



Issues and Solutions for Career and Technical Education in Virginia 2012

Introduction

Educators and business representatives from across Virginia, along with 10 organizations representing CTE professionals developed this document. We welcome comments on these policy issues from CTE stakeholders—citizens, parents, and members of the boards that govern Virginia’s public education. We welcome dialogue concerning these proposals and seek support from anyone interested in providing diversity of opportunity for all of Virginia’s children.

Members of the Virginia Association for
Career and Technical Education

Policy Issues in Brief

1. *VACTE supports continued priority funding for Career and Technical Education classroom lab equipment and program improvement in order to prepare students for a competitive workforce and further education.*
2. *VACTE supports meaningful industry-recognized standards, assessments, and credentials for Career and Technical Education programs, staff, and students.*
3. *VACTE supports increased efforts by Virginia’s colleges and universities to implement and, where they already exist, strengthen undergraduate and graduate teacher preparation programs in Career and Technical Education.*
4. *VACTE supports continued integration of secondary and postsecondary Career and Technical Education curriculum with the Standards of Learning and postsecondary academic requirements, while placing particular emphasis on CTE programs that address current high demand jobs and anticipated employee shortages, especially in the fields of science, technology, engineering, and mathematics (STEM).*

Policy Issue 1

VACTE supports continued priority funding for Career and Technical Education classroom lab equipment and program improvement in order to prepare students for a competitive workforce and further education.

Rationale

Under the Virginia Standards of Accreditation, high schools are expected to offer a minimum of three career and technical programs to meet students’ needs. Most high schools in the state have multiple labs that must be updated with new technology on a regular basis. Under the present funding level, local and federal funds support the largest percentages of CTE equipment resources.

- General Assembly funding allocated to CTE during the previous eight sessions has provided essential support for helping to keep Virginia CTE classrooms equipped with the technology and materials students will use in the workplace. The funding for school year 2011-12 was \$1,800,000. This is the same amount funded for CTE equipment since 2006, with the exception of a \$500,000 (27.7%) one-time increase for 2008 only.
 - Funds provided by the General Assembly are disbursed among 134 school divisions including middle and high schools, local and regional career and technical centers, and centers providing specific services to special populations.
 - Equipment reimbursement is currently calculated according to the number of students enrolled in career and technical courses, with a base funding level of \$2,000 per school division. The remainder of the funding is distributed on the basis of student enrollment in secondary career and technical education courses. The average equipment allocation is \$2.57 per CTE student enrollment (2010–2011 funding from the General Assembly). Every year since state fiscal year 2008, 100% of the state equipment funding has been spent by the school divisions and regional centers.
 - The average cost of equipment in a standard career and technical laboratory ranges from \$20,000 to more than \$250,000.
- 1.1. *VACTE supports continued priority funding for Career and Technical Education equipment and program improvement to promote statewide consistency in course offerings and quality that allows access to all students in preparation for entry into a competitive workforce and further education.*

Policy Issue 2

VACTE supports meaningful industry-recognized standards, assessments, and credentials for Career and Technical Education programs, staff, and students.

Rationale

Virginia's Career and Technical Education courses and programs offer students the opportunity to demonstrate their abilities through the Virginia CTE student competency records (kept for every CTE course taken, and required by the Carl D. Perkins Career and Technical Education Act of 2006). Students also are able to earn industry-appropriate credentials, licenses, and certifications.

Increasing opportunities to earn credentials valued by employers, along with additional education after high school, are vital to Virginia's economic future:

- According to the 2010 report, *Help Wanted: Projections of Jobs and Education Requirements through 2018*,ⁱ by 2018, the American workforce will need 22 million new postsecondary (Associate's or four-year) degrees—but will fall short of that number by at least three million. In addition, at least 4.7 million new workers with postsecondary certificates will be needed.
- Certificates give many people access to growth and opportunities in incremental steps, provide access to the earnings power commonly associated with traditional degrees, can add value well above a high school diploma, and can lead to family-sustaining earnings. 43% of [holders of] licenses and certificates earn more than [those with] an Associate degree; and 27% earn more than [those with] a Bachelor degree.ⁱⁱ
- A 2006 report by Business 2 Business states: "By 2020 we're going to have a shortfall of some 14 million skilled workers who will need some type of postsecondary education or training to qualify for the high-skilled jobs our economy demands. In fact, 80% of the U.S.'s fastest-growing jobs over the next decade will require at least two years of college."

