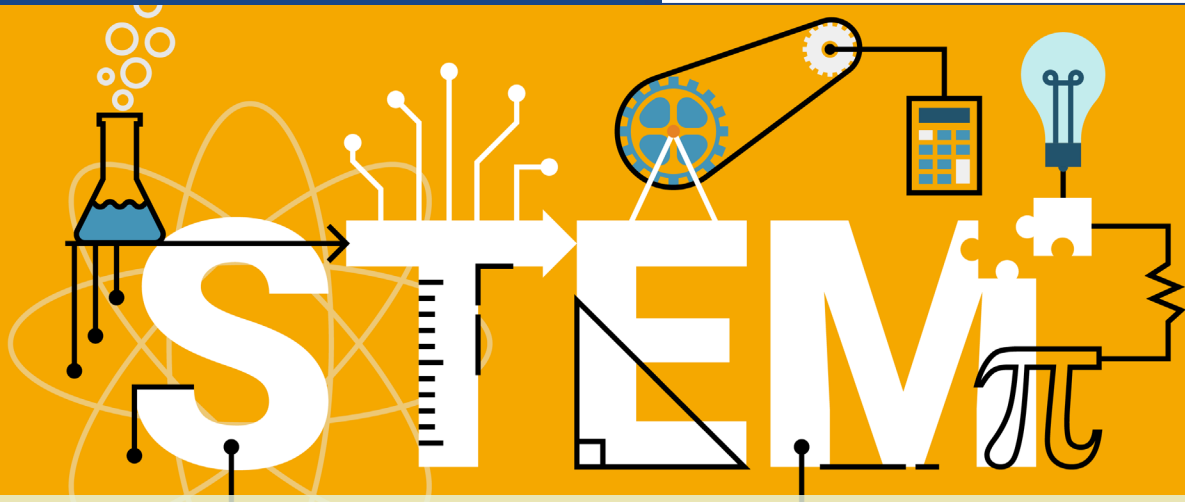


EMPLOYMENT MONTHLY

January 2025



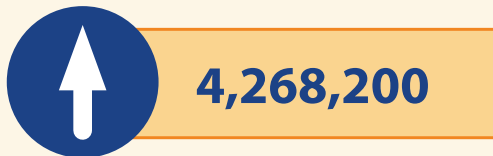
Feature Article:

Virginia's STEM-H Workforce: Growth, Supply, and Demand

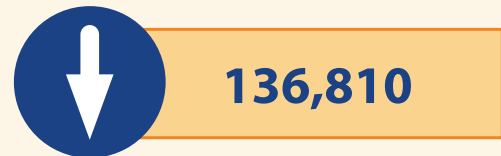
December 2024 Monthly Indicators

(Seasonally Adjusted)

Total Nonfarm Employment



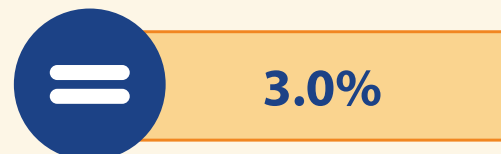
Unemployment



Labor Force Participation Rate



Unemployment Rate



Note: Arrows indicate movement from previous month.

Current Employment Indicators

Nonagricultural Wage and Salary Employment (Thousands)



Employment Highlights

- Virginia’s seasonally adjusted unemployment rate in December remained unchanged at 3.0 percent, which is the same as the rate from a year ago.
- Virginia’s labor force increased by 2,502 to 4,581,450 as the number of unemployed residents decreased by 247 to 136,810.
- Virginia’s labor force participation rate remained unchanged at 66.0 percent in December, which is 3.5 points above the national rate of 62.5 percent.
- For metro areas, the largest job gain occurred in Northern Virginia (+2,700) to 1,605,600, the second largest job gain occurred in Richmond (+900) to 738,100, and the third largest job gain occurred in Charlottesville (+700) to 129,700.

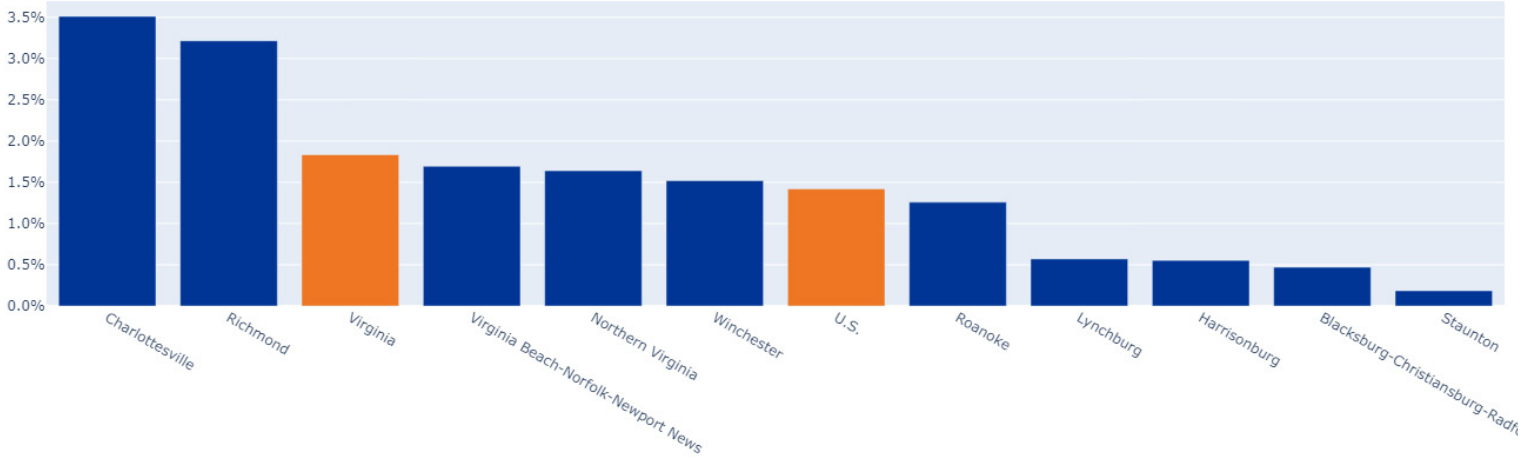
Total Nonfarm Employment by Metropolitan Statistical Area (MSA)

