



Career & Technical Education Accountability Report

Prepared for Calendar Year 2011

**Office of Career, Technical and Adult Education
Nevada Department of Education**

Nevada CTE Accountability Report

Career and Technical Education (CTE) in Nevada is defined by coursework meeting requirements in Nevada Revised Statutes and Nevada Administrative Code. The scope of CTE in the State is very significant as data demonstrate that nearly one of two students at some point during their high school career is identified as a CTE student. Information in this report also infers the critical role CTE plays in engaging students as demonstrated by higher attendance, academic achievement, and graduation rates.

The information in this report is designed to provide a current “snapshot” of CTE in the following areas:

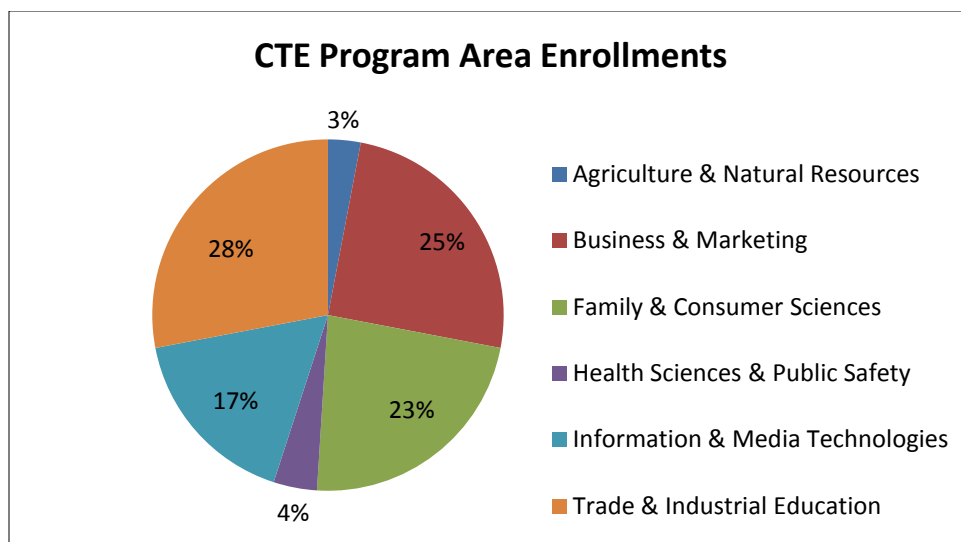
- Size and Scope of CTE Programs
- Enrollment and Attendance
- Academic Attainment
- Technical Skill Attainment
- School Completion
- Secondary – Postsecondary Transition

Part I: Size and Scope of CTE Programs

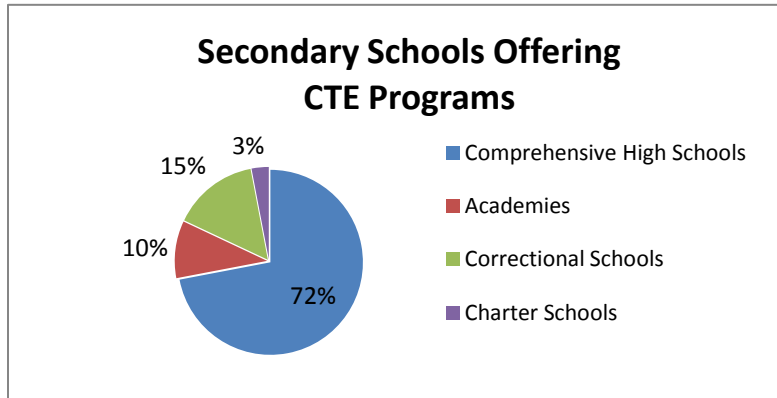
CTE courses and programs are organized under six program areas. Within each program area, a number of programs are offered. In turn, each program may include a sequence of courses. Statewide, over **680** separate CTE courses were provided in all program areas combined in 2009-10, resulting in the overall enrollments shown below.

Program Areas	Duplicated Enrollments	Unduplicated Enrollments
Agriculture & Natural Resources	1,866	1,654
Business & Marketing Education	15,549	14,386
Family & Consumer Sciences	15,327	13,032
Health Sciences & Public Safety	2,782	2,264
Information & Media Technologies	10,433	9,653
Trade & Industrial Education	17,844	15,758
Totals	63,801	56,747

Note: Duplicated enrollments include students concurrently enrolled in courses in two or more program areas.



