

Career and Technical Education: What is the Impact of A-OK and SB155?

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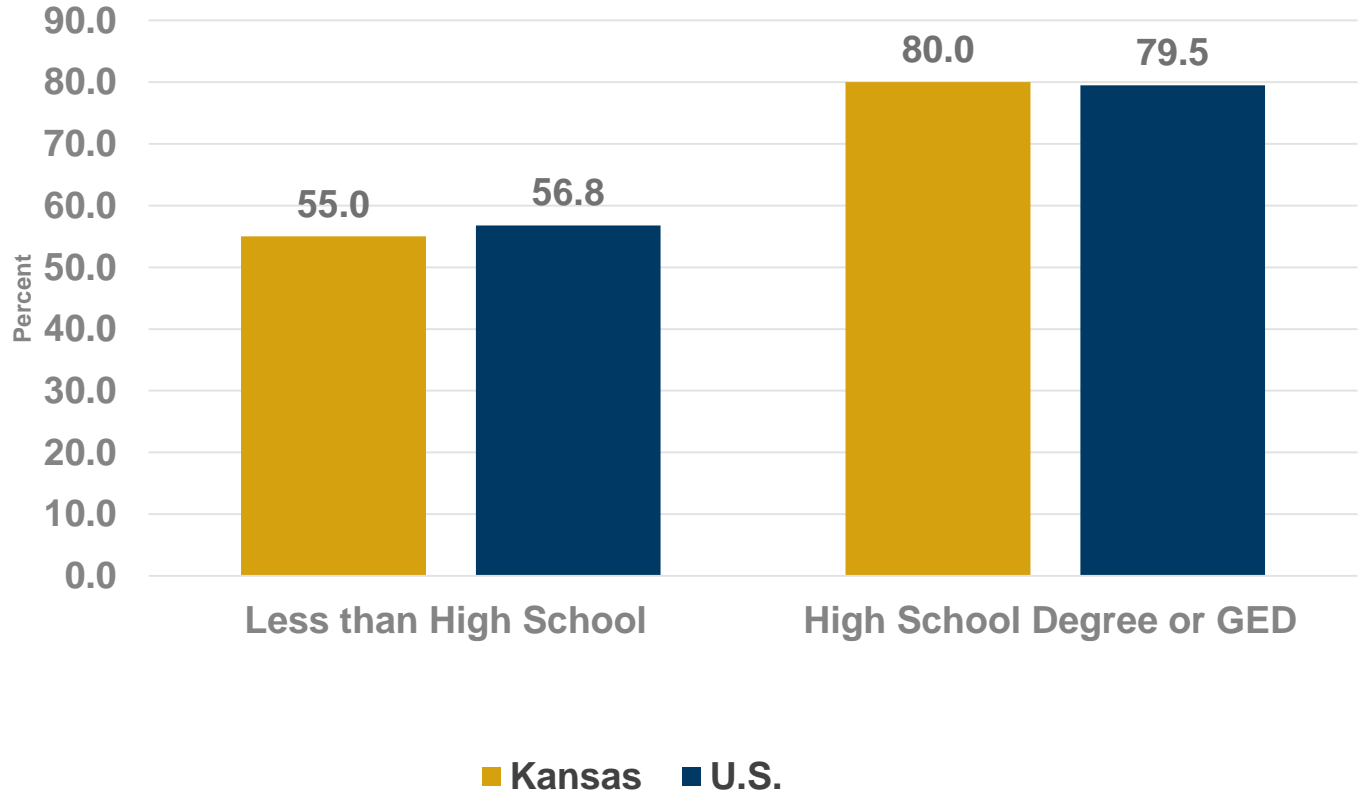
Patricia Oslund, IPSR

Background

- Low skilled adults face challenges. About 64 percent of jobs will require postsecondary education by 2020 (Carnevale, Smith, and Stohl, 2013).
- Fewer jobs will be open to those with a high school education or less.
- Employers are struggling to find qualified workers. About 1/3 of employers nationwide have trouble filling positions. Employers cite:
 - Shortage of applicants,
 - Lack of experience among those who apply
 - Lack of technical competencies,
 - Lack of industry-specific qualifications (Manpower Group, 2015).

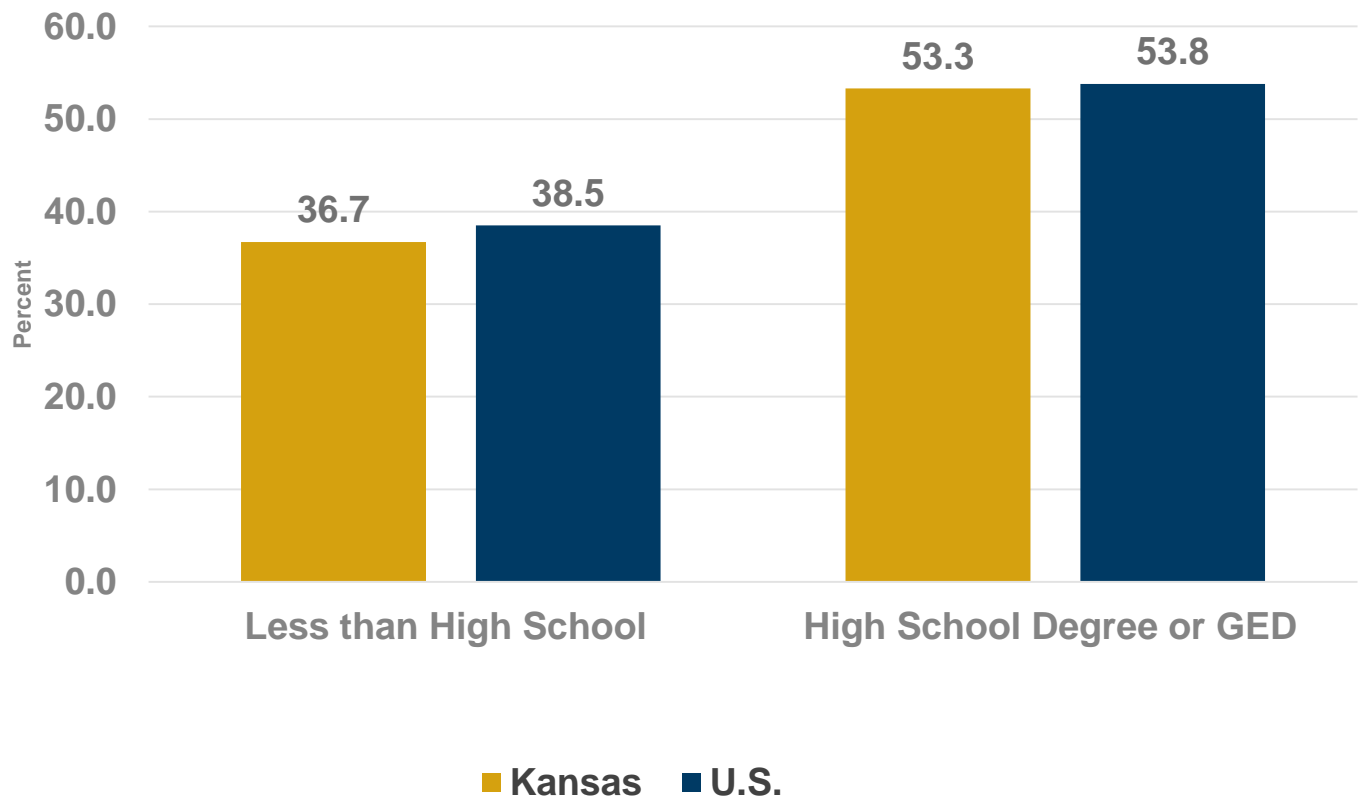
Workers with High School Degrees Earn Less than those with an Associates Degree

