



New York's students deserve full access to career and technical education (CTE) opportunities

Today's CTE students are the engines for the state's economic revitalization

The New York State Educational Conference Board (ECB) — which is comprised of the six leading educational organizations representing school boards, parents, superintendents, teachers, school administrators, other educators — is calling on policymakers to ensure all students in the state have equitable access to high-quality career and technical education (CTE) programs.

Background

Among the most important obligations of today's society is the preparation of our youth to grow into productive and capable citizens who contribute to their communities in positive ways. This charge includes ensuring all students graduate from high school ready to succeed in their next endeavors, whether it's college, career or both.

However, in an increasingly complex global marketplace that requires different skills than were necessary even a generation ago, schools have struggled to keep pace with industry and employer demands. Yes, the tide is beginning to move in the right direction. Schools across the country are raising academic standards, as well as recognizing CTE achievements on diplomas. New York's adoption of a CTE pathway to graduation further shows that educators are starting to realize the importance of directly linking classroom experiences with real-world careers. A foundation has been laid, but the full extent of potential benefits associated with the CTE pathway will not be realized without the necessary supports and resources.

CTE: A proven formula for success

Consider these statistics:

- Pupils attending schools that have highly integrated and rigorous academic and CTE programs show significantly higher achievement rates in math, reading and science compared with students who attend schools with less integrated programs.
- CTE students are better prepared for college and careers. A recent High Schools that Work Assessment from the Southern Regional Education Board shows that 80 percent of students in college prep curricula with rigorous CTE programming met college and career readiness goals

Educational Conference Board Career and Technical Education (CTE) Recommendations

Recommendation 1

Ensure all of New York's students have equitable access to adequately funded programs that allow them to take advantage of multiple pathways to graduation. This includes such underrepresented groups as students with disabilities, English language learners and minority pupils.

Recommendation 2

Align CTE courses to both state and industry standards.

Recommendation 3

Ensure that CTE courses provide for a balanced integration of technical and academic content.

Recommendation 4

Ensure the CTE pathway is more readily available by approving more end-of-program assessments to meet the 4+1 pathway to high school graduation.

