

# **Agricultural Economic Viability in Ulster County, NY: Interim Report**

**August 2024**

Economic Statistics on Farming and Agricultural Production



This interim report was prepared as part of the process to update Ulster County's Agricultural and Farmland Protection Plan.

# Table of Contents – Agricultural Economic Viability Report

- Farms by Principal Product ..... 1**
- Farms by Value Production ..... 3**
- Farm Product Sales ..... 4**
- Direct and Intermediated Sales ..... 5**
- Value-Added Production and Sales ..... 6**
- Organic Production and Sales ..... 6**
- Farm-Related Income ..... 7**
- Production Expenses ..... 8**
- Farm Profitability ..... 10**
- Fixed Assets ..... 11**
- Farm Operator/Producer Characteristics ..... 13**
- Agriculture-Related Industry ..... 14**
- Economic Viability ..... 16**
- Profitability ..... 16**
- Sales Revenue, Markets, and Diversity of Income Streams ..... 17**
- Assets, Debts, and Expenses ..... 18**

## **List of Figures**

Figure 1. Farms by Principal Product, Ulster County, 2022

Figure 2. Farms by Principal Product, Ulster County 2002

Figure 3. Farms by Value of Agricultural Production, Ulster County

Figure 4. Distribution of Sales by Commodity Group, Ulster County, 2022

Figure 5. Farm Employment and Payroll in Constant 2022 Dollars, Ulster County

Figure 6. Farms by Tenure, Ulster County

Figure 7. Average Market Value Per Farm (Land and Buildings) in Constant 2022 Dollars

Figure 8. Average Market Value of Farms Per Acre in Constant 2022 Dollars

## **List of Tables**

Table 1. Market Value of Sales by Commodity Group in Ulster County in Constant 2022 Dollars

Table 2. Selected Farm Practices and Markets, Ulster County

Table 3. Farms that earn Income from Agri-Tourism and Recreational Services, Ulster County

Table 4. Farm Production Expenses in Ulster County, 2022

Table 5. Agriculture-Related Industry in Ulster County

Table 6. Economic Viability: Profitability

Table 7. Economic Viability: Sales Revenue, Markets, and Diversity of Income Streams

Table 8: Economic Viability: Assets, Debt, and Expenses

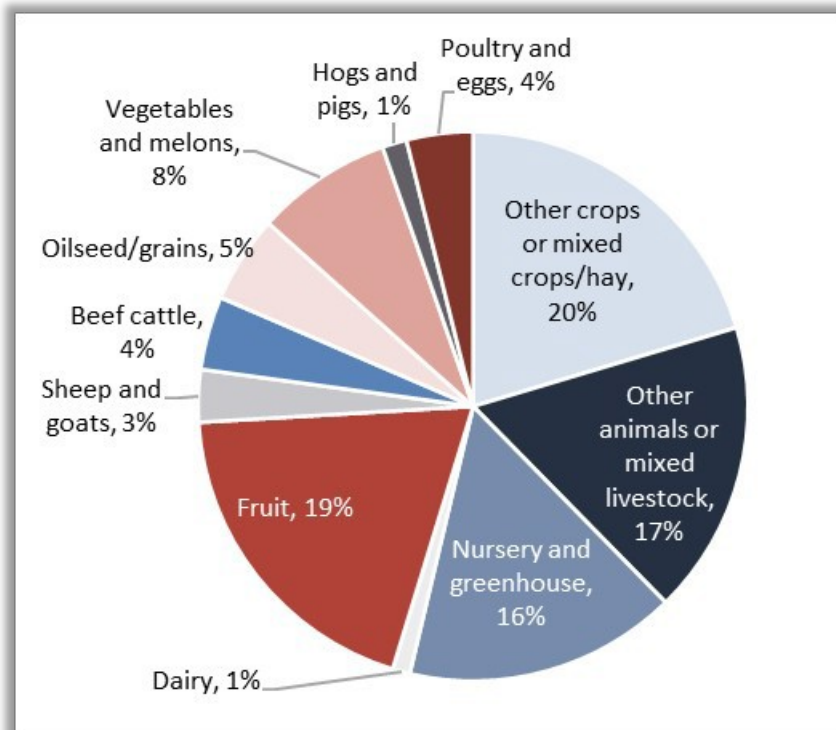
# Agricultural Economic Viability Interim Report

Unless otherwise noted, the data used in this report are from the U.S. Department of Agriculture’s Census of Agriculture, a complete count of U.S. farms and the people that operate them. It is the most comprehensive source of information on agriculture at the state, county, and national levels.

Conducted once every five years, the Census of Agriculture asks questions about land use and ownership, producer characteristics, production practices, income, and expenditures. The data is collected from the agricultural producers closest to the information. The USDA uses an accepted statistical methodology to correct for nonresponse, misclassification, and other issues, and it has extensive quality control measures in place to provide the most accurate data available.

## Farms by Principal Product

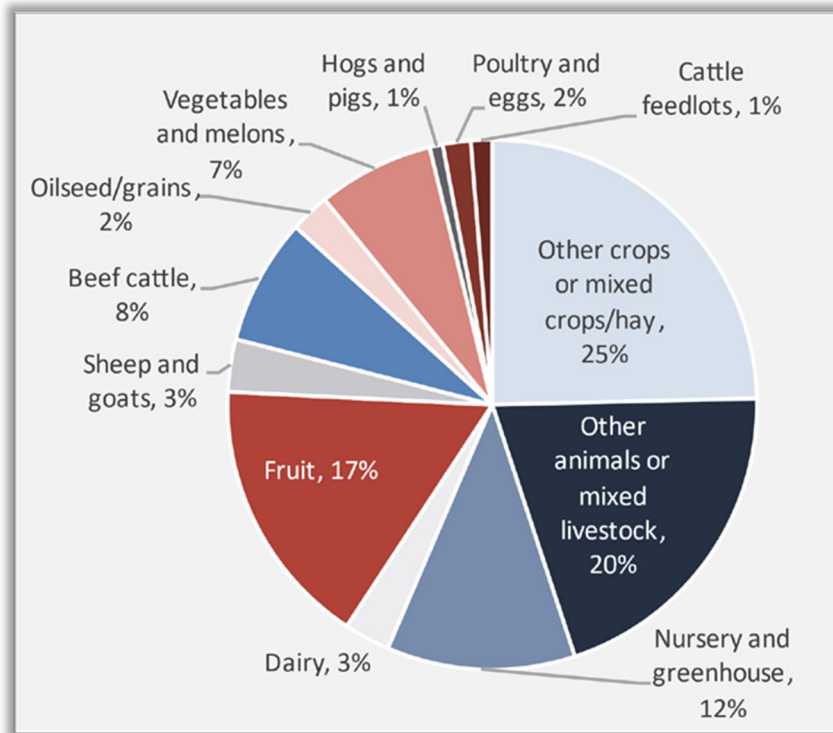
The USDA uses the North American Industrial Classification System (NAICS) to classify agricultural production establishments (e.g., farms, orchards, greenhouses) in the Census of Agriculture by type of activity. The NAICS code identifies the *principal product*: the crop or animal that accounts for at least 50% of the establishment’s agricultural production. Not all farms, however, produce a single group of crops or livestock.