Wages for Workers with a High School Degree or Less as a Percent of Wages for Workers with Associate Degrees: Kansas and the U.S.



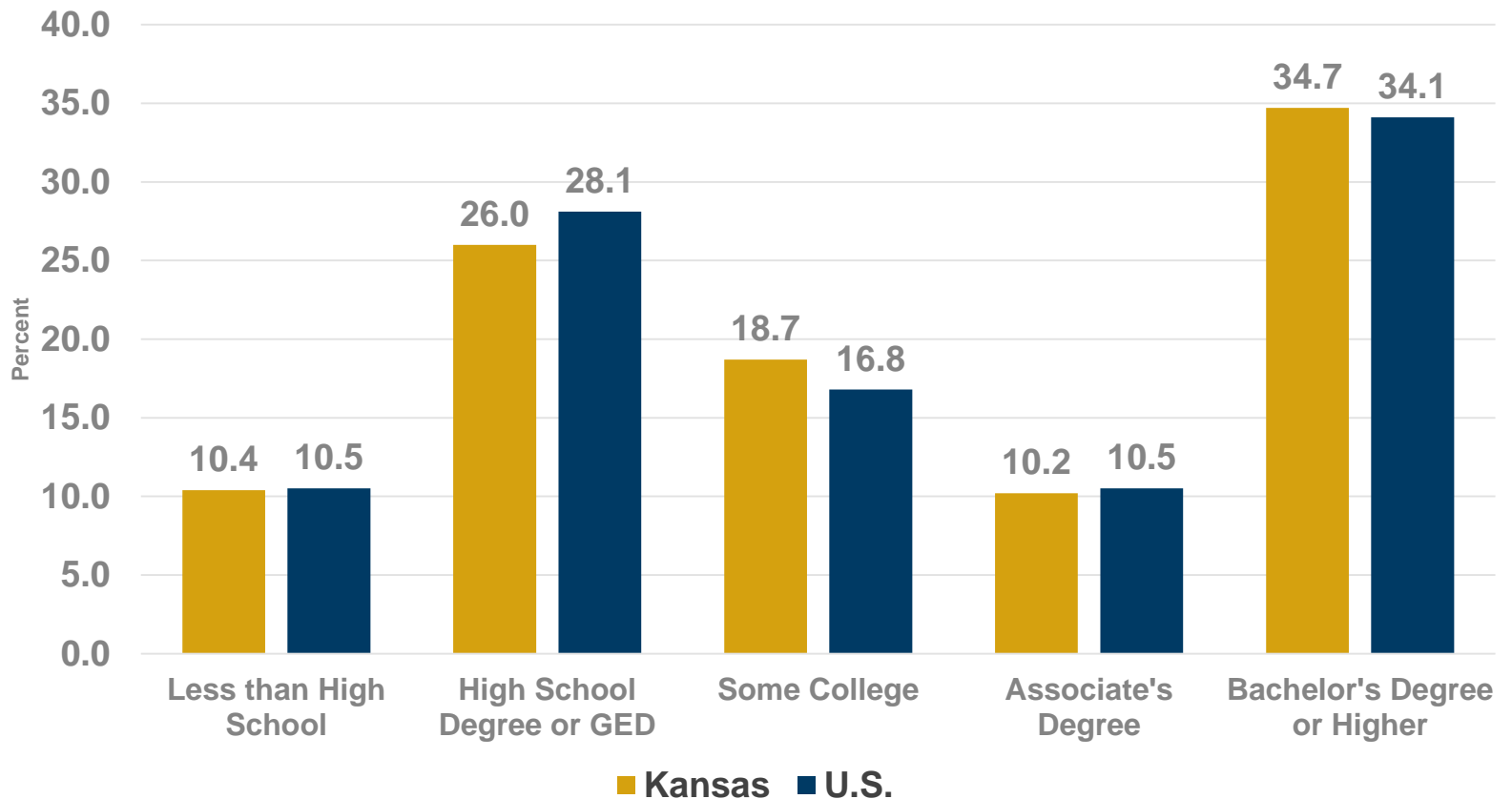
Workers with High School Degrees Earn Less than those with an Bachelor's Degree

Wages for Workers with a High School Degree or Less as a Percent of Wages for Workers with Bachelors Degrees+: Kansas and the U.S.



Kansas Education Levels are Somewhat Better than Those in the US

Percent of Prime Working Age Population by Education Level: Kansas and U.S.



Kansas has fewer high school graduates and more with some college

Background

- Kansas developed two programs to address this skills gap:
 - **Accelerating Opportunity-Kansas (AOK)** encourages low-skilled students to start and complete career-oriented technical programs at community and technical colleges.
 - **Excel in Career Technical Education Initiative (SB155 Program)** provides free college tuition for high school students enrolled in approved technical courses offered by our technical and community colleges. School districts receive monetary incentives for students who graduate with approved credentials.

