

Long-Term Postsecondary and Employment Outcomes of Students Enrolled in Washington Public High School Special Education Programs



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About the ERDC

The research presented here uses data from the Education Research and Data Center, located in the Washington Office of Financial Management. ERDC works with partner agencies to conduct powerful analyses of learning that can help inform the decision-making of Washington legislators, parents, and education providers. ERDC's data system is a statewide longitudinal data system that includes de-identified data about people's preschool, educational and workforce experiences. In Fiscal Year 2019, ERDC was awarded a five-year Statewide Longitudinal Data System ([SLDS](#)) Grant, which involves using our data system to examine educational equity issues in Washington's public educational systems. ERDC is one of 28 grantees across the country who are participating in the FY19 SLDS Grant Program.

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Executive Summary

The purpose of this study is to explore long-term education and employment outcomes for students who received special education services in high school and examine student characteristics associated with these outcomes. Using administrative data from Washington's K-12 education, postsecondary education, and workforce sectors, we compared six-year outcomes of students who received special education services in high school who were expected to graduate in 2015 to all students expected to graduate in 2015. Here are some key findings from this analysis:

- While students who received special education services in high school enroll at and complete credentials at postsecondary institutions at lower rates than the state average, gaps are much larger at four-year institutions. **This suggests that taking steps to improve access to four-year postsecondary institutions is needed**, starting with increasing support for students who receive special education services to graduate high school.
- **Employment rates are lower for students who received special education services in high school.** The gap in earnings and work hours for those who are employed and the state average starts four to five years after the expected year of graduation, which is related to college going.
- **Post-school engagement is lower for students who received special education services.**
- Over half of students who received special education services in high school end their high school tenure spending at least 80% of their time in general education classes. **These students have better education and employment outcomes than students who spend less time in general education settings.**
- Among students who received special education services, a large portion are considered learning disabled. **This group of students are employed and continuously employed at similar rates to all students statewide during the years after high school.**
- **Female students who received special education services have a larger gap with their statewide peers in employment outcomes than male students.**
- Overall, **postsecondary completion of degrees and certificates** for students who received special education services are **similar for Black, Hispanic/Latino, multiracial, and White students.**
- Asian students who received special education services perform *closest* to their peers in **completion of associate degrees** and *farthest* from their peers in **completion of bachelor's and graduate degrees.**
- Native Hawaiian and Pacific Islander students who received special education services are the *farthest* from their statewide peers in **employment outcomes and overall post-school engagement.**

See "[What did we learn from this study?](#)" for additional discussion of the report's findings.

Why is it important to understand the long-term postsecondary and employment outcomes of K-12 students who receive special education services?

Revised Code of Washington ([RCW 28A.155.220](#)) directs the Education Research and Data Center (ERDC) to monitor outcomes for students who received special education services after high school,¹ to the extent that data is available.² Special education is designed instruction designed to address the unique needs of eligible students between ages 3 and 21 who are determined to have a disability (as defined in [WAC 392-172A-01035](#)) that adversely impacts their educational performance and their needs cannot be addressed in general education classes with or without accommodations.

The Office of Superintendent of Public Instruction (OSPI) monitors students with disabilities who do and do not receive special education services throughout their pre-K experience, collecting data on attendance, test scores, discipline, and other key metrics. Students with disabilities in the state of Washington tend to have lower rates of high school graduation, dual credit³ course completion, and kindergarten readiness, and higher rates of discipline than their peers (OSPI, 2023a). OSPI and the Center for Change in Transition Services at Seattle University collect and report on education and employment outcomes as well as overall engagement of students who received special education services one year following their exit from high school. In the most recent report on those who exited high school in 2021, 17% of respondents enrolled in higher education, 31% were competitively employed, 4% were involved in some other form of education or training, 23% involved in some other form of employment, with 26% not engaged in any education or employment (Center for Change in Transition Services, 2023).

[ERDC's high school graduate outcomes dashboard](#) provides some long-term postsecondary and workforce outcomes for high school graduates who received special education services. The dashboard shows that high school graduates who received special education services in K-12 have lower rates of postsecondary enrollment and completion, as well as lower earnings in the workforce (ERDC, 2023). The current study examines more outcomes for students who receive special education services, with results broken down by race, gender, disability category, educational setting, and other factors. Additionally, this study includes students who graduate as well as those who do not.

¹ Some individuals in the disability community prefer identity-first language and some prefer person-first language in how they are referred to. This report uses person-first language (Society for Disability Studies 2021).

² See Appendix C for details on how this report can and cannot address statutory requirements.

³ Dual credit refers to students taking college level courses while enrolled in K-12.

Focusing on a specific group of students and identifying differential outcomes may indicate that some students have less access than others to services, supports, or opportunities. This report aims to provide leaders in education information on the educational and workforce outcomes specific to students who received special education services, with the goal of producing more equitable student outcomes in the future through policy, resources, and improvement of service delivery of special education in Washington pre-K public schools.

This study addresses the following research questions:

- 1. What are the long-term postsecondary education and employment outcomes for students who received special education services in high school?**
- 2. What are the outcomes for students by disability category and educational environment?**
- 3. How do these outcomes vary by student gender and race/ethnicity?**

This is an exploratory study that can lay the foundation for future studies to focus on more specific or in-depth questions about students who received special education services.

Data

K-12 and postsecondary data covers the 2010 to 2021 school years and employment data covers the 2010 to 2020 calendar years. Apprenticeships data covers 2011 to the first quarter of the 2021 calendar year.

Postsecondary⁴ data includes basic skills⁵ enrollments. Unemployment Insurance wage data represents individuals employed in wage-paying positions for employers based in Washington state, though some exclusions apply, such as those who are self-employed, federal employees, small farm employees, and the military.⁶ This study includes students who received special education services at any point during high school. Students who have a disability but not an Individualized Education Program (IEP) are not included in this student group definition.⁷

Data Sources. The data for this report came from the ERDC P20W data warehouse. This data warehouse links administrative records from several contributing education state agencies. This study used administrative data from K-12 education, postsecondary education, and workforce sectors. K-12 data provided by the Office of Superintendent of Public Institution (OSPI) are from:

- Comprehensive Education Data and Research System (CEDARS)
- Migrant Student Information System (MSIS)

Postsecondary education data are from:

- Washington's Public Centralized Higher Education Enrollment System (PCHEES)
- State Board for Community and Technical Colleges' (SBCTC) data warehouse

Workforce data included:

- Employment Security Department Unemployment Insurance (UI) wage data
- Department of Labor and Industries Registered Apprenticeship data

⁴ Data from out-of-state and private institutions are not included.

⁵ Basic skills enrollments are when students enroll exclusively in Adult Basic Education (ABE) or English as a Second Language (ESL) courses during a term. GED is considered ABE.

⁶ See [Washington State P20W Longitudinal Data System Research Handbook](#) for full list of exclusions.

⁷ Of the 12,166 students in the 2015 cohort who were documented by their school district to have a disability at some point during high school, 726 students did not receive special education services while they were in high school.

Analytical approach

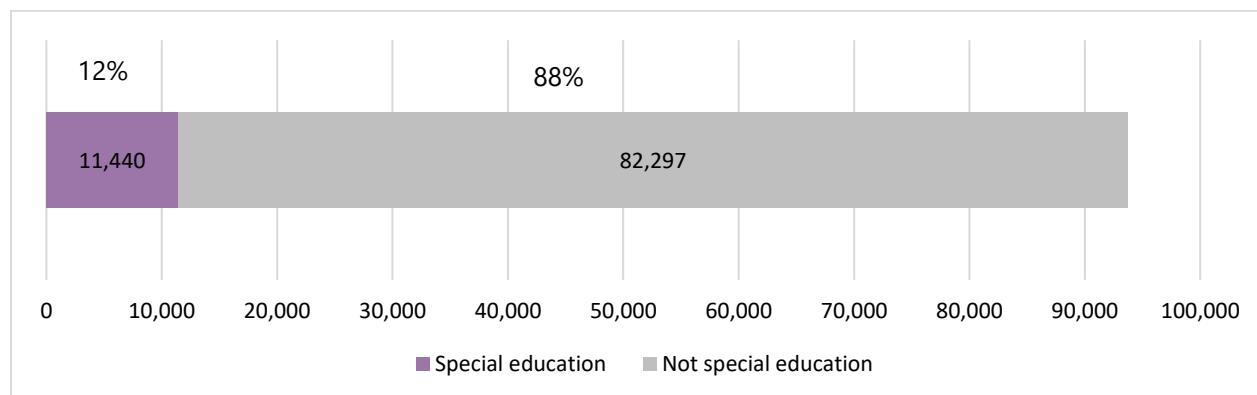
Study Design

This longitudinal descriptive study examines a cohort of students who received special education services and were expected to graduate in 2015. The study compares characteristics and outcomes for this cohort to averages for all students statewide who were expected to graduate in 2015. This study examines outcomes by gender, race, disability category, educational environment, and other characteristics to consider potential inequities.

Cohort

This study follows students who attended Washington public schools who were expected⁸ to graduate in 2015 from the 2010 school year to 2021.⁹ As Figure 1 shows, this cohort includes 93,737 students total, 11,440 of whom received special education services, making up about 12% of the cohort.

Figure 1: Cohort 2015 number and percentage of students who received special education services during high school



See Table 1 for the school year that corresponds to the grade level for students in the cohort who follow a traditional grade progression.

⁸ Per the OSPI [CEDARS manual](#), all students are expected to meet the requirements of graduation that are in place for their expected graduation year. If a student enters 9th grade in 2010, they would be expected to meet the graduation requirements for the class of 2013 even if they took more or fewer than four years to graduate.

⁹ These years are selected based on data quality and availability and to allow for studying long-term outcomes. Before 2010, K-12 data was inconsistent and unreliable for accurately identifying student program participation. The graduation year selected allows ERDC to use data from before the students entered high school to identify students who received special education services and generates enough post-high school data to meet the study's goal of exploring long-term outcomes.

Table 1: Cohort

School Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Grade Level	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	PS 1	PS 2	PS 3	PS 4	PS 5	PS 6

However, students who have received special education services make up a larger portion of the students who remain enrolled after the 2015 school year than during the 2012 to 2015 school years. For example, 10% of students in the cohort received special education services in 2015 compared to 27% of students in the cohort who were still enrolled in a K-12 school in 2016 (see Table B-1 in the appendix). Fifty percent of students in the cohort who received special education services graduate in four years compared to 67% of all students statewide. State report card data show that there tends to be a larger percentage of students with disabilities continuing after four years than all students (OSPI, 2023a). This is expected, since eligibility for special education services entitles students with disabilities to continue receiving services until age 21, if needed.¹⁰¹¹

Measurement

Several variables are included in this study for descriptive analysis.

Student characteristics	Gender, race, income level as measured by free or reduced-price meal eligibility, disability status and category, educational environment, whether they have a 504 plan, received Transitional Bilingual Instructional Program (TBIP) services, were considered homeless, were considered migrant, or obtained a high school diploma or GED, and those who leave high school without a credential
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¹¹ [Per IDEA Part B subpart B Section 300.101](#), students are entitled to a free appropriate public education (FAPE) from ages 3 to 21.

Postsecondary education	Enrollment, degree, and certificate completion at two- or four-year postsecondary institutions, length of time between last year of high school enrollment and first year of postsecondary enrollment, precollege course taking, and types of credentials earned from postsecondary institutions
Employment	Employment, continuous employment throughout the year, wages, and hours worked
Post-school engagement	Participation in competitive employment, postsecondary or other education, or apprenticeship, length of time between last year of high school enrollment and first year of engagement, competitive employment, length of time between last year of high school enrollment and first year of competitive employment, other education engagement, length of time between last year of high school enrollment and first year of other education enrollment, participation in a registered apprenticeship program, and length of time between last year of high school enrollment and first year of apprenticeship enrollment

What did we learn?

Student Characteristics

What are the characteristics of this group of students who received special education services?

Gender and race/ethnicity

A higher percentage of students who received special education services identify as male (65%) than in the overall statewide cohort (51%) (see Figure 2). The distributions by race are relatively similar except for Black and Asian students. There is a slightly higher percentage of Black students and a lower percentage of Asian students who received special education services than the overall statewide cohort (see Figure 3). See Table B-2 in the appendix for additional cohort characteristics.

Figure 2: Gender distribution statewide and for students who received special education services in 2015 cohort

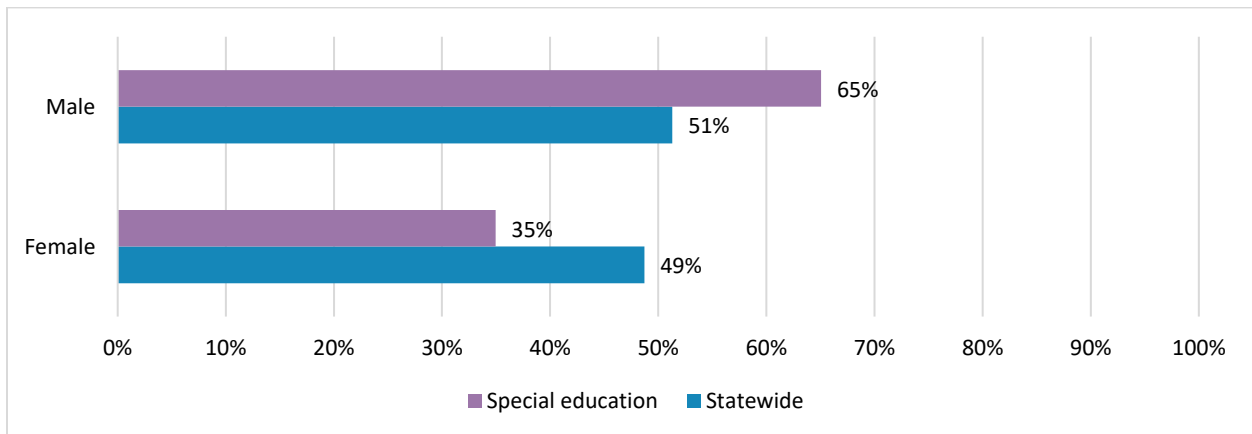
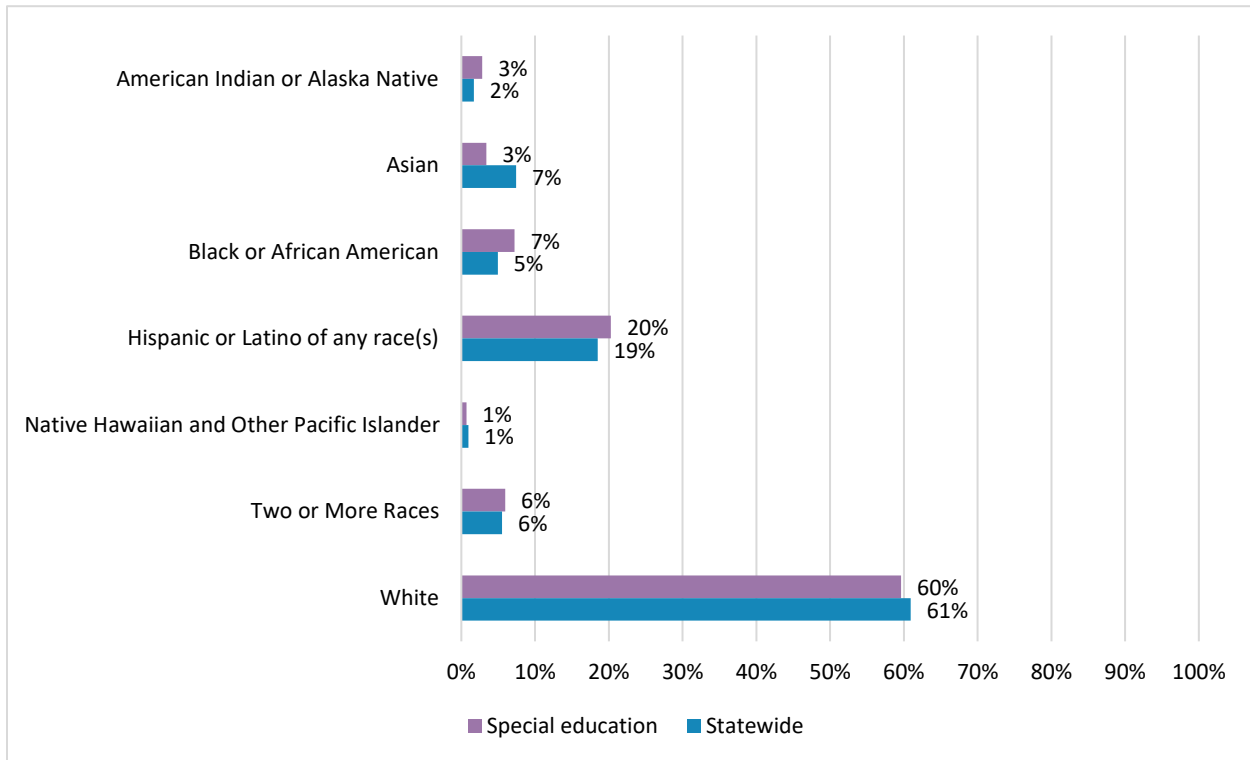


Figure 3: Race/ethnicity distribution statewide and for students who received special education services in 2015 cohort

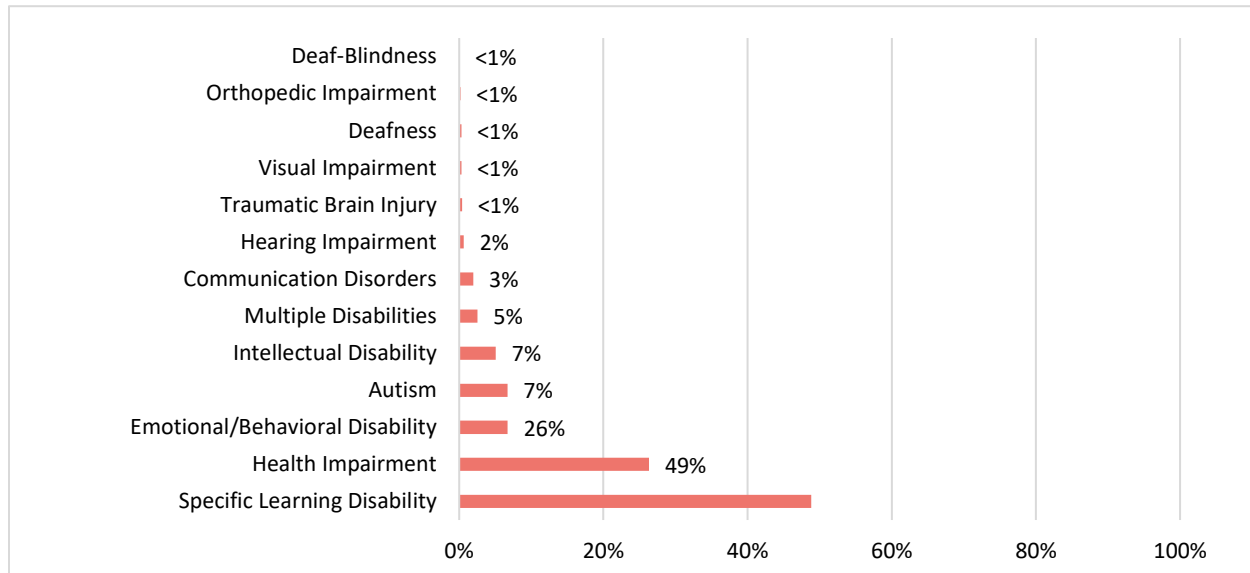


Disability category¹²

To be eligible for special education services, a student must have a disability. Part of the process of determining a student's eligibility for special education includes identifying the student's disability category or type. There are 13 disability categories that apply to children over the age of nine defined by [WAC 392-172A-01035](#). See appendix A for definitions of each category. Figure 4 shows that most students have a specific learning disability (49%) or health impairment (26%). A much smaller proportion of students receiving special education services are in the other disability categories.

¹² Disability categories can change over time for students. For the purposes of this report, the most recent student record was used to determine a student's disability category. See appendix A for category definitions.

Figure 4: 2015 Cohort disability categories associated with the most recent high school enrollment for students receiving special education services

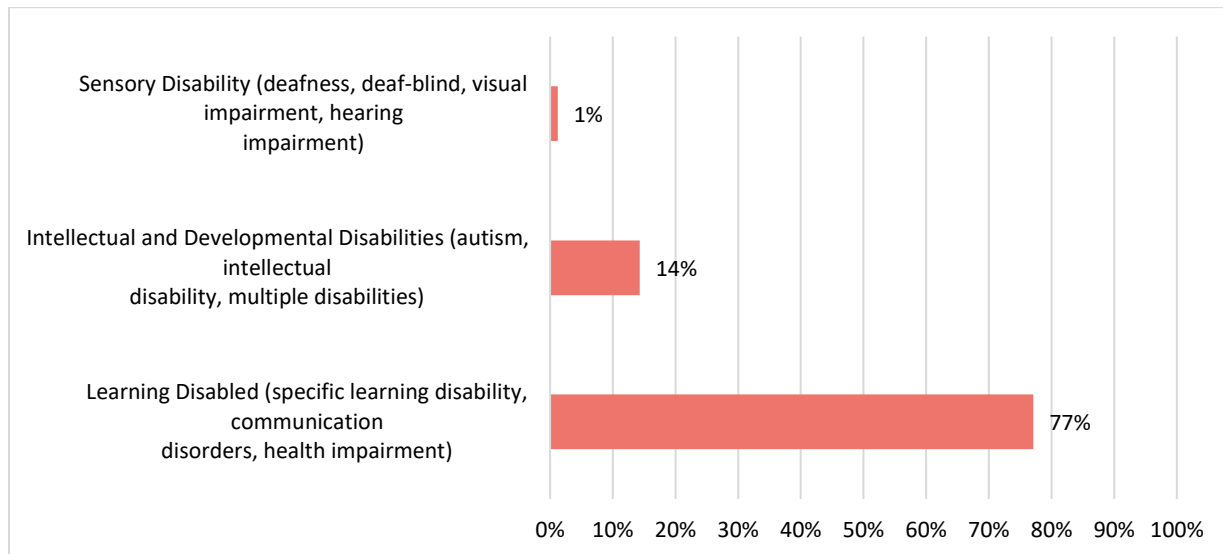


Of students who received special education services, 77% fall into the learning disabled grouping, 14% have intellectual and developmental disabilities, and the smallest grouping is sensory disability which represents about 1% of students receiving special education services (Figure 5). Some disability categories are not included in these groupings, since they did not fit the definition of any of the groupings: emotional/behavioral disability, traumatic brain injury, and orthopedic impairment. These make up about 7% of students receiving special education services. The body of the report presents outcomes by disability grouping, and the appendix contains outcomes presented by the more detailed disability categories for reference.

