

Indiana Career Readiness Report

2015 CTE and Career Data Analysis



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Section I:

Career Readiness in Indiana

The term “college and career readiness” has become a popular catchphrase across the country over the last several years. In many states, including Indiana, college and career readiness means the fundamental mathematics and English/Language Arts standards students must master in grades K-12 to pass the state assessments. But the full meaning of college and career readiness encompasses a broader body of knowledge and skills that extend beyond academics.



“The more students can connect their everyday learning to meaningful, real world applications, the more likely they are to value higher levels of learning and persist toward their goals.”

- Glenda Ritz

Superintendent of Public Instruction

The Indiana Department of Education (IDOE) recognizes this distinction by defining a student who is college and career ready as an individual who not only meets the state’s academic standards but “who has the knowledge, skills and abilities to succeed in post-secondary education and economically viable career opportunities.”ⁱ

The belief that students should have opportunities to learn about and explore careers while in school – beyond just an academic exercise – led to passage of Indiana’s career development law, which promotes career readiness across all content areas, all classrooms and all grade levels.ⁱⁱ

Indiana Superintendent of Public Instruction Glenda Ritz says this means students are more likely to understand that what they are learning day to day in school has a correlation to their future.

This report provides an update of the latest Career and Technical Education (CTE) data and also examines the state of career readiness for *all* Indiana students, from career awareness to exploration and work based learning to postsecondary planning.

Career Awareness, Information, and Exploration

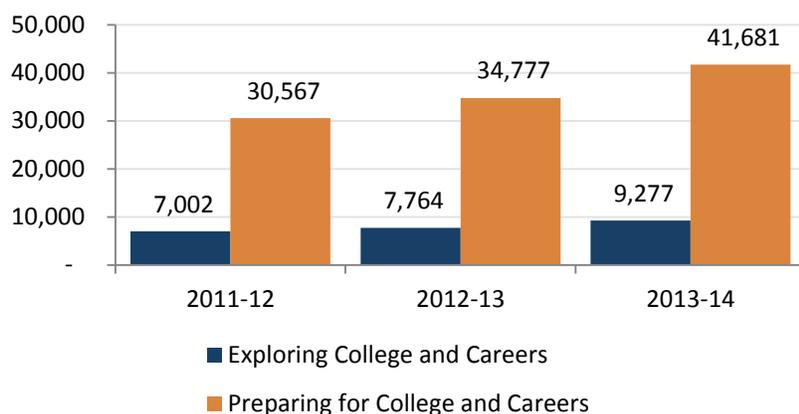
Indiana law requires elementary students to participate in activities that help them become aware of careers at an early age. Activities at this level expose students to broad categories of careers called career clusters.

In middle school and the first few years of high school, Indiana students are expected to conduct research about careers of interest and participate in exploration activities, and there is good evidence this is happening.

Increasing opportunities for students in the middle grades to explore college and careers has been a priority goal of Superintendent Ritz, where enrollments have grown steadily in the middle school course *Exploring College and Careers* created four years ago by the Indiana Department of Education. A similar career information and exploration course for high school

students, *Preparing for College and Careers*, has seen a 36% jump in enrollments in the last three years (Graph 1).

Graph 1. CTE Exploratory Course Enrollments



The intent of both exploratory courses is to extend students' awareness of the 16 Career Clusters in the National Career Clusters Framework,ⁱⁱⁱ help students discover possible interests, and connect those interests to future plans.

Preparing for College and Careers, the high school course, goes further by

connecting students' broad career interests to Indiana's College and Career Pathways, reviewing students' graduation plans, and helping students develop career and postsecondary portfolios.^{iv} These courses also offer students opportunities to complete at least one career interest inventory, encouraging students to identify their strengths and interests and correlate these to possible career areas for further exploring.

Indiana Career Explorer - a free, comprehensive web-based college and career planning system for grades 6 through 16 - is one of several career exploration tools used widely by Indiana schools. The Kuder *Navigator*® system, used in many states, is the foundational platform of *Indiana Career Explorer* which was brought to Indiana schools in 2011 by the Indiana

Department of Workforce Development in partnership with the Indiana Department of Education and the Indiana Commission for Higher Education.

Table 1. Indiana Career Explorer Logons 2013-14

Grad Class	Grade	Interest	Skills	Work Values
Class of 2014	Grade 12	6,579	4,854	4,682
Class of 2015	Grade 11	9,162	6,585	6,334
Class of 2016	Grade 10	11,590	7,867	7,588
Class of 2017	Grade 9	21,834	14,345	13,196
Class of 2018	Grade 8	19,508	12,715	1,701
Class of 2019	Grade 7	7,227	3,660	226
Class of 2020	Grade 6	270	180	130
Other		20,147	17,530	17,033
Total		96,317	67,736	50,890

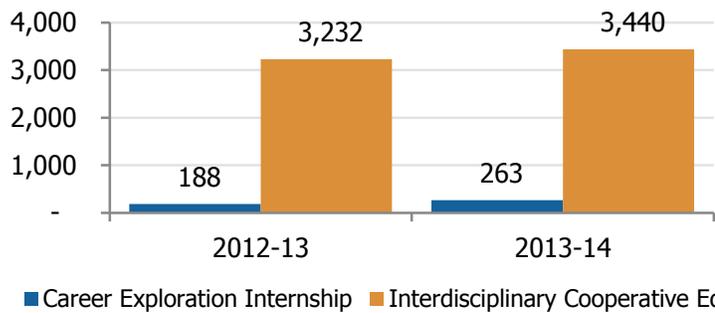
Source: Indiana Department of Workforce Development

Since its launch, the site has received more than 1,900,000 visits with more than 235,000 Indiana students creating accounts to complete online career interest assessments and begin career planning portfolios. Of the students in grades 6, 7, and 8 who were logged on to *Indiana Career*

Explorer last year, more than 26,000 completed an interest inventory, 16,000 took a work values test, and close to 2,000, completed a skills assessment (Table 1).

The Indiana Youth Institute’s online career exploration tool, *Drive of Your Life*, is also very popular in schools around the state with more than 840,000 users since its rollout in 2005. In the last school year, *Drive of Your Life* was used by 65,695 student enrollees in 1,361 schools and 83 youth-serving organizations.^v

Graph 2. WBL and ICE Course Enrollments



Student career and college planning is required to start in Indiana in grade 6 with the creation of an initial graduation plan for every student. Schools use many different documents and methods to meet the graduation plan requirement, including a growing number that have students complete their graduation plans via online programs such as *Drive of Your Life* or *Indiana Career Explorer*. Last year, over 9,000 students created or updated their graduation plan through *Indiana Career Explorer*, more than half of them in grade 9.^{vi}

Beginning in the early grades, the value of work based learning is emphasized. Work based learning includes bringing industry representatives into the classroom as well as getting students out of the classroom and into real work settings with hands-on career exploration and job shadowing experiences that allow students to learn firsthand what they like and dislike. The middle school years are frequently mentioned as an ideal time for student discovery and engagement prior to the fast-paced, more structured environment of high school and postsecondary education.

Work based learning experiences are most robust during high school. Enrollments in *Career Exploration Internship* and *Interdisciplinary Cooperative Education* courses increased in the last year (Graph 2) but exact data is hard to pinpoint because of the integration of work based learning

experiences within CTE courses, shifts in funding, and changes in course titles. As an example, seven new, state approved “Work Based Learning” course titles were added last year.

Many schools and career centers now incorporate student work-site experiences directly into their CTE courses in addition to using a separate cooperative education or work based learning course title.

Career Preparation and Planning

By grades 11 and 12, according to the state’s career education law, students should be making more specific career preparations and plans. The graduation plans that are required to begin in the middle grades become more specific and are required to be reviewed every year by students with their counselor and parents.

The intentional selection of high school courses into a related, logical sequence, called a college and career pathway, is gaining wider respect for helping students develop graduation plans. Indiana has identified over 60 sample pathway plans of possible course sequences which typically begin with the career exploration course, *Preparing for College and Careers*, followed by a next-step introductory course, such as *Introduction to Advanced Manufacturing*, and conclude with more intensive grade 11 and grade 12 course sequences.^{vii}

Indiana students are not limited to the pathway plans identified at the state level. In fact, schools are encouraged to develop any number of pathway course sequences in order to best fit all students' future aspirations.

