

LABOR MARKET INFORMATION

AN OVERVIEW OF OUR LEADING
PUBLICATIONS, REPORTS, AND WEBSITE

Economic Information & Analytics



**FOR MORE INFORMATION OR QUESTIONS ABOUT OUR
LABOR MARKET INFORMATION (LMI) PUBLICATIONS OR
LMI DATA, PLEASE CONTACT:**

Stacy Maher, LMI Manager

stacy.maher@vec.virginia.gov

All LMI publications was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the recipient and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

This product is copyrighted by the institution that created it. Internal use by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.

LABOR MARKET DATA

Labor market information includes all data and analysis related to the status of the labor market.

The screenshot displays the Virginia Employment Commission website. At the top, it identifies itself as 'An Agency of the Commonwealth of Virginia' and includes the 'Virginia.gov' link and 'Find an Agency' button. The main navigation menu includes: Home, Industries, Wages, Occupations, Employment, Community Profiles, Publications / Press Releases, Career Resources, and Other Resources. The main banner features a scenic view of Virginia with the text 'Virginia's Career and Workforce-Labor Market Information'. Below the banner is a section for 'Quarterly Employment Indicators' with a sub-headline: 'The **Q1 2019** Quarterly Employment Indicators for Virginia features various employment analysis for state and Metropolitan Statistical Areas. Key...'. The central content area is titled 'TOP 5' and is divided into two columns:

- Top Occupations by Supply:**
 - Retail Salespersons
 - Cashiers
 - Combined Food Preparation and Serving Workers
 - Office Clerks, General
 - Waiters and Waitresses
- Fastest-Growing Occupations by Demand:**
 - Personal Care Aides
 - Home Health Aides
 - Nurse Practitioners
 - Statisticians
 - Information Security Analysts

Below these lists are links: 'Learn More About Virginia's Occupations' and 'View Virginia's Occupational Demand'. To the right is a 'Job Search' section with the instruction: 'Begin your job search by entering an occupation along with a location and radius (miles) from the location.' It includes input fields for 'Occupation', 'Location (Zip Code)', and 'Radius (Miles)', a 'Search' button, and a note: 'Job search results are provided by CareerOneStop.'

At the bottom of the page, there is a navigation bar with 'Undo', 'Redo', 'Revert', 'Refresh', and 'Pause' icons, and a 'Share' and 'Download' button.

WWW.VIRGINIAWORKS.COM

CONTENTS

5 LMI PUBLICATIONS

- 6 COMMUNITY PROFILES
- 8 STATEWIDE ECONOMICS ANALYSIS REPORT
- 10 VIRGINIA ECONOMIC INDICATORS
- 12 VIRGINIA INDUSTRY PROFILES
- 14 TOP FIVE INDUSTRY FACT SHEETS
- 16 VIRGINIA CAREER QUARTERLY
- 19 LABOR FORCE METRICS AT A GLANCE
- 20 VIRGINIA JOB OUTLOOK

22 CAREER PUBLICATIONS

- 22 VIRGINIA OCCUPATIONAL CAREER RESOURCE GUIDE
- 24 JOB SEARCHING TIPS - 5 STEPS TO A SUCCESSFUL JOB SEARCH
- 26 POCKET RESUME
- 28 INTERVIEW SKILLS POSTER
- 30 STEM FLYER
- 32 EXPLORING YOUR CAREER OPTIONS: CAREER GUIDE HANDOUTS
- 34 WHAT I WANT TO DO WHEN I GROW UP? ELEMENTARY CAREER ACTIVITY BOOKLET

36 PRESS RELEASES AND REPORTS

38 VIRGINIA LMI WEBSITE

Economic Information & Analytics

PUBLICATIONS

Through our various publications and reports that are available on our Career & Workforce Labor Market Information (LMI) webpage, the Economic Information & Analytics (EIA) division of the Virginia Employment Commission strives to provide valuable information pertaining to labor market subjects such as employment, unemployment, occupations, wages, industries, careers, and demographics, as well as topical subjects such as underemployment and labor turnover. Everything produced by EIA focuses on Virginia specific data and information. The publications are designed to meet the needs of a wide-range of end users including, but not limited to, workforce professionals, economists, government agencies, law makers, teachers, students, counselors, job seekers, employers, and veterans.

This overview gives a brief look at each of EIA's leading publications that are available on our website at www.Virginiaworks.com.

LMI Publications

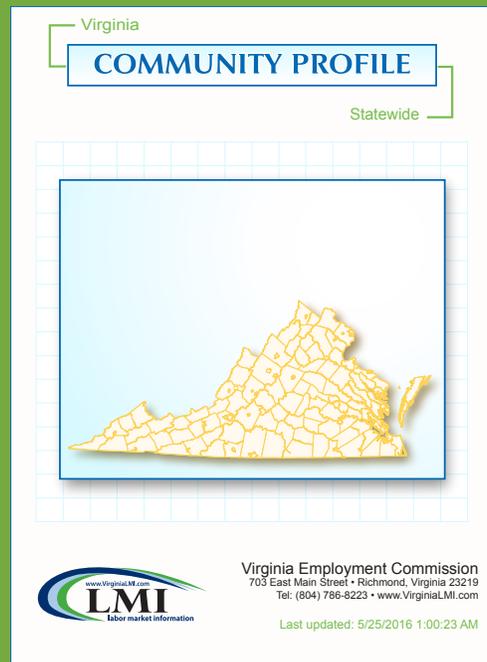
COMMUNITY PROFILES

The Community Profiles feature a wealth of information including demographic, economic, and educational data. Each report is automatically updated every time we make changes to our database, so you can be assured they will always be up-to-date.

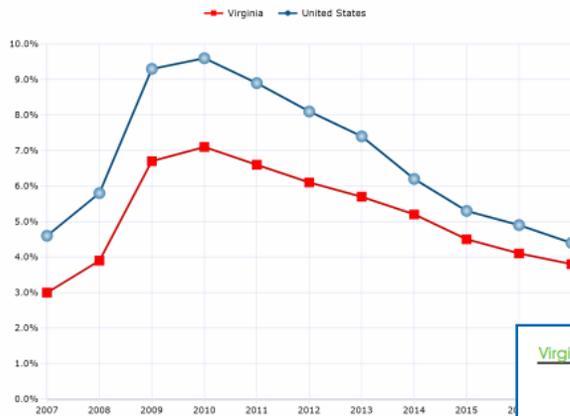
Reports are generated for Statewide; Counties and Cities; Planning Regions; Local Workforce Development Areas; Congressional Districts; Metropolitan Statistical Areas; and Virginia Community College Regions.

The reports feature:

- **Demographic Profile** (age, race, gender, population)
- **Economic Profile** (unemployment rates, characteristics of the insured unemployed, unemployment insurance payments, employers by size of establishment, employment by size of establishment, 50 largest employers, employment by industry, new startup firms, new hires by industry, turnover by industry, average weekly wage by industry, age of workers by industry, industry employment and projections, occupation employment and projections, growth occupations, declining occupations, consumer price index, and local option sales tax)
- **Education Profile** (education attainment by age, gender, and race, graduation data trends, and training providers)



Unemployment Rates Trends

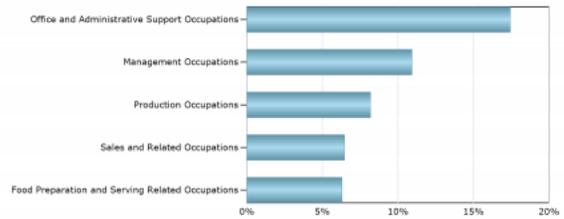


	Virginia	United States
2007	3.0%	4.6%
2008	3.9%	5.8%
2009	6.7%	9.3%
2010	7.1%	9.6%
2011	6.6%	8.9%
2012	6.1%	8.1%
2013	5.7%	7.4%
2014	5.2%	6.2%
2015	4.5%	5.3%
2016	4.1%	4.9%
2017	3.8%	4.4%

Source: Virginia Employment Commission, Economic Information & Analytics, Local Area Unemployment Statistics.

Characteristics of the Insured Unemployed

Top 5 Occupation Groups With Largest Number of Claimants in Virginia
(excludes unknown occupations)

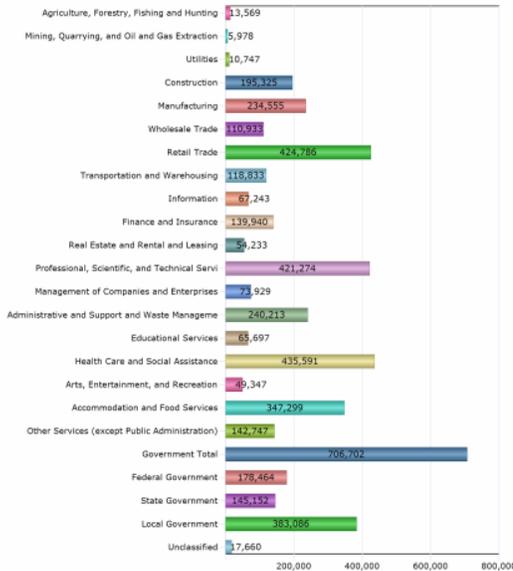


Occupation	Claimants
Office and Administrative Support Occupations	4,448
Management Occupations	2,787
Production Occupations	2,088
Unknown Occupation Code	1,983
Sales and Related Occupations	1,649
Food Preparation and Serving Related Occupations	1,606
Transportation and Material Moving Occupations	1,488
Construction and Extraction Occupations	1,463
Business and Financial Operations Occupations	1,314
Computer and Mathematical Occupations	1,192
Education, Training, and Library Occupations	731
Installation, Maintenance, and Repair Occupations	663
Healthcare Support Occupations	628
Arts, Design, Entertainment, Sports, and Media Occupations	572
Healthcare Practitioners and Technical Occupations	540
Personal Care and Service Occupations	492
Building and Grounds Cleaning and Maintenance Occupations	472
Community and Social Service Occupations	354
Architecture and Engineering Occupations	345
Protective Service Occupations	230
Life, Physical, and Social Science Occupations	174
Legal Occupations	148
Military Specific Occupations	76
Farming, Fishing, and Forestry Occupations	48

Virginia Employment Commission

Page 18 of 46

Employment by Industry



Total: 3,876,600

Note: Asterisk (*) indicates non-disclosable data.

