EMPLOYMENT MONTHLY

October 2024

VIRGINIA WORKS

Feature Article:

Green Skills and Precision Agriculture in Virginia

September 2024 Monthly Indicators
(Seasonally Adjusted)

Total Nonfarm Employment
↑ **4,250,900**

Unemployment
↑ **131,326**

Labor Force Participation Rate
= **66.0%**

Unemployment Rate
↑ **2.9%**

Note: Arrows indicate movement from previous month.

Current Employment Indicators

Nonagricultural Wage and Salary Employment (Thousands)

■ 2023	■ 2024	(Seasonally Adjusted)

Employment Highlights

- Virginia's seasonally adjusted unemployment rate in September increased by 0.1 percentage points to 2.9 percent, which is the same as the rate from a year ago. The labor force increased by 2,677 to 4,571,505 as the number of unemployed residents increased by 2,994 to 131,326.

- Virginia's nonagricultural employment, from the monthly establishment survey increased by 2,100 to 4,250,900.

- In September, private sector employment increased by 1,200 to 3,506,100 while government employment increased by 900 to 744,800.
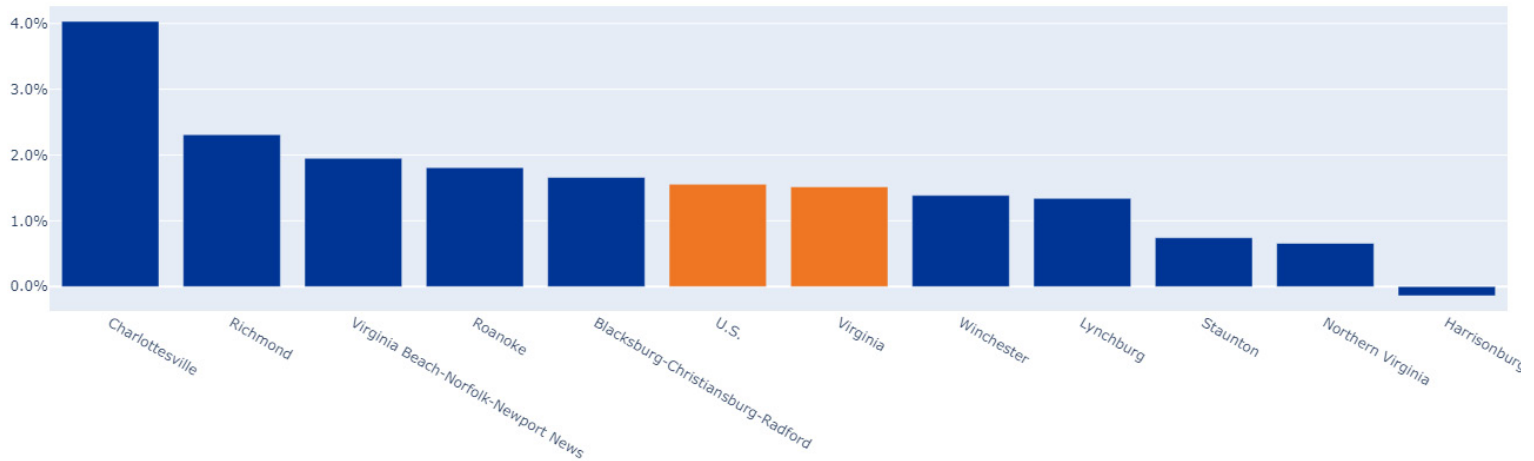
Total Nonfarm Employment by Metropolitan Statistical Area (MSA)
(Seasonally Adjusted)

MSA	Employment			September 2023 to September 2024	
	September 2024	August 2024	September 2023	Change	% Change
Virginia	4,250,900	4,248,800	4,187,400	63,500	1.5%
Blacksburg-Christiansburg-Radford MSA	85,700	85,000	84,300	1,400	1.7%
Charlottesville MSA	129,000	128,700	124,000	5,000	4.0%
Harrisonburg MSA	71,700	73,400	71,800	-100	-0.1%
Lynchburg MSA	105,800	105,800	104,400	1,400	1.3%
Northern Virginia MSA	1,591,200	1,594,500	1,580,800	10,400	0.7%
Richmond MSA	730,700	730,200	714,200	16,500	2.3%
Roanoke MSA	168,800	168,700	165,800	3,000	1.8%
Staunton MSA	54,200	54,300	53,800	400	0.7%
Virginia Beach-Norfolk-Newport News MSA	825,800	823,600	810,000	15,800	2.0%
Winchester MSA	73,100	72,900	72,100	1,000	1.4%

Current month's estimates are preliminary.

