

### College Enrollment and Completion among Texas High School Graduates with a Disability

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### College Enrollment and Completion among Texas High School Graduates with a Disability

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In response to concerns raised by Texas higher education stakeholders about the limited information available on students with a disability who are attending college in the state, this study examined college enrollment and completion among Texas public high school graduates by disability status, student demographic characteristics, and primary disability type. Across four statewide cohorts of high school graduates (2006/07 through 2009/10), 31 percent of graduates with a designated disability in grade 12 enrolled in a Texas college within two years of graduation. Of those, 90 percent initially enrolled in a public two-year college. Enrollment in four-year colleges was substantially lower (by at least 0.25 standard deviation units) for high school graduates with a disability than for graduates without a disability. Among high school graduates with a disability who initially enrolled in a two-year college, 17 percent attained a credential (certificate or associate degree) or transferred to a four-year college within four years of enrollment. Among high school graduates with a disability who initially enrolled a four-year college or a two-year college with the intention of attaining a four-year degree, 16 percent attained a baccalaureate degree within seven years of enrollment. Attainment of an associate degree or especially of a baccalaureate degree was substantially lower for high school graduates with a disability than for graduates without a disability. College enrollment and degree attainment among high school graduates with a disability were substantially lower for graduates who had been eligible for the national school lunch program in high school than for graduates who had not been eligible; lower for Hispanic graduates than for White graduates; and higher for graduates with auditory, speech, visual, orthopedic, and other health impairments than for graduates with other types of disability.

#### Why this study?

This study responds to concerns raised by Texas higher education administrators and policymakers about the limited information available on students with a disability who are attending college in the state and how to appropriately serve them (see box 1 for definitions of key terms used in the report). Most Texas colleges have an office to support students with a disability and provide services and accommodations. Students almost always must self-report their disability to their college to receive services or accommodations, but many do not. For example, 72 percent of postsecondary students in a nationally representative survey sample who had a designated disability during high school did not report a disability at their college (Newman et al., 2011). To protect student privacy, K–12 agencies rarely report information about disability status to colleges.

The limited available research suggests that students with a disability are less likely to enroll in and complete

college than students without a disability (Newman et al., 2011). However, this research draws primarily on surveys with voluntary responses and often with a small sample size (Affleck et al., 1990; Karpinski et al., 1992; Leake, 2015; Murray et al., 2000; Newman et al., 2011; Rabren et al., 2002). This lack of comprehensive data creates uncertainties for college leaders about the pipeline of students with a disability from high school graduation to college completion and the extent to which their college serves students with different types of disability.

This study offers new evidence to inform policies and research about how to serve students with a disability in postsecondary education. The rich secondary

For additional information, including technical methods, supplemental findings by Texas geographic region, and standardized group differences, access the report appendixes at https://go.usa.gov/x7Nnc. and postsecondary student-level data stored at the Texas Education Research Center enabled the study team to examine the postsecondary transitions and outcomes of high school graduates with a disability and to expand the limited research on those topics using a statewide study population. The findings can help secondary and postsecondary educators and administrators identify where students with different types of disability and different demographic characteristics might need additional support in the pipeline between high school graduation and college completion.

#### Box 1. Key terms

Baccalaureate degree. A postsecondary degree designed to be completed in four academic years.

**College.** A public or private not-for-profit degree-granting institution of higher education in Texas that enrolls undergraduate students.

Credential. An associate degree or educational certificate designed to be completed in two academic years or less.

**Disability type.** The type of disability recorded on a student's individualized education program (IEP) in grade 12. Disability types include auditory impairment, autism, deaf-blindness, emotional disturbance, intellectual disability, learning disability, orthopedic impairment, other health impairment, speech impairment, traumatic brain injury, or visual impairment. For this study, students with multiple disabilities were designated by their primary disability type. Two disability types—developmental delay and non-categorical early childhood—were not represented in the data for the study because these disability types apply only to early childhood students.

**First-time college student.** A Texas public high school graduate who enrolled in a Texas college for the first time taking a minimum of six credit hours, excluding dual enrollment or college credit attained before high school graduation.

Four-year college. A public or private not-for-profit institution of higher education that offers four-year baccalaureate degrees.

