

# NC STATE ECONOMIST

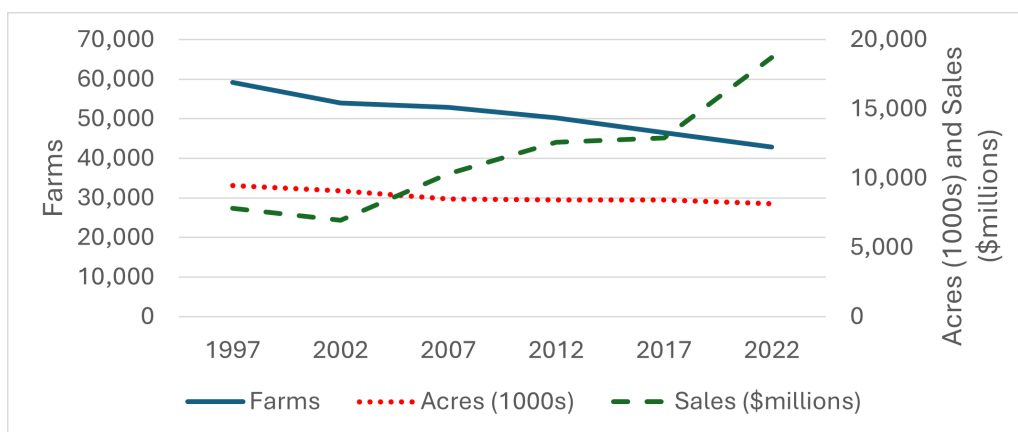
## The State of Agriculture in North Carolina: Lessons from the 2022 Census

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The 2022 Census of Agriculture was recently released, providing some interesting insights into the state of and trends in North Carolina agriculture. The big picture is that North Carolina agriculture has grown in value since the previous census of 2017, mostly from expansion of livestock sales, while its footprint in terms of acres is little changed. Here, we lay out some of the trends and changes that led North Carolina agriculture to its 2022 level. We particularly focus on trends in demographic characteristics of NC farmers, and use of labor on NC farms.

First, farmers in North Carolina had gross farm sales of \$18.7 billion in 2022, up from \$12.9 billion in 2017. They did this on 300,000 fewer acres (8.1 million versus 8.4 million) and with the number of farms falling from 46,418 to 42,817. The increase in the value of farm sales was partly a result of higher commodity prices in 2022 relative to 2017 and an increase in higher-valued animal production in hogs and poultry that does not require much in the way of acreage. Longer-term trends in farm numbers, acres, and gross farm sales are shown in Figures 1 and 2 below.

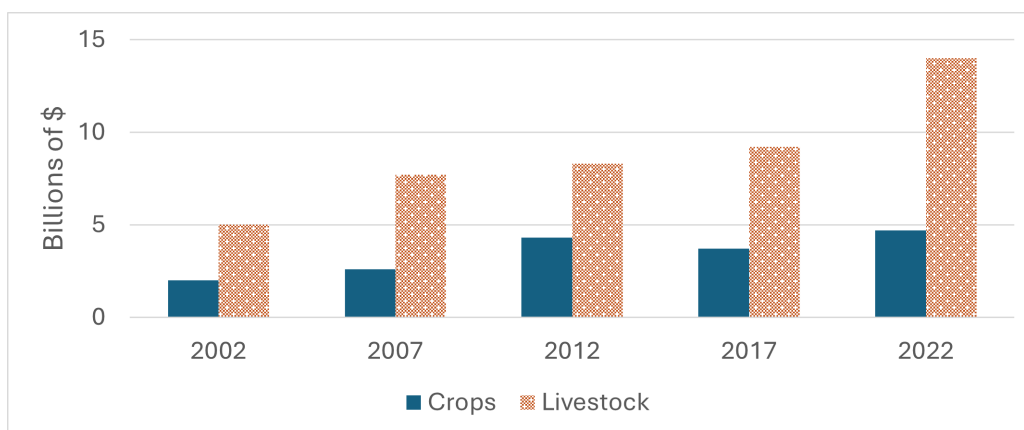
**Figure 1. Trends in North Carolina Agriculture**