(Seasonally Adjusted)

MSA	Employment			December 2023 to December 2024	
	December 2024	November 2024	December 2023	Change	% Change
Virginia	4,268,200	4,263,300	4,191,300	76,900	1.8%
Blacksburg-Christiansburg-Radford MSA	85,600	85,300	85,200	400	0.5%
Charlottesville MSA	129,700	129,000	125,300	4,400	3.5%
Harrisonburg MSA	72,600	72,600	72,200	400	0.6%
Lynchburg MSA	105,700	105,700	105,100	600	0.6%
Northern Virginia MSA	1,605,600	1,602,900	1,579,700	25,900	1.6%
Richmond MSA	738,100	737,200	715,100	23,000	3.2%
Roanoke MSA	169,000	168,800	166,900	2,100	1.3%
Staunton MSA	54,100	54,100	54,000	100	0.2%
Virginia Beach-Norfolk-Newport News MSA	828,200	827,600	814,400	13,800	1.7%
Winchester MSA	73,500	73,000	72,400	1,100	1.5%

*Current month's estimates are preliminary.

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



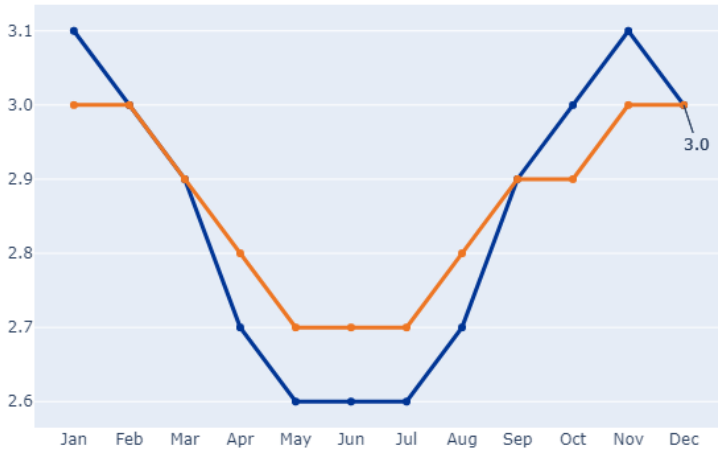
Total Nonfarm Employment by Industry (Seasonally Adjusted)

Industry	Employment			December 2023 to December 2024	
	December 2024	November 2024	December 2023	Change	% Change
Total Nonfarm	4,268,200	4,263,300	4,191,300	76,900	1.8%
Total Private	3,513,400	3,510,000	3,454,300	59,100	1.7%
Goods Producing	483,100	485,900	472,900	10,200	2.2%
Mining and Logging	7,300	7,400	7,200	100	1.4%
Construction	229,100	230,600	218,200	10,900	5.0%
Manufacturing	246,700	247,900	247,500	-800	-0.3%
Service-Providing	3,785,100	3,777,400	3,718,400	66,700	1.8%
Private Service Providing	3,030,300	3,024,100	2,981,400	48,900	1.6%
Trade, Transportation, and Utilities	678,100	679,400	672,200	5,900	0.9%
Information	71,700	70,500	69,700	2,000	2.9%
Financial Activities	218,300	219,900	222,600	-4,300	-1.9%
Professional and Business Services	816,800	818,100	802,800	14,000	1.7%
Education and Health Services	614,500	609,200	594,100	20,400	3.4%
Leisure and Hospitality	427,800	423,100	418,800	9,000	2.1%
Miscellaneous Services	203,100	203,900	201,200	1,900	0.9%
Government	754,800	753,300	737,000	17,800	2.4%
Federal Government	192,200	191,100	189,800	2,400	1.3%
State Government	167,700	167,700	153,700	14,000	9.1%
Local Government	394,900	394,500	393,500	1,400	0.4%

*Current month's estimates are preliminary.

Current Unemployment Indicators

Virginia Unemployment Rate (Percent)



Unemployment Insurance - December 2024

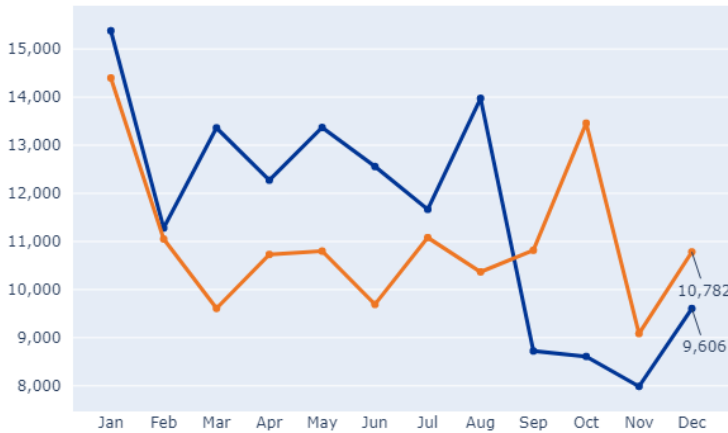
Financial Data

- Trust Fund Balance (millions) \$1,496.4
- Tax Revenue (Monthly) (millions) \$0.5