**Figure 1. Farms by Principal Product, Ulster County, 2022**  
Source: U.S. Census of Agriculture

## Agricultural Economic Viability Interim Report

Ulster County has a diverse array of agricultural operations and activities. As shown in Figure 1, the three most common types of farms in 2022 were those that cultivate a combination of crops, or other crops and hay (99, or 20%); grow fruit (94, or 19%); or raise a combination of animals, or other animals, including horses (84, or 17%). Establishments that grow plants, nursery stock, flowers, and crops of any kind under cover made up the fourth largest classification (78, or 16%).



**Figure 2. Farms by Principal Product, Ulster County, 2002**

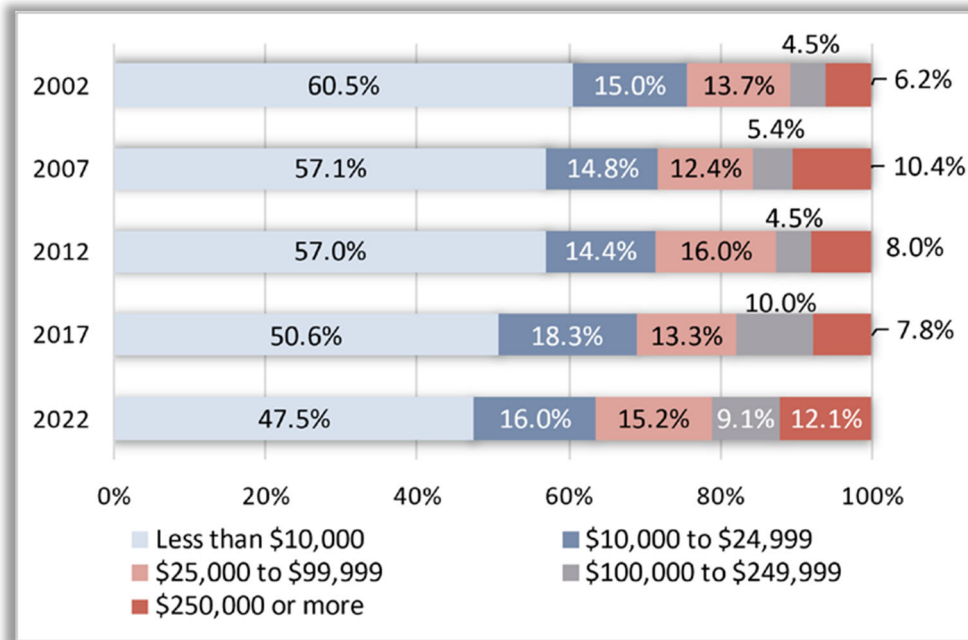
*Source: U.S. Census of Agriculture*

Since 2002, the composition of farms by principal product in Ulster County has shifted away from raising beef and dairy cattle. The number of dairy farms fell 67% between 2002 and 2022, while the number of beef cattle farms was reduced by half. More farm operations, on the other hand, are producing grains, raising chickens for their eggs, and growing nursery, greenhouse, and floriculture products as their primary activity. There were twice as many oilseed and grain farmers and 28% more nurseries, greenhouses, and flower growers in the County in 2022 as were in 2002.

## Agricultural Economic Viability Interim Report

### Farms by Value of Production

In 2022, 48% of the farms in Ulster County sold less than \$10,000 in agricultural products, down from 61% of farms in 2002. In contrast, farms with annual sales of \$100,000 or more nearly doubled, from 57 (or 11%) in 2002 to 103 (or 21%). Consequently, the average market value of sales per farm increased over the twenty years from \$64,692 to \$217,120; when these figures are adjusted for inflation, the average increased by 104%.



**Figure 3. Farms by Value of Agricultural Production, Ulster County**

*Source: U.S. Census of Agriculture*

Most of the market value of agricultural products sold, however, is generated by a comparatively small number of farms. In 2022, 103 farms in Ulster County, or 21% of the total, accounted for 95% of the sales.

To qualify for an agricultural assessment in New York State, farm operations must have annual gross sales of agricultural products averaging \$10,000 for the preceding two years. Based on sales figures, less than half of the farms in Ulster County are eligible to receive a partial tax exemption.

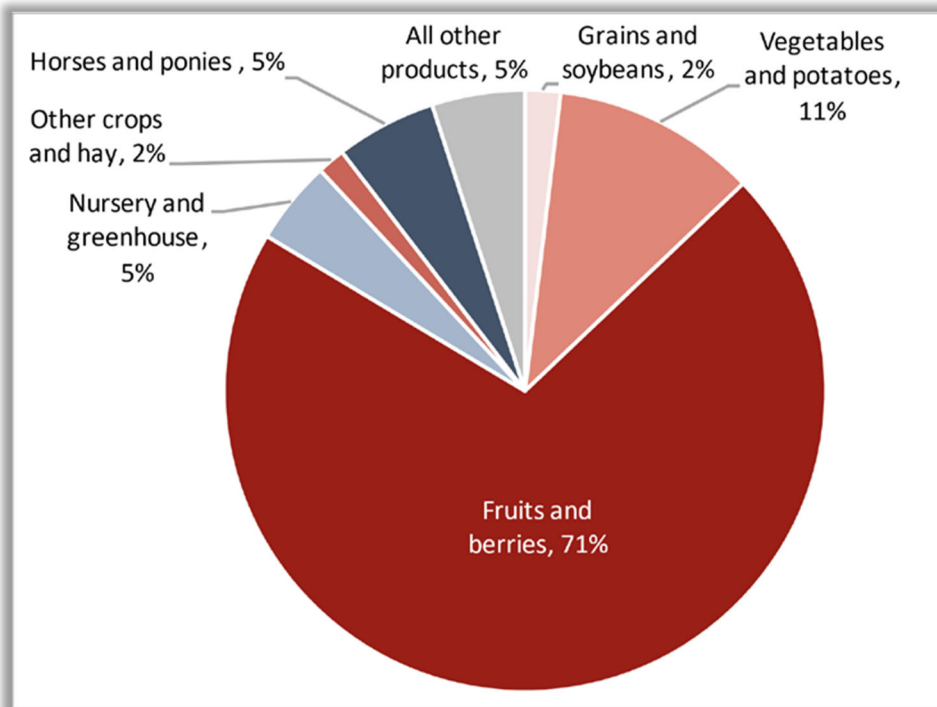
# Agricultural Economic Viability Interim Report

## Farm Product Sales

Sales of products from farm operations in Ulster County generated \$105.5 million in 2022. Fruit represented the highest valued product, with \$74.6 million in sales. The market value of fruit included \$2.1 million in berries. Sales of vegetables, melons, potatoes, and sweet potatoes generated \$11.6 million in sales, while sales of nursery and greenhouse products totaled \$4.7 million. Nursery and greenhouse products include bedding/garden plants, cut flowers, potted flowering plants, ornamental shrubs, fruit trees, evergreen trees, and even greenhouse vegetables and herbs, with half of the sales attributed to nursery stock crops (mostly trees and shrubs) and roughly 40% to plants and flowers. Taken together, fruits, vegetables, nursery and greenhouse products, grains and soybeans, hay, and equine accounted for 95% of the market value of farm products sold.

