



Issues and Solutions for Career and Technical Education in Virginia 2020–2021

Virginia educators, business representatives, and organizations representing career and technical education (CTE) professionals developed Virginia ACTE's positions. Virginia ACTE welcomes comments from citizens, parents, and members of the boards that govern Virginia's public education. We seek public policy support with the goal of providing opportunity for all Virginia students.

Virginia Association for Career and Technical Education
www.virginiaacte.org

IN BRIEF

1. Virginia ACTE supports funding for the CTE Resource Center for replacement of Virginia's Educational Resource System Online (VERSO), its curriculum delivery platform, and to support its mission of providing free curricula, resources, and career pathway and industry credential alignments to Virginia's CTE educators.
2. Virginia ACTE supports funding that would enable school divisions to hire work-based learning (WBL) coordinators to increase WBL opportunities for students and align these opportunities with the Profile of a Virginia Graduate.
3. Virginia ACTE supports continued funding for industry-recognized standards, assessments, and credentials relevant to CTE programs, staff, and students.
4. Virginia ACTE supports continued priority funding for CTE classroom lab equipment and program expansion to prepare students for a competitive workforce and postsecondary education.
5. Virginia ACTE supports increased efforts by Virginia's colleges and universities to develop and, where they already exist, strengthen undergraduate and graduate teacher-preparation programs in CTE.
6. Virginia ACTE supports funding for the Governor's STEM Academies and Governor's Health Sciences Academies, which prepare students for in-demand, high-wage, and high-skill careers in Virginia.

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POLICY ISSUE 1

Virginia ACTE supports funding for the CTE Resource Center to replace Virginia's Educational Resource System Online (VERSO), its curriculum delivery system, and to support its mission of providing free curricula, resources, and career pathway and industry credential alignments to Virginia's CTE educators.

Rationale.

- The CTE Resource Center is valuable to educators in Virginia and across the United States; Virginia's CTE curricula has resided within the CTE Resource Center's VERSO for nearly two decades and has experienced a catastrophic crash.
- VERSO has been the primary distribution point for all CTE curriculum for Virginia's public schools. It is the only source for comprehensive information about credentials offered to Virginia students, aligned with the Profile of a Virginia Graduate, as well as for correlations to standards of learning, student competency records, regulatory standards, workplace readiness and other instructional resources, and a planning guide for administrators.
- The CTE Resource Center website (cteresource.org/verso) has received ~2 million page views each year and has been a model for the delivery of quality CTE curriculum nationwide.
- VERSO must be replaced with a dynamic learning-management system and provide complete course curriculum and access to the most up-to-date curricular resources.
- Virginia's increasingly rigorous graduation requirements make the transition to a reliable, modern system imperative.
- In addition to being more secure, flexible, and user-friendly, this learning-management system will provide the complete course curriculum for CTE teachers, to include lesson plans, assessments, activities, video content, work-based learning experiences.
- The learning-management system will provide access to the Administrators Planning Guide which includes course sequences, class size requirements, hours and credits, industry credentials, career pathways, work-based learning guide, approved equipment lists, industry credential data, enrollment data, and other necessary guidance.

Virginia ACTE proposes the following recommendations to replace the CTE Resource Center's VERSO curriculum delivery platform, continue with CTE curriculum development, continue to provide free resources for Virginia's CTE educators, and sustain funding for the CTE Resource Center:

Provide \$208,000 (one-time expenditure) for the replacement of the CTE Resource Center's online repository of CTE curriculum frameworks with an updated learning-management system to provide free curricula and resources to Virginia's CTE teachers and administrators.

- 1.1 Fund the work of the CTE Resource Center.
- 1.2 Increase line-item funding to the CTE Resource Center.

POLICY ISSUE 2

Virginia ACTE supports funding for school divisions to hire work-based learning (WBL) coordinators who will ensure high-quality WBL opportunities for students and align these opportunities with the Profile of a Virginia Graduate.

Rationale

- Work-based learning refers to a sequence of on-the-job experiences undertaken in partnership with local companies or organizations. It is coordinated by local schools and school divisions, in line with the Profile of a Virginia Graduate (8VAC20-131-70).
- Work-based learning experiences enable students to apply classroom instruction, enhance knowledge, skills, and attitudes; develop workplace skills; and experience life within a given career while in a real-world business or service-oriented work environment.
- Employers increasingly seek new hires who have WBL experiences. Students who participate in WBL experiences often work for their placement companies after high school graduation or even after college graduation. Virginia recognizes 11 WBL methods of instruction: job shadowing, mentorship, service learning, externship, school-based enterprise, internship, entrepreneurship, clinical experience, cooperative education, youth-registered apprenticeship, and registered apprenticeship.
- Schools must increase opportunities for student WBL. Coordinators in each school division would build relationships with the local and regional business community, screen and match qualified students to WBL experiences in line with their career goals and interests, and oversee the school division's WBL program.
- The coordinator will serve as the link between the classroom and the business community.

