



2016
INDIANA
CAREER
READINESS
REPORT

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Career Readiness in Indiana

Introduction

In Indiana, over one million students are enrolled in elementary and secondary schools, and over \$16 billion is invested by the state legislature in the K-12 system each biennium¹. The Indiana Department of Education serves K-12 students with a mission to:

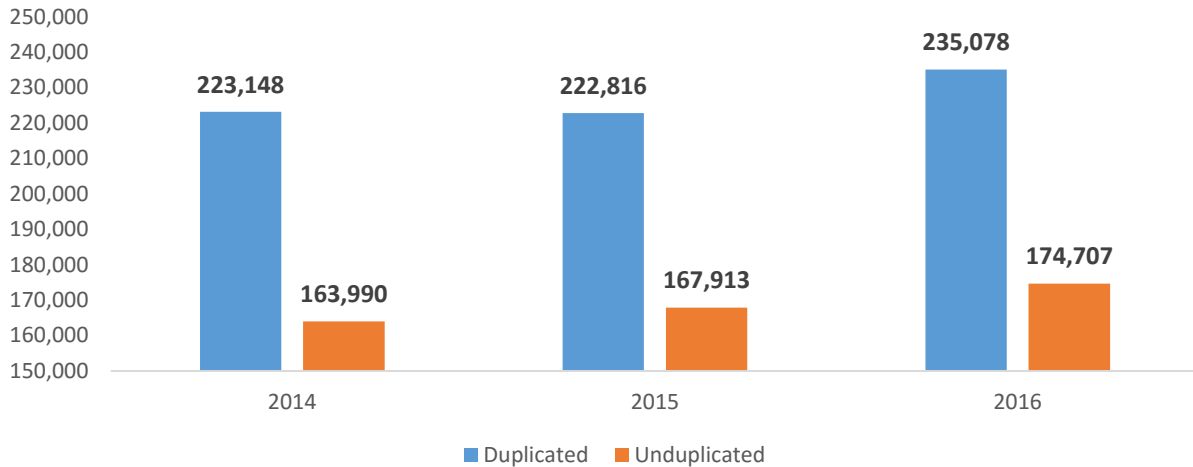
Build an education system of equity and high quality, focused on student-centered accountability

Career and Technical Education (CTE) programs overseen by DOE play a fundamental role in achieving one of the agency's primary goals – Indiana students leaving high school are prepared for post-secondary education and training to enter into high wage, high demand careers. Preparing students for careers is complex and requires simultaneous strategies to provide the support needed to students, parents, teachers, counselors, and administrators.

This report provides the annual update for CTE and career data analysis, offering an updated snapshot of the career readiness system within K-12 schools and the success of this group of students with updated 2014-2015 academic year data.

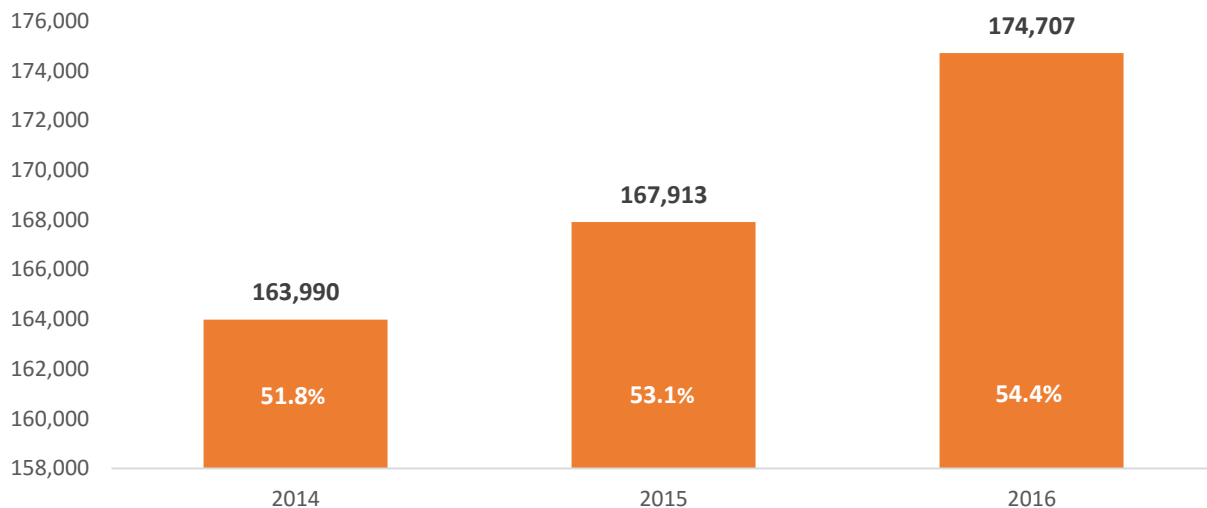
Working together for student success

CTE Enrollment



During the 2015-2016 academic year, 174,707 students, primarily in grades 9-12, were enrolled in CTE courses throughout the state. The chart above provides both the unduplicated and duplicated counts of enrollment in 2015-2016. Unduplicated counts include students who have earned one or more credits in any CTE course—counted only once, regardless of how many courses in which a student has earned credits. For duplicated counts, students are included multiple times if they are taking more than one CTE course in a given year.

CTE Enrollment as a Percentage of Total 9-12 Enrollment



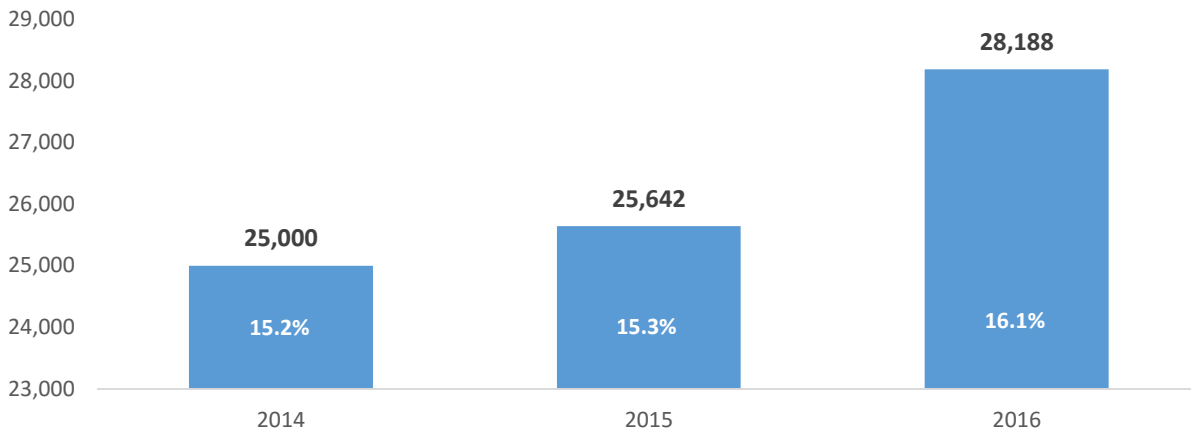
² Note that most of the data in this report is from the 2014-2015 school year, due to availability of completion data and other data components. However, enrollment data is available for 2015-2016 and as such is reported here.

Unduplicated student enrollment in CTE has increased by 6.5 percent from 2013-2014 to 2015-2016, or a total increase of 10,717 students. In 2016, there were 321,247 students enrolled in grades 9-12 in public education throughout the state of Indiana. Over half of those students (54.4 percent) were enrolled in at least one CTE course, an increase of 2.6 percentage points from 2014.

CTE Concentrator Enrollment

A CTE concentrator is a secondary student who has earned six or more credits in a single CTE program area. Overall, the number of concentrators has increased over the past three years, from 25,000 in school year 2013-2014 to 28,188 in 2015-2016, representing a 12.8 percent increase. In 2016, just over 16 percent of all students enrolled in CTE were CTE concentrators, an increase from 15.2 percent in 2014.

CTE Concentrator Enrollment as a Percentage of
Total CTE Enrollment



Indiana CTE Attainment, Completion, and Placement

Data Definitions

Extensive data are available for Indiana students participating in CTE coursework. The federal Carl D. Perkins Act requires states and local districts to collect data and assess performance targets in eight areas at the secondary level. While Perkins funding is allocated for both secondary and post-secondary students, the Indiana DOE solely administers those funds allocated for the K-12 education system. The eight core indicators of performance for secondary education are presented in this report. For this purpose, the following definitions are used:

- CTE Participant: A secondary student who has earned one or more credits in any career and technical education program area
- CTE Concentrator: A secondary student who has earned at least six (6) credits in CTE pathway courses in a state approved College and Career Pathway.

All data points in the following sections represent the 2014-2015 academic year, with the exception of Work Based Learning enrollments, which represents the 2015-2016 year.

