

Virginia CTE students succeed in school.

2013 graduates

Standard Diploma: 48%

Advanced Studies Diploma: 48%

Other Award: 4% Students who complete a state-approved sequence of CTE courses have a **track record of success** in school and after graduation.

Virginia CTE students succeed after graduation.

2012 graduates, one year later

Enrolled in Post-Secondary School: 66%

Employed Full-Time: 15%

Employed Part-Time: 8% CTE students are **more motivated** because of their courses' **connection to the real world** and, as a result, are **less likely to drop out**.

Out of Labor Force: 4%

Unemployed: 6%

Military: 4%

Note: Due to rounding, percentages do not total 100%.

Over the years, CTE has evolved to match the needs of the changing economy. CTE programs provide the skills training that **addresses the needs of high-growth industries**, such as health care, renewable energy, and STEM fields.

With appropriate policy support and funding, CTE programs can prepare students to leverage the academic, technical, and employability skills they learn in school to help **build and sustain our economy**.



The Virginia Association for Career and Technical Education provides leadership in developing an educated, prepared, adaptable and competitive workforce. Membership consists of educators, business partners, parents, administrators and others committed to expanding opportunities for Career and Technical Education.

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<http://www.vacte.net>

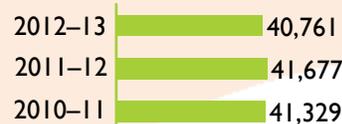
Additional career data resources:

1. Rephann, T.J. (2013). "The Economic Impacts of Agriculture and Forest Industries in Virginia." Weldon Cooper Center for Public Service, University of Virginia.
2. Viloro, Dennis. (2014). "Working for the federal government: Part 1." Retrieved from <http://www.bls.gov/careeroutlook/2014/article/federal-work-part-1.htm>.
3. U.S. Travel Association. (2014). "The Economic Impact of Domestic Travel on Virginia Counties 2013." Retrieved from <https://www.vatc.org/uploadedFiles/Research/2013EconomicImpactofDomesticTravelonVirginiaandLocalities.pdf>.



Career and Technical Education (CTE) enrollment continues to rise. In 2012–13, **576,454 students enrolled** in one or more CTE courses, and **approximately 46% of high school graduates** had completed two or more CTE courses, becoming "completers."

Virginia Completers



CTE students earned more than **103,000 industry credentials** in 2013–14.

Industry Credentials Earned



In 2013–14, 28,349 (71%) of 39,705 CTE students passed the **Workplace Readiness Skills for the Commonwealth** examination with an average score of 76.96.

In 2013–14, 99 of 132 school divisions and 9 of 10 regional technical centers reported CTE students enrolled in **dual-credit courses**, in which students earn college credit.



Virginia's **23 Governor's STEM Academies** and **9 Governor's Health Sciences Academies** expand options for the general student population to acquire Science, Technology, Engineering, and Mathematics literacy and other critical skills, knowledge, and credentials that prepare them for **high-demand, high-wage, and high-skill careers**.

Education data source: Career and Technical Education Reporting System (CTERS), Virginia Department of Education

Virginia Career and Technical Education courses prepare students for college and careers in every Career Cluster.



Learn more about Career Clusters at <http://www.careertech.org/>.

Agriculture, Food & Natural Resources



- Agriculture is among Virginia's largest industries, with recent studies showing an economic impact around \$70 billion.¹
- Agriculture and forestry industries together account for more than 414,700 jobs in Virginia.¹
- Nationally, environmental science and veterinary assistant careers are expected to grow by 18 percent and 41 percent, respectively, by 2022.

Architecture & Construction

- The employment of architects is expected to grow by 16 percent between 2012 and 2022.
- Rising energy costs and environmental concerns may result in increased demand for architects and construction workers with knowledge of green building and sustainability design.
- The construction industry is projected to account for about 222,500 jobs across Virginia by 2022.



Arts, Audio/Video Technology & Communications



- By 2022, most Virginia job openings in this cluster should be for graphic designers, telecom line and equipment technicians, printing press operators, and writers and authors.
- Employment of dancers and choreographers is projected to grow by 16 percent between 2012 and 2022.
- Journalism and broadcasting occupations will have the greatest number of job openings between 2012 and 2022.

Business Management & Administration

- Business Management & Administration in Virginia is expected to grow to approximately 894,300 employees by 2022.
- Fastest growth will be for agents and business managers of artists, performers, and athletes; operations research analysts; and meeting, convention, and event planners.
- Human Resources Management and Business Information Management are the fastest growing pathways.



