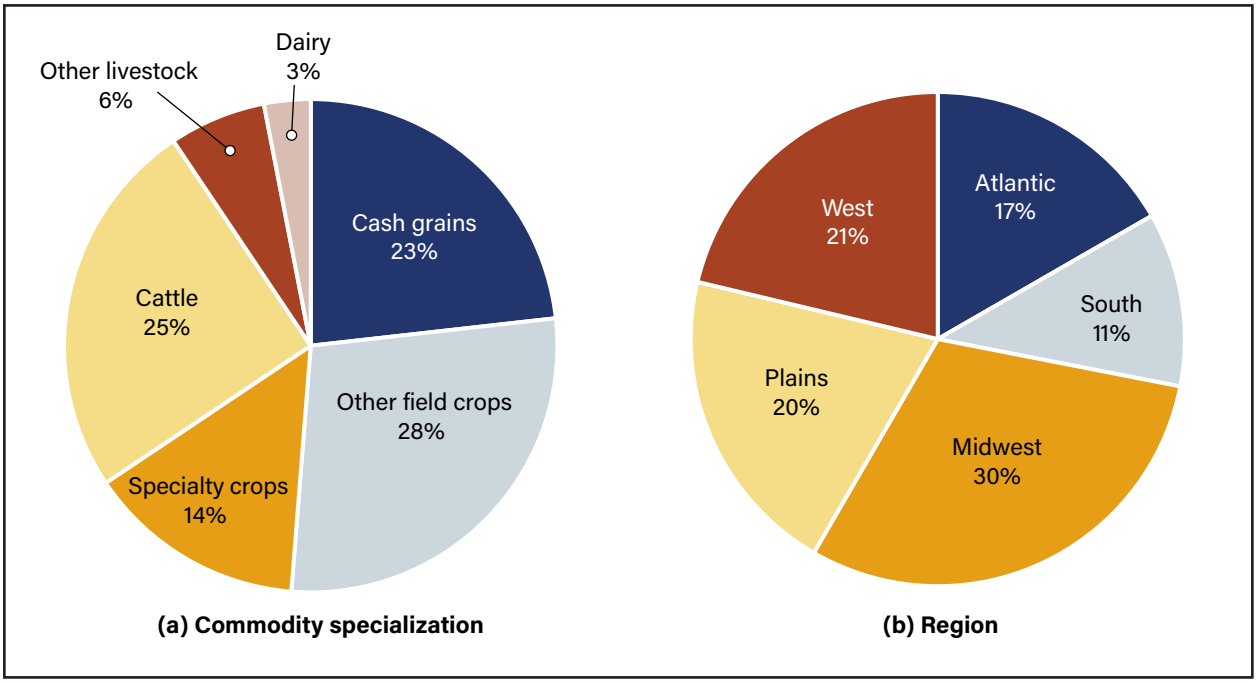



Note: Farm size is represented by sales class and determined by gross cash farm income (GCFI). Low-sales farms have a GCFI of below $150,000 (small farms); moderate-sales farms have a GCFI of between $150,000 and $349,999 (small farms); midsize farms have a GCFI of between $350,000 and $999,999; large farms have a GCFI of between $1 million and $4,999,999 (large-scale farms); and very large farms have a GCFI of at least $5 million (large-scale farms). Percentage sum may not equal 100 due to rounding.

Source: USDA, Economic Research Service (ERS) using USDA, National Agricultural Statistics Service and USDA, ERS, 2018–22 Agricultural Resource Management Survey data.

Figure 3 shows the distribution of nonfamily farm specialization (figure 3a) and location region (figure 3b). Fifty-one percent of nonfamily farms specialize in cash grains or other field crops. Additionally, 25 percent specialize in cattle, and 14 percent specialize in specialty crops. Specialization could be associated with regional location. Among nonfamily farms, 30 percent were located in the Midwest, 21 percent in the West, and 20 percent in the Plains region of the United States. The regional distribution of nonfamily farms could be influenced by differences in State-level corporate farming restrictions (Knoeber, 1997; Krause, 1983); however, only 18 percent of nonfamily farms were organized as a C-corporation or S-corporation from 2018 to 2022.

Figure 3
**Percent of nonfamily farms by commodity specialization and U.S. region, 2018–22**



