

# Virginia Career and Technical Education: Program Highlights 2016-17

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



**T**he 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.

## 2016-17 Student Enrollment by Career Clusters

Agriculture, Food and Natural Resources	11,830
Architecture and Construction	7,589
Arts, Audio-Video Technology and Communications	7,990
Business Management and Administration	33,783
Education and Training	5,194
Finance	31,778
Government and Public Administration	12,186
Health Science	9,154
Hospitality and Tourism	18,087
Human Services	41,792
Information Technology	29,440
Law, Public Safety, Corrections and Security	4,384
Manufacturing	5,340
Marketing	15,918
Science, Technology, Engineering, and Mathematics (STEM)	56,202
Transportation, Distribution and Logistics	5,777

**TOTAL Number of Students Enrolled (unduplicated counts) . . . . . 296,444**

Source: Virginia Department of Education

## Implementing “Rigor and Relevancy” in CTE Programs

- Twenty-two Governor’s Science, Technology, Engineering, and Mathematics (STEM) Academies have been implemented across the Commonwealth, (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.
- Eight Governor’s Health Sciences Academies have been implemented across the Commonwealth, (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 February 2018,

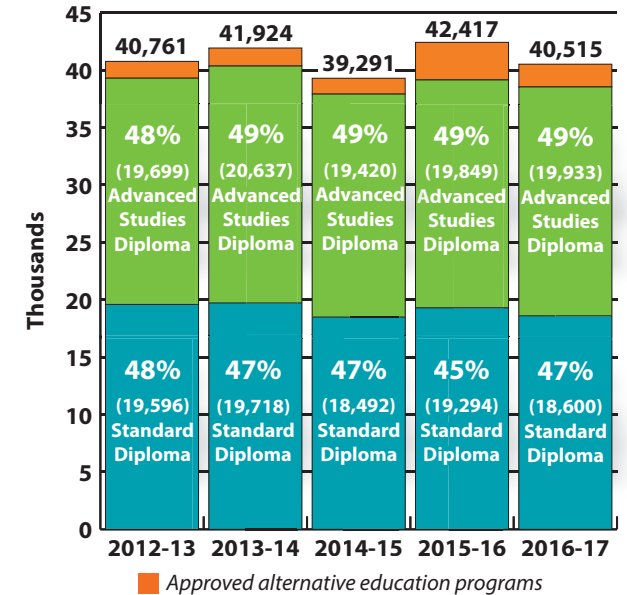
  - 365 high schools including CTE technical centers are implementing the Microsoft IT Academy Program.
  - More than 80,000 students have enrolled in the 28 CTE priority courses that have been correlated to the Microsoft IT Academy content and resources.

- 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 55,217 in 2016-17. Seventy-six percent (42,313) 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 2016-17 *continued*

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

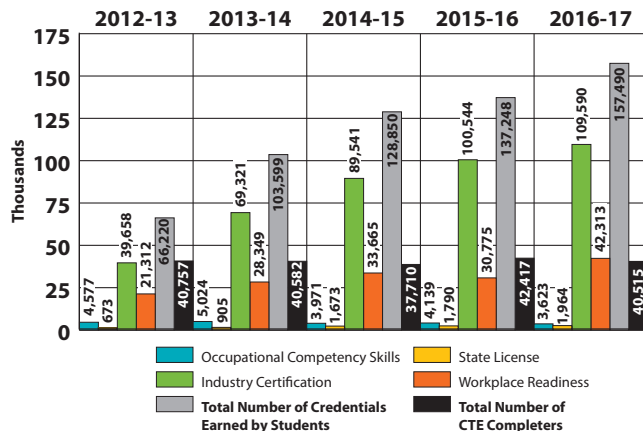
Region 1	Central Virginia	139
Region 2	Tidewater	171
Region 3	Northern Neck	111
Region 4	Northern Virginia	152
Region 5	Valley	142
Region 6	Western Virginia	127
Region 7	Southwest	130
Region 8	Southside	58