## Fastest Growing Metropolitan Statistical Areas by Employment - Year-over-Year

Total Nonfarm Employment by Industry
(Seasonally Adjusted)

Industry	Employment			September 2023 to September 2024	
	September 2024	August 2024	September 2023	Change	% Change
Total Nonfarm	4,250,900	4,248,800	4,187,400	63,500	1.5%
Total Private	3,506,100	3,504,900	3,449,900	56,200	1.6%
Goods Producing	483,900	484,700	469,800	14,100	3.0%
Mining and Logging	7,300	7,200	7,300	0	0.0%
Construction	227,900	228,000	216,200	11,700	5.4%
Manufacturing	248,700	249,500	246,300	2,400	1.0%
Service-Providing	3,767,000	3,764,100	3,717,600	49,400	1.3%
Private Service Providing	3,022,200	3,020,200	2,980,100	42,100	1.4%
Trade, Transportation, and Utilities	678,100	677,400	672,700	5,400	0.8%
Information	69,800	70,900	70,300	-500	-0.7%
Financial Activities	220,400	220,200	223,100	-2,700	-1.2%
Professional and Business Services	820,900	819,800	809,500	11,400	1.4%
Education and Health Services	605,400	606,300	588,100	17,300	2.9%
Leisure and Hospitality	423,300	421,100	415,800	7,500	1.8%
Miscellaneous Services	204,300	204,500	200,600	3,700	1.8%
Government	744,800	743,900	737,500	7,300	1.0%
Federal Government	190,800	191,900	190,300	500	0.3%
State Government	164,300	162,500	155,100	9,200	5.9%
Local Government	389,700	389,500	392,100	-2,400	-0.6%

Current month's estimates are preliminary.

Current Unemployment Indicators

Virginia Unemployment Rate
(Percent)
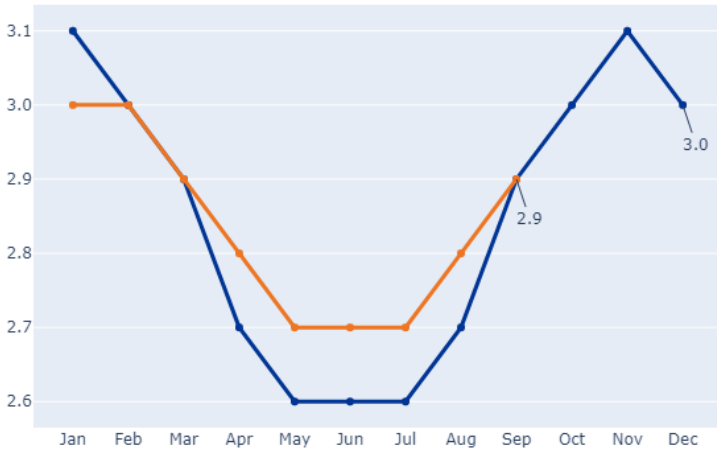
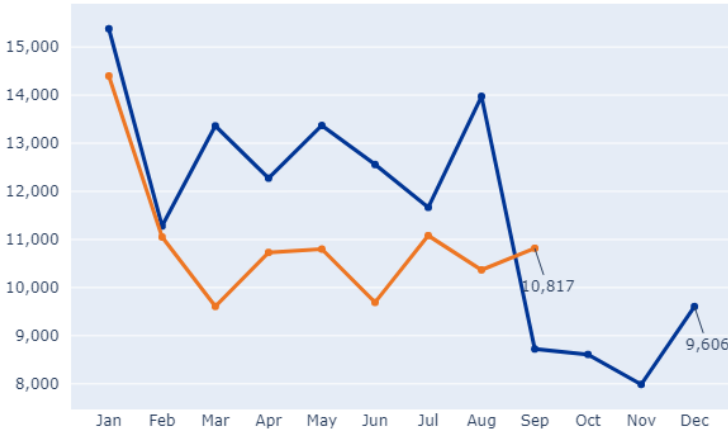## Unemployment Insurance - September 2024

Financial Data

- Trust Fund Balance (millions) $1,532.2
- Tax Revenue (Monthly) (millions) $1.8

Benefits Data

- Benefits Paid (Monthly) (millions) $23.3
- Average Weekly Benefit $350.83
- Initial Claims (YTD) 98,401
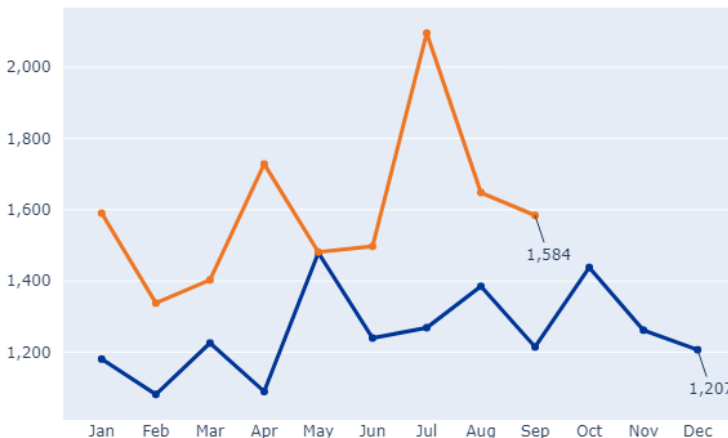
Initial and Continued Claims

Initial Claims:

- There were 10,817 initial claims in September 2024.
- Initial claims increased by 5.1% over-the-month and increased by 24.0% over-the-year.
- Year-to-date initial claims were 12.6% lower in September 2024 compared to the same period in 2023.