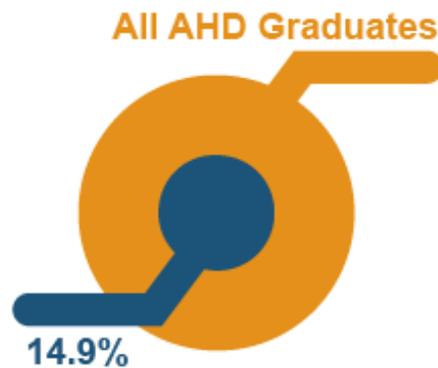
While pathway sequences may have been, at one time, perceived to be only for Career and Technical Education students, Superintendent Ritz emphasizes that this is not the case in Indiana.

“One of my top goals is for Indiana schools to develop pathways for all students, not just those taking Career and Technical Education courses. We can no longer entertain notions that we serve only two types of students, some going to college and others going to a career, when all students should be preparing for career and postsecondary success.”

**- Glenda Ritz
Superintendent of Public Instruction**

Indiana students have been quick to understand the value of integrating academic and career courses. Last year, nearly 15% of all Academic Honors Diploma recipients were CTE concentrators, those who completed 6 or more credits in a single college and career pathway (Graph 3).

Graph 3. Percent of CTE AHD Graduates



- All Academic Honors Graduates
- Academic Honors CTE Concentrators

The IDOE also reports that an increasing number of Indiana graduates are earning the Technical Honors Diploma which requires students to complete a college and career pathway in addition to rigorous academic coursework and an overall grade point average of a B or better.

Last year, 2,066 students earned a Technical Honors Diploma, representing 8.3% of all honors diploma graduates and 2.8% of all graduates.

Summary

Multiple college and career readiness initiatives are underway around Indiana and many positive, structural foundations are firmly in place for expanded growth.

Much more data is available for students enrolled in Indiana's Career and Technical Education (CTE) programs, which is explored in detail in the next section.

SECTION II: Indiana CTE Data Analysis

There is encouraging agreement in Indiana regarding the value of Career and Technical Education (CTE). It is also the one area of the state's career readiness efforts for which there is extensive student data.

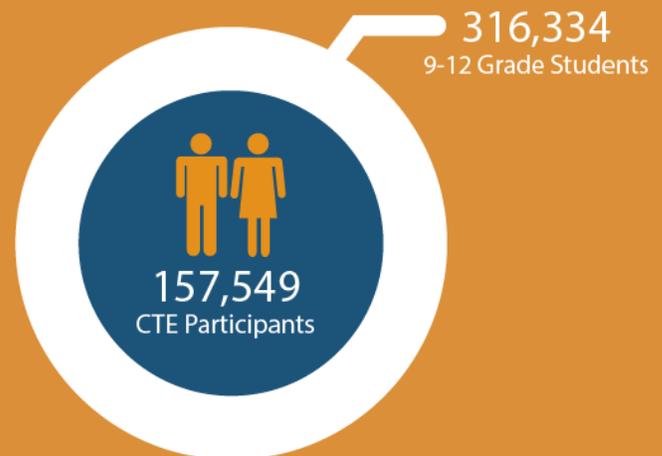
National research has consistently highlighted the multiple benefits that accrue to students enrolling in career exploration courses, cluster focused introductory courses, and skill intensive career preparation courses in high school. A recent Gallup-Lumina Poll of U.S. business leaders found that a candidate's knowledge and applied skills in a specific field were more important when making hiring decisions than where the candidate went to college or their major.^{viii}

Connecting high school students to mentors and internship opportunities is being "rediscovered" as a new education trend, but has long been standard practice in Career and Technical Education. Sector specific business and industry representatives serve on CTE advisory committees, review the content of CTE courses, update teachers on new industry standards, and provide a wide variety of work based learning experiences to students.

The federal Carl D. Perkins Act mandates that the state of Indiana and each CTE district set annual student performance targets in eight areas.^{ix} This performance data, plus a set of additional data targets requested by the state, is summarized in this report.

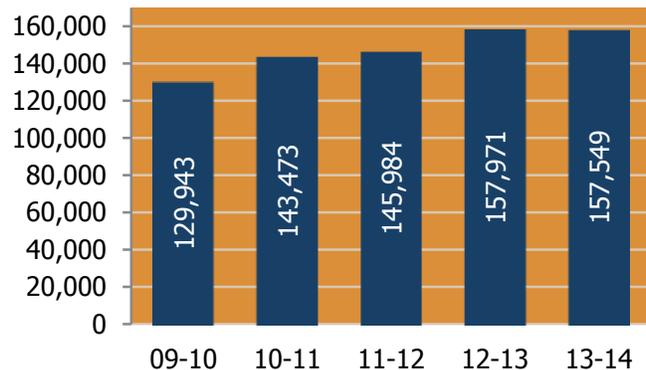
In the 2013-2014 school year, half (49%) of all Indiana students - a total of 157,549 students - were enrolled in at least one CTE course in grades 9-12 (Graph 4).

Graph 4. Number of CTE Participants



Even though enrollment figures for 2013-2014 went down slightly from the previous year, the percentage of "CTE participants" - students who took at least one CTE course - remained the same as the previous year. Over the last five years, the number of high school students participating in CTE has risen by 21% (Graph 5).