Benefits Data

- Benefits Paid (Monthly) (millions) \$26.0
- Average Weekly Benefit \$351.31
- Initial Claims (YTD) 131,872

Monthly Initial Claims



Initial and Continued Claims

Initial Claims:

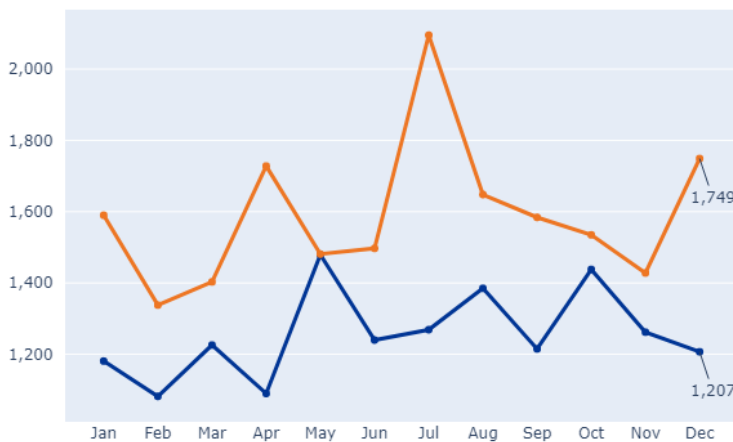
- There were 10,782 initial claims in December 2024.
- Initial claims increased by 18.7% over-the-month and increased by 12.2% over-the-year.
- Year-to-date initial claims were 5.0% lower in December 2024 compared to the same period in 2023.

Continued Claims:

- There were 93,041 continued claims in December 2024.
- This was a 21.6% increase over-the-month and a 38.2% increase over-the-year.
- Year-to-date continued claims were 17.8% higher in December than during the same period in 2023.

Note: Claims counts include interstate and intrastate.

Unemployment Insurance Final Payments



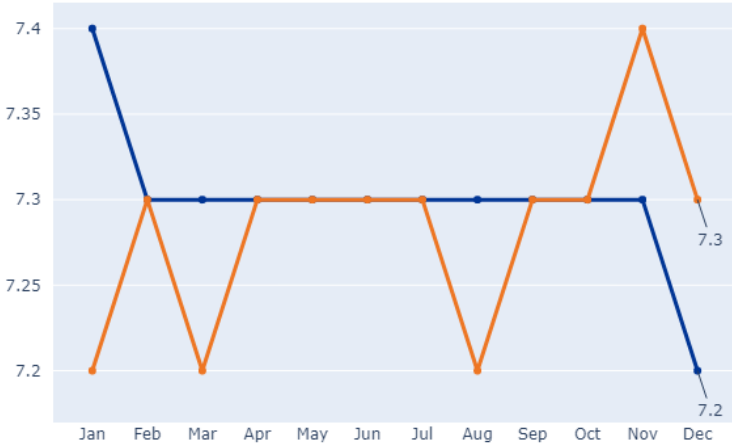
Monthly Claims Data

	Initial Claims	Continued Claims	Recipients	Final Payments
December 2024	10,782	93,041	16,948	1,749
November 2024	9,086	76,509	14,610	1,428
December 2023	9,606	67,321	12,532	1,207

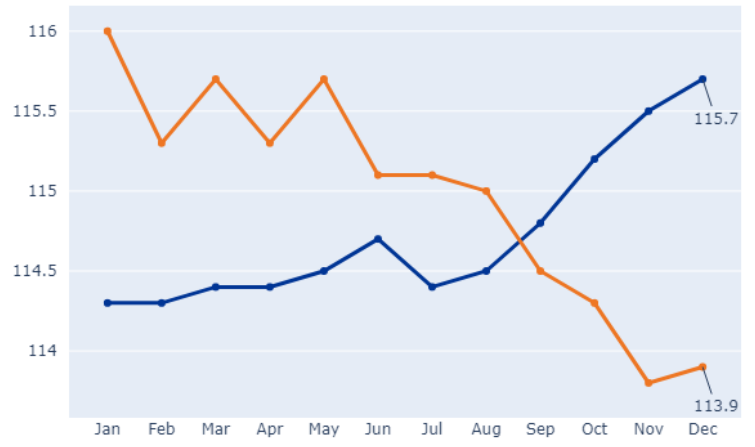
2023 2024 (Seasonally Adjusted)

Current Industry Indicators

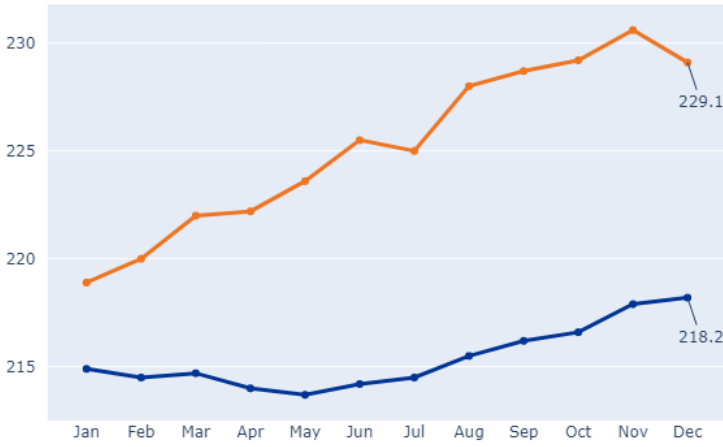
Mining and Logging Employment (Thousands)



