

Virginia Career and Technical Education: Program Highlights 2013-14

Virginia Department of Education, Office of Career and Technical Education Services



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 necessary to pursue a full range of career opportunities from entry level to management, including technical and professional career specialties. CTE actively partners with business and industry to design and provide high quality, dynamic programs to meet current, emerging, and projected labor market needs. Relevant work-based learning opportunities and leadership development offered through career and technical student organizations, are incorporated into the academic and career plan.

2013-14 Student Enrollment by Career Clusters

Agriculture, Food and Natural Resources	11,571
Architecture and Construction	9,104
Arts, Audio-Video Technology and Communications	10,924
Business Management and Administration	37,386
Education and Training	7,776
Finance	31,345
Government and Public Administration	12,922
Health Science	9,388
Hospitality and Tourism	18,007
Human Services	38,380
Information Technology	29,686
Law, Public Safety, Corrections and Security	4,454
Manufacturing	5,203
Marketing	16,338
Science, Technology, Engineering, and Mathematics (STEM)	36,691
Transportation, Distribution and Logistics	5,801

TOTAL Number of Students Enrolled (unduplicated counts) 284,976

Source: Virginia Department of Education

Implementing "Rigor and Relevancy" in CTE Programs

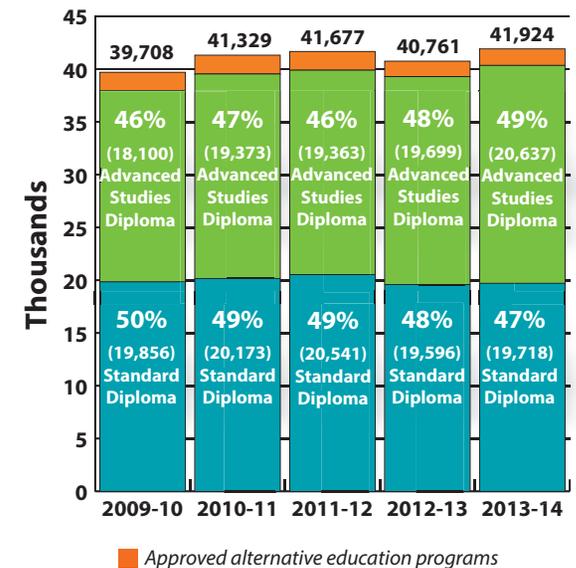
- During 2013-14, one Governor's Science, Technology, Engineering, and Mathematics (STEM) Academy was implemented, bringing the total to 23 across the Commonwealth (Halifax, Hampton (2), Arlington, Suffolk, Russell, Stafford, Loudoun, Chesterfield, Richmond City, Carroll, Virginia Beach, Chesapeake, Fairfax (2), Roanoke County, New Kent, Lynchburg, Newport News, Richmond County, Pulaski, Harrisonburg and Montgomery). The Governor's STEM Academy is designed to expand options for students to acquire STEM literacy, and other critical skills, knowledge, and credentials that will prepare them for postsecondary education and high-demand, high-skill, and high-wage careers in a competitive global economy.
- During 2013-14, the Virginia Board of Education approved one more Governor's Health Sciences Academy, bringing the total in Virginia to nine academies. (Albemarle, Bedford, Chesterfield, Cumberland, Fairfax (2), Gloucester and Mathews, Hampton, Newport News and York). Governor's Health Sciences Academies are programs designed to expand options for students' health science literacy and other critical knowledge skills and credentials that will prepare them for high-demand, high-wage, and high-skill careers in Virginia. Each academy is a partnership among school divisions, post secondary institutions, businesses and industry.
- In September 2011, the Governor announced the Virginia Microsoft Information Technology (IT) Academy Program. The IT Academy provides a solution for bridging education and the world of work. It is designed to drive employability, digital literacy, STEM-focused training and certification, and 21st century work force development for students.
 - As of December 2014,
 - 367 high schools including CTE technical centers are implementing the Microsoft IT Academy Program.
 - More than 50,000 students have enrolled in the 28 CTE priority courses that have been correlated to the Microsoft IT Academy content and resources.

- Out of the 30,682 Microsoft IT Academy certifications earned by students, 145 of these students earned the distinguished Microsoft Master Level Certification, the highest level certification awarded.

Improving Student Performance

- Participation in the Workplace Readiness Skills for the Commonwealth examination increased significantly from 3,693 in 2010-11 to 39,705 in 2013-14. Sixty-four percent (22,127) of those who attempted the exam earned the credential.
- Ninety-two percent of CTE students (1,879 of 2,043) earned the Virginia Career Readiness Certificate.
- Eighty-three percent of CTE students (39,313 of 47,156) passed the WISE (Working in Support of Education) test and earned the financial literacy credential.

Completers Graduated with Standard and Advanced Studies Diplomas



Source: Virginia Department of Education

Virginia Career and Technical Education: Program Highlights 2013-14 *continued*

CTE Students Earned a Variety of Industry Certifications Across the Career Clusters

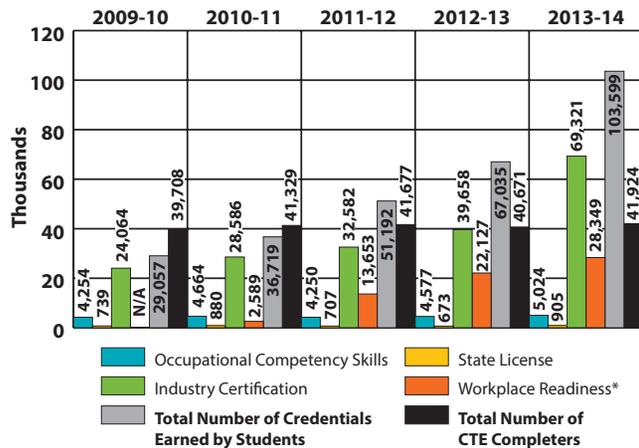
Region 1	Central Virginia	131
Region 2	Tidewater	184
Region 3	Northern Neck	110
Region 4	Northern Virginia	144
Region 5	Valley	139
Region 6	Western Virginia	121
Region 7	Southwest	133
Region 8	Southside	38

Source: Virginia Department of Education

Credentials Boost Résumés

With credentials in hand, students show their knowledge, technical and job-readiness skills, and stand out in today's competitive job market.