Graduate with a disability. A graduate of a Texas public high school who had an IEP and was classified as participating in a special education instructional program in grade 12.

**High school graduate.** A Texas public high school student who met the credit, course, and statewide assessment requirements associated with his or her high school entry cohort and received an eligible high school diploma. This does not include students who passed a high school equivalency test (for example, GED).

**Individualized education program (IEP).** A plan or program developed to ensure that a student with an identified disability who is attending a public K–12 school receives instruction and special education services tailored to his or her needs. The Individuals with Disabilities Education Act (IDEA) requires primary and secondary institutions to work with parents and older students to tailor an IEP for each student with a disability that meets the unique needs of that student.

Overall college enrollment. The percentage of graduates who enrolled in a two-year or four-year college.

**Public two-year college.** A public institution of higher education that offers associate degrees and educational certificates designed to be completed in two years or less. Some public two-year colleges in Texas also offer baccalaureate degrees in select programs or in partnership with a four-year college.

**Texas geographic region.** The Education Service Center region of the school district in which a student was enrolled in grade 12. Texas public school districts are assigned to one of 20 Education Service Centers based on district location (see figure B1 in appendix B for a map of Texas Education Service Center regions).

**Two-year-college outcomes.** The three possible outcomes for high school graduates who initially enrolled in a two-year college, regardless of degree intent: attainment of a certificate, attainment of an associate degree, or upward transfer within four years of initial enrollment.

Upward transfer. Student transfer from a two-year college to a four-year college.

The study was developed with input from higher education stakeholders who need foundational and systematic evidence about enrollment and progress in higher education for Texas students with a disability. Stakeholders included representatives from the Texas Higher Education Coordinating Board, the Texas Association of Community Colleges, and several public community colleges. These representatives are seeking to improve their knowledge about students with a disability in Texas colleges and to better track and serve these students by informing decisions on modifying data systems and institutional procedures.

#### **Research questions**

This study addressed three research questions:

- 1. What percentages of high school graduates with a disability enrolled in a Texas two-year or four-year college within two years of graduation?
- 2. What percentages of high school graduates with a disability who initially enrolled in a Texas two-year college attained a credential or transferred to a four-year college within four years of enrollment?
- 3. What percentages of high school graduates with a disability who initially enrolled in a Texas two-year or fouryear college attained a baccalaureate degree within seven years of enrollment?

The study also examined the extent to which college enrollment and attainment of a credential or baccalaureate degree varied by disability status, demographic characteristics, primary disability type, and Texas geographic region. (Data sources and the study population, methods, and limitations are summarized in box 2; additional details are in appendix A.)

#### Box 2. Data, study population, methods, and limitations

**Data sources.** The study used high school data from the Texas Education Agency and postsecondary data from the Texas Higher Education Coordinating Board, available at the Texas Education Research Center. The Education Research Center contains deidentified student-level administrative records for all students who have enrolled in a Texas public high school or Texas college. Texas Education Agency data included students' high school of enrollment, special education status, demographic characteristics, primary disability type, and high school graduation record for all members of the graduating cohorts examined in the study (2006/07 through 2009/10). The postsecondary data included records from all public two-year colleges and all public and private nonprofit four-year colleges in Texas for 2007/08 through 2017/18.

**Study population.** The study examined cohorts of students who graduated from a public high school in Texas in one of four years: 2006/07, 2007/08, 2008/09, or 2009/10. The cohorts represented all students identified as graduates of Texas public high schools, including students who did not graduate on time (within four years) and students who were over-age, to avoid excluding students with a disability who might have required additional time to complete high school. Each cohort comprised approximately 250,000 graduates, including approximately 26,000 graduates with a disability. The population for research question 1 included all students across all four cohorts: 106,736 high school graduates with a disability and 902,672 graduates without a disability. The data included students with higher-incidence disabilities, such as a learning disability (70,577) and health impairment (12,315), and students with lower-incidence disabilities, such as visual impairment (691) and speech impairment (546). The population for research questions 2 and 3 was limited to first-time college students who enrolled in a Texas college within two years of high school graduation. Among these first-time college students were 32,613 high school graduates with a disability and 573,818 graduates without a disability. Additional information on the study population is in appendix A.