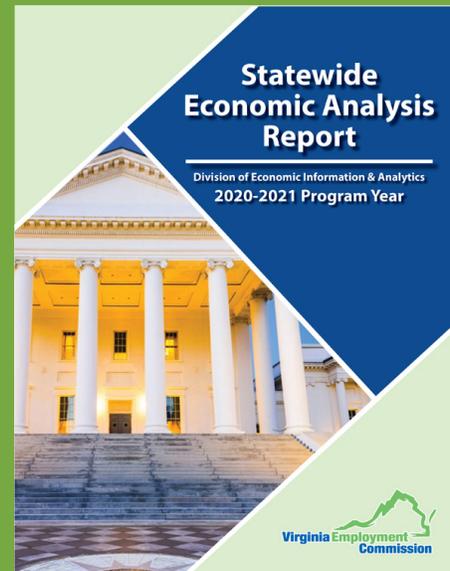
Source: Virginia Employment Commission, Economic Information & Analytics, Quarterly Census of Employment and Wages (QCEW), 4th Quarter (October, November, December) 2017.

LMI Publications

STATEWIDE ECONOMICS ANALYSIS REPORT

The Statewide Economic Analysis (SEA) Report is an annual publication that is meant to serve as a resource for policy makers, researchers, employers, job seekers, and workforce development professionals. The data presented in this report draws from multiple sources including the Economic Information & Analytics' (EIA) labor market information and other economic and demographic data, and provides a detailed look at Virginia's economy, such as: its composition; what drives it; and where it's going. It also gives an overview of regional trends within the state by presenting detailed information on local workforce development area (LWDA) labor markets.

Ultimately, this report is part of an ongoing effort to put labor market information into the hands of those who need it to better understand Virginia's rapidly changing labor market, whether it be a workforce development professional analyzing demographic and claims data to estimate local available labor supply or a school administrator using occupational projections estimates to help prepare students for the high-growth, high-wage jobs of the future.



Part I: Statewide Analysis



The Virginia Economy

Recent Virginia labor market conditions suggest that the economic recovery from the Pandemic continued during the 2020-2021 program year. But as the Commonwealth continued to reopen in 2021, the outlook for Virginia's labor market was roiled by the cross-currents of long-term demographic and technological change and the massive workplace disruption from the Pandemic.

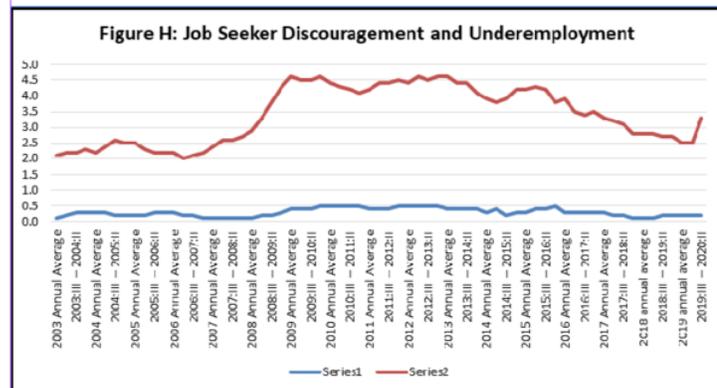
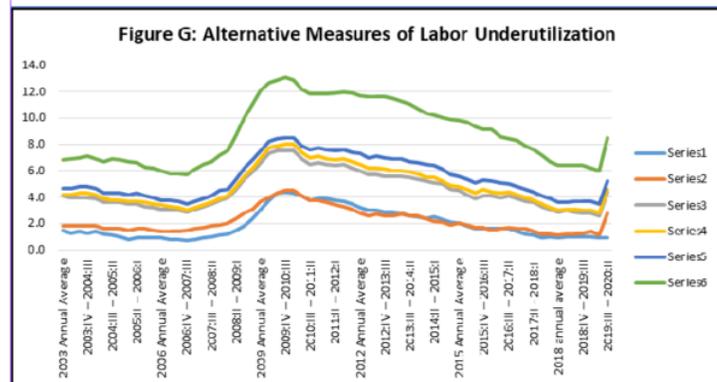
The number of people filing continuing claims for unemployment insurance during the 2020-2021 program year steadily trended downward as filers found jobs, left the labor force, or exhausted benefits. March 2020's historic increase in initial claims showed up in April 2020's equally historic decline in payroll employment, which fell to levels not seen since 2010. In subsequent months, some of those losses were erased but the pace of job recovery moderated during the 2020-2021 program year. From July 2020 to July 2021, payroll establishments in Virginia gained 143,800 jobs, an increase of 3.8%, but not back to pre-Pandemic levels. Helping to offset this, personal income in Virginia increased 54.5 percent at an annual rate in the first quarter of 2021 as economic impact payments associated with the American Rescue Plan Act of 2021 were distributed.

The Pandemic created labor market disequilibrium as employers pulled workers in the midst of declining labor force participation and high rates of job loss. Census survey data, two thirds reported that small businesses had difficulty hiring. Accommodation and food service sector. At the same time, July payroll employment fell to pre-Pandemic levels in the winter of 2020. This dichotomy was evident in the labor market. While Virginia's unemployment rate trended toward pre-Pandemic levels in the winter of 2020, it was nearly four percentage points lower than the national rate. At the same time, an estimated 92,000 Virginians quit their jobs. Nationwide, that figure reached a record 2.8% in April 2021, as nearly four

Those taking part in the reopening economy faced a rapidly changing labor market. Delivery services, no-contact pickup with cashless transactions, and the closure of many American establishments and consumers for years, but their use accelerated. As a result, workers were able to keep operating by instituting these and other changes. As

7

Overall, Virginia's measures of labor underutilization were fairly stagnant prior to COVID-19, but have steeply increased in the past quarter. This suggests that the labor market is currently at a deficit between the supply of and demand for labor. While not at levels seen in the Great Recession this is yet another signal that the labor market is not in balance and there is an abundance of available labor. People are now focusing on regaining employment, whereas before COVID-19 individuals were showing signs of looking for a better job rather than an adequate one.



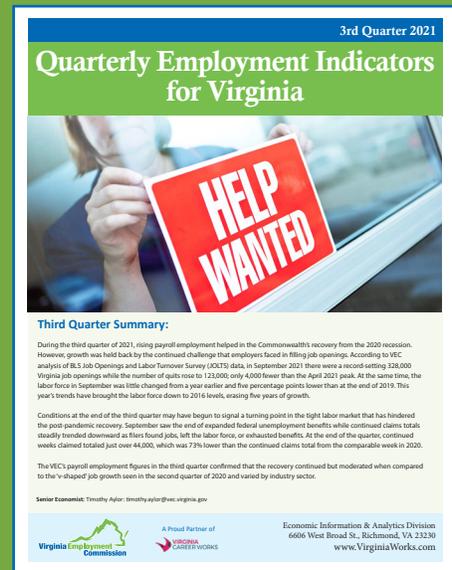
24

LMI Publications

VIRGINIA EMPLOYMENT INDICATORS

For those who are interested in studying the business cycle, the Virginia Economic Indicators quarterly publication is designed to depict the movement of the key economic indicator series readily available in Virginia. They are brought together in both graphic and tabular form, under one cover, and grouped so that they may be analyzed and interpreted easily.

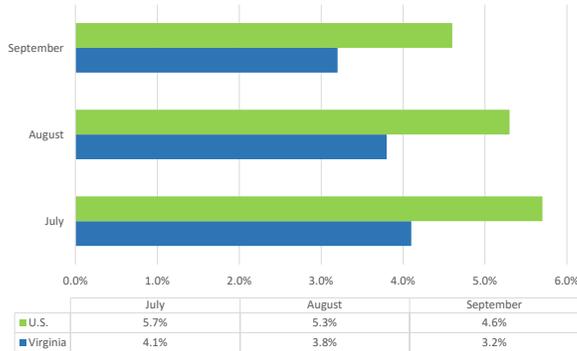
All but one of the series currently used are produced in-house by EIA and are comparable to similar national series produced by the U.S. Department of Labor. All series published in the Indicators have been seasonally adjusted to minimize regular seasonal fluctuations in the data in order to show only activity related to the business cycle. The Virginia Economic Indicators is the only seasonally adjusted publication of some of the Virginia series.



3rd Quarter 2021 Unemployment Virginia vs. U.S.

(Unadjusted)

Unemployment Rates



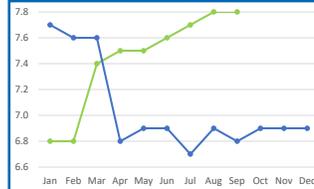
Employment/Unemployment

Month	Virginia		U.S.	
	Employment	Unemployment	Employment	Unemployment
July	4,140,815	174,890	153,596,000	9,221,000
August	4,105,492	161,031	153,232,000	8,556,000
September	4,083,600	135,652	154,026,000	

Source: Virginia Employment Commission, Economic Information & Analytics, Local Area Unemployment Statistics, and Bureau of Labor Statistics.

Quarterly Industry Report

Mining and Logging Employment
(Thousands)



Mining and logging in the state averaged 7,800 jobs per month in the third quarter of 2021, indicating robust growth of 14.2% from the third quarter of 2020. The long-term coal mining job trend in Virginia has been steadily downward from its 1990 peak. But while the industry's long-term outlook is uncertain, the Energy Information Administration expects U.S. coal production to rise by 9% in 2021 and by an additional 6% in 2022. The increase in production reflects more demand and higher prices for coal in the electric power sector because of higher natural gas prices this year compared with last year. Despite the increase in production, growth has not kept pace with rising domestic demand for steam coal in the electric power sector and export growth. Lumber prices have posted double-digit price increases amid strong demand and tight supplies in some areas.

Construction Employment
(Thousands)



Virginia construction employment averaged 208,800 jobs in the third quarter compared to 205,300 in the second quarter—an increase of 1.7% (+3,500 jobs). Housing market indicators showed that conditions were quite strong overall but sharp increases in home prices in many areas may have contributed to deceleration in Virginia residential building permits, as they declined by 14% over-the-quarter and by nearly four percent over-the-year.

Manufacturing Employment
(Thousands)



Virginia manufacturing worker demand held steady during the third quarter, even though finding enough skilled workers remained one of the industry's biggest challenges. Employment in Virginia manufacturing rose slightly by 0.4% (+1,000 jobs) over the quarter to a quarterly average of 238,000 and increased by 2.4% over the year. Fifth District manufacturing activity softened slightly in September, according to a recent survey from the Federal Reserve Bank of Richmond. The composite index declined from 9 in August to -3 in September. The indexes for shipments and new orders fell below 0 for the first time since May 2020, but the third component index—employment—remained positive.