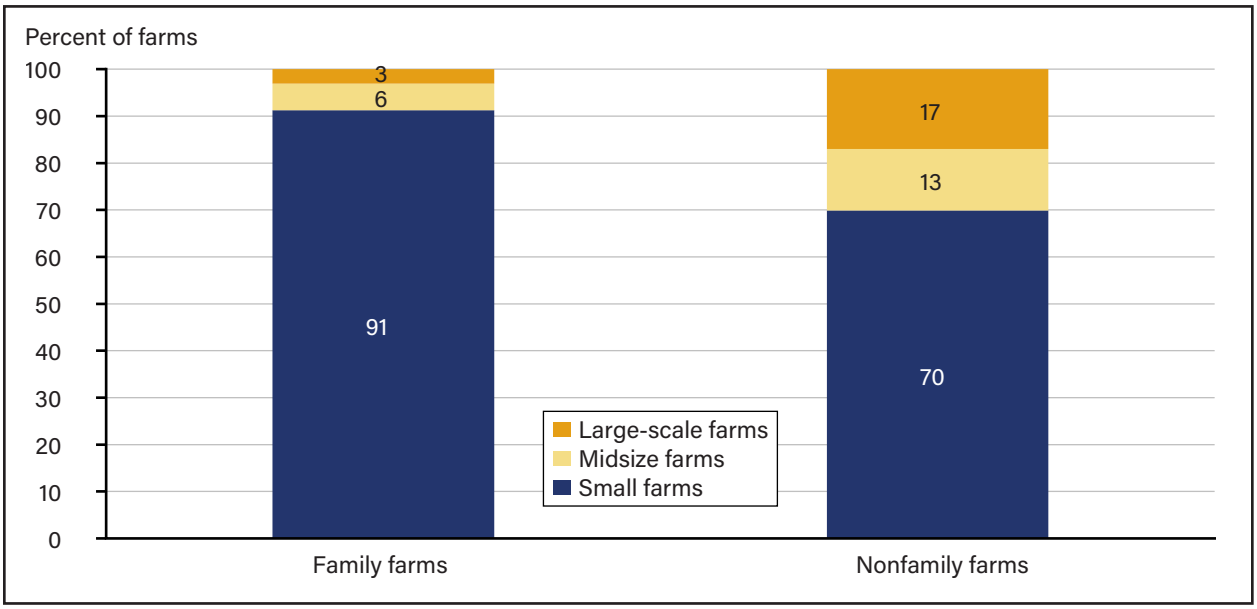

Note: A farm's specialization is determined by the commodity accounting for the majority (50 percent) of the farm's value of production. Cash grains is a broad term that includes corn, soybeans, other grains (i.e., wheat, oats, barley, rye, and sorghum), dry edible beans and peas, and rice. Other field crops include tobacco, cotton, peanuts, and any remaining field crops. Other field crops also include farms for which Conservation Reserve Program (CRP) payments were the operation's sole source of gross cash farm income. Specialty crops consist of fresh or dried fruits, tree nuts, vegetables, beans (pulses), and horticulture nursery crops. Percentage sum may not equal 100 due to rounding.

Source: USDA, Economic Research Service (ERS) using USDA, National Agricultural Statistics Service and USDA, ERS, 2018–22 Agricultural Resource Management Survey data.

## Comparing Characteristics of Family and Nonfamily Farm Operations

Both family farms and nonfamily farms are categorized into small, midsize, and large-scale by gross cash farm income (GCFI). Between 2018 and 2022, about 70 percent of nonfamily farm operations were small (GCFI of less than $350,000), 13 percent were midsize (GCFI of between $350,000 and $999,999), and 17 percent were large-scale (GCFI of at least $1 million; figure 4). This finding means that, according to the GCFI threshold of $350,000, 70 percent of nonfamily farms would be classified as residential or intermediate operations compared with their current classification as commercial operations in the condensed farm typology. Additionally, the nonfamily farm category tended to have a larger percentage of midsize and large-scale farms compared with family farms (6 percent and 3 percent, respectively).

Figure 4
**Percent of family and nonfamily farms by farm size, 2018–22**




Note: Small farms have a gross cash farm income (GCFI) of less than $350,000; midsize farms have a GCFI of between $350,000 and $999,999; and large-scale farms have a GCFI of at least $1 million. Percentage sum may not equal 100 due to rounding.

Source: USDA, Economic Research Service (ERS) using USDA, National Agricultural Statistics Service and USDA, ERS, 2018–22 Agricultural Resource Management Survey data.

Nonfamily farms owned more acres on average than similar-sized family farms, and small and large-scale nonfamily farms operated more acres on average compared with their family farm counterparts (table 1). While many of the differences in the acreage values between nonfamily and family within each of the three farm categories were quite large, very few of these differences between the two groups were statistically significant. There were no statistically significant differences in acres rented for any size category. Small nonfamily farms leased out more acres than small family farms (63 acres and 26 acres, respectively), but the differences between midsize and large-scale operations were not statistically significant.

Table 1
**Operation acreage characteristics by family and nonfamily farms and farm size, 2018–22**

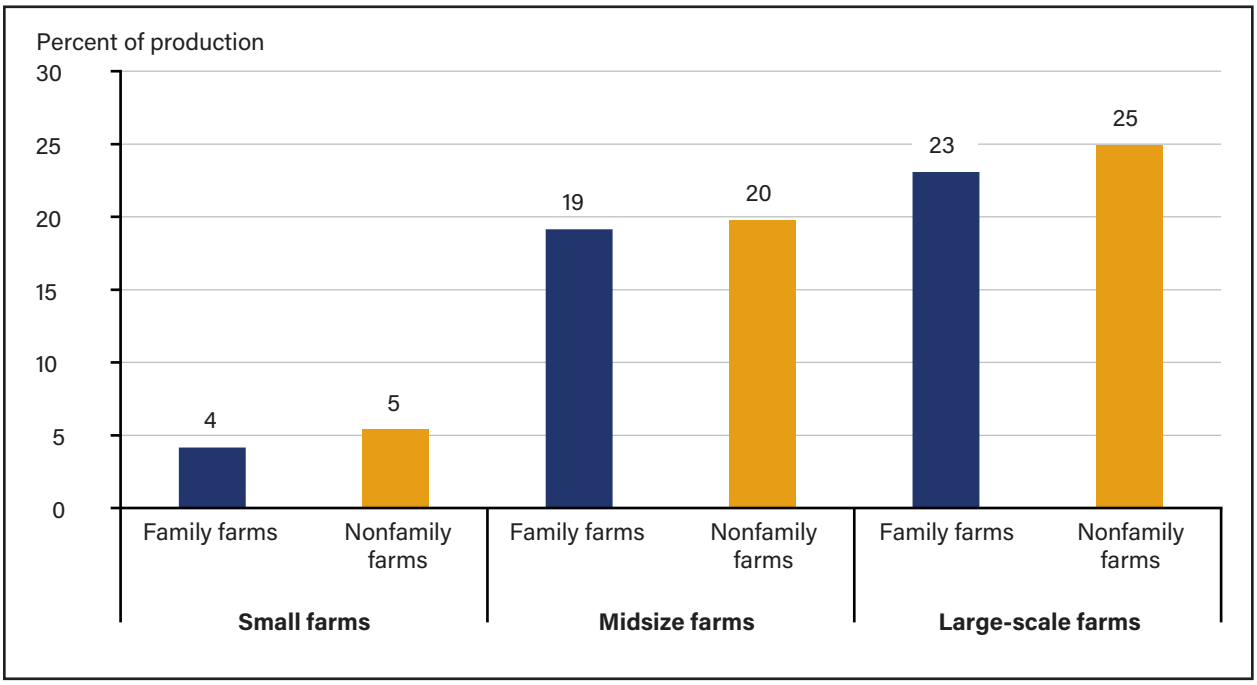
| | Small | | Midsize | | Large-scale | |
|---|---|---|---|---|---|---|
| | Family farms | Nonfamily farms | Family farms | Nonfamily farms | Family farms | Nonfamily farms |
| Average acres operated | 220 | 697* | 1,551 | 1,683 | 3,242 | 4,922* |
| Average acres rented | 71 | 202 | 802 | 659 | 1,797 | 2,020 |
| Average acres owned | 175 | 558* | 790 | 1,097* | 1,495 | 2,978* |
| Average acres leased out | 26 | 63* | 41 | 74 | 50 | 76 |

Note: Small farms have a gross cash farm income (GCFI) of less than $350,000; midsize farms have a GCFI of between $350,000 and $999,999; and large-scale farms have a GCFI of at least $1 million. An asterisk (*) denotes that the average reported for family and nonfamily farms within the same size category are significantly different at a 90-percent confidence level (p-value less than 0.10). The tests were conducted using a delete-a-group jackknife variance estimator with 30 replications provided with the Agricultural Resource Management Survey (ARMS) data.

