



JOBS e Q

Perkins V Report

Strengthening Career & Technical Education

in Arlington County, Virginia



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About this Report

The education industry supplies human capital to all industries. This report takes a macroeconomic view of the industries and the occupations that currently underpin the Arlington County, Virginia economy. Knowing what skills and occupations local employers need now and in the future will help the education community better anticipate curriculum that prepares students for those job openings.

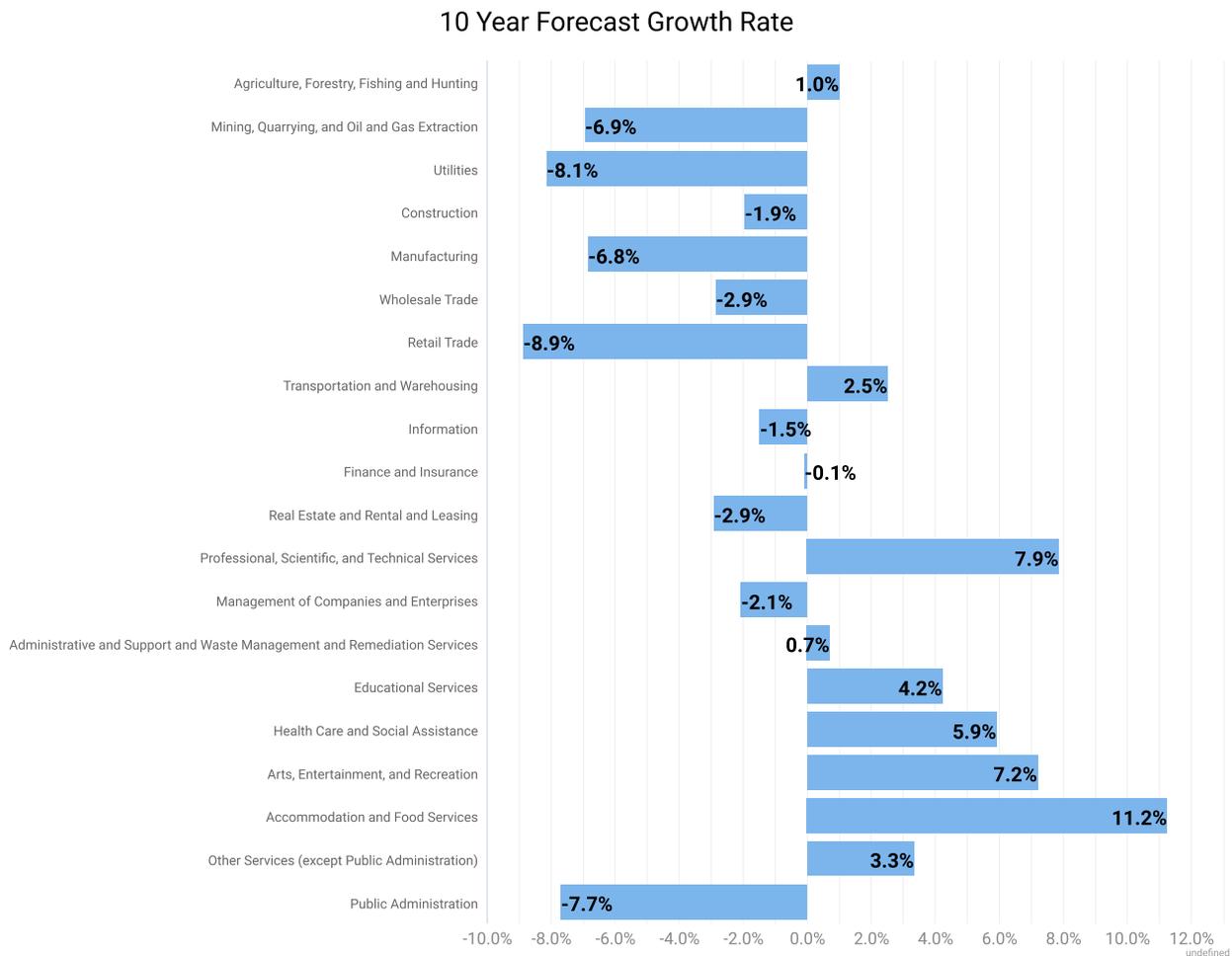
This report is designed to help educators who want to move beyond compliance and use Perkins V to make a real difference in their students' education. It provides actionable labor market intelligence—one of the Comprehensive Local Needs Assessment's (CLNA's) six requirements to bridge secondary education students to skilled jobs that employers need in Arlington County, Virginia.