2019 2020 3rd Quarter (Adjusted)

Senior Economist: Timothy Aylor: timothy.aylor@vec.virginia.gov

LMI Publications

VIRGINIA INDUSTRY PROFILES

The Virginia Industry Profiles provide information on the top five industries within Virginia based on employment. Each profile gives a summary of the industry in Virginia, followed by tables and graphs for the industry's establishments, employment, and average weekly wage for the state. The report also provides a table showing the total establishments, employment, and average weekly wage for that industry in each county and city.

The data within the profiles come from the Quarterly Census of Employment and Wages (QCEW) program.

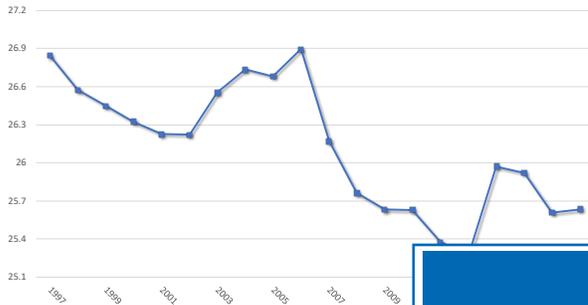




Private Retail Trade Establishments



(Annual Average)
Thousands



Source: Quarterly Census of Employment and Wages

Private Retail Trade Totals for 2018

Area	Establishments	Avg Employment	Avg Weekly Wage
Accomack County	146	1,330	\$429
Albemarle County	328	6,245	\$612
Alexandria city	450	7,491	\$511
Alleghany County	43	299	\$497
Amelia County	24	214	\$452
Amherst County	85	1,102	\$451
Appomattox County	55	642	\$641
Arlington County	534	9,777	\$581
Augusta County	163	2,021	\$339
Bath County	13	56	\$508
Bedford County	201	2,303	\$390
Bland County	16	101	\$541
Botetourt County	80	824	\$471
Bristol city	118	1,526	\$416
Brunswick County	32	271	\$436
Buchanan County	63	684	\$478
Buckingham County	38	284	\$442
Buena Vista city	19	163	\$438
Campbell County	184	2,091	\$840
Caroline County	53	560	\$402
Carroll County	80	794	\$563
Charles City County	11	52	\$499
Charlotte County	34	258	\$310
Charlottesville city	263	3,375	\$533
Chesapeake city	713	15,787	\$502
Chesterfield County	926	18,208	\$451
Clarke County	35	262	\$507
Colonial Heights city	160	3,025	\$509
Covington city	41	538	\$759
Craig County	9	116	\$647
Culpeper County	144	2,237	\$365
Cumberland County	22	162	\$445
Danville city	272	4,041	\$509
Dickenson County	41	354	\$607
Dinwiddie County	50	567	\$485
Emporia city	53	544	\$513
Essex County	58	824	\$595
Fairfax city	150	3,584	\$369
Fairfax County	2,597	54,644	\$471

LMI Publications

TOP FIVE INDUSTRY FACT SHEETS

These two page fact sheets provide an at-a-glance look at the top five industries within the top industries in Virginia based on employment. The front side of the publication gives industry details such as establishments, employment, and average weekly wages. The back side gives samples of potential career paths for the industry, the education needed, and the occupational projections for each of the listed careers.

The data within the profiles come from the Quarterly Census of Employment and Wages (QCEW) program and the Bureau of Labor Statistics.



Top 5 Industries in Retail Trade

	2018 Averages		
	Establishments	Employment	Average Weekly Wage
 NAICS Code 4451 Grocery Stores	2,364	75,256	\$487
 NAICS Code 4529 Other General Merchandise Stores	1,491	59,053	\$518
 NAICS Code 4411 Automobile Dealers	1,351	37,449	\$1,086
 NAICS Code 4521 Department Stores	386	31,264	\$391
 NAICS Code 4471 Gasoline Stations	3,108	28,782	\$417



Sample of Career Paths in Retail Trade

Most jobs in retail trade require a high school degree or equivalent, but some, such as cashier, don't require any formal education or certification. Of course, management type positions will require at least some higher education.



Stock Clerks and Order Fillers



Recommended

Material recording clerks typically need a high school diploma or equivalent. Production, planning, and expediting clerks need to have basic knowledge of computer applications such as spreadsheet software.



Purchasing Managers



Recommended

Purchasing managers usually have at least a bachelor's degree and some work experience in procurement. Educational requirements for buyers and purchasing agents usually vary with the size of the organization.



Sales Managers



Recommended

Most sales managers have a bachelor's degree, although some have a master's degree. Educational requirements are less strict for job candidates who have significant work experience.



Retail Salespersons



Recommended

Usually requires a High School Diploma or GED. Employees in these occupations need anywhere from a few months to one year of working with experienced employees. A recognized apprenticeship program may be associated with these occupations.

Source: Bureau of Labor Statistics: *Occupational Outlook Handbook*

Sample of Occupational Projections in Retail Trade

Due to advancements in technology and the shopping habits of consumers, retail trade is undergoing changes for the future. More people are shopping online which is having an impact on certain subsectors of retail—particularly department and clothing stores. Specialty retail, like grocery stores and car dealerships, are expected to continue employment growth.

The table below shows the long-term industry projections for Multiple Industries in Virginia for the 2016-2026 projection period.

Industry	2016 Estimated Employment	2026 Projected Employment	Percent Change 2016-2016
Stock Clerks and Order Fillers	56,490	61,880	9.5%
Purchasing Managers	2,600	2,860	10.2%
Sales Manager	5,750	6,250	8.9%
Retail Salesperson	123,530	125,560	1.6%

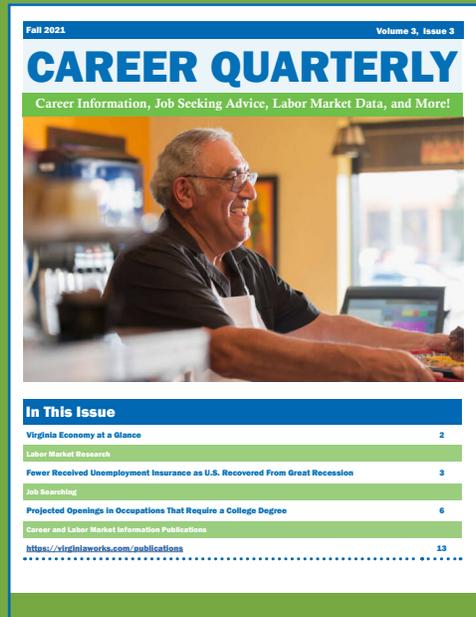
Source: Virginia Employment Commission, Industry and Occupational Projections

For more information, visit www.VirginiaWorks.com or call (804) 786-8824

LMI Publications

VIRGINIA CAREER QUARTERLY

This is a quarterly newsletter that provides articles about occupational activity in Virginia, career planning, job seeker advice, and more.



Virginia's Economy at a Glance

Data Series	Apr 2021	May 2021	June 2021	July 2021	Aug 2021	Sept 2021
Labor Force Data						
Civilian Labor Force ⁽¹⁾	4,225.8	4,230.0	4,233.9	4,241.8	4,248.1	(P)4,244.2
Employment ⁽¹⁾	4,028.5	4,040.8	4,050.1	4,065.6	4,079.7	(P)4,084.4
Unemployment ⁽¹⁾	197.3	189.2	183.8	176.2	168.4	(P)159.8
Unemployment Rate ⁽²⁾	4.7	4.5	4.3	4.2	4.0	(P)3.8
Nonfarm Wage and Salary Employment						
Total Nonfarm ⁽³⁾	3,892.0	3,891.0	3,900.2	3,902.7	3,926.3	(P)3,929.0
12-month % change	7.8	7.1	5.3	3.8	2.5	(P)1.9
Mining and Logging ⁽³⁾	7.5	7.4	7.5	7.7	7.7	(P)7.7
12-month % change	10.3	7.2	10.3	13.2	11.6	(P)13.2
Construction ⁽³⁾	204.7	203.5	204.6	204.8	205.1	(P)204.9
12-month % change	4.2	2.9	3.1	3.1	2.6	(P)1.8
Manufacturing ⁽³⁾	237.4	236.7	236.4	236.6	237.0	(P)239.0
12-month % change	5.6	6.3	4.1	3.0	2.3	(P)2.6
Trade, Transportation, and Utilities ⁽³⁾	657.4	656.9	658.9	656.8	654.6	(P)653.5
12-month % change	11.6	10.2	6.5	4.2	2.8	(P)1.6
Information ⁽³⁾	65.7	63.9	64.6	65.3	65.4	(P)65.7
12-month % change	2.7	0.2	1.3	2.5	1.9	(P)-0.3
Financial Activities ⁽³⁾	205.7	205.4	204.5	202.8	203.8	(P)203.2
12-month % change	-1.2	-1.1	-1.1	-2.3	-2.2	(P)-2.7
Professional & Business Services ⁽³⁾	767.8	770.2	771.5	775.7	771.1	(P)781.0
12-month % change	3.8	3.7	3.9	3.8	2.5	(P)3.1
Education & Health Services ⁽³⁾	531.5	534.7	533.8	531.4	531.7	(P)534.6
12-month % change	7.8	6.3	4.3	2.8	1.9	(P)1.9
Leisure & Hospitality ⁽³⁾	332.4	334.4	332.6	345.2	346.9	(P)344.9
12-month % change	53.3	46.2	26.4	16.5	11.8	(P)5.9
Other Services ⁽³⁾	180.4	180.5	181.5	180.9	185.2	(P)181.5
12-month % change	13.5	10.0	5.9	2.8	3.6	(P)0.6
Government ⁽³⁾	701.5	697.4	704.3	695.5	717.8	(P)713.0
12-month % change	-1.7	-0.3	1.7	1.4	-0.2	(P)0.5

Footnotes

- (1) Number of persons, in thousands, seasonally adjusted.
 (2) In percent, seasonally adjusted.
 (3) Number of jobs, in thousands, seasonally adjusted.
 (P) Preliminary

Source: <https://www.bls.gov/eag/eag.va.htm>

Job Searching



Projected Openings in Occupations That Require a College Degree

Elka Torpey

Which college-level occupations are expected to have many openings in the coming years? What types of career fields are they in? And how much do they pay? Data from the U.S. Bureau of Labor Statistics (BLS) answer these questions.