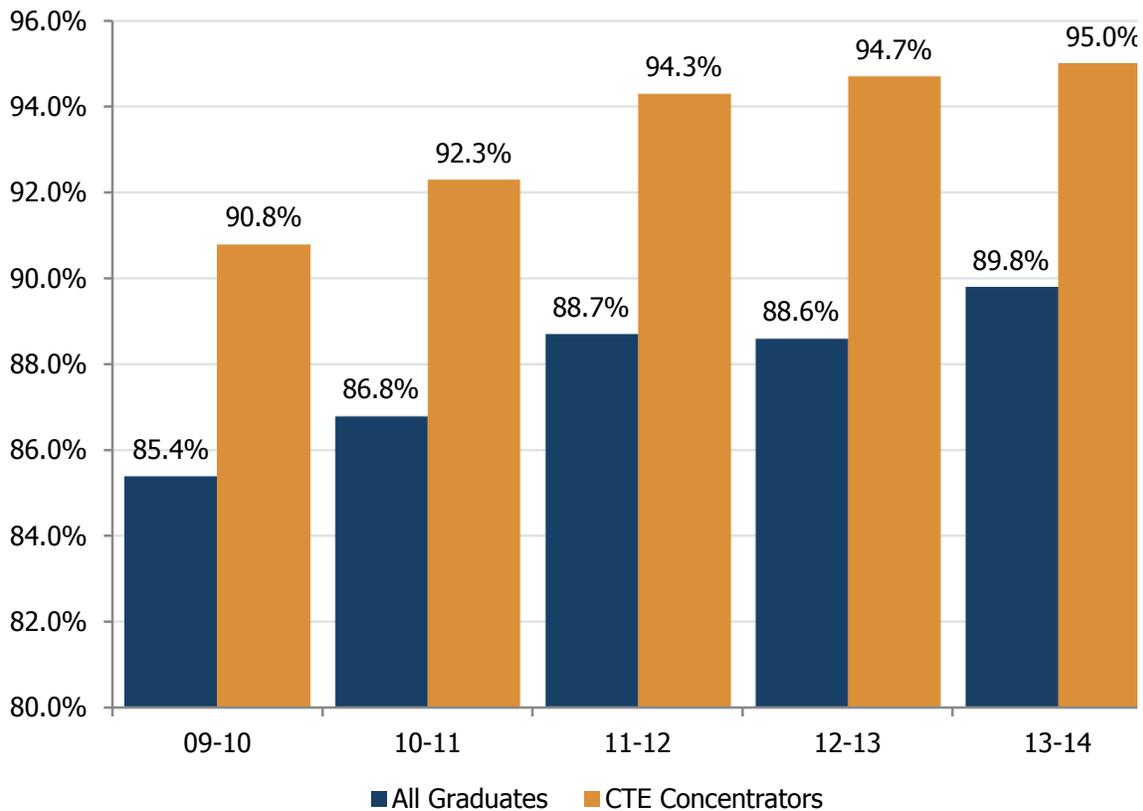
Graph 5. CTE Enrollments



Persistence

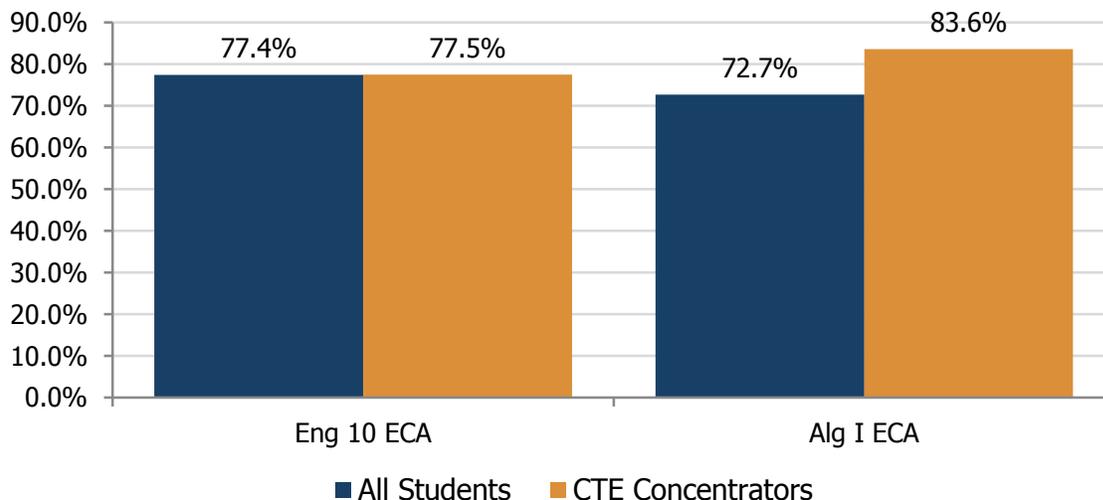
Among educators and parents, CTE has gained growing respect not only for improving students' technical skills but for equally impressive academic outcomes. Using the two most common indicators of student academic performance, graduation rates and ISTEP assessment scores, students who concentrate in a CTE program – those who earn at least 6 credits in a single sequence of career-related courses – outperform all other students. In 2014, the high school graduation rate of CTE concentrators was 95%, which was 5% higher than the graduation rate of all students at 90%, continuing a consistent trend of increasingly higher graduation rates for CTE students for the last five years (Graph 6).

Graph 6. Graduation Rate Trends



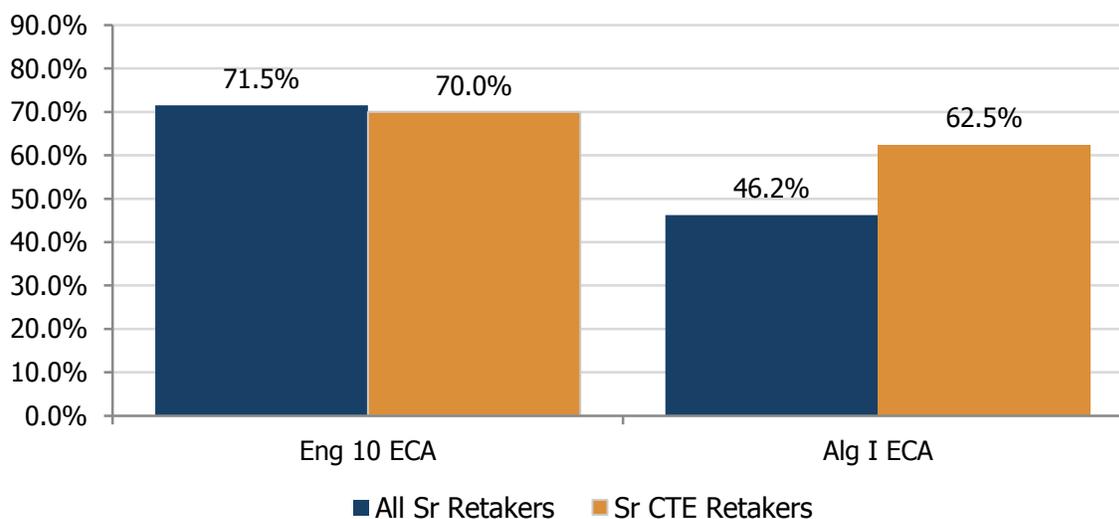
CTE concentrators perform slightly better than all other students on the state’s ISTEP English 10 assessments (.1% higher) and much better on the ISTEP Algebra I assessments. Passage rates on ISTEP Algebra I tests are 10% higher for CTE concentrators than for all other students, challenging old perceptions that students in CTE struggle in math (Graph 7).

Graph 7. ISTEP ECA Performance Comparisons



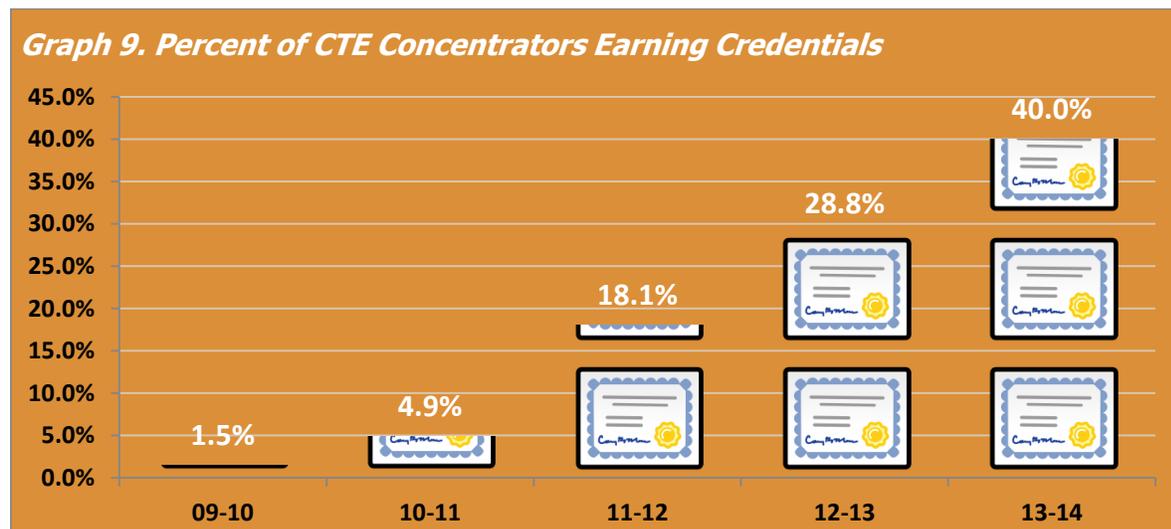
The adoption of more STEM (Science, Technology, Engineering, and Math) pathways and the expansion of pre-engineering programs such as Project Lead the Way (PLTW) and other technology-centric courses have changed the compass settings on traditional stereotypes of CTE. Those changes are evident when comparing students who have previously failed one or both of the ISTEP graduation exams and must retake them in the senior year. Senior CTE “retakers” perform slightly lower than all other students on ISTEP English 10 retake exams but pass the ISTEP Algebra I retake exam at a rate 15% higher than non-CTE seniors (Graph 8).

Graph 8. ISTEP ECA Performance Comparisons for Senior Cohort 2014



Stronger bonds between workforce partners, postsecondary institutions, and high school CTE programs are being formed around the state according to the data. The expanding number of CTE students earning industry recognized certifications is one example of this trend.

For the 2013-2014 school year, 8,443 CTE concentrators earned at least one industry certification, license, or other industry recognized credential. The data also includes the number of students taking and passing dual credit examinations. The figure represents 40% of all graduating CTE concentrators in the state and an 11% rise from the previous year (Graph 9).