Industry Growth Forecasts

To help high school students select careers, educators can show them the earnings potential and the job opportunities across all industries today and in the future.

Employers can be categorized into one of 20 major industry sectors. The chart below shows the net job growth forecast for these sectors in Arlington County, Virginia.

As of the fourth quarter of 2022, Arlington County, Virginia had 9 sectors forecast to have positive employment growth over the next ten years and 11 sectors projected to contract. Those growing include "Accommodation and Food Services," "Professional, Scientific, and Technical Services" and "Arts, Entertainment, and Recreation."



Industry Forecasts Including Retirement Demand

For an accurate assessment of future demand, the number of people retiring from an industry need to be taken into account. From that perspective, the "Professional, Scientific, and Technical Services," "Accommodation and Food Services" and "Public Administration" sectors are expected to have the highest annual job demand in Arlington County, Virginia.

Sector	Employment	Avg Ann Wages	Ann Empl Growth	Ann Total Demand
Professional, Scientific, and Technical Services	51,421	\$145,810	391	5,022
Accommodation and Food Services	13,180	\$35,930	141	2,449
Public Administration	26,459	\$133,169	-211	2,413
Other Services (except Public Administration)	12,279	\$92,125	41	1,525
Transportation and Warehousing	11,265	\$97,702	28	1,380
Health Care and Social Assistance	11,241	\$76,198	65	1,223
Retail Trade	9,162	\$41,202	-85	1,207
Educational Services	10,308	\$63,651	43	1,060
Administrative and Support and Waste Management and Remediation Services	8,199	\$60,097	6	999
Arts, Entertainment, and Recreation	3,959	\$33,791	28	617
Information	6,050	\$144,202	-9	581
Finance and Insurance	6,071	\$195,872	0	570
Real Estate and Rental and Leasing	3,250	\$91,422	-10	327
Management of Companies and Enterprises	3,055	\$245,204	-6	282
Construction	2,942	\$90,222	-6	282
Wholesale Trade	1,465	\$163,348	-4	158
Manufacturing	805	\$124,428	-6	82
Utilities	616	\$285,165	-5	54
Agriculture, Forestry, Fishing and Hunting	13	\$53,792	0	2
Mining, Quarrying, and Oil and Gas Extraction	3	\$314,990	0	0
Total - All Industries	182,146	\$110,360	434	21,450

Detailed Industry Projections

Total employment in Arlington County, Virginia is forecast to increase 2.4% over the next ten years, compared with an expected growth rate of 5.5% in the nation over the same period.

At the detailed industry level, "Computer Systems Design and Related Services" and "Management, Scientific, and Technical Consulting Services" are expected to experience the most job gains over this period.

Industry	Employment	Avg Ann Wages	Hist 10yr Change	Proj 10yr Growth
Computer Systems Design and Related Services	18,086	\$154,502	5,915	2,650
Management, Scientific, and Technical Consulting Services	16,087	\$152,990	3,490	1,328
Restaurants and Other Eating Places	9,940	\$31,920	-609	1,017
Traveler Accommodation	2,276	\$51,242	-1,954	416
Scheduled Air Transportation	7,513	\$122,678	770	266
Other Schools and Instruction	1,057	\$38,322	-118	263
Individual and Family Services	935	\$68,033	-6	247
Scientific Research and Development Services	4,214	\$131,053	638	207
Other Personal Services	1,051	\$37,818	36	200
Other Professional, Scientific, and Technical Services	1,963	\$107,297	456	166