**Methods.** The study team used students' primary disability type as designated in grade 12 to assign students to a single disability type and create unduplicated student records by disability type. To address research question 1, the study team identified high school graduates who enrolled in any Texas two-year or four-year college within two years of graduation taking at least six credit

hours of coursework in the two-year period. The study team linked high school graduates to their first college of enrollment and calculated the percentage who enrolled in college and the percentage who did not overall and by high school disability status, demographic characteristics (socioeconomic status as proxied by eligibility for the national school lunch program, gender, and race/ethnicity), primary disability type, institution type (two-year or four-year) where initially enrolled, and Texas geographic region. Findings by Texas geographic region are in appendix B.

To address research questions 2 and 3, the study team tracked high school graduates longitudinally after initial enrollment. The study population for these questions varied according to whether students declared an intention to attain a four-year degree at the time of initial enrollment. For research question 2 the study team calculated outcomes for all high school graduates who initially enrolled in a two-year college, regardless of degree intent. The two-year-college outcomes were attainment of a certificate, attainment of an associate degree, and upward transfer (transfer to a four-year college) within four years of initial enrollment. For research question 3 the study team focused on high school graduates who enrolled in a four-year college and declared an intention to attain a four-year degree (as reported to the Texas Higher Education Coordinating Board by colleges based on student declaration). The primary outcome considered for research question 3 was attainment of a baccalaureate degree within seven years of initial enrollment. The study team calculated the percentages of high school graduates who attained specific outcomes overall and by high school disability status, demographic characteristics, primary disability type, institution type where initially enrolled, and Texas geographic region.

The report presents unadjusted group differences in the population of high school graduates in Texas in the years examined. The Cox index was used to calculate the standardized difference (in standard deviation units) between paired groups of students for several comparisons of interest, primarily to compare college enrollment and attainment of a credential or degree between high school graduates with a disability and graduates without a disability and among graduates with a disability by demographic characteristics. Standardized differences of at least 0.25 standard deviation units were designated as substantial differences. Group differences of 2 percentage points or less are not reported in the findings. For parsimony the report limits the presentation of Cox index statistics for demographic subgroups to differences in enrollment in any college, attainment of any of the two-year-college outcomes measured (associate degree, certificate, or upward transfer), and attainment of a baccalaureate degree. The study team did not calculate the standardized differences by primary disability type in grade 12 because of unbalanced group sizes and issues with designating a useful reference group for students with different disability types. Standardized differences from the Cox index calculations are in appendix C.

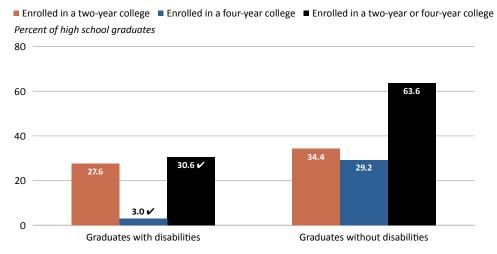
Limitations. The study has several limitations. First, to focus on students near the point of postsecondary transition, the study team defined high school graduates with a disability as students who had an individualized education program and participated in a special education program in grade 12. Thus, students who did not have an individualized education program according to district records, students who were in special education programs before grade 12 only, and students who did not graduate from high school were not treated as high school graduates with a disability for this study. Second, the study examined college enrollment within a two-year window and at a limited set of Texas colleges. The data did not allow examination of enrollment in private two-year colleges, for-profit colleges, or colleges outside Texas. Because a finding in this study of degree attainment is conditional on a student's enrollment in a Texas college, the study may overstate or understate credential or degree attainment among high school graduates in Texas, depending on which students were not observed in the analysis. Third, the study was limited to descriptive analysis and did not examine factors that are likely to affect college outcomes, such as institutional factors or student motivation, self-selection, or access to services for students with a disability. Finally, the generalizability of findings may be limited geographically to Texas and temporally to the cohorts and years examined.