Continued Claims:

- There were 86,770 continued claims in September 2024.
- This was a 7.4% increase over-the-month and a 11.7% increase over-the-year.
- Year-to-date continued claims were 16.5% higher in September than during the same period in 2023.

*Note: Claims counts include interstate and intrastate.*

Average Weekly Initial Claims

Unemployment Insurance Final Payments

Monthly Claims Data				
	Initial Claims	**Continued Claims**	**Recipients**	**Final Payments**
September 2024	10,817	86,770	16,309	1,584
August 2024	10,297	80,768	14,403	1,659
September 2023	8,724	67,848	12,467	1,215

■ 2023   ■ 2024   (Seasonally Adjusted)

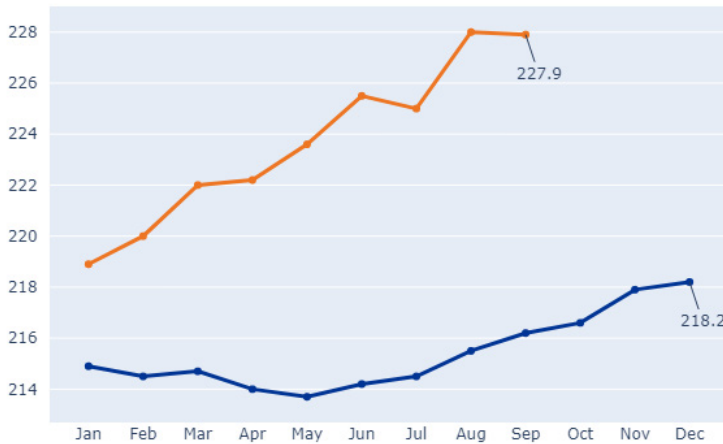# Current Industry Indicators

Mining and Logging Employment
(Thousands)
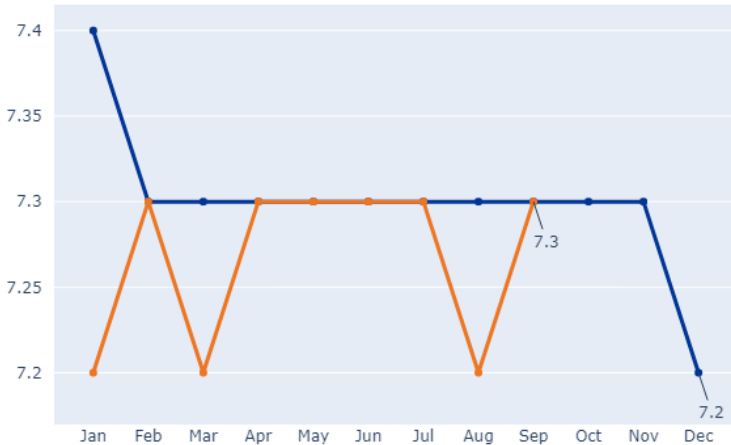
Wholesale Trade Employment
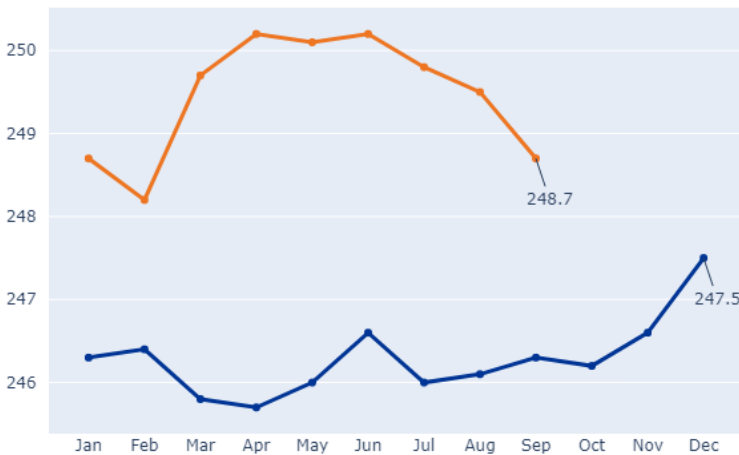### (Thousands)
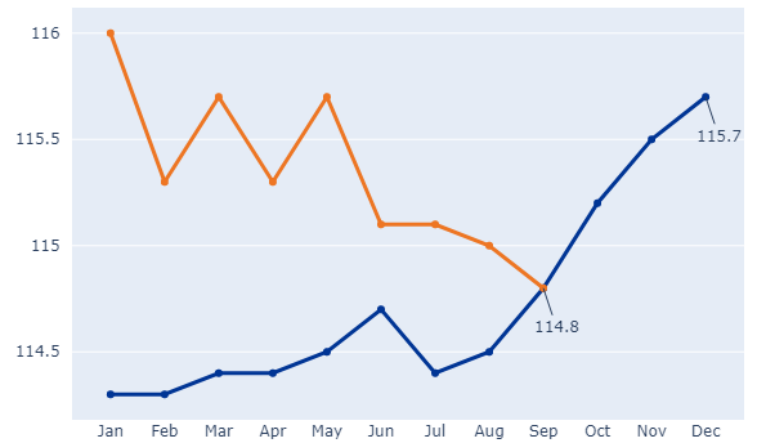
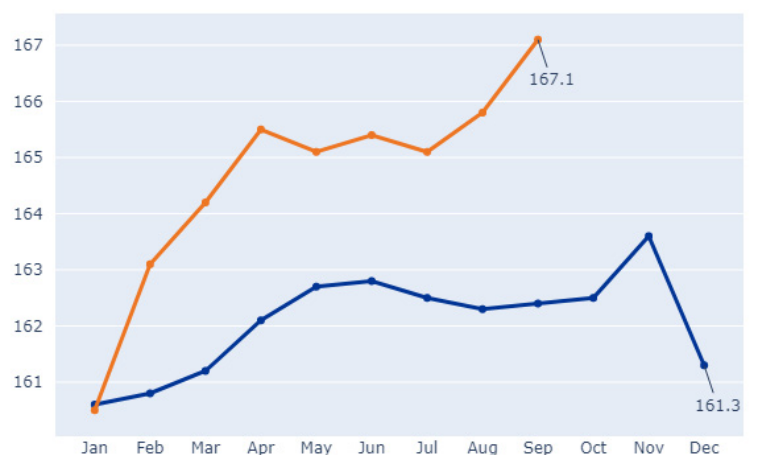### Construction Employment
(Thousands)