Virginia's CTE programs are providing multiple avenues for students to earn credentials, continue their education after high school, and document their skills for employers:

- More than 77% of Virginia's CTE graduates responding to a recent survey said they had pursued formal education or training after graduating from high school. Of those, 29% were enrolled in community colleges, 38% were enrolled in a four-year university, and 10% were in registered apprenticeships, technical colleges, occupational/technical training at local high schools, or business/industry training.
- In 2005, the Board of Education established a pathway for a student to obtain a maximum of two verified credits by successfully completing a CTE program and passing a Board-approved nationwide industry assessment.
- 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 General Assembly is requiring an increase in the number of CTE students taking industry credentialing tests, and the federal performance report and the state School Report Card track the number of students who take and pass industry credential tests. Earned industry credentials are part of the Virginia Index of Performance program to recognize schools and school divisions for student achievement.
- Schools will require students who complete a CTE program to also take a state-approved industry certification, state licensure, or other third-party test.
- The General Assembly has funded industry certification examinations since 2006. The funding level for school year 2011-12 is \$1,065,133 (\$1.84 per CTE student enrollment). Every year since state fiscal year 2008, 100% of the state industry certification examinations funding has been spent by the school divisions and regional centers.
- *Virginia's Workforce Development Strategic Plan* cites the need to "increase priority and visibility of skills development, Career and Technical Education, and postsecondary education opportunities...."
- Virginia's P-16 Education Council identifies the need to "increase the number of industry certifications, state licenses, and successful National Occupational Competency Testing Institute (NOCTI) assessments earned by high school students...."

Virginia faces the great challenge of creating a skilled workforce equal to the demands of a global economy. According to the U.S. Department of Labor, OPA News Release, August 16, 2006, "America is transitioning to a knowledge-based economy, creating millions

ⁱ*Help Wanted: Projections of Jobs and Education Requirements through 2018*; Georgetown University Center on Education and the Workforce, 2010.

ⁱⁱ*Ibid.*

of new jobs in industries that did not exist a generation ago and which demand highly educated and skilled workers.” Virginia CTE programs are responding to this challenge. For example, through an initial grant from the National Governors’ Association, the Commonwealth has developed the CTE Academies initiative to offer students innovative and practical study in the critical areas of science, technology, engineering, and mathematics (STEM).

VACTE was instrumental in securing a funding increase for fiscal year 2008 to assist students with credentialing testing. Without sufficient funding to assist students with credential testing, local school divisions will not be able to meet the General Assembly requirement nor the federal Perkins Technical Skills Assessment Performance Standard.

Teachers also must acquire industry certification and state licensure in order to provide the necessary instruction for students. Avenues must continue to be created and funded for teachers to achieve such credentials.

VACTE proposes the following recommendations to strengthen Virginia’s system of Career and Technical Education:

- 2.1. The Board of Education and the General Assembly should continue with priority state funding to help students obtain Board-approved industry certifications, state licensure, or other valid, high quality assessments, as approved by the Board, as a part of their secondary career and technical studies.
- 2.2. Funding should continue to be available for Career and Technical Education teachers to attain Board-approved industry-recognized certifications.
- 2.3. The Board of Education should continue to establish annual benchmarks for improvement in the number of students receiving industry credentials as indicated in the Performance Standards and State Report Card.

Policy Issue 3

VACTE supports increased efforts by Virginia’s colleges and universities to implement and, where they already exist, strengthen undergraduate and graduate teacher preparation programs in Career and Technical Education.

Rationale

As noted in *Virginia’s P-16 Education Council Report to the Governor and General Assembly* (October 2006), the state continues to experience a critical shortage of qualified teachers, especially in its most challenged schools:

- During the 2008 General Assembly, House Bill 506 and Senate Bill 169 identified Career and Technical Education as one of the top three critical teacher shortage areas.
- Since 2003–2004, CTE has been ranked among the top 10 critical teacher shortage areas with specific program areas defined. Critical shortages were cited for 2008–2009 in Technology Education and Family and Consumer Sciences and for 2009–2010 in Technology Education and Agricultural Education. For the school year, 2011–2012, CTE as a whole ranked fourth in the list of Virginia’s critical teacher shortage areas.
- Local school divisions face increasing difficulty finding qualified teachers for CTE programs, and this shortage is predicted to become more serious within the next five years. CTE administrators collectively project 613 openings within five years—more than eight times as many as in 2006–2007.

Demand for CTE teachers and programs is increasing:

- Student enrollment in CTE programs continues to grow as seen in an enrollment increase of almost 40,000 between 2001 and 2009. In 2009, duplicated count enrollment in CTE courses and programs totaled 598,029.
- Workforce readiness skills (taught in CTE courses and programs) are an increasingly clear priority for Virginia’s employers, often valued more highly than standard academic grades or test scores.
- Teachers in four of the CTE program areas (Agricultural Education, Business & Information Technology, Family & Consumer Sciences, and Marketing) provide the largest number of instructors endorsed to teach “Economics and Personal Finance,” a new graduation requirement for Virginia students.

Highly qualified CTE teachers must be available 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.