Each year, BLS projects employment and openings for hundreds of occupations. As part of its analysis, BLS determines the education and experience typically needed for people entering an occupation, along with any postentry training required to attain competency.

About half of the occupations analyzed by BLS typically require some type of college degree: associate's, bachelor's, master's, or doctoral or professional. The occupations cover a range of career fields, including

- ▶ Business, management, and sales
- ▶ Computer and engineering
- ▶ Education, social service, and legal
- ▶ Healthcare
- ▶ Media, arts, and sports

Keep reading to see projections and wage data for selected college-level occupations in each of these career fields. Tables show the degree that is typically required, along with 2020 median annual wages and the number of openings projected each year from 2020 to 2030. (A median wage is the wage at which half of workers in the occupation earned more than that amount, and half earned less. These wage data exclude self-employed workers.)

Compare the wages in the tables with the median annual wage for all occupations in 2020 (\$41,950) and with the median wages for occupations at the associate's (\$55,870), bachelor's (\$78,020), master's (\$76,800), and doctoral or professional (\$110,160) degree levels.

Most of the projected openings in these occupations stem from the need to replace workers who leave permanently, such as for retirement. But some openings are expected to result from newly created jobs.

LMI Publications

LABOR FORCE METRICS AT A GLANCE

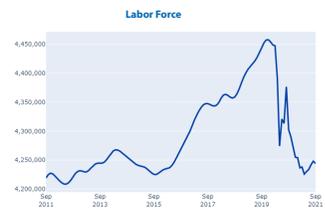
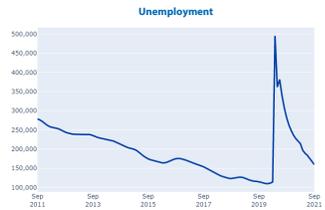
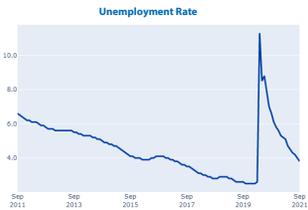
Virginia Labor Force Metrics at a Glance provides a snapshot of the most recent unemployment rate for Virginia and the U.S. as well as a historical graphic representation of Virginia's unemployment rate, labor force, labor force participation rate, employment and unemployment. In addition, a historical graphic representation of Virginia's initial claims, continued claims, average duration, and exhaustion rate along with bullet points for each is also shown.

This one sheet publication is updated monthly.



Virginia Labor Force Metrics at a Glance September 2021 (Seasonally Adjusted)

Virginia Unemployment Rate September 2021 3.8% Employment 4,084,410 Unemployment 159,786	U.S. Unemployment Rate September 2021 4.8% Employment 153,680,000 Unemployment 7,674,000	Virginia Unemployment Rate August 2021 4.0% Employment 4,079,663 Unemployment 168,392
--	--	---



- Virginia's seasonally adjusted unemployment rate fell 0.2 percentage points in September to 3.8 percent, 2.8 percentage points below the rate from one year ago.
- Virginia's seasonally adjusted unemployment rate continues to be below the national rate, which decreased by 0.4 percentage points to 4.8 percent.
- The labor force decreased by 3,859 to 4,244,196, as the number of unemployed residents decreased by 8,606 to 159,786.
- Over the month, employment rose in four of eleven major industry sectors, declined in six and was unchanged in one. The largest job gain during September occurred in professional and business services with an increase of 9,900 jobs to 781,000. The second largest increase occurred in education and health services with a gain of 2,100 jobs to 440,000. The largest job loss during September occurred in local government with a loss of 2,100 jobs to 159,786.

Sources: Virginia Employment Commission, Economic Information & Analytics, Local Area Unemployment Statistics, and Bureau of Labor Statistics.

September 2021 (Not Seasonally Adjusted)

- There were 37,355 initial claims in September.
- Initial claims fell by 25% over the month.
- Year-to-date initial claims were over 59% lower through September 2021 compared to the same period in 2020.

- There were 191,578 continued claims in September 2021.
- This was a 1% decrease over-the-month and a 76% decrease over-the-year.
- Year-to-date continued claims were 76% lower than during the same period in 2020.

- Average duration for September was 9 weeks.
- This was 15% shorter than August's average duration.

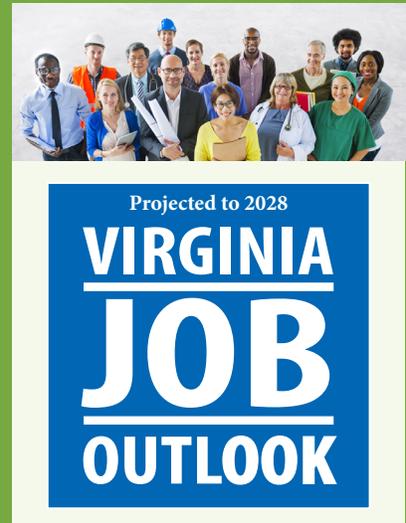
- The exhaustion rate for September 2021 fell to 10.3 percent.
- This was 25 percent lower compared to the August 2021 rate of 13.7 percent – and down significantly from the COVID peak during the summer of 2020. In fact, recent month's exhaustion rates have been lower than pre-COVID historical trends.

* 12-month moving averages which are calculated using U.S. Department of Labor's formula.
 SOURCE: LIA IIS, Virginia Employment Commission, and Economic Information & Analytics.

LMI Publications

VIRGINIA JOB OUTLOOK

The Virginia Job Outlook is a publication that provides occupations projected to have the highest number of openings along with expected salaries broken down by educational attainment. This publication is updated every other year.



Projected to 2028
**VIRGINIA
JOB
OUTLOOK**



Job opportunities in Virginia have slowed, but are still growing.

Total All Occupations in Virginia is projected to grow 6.6 percent by 2028 exceeding the national growth rate of 5.2 percent.

Which jobs are expected to grow or decline in Virginia?

This Job Outlook brochure lists a sampling of high-growth occupations by educational attainment and annual wages projected to 2028 as well as occupations that are projected to decline.

For more information, visit these websites:

- www.onetonline.org/
- www.bls.gov/ooh
- www.VirginiaWorks.com

High-Growth Occupations by Educational Attainment:

Bachelor's Degree	Projected Job Growth to 2028	Median Annual Wage	Associate's Degree, Post Secondary Non-Degree Award, or Some College	Projected Job Growth to 2028	Median Annual Wage	High School Diploma or Equivalent	Projected Job Growth to 2028	Median Annual Wage
Software Developers, Applications	12,169	\$110,550	General and Operations Managers	4,363	\$122,470	Medical Assistants	3,499	\$35,070
Management Analysts	8,901	\$97,500	Construction Managers	973	\$99,480	Managers, All Other	2,453	\$130,600
Market Research Analysts and Marketing Specialists	4,563	\$102,050	Physical Therapist Assistants	751	\$60,530	Business Operations Specialists, All Other	1,945	\$84,280
Computer Systems Analysts	4,360	\$102,050	Dental Hygienists	716	\$81,760	Loan Officers	1,530	\$64,090
Accountants and Auditors	3,309	\$77,320	Veterinary Technologists and Technicians	668	\$43,570	Veterinary Assistants and Laboratory Animal Caretakers	1,351	\$26,820
Operations Research Analysts	2,712	\$103,420	Preschool Teachers, Except Special Education	623	\$33,080	Police and Sheriff's Patrol Officers	1,064	\$54,970
Network and Computer Systems Administrators	2,432	\$88,060	Respiratory Therapists	523	\$61,050	Teacher Assistants	981	\$26,400
Training and Development Specialists	2,029	\$69,670	Electrical and Electronics Engineering Technicians	403	\$70,510	Pharmacy Technicians	932	\$33,210
Medical and Health Services Managers	1,502	\$105,450	Paralegals and Legal Assistants	350	\$48,930	Coaches and Scouts	921	\$38,050
Computer Occupations, All Other	1,383	\$106,000	Occupational Therapy Assistants	314	\$69,740	Security Guards	892	\$34,200
Elementary School Teachers, Except Special Education	989	\$65,520	Diagnostic Medical Sonographers	304	\$76,960	Social and Human Service Assistants	827	\$31,420
Database Administrators	849	\$100,810	Civil Engineering Technicians	125	\$55,400	Food Service Managers	557	\$65,640
Financial Analysts	843	\$90,560	Cardiovascular Technologists and Technicians	105	\$58,860	Physical Therapist Aides	377	\$27,770
Secondary School Teachers, Except Special and Career/Technical	784	\$63,800	Life, Physical, and Social Science Technicians, All Other	93	\$50,720	Administrative Services Managers	288	\$100,050
Civil Engineers	722	\$89,100	Environmental Science and Protection Technicians, Including Health	75	\$43,720	Property, Real Estate, and Community Association Managers	249	\$80,620
Child, Family, and School Social Workers	676	\$48,690	Mechanical Engineering Technicians	47	\$60,750	Opticians, Dispensing	222	\$48,270
Electrical Engineers	670	\$109,310	Agricultural and Food Science Technicians	43	\$41,280	Psychiatric Aides	170	\$29,690
Mental Health and Substance Abuse Social Workers	602	\$48,150	Nuclear Medicine Technologists	40	\$75,440	Appraisers and Assessors of Real Estate	155	\$58,580
Compliance Officers	572	\$73,370	Electro-Mechanical Technicians	37	\$53,070	Medical Equipment Preparers	155	\$35,580
Middle School Teachers, Except Special and Career/Technical	487	\$67,790	Radiation Therapists	36	\$83,010	Protective Service Workers, All Other	148	\$34,010
Marine Engineers and Naval Architects	435	\$88,890	Electrical and Electronics Drafters	27	\$59,730	Tax Preparers	141	\$29,350
Personal Financial Advisors	421	\$91,330	Radio, Cellular, and Tower Equipment Installers and Repairers	23	\$84,280	First-Line Supervisors of Police and Detectives	136	\$85,090
Industrial Engineers	400	\$90,110	Environmental Engineering Technicians	22	\$44,390	Transportation, Storage, and Distribution Managers	82	\$101,780



Occupations That Are Declining:

Jobs That Are Declining	Projected Decline to 2028	Median Annual Wage
Assemblers and Fabricators	-2,498	\$31,460
Executive Secretaries and Executive Administrative Assistant	-2,382	\$64,030
Office Clerks, General	-2,283	\$33,350
Inspectors, Testers, Sorters, Samplers, and Weighers	-1,975	\$40,400
Postal Service Mail Carriers	-1,722	\$48,120
Cashiers	-1,711	\$21,890
Sales Representatives, Wholesale and Manufacturing	-1,610	\$62,430
Bookkeeping, Accounting, and Auditing Clerks	-1,461	\$41,740
Retail Salespersons	-1,430	\$24,210
Financial Clerks	-1,382	\$37,470
Textile, Apparel, and Furnishings Workers	-1,249	\$34,740
Cooks, Fast Food	-998	\$19,770
Telemarketers	-939	\$28,360
Corrections Officers and Jailers	-872	\$38,210
Buyers and Purchasing Agents	-852	\$76,450
Data Entry Keyers	-744	\$34,670
Printing Press Operators	-572	\$37,840
Bill and Account Collectors	-462	\$41,530
Tellers	-459	\$32,440

Industries in Virginia with the Largest Growth in Employment Projected to 2028

Industries	Projected Employment to 2028
Health Care and Social Assistance	76,140
Professional, Scientific, and Technical Services	70,347
Accommodation and Food Services	36,544
Construction	22,156
Administrative and Support Services	14,173
Educational Services	12,135
Finance and Insurance	12,072

*Note: Median annual wage is based on Bureau of Labor Statistics (BLS) Occupational Employment Statistics (OES) for Virginia, May 2019.