Retail Trade Employment
(Thousands)
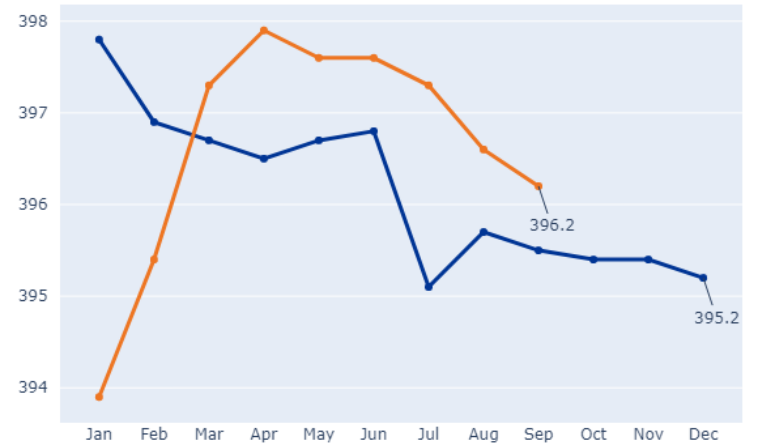
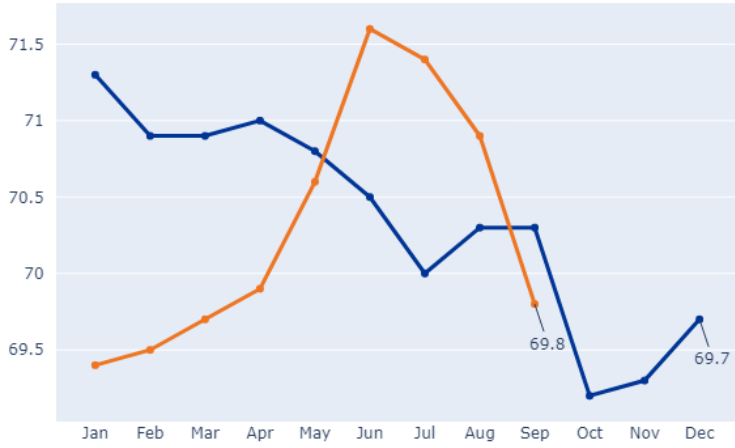### Manufacturing Employment
(Thousands)

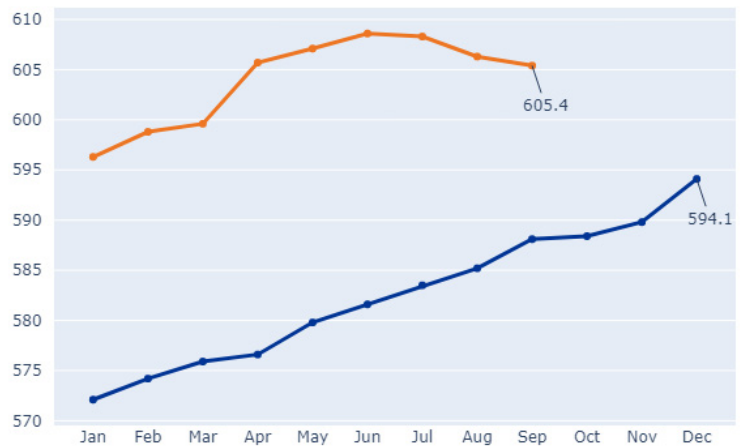### Transportation, Warehousing, and Utilities Employment
(Thousands)