Ulster County ranks #30 of all New York counties in the total value of agricultural products sold, up from #36 in 2017. It is #2 in the state, after Wayne County, in the sales of fruits and berries; #5 in the value of horses, ponies, and mules sold; and #9 in the sales of sheep, goats, and their products.

In inflation-adjusted dollars, total sales in Ulster County increased 87% between 2002 and 2022. Sales of crops grew much faster (102%) than the sales of livestock, poultry, and their products (11%). Two commodity groups experienced a net decline in sales: cattle and calves (-53%) and other crops and hay (-34%). Consistent with the



**Figure 4. Distribution of Sales by Commodity Group, Ulster County, 2022**

Source: U.S. Census of Agriculture

loss of dairy farms, milk sales fell 79%, while sales of poultry and eggs fell 33% between 2007 and 2022 (data on these commodities was not available in 2002). Lower-volume products such as cultivated Christmas trees and sheep and goats have experienced some of the largest increases in market value.

A statement by the NY Farm Bureau on the release of the 2022 Agricultural Census observed that the significant increase in the market value of agricultural products statewide was “in large part due to temporary increases in major commodity prices during the pandemic, which have since fallen in the past year.” The statement also cited



## Agricultural Economic Viability Interim Report

the USDA’s prediction that farm income will drop 25% in 2024.<sup>1</sup>

### Direct and Intermediated Sales

Ulster County offers many opportunities for direct-to-consumer sales of agricultural products. These include farmers’ markets in Kingston, Woodstock, and Phoenicia<sup>2</sup>; approximately 50 farmstands and on-farm markets; an estimated 42 CSAs; and at least a dozen farms and orchards that have “pick-your-own” operations. About 15-20 farms from Ulster County are vendors at NYC Greenmarkets. Some farmers report that they are unable to sell at local farmers’ markets or NYC Greenmarkets due to low turnover among vendors; there are limited openings and a lot of competition.

**Table 1. Market Value of Sales by Commodity Group in Ulster County in Constant 2022 Dollars**

	Dollar Amounts in 000s					%
	2002	2007	2012	2017	2022	Change, 2002-22
Crop Sales, Incl. Nursery & Greenhouse Products	\$47,224	\$83,785	\$59,891	\$57,996	\$95,184	101.6%
Fruits & Berries	\$27,979	\$60,921	\$41,009	\$40,743	\$74,611	166.7%
Vegetables & Potatoes	\$11,450	\$13,314	\$9,751	\$10,522	\$11,575	1.1%
Nursery & Greenhouse Products	\$4,709	\$6,969	\$5,259	\$2,826	\$4,745	0.8%
Grains, Oilseeds, Soybeans	\$549	\$938	\$1,745	\$1,209	\$2,009	266.2%
Cultivated Christmas Trees	\$92	\$211	\$133	\$542	\$621	575.1%
Other Crops & Hay	\$2,447	\$1,432	\$1,994	\$2,153	\$1,623	-33.7%
Sales of Livestock, Poultry, & Their Products	\$9,305	\$9,589	\$12,269	\$7,665	\$10,336	11.1%
Horses, Ponies, & Mules	\$1,840	\$702	\$4,912	\$2,142	\$5,699	209.8%
Beef Cattle & Calves	\$1,753	\$1,691	\$1,283	\$639	\$822	-53.1%
Milk from Cows	NA	\$3,761	\$1,794	\$1,496	\$808	NA
Sheep, Goats, & Products	\$159	\$112	\$111	\$265	\$414	159.8%
Poultry & Eggs	NA	\$310	NA	\$161	\$207	NA
Hogs & Pigs	\$62	\$84	\$107	\$66	NA	NA
All Other Animals/Products	NA	\$2,928	NA	NA	NA	NA
<b>TOTAL</b>	<b>\$56,529</b>	<b>\$93,374</b>	<b>\$72,159</b>	<b>\$65,660</b>	<b>\$105,520</b>	<b>86.7%</b>

Source: U.S. Census of Agriculture

In 2022, 23% of farms in Ulster County sold agricultural products directly to consumers. Cash receipts totaled \$10.7 million, down 18% from 2017 when figures are adjusted for inflation but much higher than the \$3.5 million in direct-to-consumer sales reported in 2012. The 2017-22 decline could be related to the temporary restrictions on business operations during the COVID-19 pandemic. According to the USDA’s Economic Research Service, farmers who market goods directly to consumers incur less debt and are more likely to remain in business than those who market only through traditional channels.<sup>3</sup>

<sup>1</sup> Morning Ag Clips, “NY Farm Bureau Statement on New Agriculture Census Results,” February 15, 2024, <https://www.morningagclips.com/ny-farm-bureau-statement-on-new-agriculture-census-results/>.

<sup>2</sup> In the past, farmers’ markets have also operated in New Paltz and Saugerties.

<sup>3</sup> USDA Economic Research Service, “Farms That Sell Directly to Consumers May Stay in Business Longer,” April 28, 2016, at <https://www.usda.gov/media/blog/2016/04/28/farms-sell-directly-consumers-may-stay-business-longer>.

## Agricultural Economic Viability Interim Report

In addition to direct-to-consumer sales, the Census of Agriculture collects data on the sale of local food products directly to retail outlets, restaurants, institutions (e.g., schools, hospitals), and so-called intermediate markets, like wholesalers and food hubs. In 2022, farms in Ulster County sold \$31.5 million in agricultural products through these channels, up from \$7.9 million (or \$9.5 million in constant 2022 dollars) in 2017. Moreover, the number of farm operations selling directly to retailers, institutions, and intermediaries increased from 12% to 16%. Sales in these markets averaged over \$409,000 per farm, providing a substantial revenue stream for these producers.