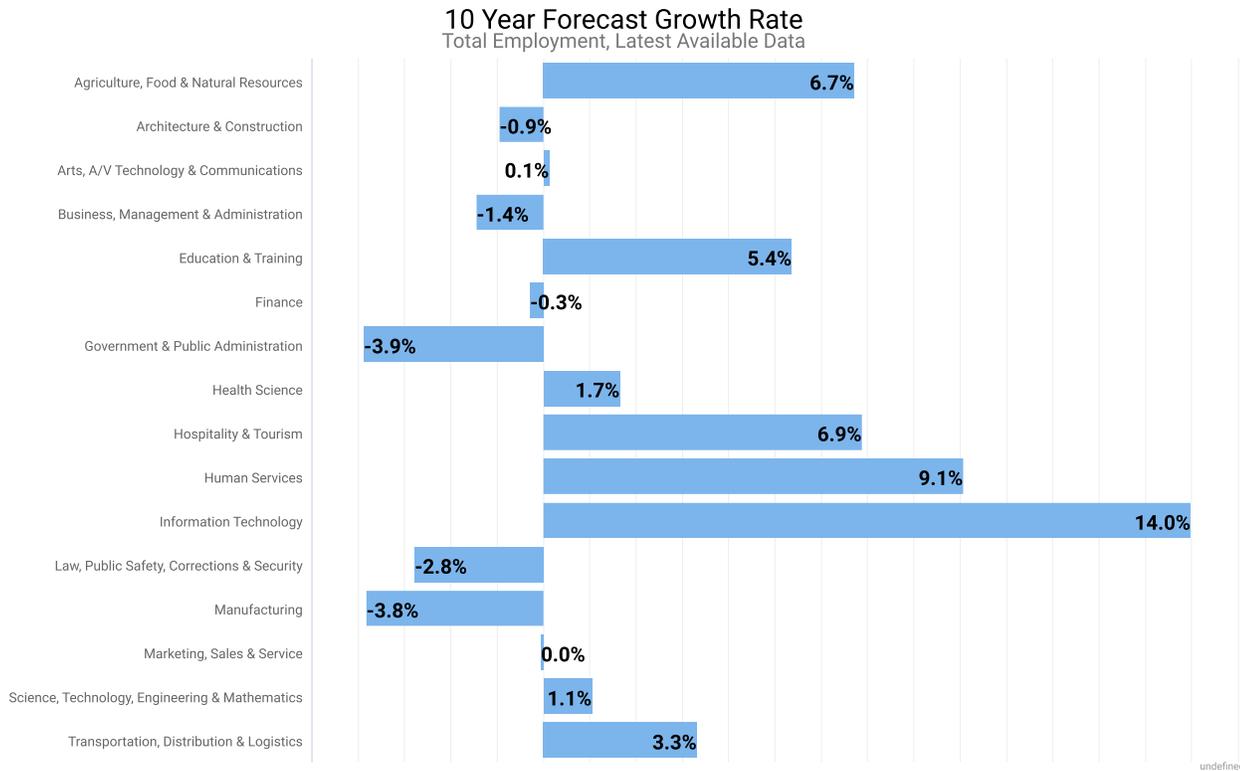
"National Security and International Affairs " and "Newspaper, Periodical, Book, and Directory Publishers" are projected to have the largest job declines in the region over the next ten years.