#### **Findings on college enrollment**

### Fewer than one of three high school graduates with a disability enrolled in a Texas college within two years of graduation, and of those who did, 90 percent enrolled in a two-year college

About 31 percent of high school graduates with a disability (32,613 of 106,736) enrolled as a first-time college student in Texas within two years of graduation (figure 1; see also tables A4 and A5 in appendix A). The percentage who enrolled in a two-year institution (28 percent) was substantially higher than the percentage who enrolled

### Figure 1. Overall college enrollment within two years of high school graduation was substantially lower for graduates with a disability than for graduates without a disability, 2006/07–2009/10 graduating cohorts in Texas



Note: Check mark denotes a substantial difference (at least 0.25 standard deviation units) between graduates with a disability and graduates without a disability for the respective outcome, with graduates without a disability serving as the reference group. Among graduates with a disability, there was also a substantial difference between the percentage of graduates who initially enrolled in a two-year college and the percentage who initially enrolled in a four-year college (see figure C1 in appendix C).

Source: Authors' analysis of data from Texas state longitudinal system administrative records accessed at the Texas Education Research Center.

in a four-year institution (3 percent). In other words, of high school graduates with a disability who enrolled in college, 90 percent initially enrolled in a two-year college. Across Texas geographic regions, enrollment in a Texas two-year or four-year college among high school graduates with a disability ranged from 19 percent in Wichita Falls to 36 percent in El Paso (see figure B1 in appendix B for a map of Texas geographic regions and table B1 for detailed results).

### College enrollment was substantially lower for high school graduates with a disability than for graduates without a disability, due primarily to differences in enrollment at four-year colleges

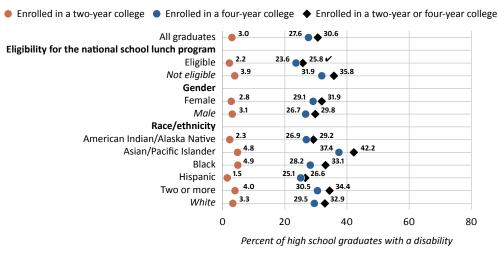
Overall college enrollment was substantially lower (by 33 percentage points) for high school graduates with a disability than for graduates without a disability. A lower percentage of high school graduates with a disability than of graduates without a disability enrolled in a two-year college (6.8 percentage point difference), and a substantially lower percentage enrolled in a four-year college (26.2 percentage point difference; see figure 1, tables A4 and A5 in appendix A, and figure C1 in appendix C).

## College enrollment among high school graduates with a disability was substantially lower for economically disadvantaged and Hispanic graduates

Among high school graduates with a disability overall college enrollment was substantially lower for those who had been eligible for the national school lunch program in high school (an indicator of socioeconomic disadvantage) than for those who had not been eligible (figure 2; see also table A6 in appendix A and figure C2 in appendix C). High school graduates who had been eligible for the national school lunch program had the lowest overall college enrollment (26 percent) among all subgroups of high school graduates with a disability examined.

A higher percentage of female high school graduates with a disability than of male graduates with a disability enrolled in college overall (32 percent versus 30 percent; see figure 2 and table A6 in appendix A) and in two-year colleges (29 percent versus 27 percent). Enrollment in four-year colleges was similar for female and male graduates with a disability (2.8 percent and 3.1 percent).

Figure 2. Among high school graduates with a disability, overall college enrollment within two years of high school graduation was substantially lower for graduates who had been eligible for the national school lunch program and for Hispanic graduates, 2006/07–2009/10 graduating cohorts in Texas



Note: Labels in italics designate the reference group for each subgroup domain. Check mark denotes a substantial difference (at least 0.25 standard deviation units) between the student subgroup and the designated reference group for the respective outcome (see figure C2 in appendix C).

Source: Authors' analysis of data from Texas state longitudinal system administrative records accessed at the Texas Education Research Center.

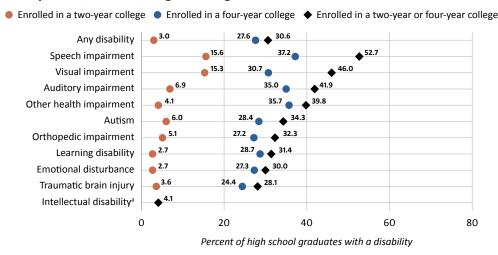
Among high school graduates with a disability, overall college enrollment was lower for American Indian/Alaska Native graduates and Hispanic graduates than for White graduates and higher for Asian/Pacific Islander graduates (see figure 2 and table A6 in appendix A). Hispanic high school graduates with a disability had the lowest overall college enrollment among racial/ethnic groups, at 6.3 percentage points lower than White graduates and 15.6 percentage points lower than Asian/Pacific Islander graduates. Hispanic high school graduates were the largest subgroup of graduates with a disability by race/ethnicity, with 41,646 students. If college enrollment among high school graduates with a disability had been comparable between Hispanic students and White students, approximately 2,600 additional Hispanic graduates with a disability would have enrolled in a Texas college during the years studied.