**Table 2. Selected Farm Practices and Markets, Ulster County**

	Number of Farms		Sales (000s) In Constant 2022 Dollars	
	2017	2022	2017	2022
Sell directly to consumers	111	112	\$13,016	\$10,656
Sell directly to retailers, institutions, and intermediaries	51	77	\$9,492	\$31,503
Produce/sell value-added products	48	57	\$5,507	\$9,112
Produce/sell organic products	18	18	\$2,911	\$2,218

*Source: U.S. Census of Agriculture. Note: Data on most of these variables was not collected before 2017.*

### Value-Added Production and Sales

Many farms in Ulster County engage in value-added production to diversify their income. Approximately 12% of farm operations produced and sold value-added products in 2022, grossing \$9.1 million; sales averaged \$160,000 per year. In inflation-adjusted dollars, sales of value-added products increased 65% over the value in 2017.

Farm wineries, breweries, cideries, and distilleries are among Ulster County’s value-added enterprises. As of April 2023, the NYS Liquor Authority listed 70 licensed wineries, breweries, cideries, and distilleries in the County, two-thirds of them (47) farm-based. These businesses attract visitors, provide gathering spaces, and serve as venues for private events. Other value-added products made by local farms include baked goods, jams and jellies, apple cider, sheep wool, dried herbs and spices, cheese, ice cream, and mushroom extracts.

### Organic Production and Sales

According to the 2022 Agricultural Census, Ulster County had 23 farms with organic production certified by the USDA, two more than the number in 2017. Of these, 18 reported organic product sales totaling \$2,218,000, down slightly from five years earlier.

About 4% of farms in the County used organic practices, virtually the same proportion as in New York State, but the state lost 20% of its organic farms between 2017 and 2022. Average organic product sales were \$123,222 per farm in Ulster County, well under the state average of about \$211,000.

Despite continued demand for organic products, the inflationary pressures of the past few years and their impact on food costs may have discouraged some consumers from buying foods that usually command a price premium compared to conventional products.

# Agricultural Economic Viability Interim Report

## Farm-Related Income

With nearly two-thirds of the agricultural establishments in Ulster County earning less than \$25,000 per year from the sales of crops and livestock, many farmers have turned to sales and services related to the farm operation as an additional source of income. These include providing services to other producers (e.g., plowing, planting, spraying), renting out farmland or buildings, boarding or breeding livestock, and selling standing timber and firewood. In 2022, about 32% of farms in Ulster County received farm-related income, averaging \$78,321. This is more than twice the state average (\$33,147).

**Table 3. Farms that Earn Income from Agri-Tourism and Recreational Services, Ulster County**

Year	Farms		Income*	Average Per Farm*
	Number	Percent		
2002	7	1.3%	\$22,995	\$3,285
2007	17	3.4%	\$249,111	\$14,654
2012	26	5.3%	\$1,431,581	\$55,061
2017	32	7.6%	\$5,728,042	\$179,001
2022	31	6.4%	\$3,625,000	\$116,935

Source: U.S. Census of Agriculture

\* All dollar figures are in constant 2002 dollars (i.e. adjusted for inflation).

Another activity associated with the agricultural sector, increasingly popular among visitors to the Hudson Valley, is agritourism. The 2022 Census of Agriculture reports that 31 farms in Ulster County earned income through agritourism and recreational services, defined by the USDA as “services such as hunting, fishing, farm or wine tours, hayrides, etc.” This is a relatively limited definition, however. It does not include picking your own apples, shopping for farm-fresh produce at farmstands and farmers’ markets or visiting tasting rooms to sample craft beverages produced on the farm, all of which are generally considered agritourism activities.

Although it declined slightly from the previous Agricultural Census, the share of farms with agritourism sales in Ulster County, 6%, was twice the share of farms statewide in 2022. Moreover, farms offering agritourism and recreational services in the County, on average, generated about \$117,000, twice as much as the state average of \$58,626. Since 2012, Ulster County has consistently had a higher proportion of farms involved in agritourism than New York State. It has also had higher average revenues from agritourism. With its many farms and orchards, farm-based craft beverage operations, and on-farm activities, agritourism is a strength for Ulster County.

In 2022, visitor spending in Ulster County grew to \$979 million, reaching 143% of 2019 (pre-pandemic) levels. The tourism industry supported 8,085 jobs and generated \$390 million in labor income. Direct employment in tourism accounted for about 10% of all jobs in the County. (Source: *Tourism Economics, Economic Impact of Visitors in New York 2022: Catskills Focus, September 2023.*)

# Agricultural Economic Viability Interim Report

## Production Expenses

Farm production expenses nationwide reached record highs from 2020 to 2023 as the U.S. experienced its highest rates of inflation in 40 years. Agricultural inputs such as feed, fertilizers and soil conditioners, and fuel as well as labor experienced the largest cost increases, affecting virtually every type of farm.

**Table 4. Farm Production Expenses in Ulster County, 2022**

	Total in 000s	# Farms	% Change, 2002-2022*
Hired Labor	\$37,765	174	150.1%
Repairs, Supplies, and Maintenance	\$9,754	452	31.6%
Contract Labor	\$9,122	53	438.7%
Gasoline, Fuels, and Oils	\$4,662	473	97.1%
Utilities	\$4,515	378	145.2%
Feed for Livestock	\$4,178	213	165.5%
Seeds, Plants, Vines, Trees	\$2,898	247	22.4%
Interest Expense	\$2,741	133	-9.7%
Cash Rent for Land/Buildings/Grazing Fees	\$1,165	148	47.2%
Medical Supplies / Veterinary Services	\$1,119	148	NA
Livestock and Poultry	\$737	74	-66.3%
All Other Expenses	\$17,286	-	57.1%
<b>TOTAL</b>	<b>\$112,961</b>	-	<b>89.8%</b>
<b>Average Per Farm</b>	<b>\$232,430</b>	-	<b>107.8%</b>

Source: U.S. Census of Agriculture. \* Change based on inflation-adjusted dollars

Ulster County farms spent approximately \$113 million on production costs in 2022, with an average of \$232,430 per farm (it was about \$195,000 per farm statewide). The largest expense was for hired labor, at \$37.8 million, which accounted for one-third of total production costs. Other major expenses included repairs, supplies, and maintenance costs associated with farm equipment and machinery (\$9.8 million), contract labor (\$9.1 million), and agricultural chemicals (\$8.0 million).



**Figure 5. Farm Employment and Payroll in Constant 2022 Dollars, Ulster County**

Source: U.S. Census of Agriculture

## Agricultural Economic Viability Interim Report

About 36% of the farms in Ulster County had hired labor, including paid family members, who contributed to agricultural operations. These 174 farms directly employed 1,800 people, paying \$37.8 million in annual wages. About half of the employees worked 150 days or more. The Census of Agriculture reports that 48 farms with hired labor employed migrant workers but does not show how many migrant workers were specifically on these farms. Ulster County had a combined total of 856 migrant workers serving as hired or contract labor.