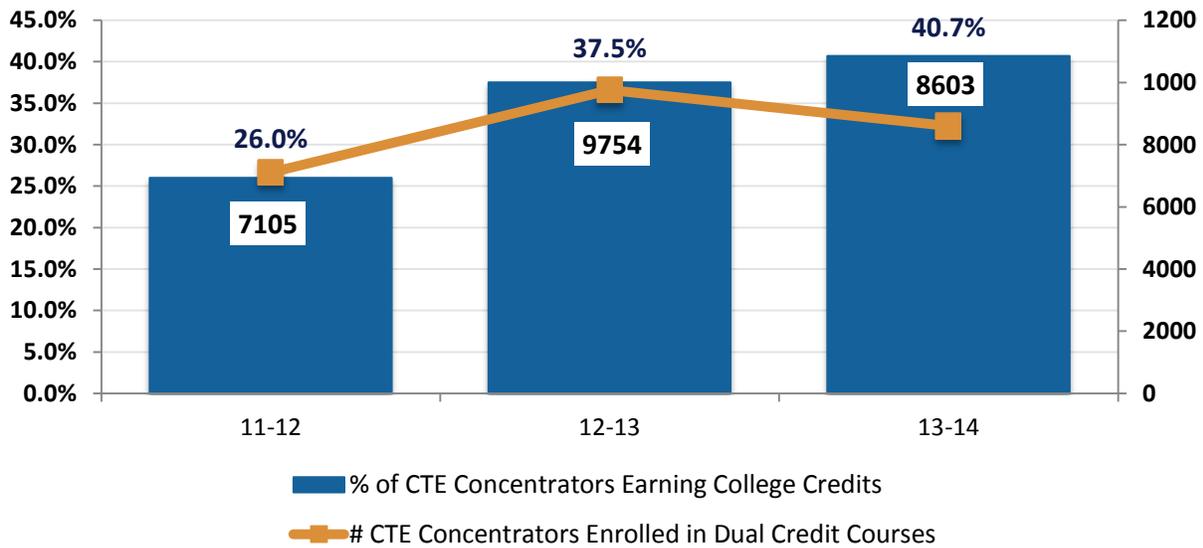
Dual credits are included by the state in the calculation of industry credentials because many sectors – such as Agriculture and emerging occupational fields – do not offer certifications or credentials, and because employer opinions of credentials versus postsecondary degrees are varied.^x Subtracting the number of students earning dual credits from the credential data indicates that 3,121 Indiana high school students earned a certification or credential last year, which is 14.8% of all CTE concentrators and a 48% increase from the 2012-13 school year.

A list of the certifications, licenses, and industry credentials Indiana CTE students earned in high school last year – including dual credits - can be found in Appendix B.

While the National Career Readiness Certificate (NCRC) is not an industry certification, it is another measure of students’ readiness to succeed in the workplace. Last year, approximately 3,000 Indiana high school students completed the three ACT WorkKeys assessments that comprise the certificate (Reading for Information, Applied Mathematics and Locating Information). The percentage of employers who value the NCRC is difficult to ascertain, though there are reported pockets of support around the state.

The percentage of CTE concentrators earning college credits while in high school also continues to rise. Almost 40% of all CTE concentrators earned college credits before graduation according to the latest data (Graph 10). The overall percentage increased even though total numbers of CTE concentrators earning dual credits declined, indicating that the number of college credits earned by each student rose. According to the IDOE, CTE students account for 28% of all graduates who earn college credits while in high school.

Graph 10. Percent of CTE Concentrators Earning Dual Credits



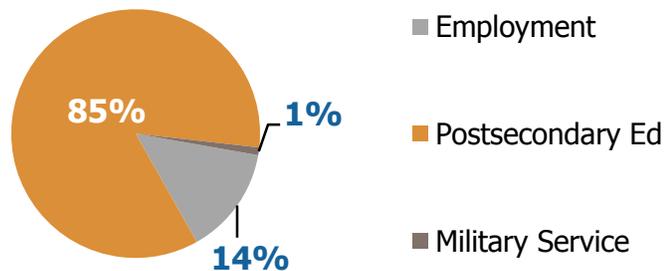
Because Indiana’s postsecondary institutions provide college level CTE courses to high school students free of charge, the data reflect a significant financial benefit to students and families pursuing postsecondary education.

Using a conservative calculation, multiplying the Ivy Tech Community College low per credit hour tuition cost of \$131.50 by the latest data of 8,603 CTE concentrators who earned a college credits for at least one college course (the data indicates most earned more than that), shows a one year savings of \$3,393,833 to Indiana families.

Attrition

Two measures of attrition corroborate that CTE concentrators are succeeding beyond high school. Based on the data available, 85% of CTE concentrators matriculate to a two-year or four-year college or postsecondary program, 14% transition directly to the workforce and approximately 1% enter military service (Graph 11).

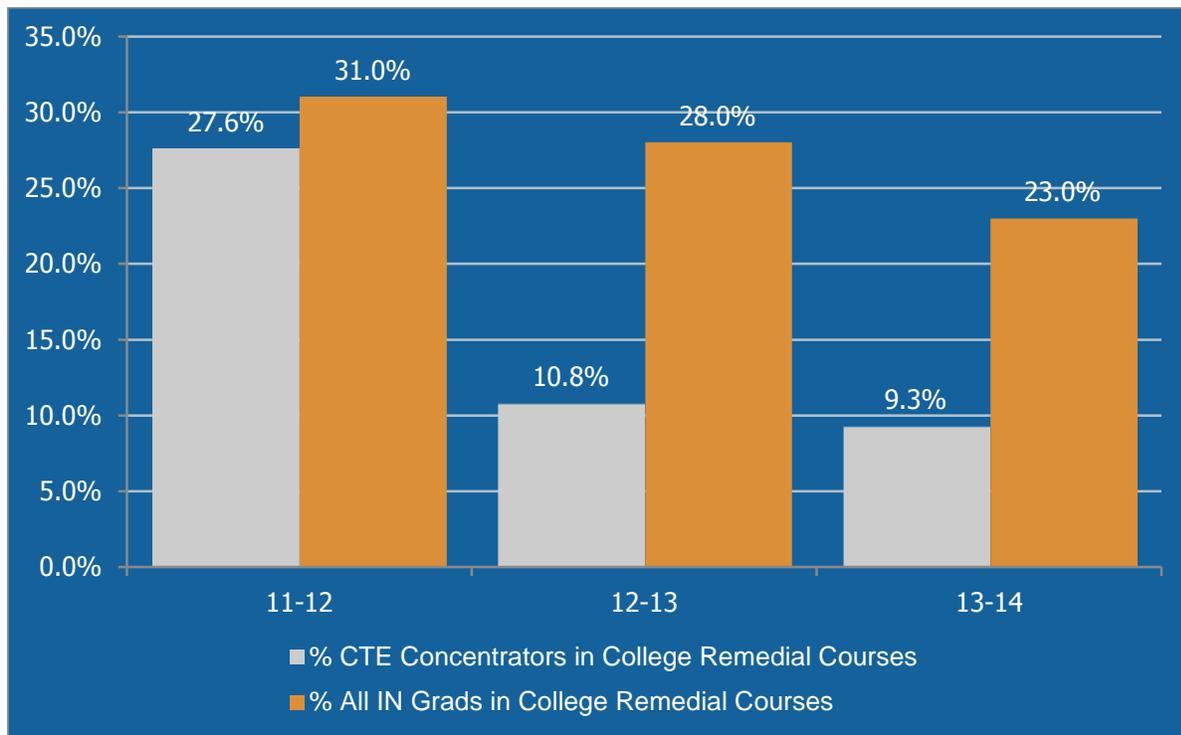
Graph 11. Post High School Placement



Among CTE concentrators who enter postsecondary education, only 9% needed to take remedial courses (often called developmental courses in colleges) in mathematics and English/Language Arts, a rate less than half of all students (Graph 12). Of all Indiana students enrolling in an Indiana two- or four-year college in 2013, almost a quarter (23%) were placed in remedial courses to improve their

mathematics or English/Language Arts preparation and performance. In looking at the graph below, lower bars and percentages are – of course – more desirable.

Graph 12. First Year College Remedial Course Enrollments



While this section summarizes statewide CTE data, a regional breakdown of CTE student performance data - by each of Indiana’s Works Councils and Economic Growth Regions - is available in Appendix A.

Summary

Career and Technical Education is a bright component of Indiana’s overall career readiness efforts. Indiana students who complete at least six CTE courses in a pathway sequence outperform all other students in almost every category measured, making CTE a compelling option for students at all levels.