The majority of high schools offer CTE coursework. In 2009-10, over 110 secondary schools offered one or more CTE programs. Those schools included comprehensive high schools, academies/college high schools, correctional/behavioral schools, and charter schools. The institutions are identified based on offering one or more program sequences.

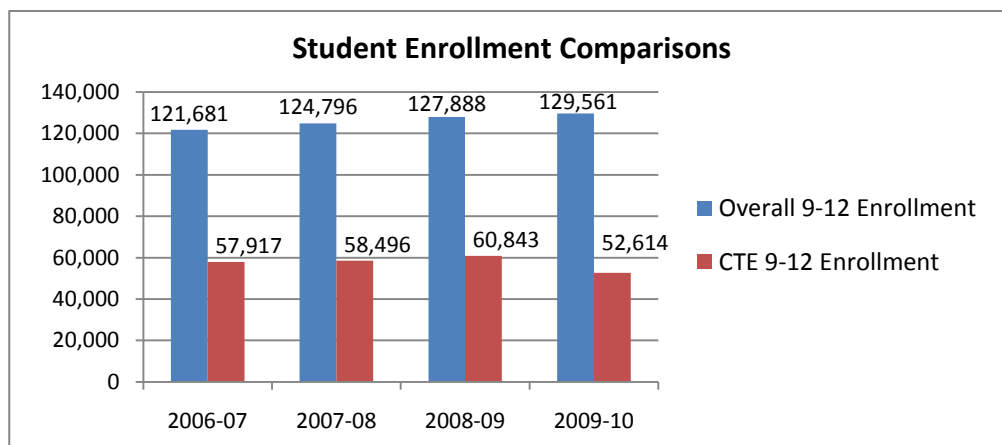


The size and scope of CTE in Nevada is also defined by participation in career and technical student organizations (CTSOs). Each organization provides co-curricular leadership and technical skill development activities and services for students enrolled in CTE programs. The six CTSOs with student membership enrollments in 2009-10 are shown below.

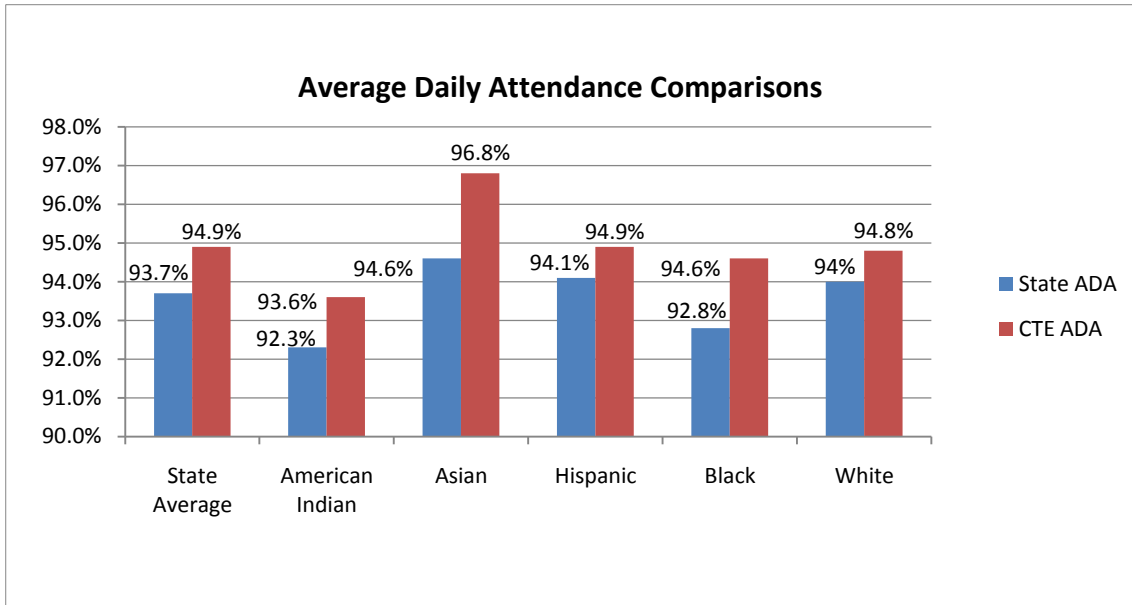
Career and Technical Student Organizations	2009-10 Membership
DECA	1,117
Future Business Leaders of America (FBLA)	1,120
Family, Career & Community Leaders of America (FCCLA)	543
FFA	1,619
Health Occupations Students of America (HOSA)	805
SkillsUSA	2,683
Total Student Membership	7,887

Part II: Enrollment and Attendance Comparisons

Enrollment in CTE programs throughout the State has remained constant over the last five years when compared to general enrollments. On average, 47.3 percent of high school students enroll in one or more CTE courses each year. Fluctuations in the percentage of students who participate in CTE are likely due to factors such as increases in graduation requirements and changes in local schedules such as reductions in class periods and removal of “zero” hours, both of which provide for additional course-taking opportunities. For example, in Clark County, the majority of schools changed from an eight period day in 2008-09 to a six period day in 2009-10, resulting in a significant drop in elective course offerings.