Research Goals and Methods

- Our research examines whether these two programs have an impact on
 - Student academic achievement
 - Employment
 - Wages.
- We use student-level data from KBOR that has been linked to data from the Kansas Department of Labor.
- Funding from the US Department of Labor's Workforce Data Quality Initiative has enabled the linkage of data from these two agencies.

Goals and Methods

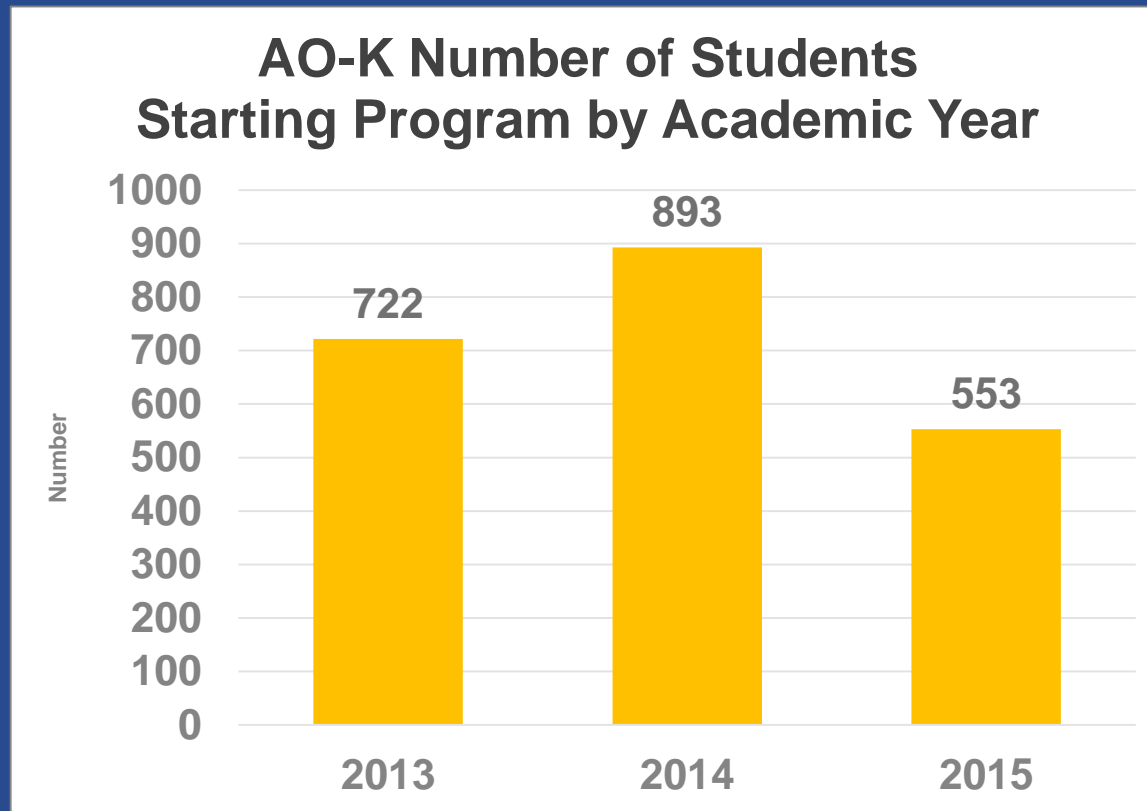
- We use a quasi-experimental design where we match students in the AOK and SB155 programs to students in similar programs with similar demographic and academic preparation characteristics.
- Students in the matched comparison group do not have access to the AOK or SB155 program features.
- Compare outcomes of the AOK and SB155 students to those in the matched comparison group to identify the effect of these programs.

AO-K Students and Matched Control Group

- We matched students participating in AO-K with a “control group” student in a program with the same major and award level, but at a different school where that track was not designated for AO-K supports.
- To the extent possible, the control group students were also matched on characteristics such as gender, ethnicity, and college readiness.
- The matching process is designed to even out the effects of these measurable characteristics so that we can single out the effect of AO-K.

