Rural Iowa at a Glance:
Farm Trends

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IOWA STATE UNIVERSITY
Extension and Outreach

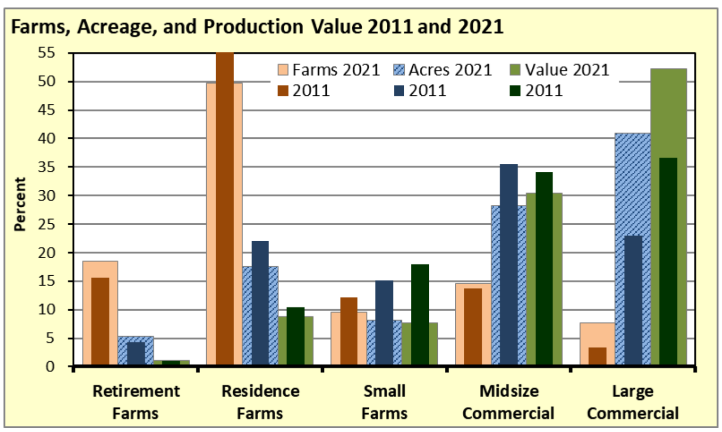
Rural Iowa at a Glance

2022 Edition

Farm Trends

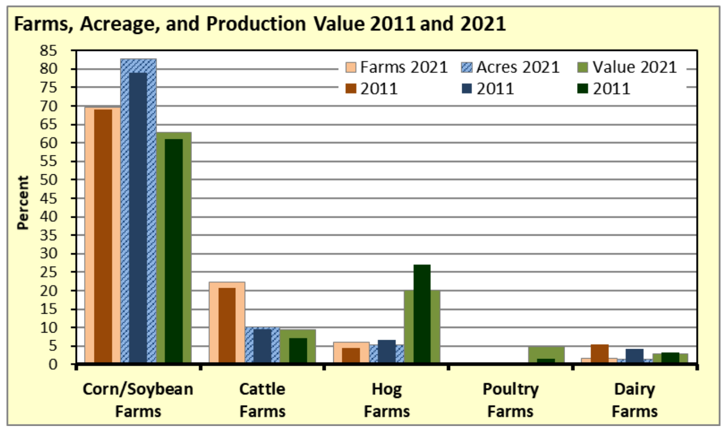
This publication summarizes current farm trends in Iowa between 2011 and 2021. It is modeled after the United States Department of Agriculture's *Rural America at a Glance*. Indicators are taken from USDA's Agricultural Resource Management Survey for Iowa. Incomes and sales are inflation adjusted. Farms are defined as having $1,000 or more of agricultural production. *Retirement farms* have operators who are retired with gross cash farm income (GCFI) under $350,000. *Residence farms* have operators with a non-farm occupation and GCFI under $350,000, plus farmers with GCFI under $150,000. *Small farms* include farmers with GCFI between $150,000 and $349,999. *Midsize commercial farms* include farmers with GCFI between $350,000 and $999,999. *Large commercial farms* are farmers with $1 million or more in GCFI. *Production specialty* is based on the commodity with the largest value of production for the farm operation.

Farms, Farmland, and Production Value



Most of Iowa's farms are places to live, not to work. Small number of commercial farms operate most of the farmland and generate most of farm sales. Iowa had 82,820 farms in 2021, down 6.6% from a decade ago in 2011. Just over 68% of Iowa's farms are places to live rather than to make a living, operated by people that have a non-farm job (49.8%) or who are retired (18.5%). Despite large numbers, residence and retirement farms only account for 22.8% of farmland (120 acres per farm) and generate only 9.8% of agricultural production value (typically sales, but also the value of non-sold commodities). By contrast, the 18,450 commercial farms only make up 22.3% of farms, but operate 69.1% of the farmland acres and generate 82.6% of sales in Iowa. Large commercial farms dominate production value (52.2%) and farmland (40.9%), but only account for 7.7% of farms at 6,390 operations. Stuck in between are small farms, accounting for 8-9% of farms, acres, and sales.