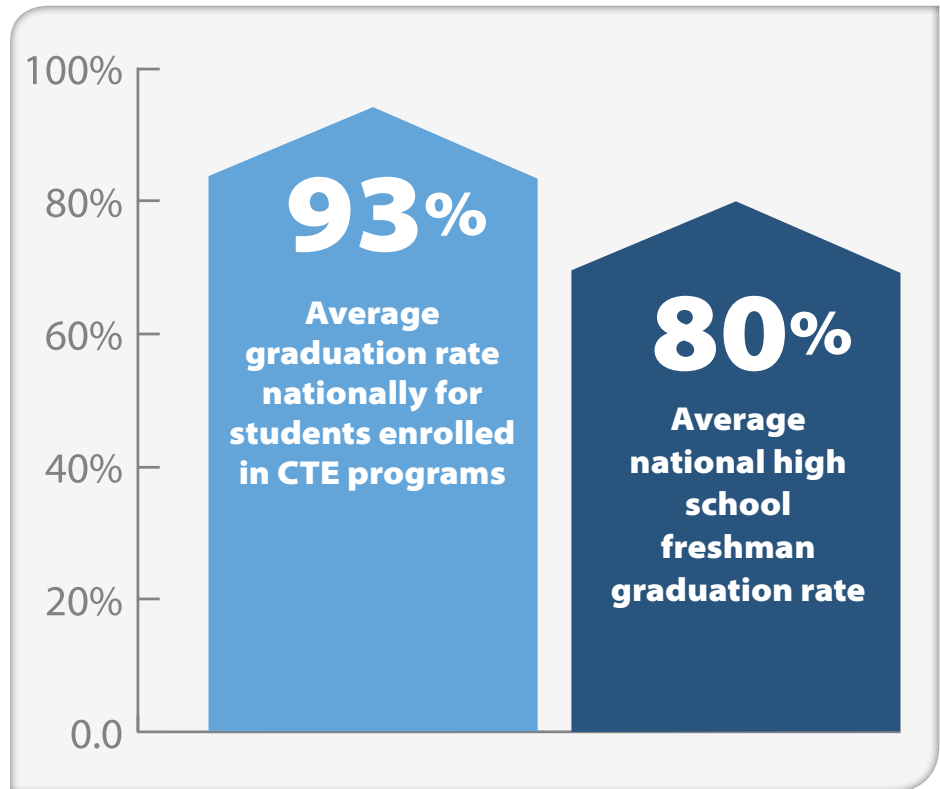
Recommendation 5

Create the data collection systems necessary to drive continuous CTE program improvement and to create new student opportunities while assuring necessary privacy protections.

compared with 63 percent of students who took the college preparation route without CTE integration.

- Students with disabilities who participate in CTE programs have higher graduation rates than their peers who are not in CTE classes. In 2015, more than 75 percent of New York students with disabilities who met the definition of “CTE concentrators” (i.e., completed at least two-thirds of a CTE program) graduated from high school. Their peers who did not participate in a CTE program graduated at a rate of 50 percent.
- Experts predict that of the 47 million projected job openings by 2018, at least one-third will require an associate’s degree or certificate and nearly all will require the real-world skills that can be mastered in CTE programs.
- According to the National Association of Manufacturing, “600,000 jobs [in advanced manufacturing] remain unfilled because of lack of skilled talent.” Further, manufacturers’ “ability to succeed in the highly competitive global marketplace depends on access to an educated, flexible and knowledge-based workforce. In turn, employees need the education and skills to support a robust and dynamic manufacturing economy.” Some of the state’s newest CTE programs are directly addressing this need by providing students with the skills, knowledge and experience they need to flourish in today’s high-tech manufacturing industries. However, more investment is necessary to meet the industry’s growing demand for skilled workers.
- According to the Journal of Education and Work, employers who collaborate with educational institutions receive a positive return on their investment. Additionally, each employer-student session can have a tremendous impact on students’ future wage outcomes (up to 4.5 percent increase per employer contact), as well as an increase in technical knowledge, employability skills and networking abilities.
- New York’s regional development outlook shows that CTE programs are aligned with the fastest-growing careers

By the Numbers: National Graduation Rates



It is vital that New York invests in ensuring high-quality CTE programs are available — for the success of our students and for the success of the state’s economy.

throughout all areas of the state, including health-related jobs, business management and administration careers and positions in the STEM fields.

Taking these statistics into consideration, it is vital that New York invests in ensuring high-quality CTE programs are available statewide — for the success of our students and for the success of the state’s economy.

TODAY'S CTE CLASSROOM: this is not your grandfather's shop class

Today's CTE programs are preparing students for a broad range of high-demand, high-skill and high-wage careers. Take a peek inside a modern CTE program and you'll see:

- Rigorous academics seamlessly integrated in career-based curricula. Students are able to make the connection between what they're learning and how they'll use the knowledge and skills in their chosen careers. According to the Association for Career and Technical Education (ACTE), 81 percent of high school dropouts said that relevant, real-world learning opportunities might have enticed them to stay in school.
- Youth preparing for success in college and careers. CTE programs give pupils employability skills (such as critical thinking, problem-solving and responsibility) and the job-specific skills related to their career interests.
- Class content that aligns with marketplace needs. Business people and employers serve on CTE advisory councils to ensure students are gaining the knowledge necessary for career success. These councils provide guidance on curriculum content and the skills necessary for success in their particular industries.
- Students actively engaged in work-based learning opportunities — opportunities that bring students and potential employers together. As the next generation of employees, students will be better prepared to promote economic success in New York...and beyond.
- Pupils earning industry certifications once reserved for adults already employed. There are currently more than 70 CTE programs in New York where students can earn valuable industry certifications as part of the high school program.
- Students earning college credits while still in high school. There are more than 2,250 articulation agreements between CTE programs in New York and post-secondary institutions.