Sources for the brochure:
 O*Net Online Occupational Profile.
 Virginia Employment Commission, Long-term Industry and Occupational Employment Projections, 2018-2028.
 Bureau of Labor Statistics (BLS) Occupational Employment Statistics (OES) wage data 2019.

For information, contact:
 Virginia Employment Commission
 Economic Information & Analytics Division
(804) 786-3976
 VRC/TDD VA Relay 711
www.VirginiaWorks.com

Career Information

VIRGINIA OCCUPATIONAL CAREER RESOURCE GUIDE

The Virginia Occupational Career Resource Guide is produced to assist any person who is looking for information to aid them in researching and finding a new career. Information is provided on a variety of career choices, how to plan for a career, education needed to qualify for various jobs, how to apply and interview for jobs, and much more.





Table of Content

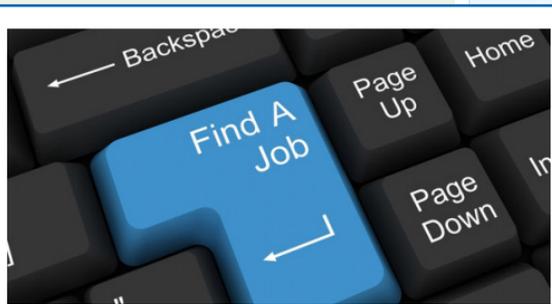
- 1** Introduction
- 3** Career Planning and Education
 - What Defines a Career.....4
 - Career Clusters.....5
 - Occupational Growth Trends.....8
 - Wages and Salaries.....
 - Education.....
- 15** Overview of Virginia Occupations
- 25** Starting Your Career
 - Job Searching.....
 - Applying for Jobs.....
 - Job Interview.....
- 34** Resources

Arts, Audio/Video Technology, and Communications					
Occupation	Employment Trend		Median Annual Salary (2016)		Most Common Education/ Training Level
	VA	US	VA	US	
Art, Drama, and Music Teachers, Postsecondary	↗↗↗	↗↗↗	\$57,590	\$68,650	Master's Degree
Audio and Video Equipment Technicians	↗↗↗	↗↗↗	\$40,260	\$42,230	Associate's Degree/Certification/OTI
Broadcast Technicians	↗↗↗	↗↗↗	\$43,800	\$38,550	Associate's Degree/Certification/OTI
Film and Video Editors	↗↗↗	↗↗↗	\$55,850	\$62,760	Associate's Degree/Certification/OTI
Graphic Designers	↗↗↗	↗↗↗	\$52,470	\$47,640	Bachelor's Degree
Librarians	↗↗↗	↗↗↗	\$62,910	\$57,880	Master's Degree
Multimedia Artists and Animators	↗↗↗	↗↗↗	\$68,120	\$65,300	Bachelor's Degree
Speech-Language Pathologists	↗↗↗	↗↗↗	\$82,180	\$74,680	Master's Degree
Video Game Designers	↗↗↗	↗↗↗	\$101,330	\$86,510	Bachelor's Degree
Web Developers	↗↗↗	↗↗↗	\$79,400	\$66,130	Associate's Degree/Certification/OTI

Source: <https://www.onetonline.org/find?quickfind=arts%2C+audio+technology+and+communication>

Business, Management, and Administration					
Occupation	Employment Trend		Median Annual Salary (2016)		Most Common Education/ Training Level
	VA	US	VA	US	
Business and Financial Operations	↗↗↗	↗↗↗	\$94,870	\$96,050	Associate's Degree/Certification/OTI
Performing Arts, Music, and Related Occupations	↗↗↗	↗↗↗	\$75,760	\$62,080	Bachelor's Degree
Arts and Design Occupations	↗↗↗	↗↗↗	\$79,730	\$69,040	Bachelor's Degree
All Other	↗↗↗	↗↗↗	\$79,730	\$69,040	Associate's Degree/Certification/OTI
Management Occupations	↗↗↗	↗↗↗	\$208,000	\$181,210	Master's Degree
Business Operations	↗↗↗	↗↗↗	\$136,430	\$121,750	Bachelor's Degree
Business and Financial Operations	↗↗↗	↗↗↗	\$67,640	\$59,180	Bachelor's Degree
Business and Financial Operations	↗↗↗	↗↗↗	\$95,320	\$81,330	Master's Degree
Business and Financial Operations	↗↗↗	↗↗↗	\$31,300	\$30,580	High School Diploma or Equivalent
Business and Financial Operations	↗↗↗	↗↗↗	\$44,260	\$42,390	High School Diploma or Equivalent

Source: <https://www.onetonline.org/find?quickfind=business+management+and+administration>



Job Searching

The most common way people used to search for jobs was through the Classified section of their local newspaper or word-of-mouth. That has changed over the years. Today, you can still find job openings in the local newspaper, but there are now more resources available to the job seeker—the Internet, job fairs, and career services.

Online Job Search

The Internet has become a powerful tool for the job seeker. There are multiple job posting sites such as wwwIndeed.com and wwwMonster.com, sites that link to state and federal government jobs; and company websites that list their own job openings.

On many of these sites, you can upload your résumé, search by criteria such as location and type of job, and apply for a job opening.

Popular Job Search Sites

CareerBuilder (<http://www.careerbuilder.com/>)
 CareerBuilder is one of the biggest job boards, and its robust search function allows you to filter by several criteria, including location, degree required and pay range. CareerBuilder partners with news media around the country and collects job listings from them. It also provides career advice and resources for candidates.

Indeed (<https://www.indeed.com/>)

A huge aggregator of postings from across the Web, this site consolidates listings from many job boards in one place. It also compiles information from various company career pages and allows you to search locally or globally.

Job.com (<http://www.jobs.com/>)

This large site offers weekly job alerts, job search advice, a résumé builder, and job postings. This job search website also allows you to upload your résumé for hiring managers and recruiters to search.

TheLadders (<https://www.theladders.com/>)

This site focuses on job openings for upper-level executives and professionals who are aiming for the management suite. Not for entry-level jobs.

LinkedIn (<https://www.linkedin.com/>)

This top networking site enables you to find jobs through your extended network. Additionally, you can create a work experience profile, join groups, participate in conversations and follow companies you find interesting and relevant to your job search.

Glassdoor (<https://www.glassdoor.com/index.htm>)

Job search website Glassdoor boasts a large database of company reviews—submitted by employees. Glassdoor promotes itself as giving job seekers insights into a

Career Information

JOB SEARCHING TIPS - 5 STEPS TO A SUCCESSFUL JOB SEARCH

Job Searching Tips - 5 Steps to a Successful Job Search is a quick reference brochure with the five most common tips for a successful job search. It also includes a pocket résumé that can be cut and filled out for later use in your job search.



STEP 1 - JOB SEARCH

The Internet has become a powerful tool for today's job seeker. The **Virginia Workforce Connection** (<https://www.vawc.virginia.gov/vosnet/Default.aspx>) is Virginia's online source to connect with potential employers, search for jobs, find training opportunities, and research wage data along with industry and occupational trends.

To search job openings for state and federal government jobs, go to **Jobs.Virginia.gov** (<http://jobs.virginia.gov/>) and **USAJobs** (<https://www.usajobs.gov/>)

Job and career fairs are opportunities for a job seeker to talk with multiple job recruiters and companies who are hiring. These fairs are often hosted by companies, industries (such as the hotel and restaurant industry), community colleges, or state employment agencies. Job and Career fairs give the job seeker an opportunity to network, make positive first impressions, and learn about companies and what it's like to work for them. Check the **Virginia Employment Commission's website** at: <http://www.vec.virginia.gov/find-a-job> for job fair announcements around the state.

The Classifieds section of your local newspaper has job listings. The newspaper's online site also has a classified section with job listings.

STEP 2 - RESUME

If you want to be considered for a job opening, writing or updating a résumé is very important these days because your résumé is going to be reviewed by *software* as well as a hiring manager.

Valuable tips for writing a résumé:

- Review Résumé samples.
- Choose a résumé type or use a résumé template.
- Use keywords that directly target the jobs you are interested in.
- Proof your résumé.

STEP 3 - APPLYING

Applying Online. In today's job market, most job applications are submitted online. When filling out an online application is to follow the instructions. If the listing says send a cover letter, don't follow the instructions. If the listing says send a cover document.

Applying in Person. Although most professional jobs are applied for online, some jobs require applications in person, such as retail and hospitality jobs. Be sure to bring a copy of your application, and take time to fill out the application correctly. (It's best to have a copy of your application written down ahead of time so you can use it as reference when you apply for that purpose.)

Some employers may have hiring kiosks instead of paper applications on site.

STEP 4 - INTERVIEW

Interviews are your chance to promote your skills and abilities. Interviews also give you a chance to find out if the job and company are right for you.