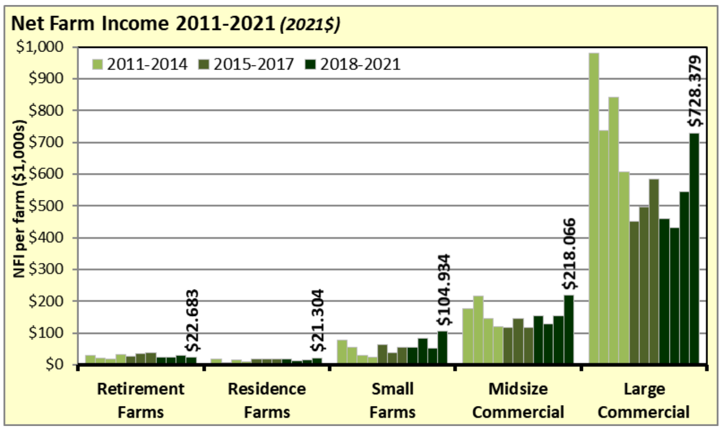
Large farms are growing while small farms wither. Over the past decade, the number of large commercial farms doubled, the acres operated grew by 75% to 1,930 acres per farm, and production value expanded by 36%. The number of midsize commercial farms have remained stable at 12,100 operations, but acres farmed fell by 22% to 705 acres per farm, and sales dropped by 15%. More concerning is the rapid decline in small farms. Since 2011, farm sales fell by 59%, farmland operated shrank by 47% to 311 acres per farm, and the numbers of small farms dropped by 27% to 7,880.

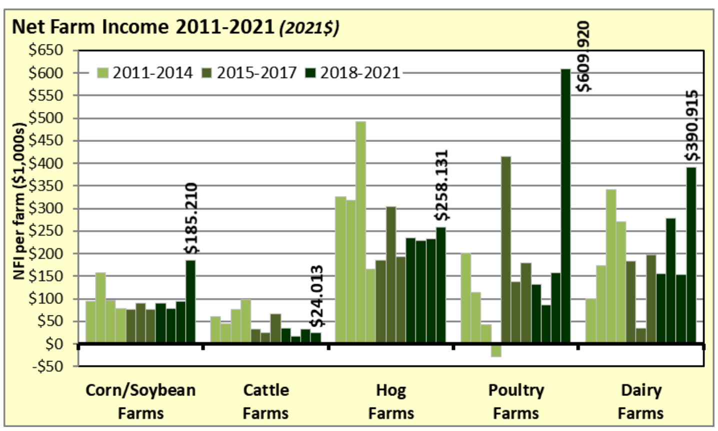


Corn is still king in Iowa. The vast majority of Iowa farms (about 70%) grow corn or soybeans on 83% of the state's farmland, but corn dominates row crop production. Corn operations account for 53.7% of farms (34,930 operations), 72.1% of farmland (550 acres/farm), and 56.5% of the state's agricultural production value. The 11,210 cattle operations make up 22.3% of farms and 10.2% of farmland (212 acres/farm), generating 9.5% of production value. Hog farms generate a good share of farm sales at 20.1% with only 5.6% of the state's farms and farmland (2,980 farms on 420 acres/farm), but sales are down from 2011. Poultry farms contribute a sizable share of production value at 4.7%, despite containing just 0.5% of farms and acres (260 operations on 126 acres/farm). Poultry sales have tripled over the past decade, despite bird flu outbreaks. The state's dairy industry has shrank since 2011, seeing declines in farm numbers, acreage, and sales. Today, dairy only has 820 or 1.6% of farms, 1.4% of farmland (405 acres/farm), and 2.8% of production value.