Source: USDA, Economic Research Service (ERS) using USDA, National Agricultural Statistics Service and USDA, ERS, 2018–22 Agricultural Resource Management Survey data.

Differences in acres operated could be related to differences in commodity specialization and contract use (MacDonald et al., 2018). Contracts are more likely to be used by large operations to reduce price risk (MacDonald et al., 2013). While there were no statistical differences in the percent of production under contract (figure 5), there were differences in commodity specialization between nonfamily farms and family farms of a given size (figure 6). Of the differences, the most notable were for small farms. Specifically, small nonfamily farms were more likely to specialize in cash grains and other field crops and less likely to specialize in beef cattle or other livestock than small family farms. Both midsize and large-scale nonfamily farms were less likely to specialize in cash grains and more likely to specialize in specialty crops than equivalently sized family farms. These specialization differences also could have led to the differences in crop insurance and government program participation seen in table 2 and figure 7 (McFadden & Hoppe, 2017).

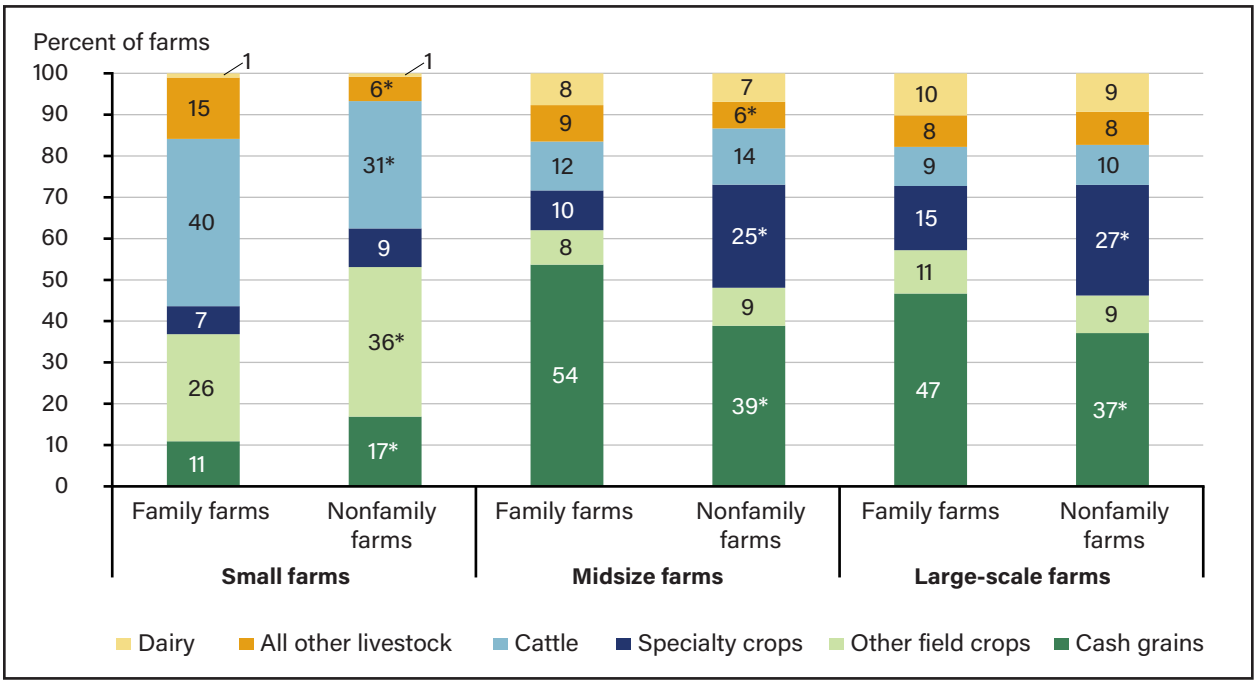
Figure 5
**Average percent of the value of production produced under contract for family and nonfamily farms by farm size, 2018–22**




Note: Small farms have a gross cash farm income (GCFI) of less than $350,000; midsize farms have a GCFI of between $350,000 and $999,999; and large-scale farms have a GCFI of at least $1 million. Production under contract includes production under production contracts and marketing contracts. Significance tests were conducted to test the difference in proportions reported for family and nonfamily farms within size category. None of the differences were significant at the 90-percent confidence level (p-value less than 0.10). The tests were conducted using a delete-a-group jackknife variance estimator with 30 replications provided with the Agricultural Resource Management Survey (ARMS) data.

Source: USDA, Economic Research Service (ERS) using USDA, National Agricultural Statistics Service and USDA, ERS, 2018–22 Agricultural Resource Management Survey data.

Figure 6
**Percent of family and nonfamily farms by commodity specialization and farm size, 2018–22**




Note: Small farms have a gross cash farm income (GCFI) of less than $350,000; midsize farms have a GCFI of between $350,000 and $999,999; and large-scale farms have a GCFI of at least $1 million. A farm's specialization is determined by the commodity accounting for the majority (50 percent) of the farm's value of production. Cash grains is a broad term that includes corn, soybeans, other grains (i.e., wheat, oats, barley, rye, and sorghum), dry edible beans and peas, and rice. Other field crops include tobacco, cotton, peanuts, and any remaining field crops. Other field crops also include farms for which Conservation Reserve Program (CRP) payments were the operation's sole source of gross cash farm income. Specialty crops consist of fresh or dried fruits, tree nuts, vegetables, beans (pulses), and horticulture nursery crops. An asterisk (*) denotes that the proportion reported for family and nonfamily farms within the same size category is significantly different at a 90-percent confidence level (p-value less than 0.10). The tests were conducted using a delete-a-group jackknife variance estimator with 30 replications provided with the Agricultural Resource Management Survey (ARMS) data. Percentage sum may not equal 100 due to rounding.