This report presents outcomes for some disability categories grouped together.

- **Sensory disability:** deafness, deaf-blind, visual impairment, and hearing impairment (Washington Sensory Disability Services, 2023; World Health Organization, 2023).
- **Intellectual and developmental disability:** autism, intellectual disability, and multiple disabilities categories.
- **Learning disabled:** specific learning disability, communication disorders, and health impairment categories (National Association of Special Education Teachers, 2023).

Figure 5: 2015 Cohort groupings of disability categories of students receiving special education associated with last high school enrollment



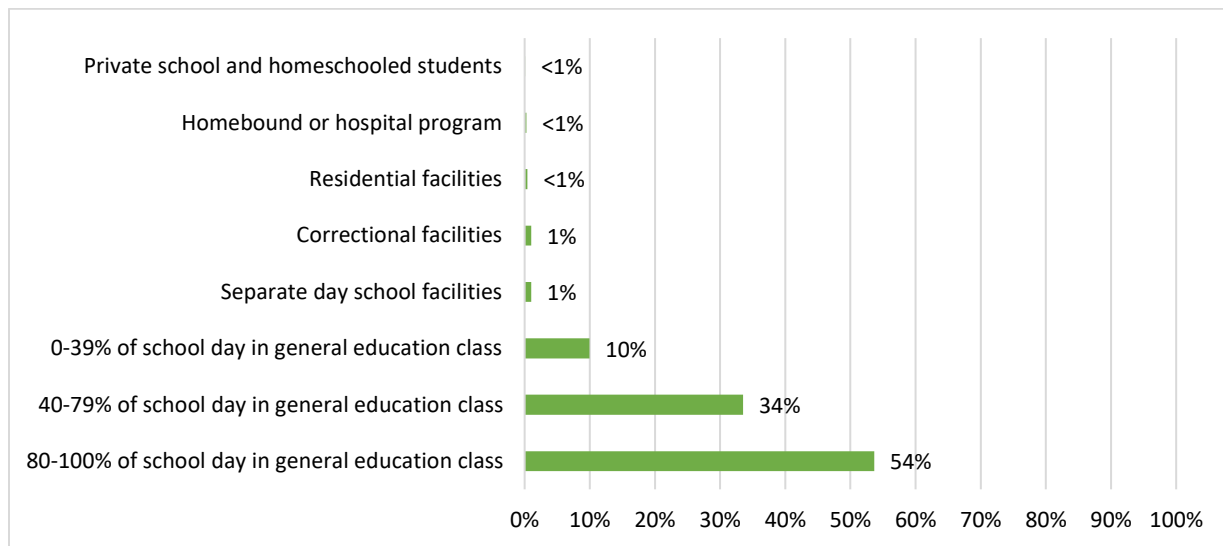
Least Restrictive Environment¹³

As required by the Individuals with Disabilities Act (IDEA)¹⁴ students with disabilities are to be educated in the same classroom as their peers without disabilities “to the maximum extent appropriate.” This concept is referred to as the Least Restrictive Environment (LRE). OSPI describes LRE as a “range or continuum of educational settings available” (OSPI, 2023b). As Figure 6 shows, most students who received special education services (54%) receive their education in general education classrooms 80% to 100% of the time, while 34% are in general education classrooms 40% to 79% of the time. Less often, students receiving special education services are in general education classrooms 0% to 39% of the time (10%), in a separate day school (1%), or in correctional facilities (1%). Less than 1% of students receive special education services in a residential facility, a homebound or hospital program, or a private school.

¹³ LRE can change over time for students. For the purposes of this report, the most recent student record was used to determine a student’s LRE. This report uses the terms least restrictive environment and learning environment interchangeably.

¹⁴ [IDEA Part B Subpart B Section 300.114](#)

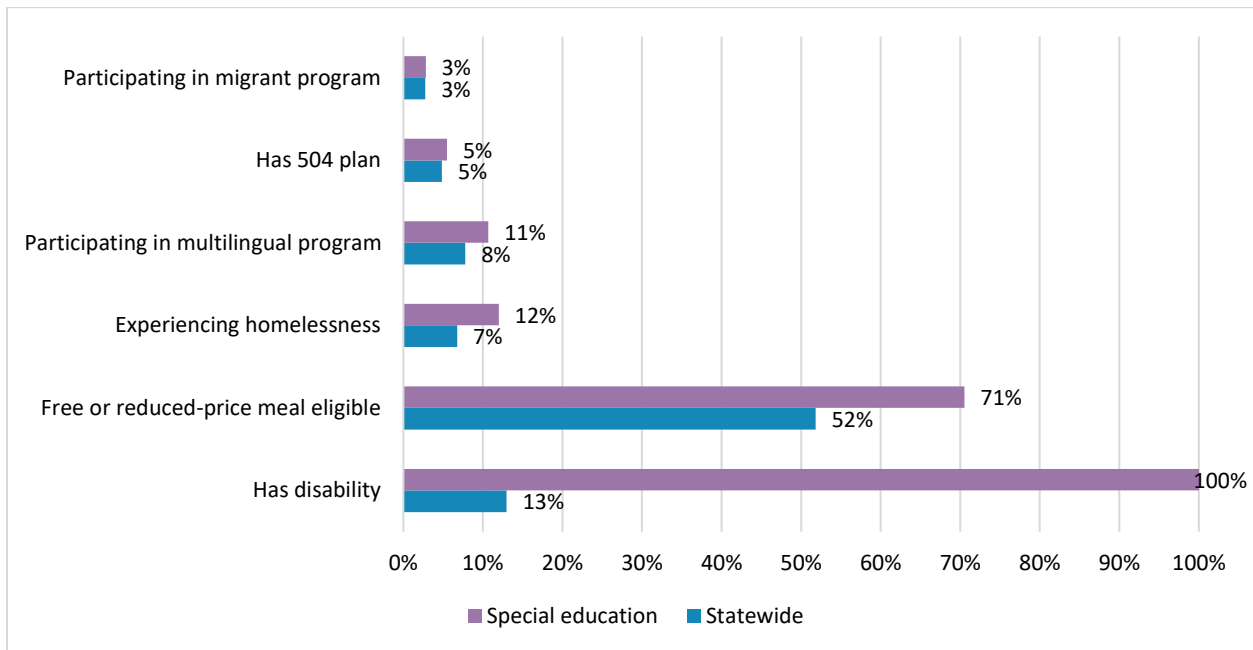
Figure 6: 2015 Cohort least restrictive environment associated with last high school enrollment



Other student characteristics

Students who received special education services are more often free or reduced-price meals eligible (71%), multilingual (11%) and experiencing homelessness (12%) than the statewide population (see Figure 7 and appendix Table B-2). A similar percentage of students who received special education services are migrant (3%) or have a 504 plan (5%). There is not much overlap between students with disabilities and students with 504 accommodations, which is important to understand these results. Eligibility for protection under Section 504 is a physical or mental impairment that limits at least one major life activity. Impairments could be permanent or temporary.

Figure 7: Characteristics for 2015 cohort of students who received special education services compared to all students statewide



What percentage of students who received special education services complete a high school diploma or GED?

Students who received special education services graduate¹⁵ from high school in Washington state at a lower rate (65%) than all students statewide (73%) (see Table 2), but they obtain GEDs at the same rate as all students statewide (3%).¹⁶

Table 2: 2015 Cohort seven-year high school completion rates

	Statewide	Special education
High school diploma	67,976 73%	7,396 65%
GED	3,221 3%	342 3%

¹⁵ The high school graduation rate used in this study refers to the percentage of students with a graduation requirement year of 2015 and graduated by the end of the 2021 school year. The denominator of the calculation is the total number of students with a graduation requirement year of 2015 and the numerator is the total number of the same cohort who have a high school graduation record from 2015–2021 CEDARS historical data. This calculation does not remove from the denominator anyone who transfers out of the Washington public school system. This rate should not be compared with the one from the OSPI report card.

¹⁶ Some students obtain both a GED and a high school diploma, so graduation and GED rates are presented separately since they may not add up to a total high school completion rate.

Consistent with all students statewide, female students obtained a high school diploma at a higher rate (69%) than male students (62%) (see Figure B-3 in the appendix), and male students who received special education services obtained GEDs more often (4%) than female students (2%) (see Figure B-5 in the appendix).

With the exception of one group, across racial groupings, students who received special education services graduate high school at lower rates than their statewide peers (see Figure B-4 in the appendix). Students who received special education services identifying as American Indian or Alaska Native graduate high school at a similar rate (57%) as all American Indian or Alaska Native students statewide (56%). Students identifying as two or more races who also received special education services have the largest gap with their statewide peers in high school graduation rate, 61% versus 73% respectively. The number of students who received special education services completing a GED is too small to report out by race for some categories. Of the racial categories that can be reported, all have lower rates than their statewide peers (see Figure B-6 in the appendix).

Figure 8: 2015 Cohort seven-year high school graduation rates by disability grouping

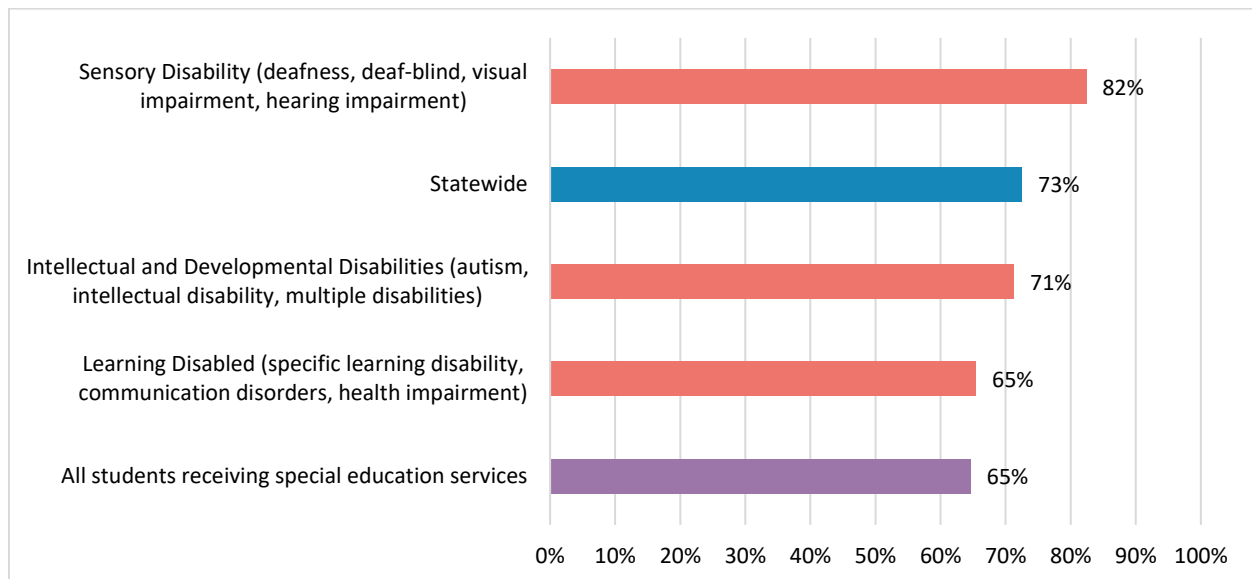
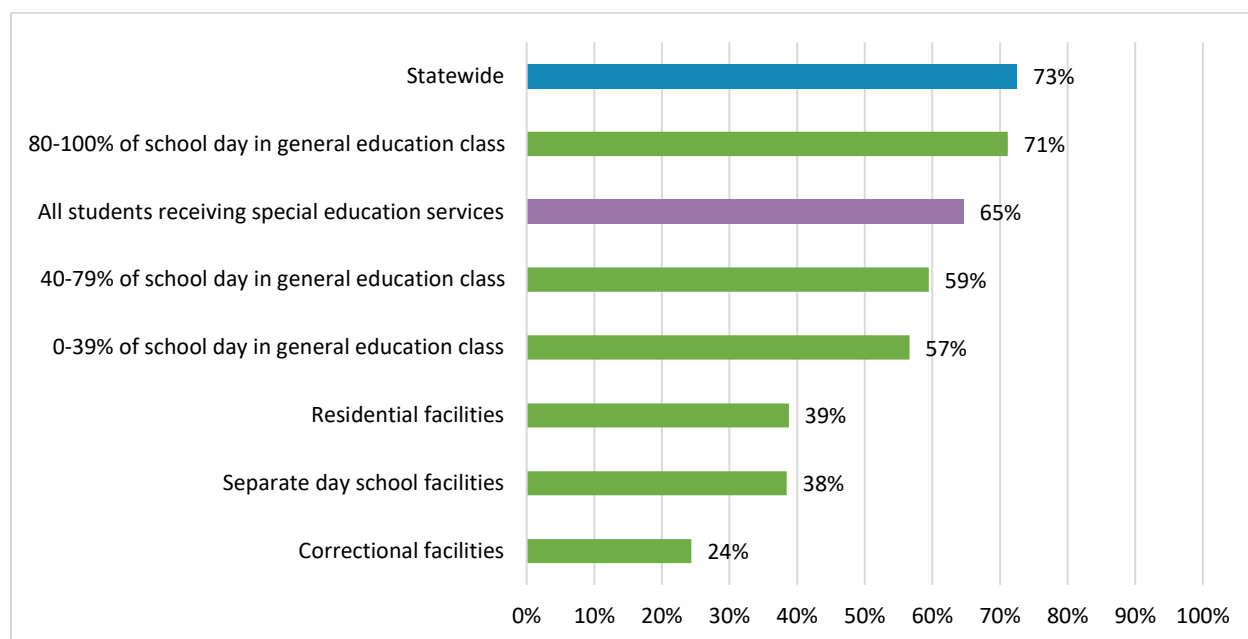


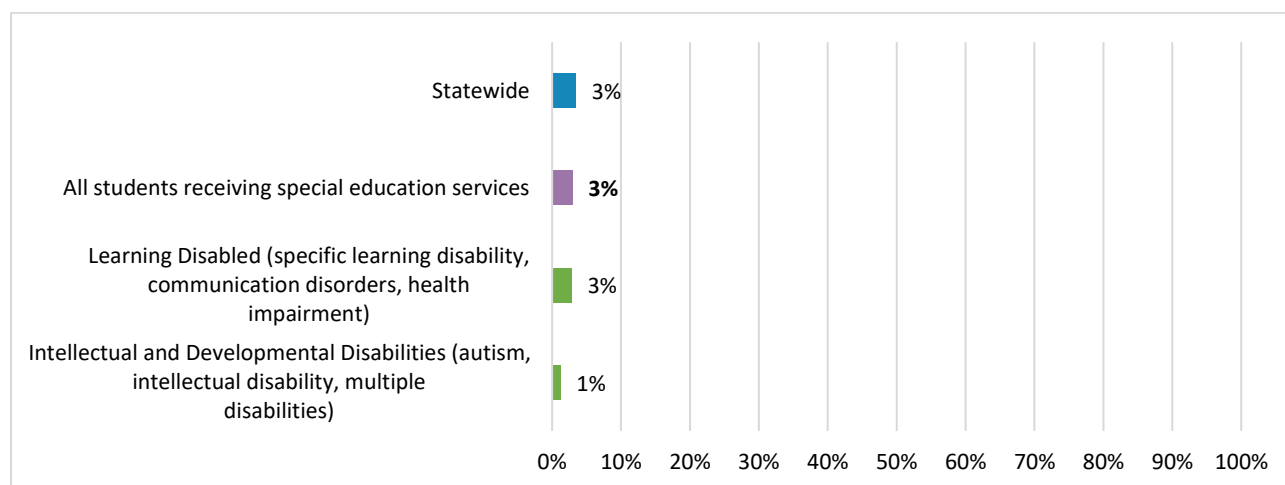
Figure 9: 2015 Cohort seven-year high school graduation rates by LRE



Students who received special education services whose disabilities fall under the category of communication disorder, traumatic brain injury, autism, and hearing impairment earn high school diplomas at higher rates than all students statewide (see Figure B-1 in the appendix). Figure 8 shows students in the sensory disability grouping have the highest graduation rate at 82%. For those in the disability categories that can be reported, students with an emotional/behavioral disability earn high school diplomas at the lowest rates (37%) while earning GEDs at the highest rates (9%) (see Figure B-2 in the appendix). Cell sizes are too small to report figures for the following categories: deaf-blindness, deafness, orthopedic impairment, and visual impairment.

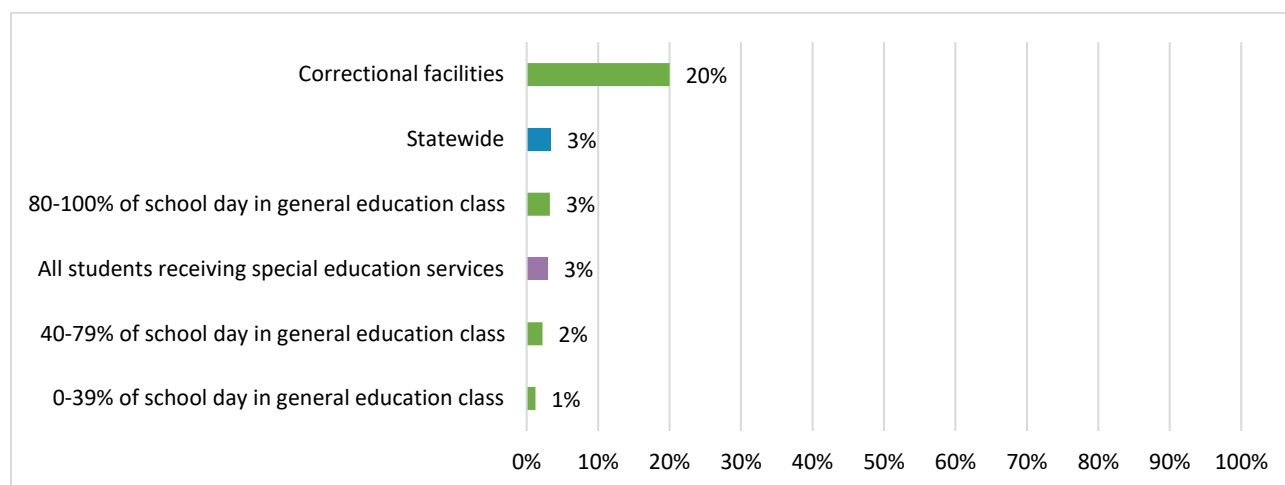
Students receiving special education services who spent 80 to 100% of the school day in general education classrooms graduated high school at the highest rate by educational environment (71%) (see Figure 9). Students who received special education services in correctional facilities have the highest rate of earning GEDs at 20% (see Figure 11). Cell sizes are too small to report figures for private school and homeschooled students.

Figure 10: 2015 Cohort seven-year high GED rates by disability grouping



Note: Figures for sensory disabilities could not be reported due to small cell size.

Figure 11: 2015 Cohort seven-year high GED rates by LRE



Note: Only categories that can be reported are included.

Postsecondary Education Outcomes

What percentage of students who received special education services enroll in a two-year or four-year institution?

Overall, students who received special education services enroll at postsecondary institutions at lower rates (35%) than all students statewide (57%).