Net Farm Income

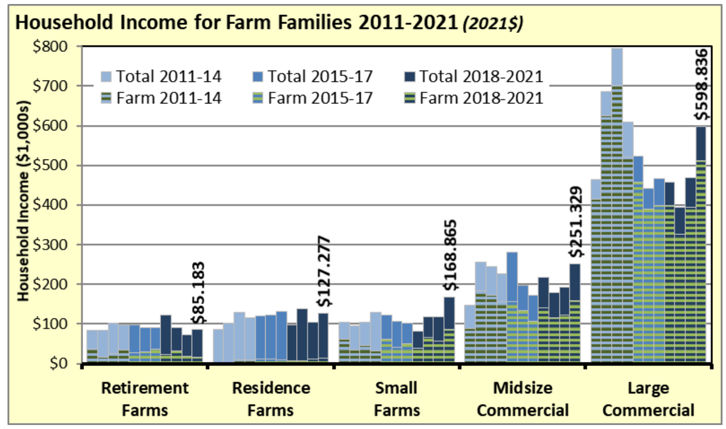
Farm incomes up last year. Large farms are profitable but volatile. Midsize and small farms doing well. Net farm income is the profit or loss of the farm operation from the farmer's labor, management, and capital after expenses. It is the difference between farm production incomes less production expenses; and the value of commodities consumed on-farm, depreciation, and inventory changes. Across the board, last year was a good one for farmers as net farm incomes surged by nearly 38% between 2020-21. Large commercial farms earned $728,380 in net farm income in 2021, up 46% from 2016, but still down 26% from near record highs in 2011. Midsize commercial farms have seen steady gains, growing by 49% over the last five years. Net farm incomes in 2021 are $218,070 per farm, which is 23% higher than a decade ago. Small farms saw net incomes rise by 35% over the last ten years and incomes doubled last year. Small farms now have net incomes of $104,930, the highest in over a decade. On the other hand, residence and retirement farms have very low net farm incomes of about $22,000 per farm.



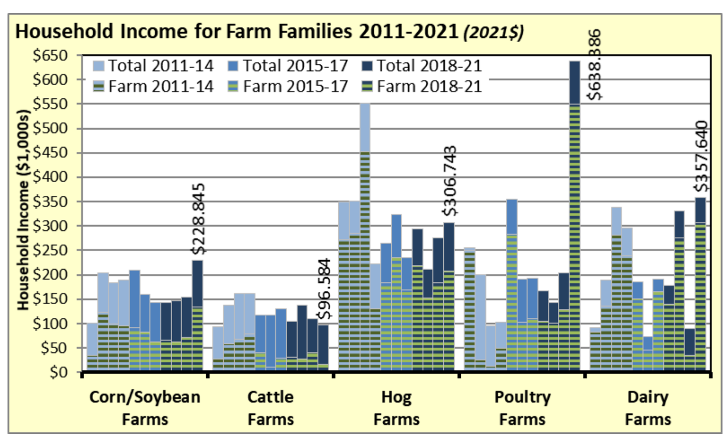


Steady money in hogs. Poultry and dairy profitable, but large swings. Cattle operations continue to struggle. Poultry paid out well in 2021, with net farm income jumping to $609,920. Although net incomes have grown by over 200% since 2011, profitability has been variable due to salmonella and bird flu outbreaks in 2013-14. Dairy net farm incomes also saw a jump in 2021 to $390,920, a 300% increase from a decade ago. However, dairy incomes fell sharply in 2016 due to overproduction the previous year and changes in federal dairy subsidies. For hog operations, net farm incomes have been growing the past several years and now stand at $258,130, but this is still 21% lower than in 2011. On the crop side, corn and soybean farms have seen steady and growing incomes the past few years. Net farm incomes doubled since 2011, rising to $185,210 per farm. Hog and crop net incomes do not show any adverse impacts of the 2018-20 China-U.S. trade war due to large government emergency payments, which are included as income. By contrast, cattle producers have struggled over the past decade, seeing net farm incomes shrink by 60% to only $24,010 per farm in 2021.