Source: USDA, Economic Research Service (ERS) using USDA, National Agricultural Statistics Service and USDA, ERS, 2018–22 Agricultural Resource Management Survey data.

Cash grains and field crops were more commonly covered by crop insurance than other crops. Consistent with the differences in field crop specialization, small nonfamily farms were more likely to participate in crop insurance, while midsize and large-scale nonfamily farms were less likely to participate in crop insurance than family farms of the same size (table 2). When comparing crop insurance participation and average indemnity payments for farms that specialize in cash grains and other field crops, the only statistical difference between nonfamily and family farms was that midsize nonfamily farms were less likely to participate in crop insurance. With respect to other government agricultural programs, small nonfamily farms were more likely to receive government payments than small family farms; however, large-scale nonfamily farms were less likely to receive government payments than family farms (figure 7). For farms that received government payments, midsize and large-scale nonfamily farms received a higher average payment than family farms. These results suggest that although nonfamily farms may not have qualified for some government programs, the farms were not disproportionately receiving less funding from government programs overall.

Table 2

**Crop insurance participation and average indemnity payments for family and nonfamily farms by farm size, 2018–22**

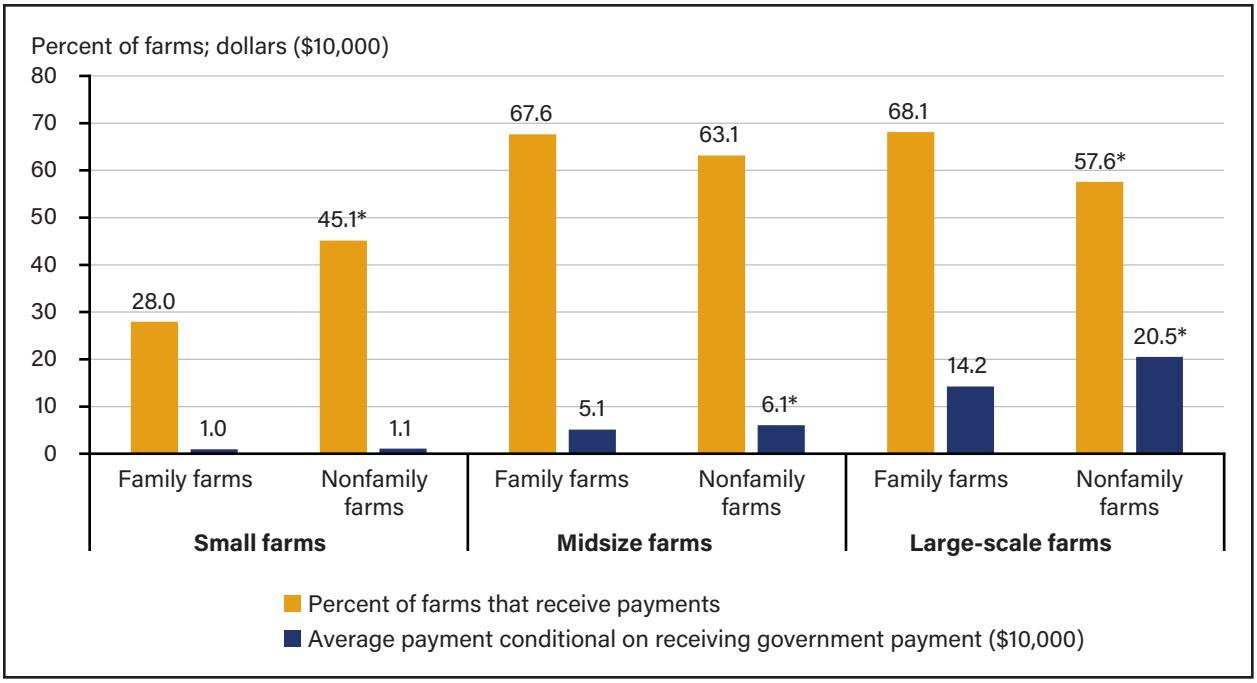
| | Small | | Midsize | | Large-scale | |
|---|---|---|---|---|---|---|
| | Family farms | Nonfamily farms | Family farms | Nonfamily farms | Family farms | Nonfamily farms |
| Proportion of farms that pay crop insurance premium (percent) | 9 | 14* | 62 | 51* | 68 | 61* |
| Average indemnity payment to farms (U.S. dollars) | 288 | 491 | 9,042 | 5,662* | 28,746 | 25,668 |
| Proportion of field crop farms that pay crop insurance premium (percent) | 19 | 19 | 80 | 72* | 83 | 79 |
| Average indemnity payments to field crop farms (U.S. dollars) | 595 | 815 | 11,684 | 9,752 | 38,456 | 36,702 |

Note: Small farms have a gross cash farm income (GCFI) of less than $350,000; midsize farms have a GCFI of between $350,000 and $999,999; and large-scale farms have a GCFI of at least $1 million. An asterisk (*) denotes that the proportion or average reported for family and nonfamily farms within the same size category is significantly different at a 90-percent confidence level (p-value less than 0.10). The tests were conducted using a delete-a-group jackknife variance estimator with 30 replications provided with the Agricultural Resource Management Survey (ARMS) data. Percentage sum may not equal 100 due to rounding.

Source: USDA, Economic Research Service (ERS) using USDA, National Agricultural Statistics Service and USDA, ERS, 2018–22 Agricultural Resource Management Survey data.