Figure 12: Highest level of enrollment by institution type of the 2015 cohort within six years after expected graduation

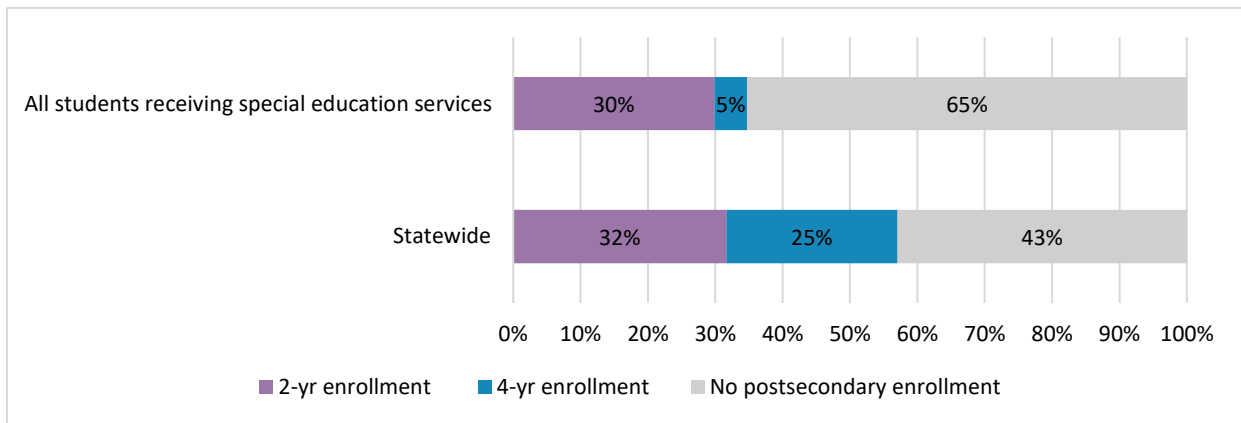


Figure 13: Postsecondary enrollment of the 2015 cohort within six years after expected graduation by disability grouping

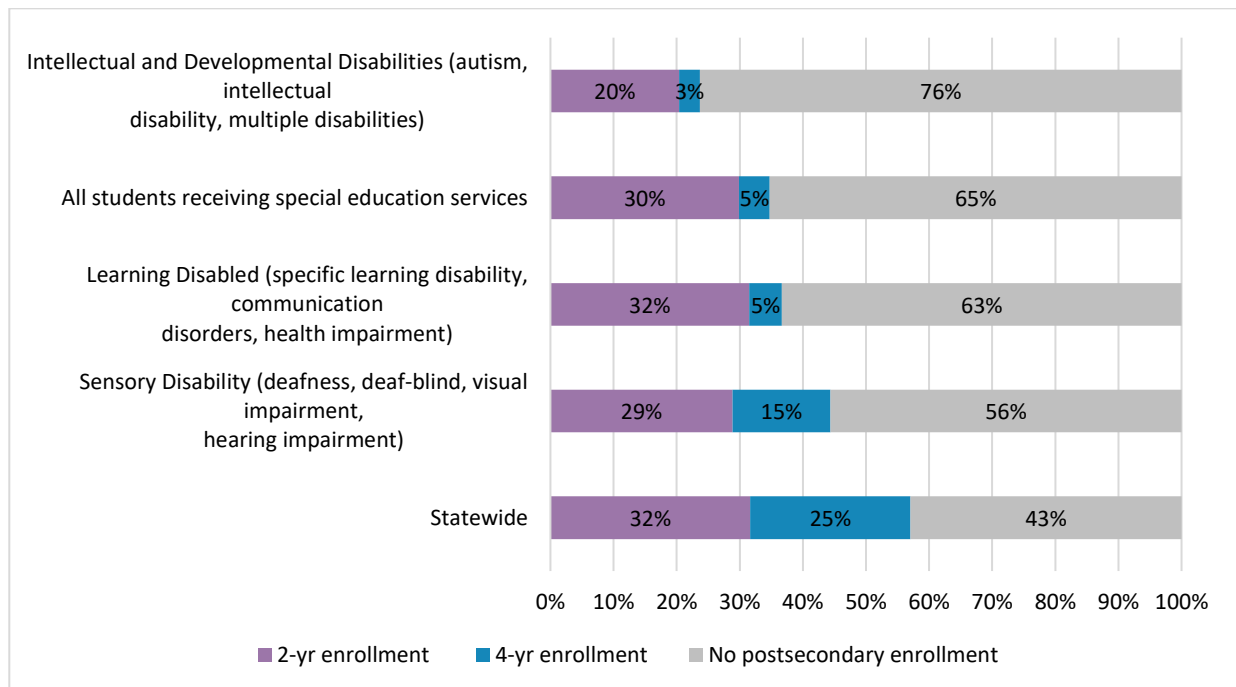
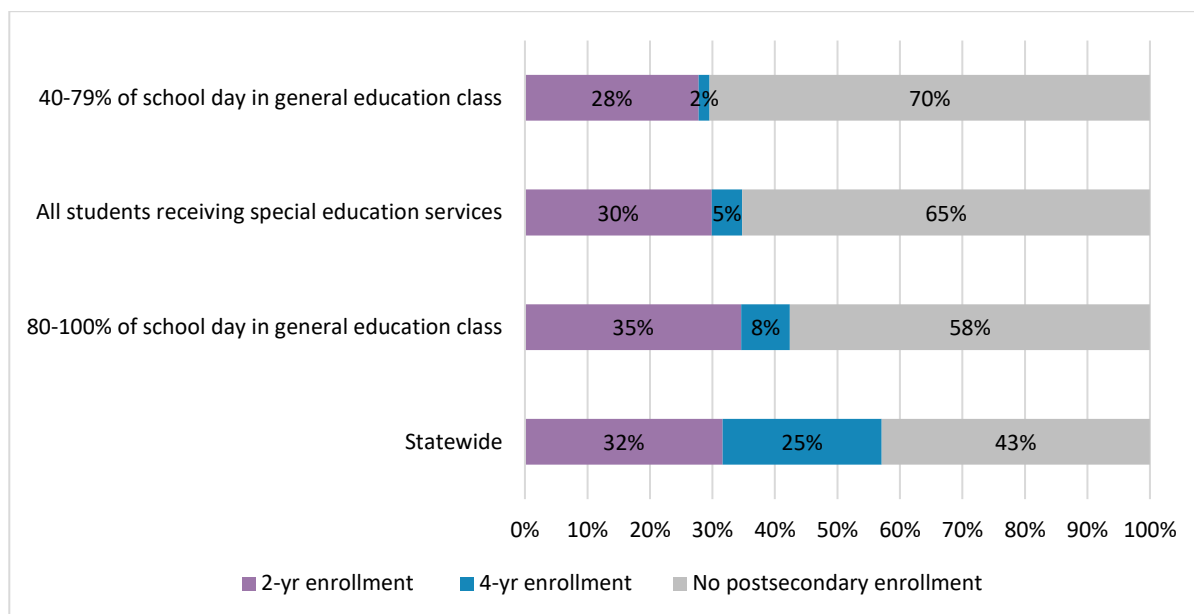


Figure 14: Postsecondary enrollment of the 2015 cohort within six years after expected graduation by LRE



Note: Only categories that can be reported are included.

Figure 12 shows that students who received special education services have slightly lower enrollment rates (30%) at two-year institutions than all students statewide (32%) and much lower enrollment rates at four-year institutions (5%) than all students statewide (25%).

Of students who received special education services, 21% of students with communication disorders enroll in a four-year institution (see Figure B-7 in the appendix) and 15% of students whose disability category falls under sensory disability enroll in a four-year institution (see Figure 13). These are much higher enrollment rates than students in other disability categories, but still lower than enrollment rates of all students statewide. The student groups whose rates were lower than all students receiving special education services were those with intellectual and developmental disabilities (3%) and emotional/behavioral disabilities (3%).

Of students who received special education services, 35% of those who spend 80–100% of the school day in general education classes (see Figure 14), 34% of those with a health impairment, and 33% of those with a communication disorder enroll in a two-year institution, all of which are slightly higher than the two-year institution enrollment rate of all students statewide. Many disability and LRE categories could not be reported due to small cell sizes.

When do students who received special education services first enroll at two- and four-year postsecondary institutions?

Students who received special education services who enroll at postsecondary institutions enrolled later after high school than their statewide peers. Twenty-five percent of students expected to graduate high school in 2015 enrolled by the academic year following their last year enrolled in high school, and 10% enrolled two or more years after their last year of high school enrollment. Seventy-two percent of enrollments by students who received special education services occur by the academic year following high school, compared with 85% of students statewide (see Figures 15 and 16). This also shows that 65% of students who received special education services did not enroll in a postsecondary institution by 2021. The pandemic impacted postsecondary enrollment during the 2020 and 2021 academic years, which may have lowered enrollment figures (Causey et al., 2021).

Figure 15: 2015 cohort students who enroll in postsecondary institutions within six years after expected graduation by length of time after last year of high school enrollment by disability grouping

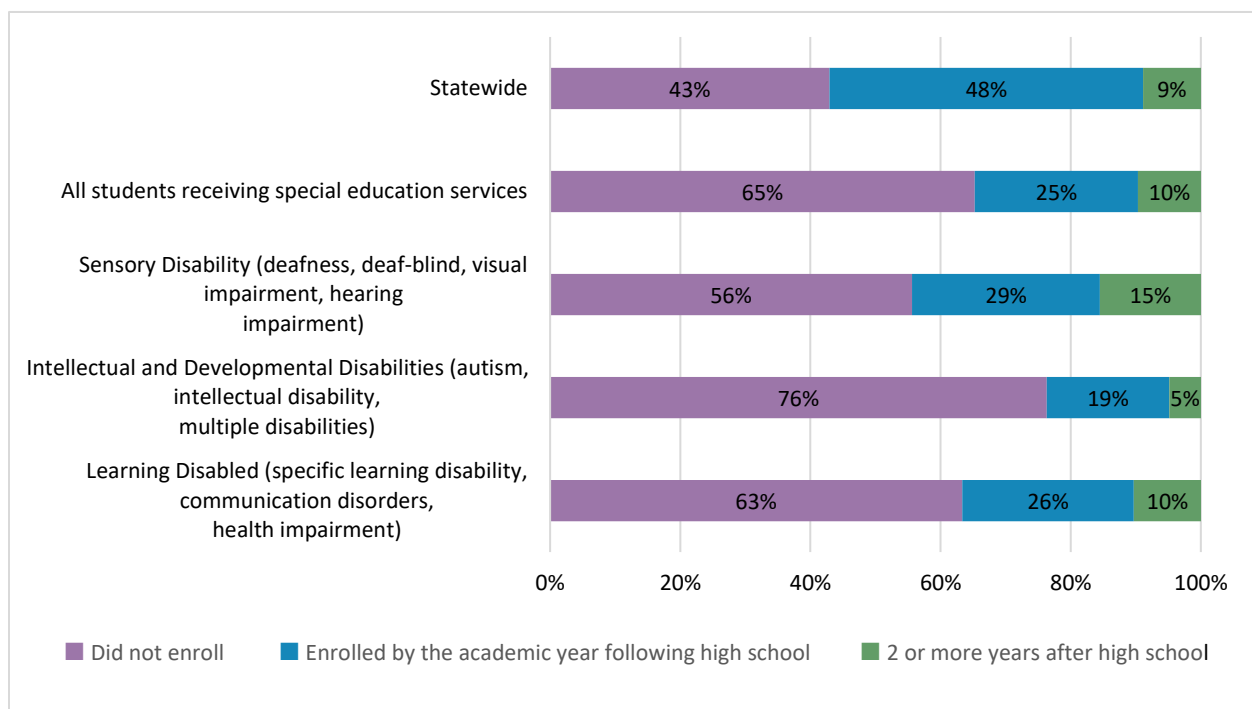
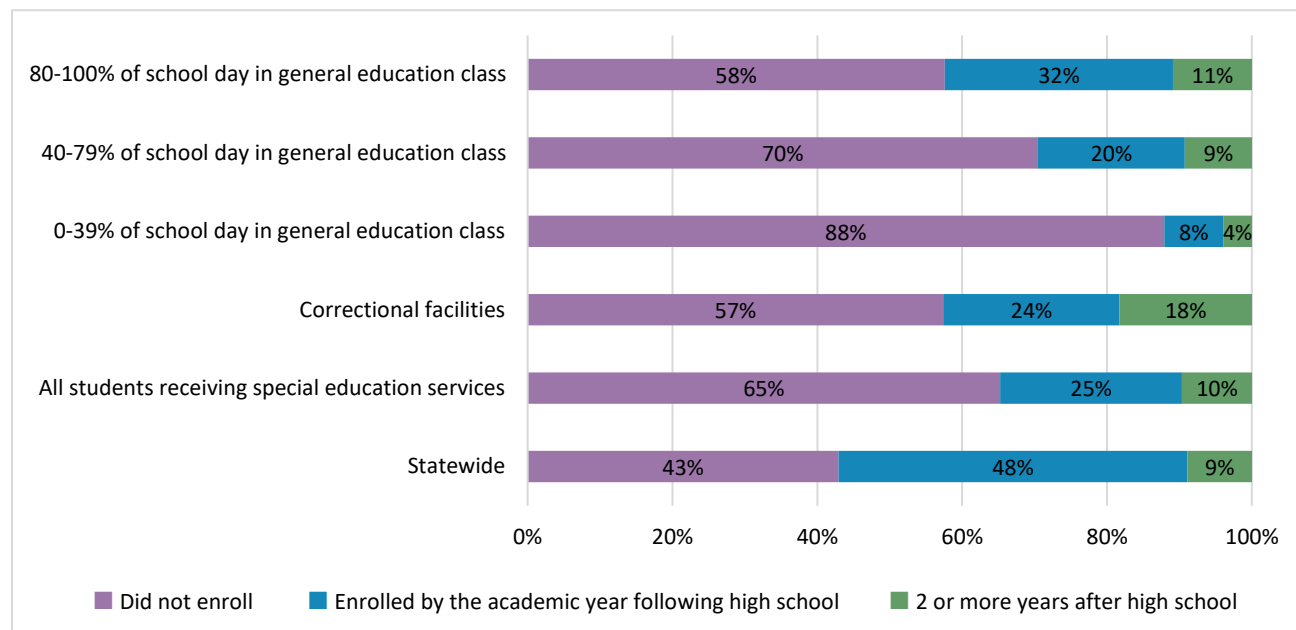


Figure 16: 2015 cohort students who enroll in postsecondary institutions within six years after expected graduation by length of time after last year of high school enrollment by LRE



What percentage of students who received special education services enroll in not-for-credit and lifelong learning classes?

By the 2021 school year, students who received special education services enroll in lifelong learning and not-for-credit courses at a similar rate (8%) to all students statewide (7%). All gender and racial groups enroll at higher or similar rates to their statewide peers (Figures B-9 and B-10 in the appendix). Those who received special education services in correctional facilities enrolled in non-credit-seeking or lifelong learning education at a much higher rate (32%) than in other educational environments (Figure 18). Students who received special education services with emotional/behavioral disabilities (Figure B-8 in the appendix) and those in the sensory disability grouping (Figure 17) also have higher rates (13% for both groups) of enrollment in other education than students in other disability categories.

Figure 17: 2015 Cohort students other post-high-school education enrollment by 2021 by disability grouping

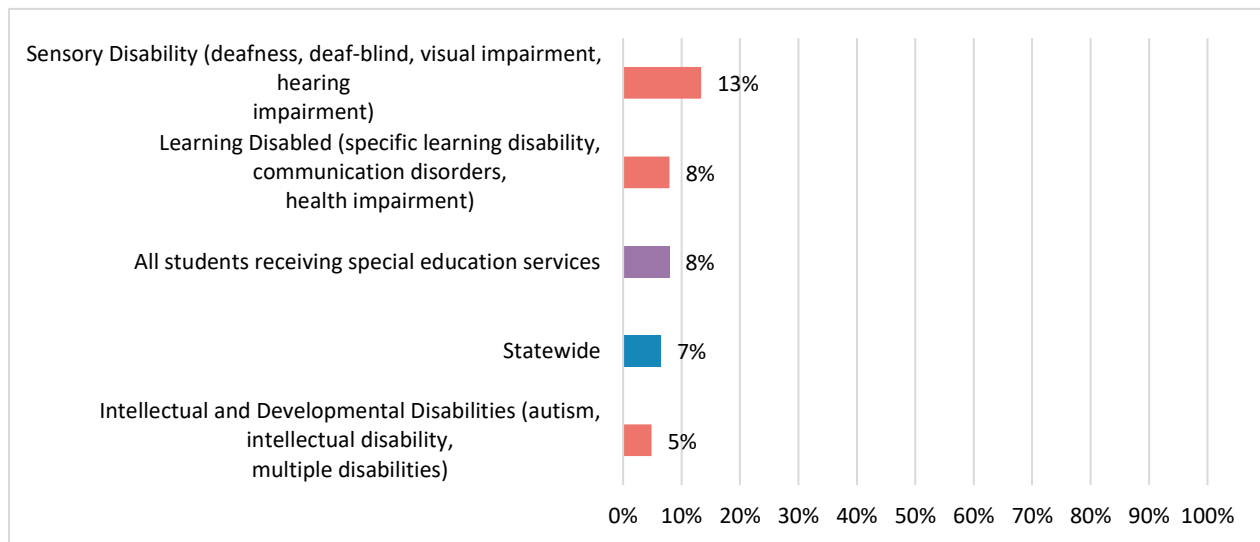
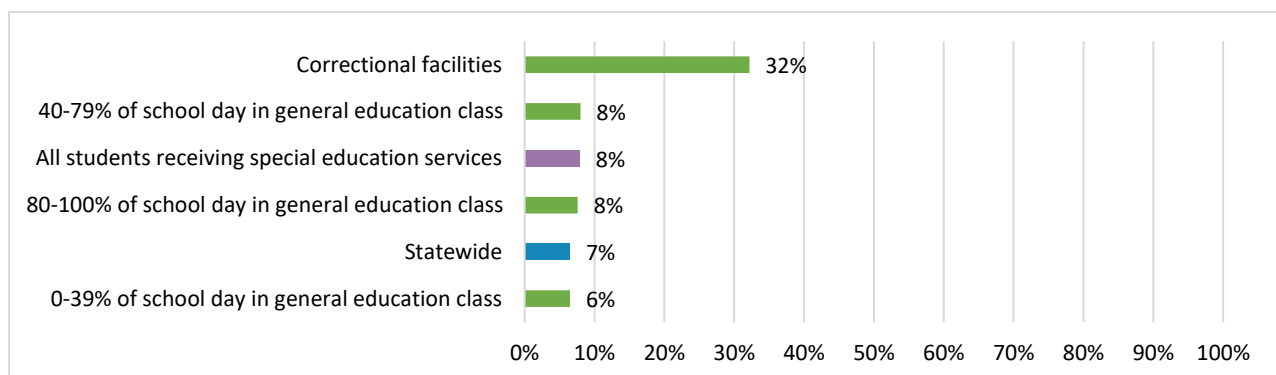


Figure 18: 2015 Cohort students other post-high-school education enrollment by 2021 by LRE



Note: Only categories that can be reported are included.

What percentage of students who received special education services enroll in precollege math or English courses?

While enrolled in postsecondary education, students who received special education services tend to take precollege courses at a higher rate than the statewide rate, especially in English. Twenty-five percent of students who received special education services enroll in precollege English courses, while only 13% of all students statewide enroll in English precollege level coursework (see Table B-3 in the appendix). This could suggest that students who received special education services need more college readiness support during high school. Students who spend less time in a general education setting have small numbers of students who enroll in postsecondary education, but also smaller percentages (13% for math and 10% for English) who take precollege courses (see Table B-4 in the appendix).

Female students who received special education services take precollege courses at higher rates than male students in both subjects,¹⁷ while statewide, female students only take precollege courses at higher rates in math. In comparison to statewide rates, Asian students who received special education services tend to have the largest gaps with their statewide peers while Black students who received special education services perform closest to their peers. Figures for Native Hawaiian and Pacific Islander students who received special education services are too small to report precollege course taking.

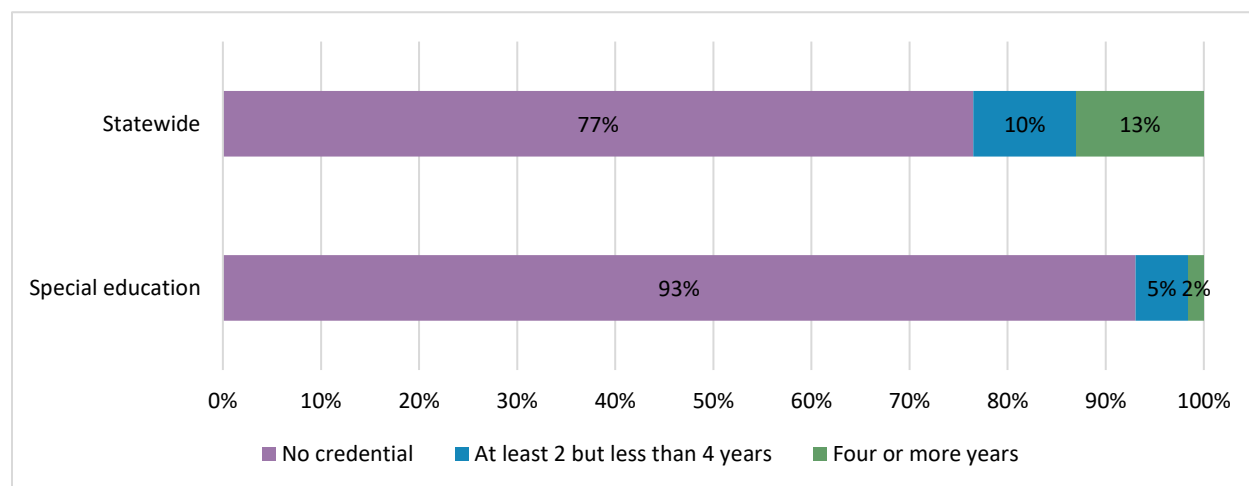
¹⁷ This gender trend could be due to perceptions of girls' abilities (Riegle-Crumb & Humphries, 2012).

What percentage of students who received special education services complete a certificate or a degree from a two-year or four-year institution?

Overall, students who received special education services complete degrees and certificates at postsecondary institutions at much lower rates (7%) than all students statewide (23%) (see Figure 19).¹⁸ Five percent of all students who received special education services completed two-year institutions and 2% completed at four-year institutions. In comparison, 10% of all students statewide completed at two-year institutions and 13% completed at four-year institutions. See Table B-5 in the appendix for rates by gender and race/ethnicity.

By disability grouping, students with sensory disabilities more often complete a postsecondary credential than other categories (see Figure 20). While many educational environment categories cannot be reported due to small cell sizes, postsecondary attainment is higher for students who spend more time in the general education setting (see Figure 21).

