

Connecting Learning to Results



Connecting Career Preparation to the Workforce

The Virginia Association for Career and Technical Education (Virginia ACTE) provides leadership in developing an educated, prepared, adaptable, and competitive workforce. Members include educators, business partners, parents, administrators, and others committed to expanding opportunities for Career and Technical Education.

VISION

The Virginia ACTE is the organization that advocates for, supports, and serves all aspects of Career and Technical Education for the benefit of education and the economy in the Commonwealth of Virginia.

MISSION

The Virginia ACTE is dedicated to expanding relevant and rigorous Career and Technical Education programs, enhancing leadership among its members, and influencing public policy for the benefit of Career and Technical Education students and professionals and developing a competitive workforce in the Commonwealth of Virginia.

STRATEGIES

1. Ensure all students have the opportunity to be career ready through all levels of education and training.
2. Continue to influence state-of-the-art Career and Technical Education programs throughout Virginia.
3. Provide professional development and leadership opportunities for Career and Technical Education teachers and administrators.
4. Influence and support public policy initiatives that enhance and benefit Career and Technical Education in Virginia.
5. Strengthen the organization through increased active membership.
6. Inform all members of educational initiatives and national and state public policies that affect Career and Technical Education.
7. Communicate critical needs of Career and Technical Education to policymakers, parents, business and industry, students, and communities.

<http://www.VirginiaACTE.org>



Dr. Brenda D. Long, Executive Director
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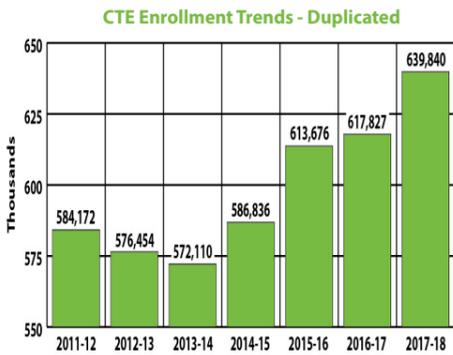
The 16 career clusters help students investigate careers and design their plan of study to advance their career goals. Within each career cluster, there are multiple career pathways that represent a common set of skills and knowledge, including academic, technical, and career readiness skills that lead to credentials from entry level to management, including technical and professional career specialties.

More than **294,402** students enroll in CTE courses annually through

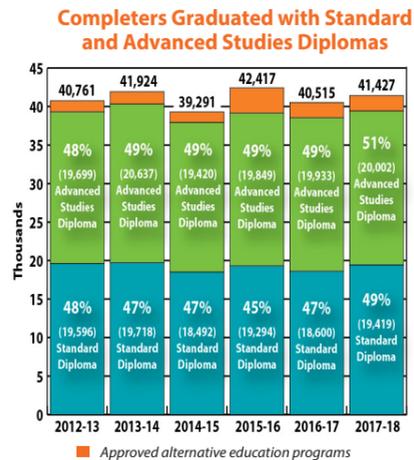
- 358** high schools
- 374** middle schools
- 49** division centers
- 22** Governor's STEM Academies
- 9** Governor's Health Sciences Academies
- 9** Jointly Operated Regional CTE Centers

and

111 school divisions offer CTE dual enrollment across the Commonwealth of Virginia.



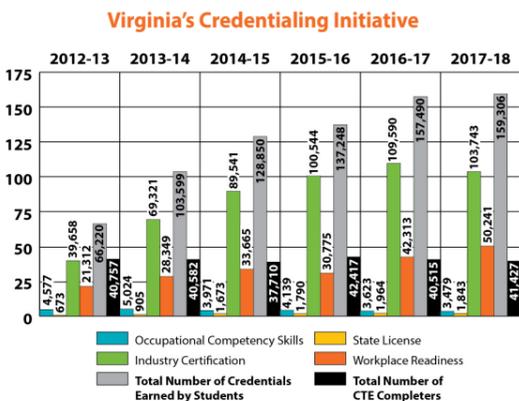
In the 2017-18 school year, 294,402 middle and high school students enrolled in one or more CTE courses.



Approved alternative education programs

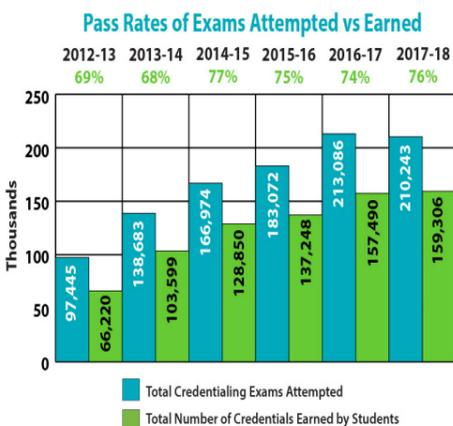
Over the past five consecutive years, **95% or more** CTE completers graduated high school with a Standard or Advanced Diploma.

