



Postsecondary Education and Employment Outcomes for Career and Technical Education Graduates in the Class of 2013

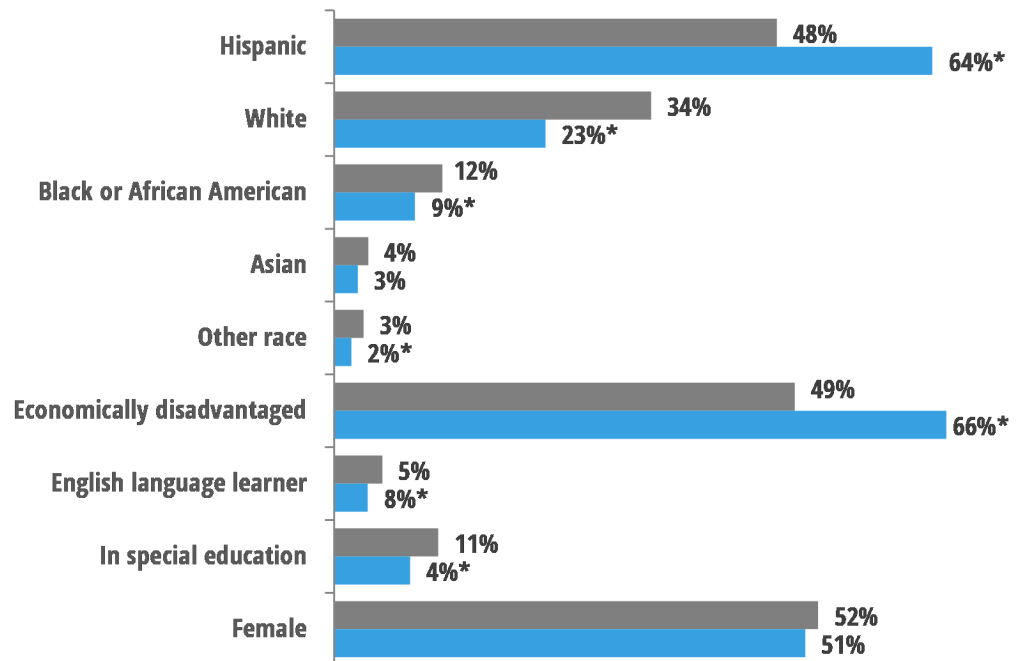
Introduction

The career and technical education (CTE) program at Austin Independent School District (AISD) prepares students to have the academic and technical skills needed for a college education and/or entry-level work in a career pathway. This report examines the postsecondary outcomes of graduates who concentrated in a CTE career pathway. It compares the education and employment outcomes of these CTE graduates with those of non-CTE graduates.

In the Class of 2013, 27% of 4,216 graduates were CTE graduates.¹ The demographics of CTE graduates differed significantly from those of non-CTE graduates (Figure 1). CTE had a concentration of Hispanic and economically disadvantaged graduates.

Figure 1.

CTE graduates included a significantly higher percentage of Hispanic and economically disadvantaged graduates than did **non-CTE graduates**, and a significantly lower percentage of graduates who were Black, other race, English language learners, or in special education.



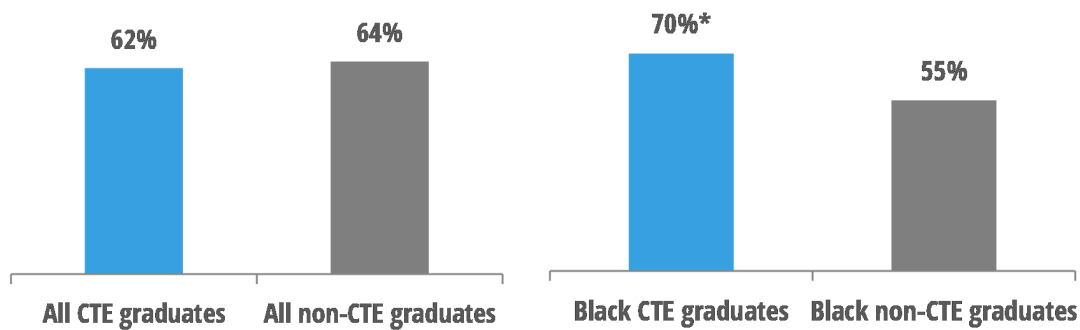
Source: Texas Education Agency's Public Education Information Management System (PEIMS), 2013
* Statistically significant at $p < .05$.

1. CTE data were available for all but 20 of the 4,236 total graduates.

Postsecondary Education Outcomes

Despite significant demographic differences, similar postsecondary enrollment rates existed between CTE and non-CTE graduates (Figure 2). Overall, 63% of AISD graduates enrolled in a postsecondary institution. The only student group with a significantly different postsecondary enrollment outcome based on CTE status were Black graduates: they were significantly more likely to be enrolled if they were in CTE. This enrollment difference may result from a higher proportion of Black graduates in CTE being in the top grade point average (GPA) quartile (13%) compared with Black graduates not in CTE (5%). Finally, CTE and non-CTE graduates enrolled at similar rates in 2-year and 4-year colleges (Figure 3).