Figure 7

**Percent of farms receiving government payments and the average payment received by those farm producers for family and nonfamily farms by farm size, 2018–2022**




Note: Small farms have a gross cash farm income (GCFI) of less than $350,000; midsize farms have a GCFI of between $350,000 and $999,999; and large-scale farms have a GCFI of at least $1 million. Government payments include payments from USDA, Natural Resources Conservation Service programs, such as the Conservation Stewardship Program and Environmental Quality Incentives Program; and USDA, Farm Service Agency programs, such as Price Loss Coverage, Agricultural Risk Coverage program, and Dairy Margin Coverage program; as well as agricultural disaster payments and ad hoc programs, such as Coronavirus (COVID-19) pandemic assistance programs. An asterisk (*) denotes that the proportion reported for family and nonfamily farms within the same size category is significantly different at a 90-percent confidence level (p-value less than 0.10). The tests were conducted using a delete-a-group jackknife variance estimator with 30 replications provided with the Agricultural Resource Management Survey (ARMS) data.

Source: USDA, Economic Research Service (ERS) using USDA, National Agricultural Statistics Service and USDA, ERS, 2018–22 Agricultural Resource Management Survey data.

While government agricultural programs help reduce the financial risk of farming, many farms rely on credit to sustain and expand farm operations (Ifft et al., 2014). Nonfamily farms are less likely to have farm debt than family farms for all three farm size groups.[5] Next, we examine debt per dollar of GCFI, as a relative measure of indebtedness, that takes into account the size of the operation. Among farms with debt, small and large-scale nonfamily farms have less debt per dollar of GCFI, on average, than family farms of similar size (table 3). Specifically, for each dollar of GCFI, the average debt is $18.68 for small family farms and $9.34 for small nonfamily farms. This finding suggests that nonfamily farms, on average, have smaller debt balances than family farms. It is possible that the added complexity of coordinating multiple producers makes nonfamily operations more hesitant to acquire debt. Or, additional owners and producers may generate more off-farm income streams or otherwise contribute more to equity, and debt is less necessary.

When exploring farm debt sources, type, and loan terms—nonfamily and family farms, on average, acquire different types of loans to fund their operations. Large-scale nonfamily farms have a smaller proportion of their debt with a commercial bank than large-scale family farms. With respect to small and midsize family farms, most of the debt held by these farms is non-real estate debt, and the debt held in real estate is a smaller proportion of total farm debt than family farms of the same size.[6] Additionally, small nonfamily farms hold a larger proportion of debt in short-term loans than small family farms.

Table 3
**Use of farm debt and average farm debt per dollar of gross cash farm income by family and nonfamily farms and farm size, 2018–22**

| | Small | | Midsize | | Large-scale | |
|---|---|---|---|---|---|---|
| | Family farms | Nonfamily farms | Family farms | Nonfamily farms | Family farms | Nonfamily farms |
| Percent of farms with debt | 24 | 16* | 67 | 53* | 76 | 67* |
| Average debt per dollar of GCFI for farms with debt (U.S. dollars) | 18.68 | 9.34* | 1.33 | 1.54 | 0.78 | 0.66* |
| The proportion of debt (percent): | | | | | | |
| with a commercial bank | 47 | 46 | 46 | 48 | 45 | 38* |
| as real estate debt | 54 | 36* | 47 | 38* | 46 | 45 |
| in a short-term loan (≤1 year) | 16 | 29* | 25 | 25 | 26 | 24 |

Note: Small farms have a gross cash farm income (GCFI) of less than $350,000; midsize farms have a GCFI of between $350,000 and $999,999; and large-scale farms have a GCFI of at least $1 million. Farm debt includes debt used to fund the operation of the ranch/farm and does not include nonfarm debt to the household. An asterisk (*) denotes that the proportion or average reported for family and nonfamily farms within the same size category is significantly different at a 90-percent confidence level (p-value less than 0.10). The tests were conducted using a delete-a-group jackknife variance estimator with 30 replications provided with the Agricultural Resource Management Survey (ARMS) data. Farms can report multiple loans from different sources and of different term lengths. Therefore, the percentage sum does not equal 100.

Source: USDA, Economic Research Service (ERS) using USDA, National Agricultural Statistics Service and USDA, ERS, 2018–22 Agricultural Resource Management Survey data.

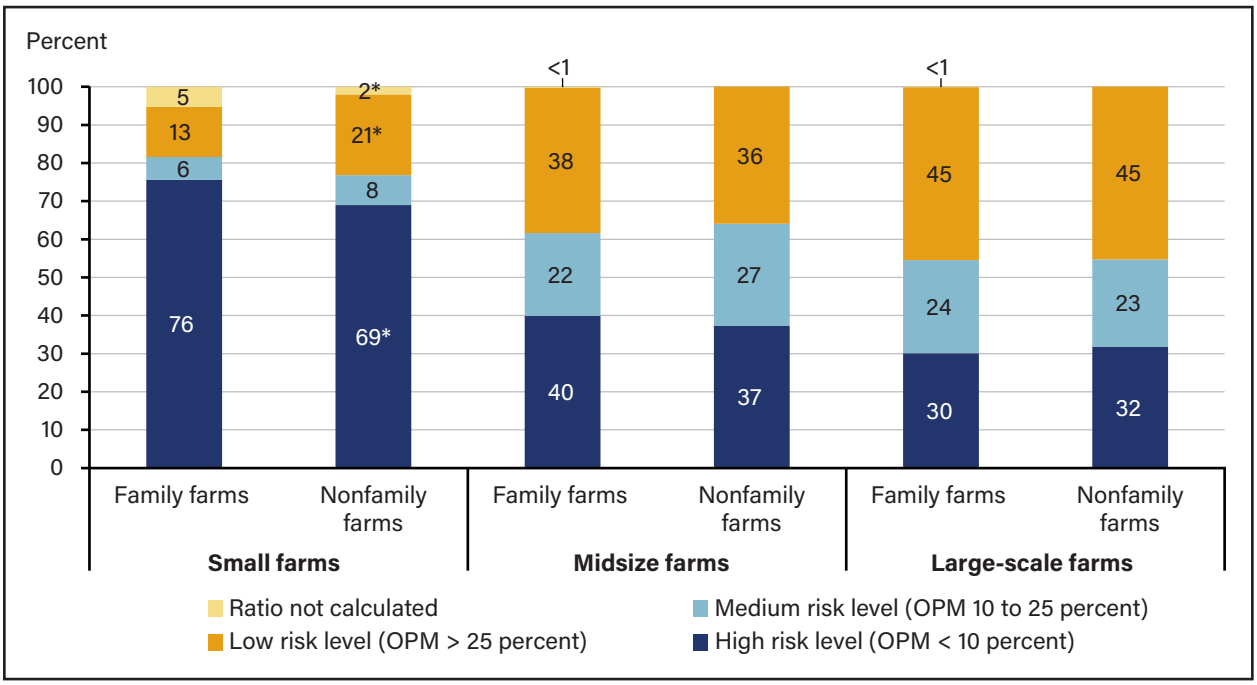
The much lower average debt-per GCFI (for small nonfamily farms compared with small family farms) could contribute to differences in the financial vulnerability of these farms. Figure 8 shows the proportion of farms that are considered in low, medium, and high financial risk, as determined by the operating profit margin (OPM). The OPM, measured as the share of gross income that is profit, is one of many financial benchmarks