Beginning in 2013-2014, first time ninth grade students (the graduating class of 2017) are required to earn a Board-approved career and technical education credential to graduate with a Standard Diploma.

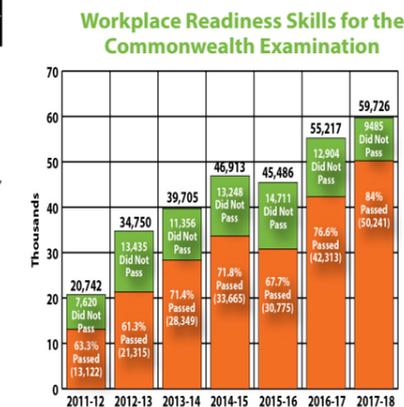


High schools report the number of credentials earned by students for passing occupational competency assessments, state licensure examinations, industry certification examinations, and workplace readiness skills assessments.

Source: Virginia's School Quality Profile



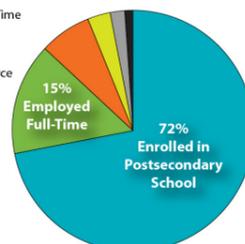
Note: Totals include multiple exams attempted/earned by individual students. The cost of credentialing tests range from \$10 to \$380 per test.



Source: Career and Technical Consortium of States (82 school divisions participated in 2012, 107 in 2013, 109 in 2014, 107 in 2015, 106 in 2016, 116 in 2017, and 117 in 2018).

2017 Graduates One Year Later

- 72% Enrolled in Postsecondary Schools
- 15% Employed Full-Time
- 7% Employed Part-Time
- 3% Military Service
- 2% Out of Labor Force
- 1% Unemployed



Connecting Learning to Successful Careers



Tyler Green
Golf Course
Assistant Superintendent
Stonehenge Golf and
Country Club
Richmond, VA

Agriculture, Food & Natural Resources

- Career pathways in Environmental Service Systems have the most occupations, projected to experience double-digit growth through 2024).
- Farmers, ranchers, and other agricultural managers and farmworkers and laborers, will account for nearly 1,400 job openings each year throughout the state; while the nonfarm animal caretakers are expected to have approximately 1,124 new jobs by 2024.



Jacob Nicholson
Project Manager
Calvert Masonry
Manassas, VA

Architecture & Construction

- The Construction pathway has the highest number of employment opportunities. By 2024, it is projected to experience 10% job growth.
- An average of 7,383 annual job openings are expected by 2024 due to growth and net replacements across the cluster.



Brittney Taylor
U.S. Army Sergeant
Unmanned Aircraft
Systems Operator
Fort Irwin, CA

CTE connects learning to military and civilian careers; JROTC kick-started Sergeant Taylor's military career.



Alex Barrette
Co-founder and
Chief Product Officer
Joba Design
Blacksburg, VA

CTE connects learning to entrepreneurship by preparing students to launch business ventures.



Mark Weaver
Carpenter's Apprentice
Baldwin Creek Custom Homes
Powhatan, VA

CTE connects learning to internships that place the student in a real workplace environment.



Carla Glass
Crisis Management
Business Continuity
Manager
Northrop Grumman
Lebanon, VA

Business Management & Administration

- The Business Management & Administration cluster consist of approximately 713,200 positions in 2014, the most of any cluster.
- By 2024, approximately 46,200 more positions are expected to be available in this cluster, for a total of over 759,400.



Terrell Brown
Morning Anchor
ABC7
Chicago, IL

Arts, Audio/Video Technology & Communications

- Employment in journalism and broadcasting is projected to grow by 7% by 2024.
- Between 2014 and 2024, employment of technical writers will grow by 15% or approximately 3,300 positions.
- Employment for audio and video equipment technicians will grow by 14% by 2024.



Paige Waltz
Digital Media
Coordinator
US House of Representatives
Washington, DC

Government & Public Administration

- The Government & Public Administration cluster is expected to grow by 9% through 2024 and add approximately 2,693 more positions across the Commonwealth by 2024.
- Percentage increases in the number of occupational health and safety technicians (16%), financial examiners (16%), urban and regional planners (13%), emergency management directors (13%), and construction and building inspectors (13%), are projected to account for 1,000 additional jobs by 2024.



Charity Tyree-Hale
CTE Teacher
Covington City Public Schools
Covington, VA

Education and Training

- The Education and Training cluster is expected to have the fourth highest percentage of job growth (13%) among all clusters in Virginia through 2024.
- Interpreters and translators are expected to have the highest percentage of job growth (40%) over the decade, while elementary school teachers are projected to have the highest number of job openings (1,164) each year.