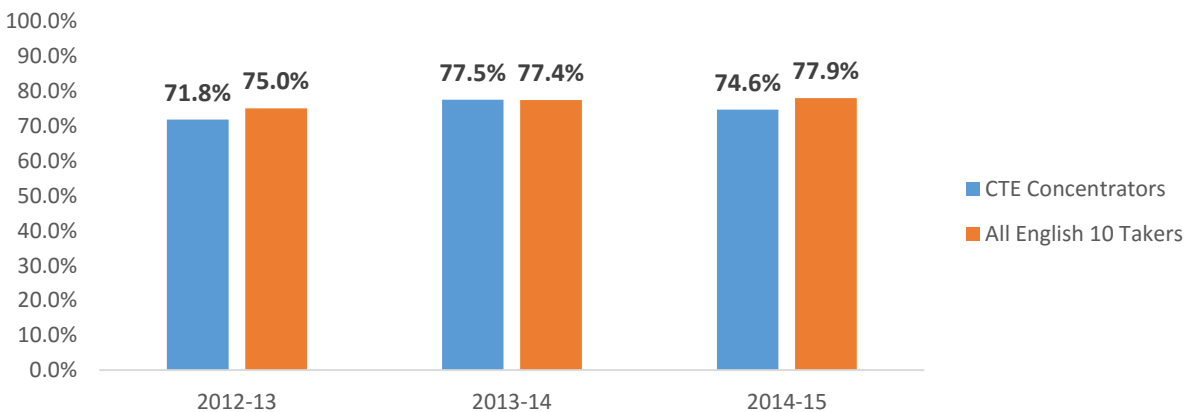
Academic & Skill Attainment

State Assessment Passing Rates: CTE Concentrators Completing in 2015

All students in Indiana are required to take End of Course Assessments (ECAs) prior to completing high school. The ECAs are given in both Algebra 1 and English 10. Typically, the ECAs are given in ninth or tenth grade, although some students may take them earlier (especially for Algebra) or later than those grades.

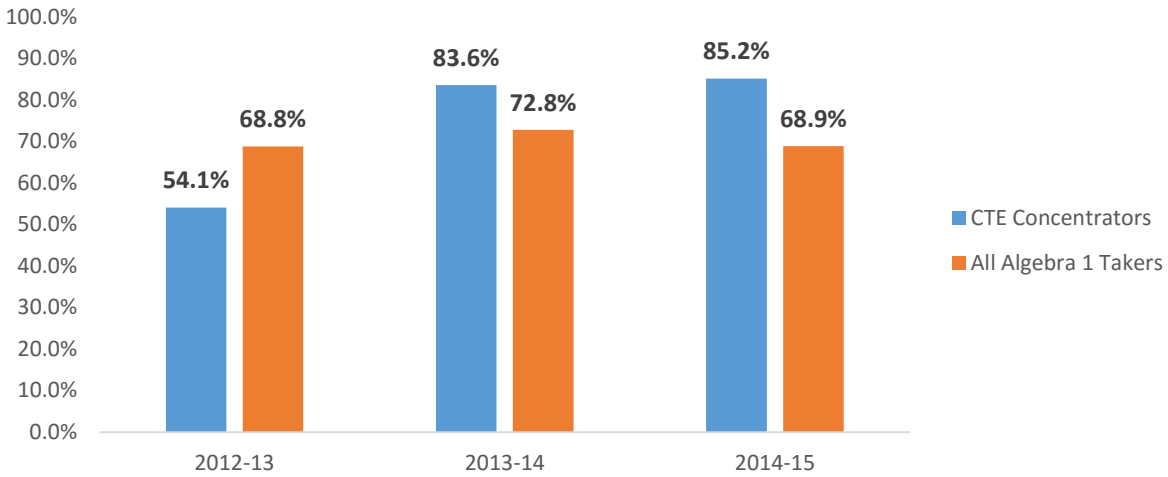
The passing rates below represent performance on ECAs the first time they were taken by CTE concentrators who left high school in 2015 (and were included in the state's calculation of Adequate Yearly Progress). When looking at all CTE concentrators who left high school in 2014-2015, nearly three quarters (74.6 percent) passed their first take of the English 10 ECA while in 10th grade. Comparatively, 78 percent of all students passed the English 10 ECA the first time they took the test. The English 10 first time passing rate for CTE concentrators increased from 2013 to 2015 (about 3 percentage points), while it went up two percentage points for all students.

English 10 Passing Rates



Concentrator performance on the Algebra 1 ECA greatly exceeded that of all students. Over 85 percent of CTE concentrators passed Algebra 1 by 10th grade, compared to 69 percent of all students. While Algebra 1 passing rates fell slightly for all students, they increased for CTE concentrators. Algebra 1 passing rates have increased dramatically for CTE students from 2013 to 2015.

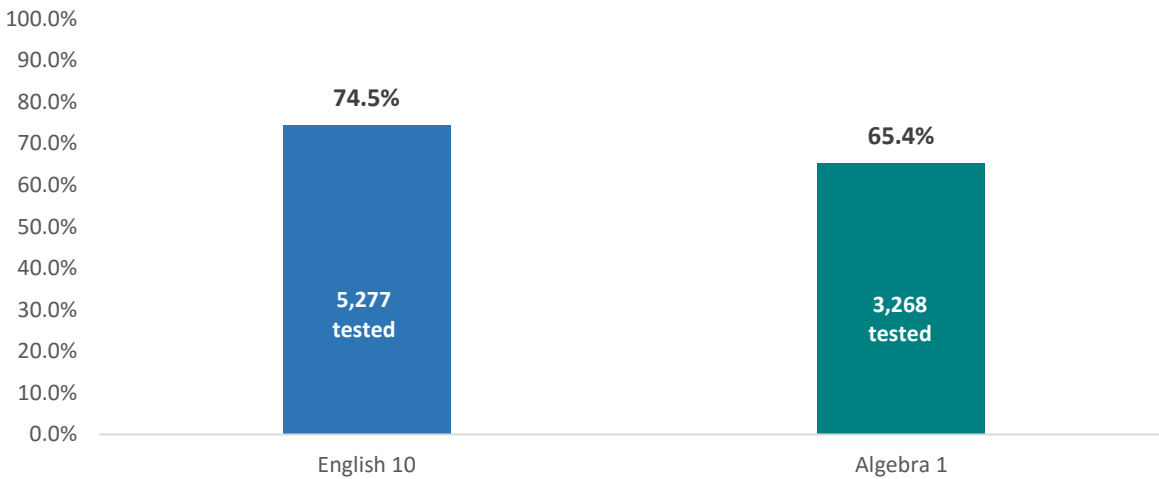
Algebra 1 Passing Rates



ECA Retake Passing Rates

Most students take the ECAs for the first time in ninth or tenth grade and retake the test each semester until they leave school if they do not pass it the first time. The table below shows the pass rates of CTE concentrators who were required to re-take one or both of the English 10 or Algebra 1 ECAs and passed before graduating in 2015.

Retakers Passing the ECAs

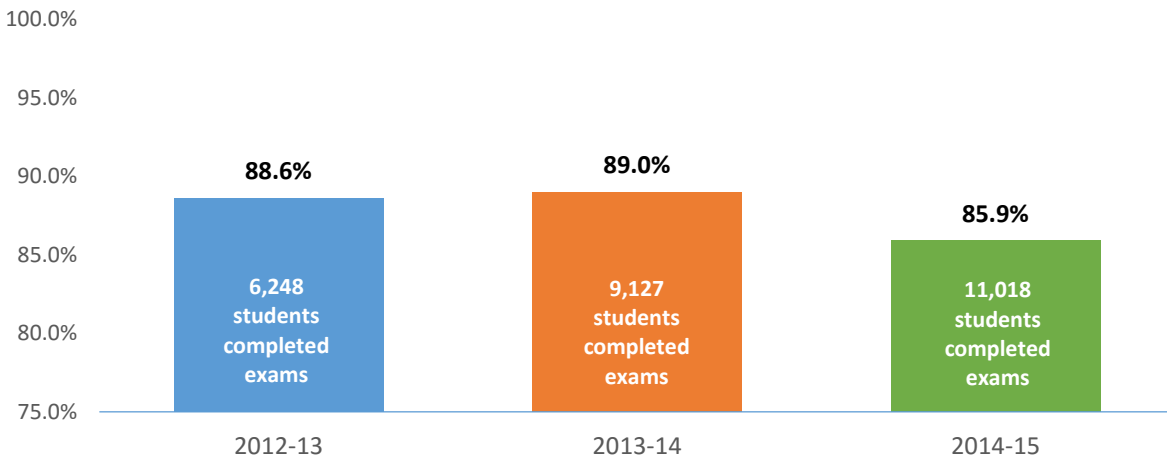


Passing rates for all students in Indiana retaking the ECAs are not available; therefore, no comparisons to the total student population can be made.

Technical Skill Attainment

Overall, 86 percent of CTE concentrators who exited high school in 2015 passed the technical skill assessments (or end of Pathway exams) that are aligned with industry-recognized standards. The number of students taking these skills assessments almost doubled in the last two years which led to an additional 4,770 students achieving technical skills attainment.