Second, we see a continuing shift toward larger farms and the concentration of production among a small number of very large farms. The number of farms selling over \$1,000,000 in farm products increased from 3,442 in 2017 to 4,095 in 2022, representing 9.6% of the farms in North Carolina. This top tenth of producers sold \$16.8 billion, making up just over 90% of the state’s total gross farm

receipts, while averaging \$4.1 million in gross farm sales per farm.<sup>1</sup> The most common commodities produced on these farms are poultry, grains and oilseeds, hogs, beef cattle, and vegetables. A further sign of the increasing concentration in the largest, most efficient, farms is that only 40% of North Carolina farms had positive net farm income in 2022, even though that was a profitable year with net farm income statewide totaling \$6.3 billion, or about one-third of gross farm sales. On the opposite side of the size distribution, the number of farms generating less than \$25,000 in sales plus government payments fell from 34,290 in 2017 to 30,784 in 2022.

**Figure 2. Relative Size of Crop vs Livestock Sales Over Time in North Carolina**



Finally, North Carolina agriculture is incredibly diverse. The ten most common commodities produced in the state by number of farms producing them are: beef; poultry; soybeans; corn; wheat; sheep and goats; hogs; horses and other equines; cotton; and tobacco. The largest acreage increases were in cotton, orchards, and berries. If all vegetable farms or all orchards were aggregated into single categories instead of being listed separately, each would have ranked among the top ten for commonality. Orchards, in particular, are a source of growing diversity in North Carolina agriculture, with large percentage increases in apples (up 15% from 2017), grapes (+65%), peaches (+35%), and pecans (+30%). Animal agriculture extended its dominance in North Carolina, accounting for 75% of gross farm sales (or \$14.0 billion) compared to 25% of gross farm sales (or \$4.7 billion) derived from crops.

### **Farmers Continue to Look for Marketing Channels that Offer Higher Profits**

NC farmers continue to use diversified approaches to generate revenue. Almost 1,500 North Carolina farms sold commodities directly to either consumers or retailers, with average sales per farm of about \$125,000. An impressive 1,167 farms sold value-added products with average sales of \$65,585 per farm, up 122% from 2017. These value-added products tend to have much higher profit margins than basic commodities. In addition, 982 farms collected revenues from recreational services or agritourism, with an average of \$30,956 in revenue per farm (up 29% from 2017). Finally, 269 farms earned more than \$50,000 in direct-to-consumer sales, with sales per farm for these successful marketers averaging over \$250,000. North Carolina farmers looking for extra revenue streams should explore if less-traditional marketing channels such as direct to consumer, direct to retailer, or sales of value-added products make economic sense for their operations given the commodities they produce, their location near population centers, and their available labor.

<sup>1</sup> Further evidence of the rise in very large farms is that the largest 942 farms in 2022 (by sales) produced 50% of the state's total gross farm sales. These highest-sales farms averaged \$9.9 million in sales, while farming an average of 1,190 acres suggesting many of these farms include livestock production.

## Organics Scale Up

North Carolina saw a decrease in organic farms, dropping from 404 to 343 between 2017 and 2022, while annual sales from those farms more than doubled from an average of \$321,145 per farm in 2017 to \$769,750 per farm in 2022. Organic farms are now often the same scale as conventional agricultural operations.