Education & Training



- The Education & Training cluster is projected to grow to approximately 276,600 jobs across Virginia by 2022.
- Eighty-three percent of jobs will be in the Teaching and Training pathway.
- Opportunities beyond K-12 education include teaching at the college level and being an adult literacy and GED instructor.

Finance

- Estimates predict about 149,900 Virginians will be employed in this cluster by 2022, a 10-percent increase from 2012.
- Accounting should be the largest Finance pathway in Virginia by 2022; Securities and Investments, the fastest growing.
- Occupations expected to grow fastest by 2022 are securities, commodities, and financial services sales agents; accountants and auditors; financial analysts; and personal financial advisors.



Government & Public Administration



- Paid internships are abundant and provide excellent opportunities to gain experience for federal government jobs.
- In 2013, the executive branch of the federal government employed slightly more than 2 million workers.²
- In Virginia, strong employment growth is projected for court, municipal, and license clerks; government program eligibility interviewers; and urban and regional planners.

Health Science

- Registered nurses look forward to a projected job growth of 13 percent across Virginia between 2012 and 2022.
- Dentists and physical therapists will be in high demand, as baby boomers age and need more complex dental work and physical therapy.
- By 2022, Health Science opportunities are projected to grow to nearly 371,100 jobs, a 26-percent increase since 2012.



Hospitality & Tourism



- Hospitality management careers require a command of current technology and an ability to adapt to technological change to meet future customer demands.
- Virginia tourism generated approximately \$21.5 billion in revenue and supported 213,000 jobs in 2013.³
- Employment in the Restaurants and Food/Beverage Services pathway is projected to increase by 10 percent by 2022.

Human Services

- Employment in this cluster is projected to increase by 16 percent, leading to about 214,100 jobs across Virginia by 2022.
- The Personal Care and Services pathway, including cosmetology, funeral services, and fitness, should have more than half of Virginia's Human Services workers by 2022.
- More than 1,000 annual job openings in community service, religion, and social work are projected through 2022.



Information Technology



- Information Technology jobs are expected to increase by 26 percent, with a projection of 273,100 workers by 2022.
- By 2022, demand in Virginia for information security analysts should grow by 50 percent.
- Virginia's computer systems analysts, database administrators, systems administrators, web developers, and programmers earned, on average, more than \$75,000 in 2013.

Law, Public Safety, Corrections & Security

- About 183,400 Virginia jobs are projected for this cluster by 2022, an increase of 11 percent over the 2012 numbers.
- Demand for emergency medical technicians and paramedics is projected to increase by 48 percent in Virginia by 2022.
- There is an anticipated rise in demand for occupations such as paralegals and legal assistants, court reporters, security guards, and private detectives and investigators.



Manufacturing



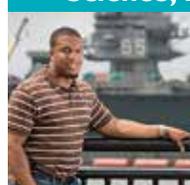
- Automation in manufacturing will drive a 20-percent increase in opportunities for CNC operators and programmers.
- Welding, soldering, and brazing machine setters/operators; alarm systems installers; and medical equipment repairers should see jobs increase by more than 25 percent by 2022.
- The Quality Assurance and Maintenance, Installation & Repair pathways are projected to employ 103,600 Virginians.

Marketing

- Employment opportunities for market research analysts and marketing specialists will grow by 39 percent to a total of nearly 19,900 projected jobs throughout Virginia by 2022.
- By 2022, about 313,800 Virginians will be employed as wholesale and retail sales representatives and supervisors.
- Advertising, promotions, and marketing manager positions are projected to grow by 13 percent across Virginia by 2022.



Science, Technology, Engineering & Mathematics



- Employment in the Engineering and Technology pathway is expected to increase by 11 percent by 2022.
- Atmospheric and space scientists, environmental scientists and specialists, geoscientists, and hydrologists can expect nearly 9,700 job opportunities in Virginia by 2022.
- Employment in STEM jobs will grow by 12 percent, for a projected employment of 96,200 across Virginia by 2022.

Transportation, Distribution & Logistics

- The Transportation Operations pathway is projected to employ nearly 200,000 workers across Virginia by 2022.
- The Logistics Planning and Management Services pathway should provide more than 15,600 jobs in Virginia by 2022, with demand for logisticians expected to increase by 28 percent.
- Formal postsecondary automotive training may help some candidates find jobs as auto service technicians or mechanics.