[5] The eligibility criteria for farm loans through USDA, Farm Service Agency (FSA) includes being a family farm, but the family farm criteria used by USDA, FSA is not the same as the USDA, ERS family farm definition.

[6] Table 3 displays the proportion of debt that is real estate debt. To determine the proportion of debt that is non-real estate debt, subtract the proportion of real estate debt from 100.

to evaluate the financial stress of farms. There is no statistically significant difference in the financial vulnerability among family and nonfamily farms that are considered midsize or large-scale. However, small nonfamily farms are less likely to be in high financial risk (OPM less than 10 percent) and more likely to be in low financial risk (OPM greater than 25 percent) compared with small family farms.

Figure 8
**Financial vulnerability, based on operating profit margin, of family and nonfamily farms by size, 2018–22**




Note: Small farms have a gross cash farm income (GCFI) of less than $350,000; midsize farms have a GCFI of between $350,000 and $999,999; and large-scale farms have a GCFI of at least $1 million. The farm's operating profit margin (OPM) is a ratio defined as $100 * \left(\frac{\text{net farm income + interest paid – charges for unpaid labor and management}}{\text{gross farm income}}\right)$. OPM ratios are not calculated for operations with 0 or negative gross farm income. A negative gross farm income can occur when there is a decrease in the value of inventory relative to the beginning-of-the year value. An asterisk (*) denotes that the proportion reported for family and nonfamily farms within the same size category is significantly different at a 90-percent confidence level (p-value less than 0.10). The tests were conducted using a delete-a-group jackknife variance estimator with 30 replications provided with the Agricultural Resource Management Survey (ARMS) data. Percentage sum may not equal 100 due to rounding.

Source: USDA, Economic Research Service (ERS) using USDA, National Agricultural Statistics Service and USDA, ERS, 2018–22 Agricultural Resource Management Survey data.

## Do Nonfamily Farm Households Differ From Family Farm Households?

The Agricultural Resource Management Survey (ARMS) questionnaire includes a section inquiring about household level outcomes, such as household income, assets, and debt. Respondents are instructed to fill in information for the household of the principal producer, the person who is most responsible for the day-to-day decision making on the farm. Historically, USDA, ERS only reports household statistics for family farms to focus on principal producer households that were associated with the family that owned the farm (Whitt et al., 2023). This report is the first to provide household statistics for nonfamily farms. Since nonfamily farms are (by definition) operated by unrelated producers, the identity of the principal producer of nonfamily farms is less clear. Therefore, the authors compared these principal producers with those of family farm principal producers to explore differences between these households. For nonfamily farms, 76 percent of

the respondents who completed the survey were listed as the principal producer. This number was a smaller percentage than the 83 percent of family farm principal producers who completed the survey themselves. The principal producers of nonfamily farms were more likely to list farming as their primary occupation and be college graduates compared to principal producers of family farms, which could have impacted the farm household income and wealth accumulation data.

Table 4
**Principal producer characteristics for family and nonfamily farms, 2018–22**

| | Family farms | Nonfamily farms |
|---|---|---|
| Average ownership share of farm operation by principal producer household (percent) | 95 | 40* |
| Female (percent) | 14 | 13 |
| Beginning, 10 or fewer years of experience (percent) | 15 | 14 |
| Retired from farming (percent) | 12 | 8* |
| Primary occupation of farming (percent) | 54 | 63* |
| Average age (years) | 61 | 60 |
| Education | | |
| Some high school (percent) | 5 | 1* |
| High school (percent) | 39 | 37 |
| Some college (percent) | 26 | 22 |
| College graduate and beyond (percent) | 31 | 39* |

Note: An asterisk(*) denotes that the proportion or average reported for family and nonfamily farms is significantly different at a 90-percent confidence level (p-value less than 0.10). The tests were conducted using a delete-a-group jackknife variance estimator with 30 replications provided with the Agricultural Resource Management Survey (ARMS) data.

Source: USDA, Economic Research Service (ERS) using USDA, National Agricultural Statistics Service and USDA, ERS, 2018–22 Agricultural Resource Management Survey data.

Compared with family farms—midsize and large-scale nonfamily farms had lower average household net worth, average household income, and average income from farming—which could have been due to being apportioned a smaller share of farm profits (table 5). However, there were few differences among small family and nonfamily farms with respect to household net worth and income.

A common measure of farm household financial well-being is the proportion of farm households below the U.S. median household income and household wealth. The only statistical difference between family and nonfamily farm households in this measure was for midsize farms. Specifically, midsize nonfamily farms were less likely to have a household net worth below the U.S. median household wealth and more likely to have a household income below the U.S. median household income. About 30 percent of midsize nonfamily farm households had incomes less than the U.S. median compared with 21 percent of midsize family farm households.

Nonfamily farms of all sizes had lower average household debt than family farms. However, there were no statistical differences in average nonfarm debt between family and nonfamily farms, suggesting much of the difference in total debt was from farm debt to the principal producer household. A family farm household owned (on average) 95 percent of the farm operation compared with 40 percent owned by nonfamily farm households (table 4).