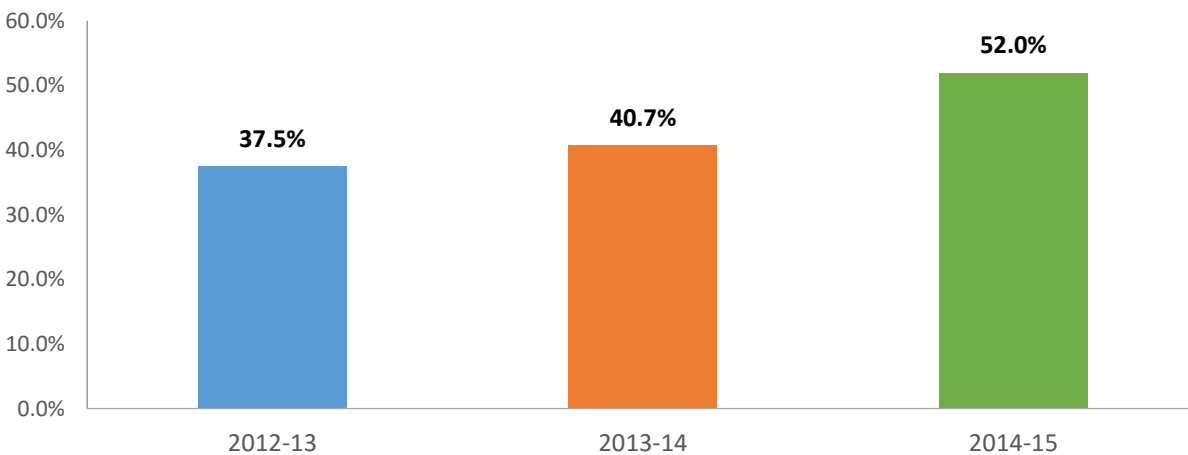
Pathway Exams



Dual Credit Attainment

Earning dual credits (high school credit that also counts for college credit) during high school can help prepare students for postsecondary success. For CTE concentrators who left high school in 2015, just over half (52 percent) earned dual credits. This was a significant increase from the previous year (40.7 percent) and represents an increase of nearly 15 percentage points since 2013.

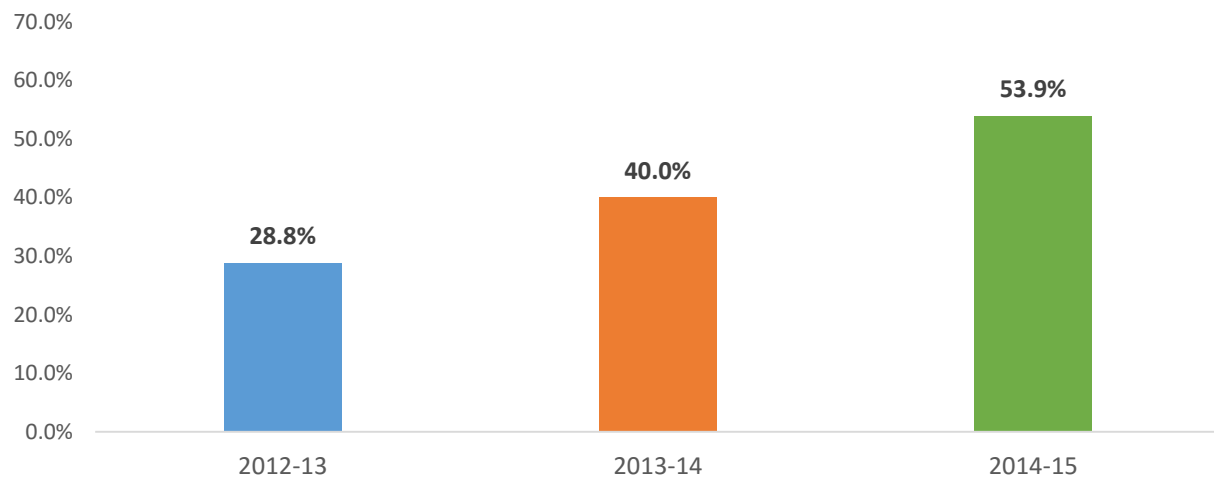
Dual Credits



Industry Certification Attainment

In 2015, 13,615 CTE concentrators who left high school earned an industry certification, representing 54 percent of all CTE concentrators who left in 2015. The CTE concentrators earning industry certifications represent approximately 20 percent of all students who completed high school in Indiana in 2015. Industry certification attainment has steadily increased since 2013, rising from 29 percent in 2013 and 40 percent in 2014 to 54 percent in 2015.

Industry Certification Attainment Trend



While slightly more male concentrators (54 percent) than female concentrators (53 percent) earned a certification, the differences between genders are very small. Slightly fewer economically disadvantaged students earned certifications than the state average, but less than half of disabled students earned industry certifications in 2015.

Work-Based Learning Completion

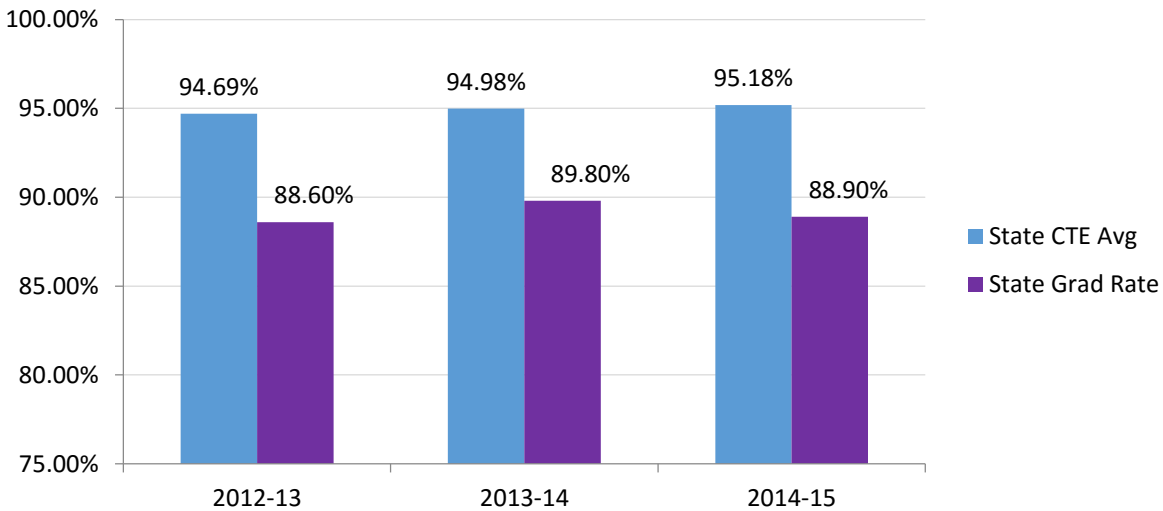
In addition to the opportunities described above, students also have the opportunity to complete Work Based Learning. Work Based Learning offers an opportunity for a student enrolled in a career pathway to apply skills and ideas learned in prior courses to real world settings. Possible models of Work Based Learning include apprenticeships, cooperatives, internships, school based enterprises, and service learning.

In 2015-2016, the first year for which data are currently available, 9,842 students enrolled in career pathways completed stand-alone capstone courses in Work Based Learning.

High School Completion, Graduation, & Placement

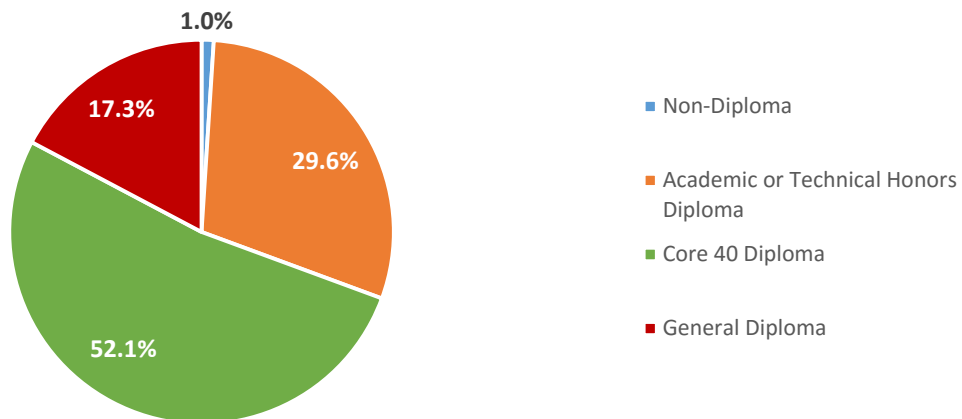
Graduation Rate and Diploma Attainment

The graduation rate for CTE concentrators who completed in the 2014-2015 school year (the most recent year for which complete data are available) exceeded the graduation rate of all students by more than 6 percentage points, continuing a long-term trend.