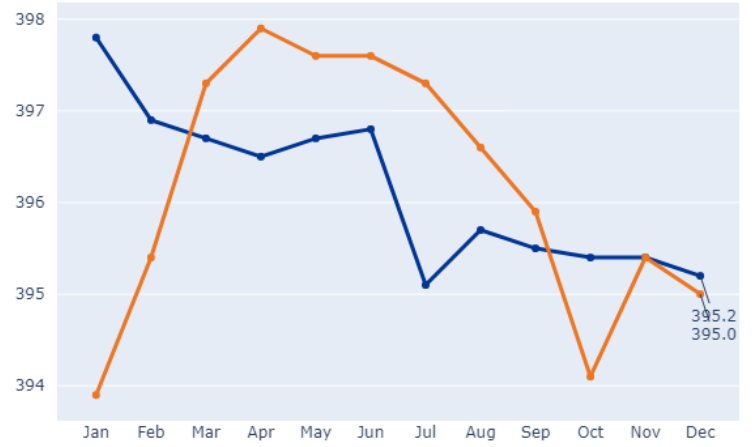
Wholesale Trade Employment (Thousands)



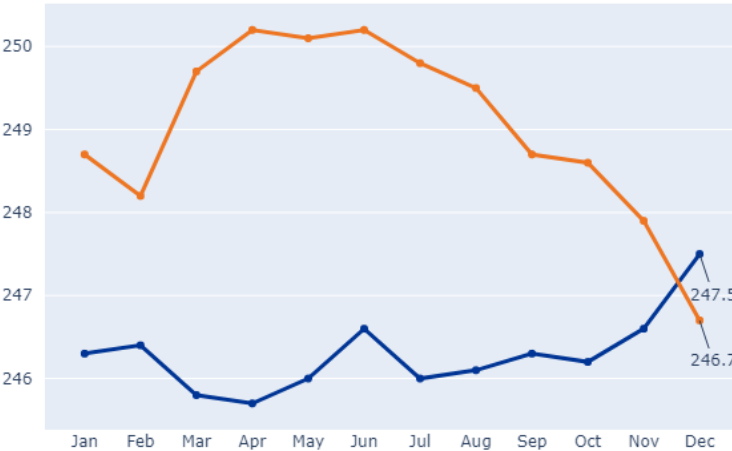
Construction Employment (Thousands)



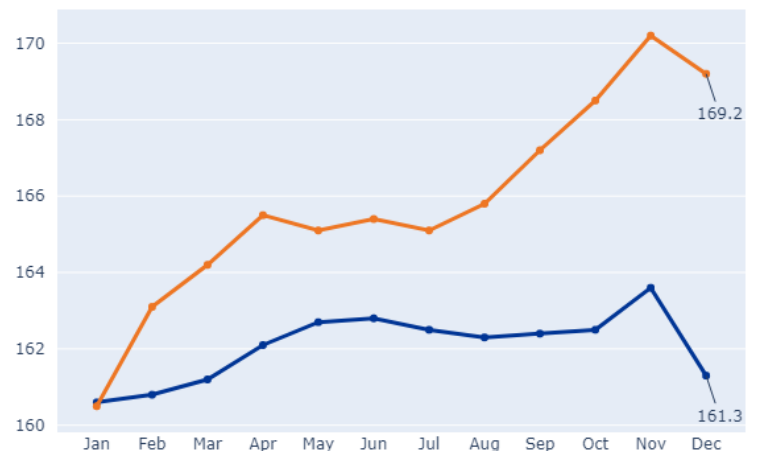
Retail Trade Employment (Thousands)



Manufacturing Employment (Thousands)

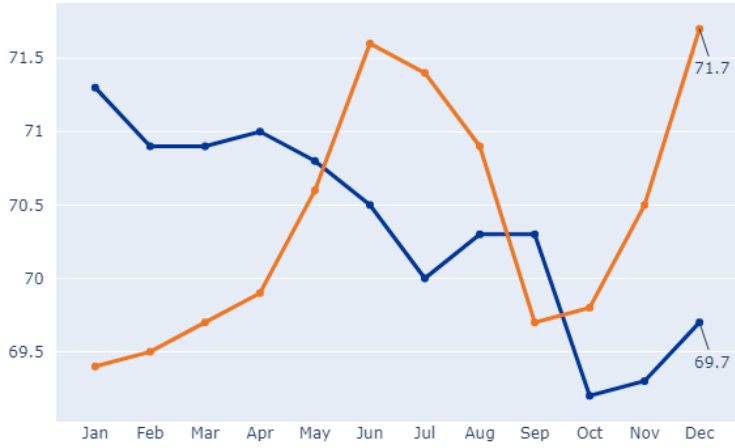


Transportation, Warehousing, and Utilities Employment (Thousands)

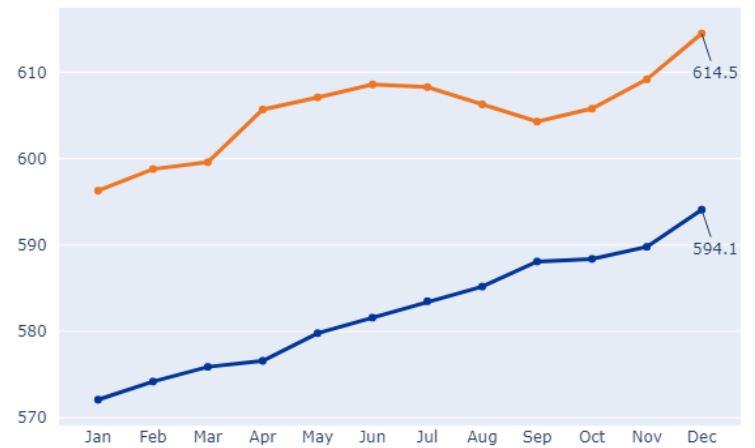


2023 2024 (Seasonally Adjusted)