Household Income for Farm Families



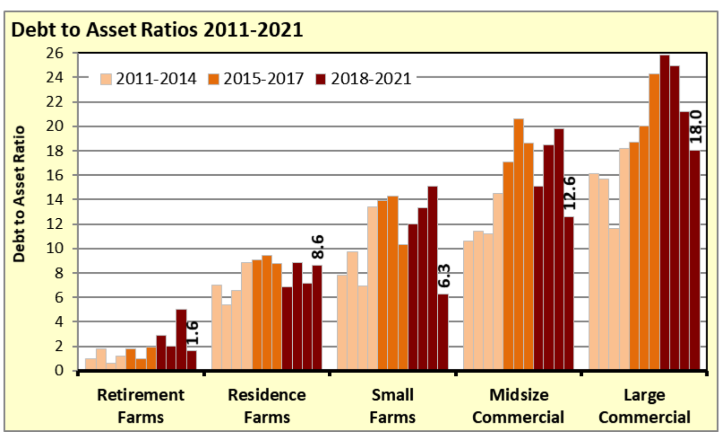
Growing prosperity for farm families. Off-farm income critical for smaller farms. Farm household or family income includes both farm and non-farm sources. Families operating large commercial farms earned a total income of $598,840 in 2021, with only a small amount (15%) from non-farm sources. This is 5.9 times more than the average Iowa household earned. Incomes grew 28% last year and are up 29% from 2011. Midsize commercial farm families saw their household income grow by 30% last year to $251,330, which is 1.9 times higher than the average household. About 37% of income is from non-farm activities. Midsize family incomes are up 71% from a decade ago. Families living on small farms also saw sizable income gains over the past several years, posting the highest income in over a decade at $168,870, nearly double that of the typical Iowa family. However, 48% of income is from non-farm sources, likely an off-farm job. Despite low net farm incomes, retirement and residence farms are relatively well-off due to sizable off-farm sources that accounts for 80-90% of total income. Residence farm households earn $127,280 that is mostly from off-farm jobs (47% more than the average household); and retirement farm households earn $85,180 from retirement accounts and Social Security.



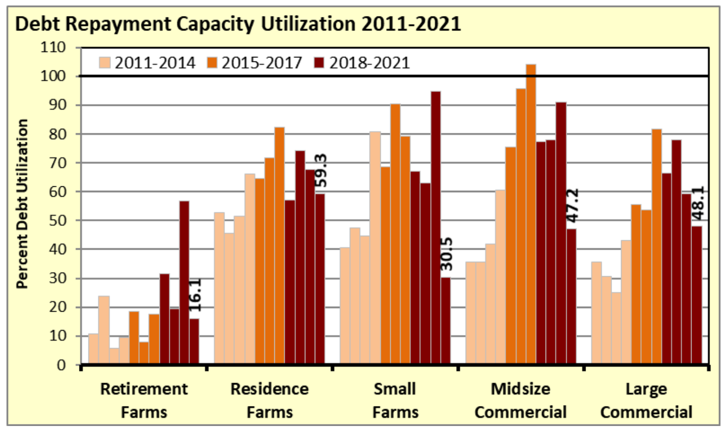
Looking at production specialty, families operating poultry farms had the highest and fastest growing household incomes in 2021 at $638,390, a gain of 151% since 2011 and nearly all from farm sources. Dairy farm families also had fast growth in household incomes at 290% over the past decade, standing at $357,640 per household in 2021, nearly all from farm activities. However, poultry and dairy families experienced wide swings in their incomes over the past ten years due to various policy and production issues. Hog farm families earned high, yet slightly more stable, incomes at $306,740, with 32% coming from non-farm sources. Although there have been gains the past few years, hog family incomes are down 12% from 2011. Corn and soybean farm families earned $228,850 from farm and non-farm source in 2021, which is a 128% gain from a decade ago. About 42% is from non-farm activities. On the other hand, families raising cattle have seen no gains in household incomes since 2011, and have seen their incomes shrink by 17% since 2016. At present, incomes for cattle families are at $96,580, with the majority (84%) coming from off-farm jobs or non-farm activities. In short, sizable off-farm income is needed for cattle farm families to survive.