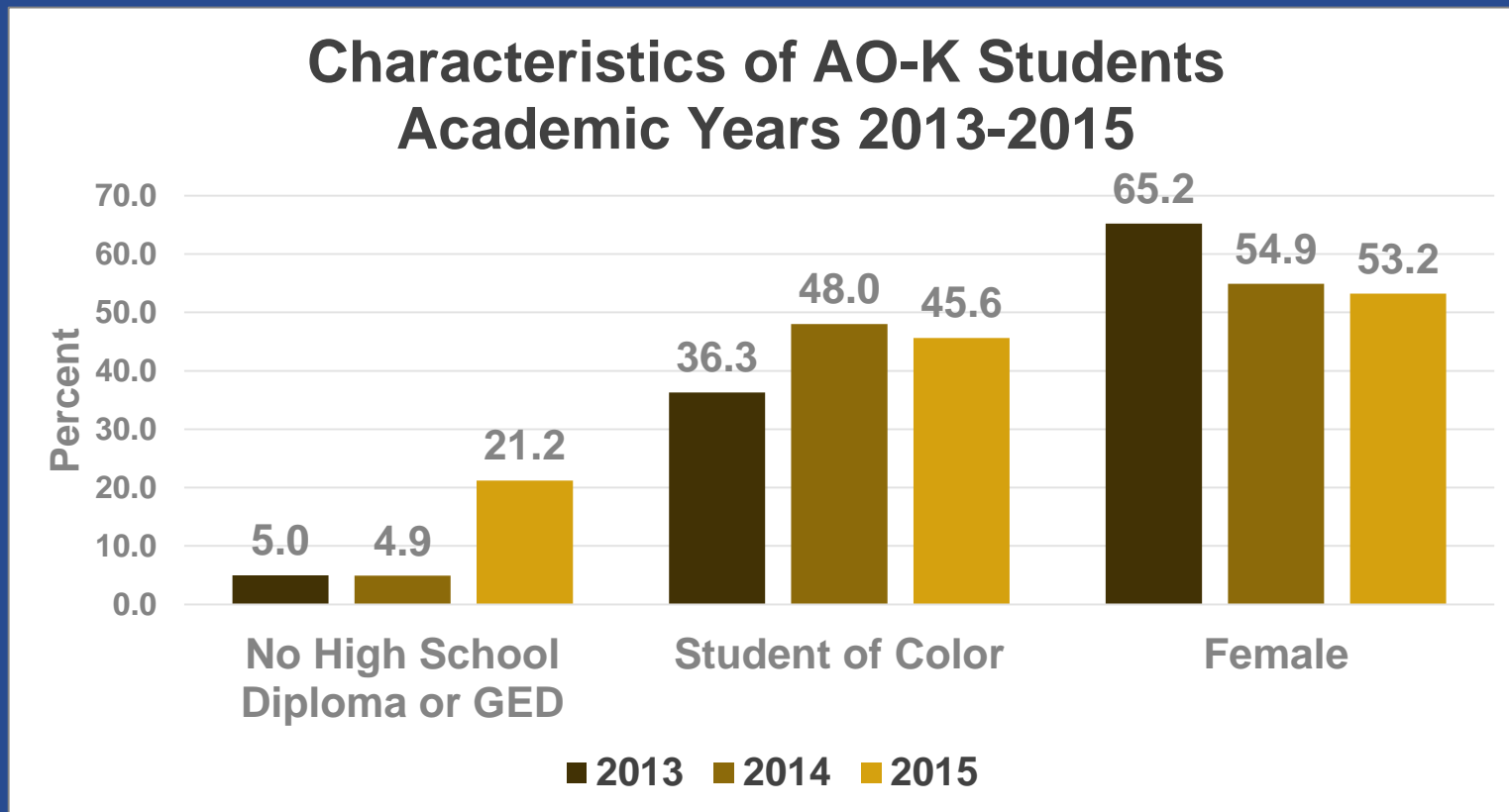
AO-K: Key Elements of Program

- Adult basic education (e.g. math, writing) is integrated into the technical education courses.
- Adult basic education (ABE) are in the same classes with the technical instructors. The technical courses are the same, with the addition of ABE support.
- Program is open to students who lack basic skills (determined through testing). Any student can participate as long as their test scores are eligible.
- AO-K students who do not yet have a high school diploma or GED may receive paid tuition for technical courses.



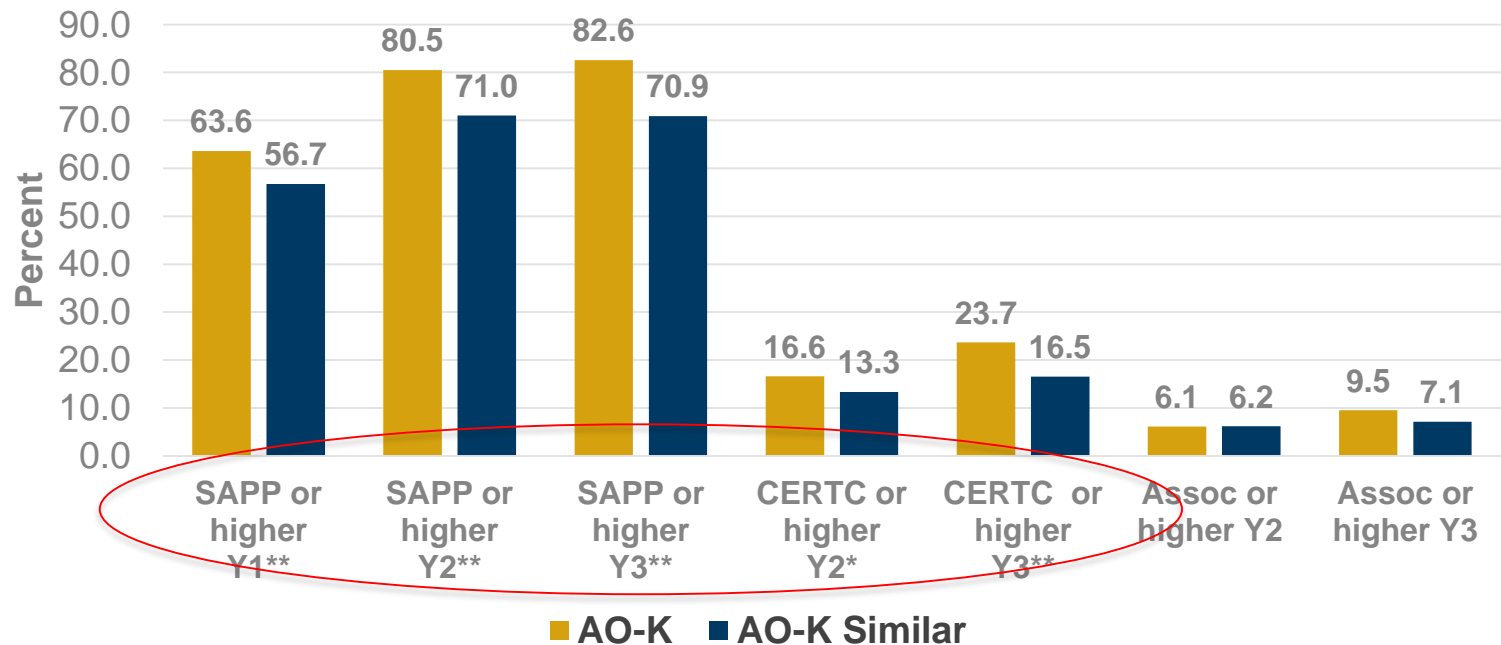
Decline in number of students in 2015 due to:

- General decline in community college enrollment?
- End of Great Recession?
- Shift of funding sources?



- AO-K students are more likely to be students of color compared with community college students in general ((45.6% vs 31% in 2015).
- They are about equally likely to be female (53.2% vs 55.4%).
- Students without high school diploma or GED rose in 2015, possibly because of the start of scholarship funding.