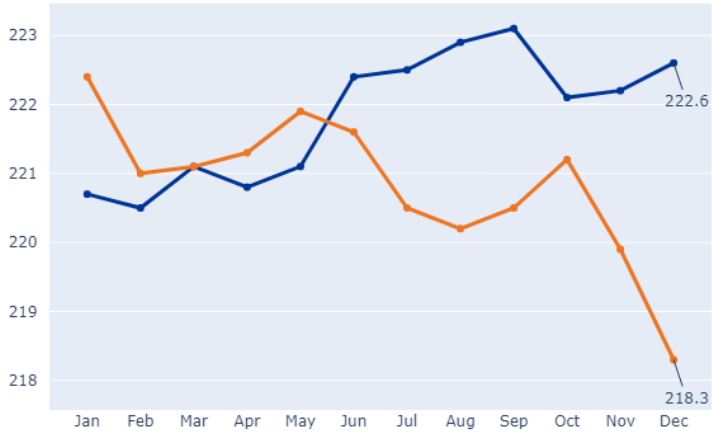
Information Employment
(Thousands)



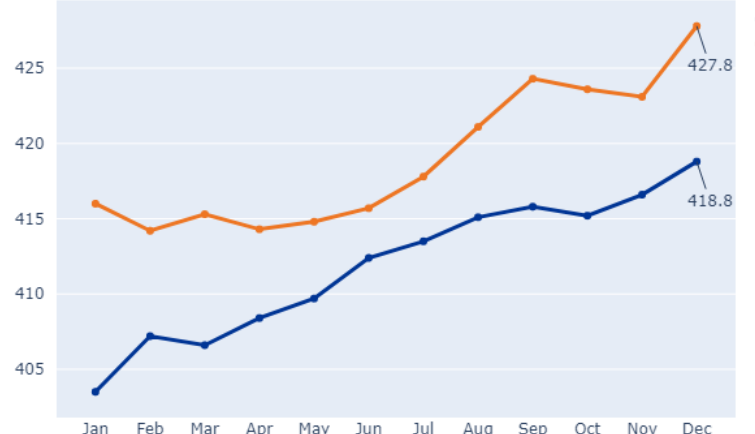
Private Education and Health Services Employment
(Thousands)



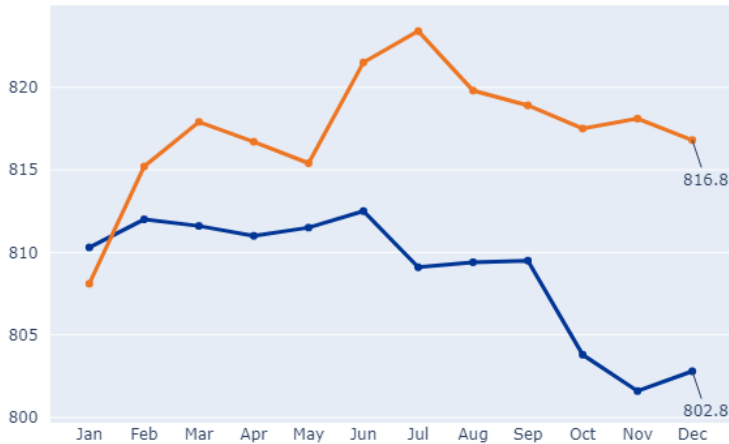
Finance Employment
(Thousands)



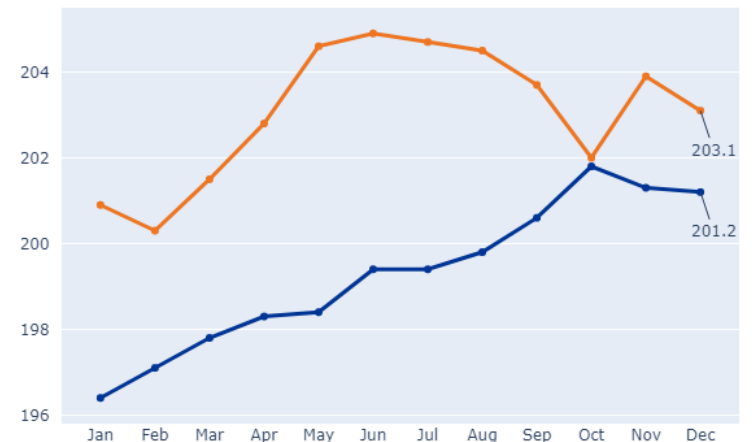
Leisure and Hospitality Services Employment
(Thousands)



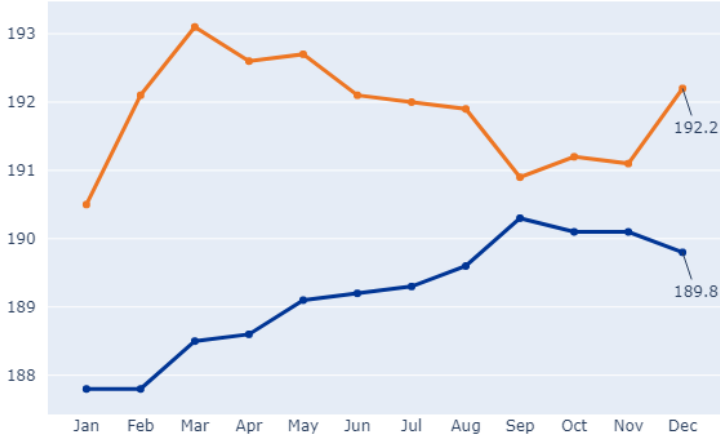
Professional and Business Services Employment
(Thousands)