In every demographic subgroup (eligibility for the national school lunch program, gender, and race/ethnicity), the percentage of graduates with a disability who initially enrolled in a two-year institution was higher than the percentage who initially enrolled in a four-year college, with differences of 21–33 percentage points (see figure 2 and table A6 in appendix A). Fewer than 5 percent of graduates with a disability in any subgroup initially enrolled in a four-year college.

## College enrollment among graduates with a disability was highest for those with a speech, visual, or auditory impairment and lowest for those with an intellectual disability

Overall college enrollment ranged from 4 percent for graduates with an intellectual disability to 53 percent for graduates with a speech impairment (figure 3 and table A4 in appendix A). Overall college enrollment was also higher for graduates with a visual impairment (46 percent), auditory impairment (42 percent), or other health impairment (40 percent) than for graduates with other types of disability. For each disability type the percentage of graduates who enrolled in a two-year college (24–37 percent for all disability types other than intellectual disabilities) was higher than the percentage who enrolled in a four-year college (3–16 percent).

Figure 3. Among high school graduates with a disability, overall college enrollment within two years of high school graduation was highest for those with a physical disability and lowest for those with an intellectual or behavioral disability, 2006/07–2009/10 graduating cohorts in Texas



Note: Findings are not displayed for graduates with deaf/blindness because of small cell sizes.

a. Findings are not displayed for enrollment in a two-year college or for enrollment in a four-year college because the percentages were less than 1 percent and round to zero.

Source: Authors' analysis of data from Texas state longitudinal system administrative records accessed at the Texas Education Research Center.

#### Findings on attainment of a college credential or degree

### Most high school graduates with a disability who initially enrolled in a Texas two-year college did not attain a credential or degree within four years

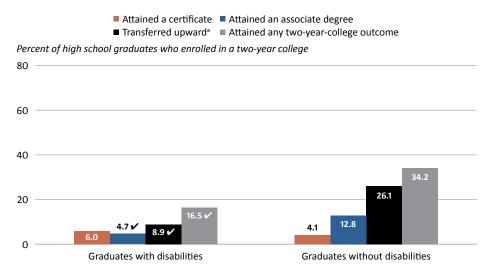
A large majority of high school graduates with a disability who initially enrolled in a two-year college in Texas did not attain a credential or transfer upward (to a four-year college) within four years, as defined in this study (see box 1). About 17 percent of graduates with a disability who enrolled in a two-year institution (4,854 of 29,437) attained a credential or transferred upward (figure 4; see also table A8 in appendix A). Upward transfer was the most common outcome (9 percent), followed by attainment of a certificate (6 percent) or an associate degree (5 percent). Across Texas geographic regions attainment of any of these three outcomes among high school graduates who enrolled in a two-year college ranged from 11 percent in El Paso to 26 percent in Wichita Falls (see table B2 in appendix B).

### Most high school graduates with a disability who initially enrolled in a Texas two-year or four-year college did not attain a baccalaureate degree within seven years

A large majority of high school graduates with a disability who initially enrolled in either a four-year college or a two-year college with the intention of attaining a four-year degree<sup>1</sup> did not attain a baccalaureate degree within seven years of college enrollment. About 16 percent of these high school graduates (1,708 of 10,963) attained a baccalaureate degree within seven years of initial enrollment (figure 5; see also table A11 in appendix A). Attainment of a baccalaureate degree was higher for the 3,176 graduates with a disability who initially enrolled in a

Some 7,787 high school graduates who initially enrolled in a two-year college declared an intention to attain a four-year degree. These
graduates were included in the denominator for the baccalaureate degree outcome. The remaining 21,650 graduates who did not
declare an intention to attain a four-year degree were excluded from the calculation of baccalaureate degree attainment. All high
school graduates who initially enrolled in a two-year college were included in the calculation of two-year-college outcomes.