Virginia ACTE proposes the following recommendation to assist school divisions and the business community in providing opportunities for students to participate in WBL experiences and prepare all students to be career ready:

- 2.1 Provide state funding for the implementation of WBL opportunities to strengthen Virginia's future workforce.

POLICY ISSUE 3

Virginia ACTE supports funding for industry-recognized standards, assessments, and credentials relevant to CTE programs, staff, and students.

Rationale

- Employment projections state that 500,000 new jobs will be created in Virginia by 2026. As employers seek to fill these jobs, they rely on industry-recognized credentials as evidence of workers’ knowledge, skills, and abilities. Virginia’s future workforce must be ready to take advantage of new growth opportunities in high-tech, high-growth industries.
- During the 2018-2019 school year, Virginia’s high school students earned 158,452 credentials. The Profile of a Virginia Graduate broadens student opportunities to earn a credential beginning with the ninth-grade class of 2018-2019.
- Credentialing assessments have been level-funded for the past three years. Funding is divided among 132 school divisions.
- In the 2017-2018 school year, these assessments cost over \$5.4 million, while state funding was only \$3.9 million. School divisions had to use over \$1.5 million in local funding to meet the shortfall.
- The requested funding increase would bridge the funding gap and allow more Virginia students to be career-ready by graduating with an industry-recognized credential.
- The current Standards of Quality state, “Career and technical education programs shall be aligned with industry and professional standard certifications, where they exist.” (Code of Virginia §22.1-253.13:1B) The College, Career, and Civic Readiness section of the School Quality Profile documents earned industry credentials.
- The 2020 General Assembly funded:
 - more than \$1.8 million for industry certification examinations, licensure tests, and occupational-competency examinations
 - \$308,655 for the Workplace Readiness Skills assessment and other board-approved industry certifications
 - \$500,000 for industry credentialing for students and professional development for instructors in STEM-Health and CTE programs
 - \$1.3 million for information-technology industry credentials.
- Section 22.1-298.1 of the Code of Virginia was amended in 2015 to state that “teachers seeking an initial licensure with an endorsement in career and technical education shall have an industry certification credential in the area in which the teacher seeks endorsement. If the teacher has not attained an industry certification credential, the Board may, upon request of the employing school division or educational agency, issue the teacher a provisional license to allow time for the teacher to attain such credential.”

Virginia ACTE proposes the following recommendations:

- 3.1 Increase funding for credentialing assessments by \$1.5 million.
- 3.2 Increase funding for credentialing assessments to help students complete industry certifications, occupational competency exams, Workplace Readiness Skills assessments, state licensures, and other valid, high-quality assessments, as approved by the Virginia Board of Education, as a part of their secondary CTE studies, Standard Diploma requirements, and the Profile of a Virginia Graduate requirement.
- 3.3 Continue funding for CTE teachers to attain Virginia Board of Education-approved, industry-recognized certifications.
- 3.4 Support and expand credentialing initiatives at the secondary-education level

and recognize the importance of secondary-education credentialing initiatives for success at the postsecondary level and for career readiness.

POLICY ISSUE 4

Virginia ACTE supports continued priority funding for CTE classroom lab equipment and program improvement to prepare students for a competitive workforce and postsecondary education.

Rationale

- School divisions have multiple CTE programs requiring equipment and labs that must be updated regularly to meet industry standards.
- General Assembly funding has kept Virginia’s CTE classrooms equipped with the technology and materials students will use in the workplace. General Assembly funds are distributed among 132 school divisions. These funds are used to provide project-based and industry-relevant educational experiences.
- The 2020 General Assembly level-funded CTE equipment at \$1.8 million, with a base allocation of \$2,000 and the remainder distributed based on CTE student enrollment.
- Funding of \$1.4 million was allocated for equipment in high-skill, in-demand, and fast-growth industry sectors identified by the Virginia Board of Workforce Development, based on data from the U.S. Bureau of Labor Statistics and the Virginia Employment Commission.
- There were over 666,200 enrollments (duplicate count; some students took more than one course) in CTE courses during the 2018-2019 school year, indicating daily use of CTE equipment and labs.
- For a CTE program, the average cost for equipment and software updates ranges from \$60,000 to more than \$250,000.
- Virginia’s critical skill workforce is experiencing shortages of qualified, skilled workers. Virginia’s public schools can help close the skills gap through adequately funded CTE programs.

Virginia ACTE recommends the following to strengthen Virginia’s CTE programs:

- 4.1 Increase funding for CTE equipment by \$1 million.
- 4.2 Continue priority funding for CTE expansion to meet the demands of high-skill, in-demand, and fast-growth industry sectors.
- 4.3 Increase funding for equipment and software updates for credentialing assessments required by industry standards.