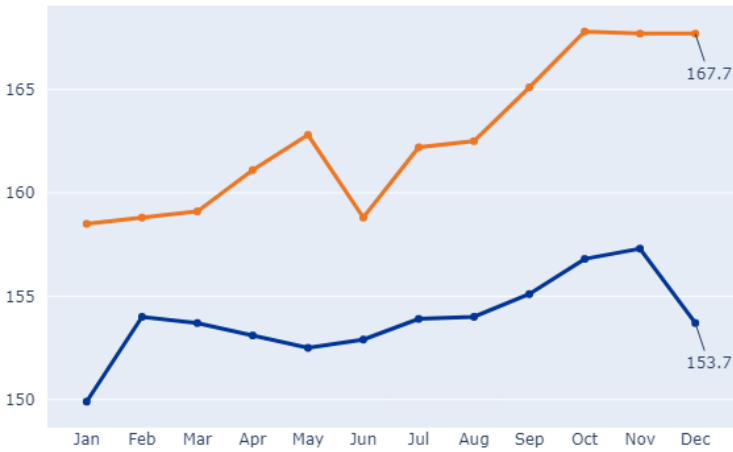
Miscellaneous Services Employment
(Thousands)



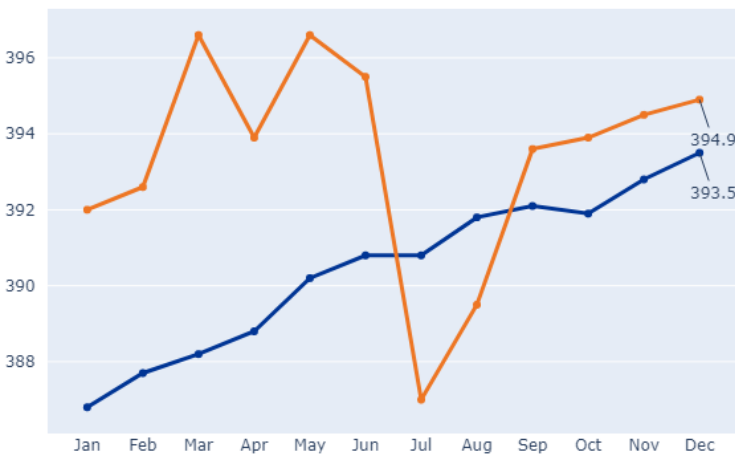
Federal Government Employment
(Thousands)



State Government Employment
(Thousands)



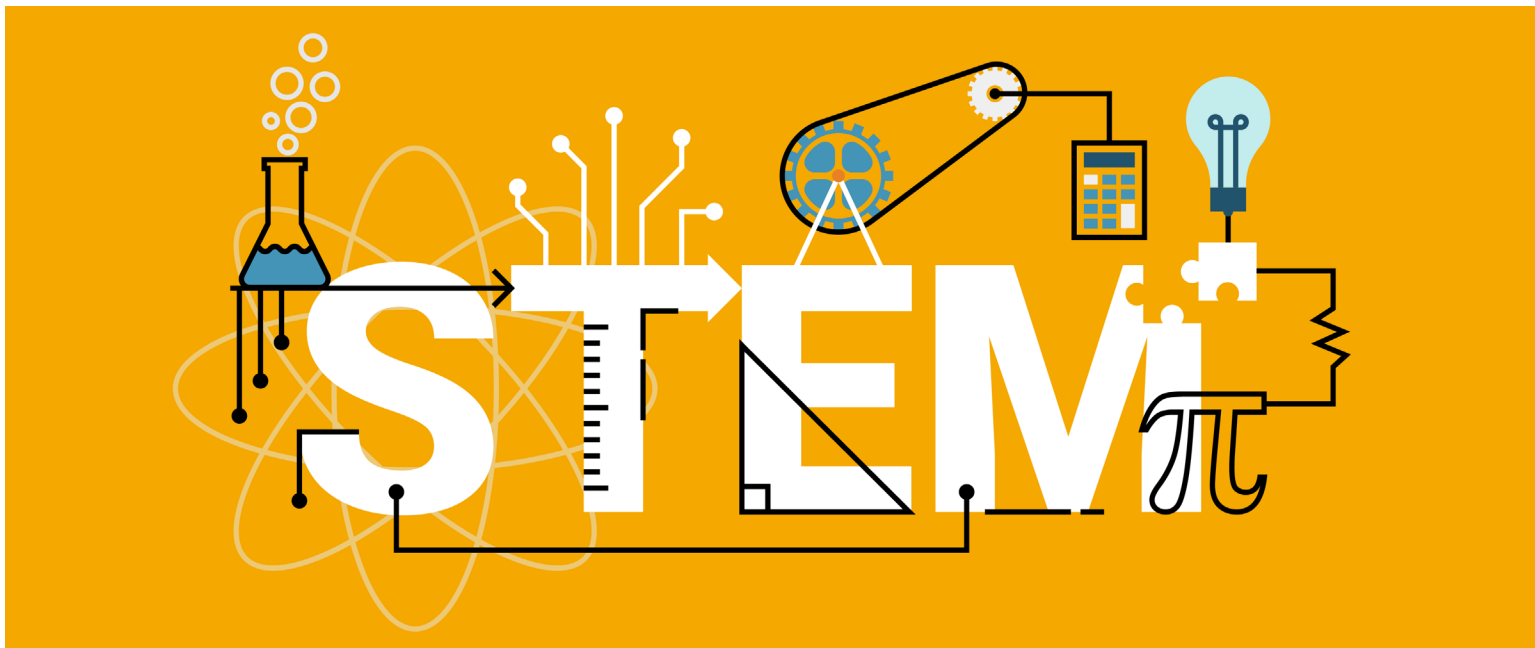
Local Government Employment
(Thousands)



Industry Highlights

- In December, private sector employment increased by 3,400 to 3,513,400 while government employment increased by 1,500 to 754,800.
- Of the eleven industry sectors, four experienced over-the-month job gains, and seven experienced a decline. The largest job gain occurred in Education and Health Services (+5,300) to 614,500. The second largest job gain occurred in Leisure and Hospitality (+4,700) to 427,800. The third largest job gain occurred in Government (+1,500) to 754,800. The other gain was in Information (+1,200) to 71,700.
- The largest job loss occurred in Financial Activities (-1,600) to 218,300. The second largest job loss occurred in Construction (-1,500) to 229,100. The third largest job loss occurred in Professional and Business Services (-1,300) to 816,800.