Figure 4. Attainment of two-year-college outcomes within four years of initial enrollment was substantially lower for high school graduates with a disability than for graduates without a disability, 2006/07–2009/10 graduating cohorts in Texas

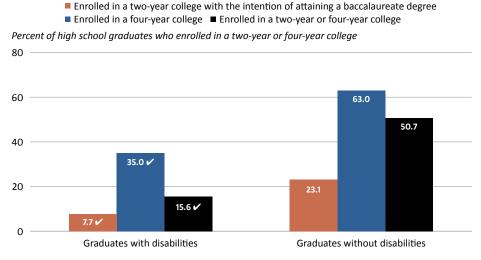


Note: Check mark denotes a substantial difference (at least 0.25 standard deviation units) between graduates with a disability and graduates without a disability for the respective outcome, with graduates without a disability serving as the reference group (see figure C3 in appendix C).

a. Transferred from a two-year college to a four-year college.

Source: Authors' analysis of data from Texas state longitudinal system administrative records accessed at the Texas Education Research Center.

# Figure 5. Attainment of a baccalaureate degree within seven years of initial enrollment was substantially lower for high school graduates with a disability than for graduates without a disability, 2006/07–2009/10 graduating cohorts in Texas



Note: Check mark denotes a substantial difference (at least 0.25 standard deviation units) between graduates with a disability and graduates without a disability for the respective outcome, with graduates without a disability serving as the reference group (see figure C4 in appendix C).

Source: Authors' analysis of data from Texas state longitudinal system administrative records accessed at the Texas Education Research Center.

four-year college (35 percent) than for the 7,787 graduates who initially enrolled in a two-year college and declared an intention to attain a four-year degree (8 percent). Across Texas geographic regions attainment of a baccalaureate degree among high school graduates with a disability who initially enrolled in either a four-year postsecondary college or a two-year college with the intention of attaining a four-year degree ranged from 6 percent (Mt. Pleasant) to 29 percent in Wichita Falls (see table B3 in appendix B).

### Attainment of a college credential or degree was substantially lower for high school graduates with a disability than for graduates without a disability

Graduates with a disability had lower attainment of college credentials or degrees than graduates without a disability. Among high school graduates who initially enrolled in a two-year college, the percentage who attained any of the two-year-college outcomes examined was substantially lower for those with a disability (17 percent) than for those without a disability (34 percent; see figure 4, table A8 in appendix A, and figure C3 in appendix C). Upward transfer and attainment of an associate degree were substantially lower for high school graduates with a disability than for graduates without a disability (by 17.2 percentage points for upward transfer and by 8.1 percentage points for attainment of an associate degree). However, attainment of a certificate was similar for graduates with a disability (6 percent) and graduates without a disability (4 percent).

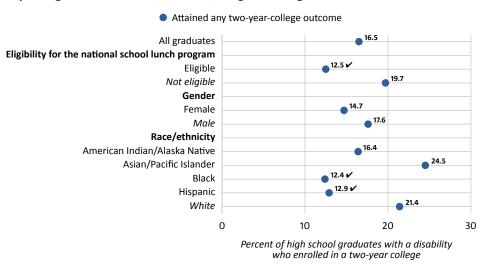
Attainment of a baccalaureate degree within seven years was substantially lower for high school graduates with a disability (16 percent) than for graduates without a disability (51 percent) overall and for those who initially enrolled in a two-year college (by 15.4 percentage points) or a four-year college (by 28 percentage points; see figure 5, table A11 in appendix A, and figure C4 in appendix C).

### Among high school graduates with a disability, attainment of a college credential or degree was substantially lower for economically disadvantaged graduates, Black graduates, and Hispanic graduates

Among high school graduates with a disability, attainment of any of the two-year-college outcomes (certificate, associate degree, or upward transfer) and attainment of a baccalaureate degree were substantially lower for those who had been eligible for the national school lunch program than for those who had not been eligible. The differences were 7.2 percentage points for attainment of a two-year-college outcome and 12.2 percentage points for attainment of a two-year-college A9 and A12 in appendix A and figures C5 and C6 in appendix C).