Interview Tips:

- **Review and practice answering common interview questions** such as your strengths, work flexibility, leadership skills, ability to learn new things, and ability to solve problems.
- **Make a list of questions you might have about the job** such as job responsibilities, what equipment or computer programs might be used for the job, and is there a possibility for future promotion.
- **Be prepared** by bringing extra copies of your résumé, letters of recommendation, and certification letters or licenses that are applicable to the job for which you are applying.
- **Arrive early** to the interview. Be sure to plan ahead for travel time and parking.
- **Dress appropriately** for the job you are applying for.
- **Turn off** your cell phone.
- **Shake hands** before and after the interview.
- **Give honest and direct answers.** Be sure to smile and make eye contact.

STEP 5 - FOLLOW-UP

Follow up with an email a week or so after you've submitted your materials to check on the status of your application. If you don't hear back soon after applying, follow up, and if you still don't get a response, forget it. Don't feel bad if you don't get a response.

If you had applied in person, stopping back in to check on the status of your application will show that you are really interested in the job.

If you had an interview, send a thank you email the day after your interview. Just like following up on an application, if you don't hear back in a week or two, send an email asking if the position you had interviewed for has been filled.

Don't sit and wait. While you are waiting to hear back from a job interview, continue looking and applying for jobs just in case you don't get offered the job.

POCKET RESUME

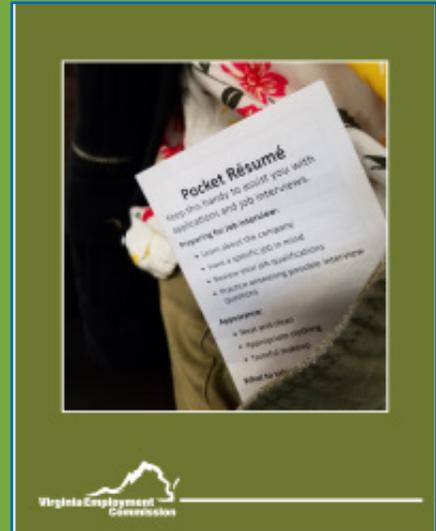
Fill out this form and keep it to assist you with applications and job interviews.

EDUCATION	
School	
Address	
Major/Diploma/Degree	
Dates Attended	
School	
Address	
Major/Diploma/Degree	
Dates Attended	
PREVIOUS EMPLOYMENT	
Employer	
Address	
Phone	
Job Title	
Dates of Employment	
Employer	
Address	
Phone	
Job Title	
Dates of Employment	
REFERENCES	
Name	
Relationship	
Address	
Phone	
Email	
Name	
Relationship	
Address	
Phone	
Email	
OTHER SKILLS (example: computer, trade, military service, etc.)	

Career Information

POCKET RESUME

The Pocket Resume is a PDF form that can be filled out with a job seeker's education, work history, and references, that they can print, cut, and fold to fit in a pocket, purse, or wallet. This is a handy resource that can be quickly referenced when filling out a job application or preparing for a job interview.



The actual interview:

- Be prompt.
- Unless the interviewer asks your name, introduce yourself politely.
- Shake hand briefly, but firmly.
- Answer questions directly and honestly.
- Be polite, professional, and cooperative.
- Ask questions and show enthusiasm.
- Thank the interviewer(s) for their time.

Skills and abilities:

Leadership/Teamwork/Awards:

Possible Interview Questions:

- Tell me about yourself?
- Why are you interested in the job?
- Why are you the best candidate?
- What are your strengths/weaknesses?
- How has your education/training/experience prepared you for this job?
- When are you available to work?

Questions to ask:

- How is a typical work day?
- Can this job lead to other opportunities?
- What skills are most important for this position?
- When can I expect to hear from you?
- Can I contact you by phone or email?

Follow-up:

- Write a thank you email within 24 hours of interview.

Pocket Résumé

Keep this handy to assist you with applications and job interviews.

Preparing for Job Interviews:

- Learn about the company.
- Have a specific job in mind.
- Review your job qualifications.
- Practice answering possible interview questions.

Appearance:

- Neat and clean.
- Appropriate clothing.
- Tasteful makeup.

What to take with you:

- This pocket résumé.
- Small pad and pen.
- Sample of your work if applicable.



The actual interview:

- Be prompt.
- Unless the interviewer asks your name, introduce yourself politely.
- Shake hand briefly, but firmly.
- Answer questions directly and honestly.
- Be polite, professional, and cooperative.
- Ask questions and show enthusiasm.
- Thank the interviewer(s) for their time.

Skills and abilities:

Leadership/Teamwork/Awards:

Possible Interview Questions:

- Tell me about yourself?
- Why are you interested in the job?
- Why are you the best candidate?
- What are your strengths/weaknesses?
- How has your education/training/experience prepared you for this job?
- When are you available to work?

Questions to ask:

- How is a typical work day?
- Can this job lead to other opportunities?
- What skills are most important for this position?
- When can I expect to hear from you?
- Can I contact you by phone or email?

Follow-up:

- Write a thank you email within 24 hours of interview.

Pocket Résumé

Keep this handy to assist you with applications and job interviews.

Preparing for Job Interviews:

- Learn about the company.
- Have a specific job in mind.
- Review your job qualifications.
- Practice answering possible interview questions.

Appearance:

- Neat and clean.

Name: (Last) _____ (First) _____ (MI) _____ Email: _____

Address: (Street) _____ (City) _____ (State) _____ (Zip) _____

Phone: (Home) _____ (Cell) _____

Education

Level of Education	Name & Location of School	From (Mo./Year)	To (Mo./Year)	Major/Certification/Degree
High School				
College				
Trade/Business School				
Other Training				

Experience (Paid work experience, internships, volunteer, etc.)

Company Name & Address	Dates (Mo./Year)	Position/Salary	Supervisor	Phone No.	Reason for Leaving

References

Name	Address	Phone number	Relationship to you

Name: (Last) _____ (First) _____ (MI) _____ Email: _____

Address: (Street) _____ (City) _____ (State) _____ (Zip) _____

Phone: (Home) _____ (Cell) _____

Education

Level of Education	Name & Location of School	From (Mo./Year)	To (Mo./Year)	Major/Certification/Degree
High School				
College				
Trade/Business School				
Other Training				

Experience (Paid work experience, internships, volunteer, etc.)

Company Name & Address	Dates (Mo./Year)	Position/Salary	Supervisor	Phone No.	Reason for Leaving

References

Name	Address	Phone number	Relationship to you

Career Information

INTERVIEW SKILLS POSTER

The Interview Skills Poster gives helpful tips for preparing for interviews. It is 11" x 17" (tabloid) and can be downloaded and printed by anyone, but it is designed especially for use by career counselors and workforce centers.



JOB INTERVIEW
Tips

FIRST IMPRESSIONS MAKE A STATEMENT

- Dress appropriately.
- Look neat and clean.
- Be enthusiastic.
- Be polite and show respect.
- Be on time.

BE PREPARED

- Bring your résumé and references; a notepad and pen; a list of questions to ask about the job and/or company; and a sample of your work (if applicable).
- Learn as much about the company as possible. The more you know about the company, the more you show your interest in working for them.

KNOW YOURSELF, THEN SELL YOURSELF

- Be prepared to discuss your strengths and weaknesses.
- Present your weaknesses as positive attributes.
- Talk about your accomplishments, skills, and abilities and how they can be applied to the job.

FOLLOW UP

- Follow up your interview the same day (or the next day) with a thank-you note or email! Let them know you are interested in the job.

Virginia Employment Commission www.Virginiaworks.com

The information on this poster is provided by the U.S. Department of Labor, Employment and Training Administration. For more information, visit the U.S. Department of Labor.



JOB INTERVIEW *Tips*

FIRST IMPRESSIONS MAKE A STATEMENT

- Dress appropriately.
- Look neat and clean.
- Be enthusiastic.
- Be polite and show respect.
- Be on time.



BE PREPARED

- Bring your résumé and references; a notepad and pen; a list of questions to ask about the job and/or company; and a sample of your work (if applicable).
- Learn as much about the company as possible. The more you know about the company, the more you show your interest in working for them.

KNOW YOURSELF, THEN SELL YOURSELF

- Be prepared to discuss your strengths and weaknesses.
- Present your weaknesses as positive attributes.
- Talk about your accomplishments, skills, and abilities and how they can be applied to the job.

FOLLOW UP

- Follow up your interview the same day (or the next day) with a thank-you note or email! Let them know you are interested in the job.



www.Virginiaworks.com

This workforce product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration, but does not necessarily reflect the official position of the U.S. Department of Labor.

1/2016-400

Career Information

STEM FLYER

The STEM flyer provides labor market information on occupations in the fields of Science, Technology, Engineering, and Mathematics (STEM). It has been designed as a career aid particularly for students who might be considering a career in a STEM field.

STEM
Occupations in Virginia

STEM jobs in Virginia are growing at a steady rate. Between 2017 and 2027, STEM jobs are projected to grow:

- 9%**
- 8% Computing
- 1% Engineering
- 10% Advanced Manufacturing

STEM earnings are high in Virginia. Median annual earnings for STEM jobs in Virginia:

\$86,528

Median annual earnings for other jobs in Virginia:

\$42,099

Sources: Education Commission of the States: <http://statesignals.org/notes/virginia/element>; Economic Modeling Specialists International, April 2017.

	Science	Atmospheric Scientist; Biochemist; Chemist; Conservation Scientist; Geneticist; Hydrologist; Life Scientist; Microbiologist; Physicist
	Technology	Business Intelligence Developer; Cyber Security Analyst; Computer Game Designer; Network Administrator; User Interface Developer
	Engineering	Aerospace Engineer; Architectural Engineer; Chemical Engineer; Electrical Engineer; Industrial Engineer; Nanosystems Engineers; Robotics Engineer
	Mathematics	Biostatistician; Cartographer; Economist; Mathematician; Statistician; Survey Researcher; Transportation Planner

STEM Occupations in Virginia

STEM jobs in Virginia are growing at a steady rate.

Between 2017 and 2027, STEM jobs are projected to grow:

9%

8% Computing
1% Engineering

10% Advanced Manufacturing

STEM earnings are high in Virginia.

Median annual earnings for STEM jobs in Virginia:

\$86,528

Median annual earnings for other jobs in Virginia:

\$42,099

Sources: Education Commission of the States: <http://vitalstats.ecs.org/state/virginia/demand>; Economic Modeling Specialists International, April 2017.