Industry	Employment	Avg Ann Wages	Hist 10yr Change	Proj 10yr Growth
National Security and International Affairs	15,946	\$138,618	-21	-1,285
Newspaper, Periodical, Book, and Directory Publishers	1,754	\$136,776	295	-427
Justice, Public Order, and Safety Activities	5,856	\$132,417	771	-418
Grocery and Convenience Retailers	3,296	\$38,849	1,289	-364
Administration of Economic Programs	3,356	\$118,003	-2,765	-260
Business, Professional, Labor, Political, and Similar Organizations	4,518	\$140,636	855	-207
Architectural, Engineering, and Related Services	4,848	\$128,476	-1,051	-163
Accounting, Tax Preparation, Bookkeeping, and Payroll Services	4,049	\$143,416	3,594	-154
Services to Buildings and Dwellings	3,041	\$27,146	87	-104
Health and Personal Care Retailers	763	\$41,758	77	-82

Career Cluster Growth Forecasts

With hundreds of occupations, it can be difficult for educators to pinpoint the most promising high-demand and high-wage occupations in their region that provide rewarding careers for their students. Analysis of the sixteen CTE Clusters provides an entryway into career pathways.

Of the sixteen career clusters, nine are expected to expand employment in Arlington County, Virginia over the next ten years. Of those nine, "Science, Technology, Engineering & Mathematics," "Information Technology" and "Health Science" pay more than the average occupation wage in the region (\$92,100).



Career Cluster Forecasts Including Retirement Demand

Similar to the analysis of industry employment growth, an accurate assessment of future occupation demand requires that the number of people retiring be taken into account as shown in the table below. In Arlington County, Virginia, "Business, Management & Administration," "Hospitality & Tourism" and "Marketing, Sales & Service" clusters are expected to have the highest annual job demand.

"Science, Technology, Engineering & Mathematics" has the highest wages of the CTE Clusters followed by the "Information Technology" and "Finance" clusters.

Career Cluster	Employment	Avg Ann Wages	Job Ads	Ann Empl Growth	Ann Total Demand
Science, Technology, Engineering & Mathematics	6,489	\$135,700	1,069	7	491
Information Technology	17,444	\$130,300	3,463	230	1,496
Finance	10,280	\$111,300	949	-3	871
Law, Public Safety, Corrections & Security	7,689	\$103,600	558	-22	742
Business, Management & Administration	45,003	\$101,700	5,166	-65	4,570
Health Science	10,539	\$101,200	1,873	17	847
Government & Public Administration	2,737	\$93,500	176	-11	237
Arts, A/V Technology & Communications	3,558	\$91,200	318	0	361
Transportation, Distribution & Logistics	12,245	\$88,900	342	40	1,534
Education & Training	8,413	\$84,200	528	44	848
Marketing, Sales & Service	15,731	\$82,700	1,540	-1	1,880
Architecture & Construction	6,080	\$76,900	335	-6	569
Agriculture, Food & Natural Resources	1,771	\$74,700	70	12	249
Manufacturing	6,713	\$72,300	359	-26	658
Human Services	6,590	\$59,000	637	57	929
Hospitality & Tourism	20,864	\$42,200	1,542	139	3,755
Total - All Occupations	182,146	\$92,100	18,923	434	20,056

Detailed Occupation Projections

There are over 800 defined occupations at the detailed level. Among those occupations that support a living wage, "Software Developers" and "Management Analysts" are expected to add the most jobs over the next ten years in Arlington County, Virginia.

Occupation	Employment	Avg Ann Wages	Job Ads	Hist 10yr Change	Proj 10yr Growth
Software Developers	6,224	\$148,600	708	6,152	1,357
Management Analysts	6,679	\$123,100	800	305	504
Information Security Analysts	1,254	\$143,100	538	669	400
Market Research Analysts and Marketing Specialists	2,039	\$94,400	78	908	311
Flight Attendants	1,815	\$55,800	1	254	289
General and Operations Managers	4,906	\$163,000	72	1,424	189
Software Quality Assurance Analysts and Testers	844	\$118,200	73	836	186
Computer User Support Specialists	1,725	\$73,800	560	384	164
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	2,285	\$102,100	228	734	139
First-Line Supervisors of Food Preparation and Serving Workers	1,138	\$51,900	225	112	132

Of occupations supporting a living wage, "Office Clerks, General" and "Secretaries and Administrative Assistants, Except Legal, Medical, and Executive" are projected to have the largest decline in employment over the next ten years.