SECTION III: Recommendations

The focus on college and career readiness has grown in recent years, nationally and across Indiana. Based on the data in this report, that increased emphasis is proving its worth in measurable improvements in student academic and technical performance.

Five recommendations that could further enhance Indiana's successful college and career readiness efforts:

Recommendation 1. Build upon the existing links between CTE and Indiana's regional business and industry sectors. Many Indiana employers are actively engaged with and support CTE programs around the state already, but more could be done to maximize these relationships:

- Examine coordination of CTE advisory committee meetings with regional workforce investment boards and Works Councils meetings to increase efficiency for employers and educators and to extend CTE awareness
- Ask area business and industry leaders to amplify work based learning experiences available to students and initiate or expand current opportunities for teachers and counselors to experience local businesses and industry worksites
- Create a clear communication link between employers serving on CTE advisory committees and CTE leaders at the district and state levels to extend collaboration, information sharing, and networking opportunities.

Recommendation 2. Expand the focus on career exploration in middle school as well as grade nine. While the availability of the middle level course *Exploring College and Careers* is positive and there is growing

use of programs such as *Indiana Career Explorer* and *Drive of Your Life*, an intentional focus should be placed on helping more students in grades 6, 7, and 8 explore careers both in and out of school. By the end of grade 9, students should have also completed *Preparing for College and Careers*. Selecting high school courses that align with a student's career goals is much more effective when students have engaged in real world career exploration and investigation experiences. Strategies might include enhanced collaboration with workforce partners and targeted funding for more middle school career exploration.

Recommendation 3. Research the dual college credit opportunities available to students in CTE courses. An examination of the overall availability of college credits for students enrolled in CTE courses will identify places where articulation can be enhanced with changes in credentialing, professional development, or the number of dual credit courses offered.

Recommendation 4. Clarify what is expected of students across the K-12 continuum to be college and career ready and align these expectations with needs of the workforce. Students need access to multiple opportunities that provide foundational and career/technical skills as well as the career counseling necessary to make informed education and career decisions. By focusing on the same college and career readiness targets for youth around the state, schools and afterschool programs can maximize resources, collaboratively assess and address gaps, and ultimately better prepare young people for their futures. A greater understanding of connections between education-and-training and career opportunities will allow students to make informed choices about entering pathways that reflect their interests and aptitudes and lead to rewarding careers.

Recommendation 5. Intentionally address student employability skills development. Though not specifically addressed in this report, there is considerable evidence that Indiana’s business and industry leaders are seeking future employees who understand the value of showing up on time, working hard, communicating professionally, and other employability skills. A purposeful, statewide approach to teaching and gauging the employability skills of students can enhance Indiana’s college and career readiness efforts and strengthen existing bonds between education and workforce partners.

The recommendations listed here align well with many new college and career readiness efforts and initiatives introduced in Indiana in the last year, including:

- New, innovative pathways from the Indiana Department of Education and structures for regions to propose and pilot additional new courses and pathways
- Innovative CTE Curriculum grants from the Indiana Works Councils awarded to 25 career centers and schools totaling \$4.3 million dollars
- Ongoing, robust college and career readiness discussions among the taskforces created by the Indiana Career Council
- Multiple college and career counseling strategies proposed by Superintendent Ritz
- A new statewide “Career Ready” campaign introduced by the Commission for Higher Education and Learn More Indiana.

Career readiness is strong in Indiana. By enhancing and expanding what is working while intentionally focusing on addressing the challenges, more of Indiana’s students will be prepared for success in the future.

APPENDIX A

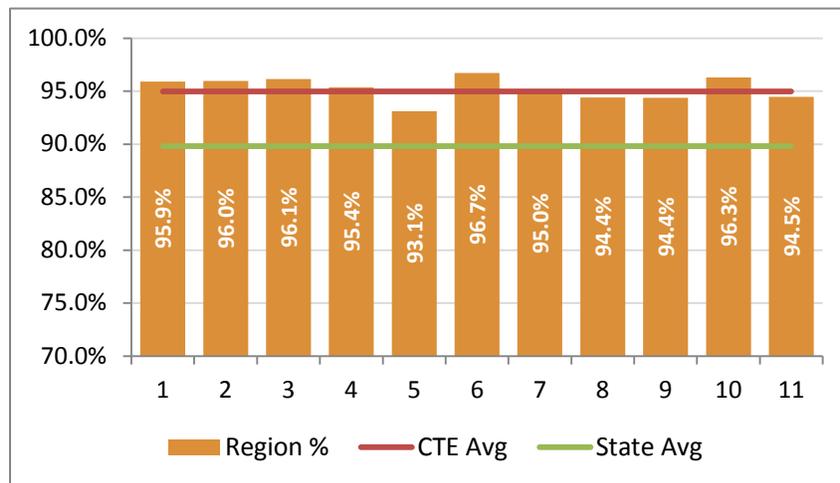
CTE Student Performance Data by Region

This appendix provides four sets of CTE student performance data for the 2013-14 school year by each of Indiana's Works Council Regions. The data is organized into four sets for easier comparisons:

- Graduation rates and technical skill attainment of CTE concentrators
- ISTEP performance results for first time exam takers and for students in grade 12
- Earning of industry certifications and dual college credits in high school, and
- Postsecondary enrollment and first-year college remediation rates.

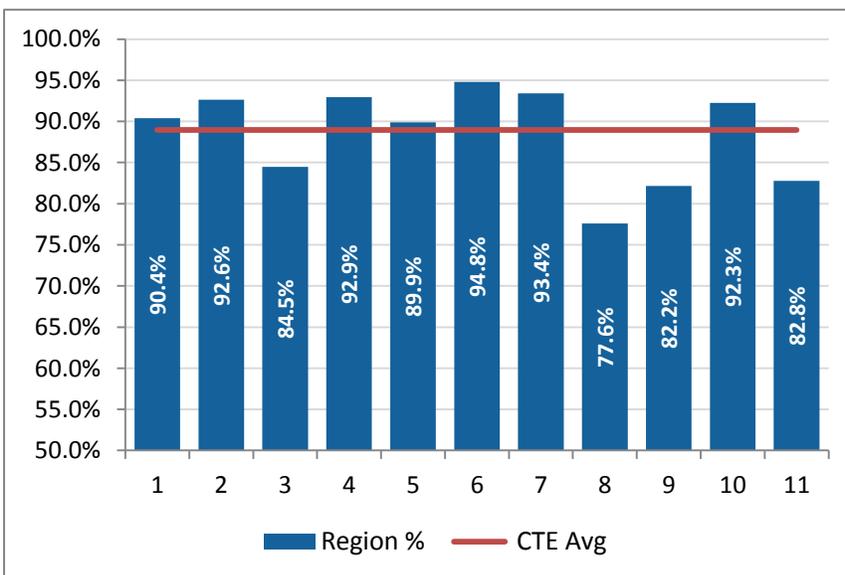


Graduation Rates



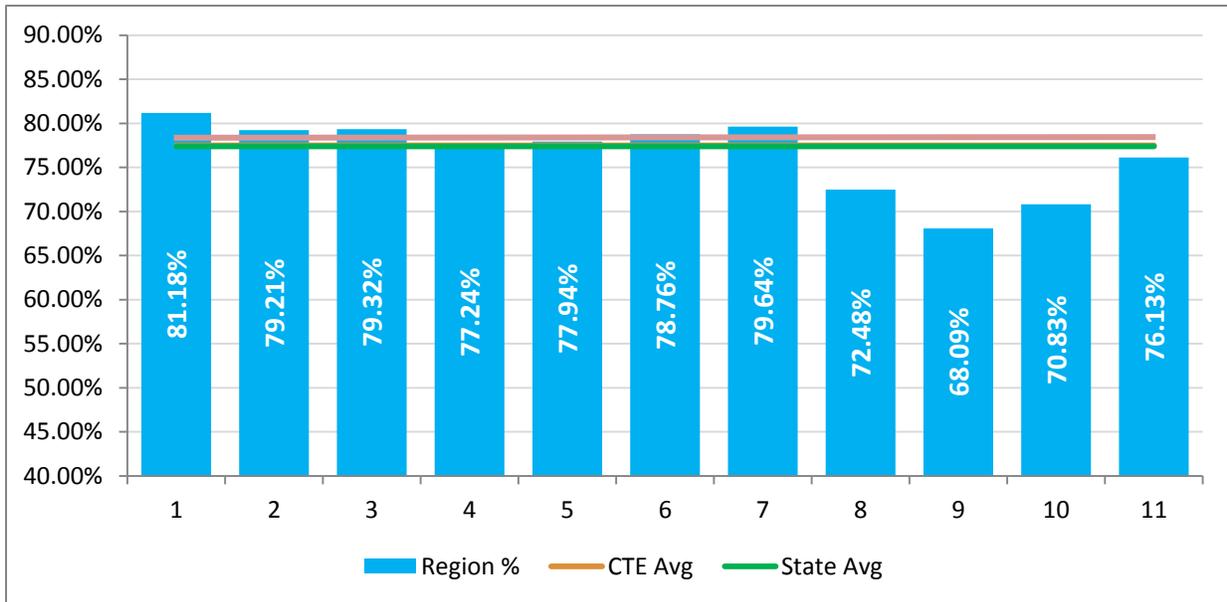
Graduation rates for CTE concentrators (students who earn 6 or more CTE course credits in one career area) in all Indiana Works Council Regions exceed the state graduation rate average for 2014 (green line) by an average of 5 percentage points. CTE concentrators have posted higher graduation rates compared to all other students for the last 10 years.