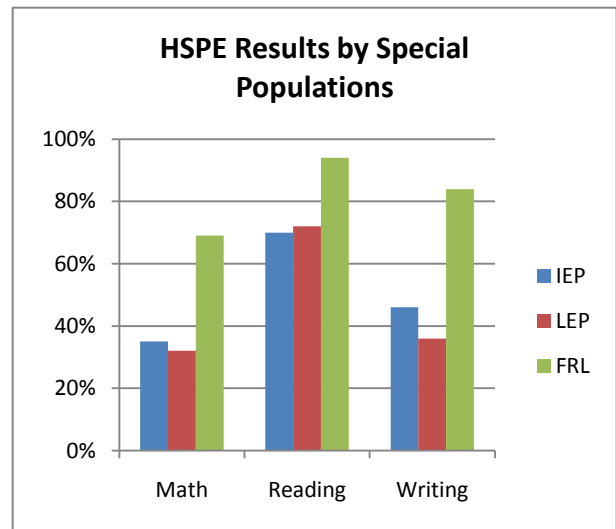
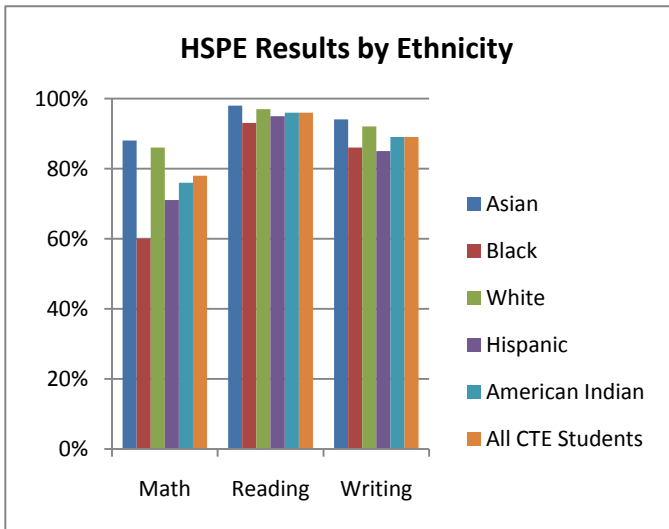


Average daily attendance (ADA) of CTE students in grades 9-12 compared to the ADA of the overall grades 9-12 student population was approximately 1.2 percent higher. Although the higher attendance rates for all ethnicities were modest, the higher rates may indicate increased student engagement in high school through participation in CTE programs.



Part III: Academic Attainment

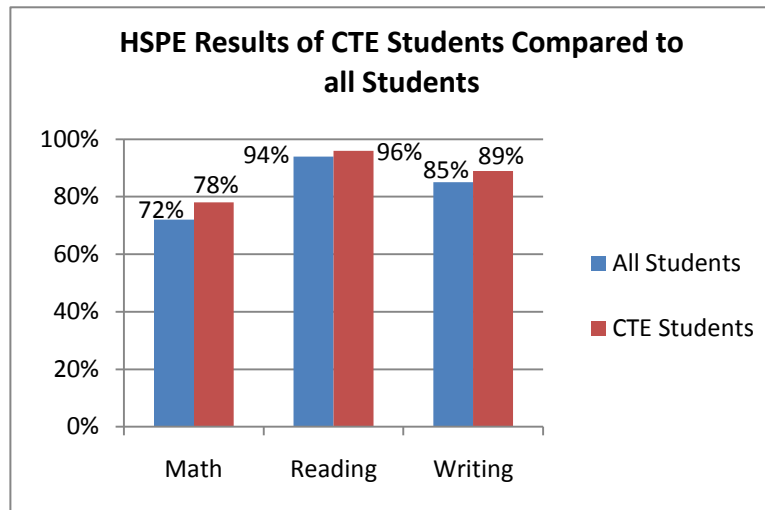
The charts below show academic attainment of CTE students in math, reading and writing by ethnicity and special populations relative to performance on the Nevada High School Proficiency Examinations (HSPE) in 2009-10. The special populations’ classes include: Individualized Educational Program (IEP); Limited English Proficient (LEP); and Free and Reduced Lunch (FRL).