Occupation	Employment	Avg Ann Wages	Job Ads	Hist 10yr Change	Proj 10yr Growth
Office Clerks, General	3,251	\$52,300	42	-766	-278
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	1,658	\$55,100	327	-201	-214
Bookkeeping, Accounting, and Auditing Clerks	2,223	\$60,900	48	-10	-184
Executive Secretaries and Executive Administrative Assistants	664	\$86,900	121	-1,334	-148
Business Operations Specialists, All Other	4,154	\$109,100	709	1,592	-123
First-Line Supervisors of Office and Administrative Support Workers	1,813	\$84,000	166	25	-111
Purchasing Agents, Except Wholesale, Retail, and Farm Products	743	\$98,100	25	-54	-96
First-Line Supervisors of Retail Sales Workers	850	\$64,500	234	-151	-75
Claims Adjusters, Examiners, and Investigators	440	\$88,400	12	-77	-72
Registered Nurses	2,558	\$99,400	346	52	-65

Top Employers Advertising for Jobs

This table identifies the twenty employers in Arlington County, Virginia with the most online job ads over the last year for occupations that support a living wage. These employers should be considered candidates for stakeholder engagement groups.

Employer Name	Employers		Active Job Ads	% of Total	
	Active Job Ads	% of Total			
Amazon.com Services LLC	2,584	3.3%			
Deloitte	2,531	3.3%			
Virginia Hospital Center	1,653	2.1%			
Booz Allen	1,375	1.8%			
SAIC	1,098	1.4%			
Accenture	760	1.0%			
Amazon Web Services, Inc.	612	0.8%			
Leidos	601	0.8%			
Amazon Corporate LLC	598	0.8%			
Motion Recruitment	588	0.8%			
Arlington County	573	0.7%			
Allied universal	508	0.7%			
Boeing	500	0.6%			
Peraton	485	0.6%			
Grant Thornton LLP	478	0.6%			
Amazon Dev Center U.S., Inc.	445	0.6%			
General Dynamics Information Technology, Inc.,	419	0.5%			
Gartner, Inc.	418	0.5%			
Amentum	413	0.5%			
Nestlé USA	365	0.5%			

Top Skills in Demand for Job Ads

Below are the top 10 hard and soft required by employers in online job ads over the last year for occupations which support a living wage within Arlington County, Virginia.

Hard Skills

Skill Name	Active Job Ads	
Microsoft Excel	13,199	
Microsoft Office	11,718	
Microsoft PowerPoint	7,408	
Agile	6,601	
Amazon Web Services (AWS)	6,057	
Structured Query Language (SQL)	5,128	
Python	5,114	
Computer Programming/Coding	4,552	
JavaScript	4,549	
Microsoft Word	4,468	

Soft Skills

Skill Name	Active Job Ads	
Communication (Verbal and written skills)	44,790	
Cooperative/Team Player	29,862	
Problem Solving	13,491	
Analytical	13,254	
Organization	11,838	
Detail Oriented/Meticulous	11,771	
Project Management	11,736	
Self-Motivated/Ability to Work Independently/Self Leadership	11,202	
Supervision/Management	10,877	
Interpersonal Relationships/Maintain Relationships	9,715	

Top Skill and Certification Gaps

Below are the top 10 skill and certification gaps (supply shortfalls) among occupations which support a living wage within Arlington County, Virginia. These data are based on online resumes and job ads that reflect local supply and demand.