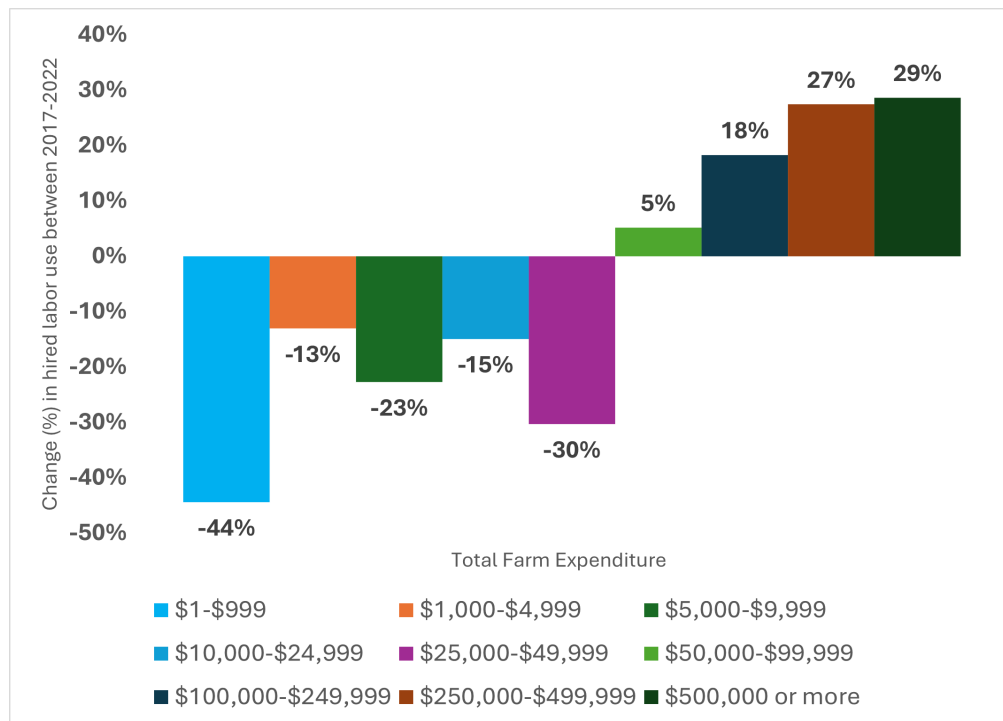
## Changes in Labor Demand

Many of the most important agricultural commodities produced in North Carolina are labor-intensive. Growers of sweetpotatoes, apples and blueberries, tobacco, Christmas trees, green industry products (like indoor and ornamental plants), and other specialty crops, as well as animal sector farms all employ a significant number of workers of different skillsets. Limited labor availability, retention issues, and increasing costs remain challenges for many agricultural producers. Between 2022 and 2017, demand for H-2A agricultural workers increased each year, keeping North Carolina among the top-five states relying on this program.

## Decreased Use of Hired Labor

In 2017, there were 12,492 operations that reported hired labor expenses. In 2022, the number fell approximately 16%, (to 10,464 farms); this decrease is larger than the loss in the overall number of farms. However, at the same time, labor expenses increased from \$810 million to \$933 million. As shown in Figure 3, the decline in hired workers was entirely driven by smaller operations (those with less than \$50,000 reported expenses). In particular, very small farms with expenditures of no more than \$1,000 experienced a reduction of 44% in hired labor. Farms with expenses greater than \$100,000 saw their payments to hired labor increase between 18% and 29%.