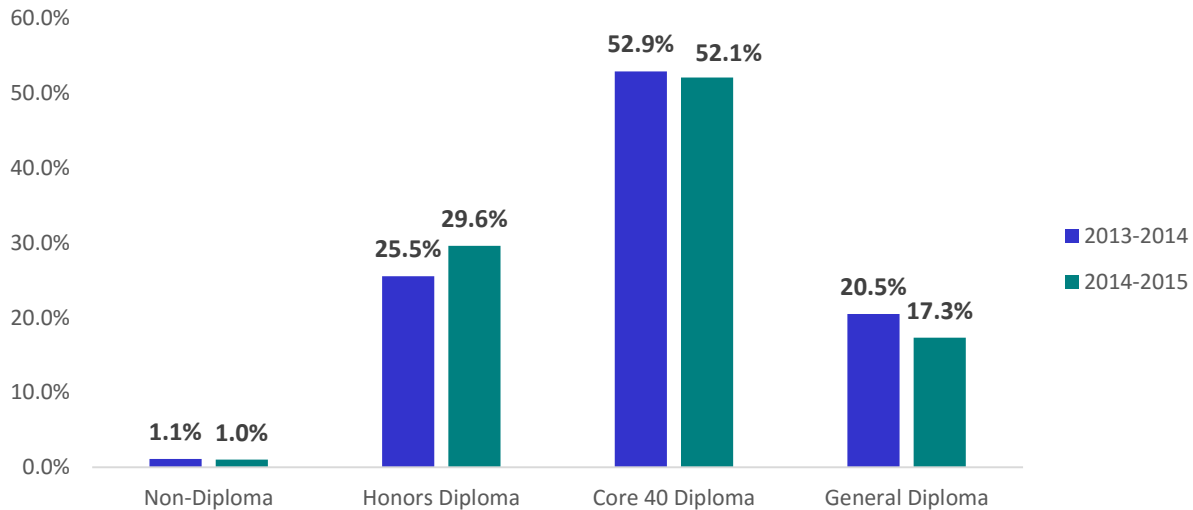
Over 80% of CTE concentrators who graduated in 2015 earned a Core 40 diploma, Academic Honors, or Technical Honors Diploma with. Approximately 30 percent of concentrators earning the Academic Honors or Technical Honors diploma (or both). 17 percent earned a General diploma, and only one percent were non-diploma earners.

Diploma Type: CTE Concentrators (2014-2015)



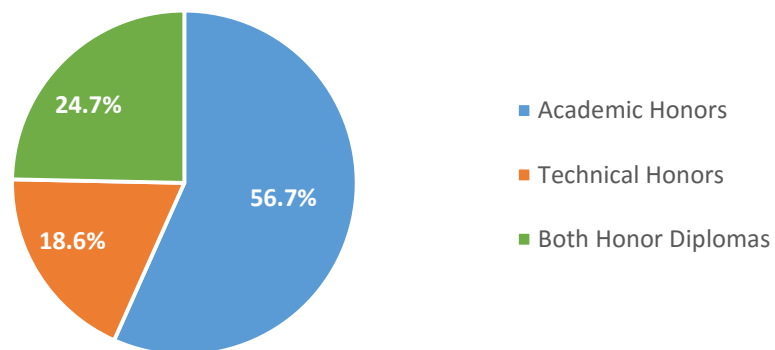
Compared to the year before, more CTE concentrators who graduated in 2015 earned either a Core 40 or Honors Diploma (82 percent) than those who graduated in 2014 (78 percent). The change primarily occurred in the Honors diploma category, with 30 percent of 2015 CTE concentrators earning Honors diplomas, compared to 25.5 percent in 2014.

CTE Concentrator Diploma Type: 2014 vs. 2015



Of the 3,803 CTE concentrators who earned Honors diplomas, the majority earned Academic Honors diplomas (57 percent). About one quarter of Honors diploma recipients earned both the Academic and Technical Honors diplomas, and just under 19 percent earned Technical Honors only.

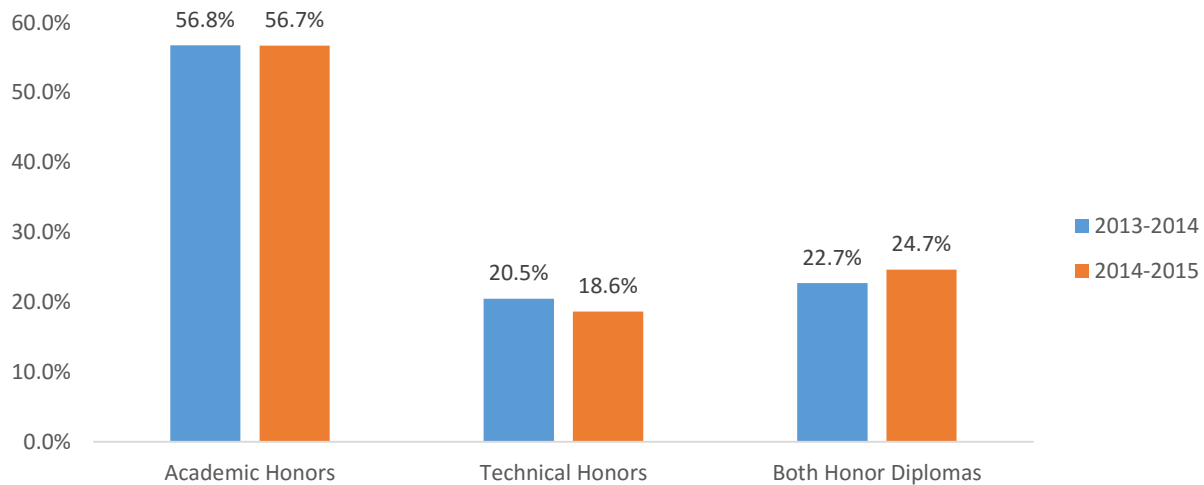
2015 CTE Concentrator Honors Diploma Recipients (Representing 29.6% of all CTE Concentrators)



Compared to 2014, about 800 more CTE concentrators earned Honors diplomas in 2015 (3,803 Honors diploma recipients in 2015 vs. 2,995 in 2014). While about the same percentages of CTE concentrators earned Academic Honors diplomas in 2014 and 2015, more CTE concentrators earned both Academic

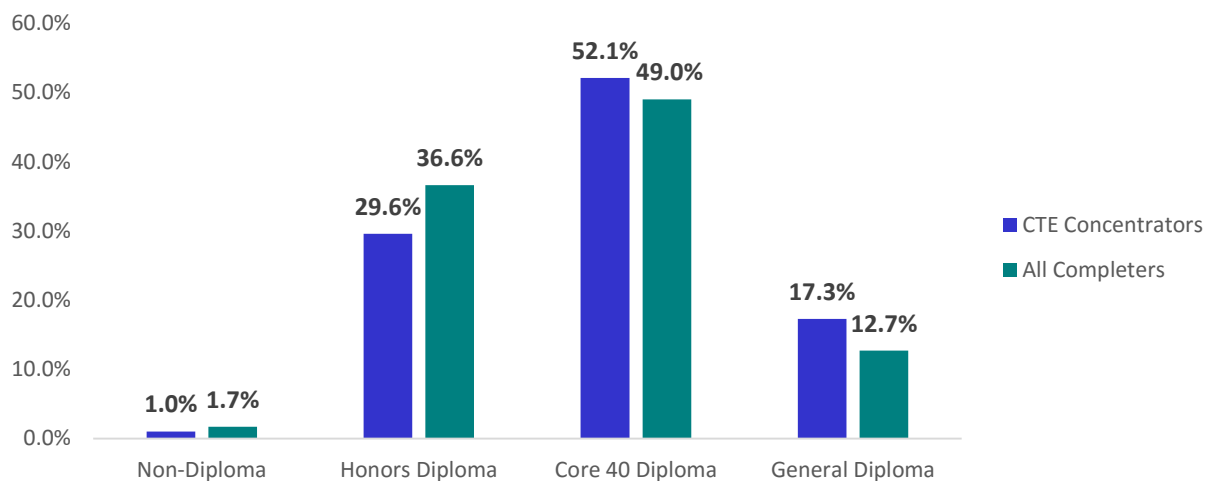
and Technical Honors diplomas in 2015 (25%) compared to 2014 (23%), and fewer earned Technical Honors in 2015 (19%) compared to 2014 (21%).

CTE Concentrator Honors Diploma Types: 2014 vs. 2015



Of the 71,240 students who completed high school in 2015 (including those who completed a GED or non-diploma certificate), approximately 86 percent earned Honors or Core 40 diplomas, compared to 82 percent of the (12,848) CTE concentrators. Fewer CTE concentrators earned Honors diplomas (30 percent vs. 37 percent) but more CTE concentrators earned Core 40 diplomas (52 percent vs. 49 percent).

2015 CTE Concentrators Compared to All 2015 Completers



High School Graduation Rate Calculation

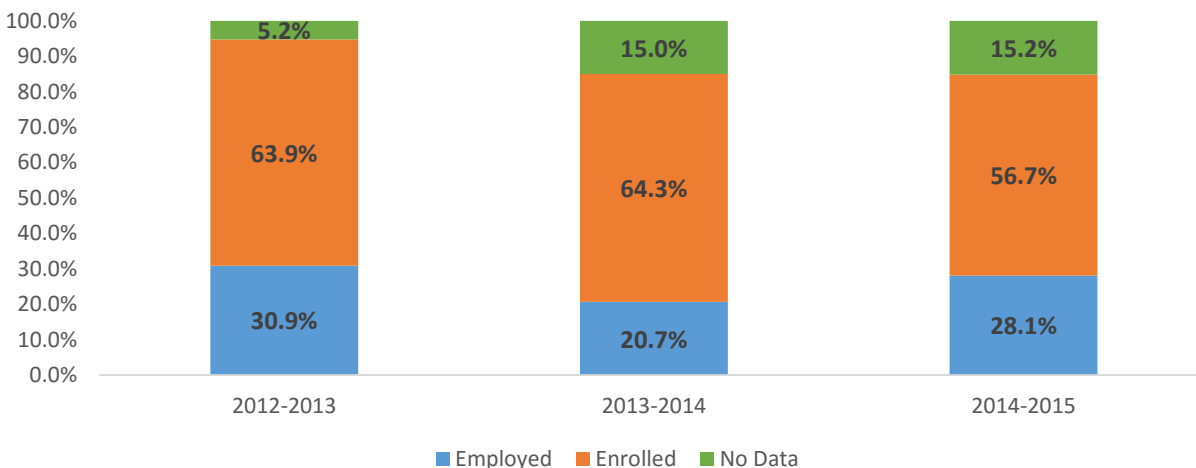
While the data above demonstrate the number and percentage of CTE concentrators who earned any type of completion credential, the state does not include students who earn alternate credentials (other

than a General, Core 40, or Honors) diploma in its official graduation rate calculation. When looking at the number and percentage of CTE concentrators who left school in 2015 and completed a diploma, the percentage is still high, with 95 percent of CTE concentrators earning a diploma. CTE concentrators have outperformed the state average over the past three years.