The next chart shows how 11th grade CTE students performed on the math, reading, and writing HSPEs in 2009-10 compared to all 11th grade students. Overall, the percentage of CTE students that passed each portion of the HSPE tests exceeded the results for all students by 2 to 6 percentage points.

The higher test results may be due to the following factors: (1) practical application of math skills to solve real-world problems; (2) the reading of technical manuals and following written instructions in project-

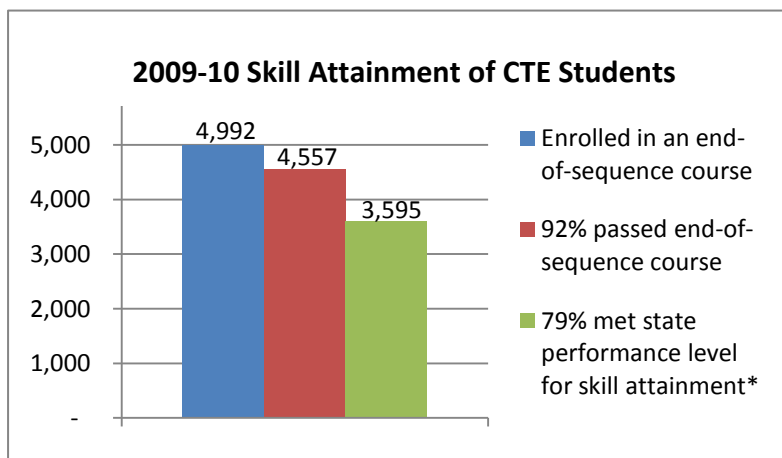
based lab assignments; (3) the use of writing skills to compose business letters and other correspondence and demonstrate all-around communication skills in simulated work-based learning environments.



Part IV: Technical Skill Attainment

Technical skill attainment is currently measured by the degree to which CTE students complete a CTE course sequence, also called a program of study. A course sequence is what constitutes a CTE program, whereby two or more courses allow students to progress from entry level to advanced skill development, depending on the scopes, goals, and objectives of the courses. Skill attainment is measured by the percent of students who complete an end-of-sequence course, first by the percentage who pass the course and second by the percentage who earn a B or better and successfully complete 80 percent or more of the course competencies.

Measuring the skill attainment of CTE students is also an indicator of performance required by the Carl D. Perkins Career and Technical Education Act of 2006.