Figure 19: 2015 Cohort students who earned a credential from a postsecondary institution by 2021 by highest level of institution type



¹⁸ These figures differ from the [ERDC High School Graduate Outcomes dashboard](#) due to differences such as the time period considered and the students included. The dashboard measures the completion rate over an eight-year period of only students who graduate high school, while this study measures the completion rate over a six-year period of students who graduate as well as those who do not.

Figure 20: 2015 Cohort percentage of all students who attained a postsecondary credential by 2021 by disability category grouping

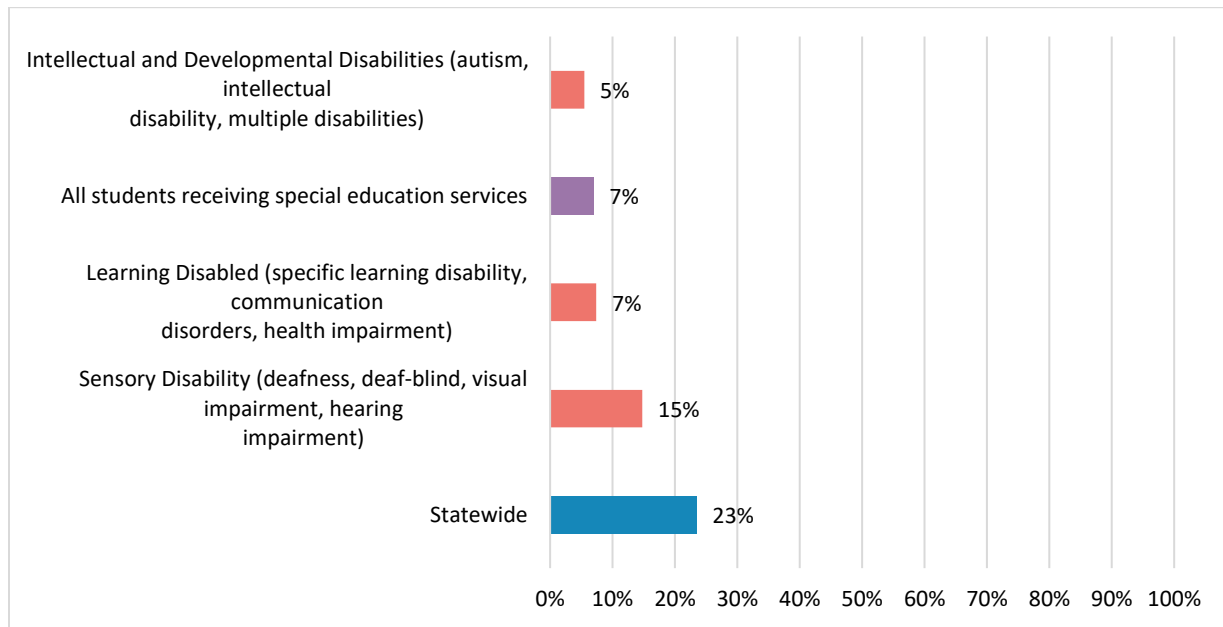
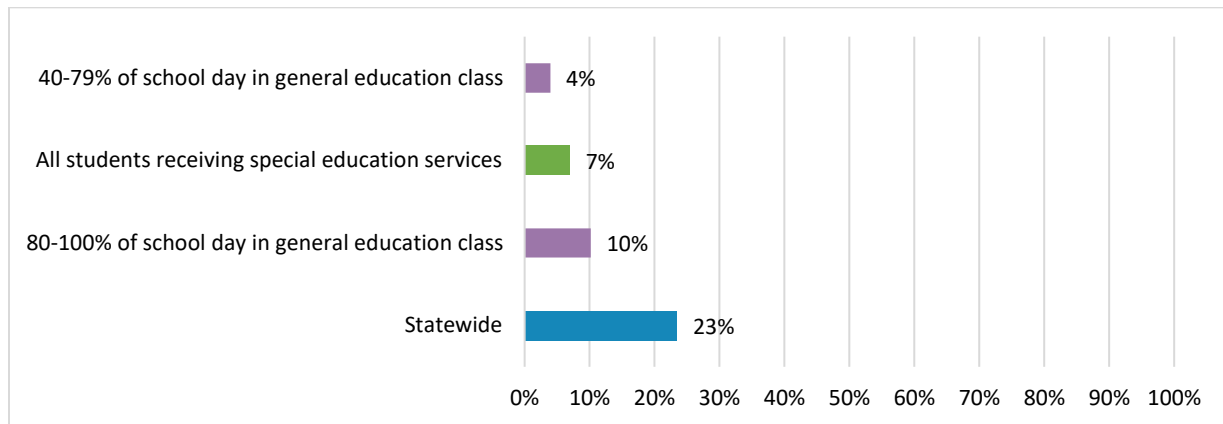


Figure 21: 2015 Cohort percentage of all students who attained a postsecondary credential by 2021 by LRE

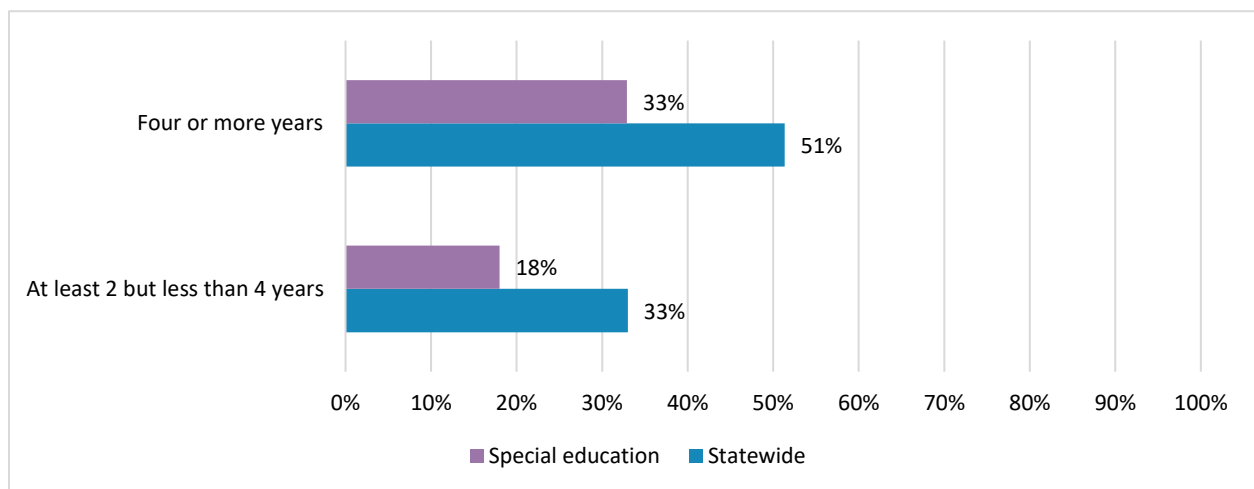


Note: Only categories that can be reported are included.

What types of postsecondary credentials are earned by students who received special education services?

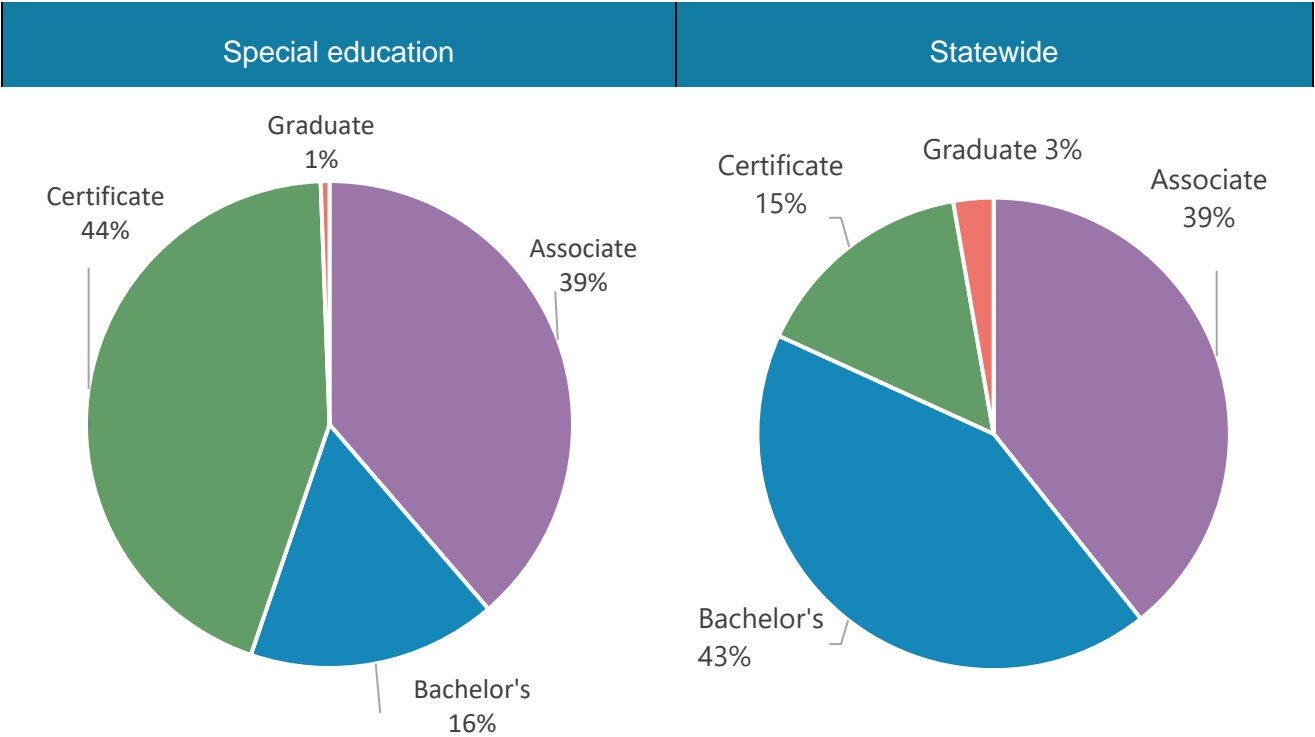
When looking at students' highest level of postsecondary enrollment, 18% of two-year institution enrollees who received special education services completed a credential at that level and 33% of four-year institution enrollees who received special education services completed a credential at that level (see Figure 22). Basic skills enrollments could not be excluded from this dataset, a data limitation that lowers the two-year institution rate.

Figure 22: 2015 Cohort percentage of enrollees who attained a postsecondary credential by 2021 by highest level of enrollment



Certificate and postsecondary completion patterns differ for students who received special education services in comparison to the statewide population (see Figure 23). Specifically, students who received special education services earn a larger proportion of certificates (44%) than all students statewide (15%) and a smaller proportion of bachelor's (16%) and graduate degrees (1%) than all students statewide at 43% and 3% respectively when looking at all credentials earned. The rate of associate degree attainment is the same for both students who received special education services and all students statewide (39%).

Figure 23: Proportion of certificates and degrees earned by 2015 cohort students by the 2021 academic year of total credentials earned



Note: This figure is based on the number of credentials earned. Some students may have more than one credential.

What are the gender and race characteristics associated with postsecondary enrollment and completion for students who received special education services?

Overall, all racial groups of students who received special education services enroll at postsecondary institutions and complete credentials at lower rates than all students in their respective racial groups statewide (see Figure 24), but Asian, Black, and students with two or more races who received special education services obtain certificates at higher rates than all students in their respective racial groups statewide (see Figure 25).

Among students who received special education services, Asian and Black students enroll at postsecondary institutions at higher rates than the group as a whole. Of those students who have received special education services, Asian students have the largest enrollment gap between them and their statewide peers, while Black students have the smallest gap.

Gender trends for students who received special education services follow the statewide pattern in which female students enroll in postsecondary institutions at higher rates than male students at the two-year institution level, but not at the four-year institution level where male and female enrollment is the same (see Table B-5 in the appendix). The percentage of students who complete a credential is also similar by gender among students who received special education services (see Figure B-11 in the appendix).

Figure 24: Percentage of all students of the 2015 cohort who **enroll** at postsecondary two- and four-year institutions between 2015 and 2021 by race/ethnicity

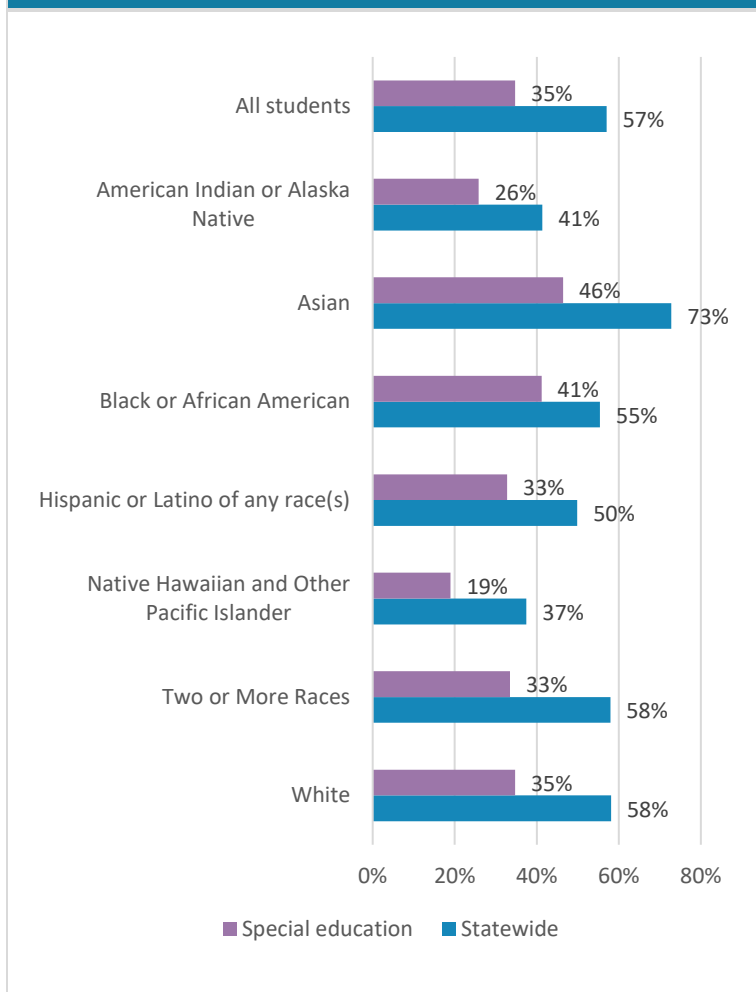
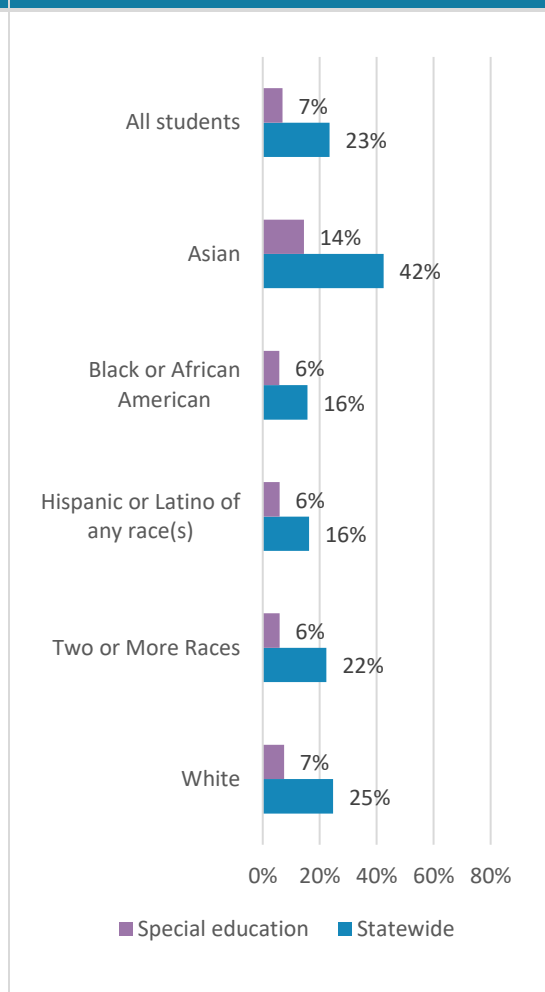


Figure 25: Percentage of all students of the 2015 cohort who complete postsecondary (two- and four-year institutions) **degrees and certificates** by race/ethnicity



Note: Only categories that can be reported are included.

What percentage of students who received special education services participate in and complete an apprenticeship?

A very small portion of the statewide cohort participated in registered apprenticeships. By the end of the first quarter of the 2021 calendar year, the rate of enrollment (less than 1%) and completion (20%) for participants who received special education services is very similar to that of all students statewide (see Table B-6 in the appendix). Enrollment and completion figures are generally too small to be by student characteristic, disability category, or LRE.

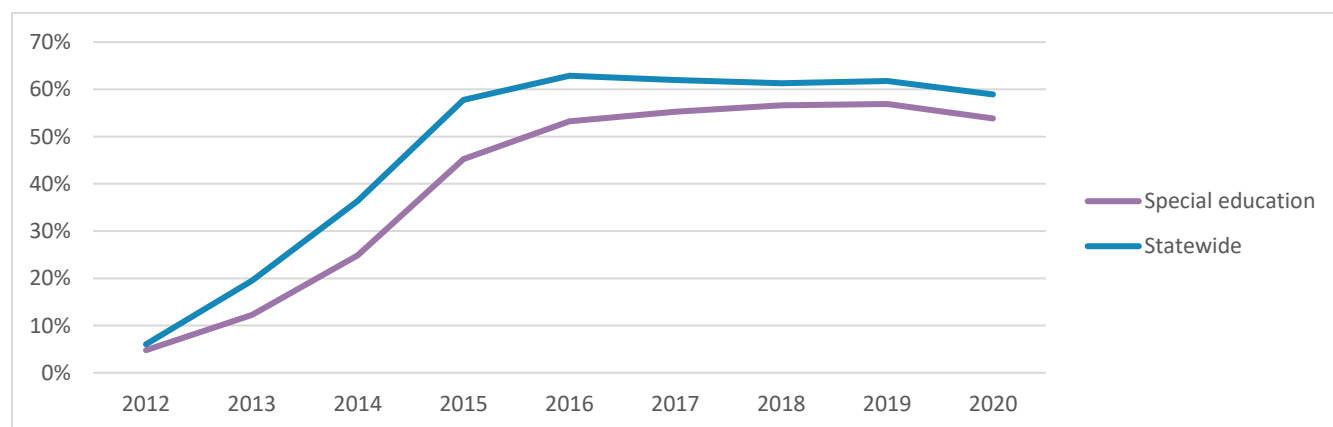
Employment Outcomes¹⁹

The following section presents data by calendar year, while previous sections go by academic/school year. When interpreting the employment rate trend over time, consider that this cohort of students entered grade 9 in 2012 and were expected to graduate in the 2015 academic year.

What is the annual employment participation for students who received special education services?

Students who received special education services follow a similar trend to the statewide population in annual employment participation²⁰ in Washington (see Figure 26).

Figure 26: Percentage of 2015 cohort students employed annually



¹⁹ Employment outcomes will differ from the ERDC Graduate Outcomes dashboard due to differences in the measures used and the students included in the data.

²⁰ See appendix for definition.

The rate of annual employment does not differ much by gender between students who received special education and the statewide population, but there is a larger gap for female students who received special education than there is for male students. Statewide, female students have the highest employment rate of all groups, while female students who received special education services have the lowest employment rate (see Figure B-12 in the appendix). Most racial groups of students who received special education services follow similar trends to statewide, but students who identify as Native Hawaiian and Pacific Islander have the largest gap with their statewide counterparts (see Figure B-13 in the appendix). Most groups have larger gaps with their counterparts during the period of 2014 to 2016, though from 2017 to 2020, employment rates were similar to their peers. Students who received special education services who identify as American Indian or Alaska Native and Native Hawaiian and Pacific Islander, however, have larger gaps with their peers after 2017.

For students whose disability category is related to a learning disability, their rate of employment is very similar to all students statewide in the years after high school (see Figure 27). For students whose disability category is related to an intellectual or developmental disability, employment is much lower. For students whose educational experience was in general education classrooms 80% to 100% of the time, their employment rate was very similar to all students statewide and slightly higher in the years after high school (see Figure 28). For students who spent 40% to 79% of the time in the general education classroom, their rate of employment is not much lower. But for all other LRE categories, employment was much lower and declined more in 2020 at the start of the pandemic.