**Figure 3. Change in Use of Hired Labor by Total Farm Expenditures, 2017 to 2022**

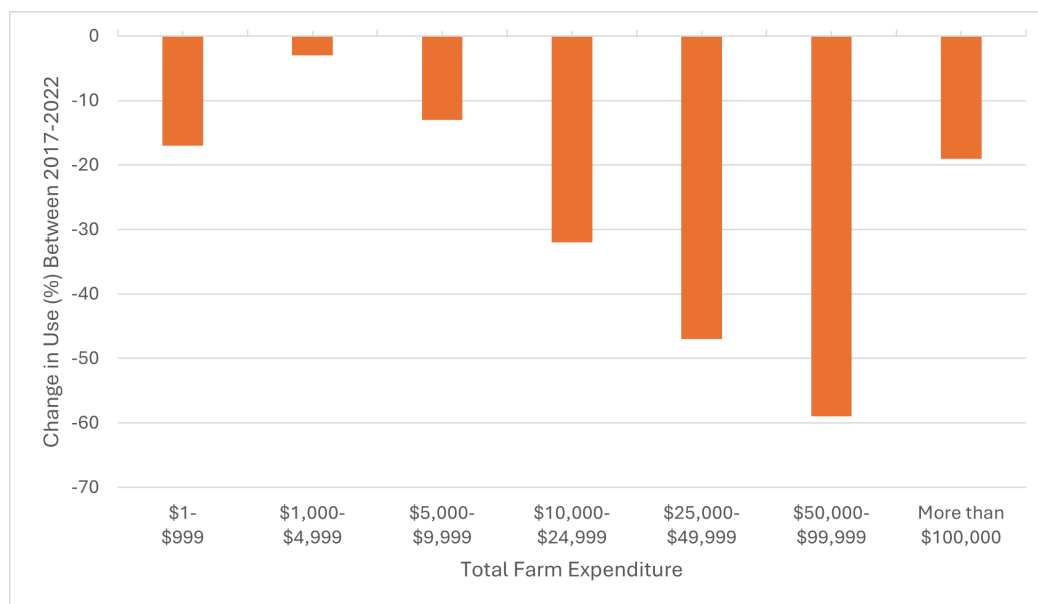


The reduction in hired labor could have been caused by many factors. Smaller scale operations could have started to rely more on family members, given the rising costs of hired labor. Alternatively, some smaller farms could have grown to medium-size operations, and were no longer considered in this group. At the same time, an increase in automation and mechanization by larger operations may have allowed them to reduce their need for laborers. The trend may also reflect the tight, post-COVID labor market in which workers had opportunities to find more attractive, higher-paying jobs.

### Contract Labor Also Less Common

A common way for some farmers to get workers is to rely on the services of a farm labor contractor (FLC). FLCs are third-party entities that facilitate hiring processes. For a fee, they match workers to employers and can help manage human resource issues. As for hired labor, the number of operations with contract labor expenses went down. Between 2017 and 2022 the number of farms using contract labor declined from 6,582 to 4,874 operations (26% reduction) and the total expenses in contract labor declined sharply from \$303 million to \$238 million. Looking deeper into these aggregate trends, the data show that operations of all sizes (as measured by expenses) relied less on contract labor in 2022 (Figure 4). Most notably, medium-sized agricultural operations (those with expenses between \$50,000-\$99,999) reduced their use of contract labor by 56%. An increase in FLC fees, as well as the ability of the growing number of larger operations, who are themselves capable of affording in-house legal, recruiting, and immigration teams, are likely behind this pattern.

**Figure 4. Contract Labor Demand by Total Farm Expenditure, Change in Use from 2017 to 2022**



### Seasonal Labor Expands

In 2022, more farms hired workers for less than 150 days (five months) as shown in Table 1. This pattern could be due to more operations being only able to access workers for shorter periods of time associated with harvest seasons, as opposed to having permanent laborers on their payroll. Alternatively, this could also be due to an intentional managerial decision to rely more on part-time workers. Farm workers found on a farm for less than 150 days usually migrate across states following different crop seasons to stay employed most of the year. Small and medium-sized farms (from 1 to 179 acres) hired most of their workers for up to 150 days. In contrast, larger operations (with 260 or

more acres) relied more on permanent workers. This pattern suggests that larger operations have the profit margins and diversified commodities to keep the same workers employed in multiple tasks year-round. Likewise, larger farms can afford to recruit higher-wage domestic workers without visa restrictions that can remain permanently in the U.S. Farms' reliance on labor varies based on their size as measured by acreage. On average, each farm hired 4-5 workers.

**Table 1. Demand for Seasonal Labor in 2022**

Worker Type	Farm Acreage										
	Total	1-49	50-69	70-99	100-139	140-179	180-219	220-259	260-499	500-999	1000 or more
<b>Employed 150 days or more</b>											
Farms	6,275	1,814	421	406	422	276	226	157	655	662	1,236
Workers	29,629	2,797	1,402	1,151	1,678	896	663	543	3,093	3,218	8,242
<b>Employed Less than 150 days</b>											
Farms	6,813	1,976	567	516	472	313	257	201	566	503	1,033
Workers	25,907	2,964	1,733	1,535	1,931	1,292	634	682	2,314	2,229	4,614

### Demographic Characteristics of NC Farmers

One concern at the national level is that the total number of agricultural producers might be slowly dwindling as the average age of farmers in America has increased. In North Carolina, the total number of agricultural producers decreased by 2.14% in five years, from 74,062 in 2017 to 72,479 in 2022. Around two thirds of farmers in 2022 were men, but there was a modest jump in the number of female producers. The state also experienced an increase, of 13%, in the number of hired farmers, in part compensating for the 2.62% reduction in the number of producers working primarily in farming.