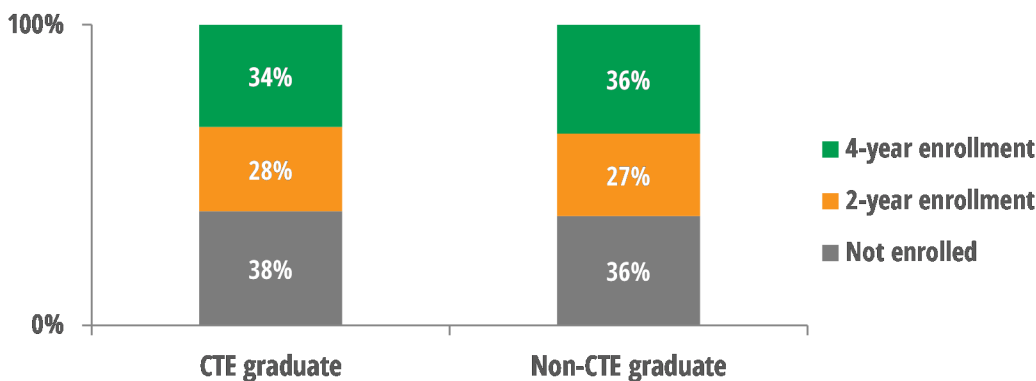
Figure 2. Postsecondary enrollment did not differ significantly by CTE status except for Black graduates, who were more likely to be enrolled if they were in CTE.



Source. AISD enrollment records; National Student Clearinghouse, 2013; Texas Education Agency's Public Education Information Management System, 2013

* Significant at $p < .01$

Figure 3. No significant difference existed between 2-year or 4-year college enrollment, based on CTE status.



Source. AISD enrollment records; National Student Clearinghouse, 2013; Texas Education Agency's Public Education Information Management System, 2013

Note. Percentages may not sum to 100 due to rounding.

What Is a CTE Graduate?

CTE graduates took two or more courses for three or more credits in a particular career pathway. AISD high schools offer more than 20 CTE career pathways, such as graphic design and illustration, culinary arts, and engineering. Each career pathway combines technical training with academics around an industry theme, with a sequence of courses designed to prepare students for further related study and/or employment.



Which Analyses Were Conducted?

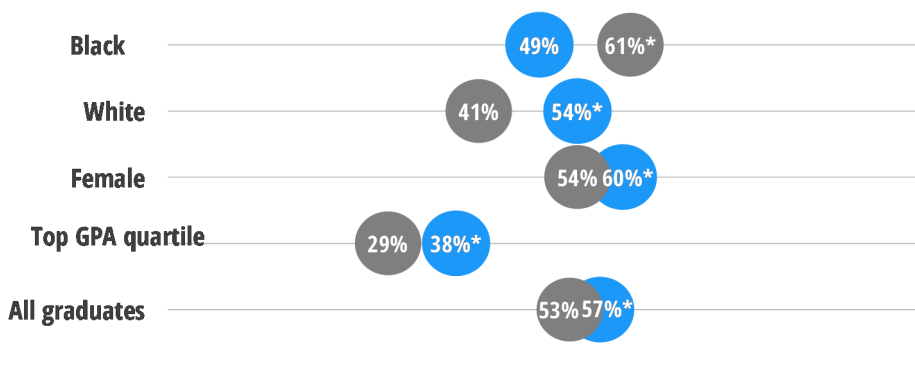
Tests of significance (z-tests) compared the employment of different student groups. Logistic regression analysis indicated whether being a CTE graduate was a significant determinant of enrollment or employment.

Postsecondary Employment Outcomes

CTE and non-CTE graduates worked at similar rates after graduation (57% and 53%, respectively). Overall, 54% of 2013 graduates worked. For certain student groups, however, employment rates differed based on CTE status. For White and for female graduates, and for those in the top GPA quartile, CTE graduates had a significantly higher employment rate than did non-CTE graduates (Figure 4). However, Black CTE graduates worked at a significantly lower rate than did Black non-CTE graduates.

Figure 4.

Significantly higher percentages of White, female, and top GPA quartile CTE graduates than of non-CTE graduates in these groups worked. Black CTE graduates were significantly less likely to work than were Black non-CTE graduates.



Source. AISD enrollment records, Texas Workforce Commission, Texas Education Agency's Public Education Information Management System, 2013

* Statistically significant at $p < .05$

Postsecondary enrollment might have influenced the employment differences based on CTE status shown in Figure 4. A significantly higher percentage of unenrolled than of enrolled graduates worked (Figure 5). Because of this large difference, the employment analysis that follows is grouped by enrollment.