Completion of Certificates and Degrees AO-K and Similar Programs

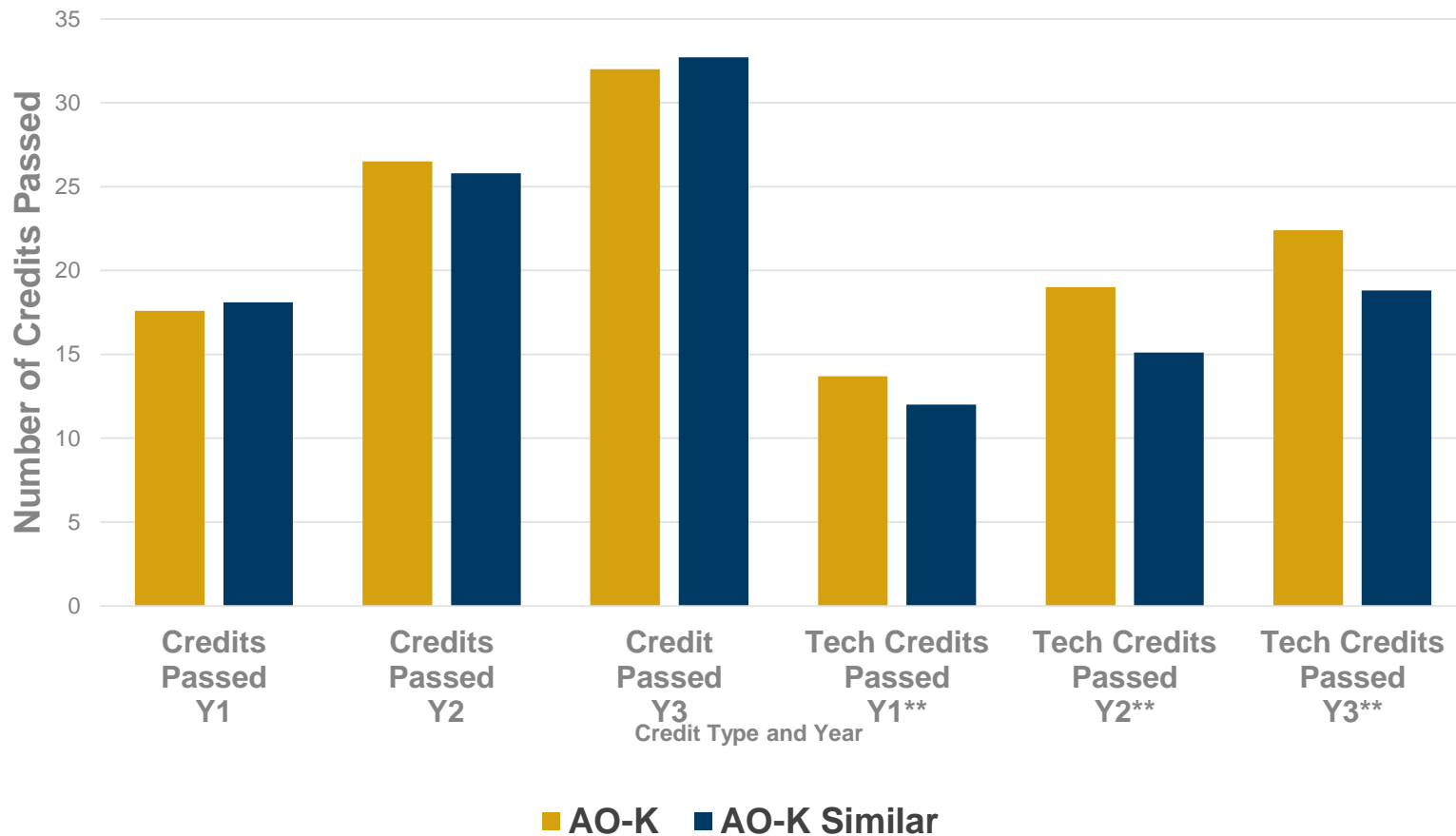


- AO-K students significantly more likely to complete SAPP certificate (<16 credits) or higher compared with control group.
- AO-K students significantly more likely to complete CERTC (45-59) credits.
- AOK students are also significantly more likely to persist and significantly less likely to drop out.

AO-K Students Earned More Technical Credits



**Credits Earned by Credit Type and Year
AO-K and Similar Programs**



Employment Patterns

**Employment Measures: Percent Employed
AO-K and Similar Programs**



AO-K students were less likely to be employed before starting the Program and in year two after completing a certificate or degree.

Additional Outcomes

- AO-K Students were significantly less likely to fail courses.
- AO-K Students earned significantly more industry credentials than the comparison group.
- We also considered employment and wage outcomes.
 - Completing a certificate or degree is positively correlated with employment and wages.
 - AO-K has no significant effect on employment or wages after controlling for degree completion.

AO-K Conclusions

- AO-K improves students' academic success:
 - More likely to persist
 - More degrees / certificates
 - More technical credits
 - More industry credentials
- Degree/certificate completion improves employment and earnings outcomes.
- Since AO-K improves degree, certificate and industry credential completions this translates into improved employment and earnings outcomes.

The Labor Market Impact of SB155

- Advanced Placement students can earn college “academic track” credits during high school.
 - However, few programs exist for high school students to obtain career and technical education (CTE) credits during high school.
- The 2012 Excel in Career Technical Education Initiative (SB155) provided high school students with free tuition for enrolling in qualified CTE courses offered by community colleges.