Table 5
**Family and nonfamily household net worth and income by farm size, 2018–22**

| | Small | | Midsize | | Large-scale | |
|---|---|---|---|---|---|---|
| | Family farms | Nonfamily farms | Family farms | Nonfamily farms | Family farms | Nonfamily farms |
| Average household net worth (U.S dollars) | 1,587,513 | 1,595,435 | 3,818,980 | 2,414,329* | 7,336,669 | 5,566,302* |
| Proportion of households with net worth below U.S. median household wealth (percent) | 2.5 | 4.0 | 3.9 | 1.6* | 3.6 | 3.3 |
| Average total household income (U.S. dollars) | 108,598 | 181,038 | 206,146 | 140,980* | 629,582 | 456,896* |
| Average off-farm income (U.S. dollars) | 106,577 | 175,255 | 76,048 | 74,912 | 87,431 | 87,937 |
| Average income from farming (U.S. dollars) | 2,022 | 5,783 | 130,098 | 66,068* | 542,151 | 368,959* |
| Proportion of households with negative income from farming (percent) | 56.9 | 40.1* | 16.0 | 13.8 | 12.0 | 8.9* |
| Proportion of households with total income below U.S. median household income (percent) | 42.1 | 36.3 | 21.2 | 29.8* | 14.0 | 14.5 |
| Average household debt, farm + nonfarm (U.S. dollars) | 138,416 | 94,541* | 592,517 | 345,666* | 1,344,414 | 869,374* |
| Average household nonfarm debt (U.S. dollars) | 95,888 | 146,559 | 127,711 | 124,811 | 228,003 | 212,421 |

Note: Small farms have a gross cash farm income (GCFI) of less than $350,000; midsize farms have a GCFI of between $350,000 and $999,999; and large-scale farms have a GCFI of at least $1 million. Individual year values for U.S. median household wealth and household income were used to determine if a respondent within that year had household wealth or income below the U.S. median level. An asterisk (*) denotes that the proportion or average reported for family and nonfamily farms within the same size category is significantly different at a 90-percent confidence level (p-value less than 0.10). The tests were conducted using a delete-a-group jackknife variance estimator with 30 replications provided with the Agricultural Resource Management Survey (ARMS) data.

Source: USDA, Economic Research Service (ERS) using USDA, National Agricultural Statistics Service and USDA, ERS, 2018–22 Agricultural Resource Management Survey data; U.S. Department of Commerce, Bureau of the Census, 2018–22 Current Population Survey, March supplement, for all U.S. households; and the Federal Reserve Board, Board of Governors, in cooperation with the U.S. Department of the Treasury, 2019 Survey of Consumer Finances.

## Differences in On- and Off-Farm Labor Between Nonfamily and Family Farm Households

For households with a spouse present, it was less common for spouses to work on a nonfamily farm for all farm sizes (table 6). Additionally, when the spouse did work on the nonfamily farm, there was no statistically significant difference in the number of hours that the spouse worked compared with those spouses on family farms. For farm households, off-farm income can be more lucrative, be a reliable source of income, and provide additional benefits (such as health insurance) (Whitt & Todd, 2020). Additionally, because of the volatility of farm income, working off the farm is a valuable risk management practice (Mishra & Goodwin, 1998; Key et al., 2017).

The spouse of a midsize and large-scale nonfamily farm producer was less likely to have an off-farm job than the spouse on a similarly sized family farm. There was no statistically significant difference between the rates of family and nonfamily spouses working off-farm for small operations. However, the spouses on small nonfamily farms work fewer hours off-farm, on average, than the spouses on small family farms. When looking at the principal producer, there were no significant differences in the percent of producers with off-farm work for all farm sizes.

Table 6
**Characterizing on-farm and off-farm work for family and nonfamily farms by farm size, 2018–22**

| | Small | | Midsize | | Large-scale | |
|---|---|---|---|---|---|---|
| | Family farms | Nonfamily farms | Family farms | Nonfamily farms | Family farms | Nonfamily farms |
| Households with spouse who works on the farm (percent) | 64 | 36* | 64 | 44* | 63 | 39* |
| Average weekly farm hours worked for spouse, conditional on spouse working on the farm | 16 | 15 | 24 | 22 | 24 | 24 |
| Households with spouse who works off the farm (percent) | 45 | 42 | 44 | 37* | 39 | 34* |
| Average weekly off-farm hours of spouse, conditional on working off the farm | 36 | 31* | 35 | 35 | 34 | 34 |
| Households with principal producer who works off the farm (percent) | 45 | 43 | 23 | 22 | 15 | 13 |
| Average weekly off-farm hours for principal producer | 37 | 35 | 29 | 32 | 26 | 28* |

Note: Small farms have a gross cash farm income (GCFI) of less than $350,000; midsize farms have a GCFI of between $350,000 and $999,999; and large-scale farms have a GCFI of at least $1 million. Statistics for households with a spouse are only calculated for households that answer "yes" to the question, "Did the principal producer have a spouse at any point in [year]?" Approximately 75 percent of all farm households report having a spouse. An asterisk (*) denotes that the proportion or average reported for family and nonfamily farms within a size category is significantly different at a 90-percent confidence level (p-value less than 0.10). The tests were conducted using a delete-a-group jackknife variance estimator with 30 replications provided with the Agricultural Resource Management Survey (ARMS) data.

Source: USDA, Economic Research Service (ERS) using USDA, National Agricultural Statistics Service and USDA, ERS, 2018–22 Agricultural Resource Management Survey data.

## Comparing USDA, Economic Research Service Typology

Given that nonfamily farms were heterogeneous in size, the authors looked at how common farm statistics by typology would change without the nonfamily farm distinction. In table 7, farms were categorized in two ways: (1) using the current USDA, ERS typology and (2) removing the nonfamily farm category and only using the principal producer's main occupation (i.e., retired, off-farm, farming) and gross cash farm income (GCFI). Since there were very few nonfamily farms, there were only small changes between the USDA, ERS typology and the typology without nonfamily farms. A majority of nonfamily farms moved to the categories of off-farm occupation farms and farm occupations with low sales (table 7). However, there were larger changes in the proportion of acres and production value. Nonfamily farms operated 8.7 percent of the farm acres. Without the nonfamily farm category, the largest increase in the proportion of acres was in large and very large farms. A similar pattern was seen with the proportion of production value, with an 8.4 percentage point increase for very-large farms.