Science

Atmospheric Scientist; Biochemist; Chemist; Conservation Scientist; Geneticist; Hydrologist; Life Scientist; Microbiologist; Physicist



Technology

Business Intelligence Developer; Cyber Security Analyst; Computer Game Designer; Network Administrator; User Interface Developer



Engineering

Aerospace Engineer; Architectural Engineer; Chemical Engineer; Electrical Engineer; Industrial Engineer; Nanosystems Engineers; Robotics Engineer



Mathematics

Biostatistician; Cartographer; Economist; Mathematician; Statistician; Survey Researcher; Transportation Planner

Top 5 High Growth STEM Occupations in Virginia to 2026 by Major Occupational Group

Architecture and Engineering (Total Projected Job Growth - 7,211)

Occupation	2026 Projected Job Growth	2017 Annual Median Wage	Minimum Education
Civil Engineers	969	\$85,300	Bachelor's degree
Mechanical Engineers	738	\$92,870	Bachelor's degree
Electrical Engineers	772	\$100,170	Bachelor's degree
Electrical and Electronic Engineering Technicians	553	\$68,190	Associate's degree
Electronics Engineers, Except Computer	417	\$111,340	Bachelor's degree

High Growth STEM-Related Occupations in Virginia to 2026 by Major Occupational Group

Management (Total Projected Job Growth - 23,836)

Occupation	2026 Projected Job Growth	2017 Annual Median Wage	Minimum Education
Computer and Information Systems Managers	1,947	\$160,950	Bachelor's degree
Medical and Health Services Managers	1,834	\$100,780	Bachelor's degree
Architectural and Engineering Managers	353	\$145,920	Bachelor's degree
Natural Sciences Managers	152	\$123,240	Bachelor's degree

Education, Training, and Library (Total Projected Job Growth - 30,957)

Occupation	2026 Projected Job Growth	2017 Annual Median Wage	Minimum Education
Mathematical Science Teachers, Postsecondary	243	\$58,450	Master's/Doctoral degree
Nursing Instructors and Teachers, Postsecondary	454	\$67,700	Master's/Doctoral degree
Biological Science Teachers, Postsecondary	332	\$66,950	Master's/Doctoral degree
Computer Science Teachers, Postsecondary	162	\$67,500	Master's/Doctoral degree
Psychology Teachers, Postsecondary	206	\$67,940	Master's/Doctoral degree

Sources: Virginia Employment Commission, Occupational Employment Projections, 2016-2026; Virginia Employment Commission, Occupational Employment Statistics (OES) Survey; O*NET™ - The Occupational Information Network. O*NET is a registered trademark of the US Department of Labor/ Employment and Training Administration.

For More Information on STEM Occupations:

- STEM Data for Virginia - <http://vitalstats.ecs.org/state/virginia/demand>
- Article - <https://www.bls.gov/spotlight/2017/science-technology-engineering-and-mathematics-stem-occupations-past-present-and-future/home.htm>
- Graphs - STEMistics: <http://ecs.force.com/studies/rviewstemL?faq=a080g000019815f>; <http://ecs.force.com/studies/rviewstemL?faq=a080g000019815p>
- Article - <http://ideastations.org/science-matters/hot-shots/hot-jobs/what-are-hot-stem-jobs-virginia>
- Data - <https://data.virginialmi.com> (Labor Market Data/Occupations)

Mathematical (Total Projected Job Growth - 37,426)

Occupation	2026 Projected Job Growth	2017 Annual Median Wage	Minimum Education
Mathematicians	11,710	\$106,500	Bachelor's degree
Operations Research Analysts	3,537	\$96,450	Bachelor's degree
Software Engineers, Systems Software	3,731	\$119,430	Bachelor's degree
Support Specialists	2,672	\$53,090	Postsecondary
Computer Systems Administrators	2,114	\$89,990	Bachelor's degree

Practitioners and Technical (Total Projected Job Growth - 37,035)

Occupation	2026 Projected Job Growth	2017 Annual Median Wage	Minimum Education
Software Developers, Applications	9,341	\$66,060	Associate's degree
Software Engineers, Applications	7,861	\$26,590	Postsecondary Certificate
Registered Nurses and Licensed Vocational Nurses	3,794	\$42,310	Postsecondary Certificate
Software Engineers, Software Testers	5,926	\$21,770	Less than High School
Software Engineers, Systems Software	4,352	\$32,260	High School or equivalent

Healthcare and Social Science (Total Projected Job Growth - 4,194)

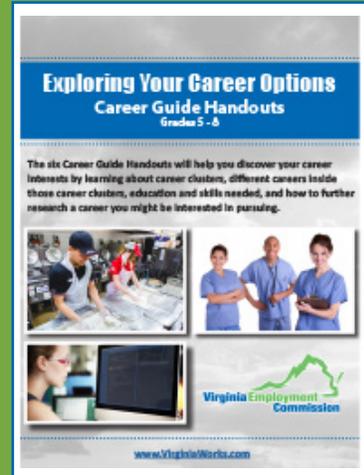
Occupation	2026 Projected Job Growth	2017 Annual Median Wage	Minimum Education
Healthcare and School Psychologists	562	\$75,530	Doctoral/Professional degree
Scientists and Specialists, Including	335	\$71,040	Bachelor's degree
Software Engineers, Systems Software	268	\$40,700	Bachelor's degree
Software Engineers, Software Testers	60	\$93,300	Bachelor's degree
Healthcare and Social Science Planners	182	\$71,090	Master's degree



Career Information

EXPLORING YOUR CAREER OPTIONS: CAREER GUIDE HANDOUTS

The six Career Guide Handouts will help students discover their career interests by learning about career clusters, different careers inside those career clusters, education and skills needed, and how to further research a career they might be interested in pursuing. These Handouts are designed especially for students in grades 5 - 8.





Exploring Your Career Options Career Guide Handout

#1: Career Clusters

Clusters are groups of things that share similarities to each other in some way. For example: apples, pears, and oranges are all *fruits*; New York, Chicago, Richmond, and Orlando, are all *cities*; and cats, bears, dogs, and horses are all *animals*. A **career cluster** is a grouping of occupations and broad industries that all have things in common. Every Career and Technical Education class falls into one of 16 "career clusters."

1. Agriculture, Food, and Natural Resources
2. Architecture and Construction
3. Arts, Audio/Visual Technology, and Communications
4. Business, Management, and Administration
5. Education and Training
6. Finance
7. Government and Public Administration
8. Health Science
9. Hospitality and Tourism
10. Human Services
11. Information Technology
12. Law, Public Safety, Corrections, and Security
13. Manufacturing
14. Marketing, Sales, and Services
15. Science, Technology, Engineering, and Mathematics
16. Transportation, Distribution, and Logistics

Within each cluster, there are cluster "pathways" that correspond to a collection of courses and opportunities to prepare you for a given career.

The 16 clusters were established at the national level by the *States' Career Clusters Initiative* a recognizable across the United States in middle schools, high schools, community and technical schools, and the workforce.

By figuring out your interests and finding out what career cluster those interests fall in can help you figure down what sort of career you might be interested in perusing. A job can be hard work and not fun, but you will enjoy your job more and get satisfaction from your work if it is something that interests you.

1



Exploring Your Career Options Career Guide Handout

#6: Researching Careers

There are plenty of resources available for you to further research a career on your own. You can:

- ▶ Interview your parents, teachers, or family friends to find out first-hand what their jobs are like.
- ▶ Attend Career Day at your school.
- ▶ Spend a day shadowing your parent or other adult at their job.
- ▶ Visit your local or school library to find books or magazines about different careers.
- ▶ Search the web for online career information.

Websites You Can Visit for More Career Information:

<https://www.virginiaLMI.com>

<https://www.bls.gov/k12/>

<http://www.vaview.org/>

<https://www.careerkids.com/careers>

<https://www.knowitall.org/series/kids-work>

<https://www.sciencebuddies.org/science-engineering-careers>

Preparing for the Future

High School—Freshman Year

When you start your freshman year of high school, be sure to:

- ▶ Meet with your counselor to discuss your college plans and review your class schedule for appropriate classes.
- ▶ Start a calendar with important dates and deadlines.
- ▶ Get involved in extracurricular activities.
- ▶ Start preparing for the PSAT test.



1



Exploring Your Career Options Career Guide Handout

#4: Learning Job Skills

Summers are a great time for you to earn some extra money and gain some job skills that will help put your résumé ahead of the rest when applying for "real" jobs in high school. You can learn time management, dependability, people skills, communication and marketing skills, self-confidence, and money management (in addition to earning money!).

Identifying Potential Summer Jobs for Middle School Students

It is difficult to find a job at such a young age. But, here are some steps to go through to help you identify areas in which you may be able to earn some extra money:

1. Think about the jobs performed around your own house each day (or week).



- ▶ Who waters the lawn and patio plants?
- ▶ Who mows the lawn and sweeps the patios?
- ▶ Who washes the car(s)?
- ▶ Who takes care of the kids who are out of school for the summer?
- ▶ Who walks and feeds the dog? Makes dinner for the family?
- ▶ Who sorts the mail or takes out the recycling?

All of these are potential summer job ideas. You could work for relatives, neighbors, and friends who are going on vacation or working outside the home while their children are home for the summer. Make any additions to this list here:

2. Observe what you see others doing, such as neighbors or family friends. Would they invite a middle school student to help them? Add your observations here:

1

Career Information

WHAT I WANT TO DO WHEN I GROW UP? ELEMENTARY CAREER ACTIVITY BOOKLET

This publication is designed to help young students get a very basic understanding of occupations and careers by correlating their interests with various occupations. Most of these activity sheets are for grades 1 and 2, but a few activity sheets are advanced enough for grade 3. You can print out and use all the worksheets, or just the ones that are best suited to the age and skill level of the students/child. (Grades 1-3)



Things I Like to Do

(Put an X in each box next to the things you like to do.)

- Play sports
- Build things
- Plant flowers and vegetables
- Take care of my pet
- Read
- Do math
- Sing
- Play music
- Draw or paint
- Play video games
- Cook
- Exploring
- Camping and hiking
- Science
- Playing dress up



Can you guess the job?



What does a Gardener do?



What does a News Caster do?

PRESS RELEASES AND REPORTS

The various LMI research papers and reports provide data sets that are outside the Bureau of Labor Statistics core program products. These reports and research papers—developed and written by LMI staff—cover LMI-relevant articles such as the “gig economy” in Virginia and studying the impact of underemployment in Virginia’s job market.