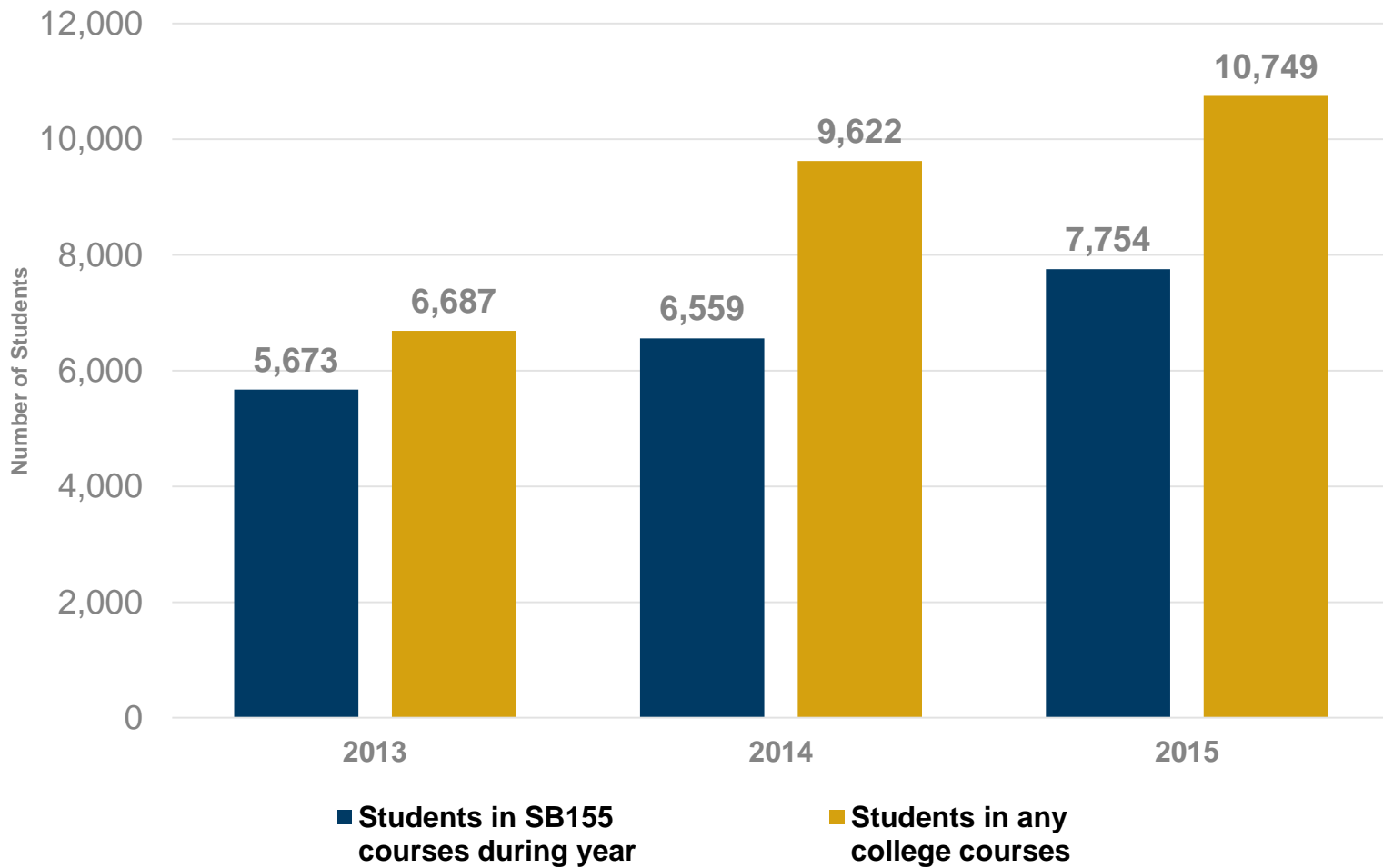
The Labor Market Impact of SB155

- Describe SB155 students and outcomes.
- Examine whether SB155 students who do not continue to college earn a wage premium for CTE credits earned.
- Compare SB155 students who continue onto college to those that do not.
- Compare outcomes for SB155 students to “traditional” CTE college students.
- Evidence suggests that SB155 provides a “head start” for CTE students.

SB155 Has Grown Significantly



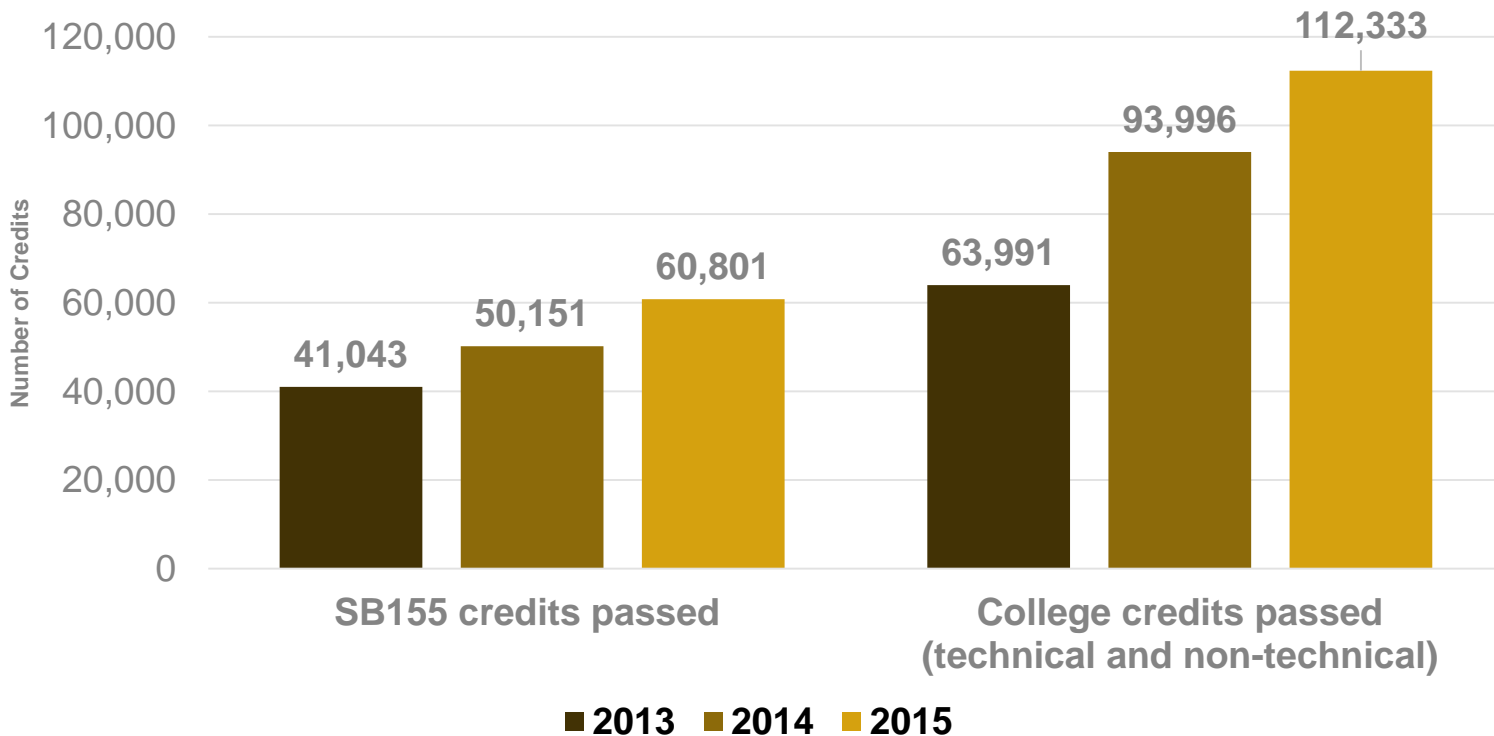
High School Enrollment in College Courses 2013-2015