Post-High School Placement (by Second Quarter After Graduation)

CTE programs are designed to prepare students for college and career readiness. Though it is critical to track student placement after leaving high school, securing post-high school placement data for all graduates is a challenge. For 85% of the CTE concentrators who completed high school in 2015, data is available on their placement after high school completion. Of those, twice as many completers entered postsecondary education than went to work (57 percent compared to 28 percent). Compared to 2014 completers, the percentage of students entering the workforce in 2015 was higher than in 2014 (28 percent vs. 21 percent).

Post-High School Placement Trend



Data information indicates 86 percent of female CTE concentrators were employed or enrolled after leaving high school, compared to 84 percent of male CTE concentrators. Females were more likely to enroll in postsecondary education than male students (31 percent vs. 26 percent, respectively). A slightly smaller percentage of economically disadvantaged CTE concentrators were employed or enrolled than all students (82 percent vs. 85 percent, respectively).

Higher Education Enrollment (Cohort from One Year Prior)

Looking at the CTE concentrator cohort from one year prior (2013-2014) allows for an analysis of career cluster enrollment, as well as postsecondary remediation. This is because postsecondary data typically lags by one year. For CTE concentrators who left high school in 2014, 59 percent were enrolled in postsecondary in 2014-2015. Of these students, ten percent were enrolled in the same career cluster as their CTE concentration focus in high school.

Postsecondary Enrollment: 2014 CTE Concentrators Leaving High School

Student Factor	2014-2015		
	Numerator	Denominator	%
Overall Total	11,524	19,618	59%

Postsecondary Enrollment: Same Career Cluster as CTE Concentration

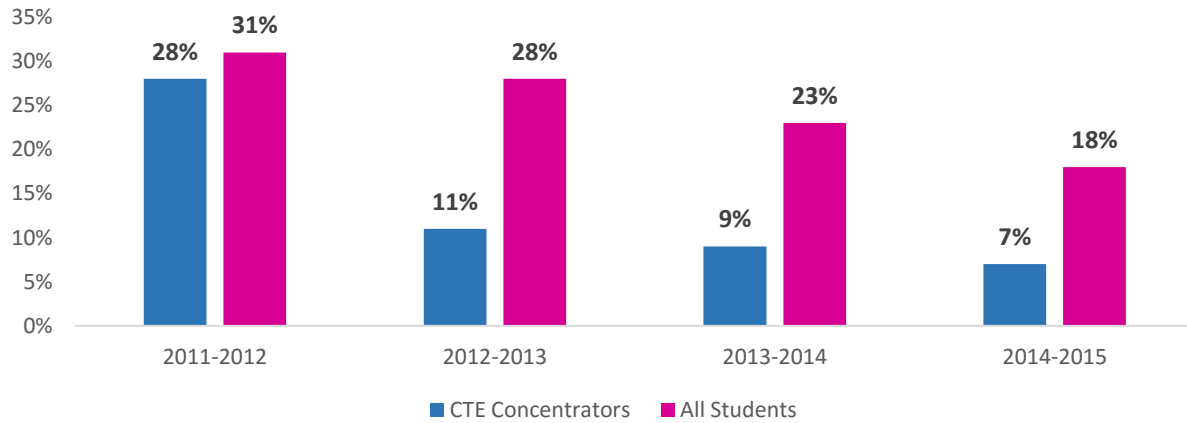
Student Factor	2014-2015		
	Numerator	Denominator	%
Overall Total	1,166	11,524	10%

Postsecondary Remediation One Year Prior

Whether or not students need remediation in English/Language Arts or Mathematics (or both subjects) during their first year of postsecondary can be an indicator of college readiness and a predictor of persistence. For CTE concentrators enrolling in Indiana public postsecondary institutions in 2014-2015,

approximately seven percent required remediation in one or more subjects. Comparatively, 18 percent of all students in Indiana required remediation.

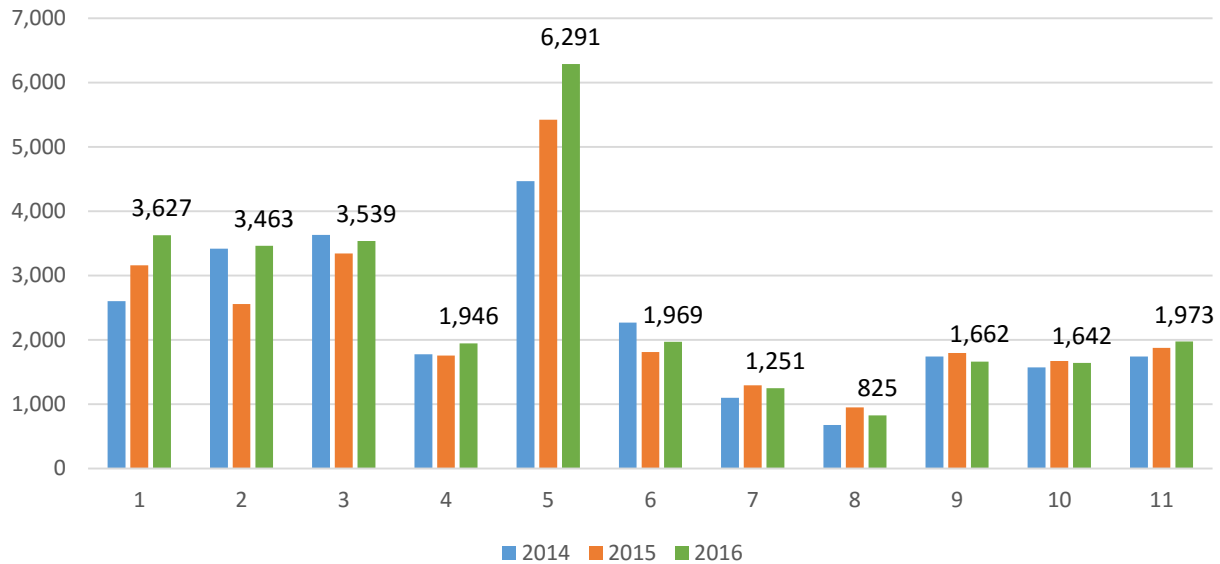
Postsecondary Remediation Trend: CTE Students vs. All Students



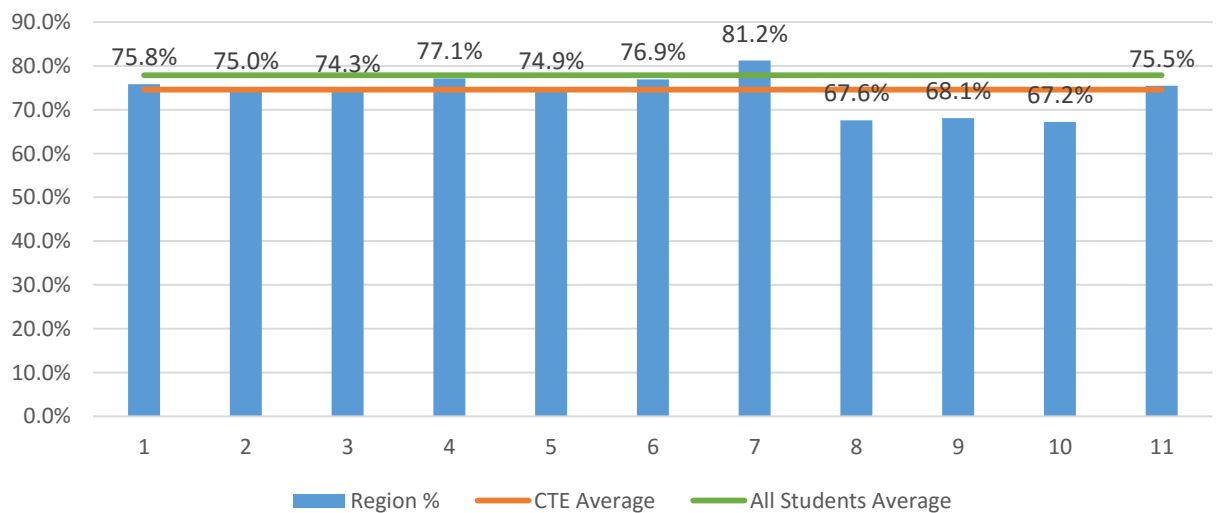
Much like at the state level, the percent of CTE students requiring remediation has shown a downward trend over the past four years. Consistently, CTE concentrators have required less remediation than comparative cohort of all Indiana high school graduates enrolling in postsecondary education.