Figure 27: Percentage of 2015 cohort students annually employed by disability grouping

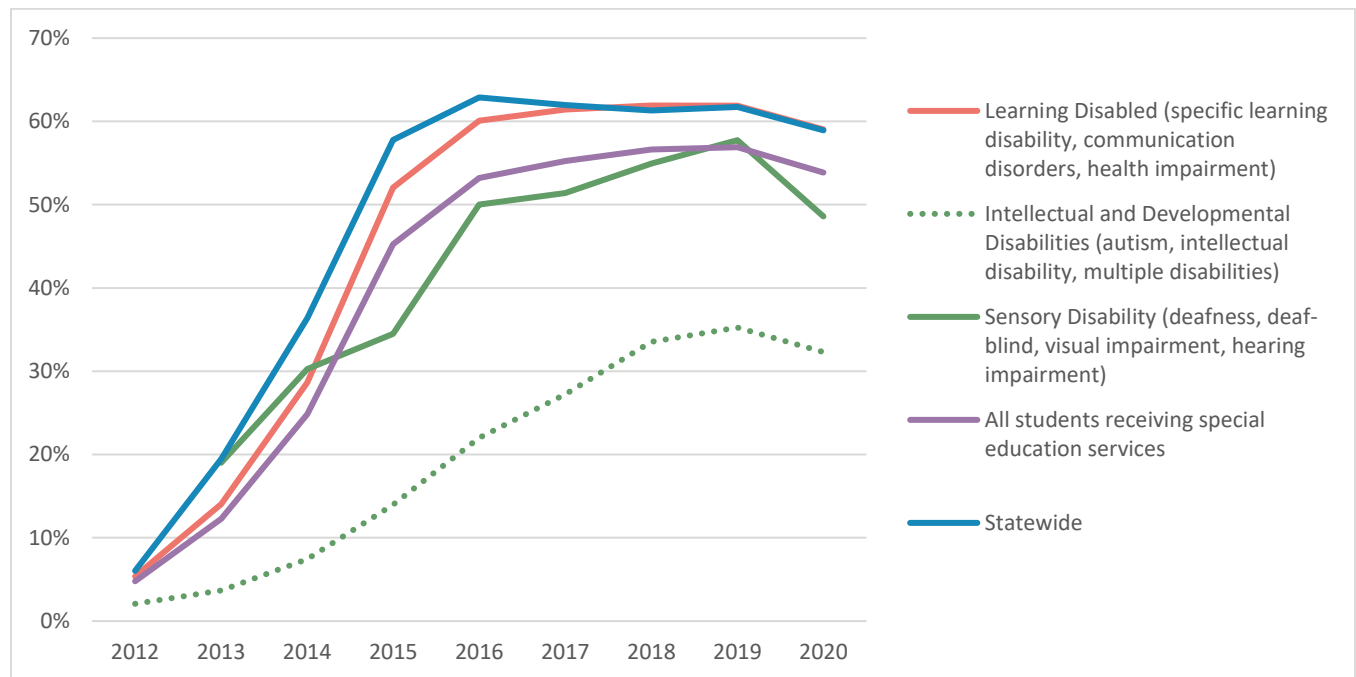
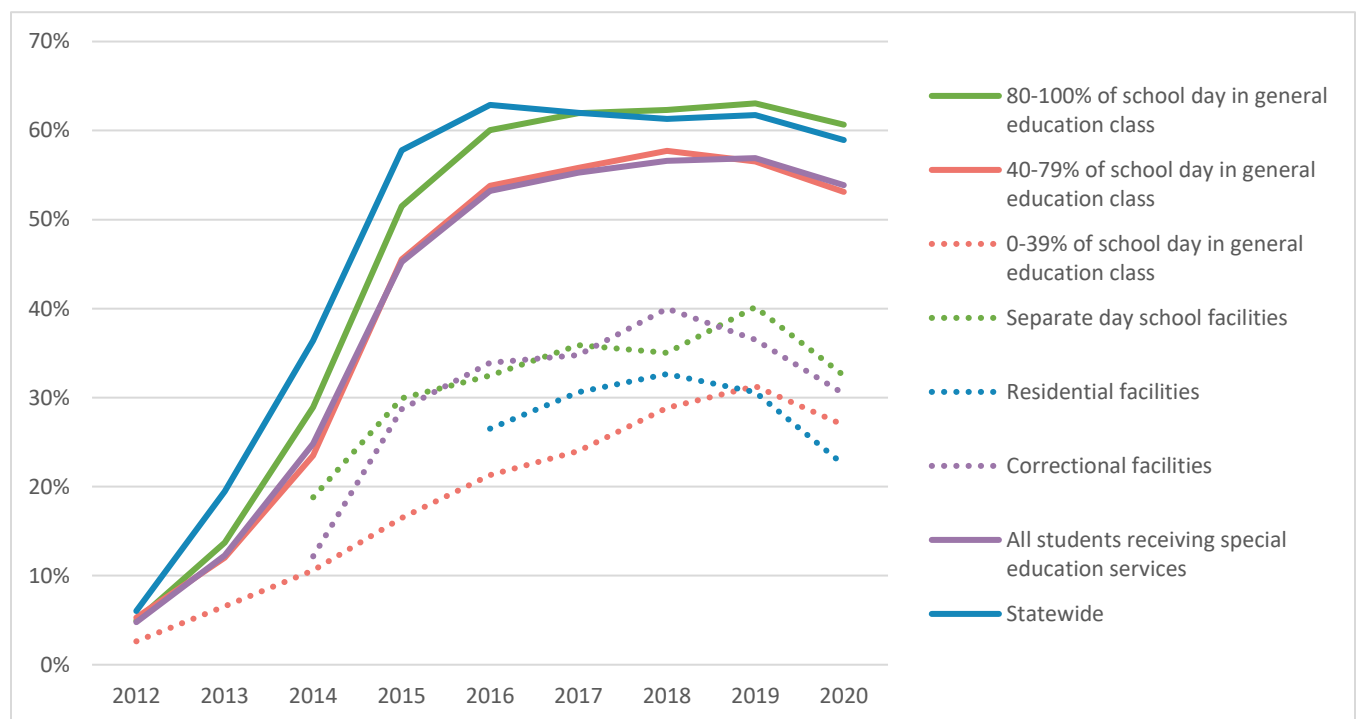


Figure 28: Percentage of 2015 cohort students annually employed by LRE

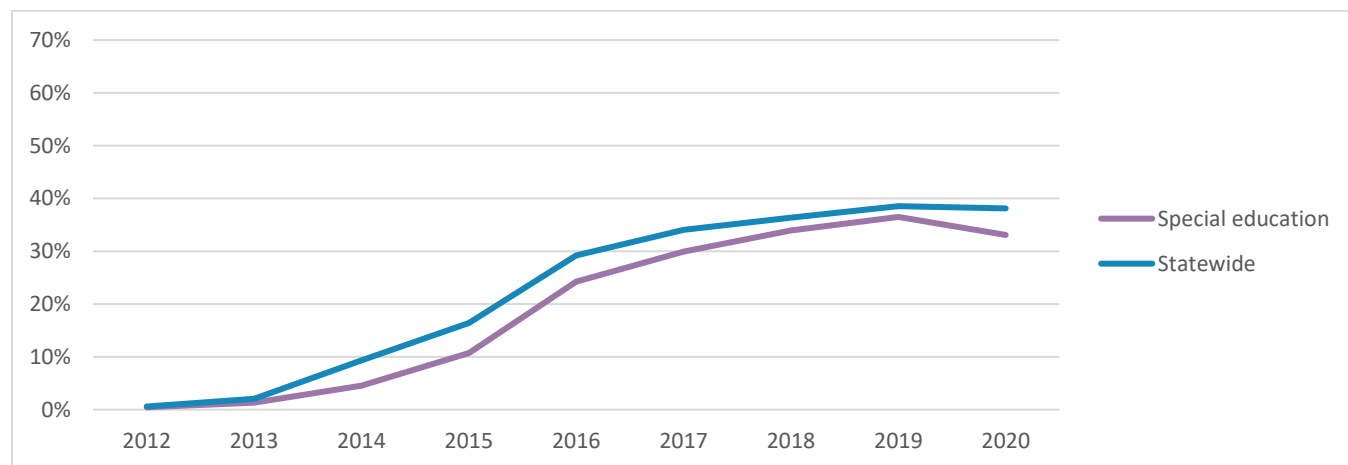


What percentage of students who received special education services are employed continuously?

Overall, students who received special education services have lower rates of continuous employment²¹ than students statewide (see Figure 29). Students with hearing impairments or a specific learning disability who also received special education services have higher rates of continuous employment than the statewide rate during the years after high school, while students in all other disability categories have lower rates (see Table B-8 in the appendix). Among both statewide students and students who received special education services, Hispanic students have the highest rates of continuous employment (see Table B-7 in the appendix). Table B-7 also shows that Native Hawaiian and Pacific Islander and American Indian or Alaska Native students tended to have the lowest continuous employment rates of students who received special education services. As expected, the pandemic had an impact on continuous employment rates beginning in 2020. For students who received special education services, all racial groups experienced declines in continuous employment from 2019 to 2020, but Hispanic students experienced the smallest change. Among students who received special education services, Native Hawaiian and Pacific Islander students experienced the sharpest decline in continuous employment from 2019 to 2020.

Students in the general education classroom 80% to 100% of the time have similar (and at times slightly higher) continuous employment rates than all students statewide. In all other LRE categories, students' continuous employment is below the rate for all students statewide, though those in the 40% to 79% category were not far behind all students statewide (see Table B-8 in the appendix).

Figure 29: Percentage of 2015 cohort students continuously employed annually



²¹ See appendix for definition.

Statewide, female students are continuously employed at slightly higher rates than male students, but among those who received special education services, male students have slightly higher rates than female students after 2016. Both male and female students experienced a decline in continuous employment from 2019 to 2020.

What wages are students who received special education services earning?

Median annual earnings²² for students who received special education services are very similar to all students statewide until about 2018, when the increase experienced by all students statewide did not increase as steeply for those who received special education services (see Figure 30). This corresponds to the degree receipt year for those who immediately enrolled in a four-year institution and completed within four years. This is true for all racial groups except for students with two or more races and Black students who received special education services whose median earnings decreased while their statewide counterparts' median earnings increased (Figure B-17 in the appendix). Female students who received special education services have an increase in earnings over time, but not as much of an increase in median earnings as male students (Figure B-16 in the appendix).

Earnings trends for students who received special education services are similar to statewide trends by postsecondary completion status. Higher earnings are related to higher work hours and lower postsecondary enrollments as covered in other sections of this report.

Among students who received special education services, those with communication disorders, specific learning disabilities, and hearing impairments have similar median annual earnings to all students statewide. Figures for deaf-blindness and orthopedic impairment are too small to report. Of the categories that are large enough to be reported, median annual earnings tend to be lowest for students with multiple disabilities or intellectual disabilities.

²² See appendix for definition.

Figure 30: Annual median earnings of the 2015 student cohort

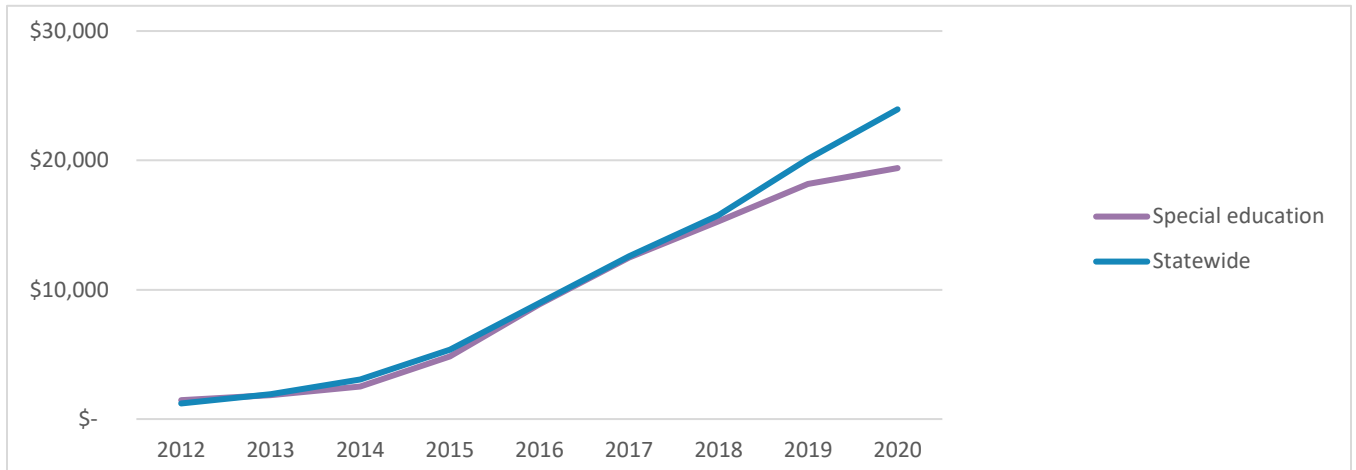


Figure 31: Annual median earnings of the 2015 student cohort by disability grouping

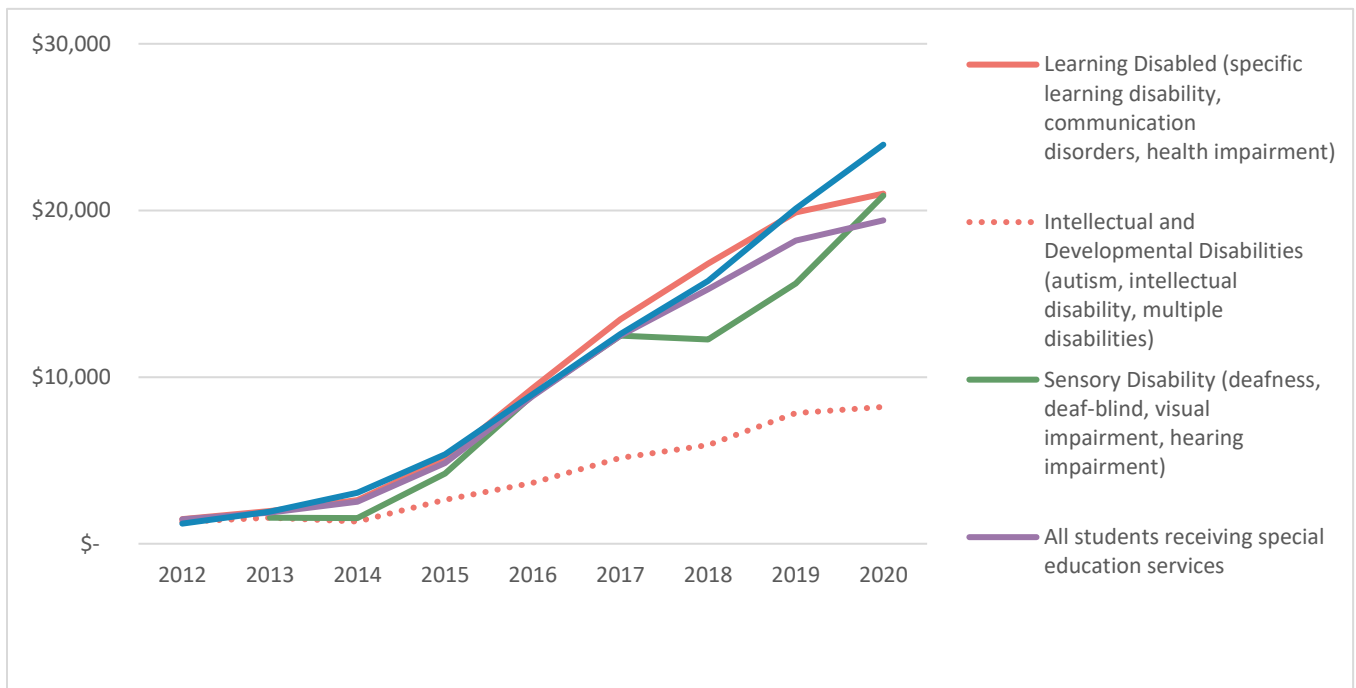
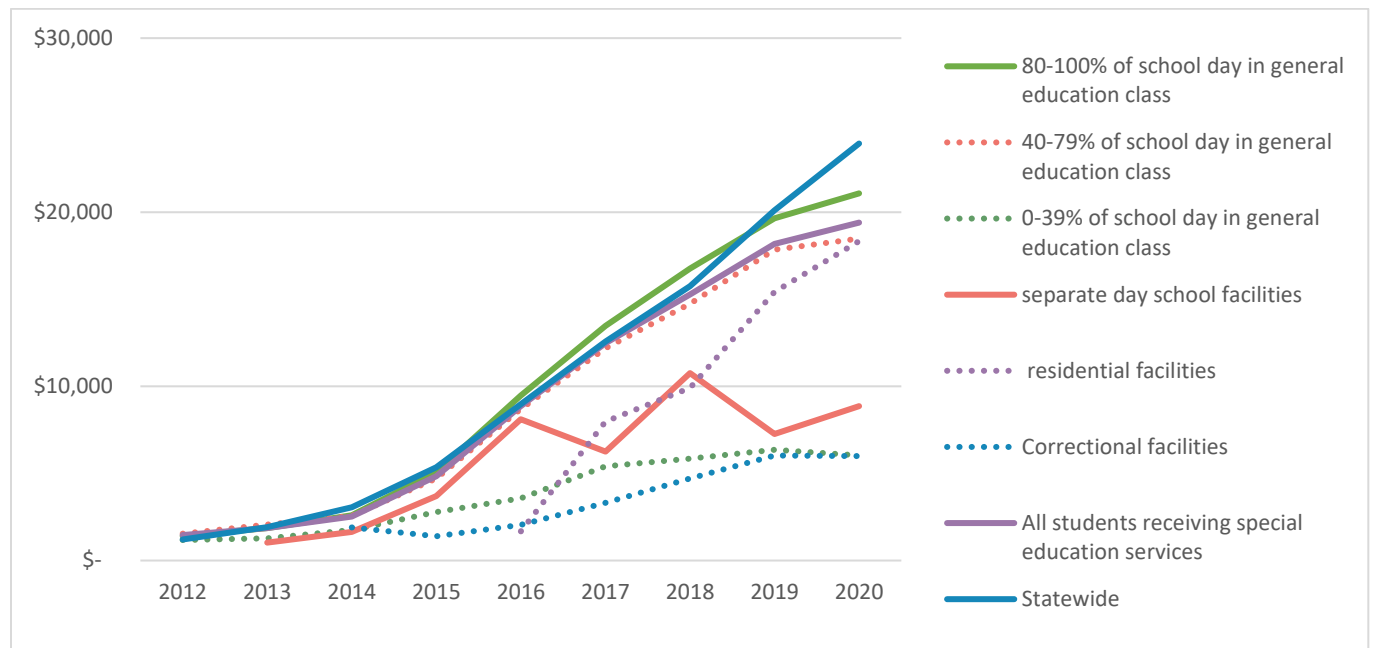


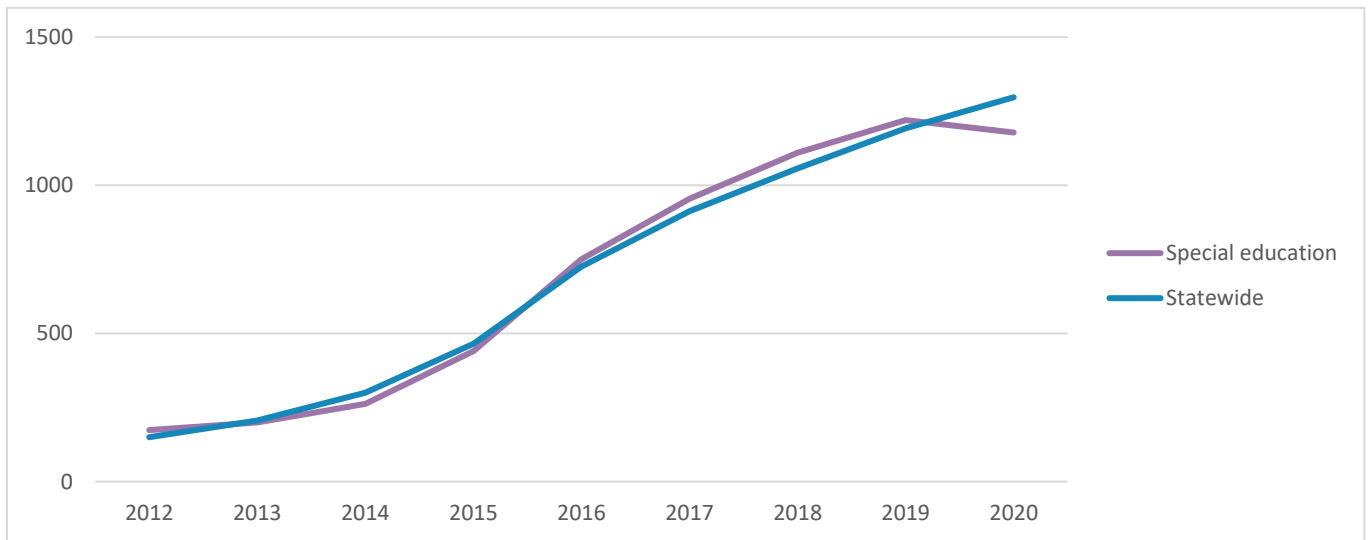
Figure 32: Annual median earnings of the 2015 student cohort by LRE



How many hours are students who received special education services working?

Median annual work hours for students who received special education services are similar to all students statewide, and at times slightly higher, but they declined in 2020 while statewide median hours increased (see Figure 33). This may seem counterintuitive considering the timing of COVID-19 lockdowns, but the groups that experience increases in work hours were those who completed a postsecondary credential (see Figure 36) and may have more access to remote work than those who did not obtain a credential. Gender trends are similar statewide and for students who received special education services (see Figure B-18 in the appendix). Students who received special education services follow similar patterns to students statewide based on postsecondary completion status. For both students who received special education services and all students statewide, those who did not earn a degree tend to work more hours than students who did earn a degree (Figure 36). These gaps close considerably by 2020, possibly as students complete their degrees and enter the workforce.

Figure 33: Annual median hours worked of 2015 cohort students



Work hours for students who received special education services tend to follow statewide trends for all racial groups, with a widening of the gap from 2019 to 2020. See Figure B-21 for how work hour trends vary by race/ethnicity. By disability grouping, students who received special education services who are considered learning disabled tend to have work hours similar to or higher than all students statewide (Figure 34).