In interviews and focus groups, many farm operators cited labor costs and regulations as a major challenge. Access to an adequate and reliable supply of labor has long been an issue in the agricultural sector because the work is physically demanding and often seasonal. The situation in New York has been compounded by regulatory changes that have increased the cost of labor. Under the Farm Laborers Fair Labor Practices Act of 2019, for example, farm laborers became entitled to overtime pay, at 1.5 times their regular pay rate, for work performed in excess of 60 hours per week. The 60-hour threshold was later lowered to 40 hours per week, to be phased in over a ten-year period. The state also adopted new minimum wage rates that will reach \$16 per hour outside New York City, Long Island, and Westchester County in 2026. The 2024 rate is \$15 per hour, twice the federal minimum wage paid to farmworkers in other states.

Production costs vary; not all expense categories apply to every farm operation. More than 90% of the farms in Ulster County incurred costs for gasoline, oils, and fuels; property taxes; and repair and maintenance of farm equipment. Relatively few farms paid for livestock and poultry, cash rent for land and buildings, or contract labor. Moreover, farm expenditures for livestock and poultry declined 66% between 2002 and 2022 as the County lost many farms where animals are raised.

In inflation-adjusted dollars, total production costs in Ulster County increased 90% from 2002 to 2022, or 65% from 2017 to 2022 alone, with nearly every expense rising. The trend was the same in New York State as a whole. The USDA has projected that U.S. farm expenses will level off (but not decline) in the next 2 to 3 years.

Labor costs, on average, make up 49% of all production expenses on New York State apple farms, according to Cornell Cooperative Extension's Lake Ontario Fruit Program. Apple growers employ both year-round and seasonal workers who may be a mix of family members, residents, and farmworkers sourced from countries outside the U.S. (Source: Todd M. Schmit, Roberta M. Severson, Jesse Strzok, and Jose Barros, "Economic Contributions of the Apple Industry Supply Chain in New York State," Charles H. Dyson School of Applied Economics and Management, Cornell University, March 2018.)

# Agricultural Economic Viability Interim Report

## Farm Profitability

Used as a broad measure of profitability, net cash farm income encompasses cash receipts from farming plus farm-related income, including government payments, minus production expenses. Net cash farm income (NCFI) in the U.S. reached a 20-year high in 2022, but the USDA projects that farm sector profits will fall in 2024 due to downward pressure on commodity prices and higher production expenses.<sup>4</sup>

According to the Agricultural Census, net cash farm income (NCFI) in Ulster County totaled \$8.6 million in 2022. This figure has fluctuated over the last twenty years, reaching a high of \$14.3 million (or \$20.3 million in constant 2002 dollars) in 2007.

The average net income realized by farm operations in Ulster County was \$17,786, about one-quarter of the state average of \$76,781. Only 35% of farms in Ulster County earned a profit in 2022, below the state average of 40%. The average net gain was \$227,818, while the average net loss was \$97,263.

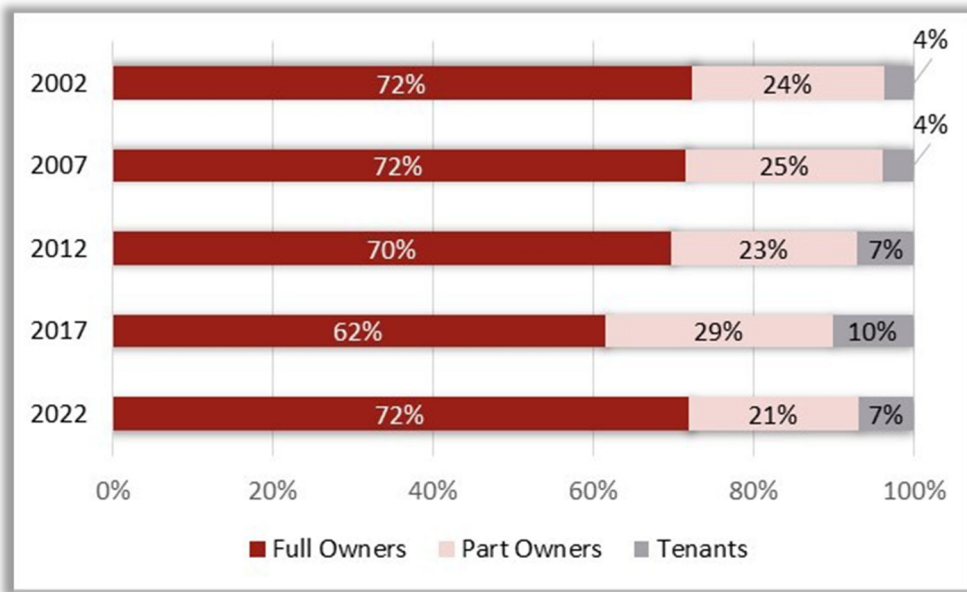
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<sup>4</sup> U.S. Department of Agriculture, Economic Research Service, "Farm Sector Income and Finances: Highlights from the Farm Income Forecast," February 7, 2024, <https://www.ers.usda.gov/topics/farm-economy/farm-sector-income-finances/highlights-from-the-farm-income-forecast>.

# Agricultural Economic Viability Interim Report

## Fixed Assets

Real estate is typically the largest single component of a farm’s total assets. In addition to being a source of wealth, farm real estate serves as the principal source of collateral for farm loans. Changes in the value of farmland often impact the financial well-being of agricultural producers. An upward trajectory in farmland values can be seen as a positive in terms of return on investment and the ability of farmers to get a good price if they decide to sell their land. On the other hand, producers who lease land may face higher costs, while farmers looking to expand may have difficulty finding additional property they can afford. Compounding the issue is the fact that appreciation in farm real estate values often reflects rising land prices overall, which may be the result of development pressure and competition with other land uses such as housing.