Farm Debt

Debt to asset ratios measure the percent of farm assets owed to creditors to cover outstanding obligations. Higher values indicate more of the farm's assets are financed by debt instead of farmer equity. In general, ratios under 30% indicate average to low debt loads, while ratios over 50% indicate high debt loads. *Debt to asset ratios have fallen to low levels.* For all farm classes, debt to equity ratios fell sharply in 2021, driven by rising agricultural commodities prices and rising farmland values. Large commercial farms saw ratios fall from 25.8% in 2018 down to 18.0% by 2021. Midsize commercial farms saw debt ratios peak to 20.0% in 2016 and 2020, but have fallen down to 12.6% in 2021. Small farms show a similar trend, but debt ratios in 2021 are half that of midsize farms at 6.3%. Residence farm debt has been low and stable, ranging from 6-9%.

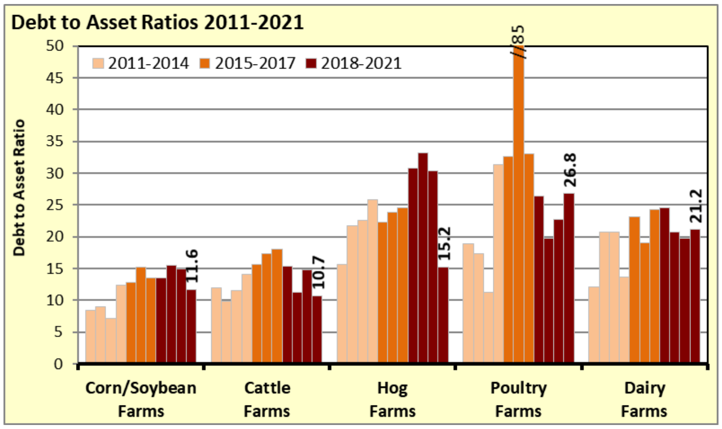


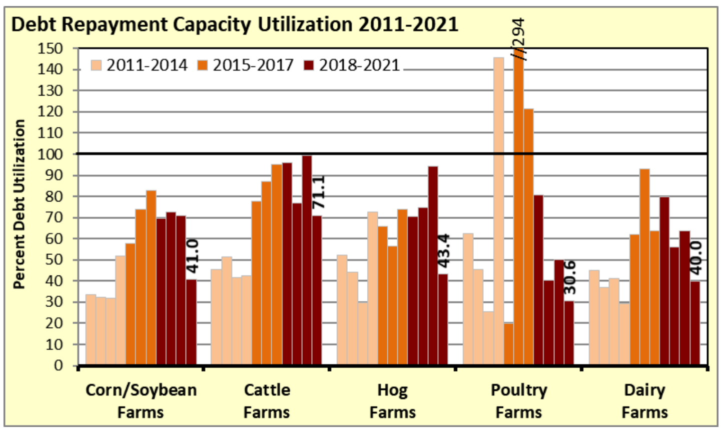
Debt repayment capacity utilization (DRCU) rates are the percent of actual farm debt relative to the farm's maximum feasible debt. Debt capacity is defined as the farm's ability to repay debt obligations at 10% interest, given farm assets and income. Higher DRCU rates indicate the farm cannot take on more debt to finance operations, or that the farm will have trouble paying existing obligations. *Debt utilization rates have fallen sharply.* Rising farm prices and farmland values last year allowed many farmers to either repay or refinance debt. Midsize commercial farms were pushing against their debt ceiling in 2016, 2017, and 2020. By 2021, however, debt levels had fallen to 47.2%. Small farms also saw debt utilization spikes in 2016 and 2020, before rapidly falling to 30.5% by 2021. Residence farms have the highest debt utilization at 59.3%. This suggests that midsize and smaller farms rely on short-term debt to manage volatility in farm prices, as they do not have the financial cushion of large savings or assets to fall back on. On the other hand, large farms currently have a DRCU rate at 48.1%, but their debt utilization rarely exceeded 70% over the past decade. Again, these larger and highly profitable farms likely have other means to cover losses rather than taking on debt.