Technical Skills Attainment of Grade 12 CTE Concentrators



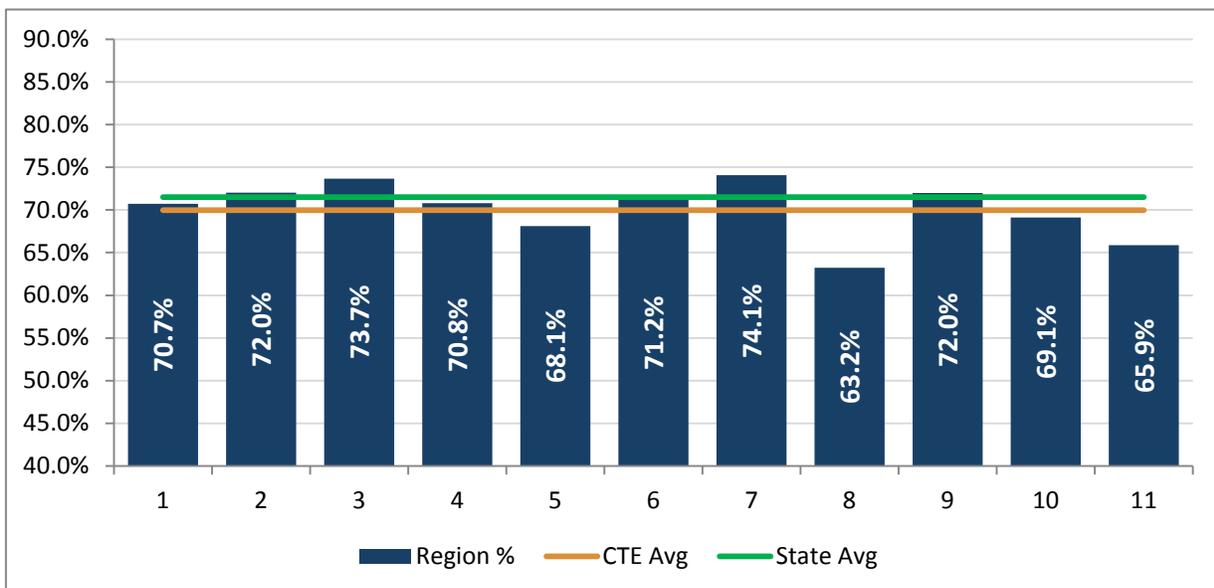
Technical skills attainment is a measure of the percent of grade 12 CTE concentrators who passed state approved assessments of technical skills defined for each of Indiana's College and Career Pathways. These include industry certification exams, course-specific exams such as the pre-engineering and biomedical Project Lead the Way (PLTW) courses and end of course exams for college-level, dual credit courses.

Passage Rates for First Time ECA Exam Takers - English 10

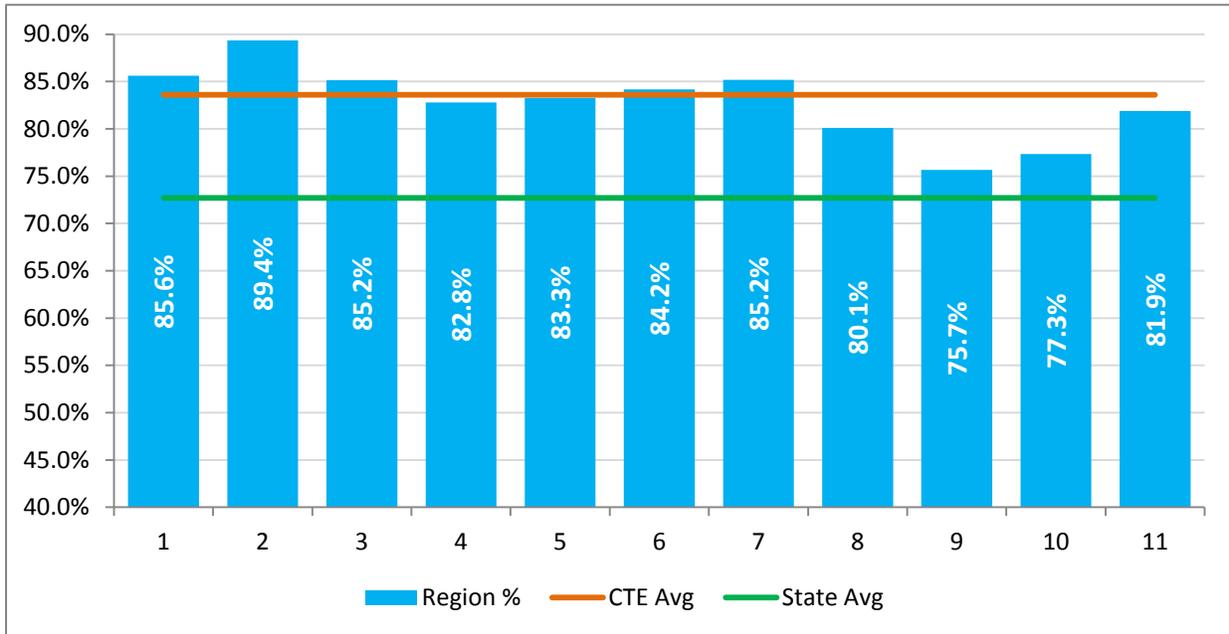


The graph above (in light blue) represents the percentage of CTE concentrators who passed the state’s English 10 end-of-course assessment (ECA), which is required for graduation, the first time it was taken. The orange line indicates the average percentage of CTE concentrators who passed on the first try, 77.5%, which is slightly higher than the state average of 77.4% indicated by the green line. The graph below indicates the 70.0% of grade 12 CTE concentrators who passed the English 10 exam after retaking it in their last two years of high school, which is just below the state average of 71.5% for all grade 12 “retakers.”