**Figure 6. Farms by Tenure, Ulster County**

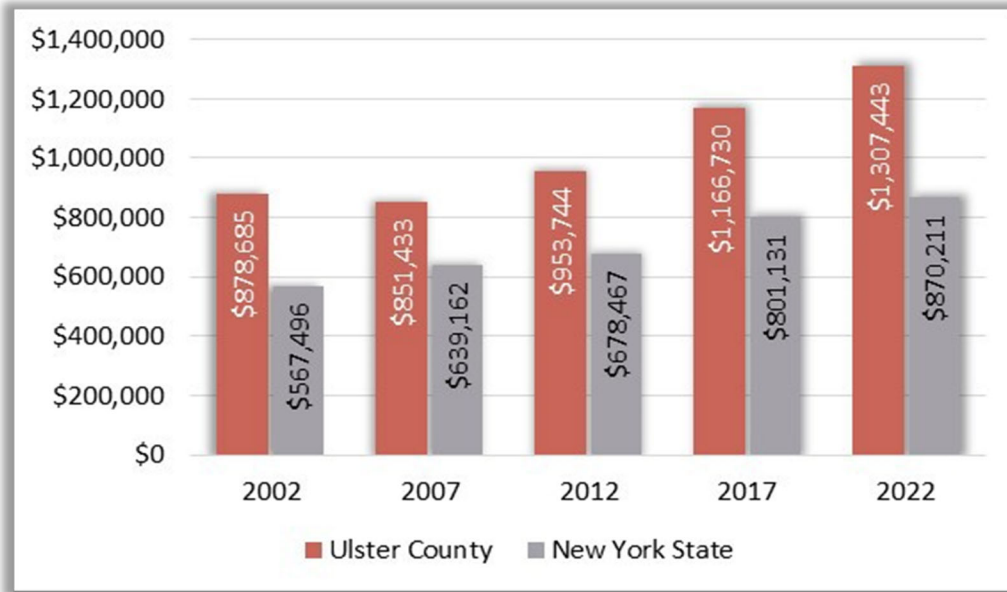
Source: U.S. Census of Agriculture

The Census of Agriculture classifies farms by the tenure of producers. In 2022, 72% of the farms in Ulster County were operated by full owners; 21% by part owners, who operate on land they own as well as land they rent from other property owners; and 7% by tenants, who farm *only* on land rented from others. Approximately 61,000 acres, or 84% of the farmland in the County, is owned by the producer; the remainder is rented or leased for farming.

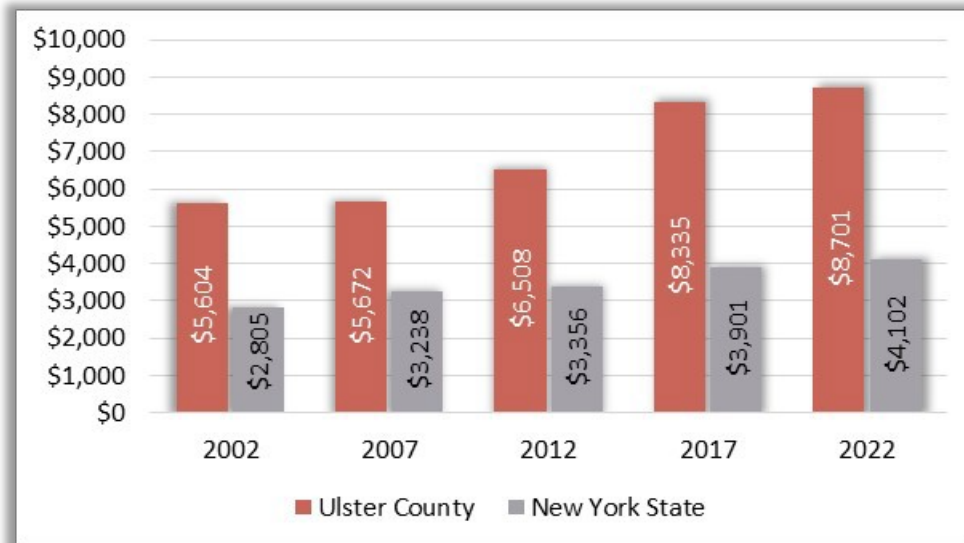


## Agricultural Economic Viability Interim Report

The real estate value per farm in Ulster County averaged \$1,307,443 in 2022, well above the statewide average of \$870,211. One-third of the farms in the County (162) were valued at \$1,000,000 or more; 23% had values between \$500,000 to \$999,999. In the last twenty years, the average market value of farmland and buildings has regularly been higher in the County than in the state – even though the average acreage of Ulster County farms is below the state average.



**Figure 7. Average Market Value Per Farm (Land and Buildings) in Constant 2022 Dollars**  
 Source: U.S. Census of Agriculture



**Figure 8. Average Market Value of Farms Per Acre in Constant 2022 Dollars**  
 Source: U.S. Census of Agriculture

The differences are even more pronounced when looking at farm real estate values on a *per-acre* rather than per-farm basis. Farm real estate in Ulster County averaged \$8,701 per acre in 2022, more than twice the state average



## Agricultural Economic Viability Interim Report

of \$4,102. Moreover, when the dollar amounts are adjusted for inflation, the average value per acre rose faster in Ulster County – 55% – compared to 46% in the state.

Data on arm’s length real estate sales in Ulster County reveals that 137 parcels classified in property assessment records as Agricultural at the time of sale changed hands from 2014 through 2023. Comprising 5,015 acres, the parcels sold make up roughly 13% of the total acreage coded as Agricultural. The number of transactions, parcels, and acreage varied each year, but sales activity peaked in 2020 and 2021, much as it did in the residential real estate market. The median selling price per acre over the period was \$10,000.

In addition to real estate, farmers in Ulster County own and maintain a variety of agricultural implements, machinery, and equipment (e.g., trucks, tractors, combines, irrigation equipment). The total market value of these items in 2022 was estimated at \$73 million, or \$150,171 per farm. The average value of farm machinery and equipment statewide was \$175,000.

### Farm Operator/Producer Characteristics

Ulster County’s 486 agricultural establishments in 2022 were operated by 1,090 producers. The USDA instructed farmers completing the most recent Census of Agriculture to identify up to 4 producers per farm; the elimination of “principal” producers as a category, however, means that only 2017 and 2022 data is directly comparable.

Key characteristics of farm operators and producers in Ulster County can be summarized as follows:

- 52% of the producers were full-time farmers in 2022, about the same proportion as in 2017
- Two-thirds have been on their present farm for a minimum of ten years
- 7% of producers have been on their current farm for less than two years, up from 5% in 2017
- Continuing the long-term trend of aging among producers, Ulster County farmers have an average age of 57.8 years, up from 56.5 in 2017; the state and national averages are 56.7 and 58.1 years, respectively
- Nearly 41% of producers in the County are aged 65 and over
- 8% of producers are under 35, defined by the Census as “young farmers”; they operate on a disproportionate share of the farmland acreage, however (28%). This may indicate that they are farming with more experienced and/or older producers
- There are more than 5 times as many producers aged 65 and over than producers under 35
- Ulster County has experienced an increase in younger (though not the youngest) farmers: 17% were aged 35 to 44, up from 10% five years earlier
- 40% of producers in Ulster County are women, slightly higher than the state average of 38%
- The Census of Agriculture recorded 16 producers in Ulster County who are black or African American and 38 who are of Hispanic origin; they represent 2% and 4% of the farmers, respectively, higher than the statewide proportions (1% or less)
- Beginning farmers are those with 10 or fewer years of farming experience. In Ulster County, they make up 29% of the producers, operate 37% of the farms, and grow crops or raise livestock on 24% of the farmland acreage
- 44% of producers have been involved in estate or succession planning, below the state average of 51%

An interview with a representative of the USDA Farm Service Agency, who works with farmers in Ulster County, suggests that there are many new and young producers in the County who did not grow up on a farm. She said that they tend to have smaller farms where they grow vegetables, small fruits, and/or cut flowers. If they have any

## Agricultural Economic Viability Interim Report

livestock, it is more likely to be sheep or poultry (e.g., chicken raised for their eggs) than larger animals. She added that there are more women farmers in the younger generation who sell their products to small stores and restaurants or sell directly to consumers via the CSA model.