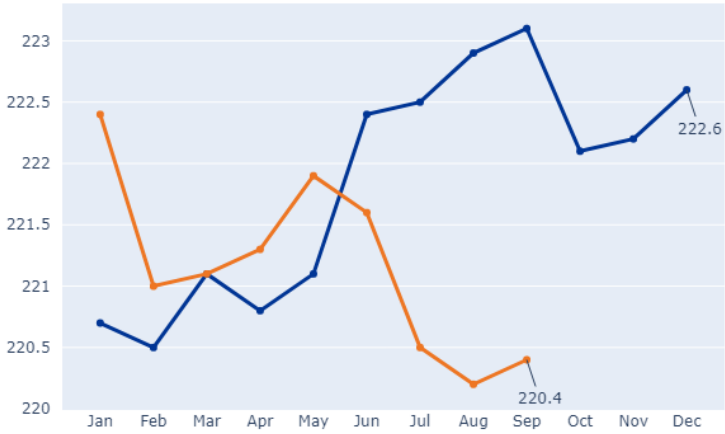**2023**　　**2024**　　(Seasonally Adjusted)

Information Employment
(Thousands)

Jan 71.3 (2023), Feb 70.9, Mar 70.9, Apr 71.0, May 70.8, Jun 70.5, Jul 70.0, Aug 70.3, Sep 70.3, Oct 69.2, Nov 69.3, Dec 69.7

2024: Jan 69.4, Feb 69.5, Mar 69.7, Apr 69.9, May 70.6, Jun 71.6, Jul 71.4, Aug 70.9, Sep 69.8

Private Education and Health Services Employment
(Thousands)

605.4

594.1

Finance Employment
(Thousands)

222.6

220.4

Leisure and Hospitality Services Employment
(Thousands)

423.3

418.8
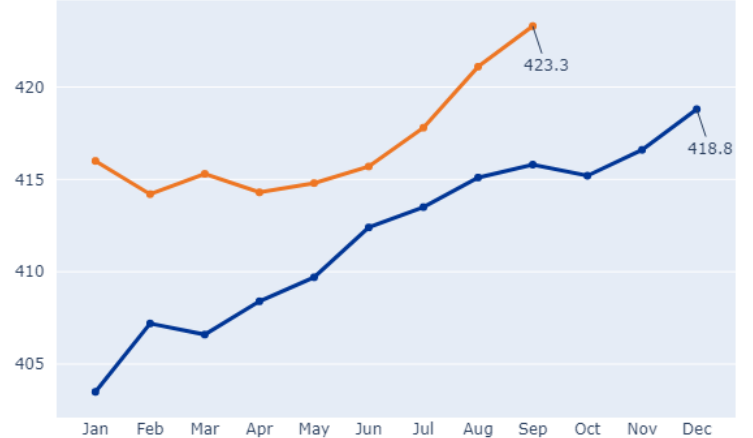
Professional and Business Services Employment
(Thousands)

820.9

802.8
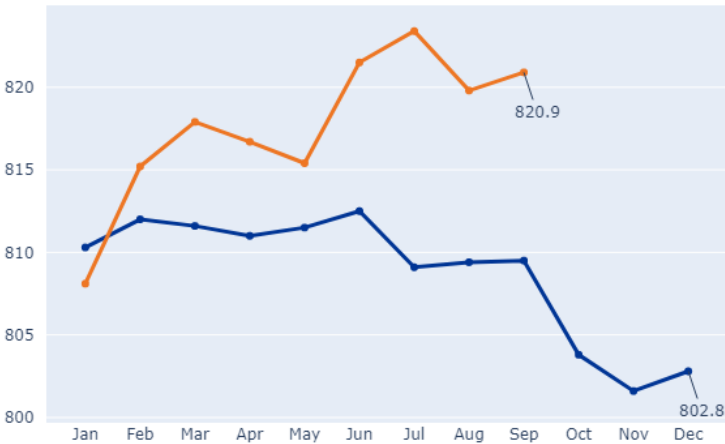
Miscellaneous Services Employment
(Thousands)