Figure 34: Annual median hours worked of 2015 cohort students by disability grouping

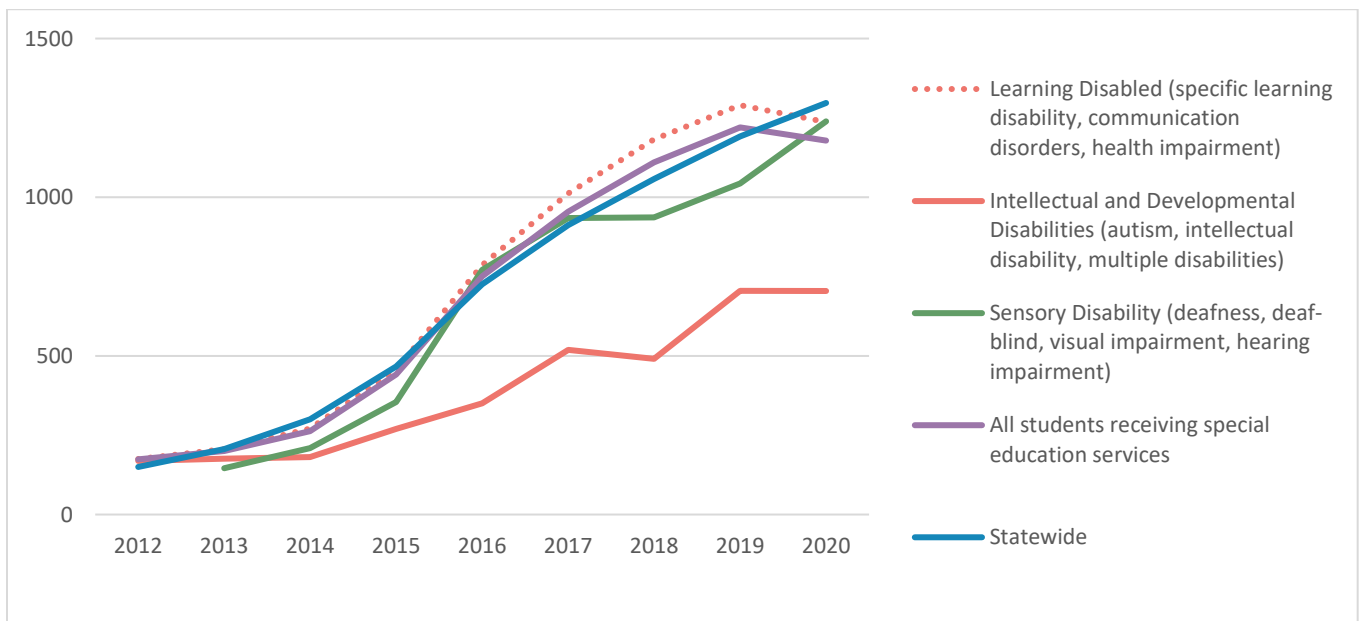


Figure 35: Annual median hours worked of 2015 cohort students by LRE

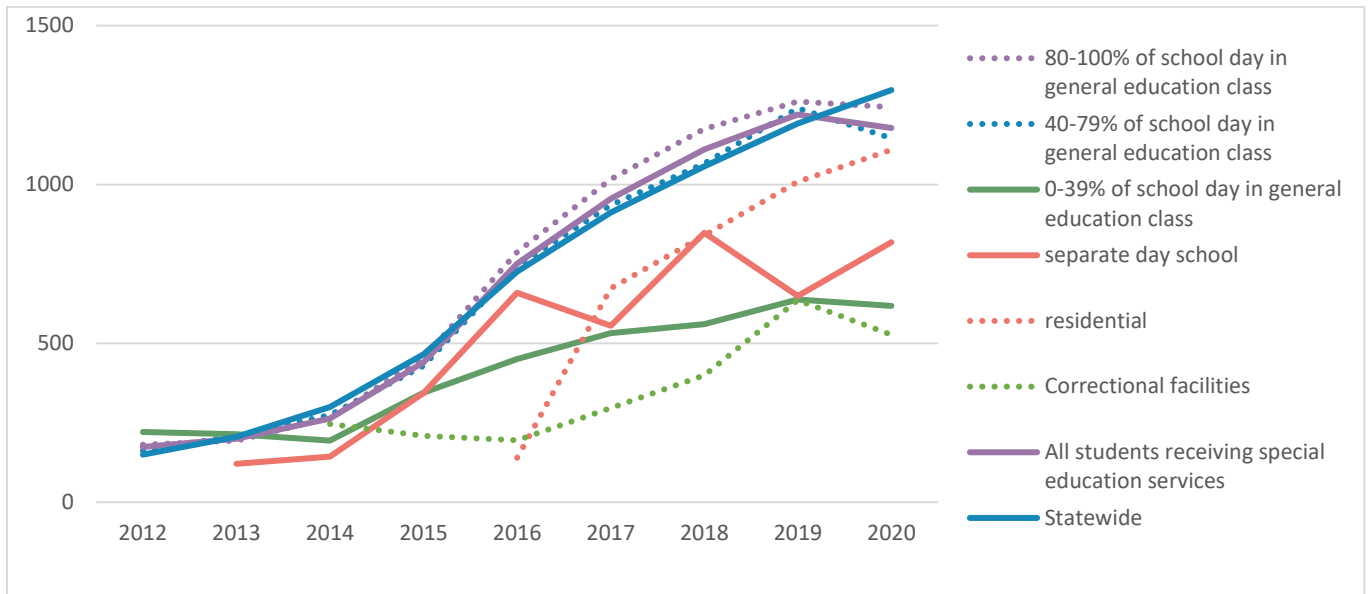
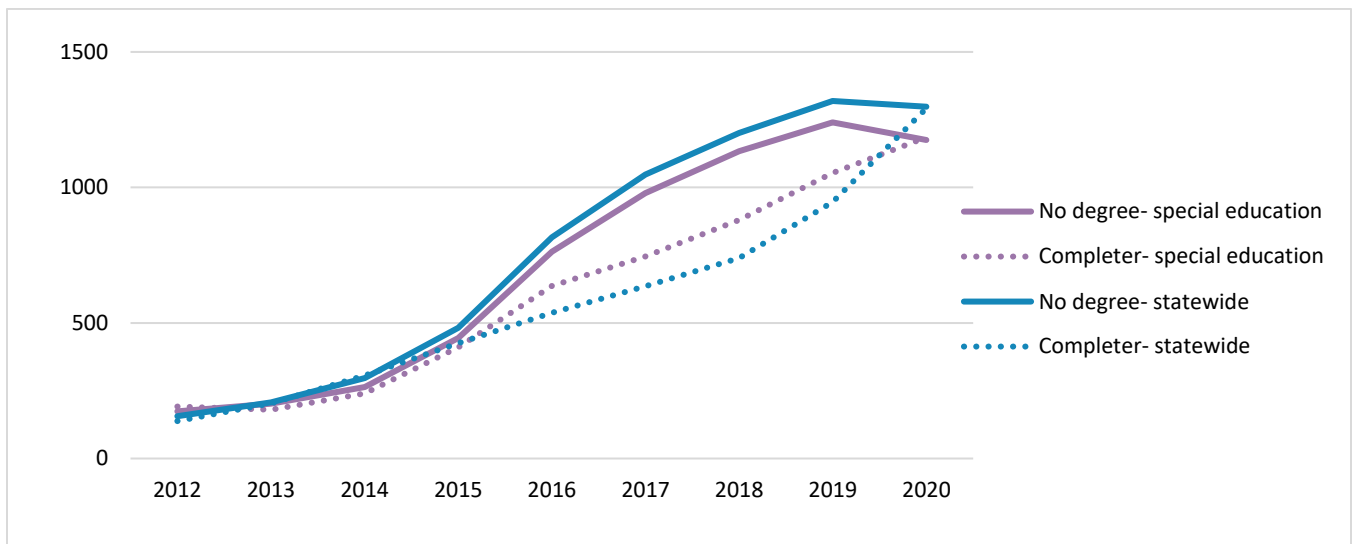


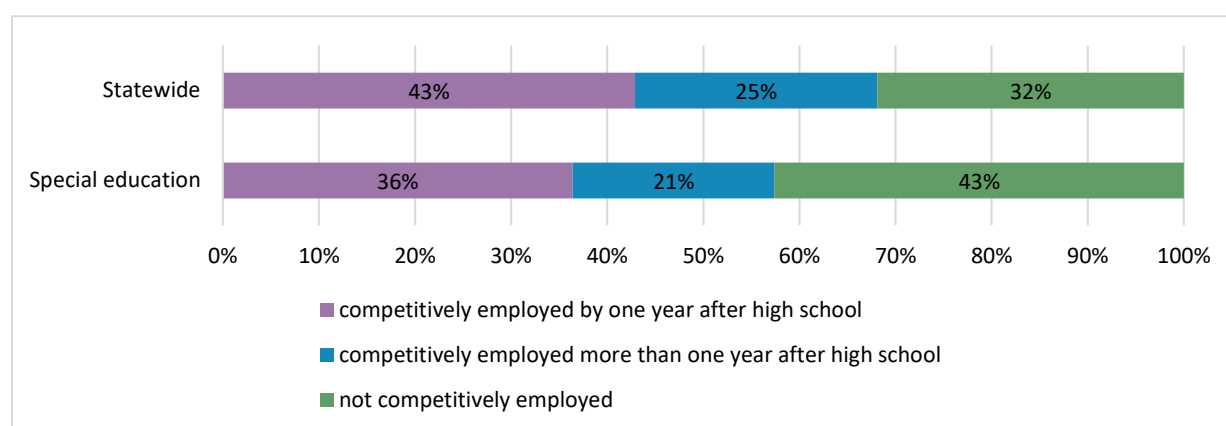
Figure 36: Annual median hours worked of 2015 cohort students by postsecondary completion status



What percentage of students who received special education services are competitively employed by one year after high school? What percentage are ever competitively employed?

By the school year after students' last year of high school enrollment, 36% of students who received special education services are competitively employed²³ (see Figure 37). Of all students statewide, 43% are competitively employed by one year after leaving high school. By the end of the 2020 calendar year, 57% of students who received special education services are competitively employed, compared with 68% of all students statewide.

Figure 37: 2015 Cohort students' competitive employment by years after last year of high school enrollment



Among students receiving special education, female students were competitively employed by the end of the 2020 calendar year at lower rates (55%) than male students (58%) (see Figure B-19 in the appendix). All race and gender groups are competitively employed at lower rates than their statewide counterparts, but female students have a larger gap than males with their statewide peers.

Native Hawaiian and Pacific Islander students have the lowest rates of competitive employment, consistent with statewide trends, as well as the largest gap with their statewide peers (see Figure B-20 in the appendix). Hispanic students have the highest rates of competitive employment, as well as the smallest gap with their statewide peers.

Students with multiple disabilities and intellectual disabilities have the lowest competitive employment rates at 10% and 18% respectively. Students with hearing impairment and specific learning disability are competitively employed at slightly higher rates (71% and 69% respectively) than the statewide rate (see Figure B-14 in the appendix). By educational

²³ See definition in the appendix. OPSI uses a similar measure of competitive employment as required for post-school outcomes federal reporting.

environment, students who spent 80–100% of their day in general education classes are competitively employed at a higher rate than all students who received special education services, while those spending 0–39% of their day in general education classes are competitively employed at the lowest rate at 19% (Figure 39).

Figure 38: 2015 Cohort students' competitive employment by disability grouping

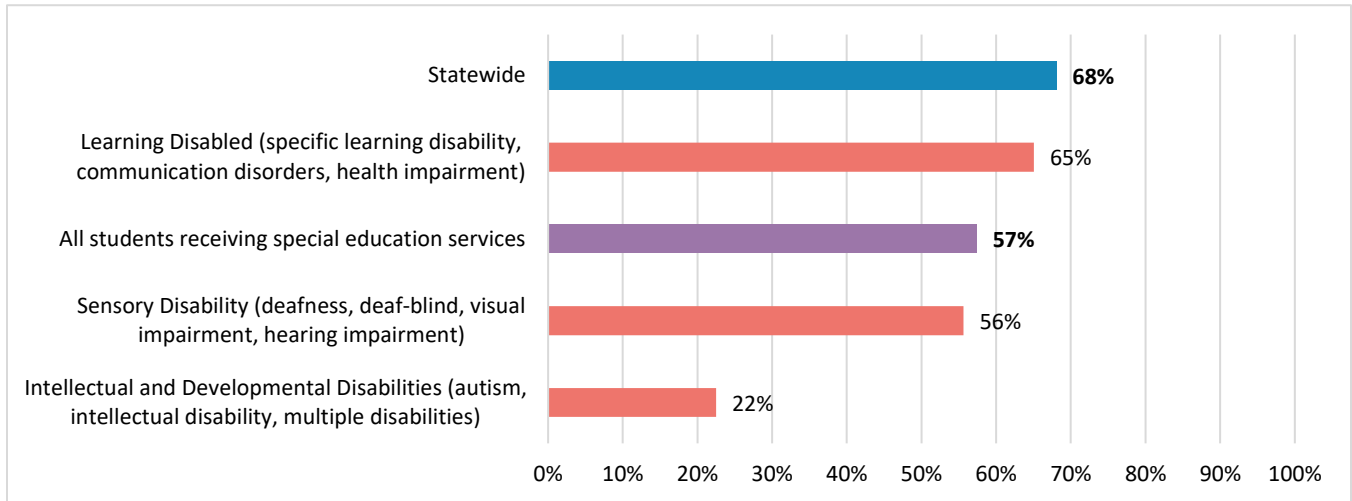
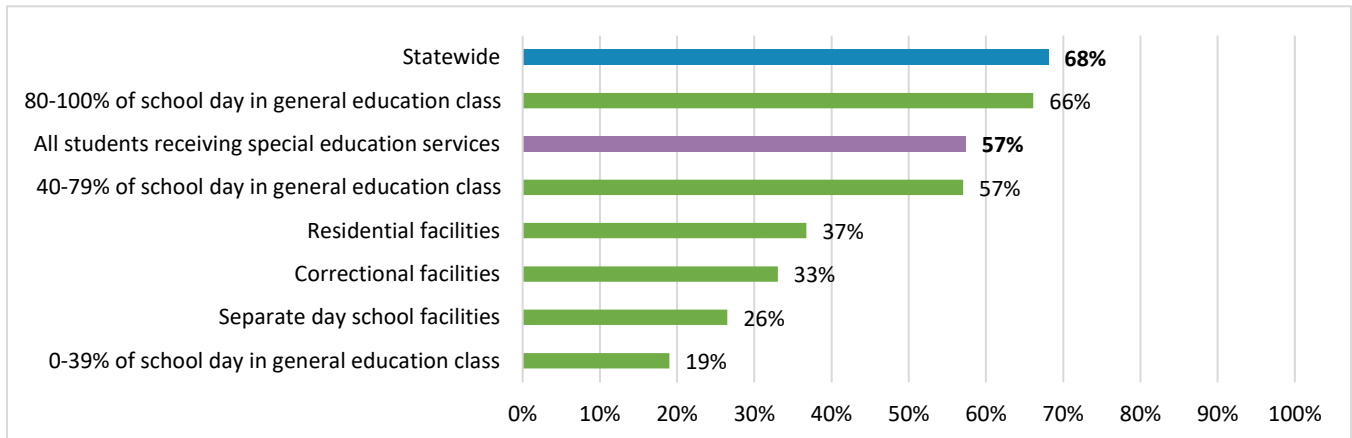


Figure 39: 2015 Cohort students' competitive employment by LRE



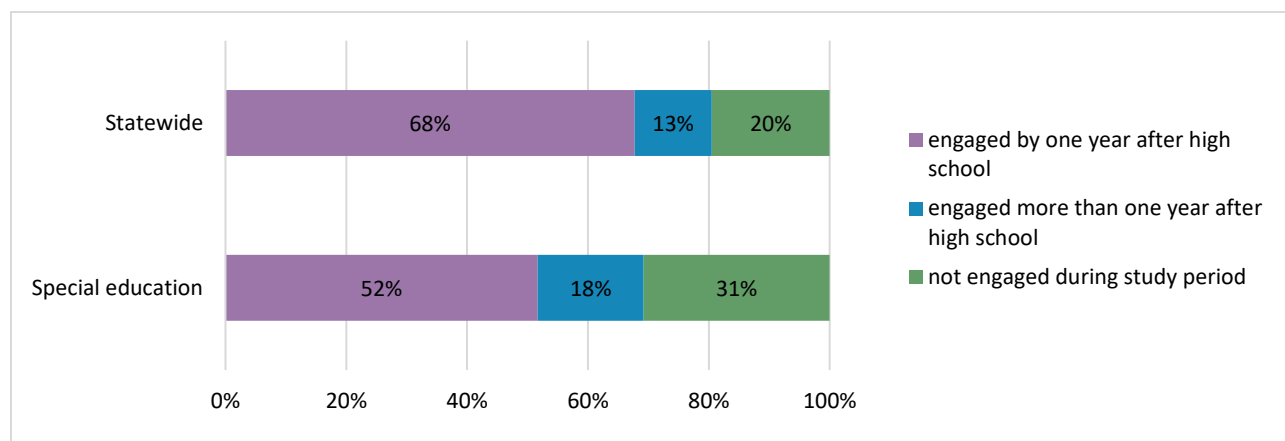
Engagement Outcomes

The following section presents data on education and workforce overall post-high-school engagement.

What percentage of students are engaged following high school?

By one year following high school, 52% of students who received special education services are engaged²⁴ compared with 68% of all students statewide (Figure 40). Over the long term,²⁵ 69% of students who received special education services are engaged compared to 81% of all students statewide.

Figure 40: 2015 Cohort student engagement by years after last year of high school enrollment



Students who received special education services who have communication disorders are engaged at the highest rate (81%) and are engaged at the same rate as all students statewide students (see Figure B-15 in the appendix). Students who fall under the disability groupings learning disabled and sensory disability are engaged at higher rates (76% and 73%) than all students who received special education services, but lower than all students statewide (Figure 41). Students who received special education services with multiple disabilities and intellectual disabilities have the lowest engagement employment rates at 19% and 28% respectively.

By LRE, students who spend 80% to 100% of the school day in general education classrooms have the highest engagement rate (78%), slightly below the engagement rate for all students statewide (Figure 42). Those who spend 0% to 39% of the school day in general education classrooms have the lowest engagement rate (29%).

²⁴ See definition in the appendix. OPSI uses a similar measure of engagement as required for post-school outcomes federal reporting.

²⁵ By the 2020 calendar year for employment measures and the 2021 school year for academic measures.

Figure 41: 2015 Cohort student post-high-school engagement by disability grouping

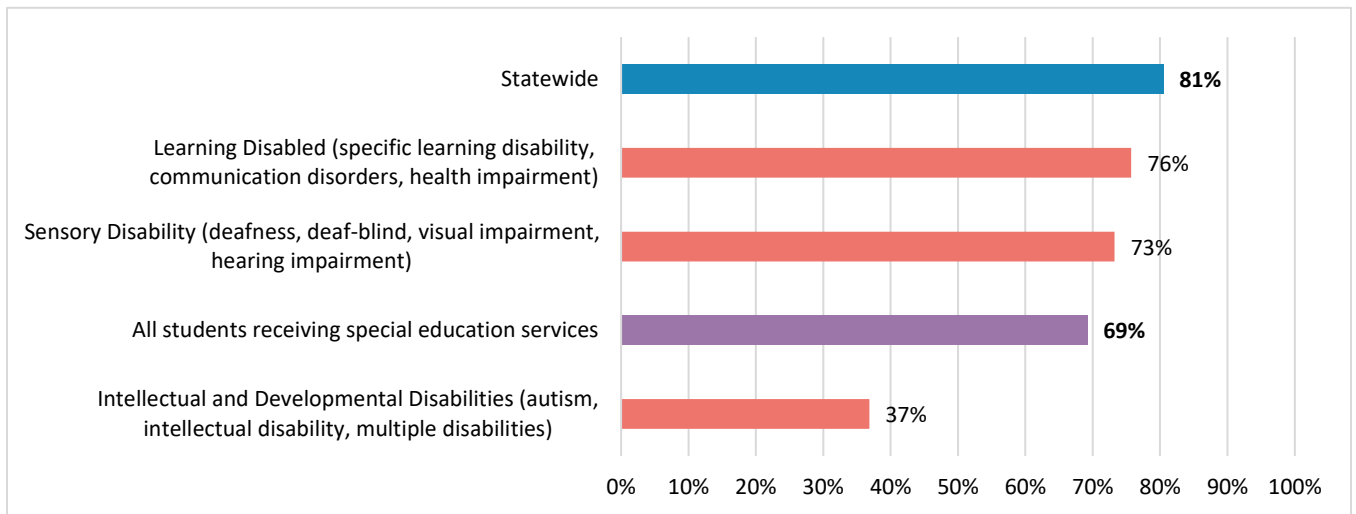
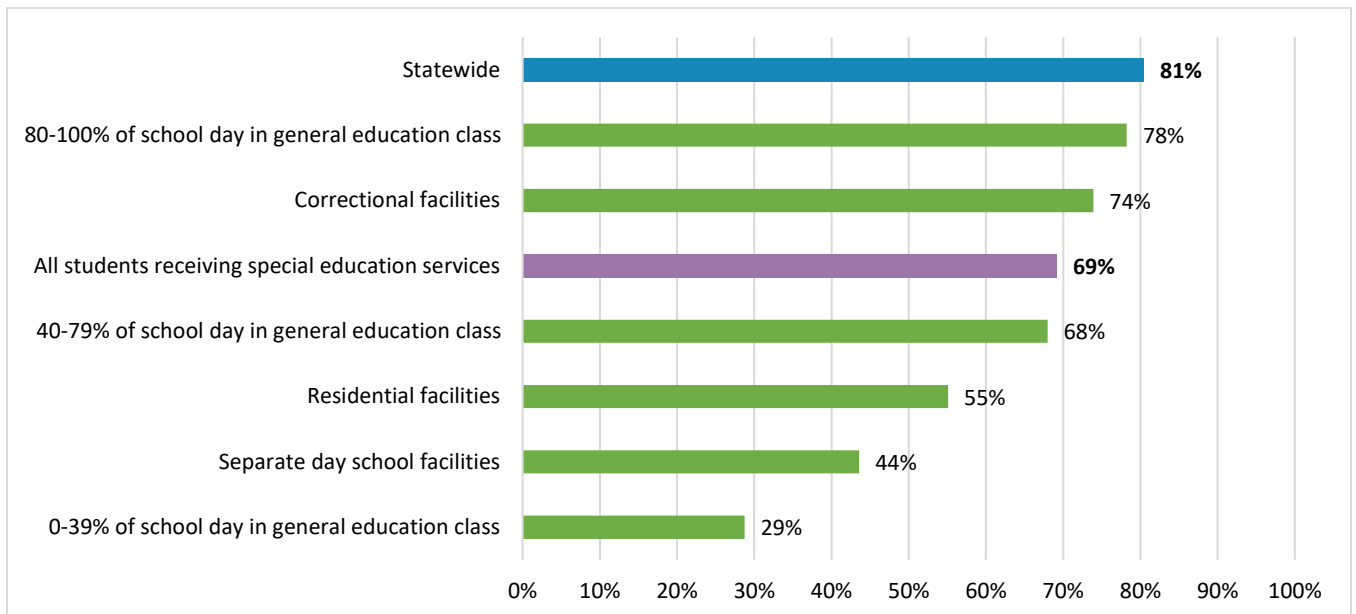


Figure 42: 2015 Cohort student post-high-school engagement by LRE



What did we learn from this study?