Regional Analysis (2014-2015) by Indiana's 11 Economic Growth Regions Academic & Skill Attainment

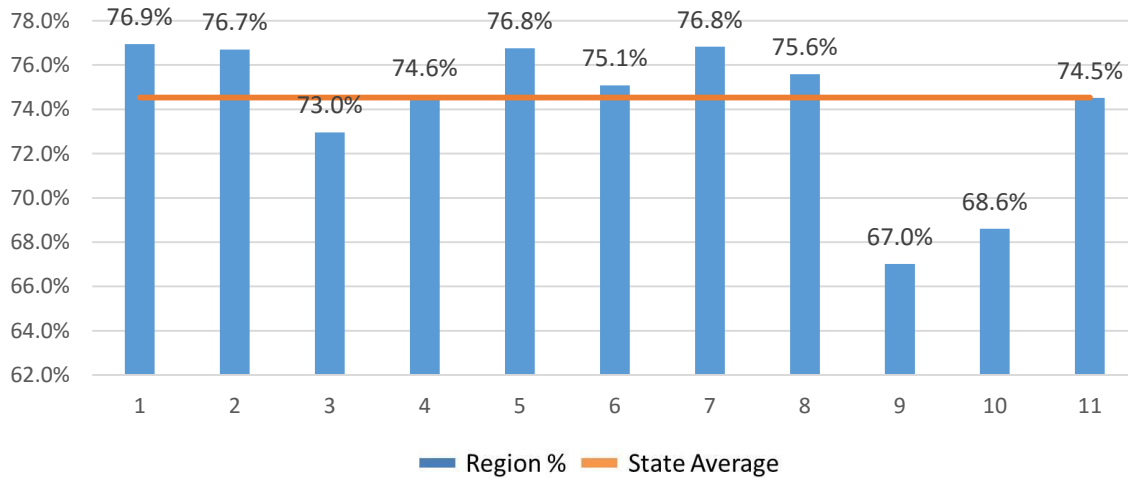
Total CTE Concentrator Enrollment by Region



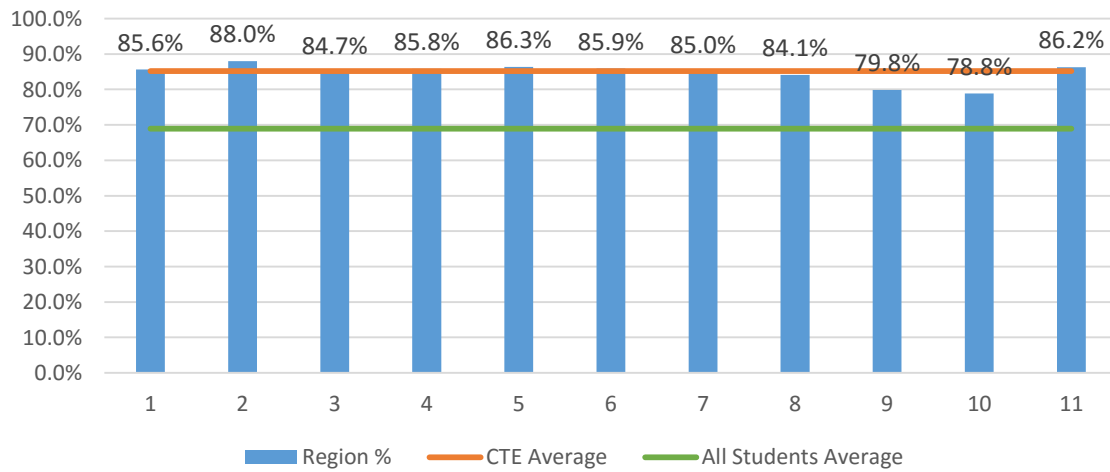
English/LA ISTEP+ Pass Rate



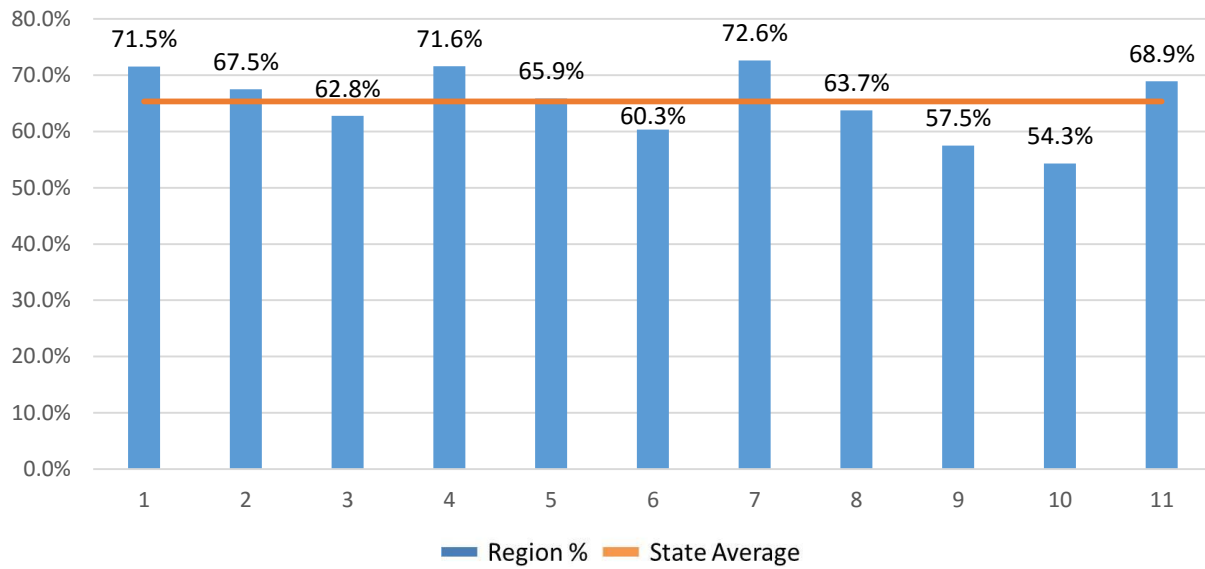
English/LA ISTEP+ Pass Rate by Last Administration



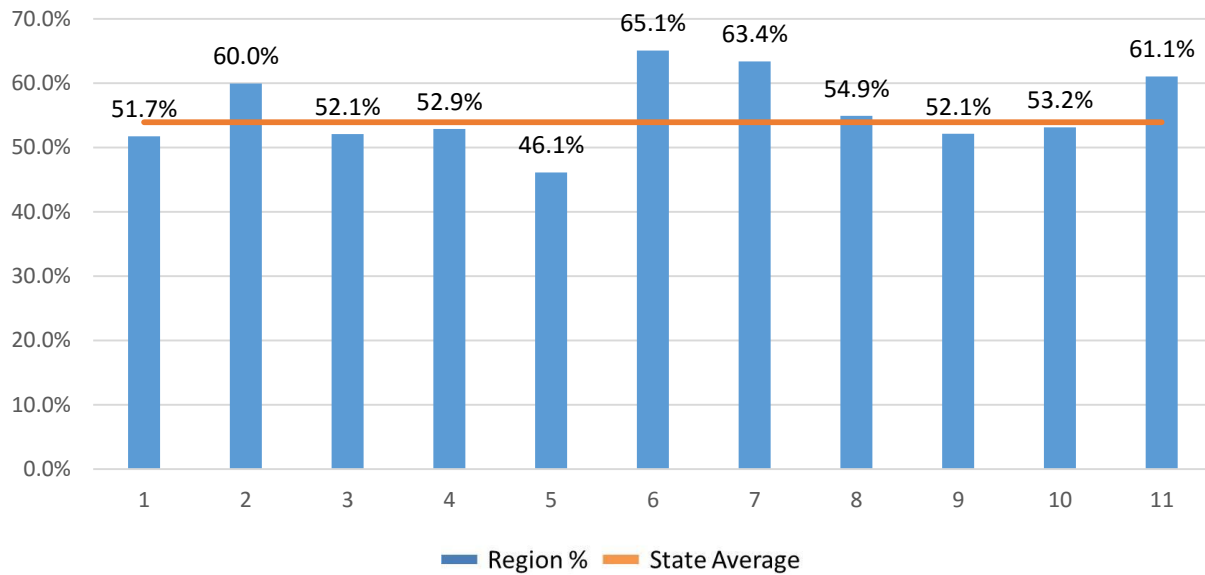
Algebra I ISTEP+ Pass Rate



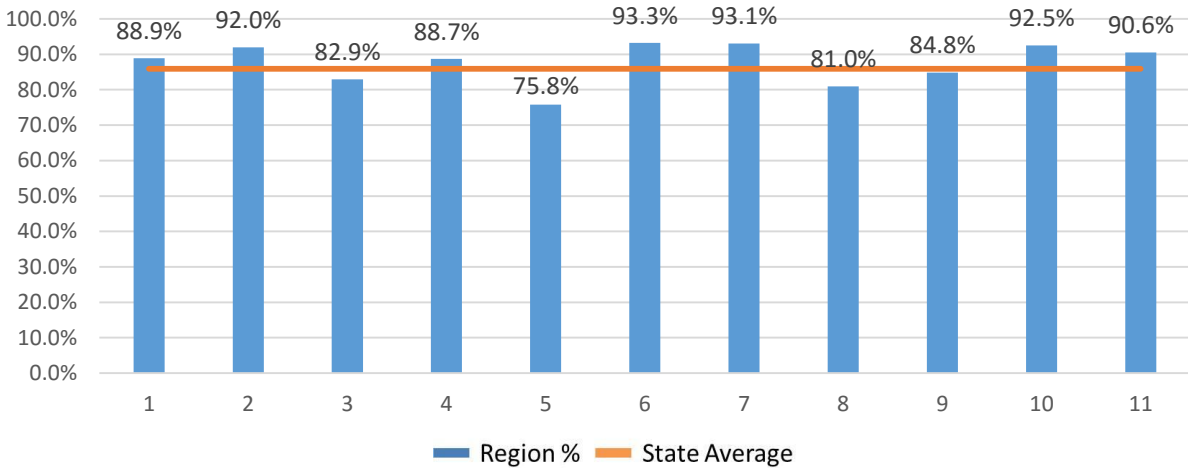
Algebra 1 ECA Pass Rate by Last Administration