Attainment of any of the two-year-college outcomes among high school graduates with a disability was similar for male graduates (18 percent) and female graduates (15 percent; see figure 6 and table A9 in appendix A). Certificate attainment was higher for male graduates (8 percent) than for female graduates (4 percent). However, attainment of a baccalaureate degree was higher for female graduates (18 percent) than for male graduates (14 percent; see figure 7 and table A12 in appendix A).

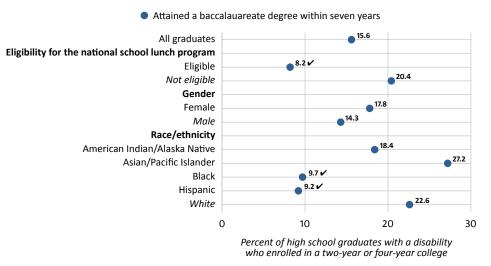
Black and Hispanic graduates with a disability were less successful than White graduates with a disability at attaining the college outcomes. Attainment of any of the two-year-college outcomes was substantially lower for Black graduates (12 percent) and Hispanic graduates (13 percent) than for White graduates (21 percent), and attainment of a baccalaureate degree was substantially lower (by 13 percentage points for Black graduates and by 13.4 percentage points for Hispanic graduates; see figures 6 and 7, tables A9 and A12 in appendix A, and figures C5 and C6 in appendix C). Figure 6. Among high school graduates with a disability, attainment of any of the two-year-college outcomes was substantially lower for graduates who had been eligible for the national school lunch program, Black graduates, and Hispanic graduates, 2006/07–2009/10 graduating cohorts in Texas



Note: Labels in italics designate the reference group for each subgroup domain. Findings are not displayed for graduates with two or more race/ethnicity classifications because of small cell sizes. Check mark denotes a substantial difference (at least 0.25 standard deviation units) between the subgroup and the designated reference group for the respective outcome (see figure C5 in appendix C).

Source: Authors' analysis of data from Texas state longitudinal system administrative records accessed at the Texas Education Research Center.

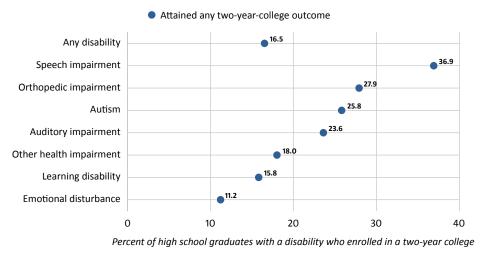
# Figure 7. Among high school graduates with a disability, attainment of a baccalaureate degree was substantially lower for graduates who had been eligible for the national school lunch program, Black graduates, and Hispanic graduates, 2006/07–2009/10 graduating cohorts in Texas



Note: Labels in italics designate the reference group for each subgroup domain. Findings are not displayed for graduates with two or more race/ethnicity classifications because of small cell sizes. Check mark denotes a substantial difference (at least 0.25 standard deviation units) between the subgroup and the relevant reference group (see figure C6 in appendix C).

Source: Authors' analysis of data from Texas state longitudinal system administrative records accessed at the Texas Education Research Center.

Figure 8. Among high school graduates with a disability, attainment of two-year-college outcomes was highest for those with a speech or orthopedic impairment and lowest for those with an emotional disturbance, 2006/07–2009/10 graduating cohorts in Texas



Note: Findings are not displayed for graduates with deaf-blindness, intellectual disability, traumatic brain injury, or visual impairment because of small cell sizes.

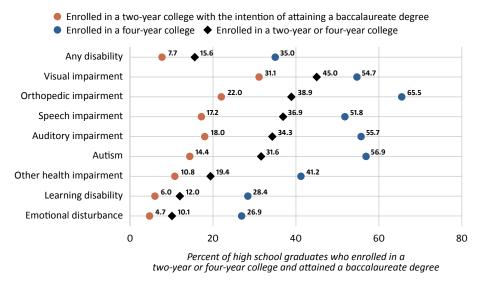
Source: Authors' analysis of data from Texas state longitudinal system administrative records accessed at the Texas Education Research Center.