What are the long-term postsecondary education and employment outcomes for students who received special education services in high school?

Students who received special education services in high school exit high school without any credential (diploma or GED) more often and enroll at postsecondary institutions less often than all students statewide. Of those who enroll in postsecondary institutions, students who received special education services (1) enrolls a year or later after exiting high school more often, (2) enrolls more often in precollege courses, and (3) attains credentials less often than all students statewide.

The fifth and sixth years following on-time high school graduation occur during the 2020 and 2021 academic years, which were disrupted by the COVID-19 pandemic. The timing of the pandemic likely has a larger impact on students in the 2015 cohort. This is because students who received special education services made up a larger portion of their cohort enrolled in the years following their graduation requirement year than in the years leading up to it (see appendix Table B-1), as they are eligible to receive services until age 21.

Compared to all students statewide, students who received special education services earn a higher proportion of certificates, a similar proportion of associate degrees, and lower proportions of bachelor's and graduate degrees. They also enroll in lifelong learning and nondegree seeking education more often than all students statewide. Additional research is needed to understand why these high school and college completion rates are lower.

However, these results suggest that students who receive special education services *do seek* postsecondary education and training and might require increased support to ensure that they can access college and complete their degrees. For students who received special education services that complete a postsecondary credential, their earnings, work hours, employment, and continuous employment were all higher by 2020 than those who did not complete a credential, despite COVID-19 shutdowns.

As a group, students who received special education services are employed, continuously employed, and competitively employed at lower rates than all students statewide, which is consistent with federal and state data that shows adults with disabilities being employed at lower rates than those without disabilities (U.S. Bureau of Labor Statistics, 2023; U.S. Census Bureau, 2023).

For employed students who received special education services, earnings and work hours were similar to all students statewide until about 2019 and 2020. This is related to differences in educational attainment, but could also be partially explained by the COVID-19 pandemic presenting more employment challenges for people with disabilities (Wong et al., 2022). While post-school engagement is lower for students who received special education services, they do enroll in and complete apprenticeships at the same rate as all students statewide.

What are the outcomes for students by disability category and educational environment?

Students who spend more time in general education classrooms have better education and employment outcomes. Students who spend 80–100% in general education classes have (1) higher, less delayed postsecondary enrollment, (2) higher secondary and postsecondary completion rates, (3) higher employment and competitive employment rates, (4) higher income and work hours, and (5) overall higher engagement than students who end their high school career in other educational settings. Other studies have found similar trends (Theobald et al., 2017). Over half of students who receive special education services end their high school tenure spending at least 80% of their time in general education classes.

Very few students end their high school experience in private school and homeschool settings, homebound or hospital programs, or residential facilities. These smaller educational environment categories are often too small to report, which makes it challenging to monitor outcomes for students receiving services outside of general education classes. Future reports may need to combine these smaller categories where it makes sense. Of the categories that could be reported, students receiving special education services in correctional facilities, residential facilities, and separate day schools and those who spend 0% to 39% of the school day in general education classes tend to have lower overall engagement.

However, students in residential facilities who are employed experience a steep increase in work hours and earnings similar to employment levels of students who spend more time in general education classes. Another exception is students in correctional facilities enrolling in postsecondary at slightly higher rates than students who spend the most time in general education classes, though some of this is likely due to basic skills enrollments. Students who received special education services most recently in correctional facilities obtain diplomas at the lowest rate, GEDs at the highest rate, and exit high school without any credential at the highest rate of all educational settings.

Students who received special education services who fall into the category of emotional/behavioral disability or intellectual and developmental disability tend to consistently have lower performance than their peers. Those with an emotional/behavioral disability complete secondary and postsecondary education at the lowest rate by disability category. Additionally, while they enroll at two-year institutions at similar rates to all students who received special education services, they have the lowest rate of enrollment at four-year institutions. Since this data set did not allow for identification of basic skills enrollments, the low enrollment at two-year institutions is likely impacted by the high rate of GED completion among students in this category, as many GED programs are offered through community colleges. Students who have an emotional/behavioral disability tend to have lower employment, earnings, and work hours than all students who received special education services.

Students included in the intellectual and developmental disability grouping (autism, intellectual disability, multiple disabilities) have higher rates of high school graduation than all students who received special education services, but lower rates of postsecondary enrollment and completion. Students in this disability grouping who do enroll more often enroll within one year after high school than all students who receive special education services. Students in this grouping have lower rates of employment, continuous employment, competitive employment, earnings, work hours, and post-school engagement than the others.

To highlight a few bright spots, there are some groups whose outcomes are similar to or better than all students statewide:

- Students who received special education services who have a sensory disability, hearing impairment, autism, traumatic brain injury, or communication disorder graduate high school at a higher rate than all students statewide.
- Postsecondary enrollment for students with communication disorders, learning disabilities, and health impairments is higher than all students statewide at two-year postsecondary institutions.
- A large portion of students who received special education services are considered learning disabled, as the two largest disability categories, health impairment and specific learning disability, are included under this grouping. These students are employed and continuously employed at a similar rate to all students statewide during the years after high school.

Outcomes for the smaller disability categories (traumatic brain injury, visual impairment, deafness, and orthopedic impairment) are often not able to be reported due to small cell sizes. The deaf-blindness category was not able to be reported at all, but the ability to group this category with sensory disabilities made it possible for them to be represented.

What are the student gender and race/ethnicity characteristics associated with these outcomes?

Male students are overrepresented among students who received special education services in comparison to the statewide cohort. Female students who received special education services, like female students statewide, completed high school at a higher rate than male students. Female students enroll at postsecondary institutions at higher rates but have higher precollege course taking rates than male students. They also complete postsecondary credentials at similar rates to males who receive special education services. Female students who received special education services have lower work hours, earnings, employment, continuous employment, competitive employment, and overall engagement than male students, as well as a larger gap between them and their statewide peers in most workforce outcomes.

Students of color tend to make up a larger proportion of students who receive special education than of all students statewide. With a few exceptions, across all racial and ethnic groups, students who receive special education services also tend to have lower rates of college enrollment, college completion, employment, earnings, and post-high-school engagement than the statewide average for their racial or ethnic peer group.

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Appendix A: Definition of measures

Student characteristics

504 – a student who received a section 504 accommodation at any point during high school.

Disability – a district has identified a student as having a disability at any point during high school.

Disability category – the most recent record associated with when the student was last enrolled in high school.

FRPM eligible – a student who, at any point during high school, was eligible for free or reduced-price meals.

Gender – the gender reported with a student's first high school enrollment record.

High school completion – whether or not the student obtains a high school diploma or a GED credential by the end of the 2021 school year.

High school graduation – whether a student obtains a high school diploma by the end of the 2021 school year.²⁶

Homeless – a student who was considered homeless as defined in McKinney-Vento Act, Section 725(2) at any point during high school.

Least Restrictive Environment (LRE) – the most recent record of educational setting associated with when the student was last enrolled in high school.

Migrant student – a student who participated in the Migrant Education Program at any point during high school.

Multilingual learner – a student who, at any point since the 2010 school year, received State Transitional Bilingual Instruction Program services, excluding Title III services for American Indian or Alaska Native students.

Race/Ethnicity – the race and ethnicity reported with a student's first high school enrollment record, using federal race and ethnicity categories.

²⁶ The high school graduation rate used in this study refers to the percentage of students with a graduation requirement year of 2015 and graduated by the end of the 2021 school year. The denominator of the calculation is the total number of students with a graduation requirement year of 2015 and the numerator is the total number of the same cohort who have a high school graduation record from 2015–2021 CEDARS historical data. This calculation does not remove from the denominator anyone who transfers out of the Washington public school system. This rate should not be compared with the one from the OSPI report card.

Special education – a student who, at any point during high school, received special education services.

Postsecondary outcomes

2-year institution – publicly funded two-year Washington postsecondary institutions only. This does not include out-of-state or private institutions.

4-year institution – publicly funded four-year Washington postsecondary institutions only. This does not include out-of-state or private institutions.

Associate degree – completion of all types of associate degrees (Direct Transfer Agreement, Transfer Degree, Applied Sciences, etc.) from a Washington two-year public institution.

Bachelor's degree – completions of a four-year degree at a publicly funded Washington four-year institution or an Applied Baccalaureate Degrees offered at some two-year institutions.

Certificate – any completion of a certificate program at a public Washington institution.

Did not enroll – a for-credit enrollment record was not found in any public Washington two- or four-year institution. Students who enroll in apprenticeship programs administered by the Washington State Department of Labor & Industries are not included in this group.

Ever enrolled – students are counted as having enrolled in a public Washington postsecondary institution if they have an enrollment record at any point between the 2010–21 academic years. Students are not counted as enrolled if they enrolled with zero credits or for personal enrichment courses only. Those courses for basic skills²⁷ training are not excluded due to current data limitations.

Graduate degree – any post baccalaureate degree (Masters, Professional Doctoral Degrees [J.D., M.D.], Academic Doctoral Degrees [Ph.D.] earned at a publicly funded four-year Washington institution.

Postsecondary completion – having earned a degree or certificate at a public Washington postsecondary institution by the 2021 academic year. If a student earns more than one degree or certificate, the highest degree level attained is reported.

²⁷ Basic skills enrollments are when students enroll exclusively in Adult Basic Education (ABE) or English as a Second Language (ESL) courses during a term.

Precollege courses²⁸ – also referred to as remedial or developmental courses, these are courses used by institutions to prepare students for college-level Math and English courses. If a student enrolls at a Washington public two-year and a four-year institution in the academic year, they are only counted at the four-year institution.

Employment outcomes

Annual median work hours – median work²⁹ hours per calendar year.

Annual continuous employment rate – whether a student was employed¹⁸ during all four quarters of a calendar year.

Annual employment rate – whether a student was employed¹⁸ at any point during the calendar year.

Annual median earnings – median wages¹⁸ during a calendar year. Earnings are adjusted for inflation to 2020 dollars using annual CPI-W for the Seattle-Tacoma-Bellevue Area (BLS Series ID CWURS49DSA0).

²⁸ For records from PCHEES data, precollege courses in math are identified by course CIP code "320104" as well as remedial course flag "Y" combined with CIP code "27" (27.0101 through 27.9999). Records of precollege courses in math from SBCTC data are identified by CIP code "330101." Precollege English is from CIP code "320108" and remedial course flag "Y" combined with CIP code "23" (23.0101 through 23.9999). Records of precollege course in English are identified by CIP codes "330102," "330103," and "330104."

²⁹ For students who are employed in Washington, have wage records (federal employees, independent contractors, and others do not have UI wage records) who earned more than \$100 or worked more than 40 hours in a quarter. See [Washington State P20W Longitudinal Data System Research Handbook](#) for full list of exclusions.

*Post-high-school engagement outcomes*³⁰

Apprenticeship – participation in a Labor & Industries registered apprenticeship program in Washington from a student’s last year of enrollment in high school until the first quarter of the 2021 calendar year.

Competitive employment – whether a student has worked for pay at or above the minimum wage in Washington Unemployment Insurance (UI) covered employment for at least 20 hours a week for 90 days at any time in a calendar year from a student’s last year of enrollment in high school until the end of the 2020 calendar year.

Post-high-school engagement – participation in at least one of the following upon exiting high school: competitive employment, postsecondary or other education engagement, or apprenticeship.

Postsecondary engagement – whether a student has an enrollment record at a Washington public two- or four-year postsecondary institution from a student’s last year of enrollment in high school until the 2021 academic year, including if enrolled in basic skills courses.

Other education engagement – whether a student has enrolled in either zero credit or Life Long Learner courses at a public Washington two- or four-year postsecondary institution from a student’s last year of enrollment in high school until the 2021 academic year.

³⁰ This grouping of measures is similar to measures used in the [Post-School Outcomes report](#).

Definitions of disability categories

[WAC 392-172A-01035](#) “Child with a disability or student eligible for special education services” names and defines state disability categories.

Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, that adversely affects a student's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.

- Autism does not apply if a student's educational performance is adversely affected primarily because the student has an emotional/behavioral disability, as defined in subsection (2)(e) of this section.
- A student who manifests the characteristics of autism after age three could be identified as having autism if the criteria in (a)(i) of this subsection are satisfied.

Deaf-blindness means concomitant deafness and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that a student's educational performance is adversely affected and cannot be accommodated in special education programs solely for students with deafness or students with blindness.

Deafness means a student who is deaf or hard of hearing which manifests in severe difficulty processing linguistic information through hearing, with or without amplification, that adversely affects a student's educational performance.

Emotional/behavioral disability includes schizophrenia and other psychiatric conditions. The term does not apply to students who are socially maladjusted, unless it is determined that they have an emotional/behavioral disability under (e)(i) of this subsection.

Hard of hearing means difficulty hearing, whether permanent or fluctuating, that adversely affects a student's educational performance but that is not included under the definition of deafness in this section.

Intellectual disability means significantly subaverage general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period, that adversely affects a student's educational performance.

Multiple disabilities mean concomitant impairments, the combination of which causes such severe educational needs that they cannot be accommodated in special education programs solely for one of the impairments. The term “multiple disabilities” does not include deaf-blindness.

Orthopedic impairment means a severe orthopedic impairment that adversely affects a student's educational performance. The term includes impairments caused by a congenital

anomaly, impairments caused by disease (e.g., poliomyelitis, bone tuberculosis), and impairments from other causes (e.g., cerebral palsy, amputations, and fractures or burns that cause contractures).

Other health impairment means having limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that:

- Is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia, and Tourette syndrome; and
- Adversely affects a student's educational performance.

Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia, that adversely affects a student's educational performance. Specific learning disability does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of intellectual disability, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

Speech or language impairment means a communication disorder, such as stuttering, impaired articulation, a language impairment, or a voice impairment, that adversely affects a student's educational performance.

Traumatic brain injury means an acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a student's educational performance. Traumatic brain injury applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech. Traumatic brain injury does not apply to brain injuries that are congenital or degenerative, or to brain injuries induced by birth trauma.

Visual impairment including blindness means an impairment in vision that, even with correction, adversely affects a student's educational performance. The term includes both partial sight and blindness.

Appendix B: Tables

Table B-1: 2015 Cohort percentage of all students who received special education services enrolled in K-12 schools by school year

School Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Special education	13%	12%	12%	11%	11%	10%	23%	27%	31%	26%	*	*

Table B-2: Characteristics of 2015 cohort students

	Special education	Statewide
Female	3,998 35%	45,661 49%
Male	7,442 65%	48,076 51%
American Indian or Alaska Native	325 3%	1,597 2%
Asian	388 3%	6,965 7%
Black or African American	826 7%	4,642 5%
Hispanic or Latino of any race(s)	2,321 20%	17,350 19%
Native Hawaiian and Other Pacific Islander	79 1%	907 1%
Two or More Races	678 6%	5,171 6%
White	6,821 60%	57,095 61%
FRPM eligible	8,069 71%	48,573 52%
Migrant	321 3%	2,583 3%
Multilingual	1,223 11%	7,298 8%
504	627 5%	4,560 5%
Disability	11,440 100%	12,166 13%
Homeless	1,372 12%	6,348 7%
Total	11,440	93,737

See appendix A for definitions

Figure B-1: 2015 Cohort seven-year high school graduation rates by disability category

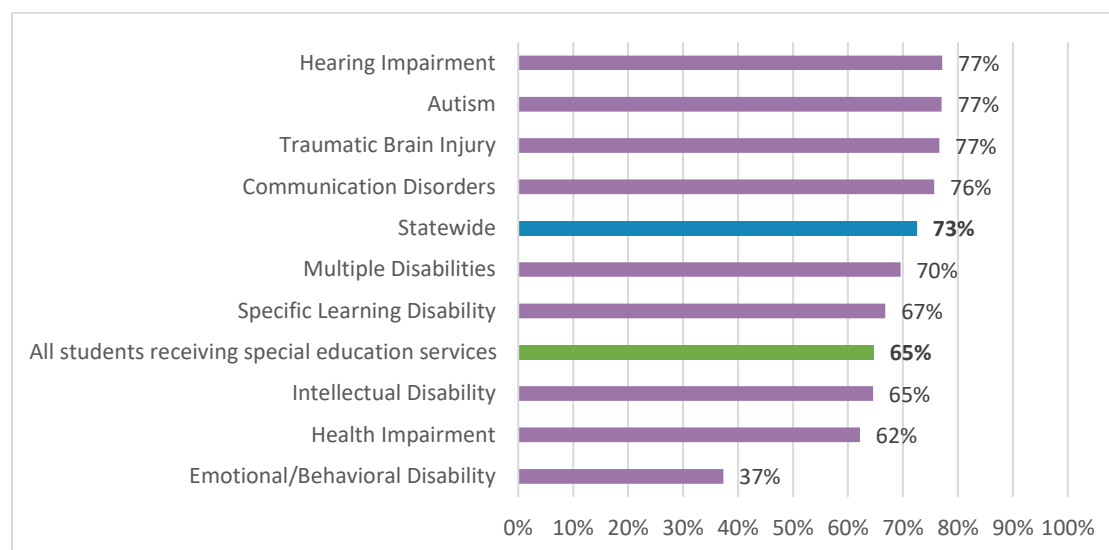


Figure B-2: 2015 Cohort seven-year GED rates by disability category

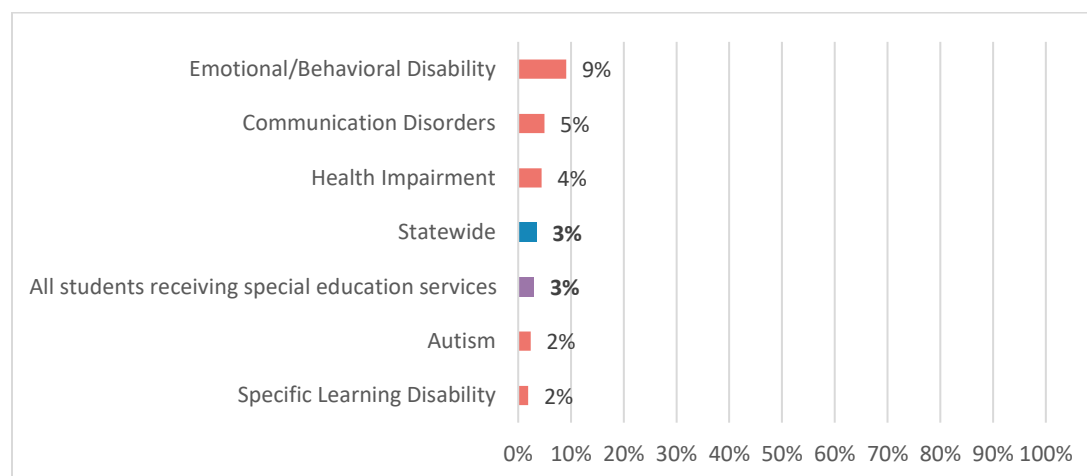


Figure B-3: 2015 Cohort seven-year high school graduation rates by gender

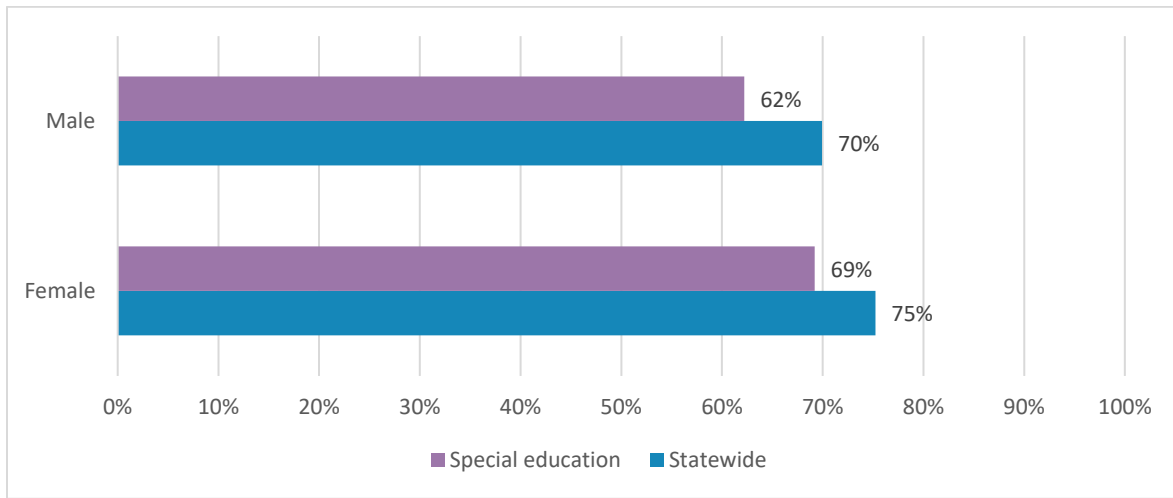


Figure B-4: 2015 Cohort seven-year high school graduation rates by race/ethnicity