CTE programs related to health occupations are among the most popular choices for students — good news since jobs in health-related careers are projected to grow significantly in every region of New York over the next decade. For example, in the Capital Region, there is an expected 20 to 25 percent increase in these types of careers between now and 2022. Similar trends are expected in other regions, including the Hudson Valley, Long Island and New York City.

New York's CTE Content Areas

1. Agriculture education
2. Business & Marketing education
3. Family & Consumer Sciences education
4. Health Occupations education
5. Technology education
6. Trade, Technical & Industrial education

Simply put, today's CTE programs have the right ingredients to prepare students to become viable members of the workforce, whether they go directly into a job, enroll in college or engage in more training. Let's make sure students can access the opportunities that CTE offers.

ECB Recommendations for Improving Career and Technical Education

Recommendation 1: Provide Equitable Access to Adequately Funded CTE Programs. *Ensure all of New York's students have equitable access to adequately funded programs that allow them to take advantage of multiple pathways to graduation. This includes such underrepresented groups as students with disabilities, English language learners and minority pupils.*

To ensure equitable student access to CTE, districts must have the funding necessary to fully implement these opportunities in-house or to send students to BOCES CTE programs. The tax levy cap and other financial strains in the state have forced many districts to cut or limit investments in career-related programming. So, while New York has shown a commitment to CTE programming by adopting the CTE graduation pathway, the lack of financial support creates an impediment to making access to high-quality CTE programs a reality for all students. ECB calls on policymakers to: (1) increase the portion of BOCES salaries that qualify for reimbursement from the 1990 level of \$30,000; (2) increase the \$3,900 per pupil cap on special services aid for the Big 5 and other non-component school districts; (3) reauthorize and increase federal Perkins funding; (4) increase state aid by \$2 billion, which will allow schools to more adequately prepare students for college and careers; (5) align funding levels with CTE curriculum requirements and (6) provide the necessary support structures and systems that will allow more students from typically underrepresented groups to be successful in CTE programs, including language supports for ELLs and accommodations for students with disabilities.

Recommendation 2: Align All CTE Programs to Industry Standards. *Align all CTE courses with state learning standards and levels of rigor practiced in the associated industry/career.*

CTE programs must prepare students to enter and succeed in their chosen fields. To this end, CTE class content and assessments should be developed collaboratively by the education community and industry professionals and updated regularly to reflect the highly complex, changing and emerging marketplace in New York.

Recommendation 3: Ensure All CTE Programs Have a Balanced Integration of Technical and Academic Content. *Ensure that CTE courses provide for a balance of technical and academic content.*

All CTE class content should allow students to master core academic content through applied instructional approaches, as well as gain the 21st-century and employability skills necessary for success in a chosen career field. This will help ensure Career Development and Occupational Studies (CDOS) standards are properly implemented.

Recommendation 4: Ensure the CTE Pathway is More Readily Available by Approving More End-of-Program Assessments to Meet the 4+1 Pathway to High School Graduation. *The number of CTE programs with technical assessments recognized and approved by the State Education Department (SED) must be increased.*

Although there are more than 70 CTE programs through which students can earn industry certification, currently there are only 30 SED-approved technical assessments. These 30 approved assessments impact just 157 of the approximately 1,000 CTE programs in the state and 0.6 percent of the 166,200 high school students enrolled in CTE. Students who don't have access to approved assessments cannot earn CTE pathway credits and must then take an additional Regents exam instead. Furthermore, the new assessments should be developed through a collaborative process involving industries, school districts, BOCES and SED, thus ensuring students are tested on the skills they will need for career success; this also will reduce costs to the state for developing the assessments.

Recommendation 5: Develop and Implement Improved Data Collection Systems. *Support CTE programs by creating systems for collecting valid, reliable data necessary to drive continuous improvements and create new educational opportunities for students, while protecting pupil and staff privacy.*

With the new CTE pathway in New York, there should be accompanying robust systems and procedures for collecting and analyzing data to allow proper evaluation of CTE programs that will inform subsequent improvements.