Figure 5.

Enrolled graduates were significantly less likely to be employed than were graduates who were not enrolled.



Source. AISD enrollment records; National Student Clearinghouse, 2013; Texas Workforce Commission; Texas Education Agency's Public Education Information Management System, 2013

* Statistically significant at $p < .01$

Employment by Enrollment and CTE Status

Among graduates enrolled in postsecondary education, CTE graduates and their peers worked at similar rates, (45% and 43%, respectively; Figure 6). However, CTE status appeared to influence employment for White graduates who were not economically disadvantaged.² In this group, a significantly higher proportion of CTE (45%) than of

2. Among White enrolled graduates, 89% were not economically disadvantaged.

Who Was in the Employment Analysis?

The Texas Workforce Commission locates employment records using social security numbers; therefore, this employment analysis included only students with a social security number available to the district (81% of all graduates, or 3,433). The analysis used employment records for the fourth quarter of 2013 and the first quarter of 2014. Because only Texas employment data were available, the analysis excluded graduates (336) enrolled out of state. Graduates who enrolled in the spring were included in the enrolled group. Their employment only was included for the semester they were enrolled.



Demographics for Employment Analysis

Eliminating from the employment analysis those graduates without social security numbers available to the district resulted in a significant decrease in the number of Hispanic, economically disadvantaged, and English language learner graduates, compared with the group of all graduates. Despite these changes, the demographic relationships between CTE graduates and their peers remained the same. The variables that differed significantly (Figure 4) in the all-graduate group also differed significantly in the employment analysis group.

non-CTE (33%) graduates worked (Figure 7). CTE status did not appear to make a significant difference in employment for other student groups, as it did when enrollment status was not considered.

Figure 6.
No significant difference in employment existed between CTE and non-CTE graduates, regardless of postsecondary enrollment status.

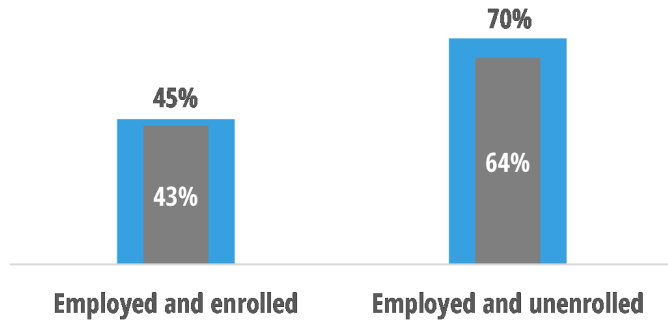
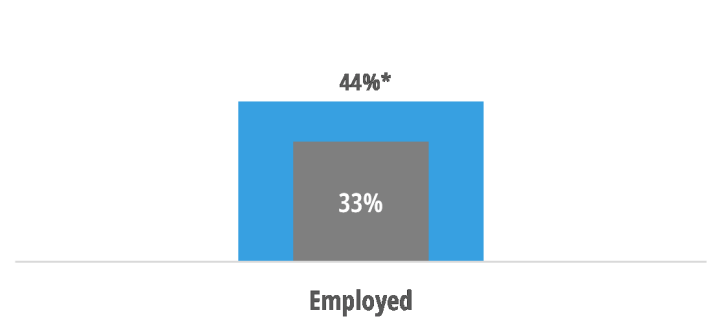


Figure 7.
Among White enrolled graduates who were not economically disadvantaged, a significantly higher percentage of CTE than of non-CTE graduates worked.



Source. AISD enrollment records; National Student Clearinghouse, 2013; Texas Workforce Commission; Texas Education Agency’s Public Education Information Management System, 2013

* Statistically significant at $p < .05$

Among graduates who were not enrolled in postsecondary education, CTE and non-CTE graduates worked at similar rates (Figure 6). Employment differences based on CTE status were significant for unenrolled graduates who were not economically disadvantaged. Among these graduates, 72% of CTE graduates worked, compared with 59% of non-CTE graduates.

Conclusion

CTE and non-CTE graduates enrolled at similar rates in postsecondary education overall, and in 2-year and 4-year institutions. This occurred despite significant demographic differences between the two groups. Employment rates also differed little by CTE status. However, CTE status appeared to significantly influence the employment rate of some student groups, particularly Black, White, and female graduates, and those in the top GPA quartile. The analysis by enrollment status revealed that the employment differences between student groups were likely a function of postsecondary enrollment rather than of CTE status.

After enrollment was considered, the only group for which CTE status was an influencing factor in employment was graduates who were not economically disadvantaged. CTE graduates in this group had a significantly higher employment rate. In the case of enrolled graduates, employment was higher only for those in that group who were White. Further research could explore explanations for these results to better understand the influence of CTE on students’ postsecondary outcomes.

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