Poultry and dairy farms have the highest debt relative to assets, but debt loads are still average. Poultry operations have the highest debt to asset ratio in Iowa at 26.8%, but this is considered an average debt load. Bird flu outbreaks in the mid-2010s caused debt levels to spike, soaring to 84.8% in 2016. Debt utilization (DRCU) rose to 145.7% in 2014, 293.8% in 2016, and 121.3% in 2017. However, debt levels fell quickly as outbreaks subsided and the poultry industry recovered. Dairy farm debt to asset ratios have ranged between 20-25% for most of the last decade, with a ratio of 21.2% in 2021. Debt utilization has fallen from a peak of 93.0% in 2016, due to overproduction and dairy subsidy changes, to 40.0% by 2021. Iowa's hog producers had debt issues between 2018-2020, where debts were 30% of assets and debt utilization was over 90% in 2020. This was partly caused by the U.S.-China trade war. However, by 2021 hog producers paid down obligations to bring debt to asset ratios to a low 15.2% and debt utilization rates down to 43.4%.

Cattle farms have the highest debt utilization. Despite having low debt to asset ratios, likely the result of large livestock inventories, cattle farms have had high debt utilization rates of over 70% since 2015. Debt use was over 95% between 2017-18 and in 2020. Debt utilization fell in 2021, so that cattle operations are now at 71.1% of their maximum feasible debt. Corn and soybean farms have had low debt to asset ratios that rarely exceed 15%, as these operations tend to own larger and more valuable cropland acres. However, debt usage rose from 30% to 70% between 2013-2020, reflecting a slump in grain prices. However, DRCU rates dropped to 41% as grain prices recovered in 2021 and row crop farmers paid down debts.





Summary

Iowa has just under 83,000 farm operations, but nearly 70% are places to live rather than to make a living, being retirement or residence farms. Instead, the state's agricultural economy is driven by 18,450 commercial farm operations. Despite accounting for only 22% of farms, commercial farms operate 69% of Iowa's farmland and generate 83% of the state's agricultural production value. Over the past decade, large commercial operations have grown in terms of farms and farmland, while small farm operations have shrunk considerably. This raises concerns that small-scale operations may effectively disappear from Iowa's farm landscape in the near future. Corn and soybean production dominates Iowa agriculture, accounting for 83% of farmland, 70% of farms, and 63% of production value. Corn is still king as this commodity accounts for two-thirds of row crop farms and farmland.

Across the board, 2021 was a good year for farmers as net farm incomes surged by nearly 38% from 2020. Farm net incomes are also higher than a decade ago in real terms, except for large commercial operations whose net incomes are still 26% below record highs set in 2011. Poultry and dairy farms saw net incomes double or triple last year, and have replaced hogs as the most profitable commodity. Net farm incomes in 2021 are $609,920 for poultry and $390,920 for dairy, but incomes have not been stable over the past decade due to disease, production, and policy issues. Corn and soybean net farm income nearly doubled last year to $185,210, the highest in a decade. Hog farms are still highly profitable at $258,130 in net income, although incomes are down 21% from 2011 and have only seen small gains since last year. By contrast, cattle producers have struggled over the past decade, seeing net farm incomes shrink by 60% to only $24,010 in 2021. Sizable off-farm income is needed for cattle families and small farm families to survive.

Farm debt fell sharply across farm operations last year, as rising farm prices and farmland values allowed farmers to pay down debt. However, cattle farms carry relatively high debt loads for longer periods. Current farm debt as a percent of maximum feasible debt has been over 70% since 2015, and spiked to 100% in 2020. Trends show that cattle operations, as well a small and midsize farms regardless of commodity, rely on debt to manage volatility in farm prices. This is likely due to a lack of liquid assets, since smaller farms are less profitable and have fewer assets than large farms.

In summary, the financial well-being of commercial farms will determine the overall health of Iowa's farm economy. The state's commercial farms had an excellent year during 2021, with large gains in net farm income and sharp reductions in farm debt, resulting in a strong farm sector in Iowa. However, the contribution of residence, retirement, and small farms should not be overlooked when considering the vitality of rural economies and communities. By sheer numbers, small farm families strengthen rural economies through local spending on goods and services, strengthen public services and schools by providing a stable population and tax base, and strengthen community vitality through participation in local organizations.

Acknowledgements

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Data sources and methods can be found at https://smalltowns.soc.iastate.edu/2022/10/14/rural-iowa-at-a-glance-2022/

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