Credentials Earned by CTE Students



*Prior to 2010-11, workplace readiness skills assessments were included in the Industry Certification category, but are now reported separately.

**In 2011-12, nearly 1,100 students earned Virginia Career Readiness Certificate which is included in the Industry Certification category.

Source: Virginia's School Report Card

Selected Statewide Occupational Projections

Selected Occupation	2013 Median Wage ¹	2022 Projected Employment ²	Predominant Education Level ³
Registered Nurses	\$62,750	66,990	Bachelor's degree or more
Business Management Analysts	\$92,140	65,224	Bachelor's degree or more/Work experience
Accountants and Auditors	\$71,120	48,788	Bachelor's degree or more
Retail Sales Supervisors	\$37,960	45,853	High School diploma/Work experience
Heavy and Tractor-Trailer Truck Drivers	\$36,570	43,398	High School diploma/Work experience
Software Developers, Systems Software	\$110,800	41,871	Bachelor's degree or more
Computer Systems Analysts	\$95,280	40,198	Bachelor's degree or more
Manufacturing Maintenance and Repair Workers	\$36,160	36,047	High School diploma/Training/Certification
Carpenters	\$37,540	30,671	High School diploma/Training/Certification
Licensed Practical Nurses	\$39,390	27,715	Some College/Associate
Automotive Service Technicians	\$39,540	25,170	High School diploma/Training/Certification
Network and Computer Systems Administrators	\$87,210	24,272	Bachelor's degree or more
Lawyers	\$115,370	23,029	Bachelor's degree or more
Electricians	\$44,820	21,583	High School diploma/Training/Certification
Executive Secretaries and Assistants	\$49,830	21,573	Some College/Associate/Work experience
Police and Sheriff's Patrol Officers	\$47,510	20,636	Some College/Associate/Training/Certification
Market Research Analysts and Specialists	\$63,650	19,893	Bachelor's degree or more
Plumbers, Pipefitters, and Steamfitters	\$43,530	15,122	High School diploma/Training/Certification
Manufacturing Production Supervisors	\$57,790	14,003	High School diploma/Work experience
Construction Managers	\$91,690	13,929	High School diploma/Work experience
Financial Analysts	\$81,340	11,354	Bachelor's degree or more
Welders, Cutters, Solderers, and Brazers	\$39,230	9,901	High School diploma/Training/Certification/Work experience
Firefighters	\$44,330	9,856	Some College/Associate/Training/Certification
Mental Health Counselors	\$43,030	9,832	Bachelor's or more/Training/Certification
Industrial Machinery Mechanics	\$44,150	9,685	High School diploma/Training/Certification
Logisticians	\$80,350	8,543	Bachelor's or more/Work experience
Pharmacists	\$122,170	8,242	Bachelor's or more/Training/Certification
Interpreters and Translators	\$59,830	8,134	Bachelor's or more/Training/Certification
Graphic Designers	\$51,780	7,744	Bachelor's degree or more
Landscaping Supervisors	\$43,650	7,368	High School diploma/Work experience
Education Administrators, Elementary and Secondary School	\$84,120	7,208	Bachelor's or more/Work experience
Dental Hygienists	\$81,110	6,356	Some College/Associate
Meeting, Convention, and Event Planners	\$55,310	6,058	Bachelor's degree or more/Work experience
Electronics Engineers	\$102,430	5,636	Bachelor's degree or more
Telecommunications Equipment Installers	\$56,620	5,284	Some College/Associate/Training/Certification
Food Service Managers	\$56,290	5,269	High School diploma/Work experience
Aerospace Engineers	\$122,890	5,222	Bachelor's degree or more
Massage Therapists	\$37,620	4,731	Some College/Associate
Special Education Teachers, Secondary School	\$54,420	4,159	Bachelor's degree or more/Training/Certification
Environmental Scientists and Specialists	\$73,780	3,899	Bachelor's degree or more
CTE Teachers, Secondary	\$56,960	3,884	Bachelor's degree or more/Training/Certification
Technical Writers	\$72,970	3,832	Bachelor's degree or more/Work experience
Construction and Building Inspectors	\$52,200	3,808	Some College/Associate/Training/Certification/Work experience
Veterinarians	\$89,550	3,254	Bachelor's degree or more
Chefs and Head Cooks	\$39,200	3,083	High School diploma/Work experience

¹ Wage data from the US Bureau of Labor Statistics Occupational Employment Statistics Program; ² Estimates from Virginia Labor Market Information, Occupational Projections (long-term) for Multiple Occupations in Virginia in 2012-2022. Retrieved via <https://data.virginialmi.com>; ³ Predominant level of education and training information created by Trailblazers, based on US BLS occupational education and training data

Source: Virginia Employment Commission, Virginia Occupational Employment Projections 2013-22