Virginia's STEM-H Workforce: Growth, Supply, and Demand

Erica Lashley, Economist

As Virginia continues to position itself as a leader in innovation, technology, and scientific research, the demand for STEM-H (Science, Technology, Engineering, Mathematics, and Health) professionals is surging. With industries such as cybersecurity, data analytics, and advanced manufacturing expanding, the question remains: Does Virginia have enough skilled workers to meet this growing demand?

This article explores this question by examining data from Virginia Works' statewide long-term occupational projections as well as data from the State Council of Higher Education for Virginia (SCHEV) on degrees awarded in STEM-H.

What are STEM-H occupations?

STEM-H occupations encompass a wide range of careers that rely on technical skills, problem-solving, and innovation. Although there is not a single Standard Occupational Classification code that encompasses all STEM-H occupations, most are included in the following major occupation groups: Architecture and Engineering; Computer and Mathematical; Healthcare Practitioners and Technical; and Life, Physical, and Social Science. Examples of STEM-H occupations include Chemist, Geoscientist, Information Security Analyst, Aerospace Engineer, Web Developer, and Statistician.

These occupations are critical to economic growth and technological advancement, as they contribute to innovation in fields like health-care, infrastructure, and scientific research. As shown in **Figure 1**, STEM-H jobs generally offer higher wages and lower unemployment rates compared to non-STEM-H occupations, reflecting their strong demand. Additionally, as businesses and government agencies increasingly rely on data, automation, and technical expertise, STEM-H professionals play a key role in maintaining productivity, efficiency, and global competitiveness.

How much are they growing?

The Commonwealth is experiencing significant STEM-H job growth, with several key occupational groups expanding at a faster rate than the statewide average for all occupations. According to the [Bureau of Labor Statistics' 2023 Occupational Employment and Wage Statistics](#), Virginia already has the third-highest concentration of Computer and Mathematical Occupations in the nation (including the District of Columbia, which ranks first), with a location quotient of 1.78. This occupational group is projected to grow by 15.31% from 2022 to 2032, far outpacing the 4.47% growth rate for all occupations.

Similarly, Healthcare Practitioners and Technical Occupations are expected to grow by 10.02%, driven by increasing demand for medical professionals. Life, Physical, and Social Science Occupations are projected to expand by 7.95%, reflecting the growing need for research and scientific expertise. Architecture and Engineering Occupations, while growing at a more moderate pace, are still expected to increase by 5.49%, surpassing the average across all fields.

Figure 1

Major Occupation Group (SOC Code)	Annual Mean Wage (2023)*	Unemployment Rate (2024)**	Projected Growth Rate 2022 - 2032***	Openings Per Year 2022 - 2032***
All Occupations (000000)	\$70,050	4.0%	4.47%	480,299
Computer and Mathematical Occupations (150000)	\$122,610	2.8%	15.31%	19,265
Architecture and Engineering Occupations (170000)	\$103,090	1.8%	5.49%	5,171
Life, Physical, and Social Science Occupations (190000)	\$97,470	2.1%	7.95%	4,047
Healthcare Practitioners and Technical Occupations (290000)	\$98,440	1.3%	10.02%	15,499

* Source: [Bureau of Labor Statistics, 2023 Occupational Employment and Wage Statistics](#)

** Source: [Bureau of Labor Statistics, Current Population Survey 2024 Annual Averages](#)

*** Source: [Virginia Works, 2022 - 2032 Long-Term Occupational Projections](#)

The annual openings figures shown in **Figure 1** represent the estimated number of job openings per year between 2022 and 2032 within each major occupational group. These openings come from a combination of new job growth (expanding industries) and replacement needs (retirements, career changes, etc.).

In Virginia, Computer and Mathematical Occupations are projected to have 19,265 openings per year, reflecting strong demand in fields such as cybersecurity, data science, and software development. Similarly, Healthcare Practitioners and Technical Occupations will see 15,499 openings annually, driven by an aging population and increasing healthcare needs.

While Architecture and Engineering Occupations and Life, Physical, and Social Science Occupations have fewer total openings (5,171 and 4,047 per year, respectively), they still play a critical role in Virginia’s innovation economy, supporting infrastructure development, environmental science, and cutting-edge research.

Overall, the high number of projected openings in STEM-H fields underscores the need for a strong talent pipeline to fill these roles and sustain Virginia’s economic growth.

Does Virginia have the talent pipeline to keep up with the demand?

Virginia is making historic investments to expand its STEM-H workforce and meet the demands of an evolving economy. A key initiative is the Tech Talent Investment Program (TTIP), a \$1.1 billion, 20-year effort launched in 2019 as part of Virginia’s winning bid for Amazon HQ2. TTIP aims to produce 32,000 additional Computer Science and related degrees—16,000 bachelor’s and 16,000 masters’—by 2039. Thirteen institutions and the Virginia Community College System participate in TTIP, receiving performance-based funding for faculty expansion, capital projects, and student support. According to a [January 2025 TTIP report to the General Assembly](#), the program has far exceeded its targets as of FY25: bachelor’s programs produced 2,520 new degrees, more than doubling the target of 1,155, while master’s programs produced 1,345 degrees, surpassing the target of 1,262.