204.3

201.2

■ 2023   ■ 2024   (Seasonally Adjusted)
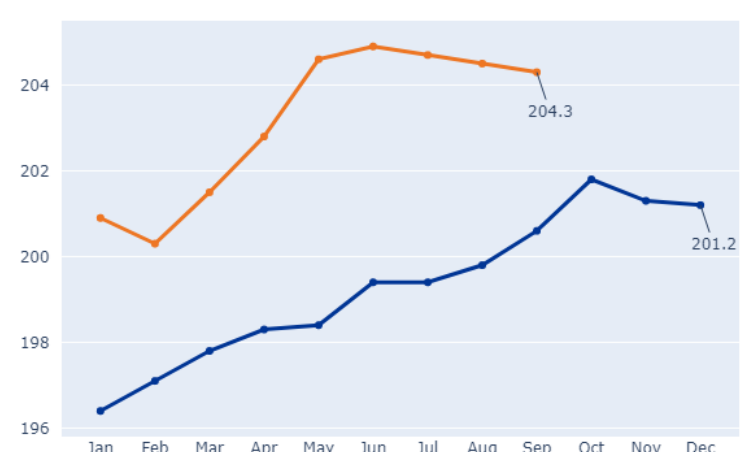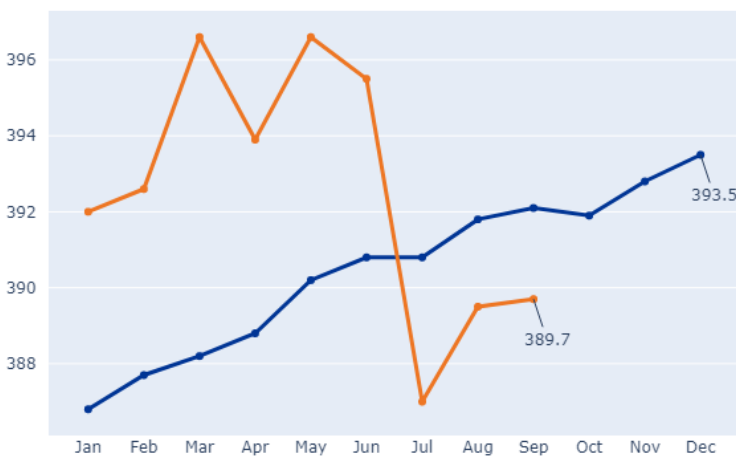
Federal Government Employment
(Thousands)
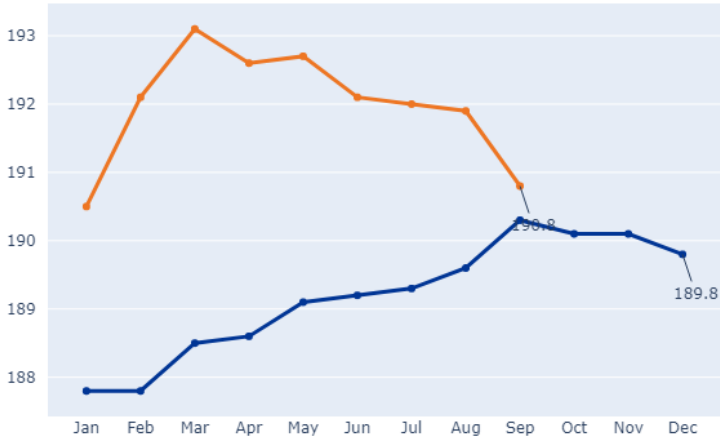
State Government Employment
(Thousands)
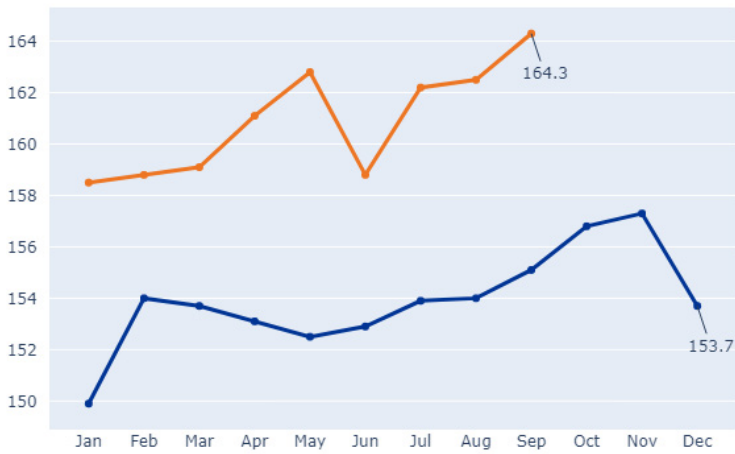
Local Government Employment
(Thousands)

Industry Highlights

- The largest job gain occurred in Education and Health Services (+17,300) to 605,400. The second largest job gain occurred in Construction (+11,700) to 227,900. The third largest job gain occurred in Professional and Business Services (+11,400) to 820,900.

- The largest job loss occurred in Financial Activities (-2,700) to 220,400. The second largest job loss occurred in Information (-500) to 69,800.

- State and local governments saw increases in employment from August to September, but Federal government continued to slow. Within that sector, federal government jobs increased by only 500 to 190,800, while state government employment increased by 9,200 to 164,300, and local government decreased by 2,400 to 389,700 over the year.

Green Skills and Precision Agriculture in Virginia

Larry Robinson, Senior Economist

The Need in Virginia

The 2022 Census of Agriculture raised concerns with the Youngkin administration concerning loss of farmland, consolidations of small farms, and the average age of farmers [59 years]. The statement made by the Secretary of Agriculture and Forestry was "Bringing job opportunities and economic development along with new technology will continue to attract the next generation of farmers".

This article discusses Virginia's incorporation of precision agriculture techniques, and advantages for increased profitability and environment improvements, with a strong link to green skills.

Virginia's Agriculture Economy

Agriculture is a large part of Virginia's economy, estimated to have $82 billion in total output, and 380,000 jobs. This is the total impact including food processing and other manufacturing, transportation, wholesale and retail. Dr Rephann at the Weldon Cooper Center calculated these numbers, and they are used by the Farm Bureau and the Virginia Department of Agriculture and Consumer Affairs.

Virginia Works has covered agriculture employment counted at 8,000 plus jobs from its Quarterly Census of Employment and Wages [QCEW]. This only includes businesses covered by unemployment insurance, and does not include sole proprietorships without employees, contractors, etc.