Table 7
**Changes to the USDA, ERS typology, 2018–22**

| | USDA, ERS Typology (1) | Typology without nonfamily farm (2) | Percentage point change (2)–(1) |
|---|---|---|---|
| Percent of farms | | | |
| Retirement farms | 11.6 | 11.8 | 0.2 |
| Off-farm occupation farms | 39.6 | 40.3 | 0.7 |
| Farm occupation with low sales | 32.8 | 33.4 | 0.6 |
| Farm occupation with moderate sales | 5.2 | 5.3 | 0.1 |
| Midsize farms | 5.6 | 5.9 | 0.3 |
| Large farms | 2.7 | 3 | 0.3 |
| Very-large farms | 0.3 | 0.4 | 0.1 |
| Nonfamily farms | 2.3 | NA | NA |
| Percent of acres | | | |
| Retirement farms | 4.4 | 4.5 | 0.1 |
| Off-farm occupation farms | 13.4 | 14.5 | 1 |
| Farm occupation with low sales | 17.3 | 18.4 | 1.1 |
| Farm occupation with moderate sales | 12.1 | 12.6 | 0.5 |
| Midsize farms | 20.8 | 22.1 | 1.2 |
| Large farms | 18.2 | 21.2 | 3 |
| Very-large farms | 5 | 6.7 | 1.7 |
| Nonfamily farms | 8.7 | NA | NA |
| Percent of production value | | | |
| Retirement farms | 1.1 | 1.1 | 0 |
| Off-farm occupation farms | 4.5 | 4.6 | 0.1 |
| Farm occupation with low sales | 5.3 | 5.4 | 0.1 |
| Farm occupation with moderate sales | 8.9 | 9.1 | 0.2 |
| Midsize farms | 19.9 | 20.9 | 1.1 |
| Large farms | 27 | 30.5 | 3.5 |
| Very-large farms | 19.9 | 28.3 | 8.4 |
| Nonfamily farms | 13.4 | NA | NA |

NA = not applicable.

Note: Retirement farms have a principal producer who is retired from farming and a gross cash farm income (GCFI) of below $350,000. Off-farm occupation farms have a principal producer whose primary occupation is off the farm and a GCFI of below $350,000. Farming occupation farms with low sales have a principal producer with farming as a primary occupation and a GCFI of below $150,000. Farming occupation farms with moderate sales have a principal producer with farming as a primary occupation and a GCFI of between $150,000 and $349,999. Midsize farms have a GCFI of between $350,000 and $999,999. Large farms have a GCFI of between $1 million and $4,999,999 and very large farms have a GCFI of at least $5 million. Nonfamily farms are farms of any size where no producer, producer's household, or extended family owns at least 50 percent of the operation. Percentage sum may not equal 100 due to rounding.

Source: USDA, Economic Research Service (ERS) using USDA, National Agricultural Statistics Service and USDA, ERS, 2018–22 Agricultural Resource Management Survey data.

# Conclusion

Nonfamily farms (where a producer and/or their family do not own at least 50 percent of the farm operation) accounted for 2 percent of farm operations, on average, between 2018 and 2022. In the USDA, Economic Research Service (ERS) typology, nonfamily farms are categorized separately from family farms, regardless of the size of the nonfamily farm. Due to the limited number of nonfamily farms, few studies have been conducted to understand these nonfamily farms. This is the first report to provide an overview of the characteristics of nonfamily farms by gross cash farm income (GCFI) compared with family farms. Specifically, the authors examined many important characteristics of the farm operation, including size, commodity specialization, and financial vulnerability. This is also the first report to include statistics on the nonfamily farm principal producer household outcomes, such as producer characteristics, on- and off-farm income, and producer and spouse farm labor hours.

Between 2018 and 2022, about 2 percent of U.S. farms were categorized as nonfamily farms, accounting for 13.4 percent of the value of production. When divided into size categories, 70 percent of nonfamily farms were classified as small farms (GCFI of less than $350,000) compared with 17 percent of nonfamily farms that were large-scale farms (GCFI of at least $1 million). However, 89 percent of the value of production from nonfamily farms came from these large-scale farms. When compared with family farms, nonfamily farms were more likely to be classified as midsize and large-scale farms.

Examining the farm and household data of nonfamily operations, the authors found some notable differences from those of family operations after controlling for operation size. Midsize and large-scale nonfamily farms were less likely than family farms to specialize in cash grains. Similarly, midsize and large-scale nonfamily farms were also less likely to participate in Federal crop insurance, which largely covers field crops. Large-scale nonfamily farms were less likely to participate in government agricultural programs; however, of the farms that participated, large-scale nonfamily farms received higher payments (on average) than large family farms. Although nonfamily farms were less likely to use debt than family farms, there were no notable differences in financial vulnerability between midsize and large-scale family and nonfamily farm operations.

The Agricultural Resource Management Survey (ARMS) questionnaire inquires about household level outcomes, such as household income, assets, and debt for the principal producer household. The principal producers of nonfamily farms were more likely to report their primary occupation as farming and be college graduates compared with family farm principal producers. There were also differences in household wealth, income, and debt. Nonfamily farm principal producer households had lower wealth and household income, which was driven by lower farm income. These households also had lower household debt, driven by lower farm debt than family farm principal producer households.

Historically, Congress has distinguished between family and nonfamily farm operations in Farm Bill programs, which means nonfamily farm operations are not eligible for some USDA programs. As a result of the distinction between family and nonfamily farms in legislation, USDA agencies and researchers have studied nonfamily farm operations separately from family farm operations. However, with the limited number of nonfamily farms, it has been statistically challenging to separate nonfamily farms by size, as is currently done with family farms. Therefore, the authors evaluated how statistics on the proportion of the number of farms, acres, and value of production would change without a nonfamily farm category if nonfamily farms were instead categorized by GCFI and the primary occupation of the principal producer. The largest changes in both the proportion of acres and value of production would occur for large-scale farms since large nonfamily farms disproportionally account for a high proportion of acres and value of production.

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