A few samples:

- *The Virginia Snapshot which gives a quick “snapshot” of Virginia’s employment and unemployment rates.*
- *Virginia BLS Job Openings and Labor Turnover Survey (JOLTS) data provides information on all pieces that go into the overall change in payroll employment in the commonwealth.*
- *An Understanding of Alternative Measures of Labor Underutilization*





Summary Analysis of Virginia 2018 and 2017 Benchmark Revisions of Nonagricultural Employment and Unemployment

(Data is Not Seasonally Adjusted.)

- Virginia nonfarm employment gained 44,800 jobs, or 1.1 percent, in 2018—
- All ten of the metropolitan areas added jobs—
- Jobless rate averaged 3.0 percent in 2018, compared to 3.7 percent in 2017—

The annual benchmark revision of employment estimates from the Current Employment Statistics to the Quarterly Census of Employment and Wages raised Virginia's nonfarm employment estimate in 2017 by 0.1 percent and lowered it in 2018 by 0.2 percent; and as a result, nonfarm employment growth was revised downward in 2018 from 1.4 percent to 1.1 percent. For Virginia, the 2017 average nonfarm employment was revised upward by 4,800 jobs to 3,955,800, and the 2018 average nonfarm employment was revised downward by 6,600 jobs to 4,000,600. With these revisions, average nonfarm employment posted a job gain of 41,300, or 1.1 percent, in 2017 and a job gain of 44,800, or 1.1 percent, in 2018. The nation experienced nonfarm employment growth of 1.6 percent in 2017 and 1.7 percent in 2018.

The benchmark revision represents a once-a-year realignment, based on March data, of sample-based employment estimates to universe counts of employment derived primarily from Unemployment Insurance tax records. For Virginia, the March 2018 total nonfarm employment estimate was revised upward by 10,000 jobs, or 0.3 percent, compared to the national March sample-based downward revision of -16,000 jobs, or less than -0.05 percent. In Virginia, six industrial sectors experienced upward revisions to their March 2018 employment level, while the other five experienced downward revisions. The six industrial sectors that experienced upward revisions were: professional and business services (+11,000 jobs); total government (+5,900 jobs); private education and health services (+4,500 jobs); leisure and hospitality (+2,300 jobs); information (+400 jobs); and finance (+100 jobs). The five industrial sectors that experienced downward revisions were: miscellaneous services (-5,300 jobs); construction (-4,300 jobs); trade and transportation (-3,200 jobs); manufacturing (-1,200 jobs); and mining (-200 jobs).



For more information or
(804



Timothy O. Kestner
Director

Post Office Box 1358
703 East Main Street
Richmond, Virginia 23218-1358

Labor Supply and Demand in Virginia: A Dynamic Approach to Understanding the Labor Force First Quarter 2018

By Paul Daniels

Virginia Employment Commission, Division of Economic Information & Analytics

*Note: Unless otherwise noticed, all figures and tables are produced from data provided by the Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics program. Data on the Alternative Measures of Labor Underutilization can be obtained at the following website: <https://www.bls.gov/lau/stati.htm>. Previous versions of this report can be found under the title "Alternative Measures of Labor Underutilization."

Current Supply and Demand in Virginia

The most recent four quarter average for the alternative measures of labor underutilization ends with the first quarter of 2018. As evidenced in **Table I**, every measure decreased from the previous average. While U-1 and U-3 had modest decreases of 0.1 percentage point, the decline in other measures was slightly more substantial with U-6 dropping by 0.3 percentage point. Looking at over-the-year changes, all measures are again markedly down with U-6 again having the greatest transformation with a 1.0 percentage point decline from the same point last year.

As U-6 represents the broadest definition of labor underutilization, its continued strong decline is a powerful indicator that the demand for workers is working towards parity with the excess supply left over from the last recession. Remember that U-6 contains not only traditionally unemployed, but those who are not working full-time, but desire and have the ability to. With all measures declining, it is safe to say that the number of job losers, long-term unemployed, and traditionally unemployed are decreasing. One concern is that these individuals are returning to work but at fewer hours than before. However, the large declines in U-6 suggest that this group is, in all likelihood, finding full-time employment once again.

Nationally, Virginia has once again out-performed the country with every measure below the current national average. It is one of 25 states (including Washington DC) to have all measures at or below the national average; one of nine states east of the Mississippi¹; one of four states in the southeast region of the United States²; and has only one neighboring state³ (Tennessee) that meets this designation. As suggested by the traditional unemployment rate, Virginia regionally has one of the best labor utilizing economies, which is impressive for a state so heavily reliant on government funding, particularly in a time when funding remains an uncertain and politically volatile topic.

¹ There are 26 states east of the Mississippi River.

² The 12 states used for comparison are in the Southeast region as designated by the Bureau of Economic Analysis; Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia and West Virginia.

³ Four states and the District of Columbia neighbor Virginia.

LMI Website & Social Media

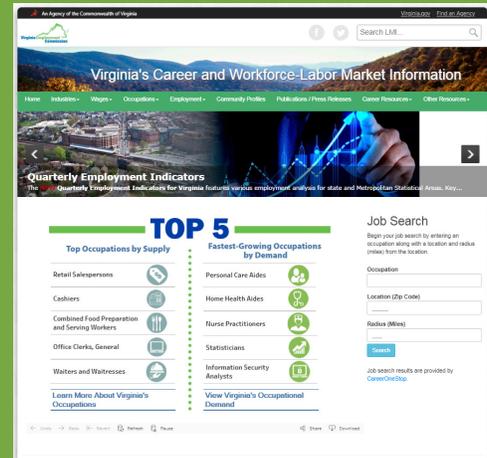
VIRGINIA LMI WEBSITE

All the publications and reports featured in this guide are available for viewing and download from www.Virginiaaworks.com, EIA's labor market-dedicated website.

Along with the publications, the website provides access to multiple databases for: Labor Force Data; Industry Data; Occupational Data; Industry and Occupational Projections; and more.

There is also a section of the website dedicated to providing labor force data, such as Unemployment Rates by LWDAs, Labor Force Participation Rates, and Historical and Forecasted Employment and Wages, for the 15 Local Workforce Development Areas (LWDAs).

As new and/or updated LMI publications become available, announcements of availability are posted on our [LMI Facebook](#) page and [LMI Twitter](#) account.



f t in Search LMI

Virginia's Career and Workforce

Labor Market Information

Home Industries Wages Occupations Employment Community Profiles Publications/Press Releases Career Resources Other Resources

Publications

This workforce product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the recipient and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

This product is copyrighted by the institution that created it. Internal use by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.

Career Information

Job Search Tips - 5 Steps to a Successful Job Search

August 2021
A brochure that provides useful tips for each of the five steps of a successful job search: searching for job openings; tips for resumes; applying online and in-person; interviewing; and follow-up.

What Do I Want to Do When I Grow Up? - Elementary School Level Career Activity Worksheets

September 2019
NEW Publication
This publication is designed to help young students get a very basic understanding of occupations and careers by correlating their interests with various occupations. Most of these worksheets are for grades 1 and 2, but a few worksheets are advanced enough for grade 3. You can print out and use all the worksheets, or just the ones you think are best suited to the age and skill level of your student/child. (Grades 1-3)

Career Quarterly Newsletter

April 2019
The Career Quarterly Newsletter provides articles about occupational activity in Virginia, career planning, job seeker advice, and more.

Virginia Occupational Career Resource Guide - 2nd Edition

October 2018
UPDATED 2nd EDITION
The Virginia Occupational Career Resource Guide is produced by the Virginia Employment Commission to assist students and any other persons who are looking for information to aid them in researching and finding a new career. Information is provided on a variety of career choices, how to plan for a career, education needed to qualify for various jobs, how to apply and interview for jobs, and much more. (The 2nd edition has been updated to include the 2016-2026 occupational projections and the latest wage data from May 2018.)

Pocket Resume

October 2018
The Pocket Resume is a PDF form you can fill out with your education, work history, and references, print, out and fold. This is a handy resource that you can quickly reference when filling out a job application or preparing for a job interview.

Exploring Your Career Options - Career Guide Handouts

October 2018
The six Career Guide Handouts will help you discover your career interests by learning about career clusters, different careers inside those career clusters, education and skills needed, and how to further research a career you might be interested in pursuing. These handouts are designed especially for students in grades 5 - 8. **UPDATED (8/19) with latest wage data.**

f VEC Economic Information & Analytics

Linda Home

Page Inbox Notifications 17 Insights Publishing Tools Promotions



VEC Economic Information & Analytics
@VirginiaLMI

Liked Following Share

VEC Economic Information & Analytics
Published by Linda Simmons [?] · July 17 at 11:21 AM

The Top 5 Industry Fact Sheets are now available with updated data:
<https://data.virginialmi.com/gsipub/index.asp?docid=605>

These fact sheets provide a quick at-a-glance look at the top five industries in Virginia based on employment. The front side provides industry data with number of establishments, employment, and average weekly wages. The backside provides a sample of possible career paths in that industry as well as occupational projections for those careers.

The data within the profiles come from the Quarterly Census of Employment and Wages (QCEW) program and the Bureau of Labor Statistics.

Industry	Establishments	Employment	Weekly Wages
1	6,489	146,324	1,373
2	6,454	118,000	1,284
3	3,522	44,947	1,012
4	724	15,511	1,028
5	1,022	12,791	1,014

DATA.VIRGINIALMI.COM
VirginiaLMI.com - Top Five Industries Fact Sheet

Virginia Employment Commission
Labor Market & Analytics Division

Tweets 499 Following 14 Followers 597 Likes 5 Follow

VEC
@VirginiaLMI
Official Labor Market Information (LMI) news provided by the Virginia Employment Commission.
Richmond, VA
VirginiaLMI.com
Joined July 2009
Photos and videos

Tweets Tweets & replies Media

VEC @VirginiaLMI · Jul 20
The June 2018 statewide unemployment rate is now online. Local rates will be available on August 1st. vec.virginia.gov/node/9513

VEC @VirginiaLMI · Jul 20
The Unemployment Insurance Duration and Exhaustion Rates for June 2018 is now available: data.virginialmi.com/gsipub/index.a...

VEC @VirginiaLMI · Jul 17
The Top 5 Industry Fact Sheets are now available with updated data: data.virginialmi.com/gsipub/index.a...