Jonathan Hughes
Firefighter
Fairfax County Fire and Rescue
Fairfax, VA

Health Science

- The Health Science cluster continues to have the highest rate of job growth of all clusters in Virginia (21%). In 2014, there were approximately 294,000 jobs associated with this cluster, and about 63,000 additional jobs are expected by 2024.
- This expected growth is due to an aging population and because federal health insurance reform should increase the number of individuals who have access to health insurance.
- Employment of registered nurses is projected to grow 14% from 2014 to 2024, much faster than the average for all occupations.



Madeline Wilson
Senior Program Planner
Lockheed Martin
Denver, CO

STEM

- By 2024, this cluster is expected to employ about 71,300 workers, a 6% growth over the decade in the Commonwealth.
- Statisticians are projected to experience the highest rate of job growth in this cluster through 2024 (39%) while mechanical engineers are expected to see the greatest number of annual job openings (320).



Mary Aman
Client Support Engineer
ABS Technology
Virginia Beach, VA

Information Technology

- The Information Technology cluster is expected to have the second highest percentage of job growth in Virginia among all clusters through 2024 (17%).
- Three occupations in this cluster are expected to expand by 25% or more by 2024—web developers (28%), information security analysts (27%), and computer systems analysts (25%).
- All occupations in this cluster have a predominant education level of bachelor's degree or higher.



Jessica Nerkowski
Athletic Career and
Education Coordinator
US Olympic Committee
Colorado Springs, CO

Hospitality & Tourism

- Among all clusters, Hospitality & Tourism will have the greatest number of job openings annually over the next decade, with over 20,000 employment opportunities becoming available each year in Virginia.
- Over 77% of the annual job openings within this cluster will occur within the Restaurants & Food/Beverage Services pathway through 2024.



Mark Stanton
Crew Leader
Louisa County Department
of Fire & EMS
Louisa, VA

Law, Public Safety, Corrections and Security

- The Emergency & Fire Management Services pathway is projected to have the highest percentage of employment growth (16%) through 2024.
- The Security & Protective Services pathway is projected to have the greatest increase in overall number of jobs (6,072) openings through 2024.
- Two occupations in this cluster are expecting more than 25% growth by 2024: emergency medical technicians and paramedics (28%) and forensic science technicians (35%).



Valeria Lora
Business Owner
Wink and Ink Studio
Woodbridge, VA

Human Services

- The Human Services cluster is expected to grow by over 28,000 jobs between the years 2014 and 2024, with over 6,000 job openings available annually.
- Personal Care Services is the largest pathway in this cluster; over 120,000 jobs are projected for this pathway in 2024.



Mike Watkins
Director of Business
Development
Norfolk Tides Baseball
Norfolk, VA

Marketing

- With nearly 476,000 positions anticipated by 2024, Marketing is one of the largest career clusters in Virginia.
- Employment for market research analysts and marketing specialists is expected to grow by 22% between 2014 and 2024.
- Advertising and promotion managers are projected to experience 12% job growth and marketing managers, 13% growth, by 2024.



Daniel Jenkins
Project Manager
Diversified Education Systems
Middleburg, VA

Manufacturing

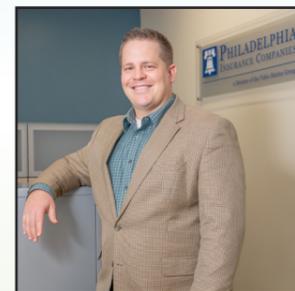
- By 2024, this cluster is anticipated to include more than 270,000 positions in Virginia, ranging from security and fire alarm systems installers to electro-mechanical technicians to machinists.
- This cluster is projected to have about 7,000 job openings annually as a result of both job growth and net replacement of employees who leave their jobs.



Holly Hyde
Solution Center
Specialist
RDO Integrated Controls
Billings, MT

Transportation

- In 2014, this cluster provided approximately 250,000 jobs in Virginia, and about 16,500 more are expected by 2024.
- The Transportation Operations pathway will see the greatest increase in overall number of jobs and will have the most job openings each year during this time period.



William Chapman
Assistant Vice President
Philadelphia Insurance
Company
Pittsburgh, PA

Finance

- It is estimated that nearly 168,500 jobs will be available in the five pathways in the Finance cluster by 2024.
- Securities and Investments is projected to have the highest job growth rate among all pathways in this cluster through 2024 (22%); within this pathway, personal financial advisors are projected to experience the highest percentage of job growth (44%).
- Overall, the Finance cluster is expected to grow by 9%.

Learn more
about career
clusters at



@Virginia_CTE

Occupational information reflect state data unless stated otherwise.

Occupational data source: May 2013 State Occupational Employment and Wage Estimates for Virginia. United States Department of Labor, Bureau of Labor Statistics, unless stated otherwise.

Trailblazers 2014-2024 Employment Projections for Virginia. Retrieved from <http://ctrailblazers.org/labor-market-data/>.