#### Among high school graduates with a disability, attainment of a college credential or degree was highest for those with a speech, visual, or auditory impairment and lowest for those with an emotional disturbance

Among high school graduates who initially enrolled in a two-year college, the percentage who attained any of the two-year-college outcomes varied by disability type, ranging from 11 percent for graduates with an emotional disturbance to 37 percent for graduates with a speech impairment (figure 8; see also table A8 in appendix A). Upward transfer was the most common outcome, accounting for 49–77 percent of the graduates, by disability type, who attained any of the two-year-college outcomes.

Among high school graduates with a disability who reported an intention to attain a four-year degree or higher during initial college enrollment, the percentage who attained a baccalaureate degree within seven years also varied by disability type (figure 9; see also table A11 in appendix A). Attainment of a baccalaureate degree ranged from 10 percent for graduates with an emotional disturbance to 45 percent for graduates with a visual impairment. Across all disability types, attainment of a baccalaureate degree was higher for graduates who initially enrolled in a four-year college than for graduates who initially enrolled in a two-year college.

Figure 9. Among high school graduates with a disability, attainment of a baccalaureate degree was highest for those with a visual, orthopedic, or speech impairment and lowest for those with an emotional disturbance or a learning disability, 2006/07–2009/10 graduating cohorts in Texas



Note: Findings are not displayed for graduates with deaf-blindness, traumatic brain injury, or intellectual disability because of small cell sizes. Source: Authors' analysis of data from Texas state longitudinal system administrative records accessed at the Texas Education Research Center.

#### Implications

This study was designed to provide K–12 and higher education leaders and policymakers in Texas with foundational evidence on college enrollment and completion for students with a disability. The findings can inform efforts to explore different services that could increase college enrollment and completion.

Students with a disability who attain a college credential or degree have higher employment rates and incomes (Sannicandro et al., 2018). In addition, increasing the percentage of students with a disability who attain a credential or degree aligns with Texas goals for overall college outcomes in the state. The Texas strategic plan for higher education, 60x30TX, aims to increase the share of the state's population ages 25–34 with a college credential, degree, or certificate to 60 percent by 2030 (Texas Higher Education Coordinating Board, 2015). Texas education agencies and colleges need solutions targeted to the different points of leakage in the higher education pipeline for students with a disability, including the transitions from high school to college and the period after college enrollment, that take into account the particular circumstances for this diverse population of students.

Planning and services to help students with a disability in the transition between high school and postsecondary work or education rarely provide sufficient supports and resources (Rowe et al., 2014). To support the transition from high school to college for students with a disability for whom higher education might be an appropriate option, the Texas Education Agency and local school districts could explore additional ways to prepare students with a disability for college and help them identify, select, and apply for college programs. Considering the low percentage of students with a disability from low-income households who enroll in college, K–12 agencies could explore financial barriers and whether support in completing the Free Application for Federal Student Aid would be helpful. Students with a disability might benefit from interventions provided through high schools and transition services that help students become more proactive in articulating their needs for support and accommodation in higher education settings.

To address leaks between college enrollment and completion, the findings suggest that colleges could assess the needs for specific services designed to increase college persistence and completion—particularly at twoyear colleges, where most high school graduates with a disability enrolled. Colleges could assess the value of outreach to increase awareness and identification of incoming students with a disability and encourage them to access services that might be helpful. Targeted recruitment efforts could also focus on students with a disability who have left college after completing some credit hours but before attaining a credential or degree and who might benefit from re-enrollment. Colleges could benefit from additional research and guidance on ways to encourage students with a disability to seek supports and accommodations, as well as on the kinds of supports and accommodations that can best help students with different types of disability succeed in college.

Limited information or awareness likely constrains the ability of college administrators to assess needs and provide appropriate supports for students with a disability. Most students must self-report and seek special services. The data sources and methods summarized in this report could be applied for individual colleges, providing anonymous data that could help higher education leaders understand how well their college is serving students with a disability and whether students are making progress.

However, these data do not provide information on the factors that might affect student success in college. The Texas Higher Education Coordinating Board collects data from public two-year colleges on whether a student accessed any support or accommodation. The study team did not find this data element to be reliable, due to reporting inconsistencies across colleges and over time. The board could work with colleges to increase reporting accuracy for this indicator and explore ways to collect data on the types of services offered to students with a disability in college. This would provide more reliable and complete data for higher education leaders and for use in future research about the population of self-identified students with a disability in college.

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