Passage Rates for Grade 12 ECA Exam Retakers - English 10

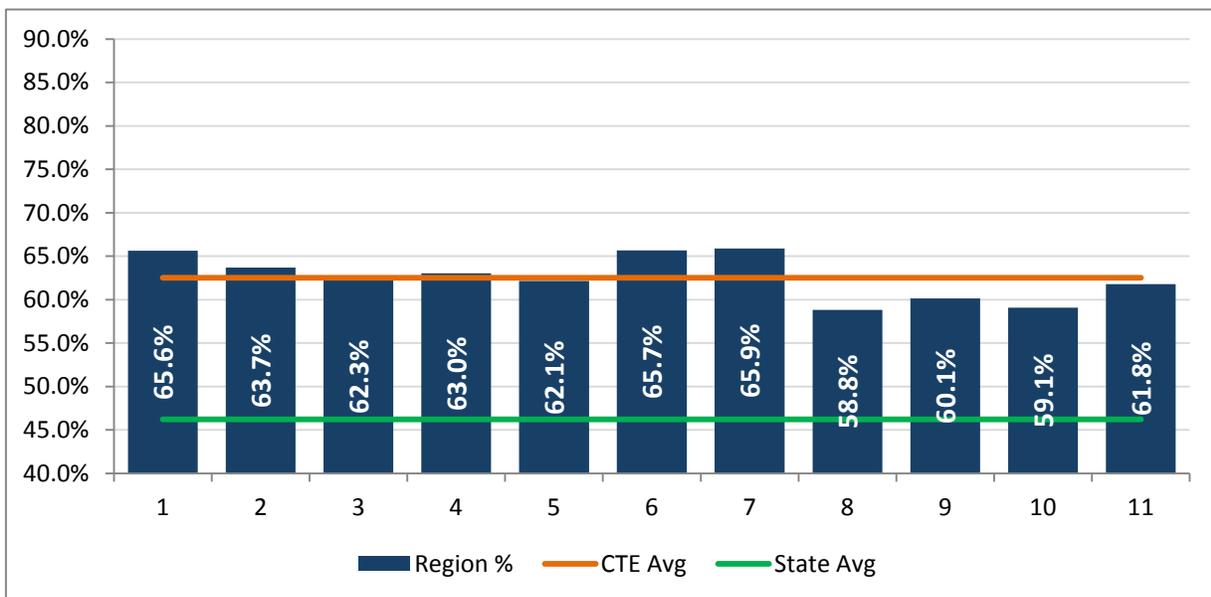


Passage Rates for First Time and Grade 12 ECA Exam Takers - Algebra I



Similar comparisons are shown in the graphs above for passage rates of CTE concentrators taking the state’s Algebra I ECA exam for the first time (in light blue) and grade 12 retakers (below in dark blue). In both instances the percentage of CTE concentrators passing the Algebra I exam (83.6% of first time takers and 62.5% of grade 12 retakers) exceeds the state averages for all students by more than 10 percentage points.

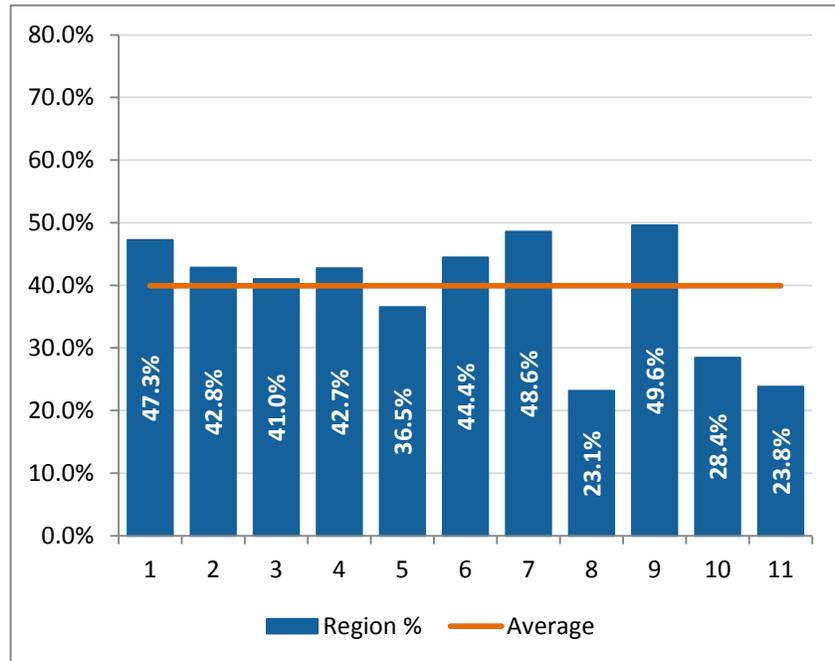
Passage Rates for Grade 12 ECA Exam Retakers - Algebra I



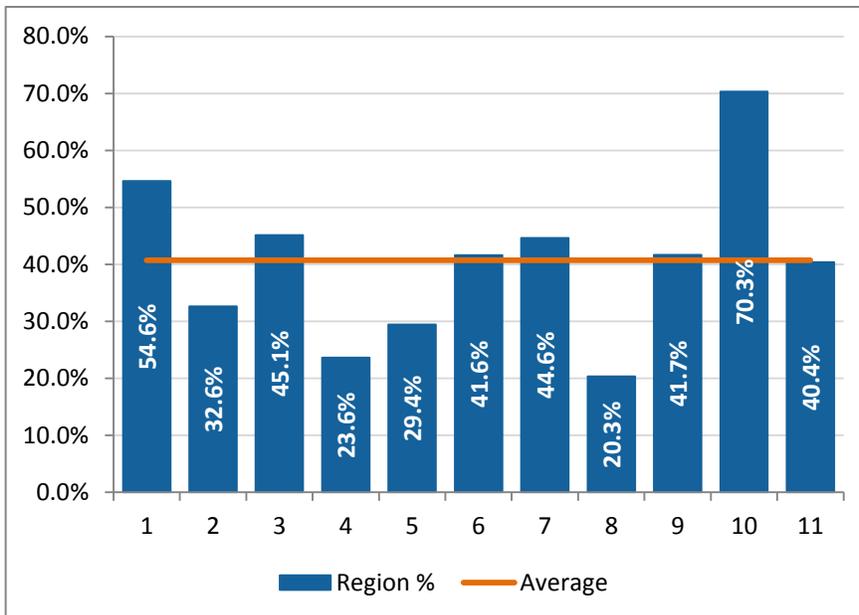
Students Earning Credentials in High School

An average of 40% of all CTE concentrators in the 2013-2014 school year earned at least one industry recognized certification, college credit or credential, an increase of 11 percentage points from the year before.

The figures represent a total of 8,443 students in all grade levels earning a credential or college credits.



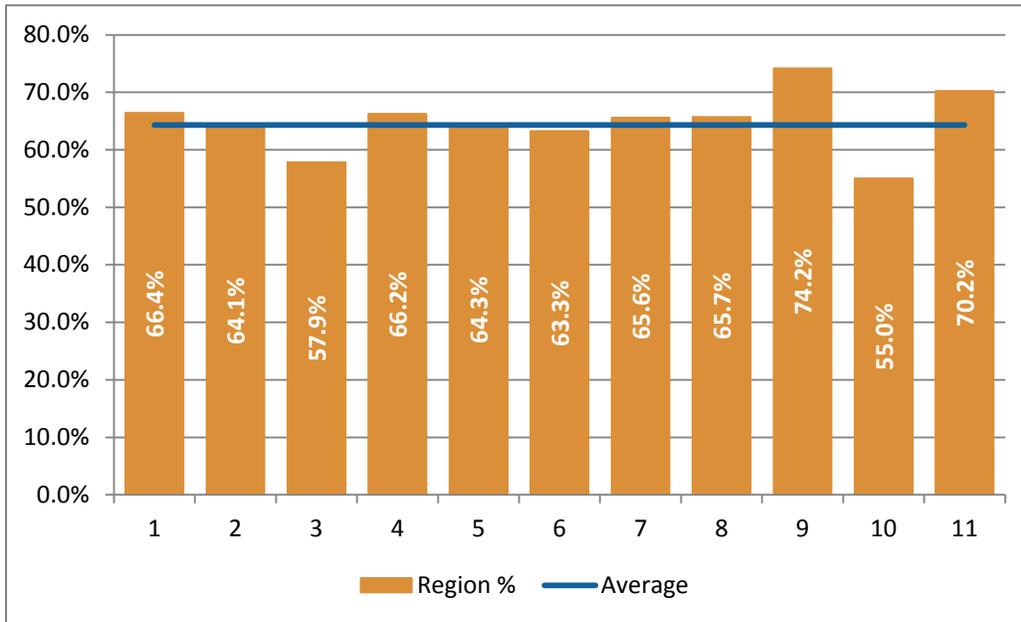
Students Earning College Credits in High School



8,603 Indiana CTE concentrators, from all grade levels, earned at least one college credit during high school just in the 2013-14 school year. Many earned multiple college credits.

The figures represent an average of 40.7% of all CTE concentrators earning transcribed college credits, many transferable to other two- and four-year colleges in and outside of Indiana.