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	2015 Median Wage <sup>1</sup>	2024 Projected Employment <sup>2</sup>	Predominant Education Level <sup>3</sup>
Registered Nurses	\$63,640	72,042	Bachelor's or more
Management Analysts	\$94,930	65,586	Bachelor's or more/Work experience
Accountants and Auditors	\$74,200	50,237	Bachelor's or more
Software Developers, Applications	\$103,490	45,360	Bachelor's or more
Elementary School Teachers (Except Spec. Ed.)	\$59,190	38,712	Bachelor's or more/Training/Certification
Computer Systems Analysts	\$95,370	35,183	Bachelor's or more
Software Developers, Systems Software	\$110,950	32,103	Bachelor's or more
Sales Representatives, Services, All Other	\$59,800	28,820	Bachelor's or more/Training/Certification
Licensed Practical Nurses	\$40,240	26,213	Associate/Some college/Training/Certification
Lawyers	\$123,230	24,149	Bachelor's or more
Police and Sheriff's Patrol Officers	\$49,860	20,855	Associate/Some college/Training/Certification
Marketing Research Analysts and Specialists	\$63,250	20,596	Bachelor's or more
Electricians	\$47,020	20,247	Associate/Some college/Training/Certification
Computer and Information Systems Managers	\$151,850	17,169	Bachelor's or more/Work experience
Plumbers, Pipefitters, and Steamfitters	\$44,170	13,536	High School/Training/Certification
Information Security Analysts	\$102,710	13,034	Bachelor's or more/Work experience
Heat, Air Conditioning, Refrigeration Mechanics	\$47,370	11,807	Associate/Some college/Training/Certification
Mental Health Counselors	\$43,460	10,374	Bachelor's or more/Training/Certification
Firefighters	\$48,730	10,187	Associate/Some college/Training/Certification
Industrial Machinery Mechanics	\$47,860	9,887	High School/Training/Certification
Paralegals and Legal Assistants	\$49,520	9,804	Associate/Some college
Personal Financial Advisors	\$85,710	8,021	Bachelor's or more/Training/Certification
Truck Mechanics and Diesel Engine Specialists	\$43,800	7,614	High School/Training/Certification
Operations Research Analysts	\$105,970	7,505	Bachelor's or more
Machinists	\$43,600	7,378	High School/Training/Certification
Physical Therapists	\$84,300	6,673	Bachelor's or more
Web Developers	\$78,680	6,638	Bachelor's or more
Health Specialties Teachers, Postsecondary	\$63,690	6,346	Bachelor's or more/Work experience
Radiologic Technologists	\$55,820	5,736	Associate/Some college
Dental Hygienists	\$80,770	5,383	Associate/Some college
Medical and Clinical Laboratory Technologists	\$58,020	5,154	Bachelor's or more
Nurse Practitioners	\$94,340	5,045	Bachelor's or more
Manufacturing Maintenance and Repair Workers	\$44,600	4,800	High School/Training/Certification
Dentists, General	\$127,980	4,692	Bachelor's or more
Automotive Body and Related Repairers	\$45,070	4,666	High School/Training/Certification
Clinical, Counseling, and School Psychologists	\$68,830	4,317	Bachelor's or more/Training/Certification
Construction and Building Inspectors	\$56,010	4,221	Associate/Some college/Training/Certification/Work experience
Special Education Teachers, Secondary School	\$57,050	4,159	Bachelor's or more/Training/Certification
Eligibility Interviewers, Government Programs	\$38,890	4,071	High School/Training/Certification
Speech-Language Pathologists	\$76,390	3,950	Bachelor's or more
Brickmasons and Blockmasons	\$45,240	3,653	High School/Training/Certification
Water/Wastewater Treatment/System Operators	\$40,940	3,652	Associate/Some college/Training/Certification
Environmental Scientists and Specialists	\$70,300	3,614	Bachelor's or more
Chefs and Head Cooks	\$38,480	3,502	High School/Work experience
Security and Fire Alarm Systems Installers	\$42,820	3,345	High School/Training/Certification
Interpreters and Translators	\$62,410	3,325	Bachelor's or more/Training/Certification
Technical Writers	\$75,750	3,316	Bachelor's or more/Training/Certification/Work experience
CTE Teachers, Secondary School	\$59,200	2,677	Bachelor's or more/Training/Certification/Work experience

<sup>1</sup> Wage data from the US Bureau of Labor Statistics Occupational Employment Statistics Program. Retrieved via <https://www.bls.gov/oes/tables.htm>.

<sup>2</sup> Estimates from Virginia Employment Commission, Occupational Projections (long-term) for Multiple Occupations in Virginia in 2015-2024. Retrieved via <https://data.virginialmi.com>.

<sup>3</sup> Predominant level of education and training information determined by Trailblazers based on U.S. Bureau of Labor Statistics occupational education and training data. Retrieved via <http://ctetrailblazers.org/labor-market-data/>.