**Table 2. Change in Selected Producer Demographic Characteristics**

	2022	2017	Change
Total number of producers	72,479	74,062	-2.14%
<i>Gender</i>			
Male	48,319	49,955	-3.27%
Female	24,160	24,107	0.22%
<i>Occupation</i>			
Hired managers	4,047	3,591	12.70%
Primarily in farming	31,159	31,998	-2.62%
Primarily in other occupation	41,320	42,064	-1.77%
<i>Age</i>			
Under 25 years	1,182	985	20.00%
25-34 years	5,026	4,587	9.57%
35-44 years	8,909	7,989	11.52%
45-54 years	11,846	13,844	-14.43%
55-64 years	18,069	19,883	-9.12%
65-74 years	17,105	18,001	-4.98%
75 years and over	10,342	8,773	17.88%
Average Age	58	58	0.00%

Remarkably, the average age of North Carolina producers remained the same, 58 years. Nevertheless, this number masks important changes across different groups. The number of younger agricultural producers under 25 years of age increased by 20% between 2017 and 2022. Increases of 9.57% were found among 25-34 year olds, and 11.52% for 35 to 44 year old farmers, suggesting there is a small yet growing pipeline of new producers. Individuals that have been involved in agriculture for many years seem to have remained in the sector even after age 75. Among this group, the number of producers grew by almost 18%. There was a decline in the number of growers between 45 and 74 years old – and particularly among individuals between 45-54. While the Census does not elaborate on the reasons behind such pattern, it could be that individuals in these age groups could be transitioning out of agriculture either partially (finding another main source of income) or completely (switching industries).

In terms of race and ethnicity of farmers, North Carolina resembles the rest of the country (NASS-USDA, 2024). Most farmers in the state report to be of the White race only and in both 2017 and 2022 they represented around 95% of all producers (Table 3). Between 2017 and 2022 North Carolina saw strong gains (in percentage terms) from a small base in Hispanic and American Indian farmers while at the same losing Black and Asian farmers.

**Table 3. Change in Producer Racial and Ethnic Composition Characteristics**

	2022		2017		Change
<i>Ethnicity</i>					
Hispanic (of any race)	1,007		769		30.95%
<i>Race</i>					
American Indian or Alaska Native	890	1.23%	745	1.01%	19.46%
Asian	367	0.51%	418	0.56%	-12.20%
Black or African American	1,891	2.61%	2,041	2.76%	-7.35%
Native Hawaiian or Other Pacific Islander	23	0.03%	18	0.02%	27.78%
White	68,808	94.94%	70,504	95.20%	-2.41%
More than one race	500	0.69%	336	0.45%	48.81%
Sum of all races	72,479		74,062		

### Concluding Remarks

Agriculture in North Carolina remains a strong sector of the economy. The most recent official information from the Census of Agriculture shows that the state produces a wide range of agricultural commodities. As in the rest of the country, production is slowly concentrating in fewer, but larger-scale operations, relying on less workers, farmers, and land but generating more revenue. If U.S. and North Carolina agriculture can continue this trend of productivity gains, the sector will likely remain a strong and vibrant industry. Despite the promising outlook, challenges related to continued labor shortages, pests, and more frequent extreme weather events (like droughts, heat waves, and fires) continue to pose risks. Investments in new markets, automation, and precision agriculture could help deal with such issues and offer a path forward.

## References

National Agricultural Statistics Service. (2024). Farm Producers. 2022 Census of Agriculture Highlights. United States Department of Agriculture.

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