VACTE proposes the following recommendations to strengthen and expand Virginia’s supply of highly qualified teachers of Career and Technical Education:

- 3.1. VACTE recommends that the General Assembly appoint a Task Force consisting of representatives from the State Council of Higher Education for Virginia, the Virginia Community College System Workforce Development Office, and the Department of Education Office of Career and Technical Education Services to develop career pathways to expand the teacher preparation programs for Career and Technical Education in areas identified to have critical shortages.
- 3.2. VACTE recommends reinforcing the linkage between the Virginia Community College System and Virginia's four-year colleges and universities to provide students a seamless transfer and transition into CTE teacher preparation programs.
- 3.3. VACTE recommends that the Board of Education move aggressively to support teacher education programs in Career and Technical Education in Virginia and encourage the expansion of "career switcher" programs with realistic endorsement requirements for individuals with relevant industry certifications and professional experience. At the same time, the Board should provide enhanced instruction in pedagogy, coupled with sound mentoring opportunities to strengthen "career switcher" candidates' transition to the classroom.
- 3.4. VACTE recommends that the General Assembly increase the amount of funding available for the Virginia Teaching Scholarship Loan Program and set aside a portion of the funds specifically for CTE teacher shortage areas. In this program, recipients who teach two years in Virginia are not required to repay the loan.
- 3.5. VACTE supports colleges and universities that offer summer courses and on-line courses to help CTE teachers meet provisional licensure requirements and guidelines for highly qualified status.
- 3.6. VACTE recommends development of new and continuation of existing CTE teacher preparation programs in Virginia.
- 3.7. VACTE supports action by the Board of Education and the General Assembly to encourage schools, colleges and universities, and businesses and industries that help recruit students planning to enter CTE teaching fields.
- 3.8. VACTE encourages the Board of Education to continue its support of the Teachers for Tomorrow program to encourage high school students to enter the teaching profession, especially in Career and Technical Education.
- 3.9. VACTE recommends that SCHEV and the community colleges work together to endorse Teachers for Tomorrow as a dual enrollment community college course that is eligible for transfer to four-year colleges/universities for teacher education programs.

Policy Issue 4

VACTE supports continued integration of secondary and postsecondary Career and Technical Education curricula with the Standards of Learning and postsecondary academic requirements, while placing particular emphasis on CTE programs that address current high demand jobs and anticipated employee shortages, especially in the fields of science, technology, engineering, and mathematics (STEM).

Rationale

- Students enrolled in CTE courses learn both core academic skills AND specific occupational skills.
- Each course in CTE links academic and occupational standards in classroom activities and reinforces achievement of Virginia's Standards of Learning.
- In addition, research demonstrates that students learn essential academic skills better when the skills are relevant and applied to real-world settings, as they are in CTE courses and programs.
- Section 22.1-253.13:1B of the *Code of Virginia* states: "With such funds as are available for this purpose, the Board shall regularly review and revise the competencies for career and technical education programs to require the full integration of English, mathematics, science, and history and social science Standards of Learning."

VACTE proposes the following recommendations to continue and expand the integration of Virginia's Career and Technical Education curriculum with the Standards of Learning:

- 4.1. The General Assembly should continue to provide adequate funding to sustain the work of the CTE (Career and Technical Education) Resource Center. This Center produces standardized state curriculum and resources for teachers and offers professional development and training to all Virginia career and technical educators at no cost to individual teachers and school divisions.

For more than 25 years, the CTE Resource Center has worked with state and local educators and with Virginia employers to keep Virginia's CTE curriculum of the highest quality, up-to-date, and consistent with industry standards specifically validated for Virginia. The Center has worked closely with academic educators to identify the Standards of Learning that are supported and reinforced through CTE courses and programs. The Center's Web-based curriculum system, Verso, provides ready access to these resources for all educators throughout the Commonwealth. Through this same system, the Center produces the Administrative

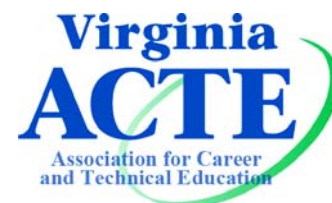
Planning Guide, which provides critical information for planning and delivering CTE courses and programs in localities across the Commonwealth, and the Career Planning Guide, which helps students, parents, and counselors choose CTE courses that match areas of interest. The Center also assists with the sample academic and career plans offered by the Department of Education.

In addition, the Center conducts in-service training on new CTE initiatives and resources to enhance classroom instruction, with particular emphasis on the integration of academic skills and knowledge into CTE programs.

Recent, special initiatives of the Center have included contributing to the revision of the Workplace Readiness Skills for the Commonwealth, expansion of teacher resources, and development of an accompanying assessment. The Center has also managed the implementation and technical support for CanDo, a student competency tracking system developed in Arlington and now available for all school divisions.

The General Assembly designated \$400,000 per year in the 2008–2009 biennial budgets for Center operations; however, due to state budget adjustments, this funding was cut by approximately 35% for FY 09–10 and 38% for FY 10–11. These reductions compromise curriculum development and other essential services provided by the CTE Resource Center. Priority funding is essential for the continued work of the Center.

- 4.2. Virginia Community College System should establish a consistent statewide articulation agreement and cost per credit for dual enrollment that would accelerate the student's academic and career plan to prepare them for Virginia's workforce.



Affiliated Organizations

Virginia Association of Agricultural Educators
Virginia Association of Career and Technical Education Administrators
Virginia Association of Marketing Educators
Virginia Association of Teachers of Family and Consumer Sciences
Virginia Association of Trade and Industrial Education
Virginia Association of Career and Technical Education – Special Needs Division
Virginia Business Education Association
Virginia Health and Medical Sciences Education Association
Virginia Technology and Engineering Education Association

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