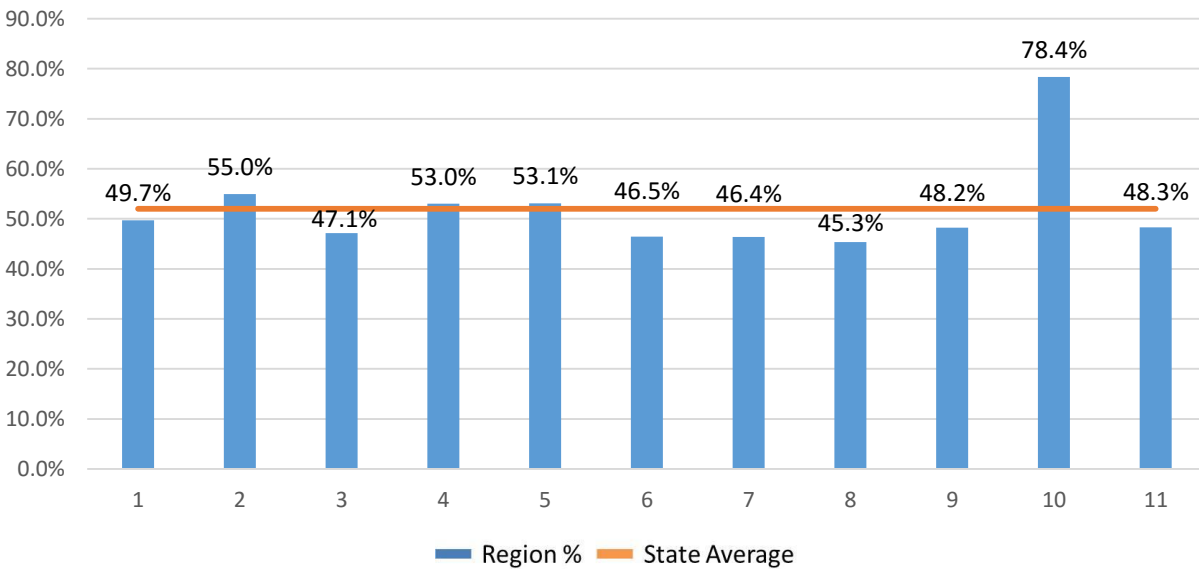
Industry Certification Attainment



Technical Skill Attainment

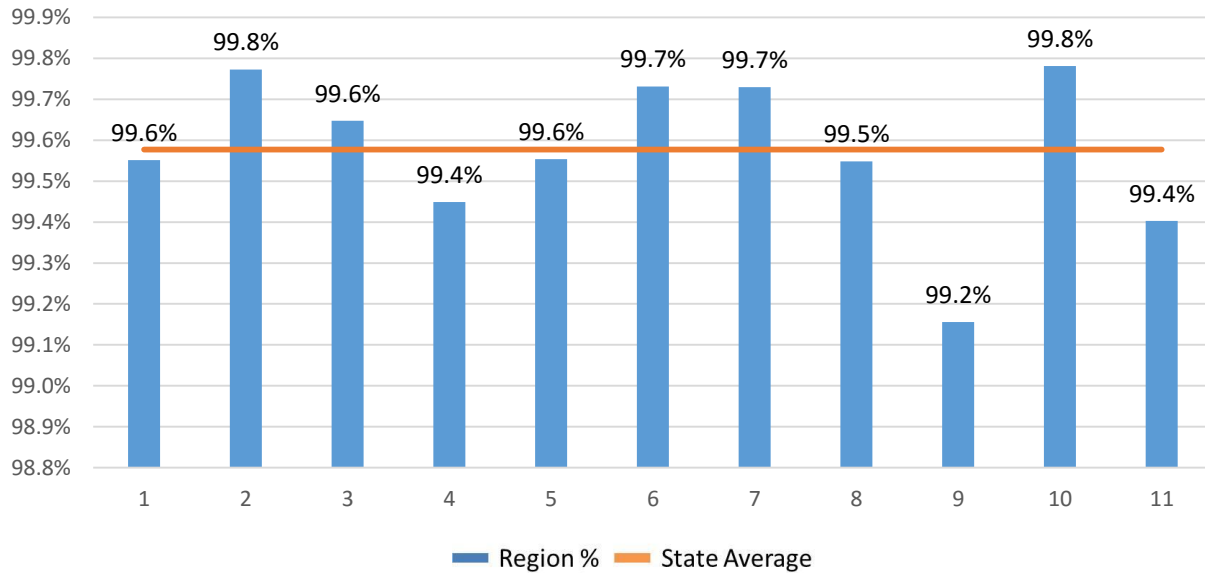


Dual/College Credit Attainment

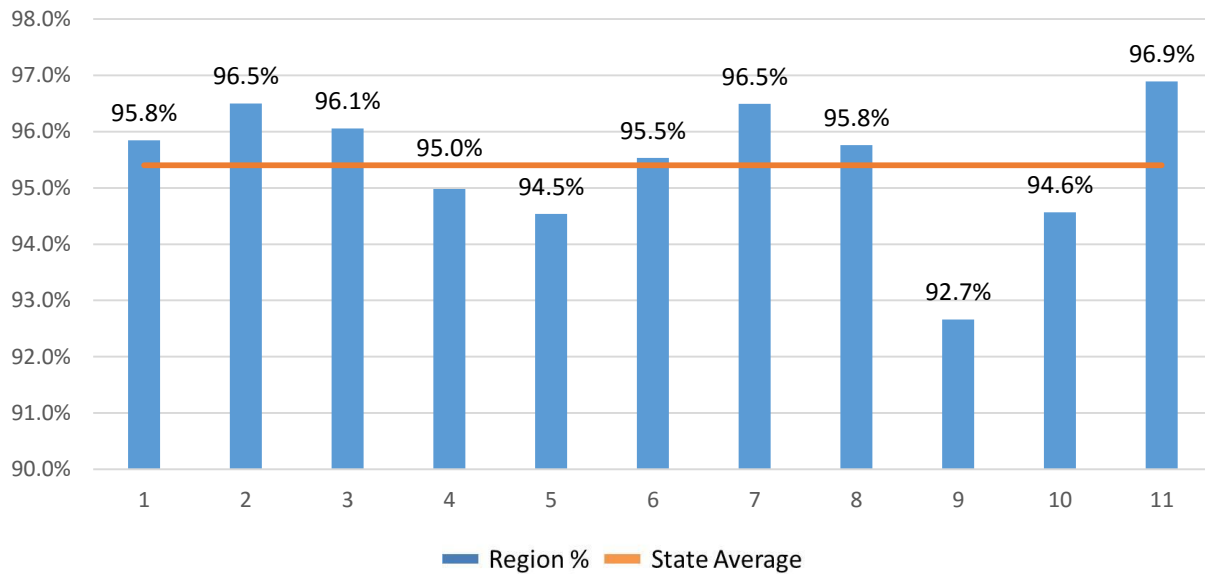


High School Completion, Graduation, & Placement

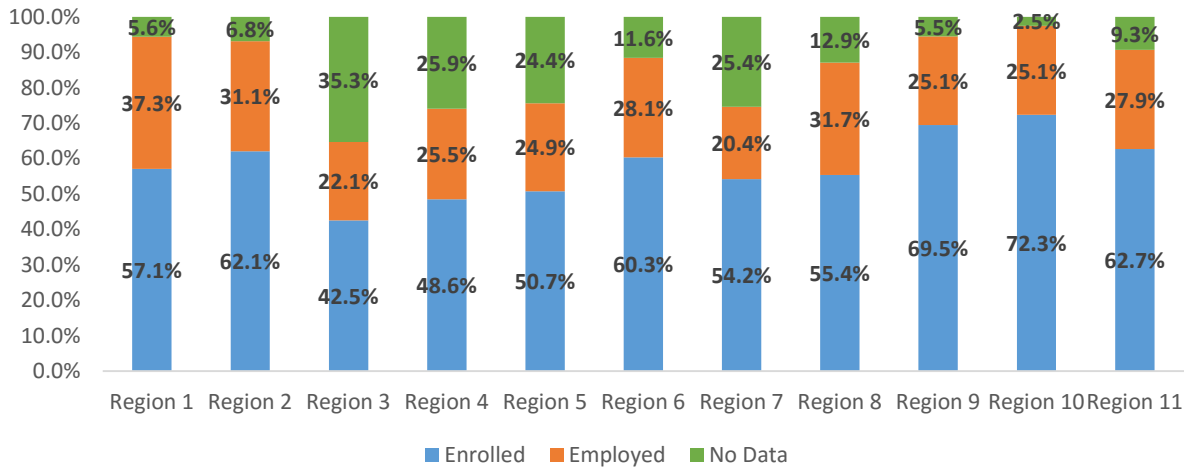
High School Completion



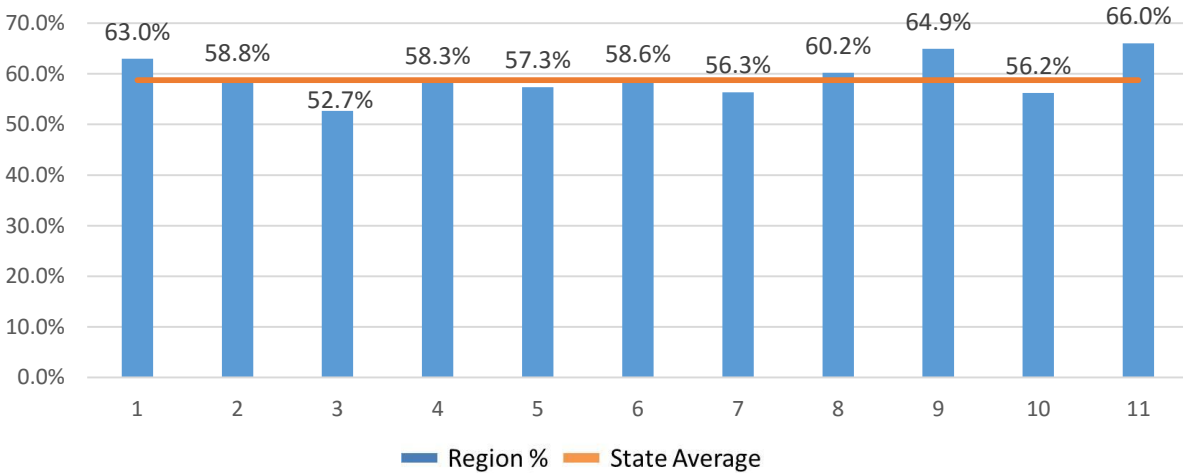
High School Graduation