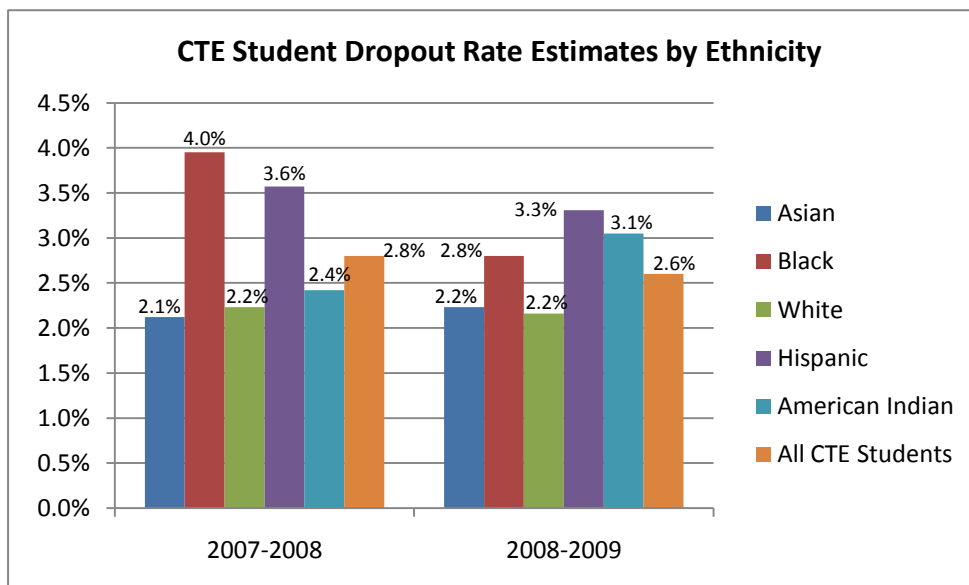
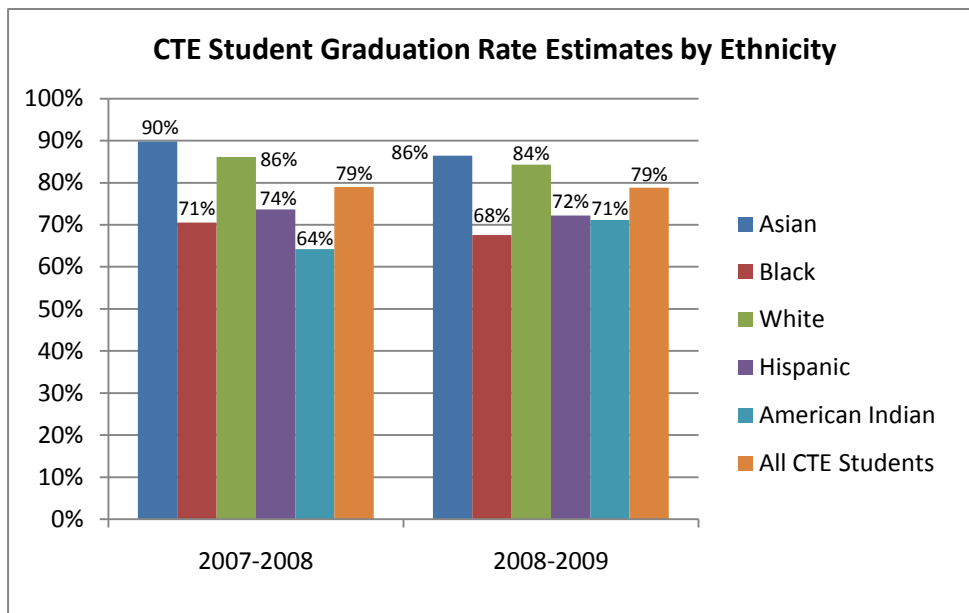
Gender	Students Passing Exit Courses	Students Meeting State Level for Skill Attainment	% Students Meeting State Level for Skill Attainment
Males	2,701	2,055	76%
Females	1,856	1,504	81%

* The 2009-10 state performance level for skill attainment is 78.50%.

Part V: Graduation and Dropout Rate Estimates for CTE Students

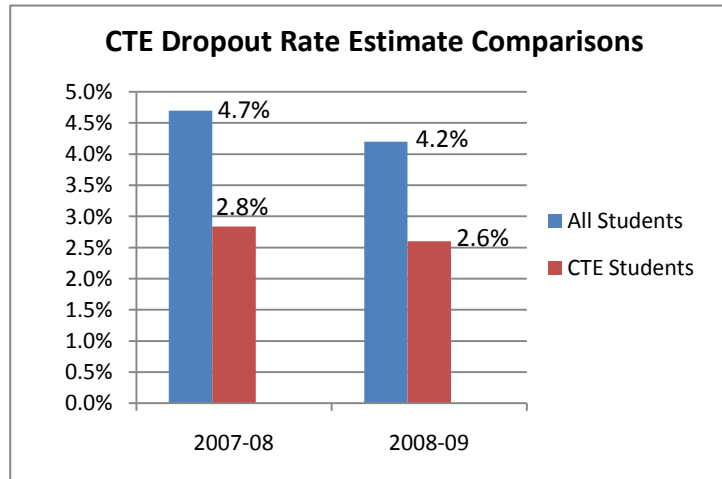
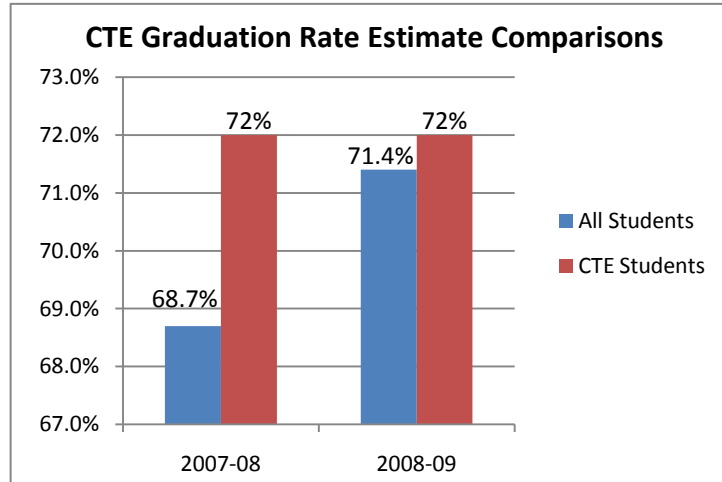
School completion and dropout rate estimates for CTE students are shown below by ethnicity and for all CTE students. The rate estimates are calculated for all students who were enrolled in one or more CTE courses.