Top 10 Skill Gaps in Arlington County, Virginia

Name	Candidates	Openings	Gap
Microsoft Office	1,384	1,554	-170
Amazon Web Services (AWS)	407	557	-150
Microsoft Outlook	506	610	-104
Microsoft Word	599	693	-94
Microsoft SharePoint	307	378	-71
Mathematics	284	351	-67
HVAC Systems	70	136	-66
Linux	158	218	-59
Cash Handling (Cashier)	47	105	-59
Plumbing	139	192	-53

Top 10 Certification Gaps in Arlington County, Virginia

Name	Candidates	Openings	Gap
Secret Clearance	330	624	-294
Commercial Driver's License (CDL)	5	47	-43
Certified Program Evaluator (CPE)	1	21	-21
AED Essentials	3	19	-16
OSHA 30	3	17	-14
Licensed Practical Nurse (LPN)	13	25	-12
Certified Regulatory Compliance Manager (CRCM)	0	11	-11
Emergency Medical Technician (EMT)	5	15	-10
Class B Commercial Driver's License (CDL-B)	0	10	-9
Cisco Certified Network Associate (CCNA)	22	32	-9

Regional Colleges and Universities

For students interested in advanced degrees, the list below provides the largest postsecondary schools within Arlington County, Virginia. The schools are sorted by enrollment size.

School	Certificates and 2yr Awards	4yr Awards	Total School Enrollment	Avg Net Price
Strayer University-Virginia	186	694	4,797	\$20,047
Marymount University	0	580	3,294	\$26,717
University of Management and Technology	37	250	295	\$11,075
DeVry University-Virginia	0	41	188	\$17,203
Kenny's Beauty Academy	10	0	8	\$11,948
Total	233	1,565	8,582	n/a

Arlington County, Virginia Regional Map



Data Notes

- Industry employment and wages (including total regional employment and wages) are as of 2022Q4 and are based upon Bureau of Labor Statistics (BLS) QCEW data, imputed by Chmura where necessary, and supplemented by additional sources including non-covered employment such as self-employed. Employment forecasts are modeled by Chmura and are consistent with BLS national-level 10-year forecasts.
- Occupation employment is as of 2022Q4 and is based on industry employment and local staffing patterns calculated by Chmura and utilizing BLS Occupation Employment and Wage Statistics (OEWS) data. Wages by occupation are as of 2022Q4, utilizing BLS OEWS data, imputed and brought forward by Chmura. Occupation employment forecasts are modeled by Chmura and are consistent with BLS national-level 10-year forecasts.
- Job ads data are online job posts from the Real-Time Intelligence (RTI) data set, produced wholly by Chmura and gleaned from over 40,000 websites. Data reflect ads active during the last twelve month period ending 04/26/2023 and advertised for any Zip Code Tabulation Area in or intersecting with the region for which this report was produced.
- For skill and certification gaps, openings and candidates are based upon regional occupation demand (growth plus separations) and the percent of skill demand and supply. Skill demand mix data are per a one-year sample of RTI data; skill supply data are estimated using a five-year sample of resumes data; both data sets compiled as of August 2021. Data may be based, at least in part, on data from broader geographies; see the Skill Gaps analytic export for more details.
- Postsecondary are per the National Center for Education Statistics. Awards and enrollment are for the 2020-2021 academic year and average net price data are for the 2020-2021 academic year.
- Figures may not sum due to rounding.

FAQs

How are industries and occupations defined?

Industries are defined via the North American Industry Classification System (NAICS). “Sectors” in this report represent 2-digit NAICS codes and industries in the “Industry Analysis” section of this report represent 4-digit NAICS codes. Occupations are defined via the Standard Occupational Classification System (SOC). Occupations in the “Occupation Analysis” section of this report represent 6-digit SOC codes. “CTE Clusters” are collections of 6-digit SOC occupations as defined through the National Career Clusters® Framework.

How is “Ann Total Demand” defined?

Annual total employment demand is forecast job demand that includes job needs due to growth, exits (such as retirements), and transfers (individuals moving from one career into another).

What is the Living Wage used in this report?

The living wage in the United States is \$24.16 per hour in 2021, before taxes for a family of four (two working adults, two children) - MIT Living Wage Calculator.