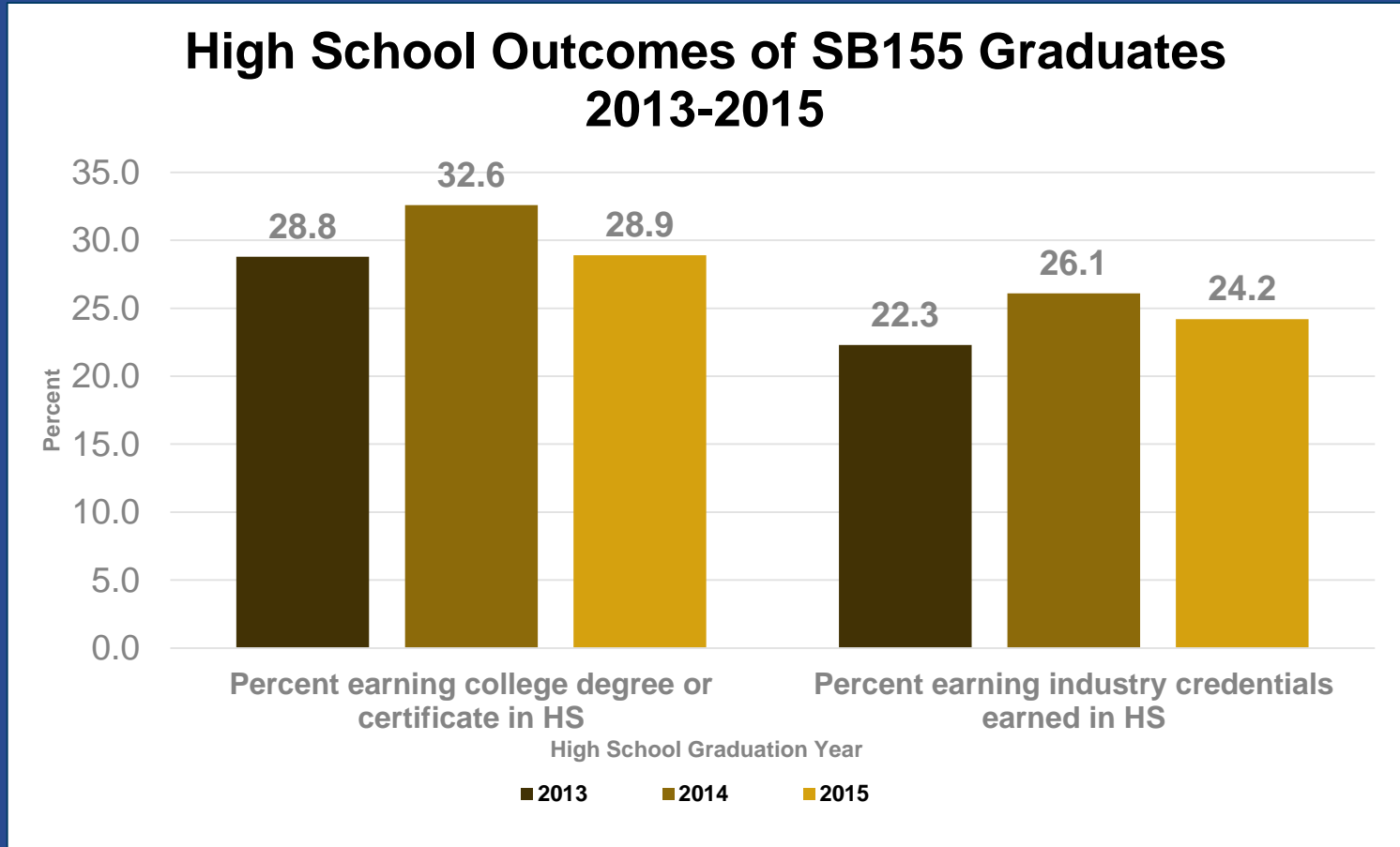
SB155 Students Earn Credits



High School Enrollment in College Courses Credits Passed: 2013-2015

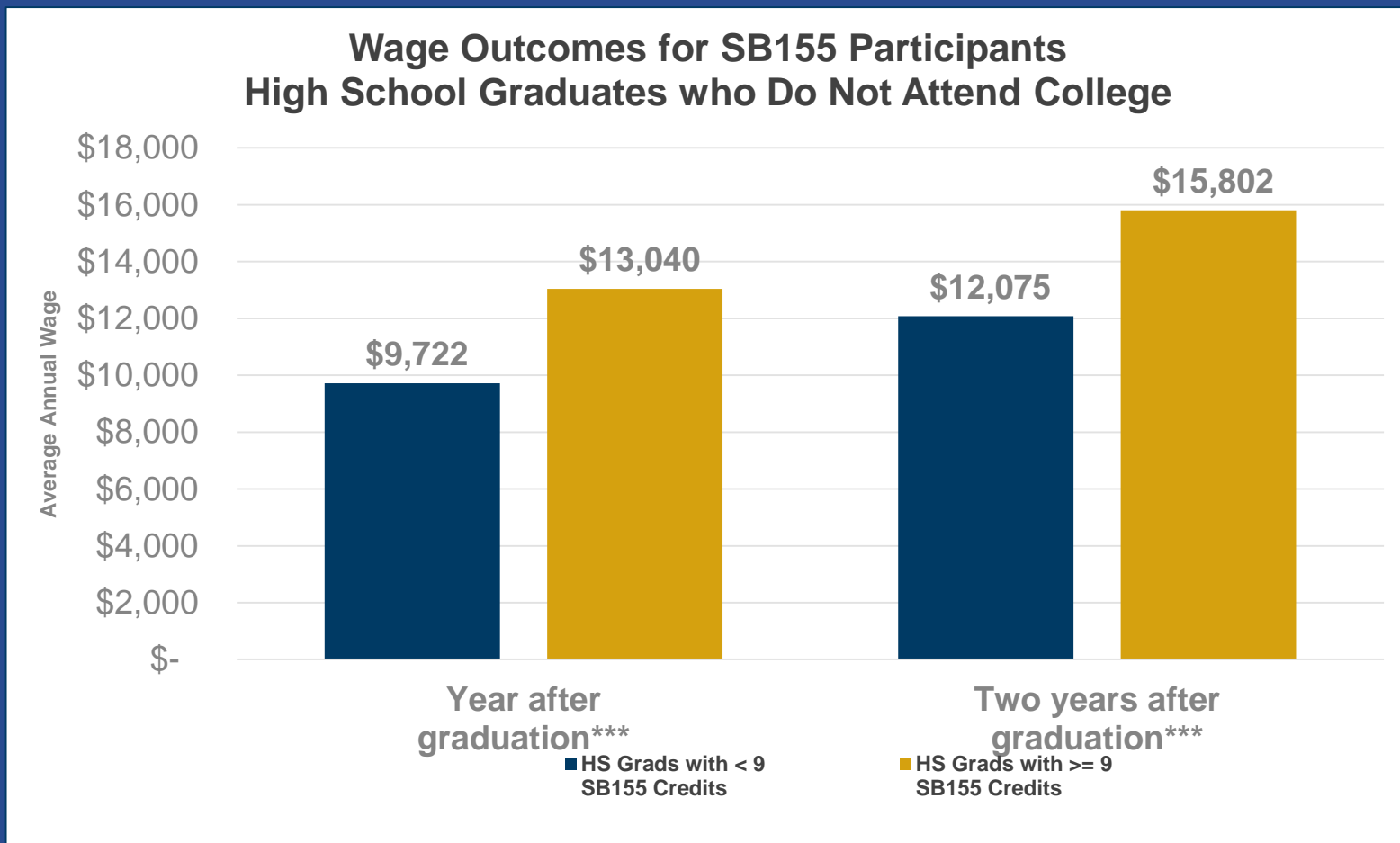


SB155 Students Earn Credentials in High School



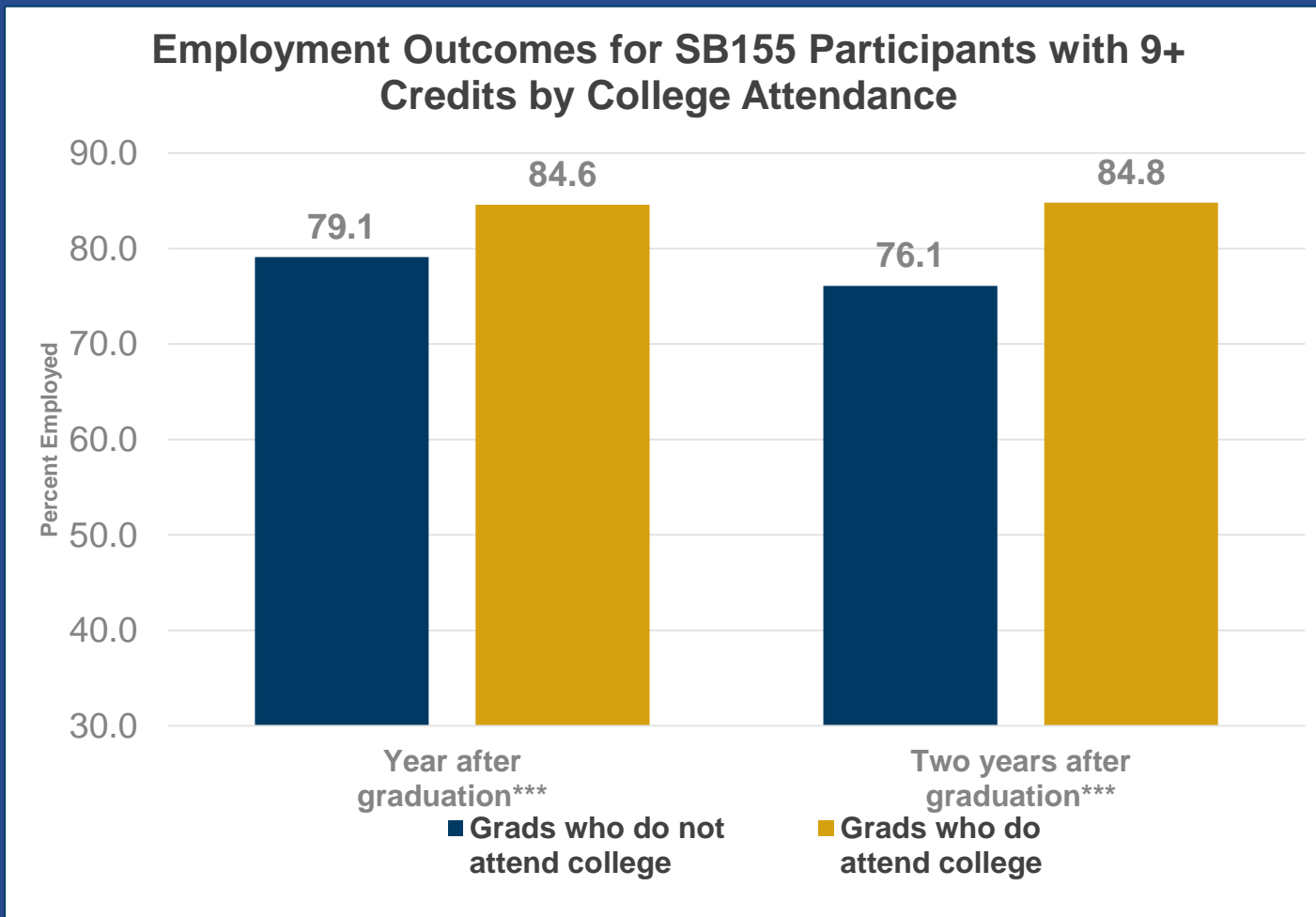
Nearly 30% earn a degree or certificate; nearly 25% earn an industry credential.

Impact of SB155 Credits on Labor Market Outcomes



SB155 students who do not attend college are more likely to be employed and earn more if they earn > 9 CTE credits.

SB155 College & Non-College Outcomes



SB155 Students who attend college are more likely to be employed, but earn less than those who do not attend college.

SB155 Compared with Traditional CTE Students

- During the First Year of College, SB155 Students earn:
 - More degrees and certificates
 - More CERTC or higher
 - Are more likely to persist to second year
- They have:
 - Fewer cumulative credits in college
 - Lower GPAs

SB155 Compared with Traditional CTE Students

- During the Second Year of College, SB155 Students earn:
 - More degrees and certificates
 - More CERTC or higher degrees
- They have:
 - Lower GPAs

SB155 Conclusions

- SB155 has increased CTE credits earned by high school students.
- Nearly 30% complete a college-level certificate/degree in high school.
- Nearly two-thirds of SB155 students enroll in college and go on to earn more credits/degrees than traditional CTE students.
- SB155 credits lead to higher employment and higher wages.
- SB155 gives high school students a “head start” on college.

Conclusions

Thank
You

Mahalo

Kiitos

Tack

Grazie

Toda

Obrigado

Thanks

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Gracias

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