The graduation and dropout rates are shown as estimates for two primary reasons: (1) Two data collection and reporting systems had been used separately for past graduation and dropout rate comparisons, the Career and Technical Education Reporting System (CTERS) for CTE students and the System for Accountability Information in Nevada (SAIN) for all students. To obtain the more precise comparisons for this report, data collected from both systems were used. For future reporting, the Department of Education is working to fully merge the reporting of CTE data with SAIN, whereby most student data will be derived from one reporting system; (2) in the past, the students counted as “non-returns” and calculated for the overall dropout rates were not included in the dropout rate calculations for CTE students. (Non-returns are added to dropout counts as those students who complete a school year but do not return the following fall semester and cannot be accounted for.) The graduation and dropout rates for 2008-09 better represent students accounted for in other state calculations.



A measure of success for career and technical education is in dropout and graduation rate comparisons, where the graduation and dropout rates of CTE students are compared to all students. Even though the differences in graduation and dropout rates of CTE students compared to all students are actually less than the differences shown in past reports, the results still indicate positive trends. In 2008-09, for example, 72 percent of CTE students graduated compared to 71.4 percent for all students, and 2.6 percent of CTE students dropped out of school compared to 4.2 percent for all students. The estimate comparisons shown in this publication portray an accurate picture of CTE graduation and dropout rates that align with the higher attendance rates and higher academic achievement shown in Parts II and III respectively.

These rates will change next year when the State will begin using the cohort graduation and dropout rates.



Part VI: Secondary to Postsecondary Transition

Career and technical education plays a significant role in supporting student transition from high school to college. While in high school, students can earn college credit through tech prep articulation agreements. Tech prep articulation agreements have been in place for many years, but it has been through the diligent work of tech prep coordination teams in each college service area that has resulted in high growth over the last several years in both student enrollment and completion of coursework enabling students to earn college credit prior to high school graduation. In 2009-10, 252 secondary CTE courses statewide had formal, approved articulation agreements qualifying them for college credit.

Through policy approved by the Nevada System of Higher Education and the Nevada State Board of Education, students meeting the following criteria may earn college credit: Students must be in the 11th or 12th grade and earn a grade of A or B in CTE courses that have active articulation agreements with like courses at the college level. Students may earn up to twenty-one (21) college credits while in high school.

The table below shows by college service area the following information for 2009-10:

- Colleges serve the following school districts:
 - College of Southern Nevada: *Clark, Lincoln, Nye Counties*
 - Great Basin College: *Elko, Eureka, Humboldt, Lander, Nye, White Pine Counties*
 - Truckee Meadows Community College: *Washoe County*
 - Western Nevada College: *Carson, Churchill, Douglas, Lyon, Mineral, Pershing, Storey Counties;*
- Number of high school CTE courses articulated for college credit per college service area;
- Number of 11th grade CTE students who earned college credit in articulated courses and the number of college credits earned;
- Number of 12th grade CTE students who earned college credit in articulated courses and the number of college credits earned.

College Service Areas	Articulated CTE Courses	11 th Grade		12 th Grade	
		No. Students Who Earned College Credit	Total Credits Earned	No. Students Who Earned College Credit	Total Credits Earned
CSN	98	1,708	7,931	1,478	8,388
GBC	54	69	278	110	532
TMCC	48	378	1,534	582	4,263
WNC	52	167	657	141	633
Totals	252	2,322	10,400	2,311	13,816

Summary Comments

Certain trends have been evident for years regarding the effectiveness of career and technical education. One, the size and scope are quite large, where, despite forces that deter opportunities for elective course taking, about 45 percent of all high school students enroll in a CTE course each year, exemplifying high demand. Two, CTE plays a significant role in keeping students engaged in high school, as evidenced by above average attendance, academic achievement, and higher graduation and lower dropout rates.

Also, CTE has a very critical role to play in economic and workforce development efforts. Challenges lie ahead to ensure CTE programs are properly organized and aligned with academic and industry standards and maintain a delivery system that prepares students to transition from secondary to postsecondary education and training and to careers reflective of labor market trends.

For more information contact:

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CTE Mission Statement

The Office of Career and Technical Education is dedicated to developing innovative educational opportunities for students to acquire skills for productive employment and lifelong learning.



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