The Bureau of Economic Analysis [BEA] estimates the number of agriculture farm owners and workers at approximately 45,000 jobs in Virginia. Two private sources, Lightcast and IMPLAN have estimates of 46,000 and 49,000 jobs.

Precision Agriculture

The Lightcast numbers indicate that from 1990 to 2020, farm workers in Virginia decreased from approximately 60,000 jobs to 45,000 jobs. During the same time productivity increased to record levels.

Precision agriculture was one of the reasons for this increase in productively, but precision agriculture also is responsible for environmental improvements.

Although the term "Green Skills" is more descriptive than "Green Jobs", the U.S Bureau of Labor Statistics [BLS] did pioneering work two decades ago and developed a two-fold definition of green jobs:

1. Jobs in businesses that produce goods or provide services that benefit the environment or conserve natural resources.

2. Jobs in which workers' duties involve making their establishment's production processes more environmentally friendly or use fewer natural resources.

Precision Agriculture uses smart machinery, GPS, satellites, drones and more, and fits into the goal of BLS's second definition.

Field crop production have shown the most impact with technologies like tractor guidance, and variable rate applications.

Efficiently is the name of the game for crops, from seeding, to fertilizer, to herbicides. The principle is called the **Four Rs:** "the right time, the right source, the right rate, and the right place".

A study by the Association of Equipment Manufacturers found precision agriculture resulted in averages of:

> 4% increase in crop production

> 7% increase in fertilizer placement efficiency

> 9% reduction in herbicide and pesticide use

> 6% reduction in fossil fuel use

Precision agriculture extends beyond field crops. Examples include GPS tracking devices attached to cattle, and even automatic milking machines [even with no human intervention].

Of course, there are both benefits and challenges. The benefits are increased profits, reduced inputs, and better care for the environment. The challenges are mainly the up-front acquisition costs, and the time needed to learn and apply new technologies.

Larger farms have been early adopters of precision agriculture.

An example is tractor guidance or auto-steer which uses GPS. This technology was first implemented by large Midwest farms that have huge tracts of land. Auto-steer results in more precise tractor use and is much less tiring and results in fewer mistakes by the operator.

Virginia and Other States Use of Precision Agriculture

A 2023 U.S. Dept of Agriculture [USDA] study found that approximately 27 percent of farms used Precision Agriculture. The Midwest states had the highest rates and some the southern states [including Virginia] had the lowest rates. Virginia's rate is at 11 percent and is tied with Kentucky; only West Virginia had a lower rate at 8 percent. [Some New England states are combined.]
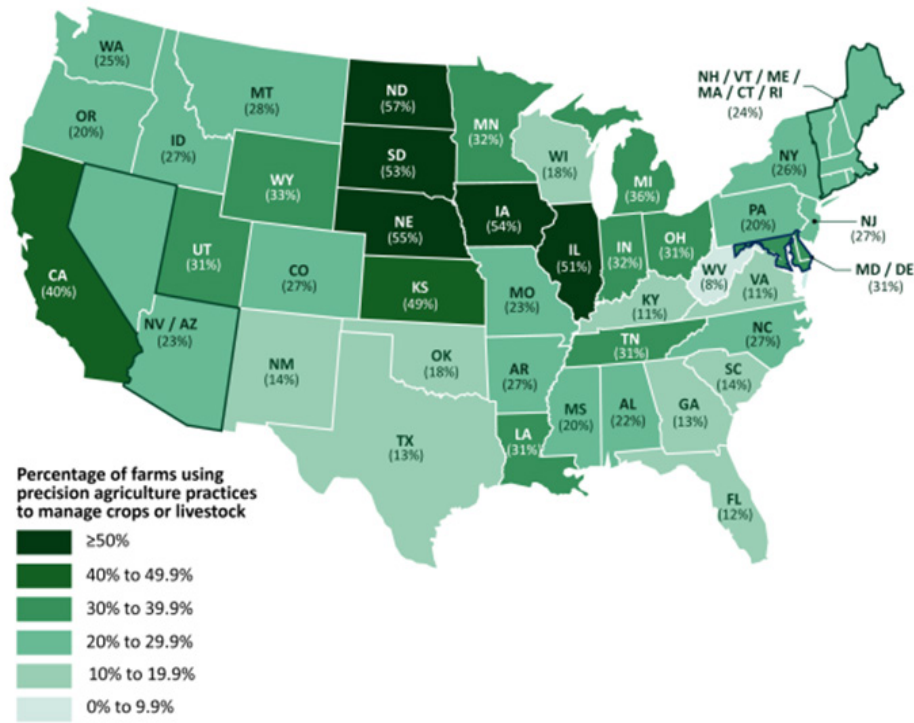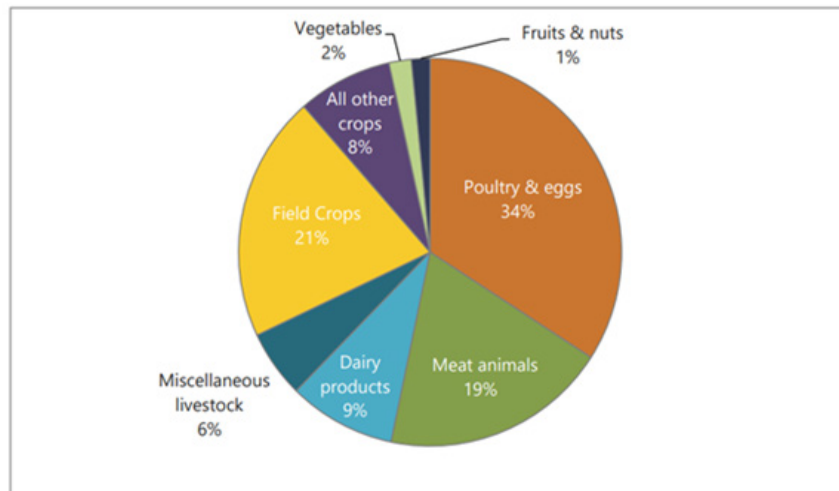