POLICY ISSUE 5

Virginia ACTE supports efforts to implement and, where they already exist, strengthen Virginia’s undergraduate and graduate teacher-preparation programs in CTE.

Rationale

Virginia continues to experience a critical shortage of qualified teachers, especially in its most challenged schools.

- CTE is ranked fifth in Virginia’s top-10 list of critical teacher shortage areas. Since 2003–2004, CTE has been included in that listing.
- School divisions increasingly have difficulty finding qualified CTE teachers; the shortage is predicted to worsen over the next five years.
- Demand for CTE teachers and programs is increasing:
 - Enrollment during 2018-2019 totaled more than 666,200 (duplicate count; some students took more than one course).
 - Workplace Readiness Skills (taught in all CTE courses) are a priority for Virginia’s employers.
 - Teachers in four CTE program areas (Agricultural Education, Business and Information Technology, Family and Consumer Sciences, and Marketing) comprise the largest number of instructors endorsed to teach Economics and Personal Finance, a graduation requirement for all Virginia students.

Virginia needs highly qualified CTE teachers to meet increasing demand. Teacher preparation programs at the state’s colleges and universities (sometimes in cooperation with Virginia’s community colleges), along with selected special initiatives, offer some solutions to these shortages, but more needs to be done.

- The 2016 General Assembly included CTE as a critical-shortage teaching discipline, allowing students enrolled in approved undergraduate or graduate teacher programs to apply for the Virginia Teaching Scholarship Loan Program.

Virginia ACTE proposes the following recommendations to strengthen and expand Virginia’s supply of highly qualified CTE teachers:

- 5.1 The Virginia Board of Education and the State Council of Higher Education for Virginia (SCHEV) should prioritize support for teacher-education programs in CTE in Virginia’s colleges and universities to encourage a supply of highly qualified teachers.
- 5.2 The career switcher program should require rigorous pedagogy instruction, realistic endorsement requirements with relevant certifications, and professional experience.
- 5.3 Funding for the Virginia Teaching Scholarship Loan Program should be increased, with a portion of these funds set aside to target CTE teacher-shortage areas.
- 5.4 The State Council of Higher Education for Virginia (SCHEV) and the Virginia Community College System (VCCS) should endorse the Virginia Teachers for Tomorrow program as a dual-enrollment community college course eligible for transfer to postsecondary teacher-education programs.

POLICY ISSUE 6

Virginia ACTE supports funding for the Governor’s STEM Academies and Governor’s Health Sciences Academies, which prepare students for in-demand, high-wage, and high-skill careers in Virginia.

Rationale

- Students perform better when they learn academic skills applied to real-world settings, as they do in CTE programs.
- Secondary CTE programs build on elementary STEM experiences and integrate STEM, using performance- and team-based instruction and encouraging critical thinking and problem solving.
- The 2018 General Assembly provided \$600,000 in competitive innovation program grants for in-demand, fast-growth industry sectors, with priority given to state-identified challenged schools and the Governor’s STEM Academies and Governor’s Health Sciences Academies.
- Governor’s STEM Academies, Governor’s Health Sciences Academies, and other STEM initiatives relevant to all CTE programs are growing.
 - Twenty-two Governor’s STEM Academies expand options for students to acquire STEM literacy and technical skills while earning an industry credential.
 - Nine Governor’s Health Sciences Academies represent partnerships between public school divisions, healthcare institutions, the private sector, and institutions of higher education to deliver rigorous career preparation.
- There is a need to provide reliable, sustainable, and identifiable funding for the Governor’s STEM Academies to update labs to keep pace with changing curricula and to provide rigorous and relevant programs of study based on industry needs.

Virginia ACTE proposes to expand the integration of Virginia’s CTE curriculum with the Standards of Learning and STEM initiatives:

- 6.1 Increase funding for Governor’s STEM Academies and Governor’s Health Sciences Academies using sustainable, reliable funding streams.
- 6.2 Support CTE—a performance-based educational system that incorporates the standards for career and technological literacy, authentic assessment, and the infrastructure for college and career readiness—in all public schools.
- 6.3 Recognize CTE as an integral component of K–12 STEM initiatives and acknowledge CTE’s unique ability to provide STEM instruction in secondary schools.
- 6.4 Increase funding for competitive innovation program grants to support current and future Governor’s STEM Academies and Governor’s Health Sciences Academies.

Affiliated Organizations

Virginia Association for Teachers of Family and Consumer Sciences

Virginia Association of Agricultural Educators

Virginia Association of Career and Technical Education Administrators

Virginia Association of Marketing Educators

Virginia Association of Trade and Industrial Educators

Virginia Association of Career and Technical Education—Special Needs Division

Virginia Business Education Association

Virginia Health and Medical Sciences Educators Association

Virginia Technology and Engineering Education Association

Division of Virginia Counseling and Career Development.

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