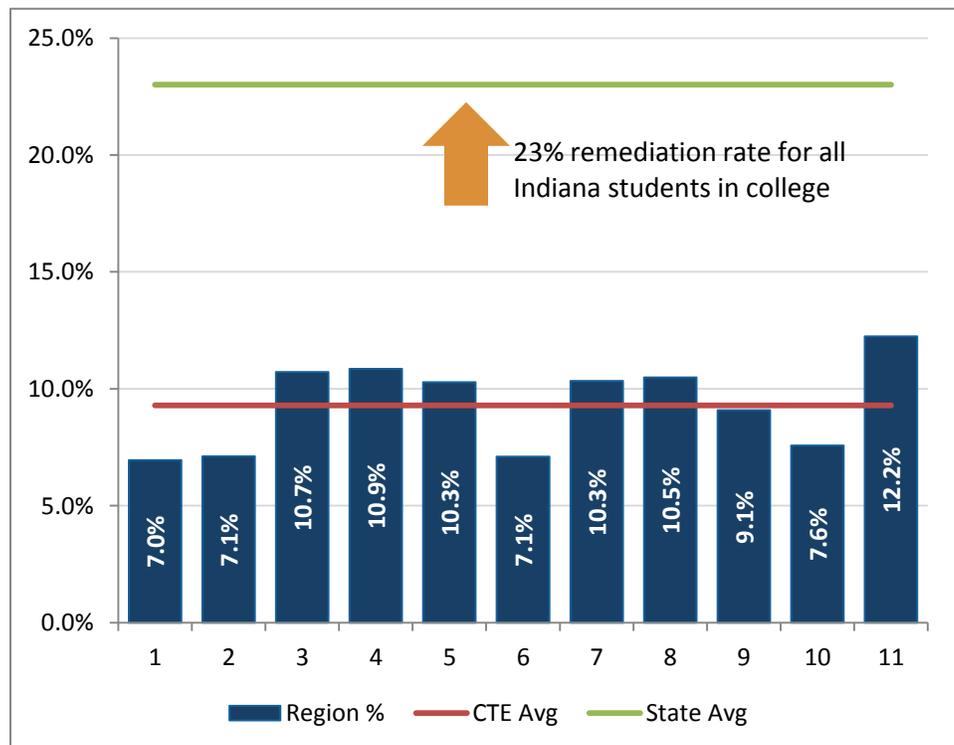
Postsecondary Enrollment



Postsecondary enrollment measures the percentage of grade 12 CTE concentrators from the prior year (2013) who were enrolled in a two- or four-year Indiana college or postsecondary institution.

College Remediation

This is the only graph in this appendix in which lower percentages are desirable. The graph represents the percentage of CTE concentrators from the prior year (graduates of 2013) who enrolled in college and were placed in a remedial English/Language Arts or mathematics course. 23% of all Indiana students who matriculated to an Indiana college in 2013 (green line) were enrolled in at least one college remedial course compared to only 9.3% of CTE concentrators.



APPENDIX B

Industry Certifications, Credits, and Credentials Earned

Listed below are the assessments taken by CTE concentrators at all grade levels in the 2013-2014 school year and the percentage passing who earned an industry certification, dual credits, a license, or other credential.

Assessment	# Passed	# Taking	Percent Passing
A+ Certification	39	68	57.4%
A+ PCC Essentials Certificate	9	9	100.0%
AAFCS-Family and Consumer Sciences	63	127	49.6%
AAS Computer Graphic Design	8	10	80.0%
American Welding Society (AWS) Certification	116	141	82.3%
ASE Certification-Automotive Service Excellence	113	180	62.8%
ASE Certification-Medium/Heavy Truck	4	4	100.0%
ASE Refrigerant Recovery/Recycle Certification	2	2	100.0%
ASE Student Certification	201	278	72.3%
ASK Fundamental Marketing Concepts	1	1	100.0%
Automotive Service Excellence Student Certification Series (ASE)	9	11	81.8%
AWS SENSE	80	82	97.6%
Bombardier Essentials 1,2 & 3	21	21	100.0%
Certified Food Handler/ServSafe Certification	3	6	50.0%
Child Development Association (CDA)	19	19	100.0%
Cisco Certified Network Associate (CCNA)	3	4	75.0%
Culinary Arts Pre-Pac	16	19	84.2%
Dental Hygienist	2	2	100.0%
Dual Credit Assessments	5322	5540	96.1%
Early Childhood Education Professional Assessment and Certification Exam (Pre-PAC)	150	289	51.9%
Education Fundamentals Pre-PAC	12	16	75.0%
Emergency Medical Technician (EMT)	40	51	78.4%
ETSA SET-Student Electronics Technician	3	3	100.0%
Family and Community Services Pre-Pac	16	17	94.1%
Fashion, Textiles and Apparel Pre-PAC	1	9	11.1%
Firefighter 1 Certification	29	32	90.6%
Firefighter 2 Certification	6	7	85.7%
Home Builders Institute Basic Carpentry	18	74	24.3%
Home Builders Institute Basic Principles of Construction	63	128	49.2%
Home Builders Institute Basic Wiring	16	50	32.0%
Home Health Aid	14	14	100.0%
HVAC Excellence	1	2	50.0%
I-CAR Collision Repair	10	12	83.3%
Indiana State Certified Nursing Assistant (CNA)	795	816	97.4%
Industry-Recognized Certification (EPA 608 Universal)	2	2	100.0%
Manufacturing Skill Standards Council (MSSC) - Certificate	2	6	33.3%
Manufacturing Skill Standards Council (MSSC) – Processes & Production	0	1	0.0%

Manufacturing Skill Standards Council (MSSC) - Quality	4	5	80.0%
Manufacturing Skill Standards Council (MSSC) - Safety	5	5	100.0%
Manufacturing Skill Standards Council (MSSC) – Cert. Prod.Technician	29	29	100.0%
Microsoft Certified Systems Administrator (MCSA)	15	18	83.3%
Microsoft Certified Technology Specialist (MCTS): SQL Server 2008 Database Development	8	8	100.0%
Microsoft Certified Technology Specialist (MCTS): SQL Server 2008 Implementation and Maintenance	1	1	100.0%
National Healthcare Assn.-Phlebotomy Technician	0	1	0.0%
National Healthcare Foundation Skills Assessment (NCHSE)	125	195	64.1%
National Institute for Metalworking Skills (NIMS)-Level 1	23	27	85.2%
National Student Skills Standards Assessment (NA3SA) Automobile	10	12	83.3%
NCCER Entry Level Assessment	47	47	100.0%
Network Plus Certification	30	33	90.9%
Pharmacy Technician Certification Board	2	2	100.0%
PrintED Certification	13	14	92.9%
Project Lead The Way	613	992	61.8%
Pro-Start National Certificate of Achievement-National Restaurant Association Education Foundation	102	118	86.4%
Server Plus Certification	0	2	0.0%
Society of Broadcast Engineers Certification	12	12	100.0%
State Board of Cosmetology	188	198	95.0%
STICK (SMAW) & MIG (GMAW) Combination Welding Certificate	4	4	100.0%
TIG (GTAW) Welding Certificate	3	3	100.0%
Totals	8443	9780	86.3%

Endnotes

ⁱ Indiana Department of Education, www.doe.in.gov

ⁱⁱ Indiana Code 20-30-5-14, iga.in.gov/legislative/laws/2014/ic/titles/020/

ⁱⁱⁱ National Career Clusters Framework, <http://www.careertech.org/career-clusters>

^{iv} Indiana Department of Education, Course Titles and Descriptions, www.doe.in.gov/ccr

^v Indiana Youth Institute, data for 2013-14 school year

^{vi} Indiana Department of Workforce Development and Kuder, Inc.

^{vii} Indiana Department of Education, www.doe.in.gov/ccr

^{viii} Calderon, V.J. & Sidhu, P. (2014). Business Leaders Say Knowledge Trumps College Pedigree, from <http://www.gallup.com>

^{ix} Carl D. Perkins Act of 2006. Perkins Collaborative Resource Network, <http://cte.ed.gov/perkins/>

^x Deming, D.J., Yuchtman, N., Abulafi, A., Goldin, C. & Katz, L. (2014). The Value of Postsecondary Credentials in the Labor Market: An Experimental Study, Harvard University, from http://scholar.harvard.edu/files/lkatz/files/resumeauditstudy_final_092114_dd.pdf