The success of the TTIP is also evident in Virginia’s record STEM-H degree production. **Figure 2** illustrates trends in STEM-H degrees awarded for all students from all reporting institutions (public and private) according to data from SCHEV. Both STEM-H and overall degree completions have steady increased, with STEM-H degrees reaching their highest share of total degrees in 2023-24 at 35.3%. While the per-



centage dipped around 2010-11, it has since risen consistently, reflecting Virginia’s growing emphasis on STEM-H education and workforce development.

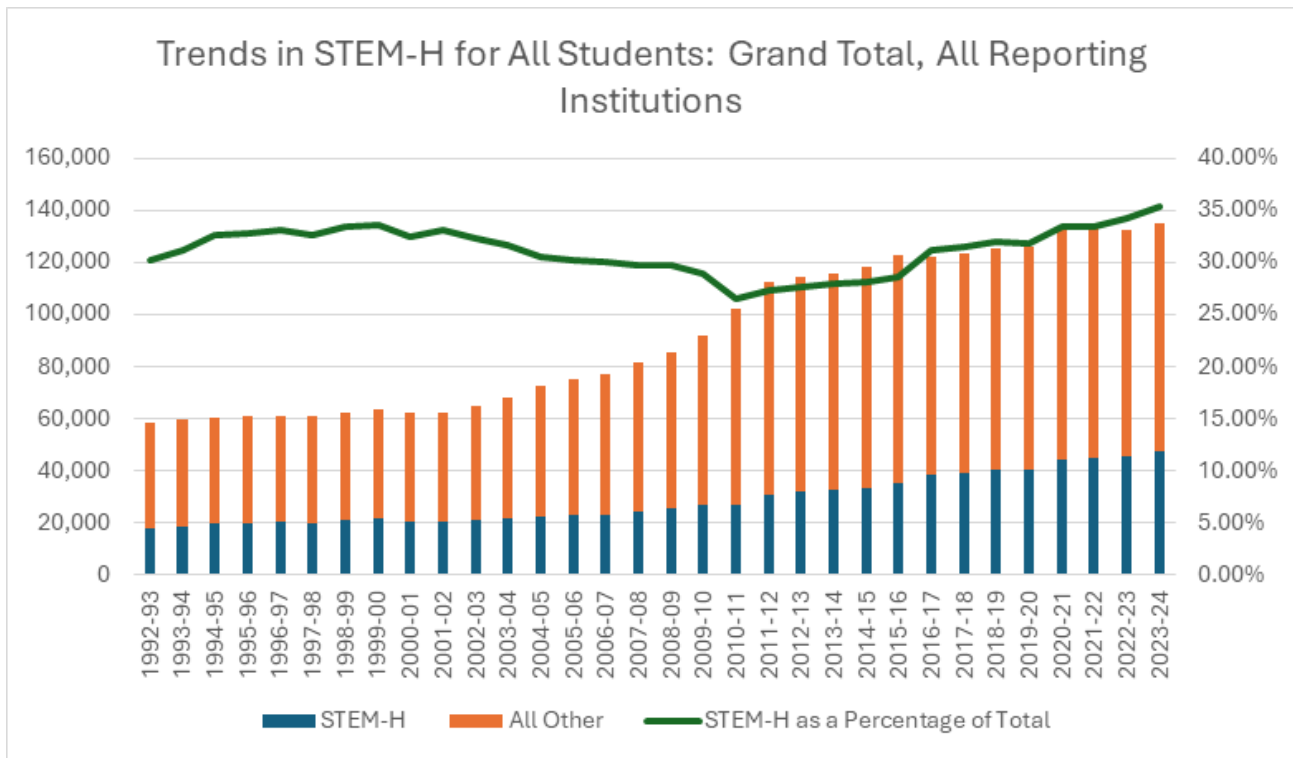
According to [SCHEV’s 2023-24 Degrees and Certificates Report](#), public institutions awarded 29,416 STEM-H degrees, accounting for 39.7% of all degrees—the highest number and percentage ever recorded.

Among public four-year institutions, Computer and Information Sciences was the fastest-growing bachelor’s degree program, climbing from sixth place in 2021-22 to third in 2023-24. However, a gender gap remains. Psychology was the top bachelor’s degree among women, ranking eighth for men. Meanwhile, Computer and Information Sciences was the most awarded degree among men but did not make the top 10 for women.

With strategic investments, record STEM-H degree production, and increasing demand for tech talent, Virginia is not only

meeting today’s workforce needs but also shaping the future of innovation. These initiatives solidify the Commonwealth’s reputation as a premier destination for businesses seeking top talent and position Virginia to lead in technology, healthcare, and advanced industries for decades to come.

Figure 2



Source: [State Council of Higher Education for Virginia \(SCHEV\) C7 Report: Trends in STEM-H Degree Production](#)

Virginia Works Services



VETERANS SERVICES

WHAT WE DO:

- Assist transitioning Service Members, Military Spouses, and Veterans with job referral, job training and job placement and additional services based on eligibility
- Help employers hire job-seeking Veterans

WHO WE SUPPORT:

- Transitioning Service Members, ALL Veterans, Military Spouses, and Dependents
- Eligible Veterans and Eligible Persons experiencing at least one qualifying employment barrier
- Employers looking to hire Veterans

For more Information: www.virginiaworks.gov

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