### Agriculture-Related Industry

The agricultural sector in Ulster County extends beyond farms and orchards to encompass a wide range of associated industries. Businesses in these industries provide supplies and services to farms, convert raw agricultural materials into various products, and distribute and sell food and farm products. Agriculture-related industries include agricultural support services, food and beverage manufacturing, wholesalers of grocery products (such as fresh fruits and vegetables) and alcoholic beverages, nurseries and garden centers, food and beverage stores, florists, veterinary and landscaping services, and food services. While not all of these industries depend on local farm outputs, they are an important part of the supply chain.

Agriculture-related industries in Ulster County employ approximately 10,700 workers in 962 firms, about half of them in the food service industry. Food and beverage manufacturing employs more than 800 people in the County, and thousands more within the Hudson Valley region where food and beverage production is a key industry cluster. In total, industries connected in some way with agriculture account for about 24% of the private-sector employment and 17% of the private companies in the County. Ulster County also has over 800 nonemployers, mostly sole proprietorships, in agriculture-related industries. Together, these nonemployers generate approximately \$43 million in sales.

**Table 5. Agriculture-Related Industry in Ulster County**

Industry and NAICS Code	Firms	Employees	Nonemployers
<b>Agricultural Production and Support Services</b>			
Crop Production (111)	59	639	-
Animal Production/Aquaculture (112)	10	162	-
Forestry and Logging (113)	-	-	31
Agriculture and Forestry Support Activities (115)	12	47	62
Veterinary Services (54194)	24	276	17
Landscaping Services (56173)	136	522	340
<b>Manufacturing</b>			
Food Manufacturing (311)	33	450	48
> Animal Product Manufacturing (3111)	1	NA	-
> Sugar and Confectionery Product Manufacturing (3113)	3	52	3
> Fruit and Vegetable Preserving and Specialty Food Manufacturing (3114)	6	47	NA
> Dairy Manufacturing (3115)	5	57	-

## Agricultural Economic Viability Interim Report

**Table 5. Agriculture-Related Industry in Ulster County**

Industry and NAICS Code	Firms	Employees	Nonemployers
> Animal Slaughtering and Processing (3116)	1	NA	-
> Bakeries and Tortilla Manufacturing (3118)	13	243	19
> Other Food Manufacturing (3119)	4	46	21
Beverage Manufacturing (312)	25	357	17
<b>Wholesale</b>			
Grocery/Related Product Merchant Wholesalers (4244)	34	553	22
Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers (4248)	8	112	10
<b>Retail and Food Service</b>			
Nursery, Garden Center, and Farm Supply Retailers (44424)	8	88	-
Food and Beverage Stores (445)	128	2,361	51
> Grocery Stores (4451)	59	1,877	16
>> Specialty Food Stores (4452)	30	306	33
>> Beer, Wine, and Liquor Stores (4453)	39	178	NA
Florists (4593)	13	44	20
Food Services and Eating/Drinking Places (722)	472	5,078	227
<b>TOTAL, Agriculture-Related Industry</b>	<b>962</b>	<b>10,689</b>	<b>848</b>

*Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (firms and employees, 2022) and U.S. Census Bureau, Nonemployer Statistics (2021, the latest available)*

According to Cornell University economist Dr. Todd M. Schmidt, agriculture has a strong multiplier effect, impacting a wide range of industry sectors. In his most recent study of agriculture’s contributions to the state economy, Dr. Schmidt reports that “every \$1 in output in agriculture generates an additional \$0.49 in backward linked non-agricultural industries, every job in agriculture generates an additional 0.65 non-agricultural jobs, and every \$1 in gross domestic product generates an additional \$1.14 in non-agricultural contributions to gross domestic product.”<sup>5</sup>

<sup>5</sup> Todd M. Schmidt, “The Economic Contributions of Agriculture to the New York State Economy: 2019,” Charles H. Dyson School of Applied Economics and Management, Cornell University, August 2021.

## Agricultural Economic Viability Interim Report

### Economic Viability

A few years ago, American Farmland Trust (AFT) developed a pilot project to create an Agricultural Viability Index (AVI) for 8 Northeastern states, including New York. The AVI was designed to assess the viability of agriculture as an economic sector and to measure the ability of jurisdictions such as counties to “maintain economically sustainable farm enterprises, support wealth creation, and retain land in agricultural production for future generations.” The tool was based on a series of variables from the 2017 Census of Agriculture related to farm economics, land ownership, and producer characteristics, with weights assigned to the variables according to their relative importance.

The tables in the sections that follow present many of the same economic variables used by AFT in calculating the AVI, using data from the more recent 2022 Census of Agriculture, with some changes and additions made. The intent is to benchmark Ulster County against New York State and four neighboring counties in the Hudson Valley (Dutchess, Greene, Orange, and Sullivan) on such factors as profitability, markets, diversity of income streams, farm assets, and production expenses.

### Profitability

As indicated in Table 6, the average net cash farm income realized by farm operations in Ulster County was lower in Ulster County than in all neighboring counties except Dutchess, where the net income figure was negative. The share of farms with a net loss in Ulster County was above the state average and identical to the share in Orange County, but it was not as high as in Dutchess and Sullivan. Both the average net loss (\$97,263) and the average net gain (\$227,818) were higher in Ulster than in neighboring counties.

**Table 6. Economic Viability: Profitability**

	<b>Ulster</b>	<b>Dutchess</b>	<b>Greene</b>	<b>Orange</b>	<b>Sullivan</b>	<b>New York State</b>
Average Net Cash Farm Income Per Farm	\$17,786	<b>-\$23,682</b>	\$24,953	\$32,032	\$26,164	\$76,781
% Of Farms with Net Financial Losses	65%	71%	66%	65%	68%	60%
Average Net Loss Per Farm	\$97,263	\$64,960	\$27,726	\$39,501	\$40,948	\$31,688
% of Farms with Net Financial Gains	35%	29%	34%	35%	32%	40%
Average Net Gain Per Farm	<b>\$227,818</b>	<b>\$78,014</b>	<b>\$127,987</b>	<b>\$166,365</b>	<b>\$167,782</b>	<b>\$236,202</b>

## Agricultural Economic Viability Interim Report

### Sales Revenue, Markets, and Diversity of Income Streams

Table 7 presents variables on farm revenues and the ability of farms to adapt to changing conditions by diversifying their income streams. On both a per-farm and per-acre basis, market revenues in Ulster County generally exceed those in the neighboring counties, although sales per farm are not as high as they are statewide.