Source: GAO summary of U.S. Department of Agriculture 2023 Technology Use (Farm Computer Usage and Ownership) data; Map Resources (map). | GAO-24-105962

Note: The 2023 Technology Use estimates are based on responses from approximately 14,000 agricultural operations and represent all sizes and types of farms. Estimates for some states were combined due to their low number of responses. Estimates in this figure have margins of error, at the 95 percent confidence level, ranging from plus or minus 4 percentage points to plus or minus 21 percentage points.

Virginia has a low usage rate for Precision Agriculture, but there is a lot of opportunity. Many of precision agriculture technologies have been redeveloped and improved, often at an even lower cost. An example is auto-steering for tractors. Originally costing over $20,000 and is now less than $10,000 with options to retrofit older tractors. Tracking precision is now measured in inches.

 Of course, the make-up of Virginia's agriculture economy in which poultry is the largest major category may be part of the reason for Virginia's low percentage. Crop production technologies are ideal precision agriculture applications; with cattle tracking, dairy innovations, and other applications not being implemented as rapidly.

Source: U.S. Department of Agriculture, Economic Research Service (2022)

Virginia Tax Credits for Precision Agriculture

Virginia provides tax credits for a variety of precision agriculture practices and equipment purchases.

Summary

The Youngkin administration is concerned with some of the trends in the Commonwealth's agriculture economy. Improving green skills and increasing the practice of precision agriculture can help this vital part of Virginia's economy.

Sources:

Association of Equipment Manufacturers, The Environmental Benefits of Precision Agriculture, 2021

Weldon Cooper Center, The Economic Impact of the Agriculture and Forestry Industries in Virginia, 2022

Virginia Department of Education, Employment Data for Regional Labor Market Analysis, 2022

U.S. Government Accountability Office [GAO], Technology Assessment of Precision Agriculture, 2024

U.S. Department of Agriculture, various online sources.

Upcoming News and Events

CITY OF NEWPORT NEWS

BUILT-ON BREAKTHROUGHS CAREER FAIR

NOVEMBER 6, 2024 | 9:00 AM - 12:00 PM

Denbigh Community Center
15198 Warwick Blvd, Newport News, VA 23608

CITY OF NEWPORT NEWS DEPARTMENTS WHO HAVE CONFIRMED

- COMMUNICATIONS
- FIRE
- GENERAL SERVICES
- HUMAN RESOURCES > BENEFITS AND TALENT ACQUISITION
- JUVENILE SERVICES

- LIBRARIES
- POLICE
- PARKS & RECREATION
- PUBLIC WORKS
- SHERIFF'S OFFICE
- WATERWORKS
- …. *More to come!!*

CONTACT US AT RECRUITING@NNVA.GOV OR 757.926.1800

The Women In Technology Fall Job Fair is coming!

Are you looking for the next great job?

On **Thursday, November 7th, 2024**, from **4:00 PM to 7:00 PM** you are invited to meet local DC area employers at our job fair at the **Hyatt Regency Tysons Corner**.

Both men and women job seekers are encouraged to attend this free event.

Job seekers can sign up on the following link: www.womenintechnology.org/job-fairs. We look forward to seeing you there!

VIRGINIA FALL JOB FAIR – A Virtual Hiring Event For all of Virginia to Help You Secure Your Future!

Date: Wednesday, October 30, 2024

10:00am to 5:00pm

Job Seekers: Register today at https://pvapi.premiervirtual.com/s/xNgmBW for this Virtual Event

Employers: Register today at https://pvapi.premiervirtual.com/s/dVgeRx for this Virtual Event

Meet with private, state and federal employers who are looking for qualified applicants.

Learn about the Reemployment Services available through Virginia Works and the Virginia Workforce System.

Learn more about the state and federally funded Training, Certification, and Apprenticeship opportunities available through Virginia's Workforce Development System that will help you reenter the workforce if you are unemployed* or change careers to secure your future.

Look for our in person events the week of 28 October to 1 November 2024 here and in your participating local workforce center.

* If you are unemployed and receiving Unemployment Insurance Benefits, participation at this event is a qualifying job search activity.

For more Info on Upcoming Job Fairs, visit the Job fair page at

https://www.vec.virginia.gov/job-fairs

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