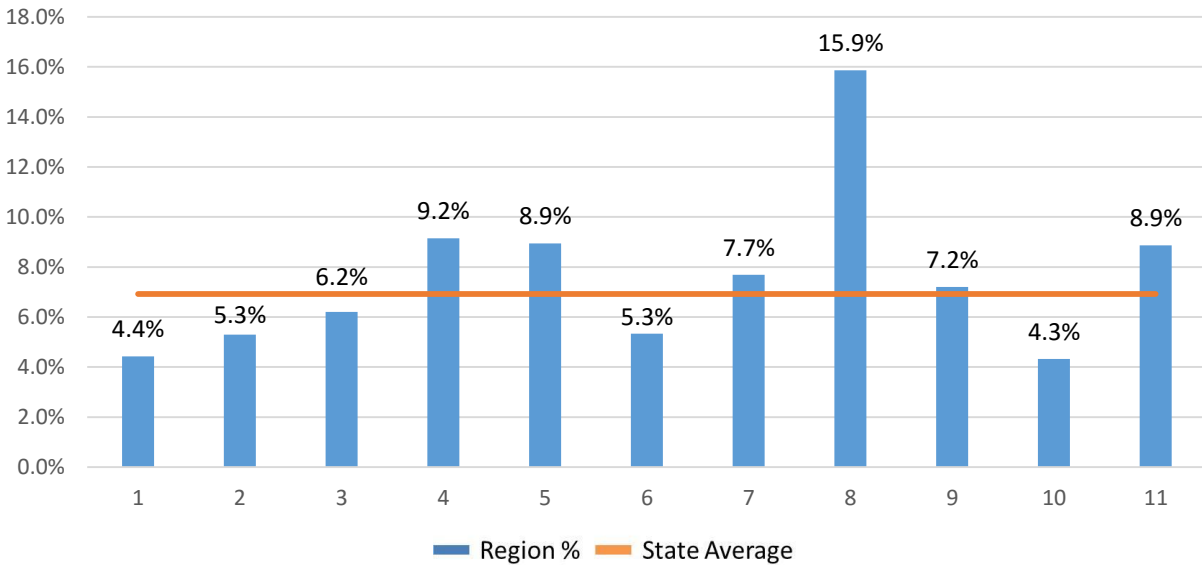
Enrolled or Employed Q2 After HS Graduation



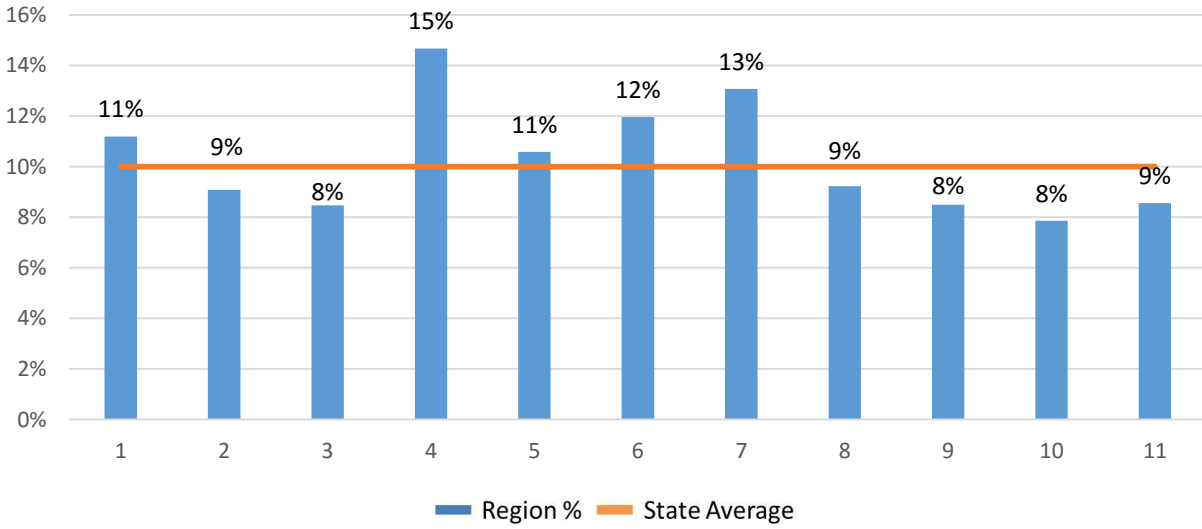
Enrolled in Higher Education One Year Previously



Postsecondary Remediation

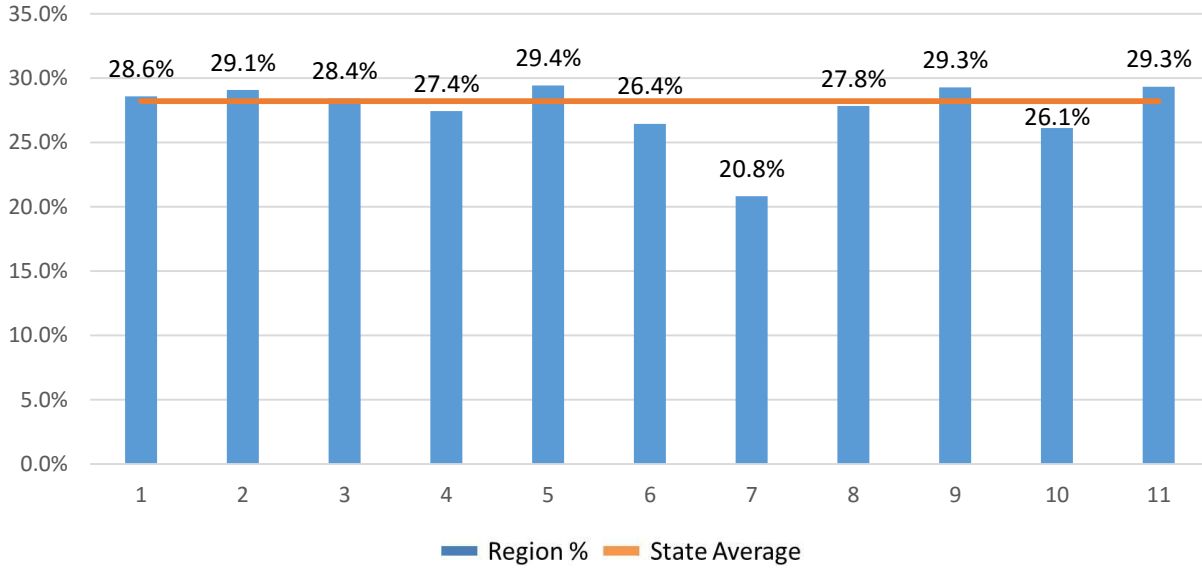


Enrolled in Postsecondary in Same Career Cluster as High School Concentration



Nontraditional Students

Nontraditional Student Enrollment



Nontraditional Student Completion