Farms in Ulster County have a relatively high level of direct-to-consumer sales; only Sullivan County has a higher share of farms selling directly to consumers (25%), although each county shown in the table exceeds the state average of 17%. In terms of the average value of food products sold by farms directly to consumers, Ulster County is at the front of the pack at \$95,143 per farm, in a virtual tie with Sullivan County. The level of direct sales could be the result of strong resident support for local agriculture, as well as the many venues for selling food and farm products in Ulster County. Tourism may also play a role.

Approximately 16% of Ulster County farms sell to retail stores, institutions, wholesalers, and other intermediate markets, twice the state average of 8%. The value of food products sold by these 77 farms averages \$409,130, significantly above the averages in the comparison counties and the state.

**Table 7. Economic Viability: Sales Revenue, Markets, and Diversity of Income Streams**

	Ulster	Dutchess	Greene	Orange	Sullivan	New York State
Average Gross Market Revenue Per Farm	\$217,120	\$102,274	\$124,576	\$155,987	\$72,704	\$262,228
Average Gross Market Revenue Per Acre	\$1,445	\$639	\$829	\$1,455	\$452	\$1,236
% Of Farms with Direct- to-Consumer Sales	23%	21%	22%	20%	25%	17%
Direct-to-Consumer Sales Per Farm	\$95,143	\$69,489	\$40,489	\$46,097	\$95,280	\$54,584
% Of Farms with Sales to Retailers, Institutions, and Local Food Hubs	16%	13%	7%	6%	7%	8%
Average Sales to Retailers, Institutions, and Local Food Hubs	<b>\$409,130</b>	<b>\$52,737</b>	<b>\$32,285</b>	<b>\$133,622</b>	<b>\$11,778</b>	<b>\$233,968</b>
% Of Farms That Sell Value-Added Products	12%	12%	9%	12%	12%	7%
Average Sales of Value-Added Products	\$159,860	\$66,712	\$35,105	\$35,855	\$29,326	\$172,335
% Of Farms That Earn Income Through Agritourism and Recreational Services	6%	7%	3%	8%	8%	3%
% Of Farms with Farm- Related Income	32%	47%	26%	36%	31%	41%
Ratio of Farm-Related Income to Gross Market Revenue	0.12	0.29	0.55	0.21	0.07	0.05

Approximately 12% of Ulster County farms produce and sell processed or value-added products, according to the Census of Agriculture, the same proportion as in the counties of Dutchess, Orange, and Sullivan. Average sales of

## Agricultural Economic Viability Interim Report

value-added products in Ulster County are under the state level but are considerably higher than the comparison counties. Many of the highest average sales of value-added products within the state are in counties in western New York and the Finger Lakes with large numbers of wineries (e.g., Ulster, Yates).

Most of the counties in the Hudson Valley, including Ulster, have higher percentages of farms that earn income through agritourism and recreational services than the state. At 6%, Ulster County lags behind Orange and Sullivan counties; however, average income through agritourism is higher in Ulster (\$116,935) than in any of the comparison areas, which range from \$25,040 per farm (Greene County) to \$95,620 (Orange County).

Other income related to the farming operation has helped some farm operators and producers stay afloat in the face of low commodity prices and rising production costs. Nearly a third of all farms in Ulster County and 41% of farms in the state earn some type(s) of farm-related income; the other counties range from 26% to 47%. The ratio of farm-related income to gross market revenue (i.e., sales) varies widely, with Ulster County on the lower end at 0.12.

### **Assets, Debt, and Expenses**

In real estate assets, Ulster County farmers are relatively land-rich: the estimated average value of land and buildings per farm is 50% higher than the New York State average. Of neighboring counties, only Sullivan County – like other counties to the south like Rockland and Westchester – has higher average farm real estate values. The value of farm equipment and machinery per farm is also higher in Ulster County than in the comparison areas, except for the state.

## Agricultural Economic Viability Interim Report

**Table 8. Economic Viability: Assets, Debt, and Expenses**

	Ulster	Dutchess	Greene	Orange	Sullivan	New York State
Average Value of Land and Buildings Per Farm	\$1,307,443	\$835,766	\$852,854	\$1,124,798	\$1,719,404	\$870,211
Average Value of Machinery and Equipment Per Farm	\$150,171	\$97,807	\$100,966	\$125,488	\$114,825	\$174,160
% Of Farms with Interest Expenses	27%	25%	27%	32%	27%	33%
Average Interest Expenses Per Farm	\$20,609	\$21,529	\$6,964	\$14,298	\$8,660	\$19,781
Average Labor Cost Per Hired Farm Worker	\$20,968	\$16,131	\$18,175	\$18,976	\$17,484	\$21,657
% of Farms with Contract Labor Expenses	11%	14%	<1%	8%	7%	8%
Average Contract Labor Cost Per Farm	\$172,113	\$11,750	NA	\$62,224	\$10,814	\$52,103
Average Production Expenses Per Farm, Total	\$232,430	\$118,299	\$108,135	\$159,379	\$85,558	\$201,523

Debt is measured by the percentage of farms that reported interest expenses as a production cost in the Census of Agriculture, whether or not that debt is secured by real estate. Approximately 27% of farms in Ulster County pay interest expenses, with about half of the farms having loans secured by real estate. Average interest expenses are slightly above the state average and just below the interest expenses reported by farms in Dutchess County.

As previously noted, labor costs comprise a significant share of production expenses for farm operations in Ulster County. The average labor cost per worker in the County is just below the state average, but somewhat higher than in neighboring counties. This is probably due to the concentration of apple orchards, which are more labor-intensive than other types of farms.

Average farm production costs are much higher in Ulster County than in the state or any of the neighboring counties. A closer look at the cost of various farm expenditures revealed two culprits: agricultural chemicals and contract labor. In 2022, the cost of agricultural chemicals including herbicides and fungicides averaged about \$40,000 per year in Ulster County, compared to approximately \$18,300 in Orange County and much less, \$6,254, in Dutchess County.<sup>6</sup> The cost was much higher, however, in Wayne County, New York's top apple producer, where agricultural chemicals averaged about \$53,000 per farm. In fact, average farm production expenses are very high both in Wayne County and in Orleans County, #3 in the state in apple production.

Ulster County farms also incurred significant expenses for contract labor, as Table 8 shows. Contract labor, according to the USDA, "includes [costs for] contractors, crew leaders, cooperatives, or any other organization hired to furnish a crew of laborers to do a job that may involve one or more agricultural operations," but *not* contractors hired to make capital improvements. Expenditures for contract labor in Ulster County increased sharply from 2017, though the reasons are unknown.

<sup>6</sup> Per T. Schmidt, et al, "Economic Contributions of the Apple Industry Supply Chain in New York State," previously referenced, agricultural chemicals are the second-largest expense for apple farms in the state.