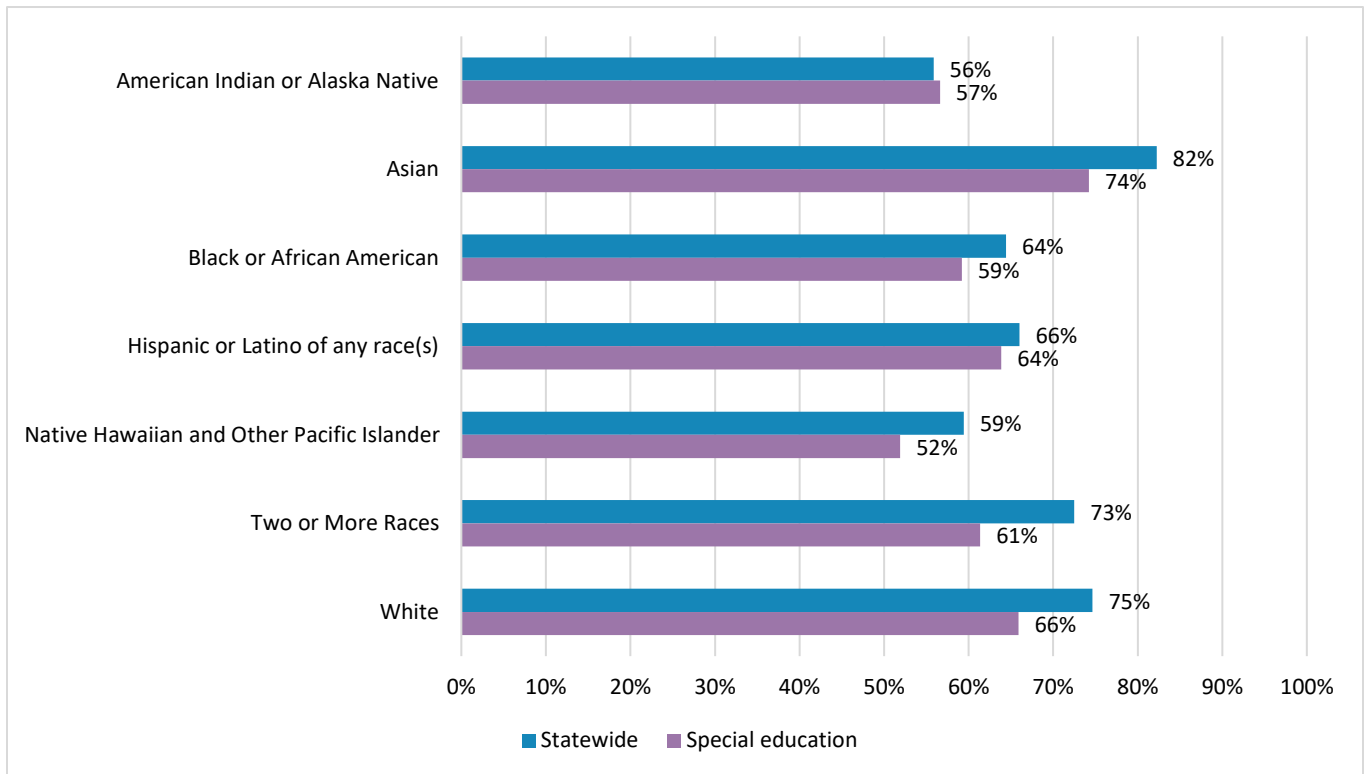


Figure B-5: 2015 Cohort seven-year high GED rates by gender

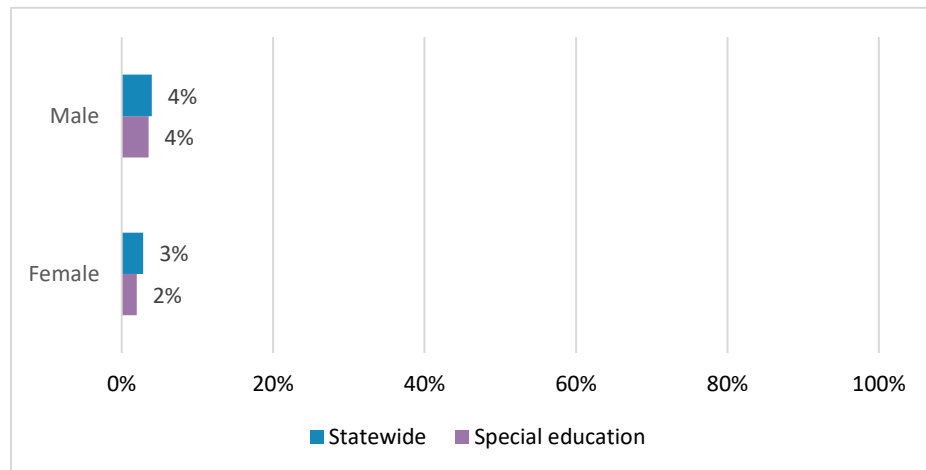
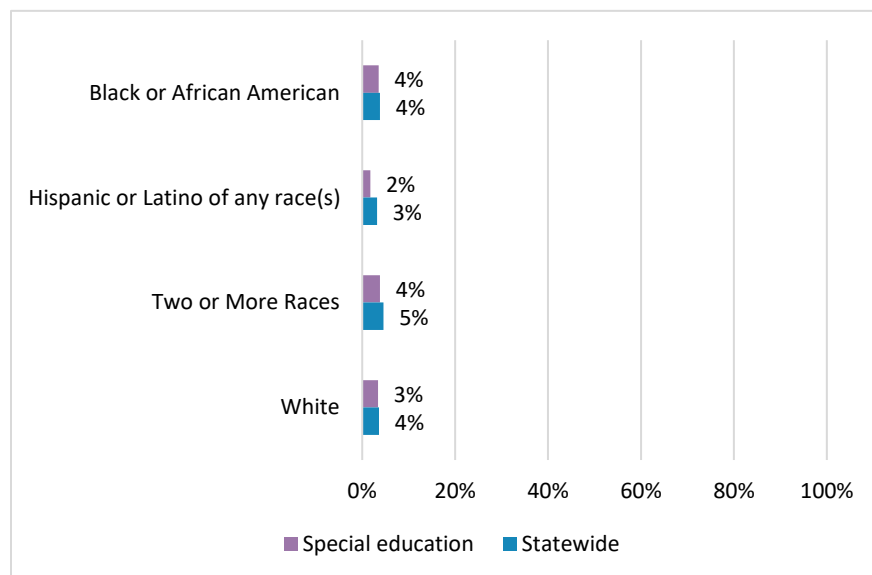
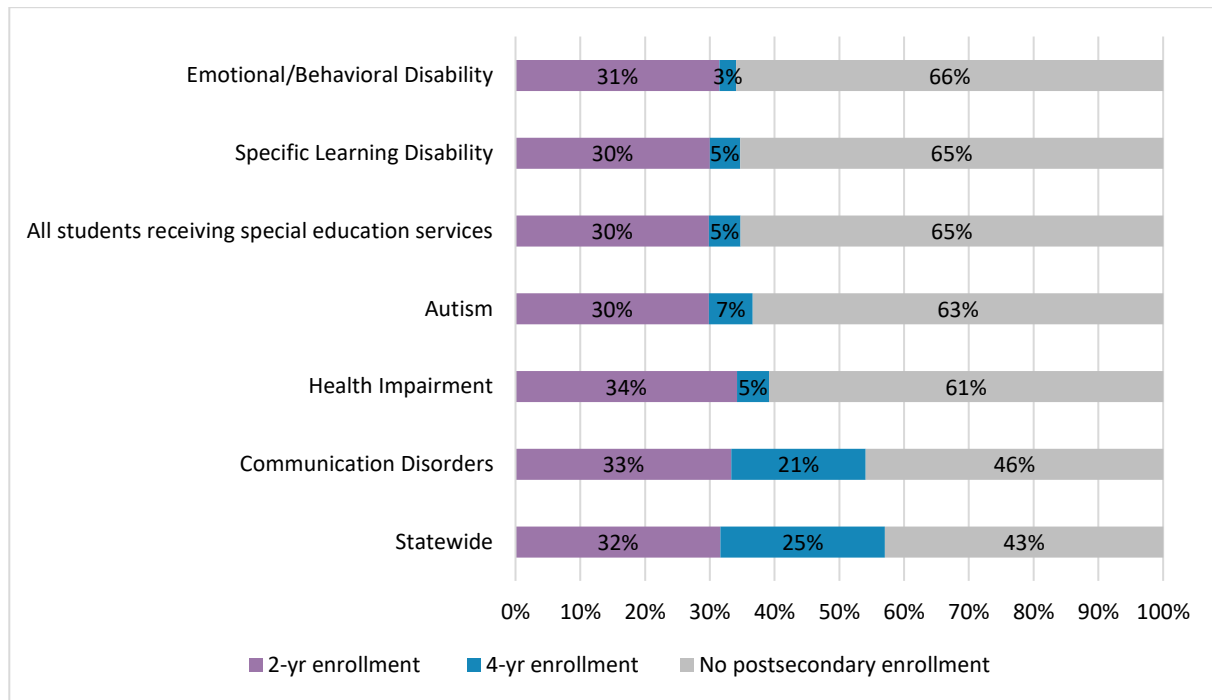


Figure B-6: 2015 Cohort seven-year high GED rates by race/ethnicity



Note: Only categories that can be reported are included.

Figure B-7: Postsecondary enrollment by disability category of the 2015 cohort within six years after expected graduation



Note: Only categories that can be reported are included.

Figure B-8: 2015 Cohort students other education enrollment within six years after expected graduation

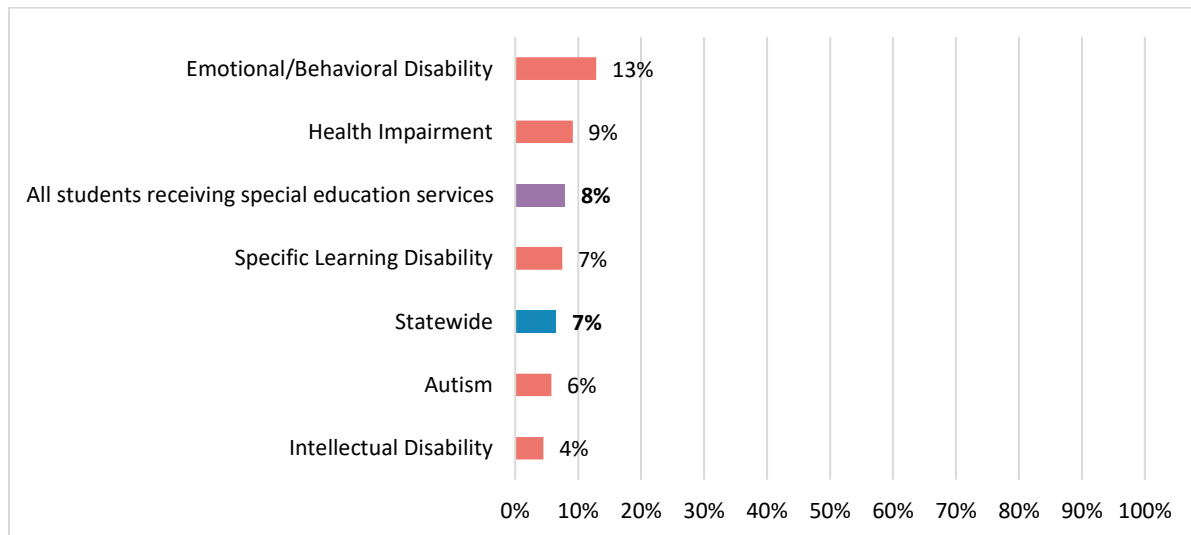


Figure B-9: 2015 Cohort students other post-high-school education enrollment within six years after expected graduation by gender

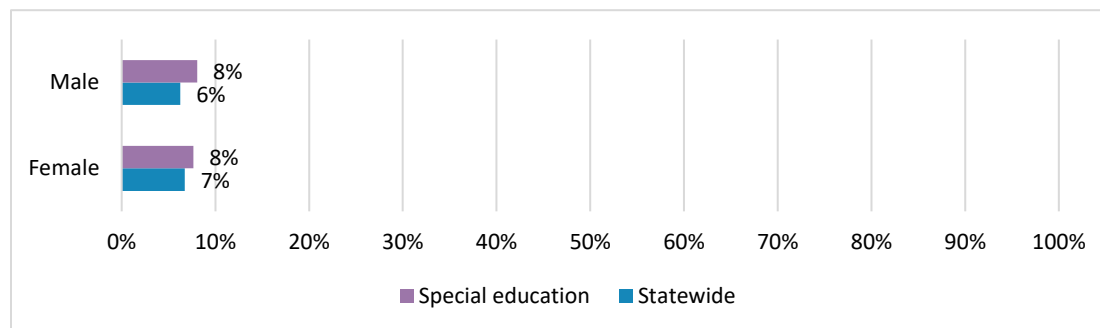


Figure B-10: 2015 Cohort students other post-high-school education enrollment within six years after expected graduation by race/ethnicity

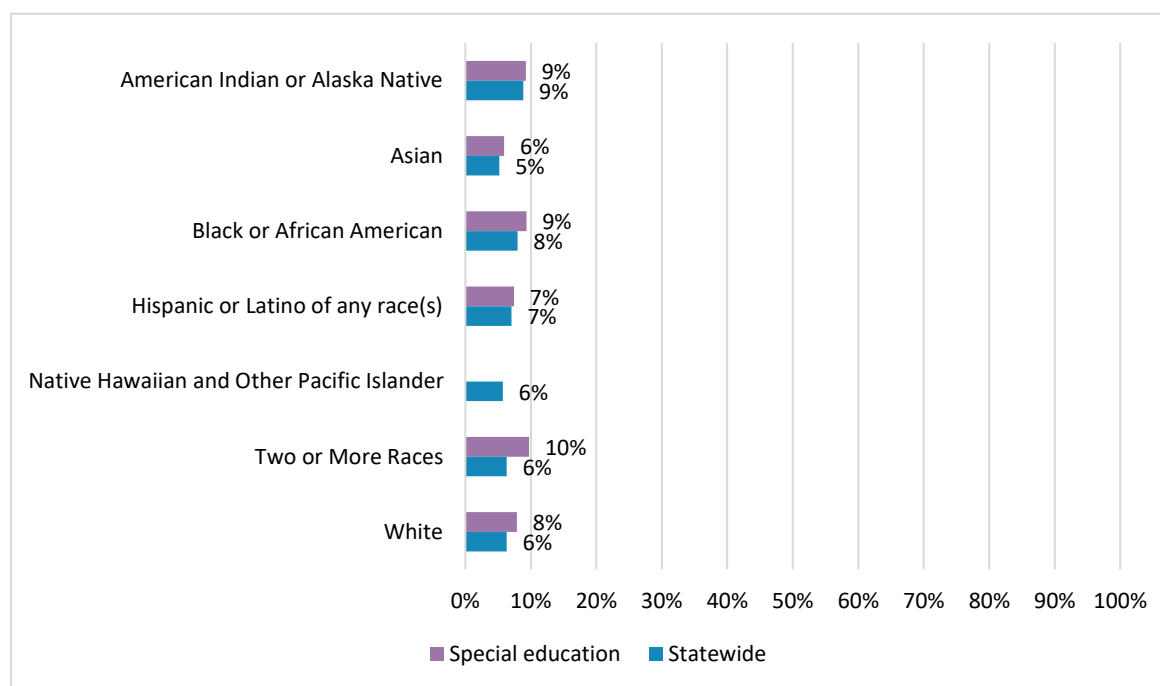


Table B-3: 2015 Cohort students who enroll in precollege English and Math courses within six years after expected graduation by gender and race/ethnicity

	Special education		Statewide	
	Math precollege course	English precollege course	Math precollege course	English precollege course
Female	617	512	9,288	3,846
	38%	31%	32%	13%
Male	856	623	7,419	3,519
	30%	22%	28%	13%
American Indian or Alaska Native	17	21	223	107
	17%	21%	30%	14%
Asian	81	57	1,053	650
	42%	30%	20%	13%
Black or African American	137	104	982	567
	36%	28%	36%	21%
Hispanic or Latino of any race(s)	292	260	3,620	2,056
	34%	31%	39%	22%
Native Hawaiian and Other Pacific Islander	*	*	113	54
			32%	15%
Two or More Races	75	70	932	432
	28%	26%	30%	14%
White	864	617	9,783	3,499
	33%	23%	28%	10%
Total	1,473	1,135	16,707	7,365
	33%	25%	30%	13%

* suppressed

Table B-4: 2015 Cohort students who enroll in precollege English and math courses within six years after expected graduation by disability grouping and LRE

	Math precollege course	English precollege course
Learning Disabled (specific learning disability, communication disorders, health impairment)	1,242 35%	990 28%
Intellectual and Developmental Disabilities (autism, intellectual disability, multiple disabilities)	123 28%	70 16%
Sensory Disability (deafness, deaf-blind, visual impairment, hearing impairment)	28 39%	26 36%
80–100% of school day in general education class	1,072 38%	746 26%
40–79% of school day in general education class	359 28%	350 27%
0–39% of school day in general education class	24 13%	19 10%
Total	1,473 33%	1,135 25%

* suppressed

Due to small cell sizes, some categories do not appear in the table.

Table B-5: 2015 Cohort students who enroll at a two-year and four-year postsecondary institution within six years after expected graduation by gender and race/ethnicity

	Special education			Statewide		
	did not enroll	At least 2 but less than 4 years	4 or more years	did not enroll	At least 2 but less than 4 years	4 or more years
Female	2,505	1,276	217	17,535	15,096	13,030
		32%	5%		33%	29%
Male	4,961	2,142	339	22,723	14,577	10,776
		29%	5%		30%	22%
American Indian or Alaska Native	241	*	*	936	485	176
					30%	11%
Asian	208	137	43	1,893	1,926	3,146
		35%	11%		28%	45%
Black or African American	486	300	40	2,069	1,697	876
		36%	5%		37%	19%
Hispanic or Latino of any race(s)	1,560	685	76	8,694	5,511	3,145
		30%	3%		32%	18%
Native Hawaiian and Other Pacific Islander	64	*	*	567	226	114
					25%	13%
Two or More Races	451	206	21	2,175	1,716	1,280
		30%	3%		33%	25%
White	4,455	2,001	365	23,921	18,106	15,068
		29%	5%		32%	26%
Total	7,466	3,418	556	40,258	29,673	23,806
		30%	5%		32%	25%

* suppressed

Highest level of enrollment if multiple enrollments

Two-year enrollments are higher for multilingual learners than statewide, which may be due to basic skills enrollments included in the data. Due to current data limitations, basic skills enrollments are not accurately identifiable.

Figure B-11: Percentage of all students of the 2015 cohort who complete postsecondary (two- and four-year institutions) degrees and certificates by gender

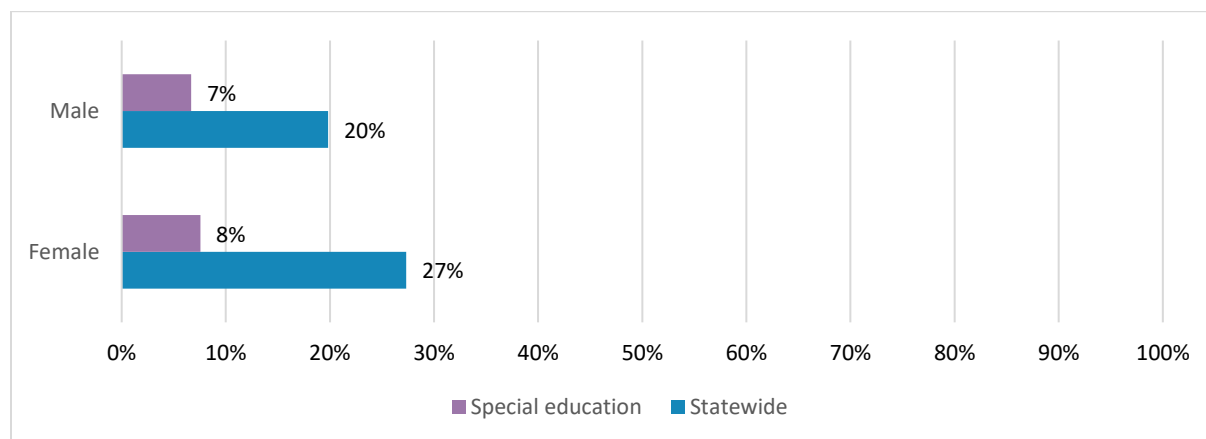


Table B-6: Post-high-school apprenticeship enrollment and completion within six years after expected graduation

	Special education	Statewide
Ever enrolled	64	592
	<1%	<1%
Ever completed	13	120
	<1%	<1%

Figure B-12: Percentage of 2015 cohort students annually employed by gender

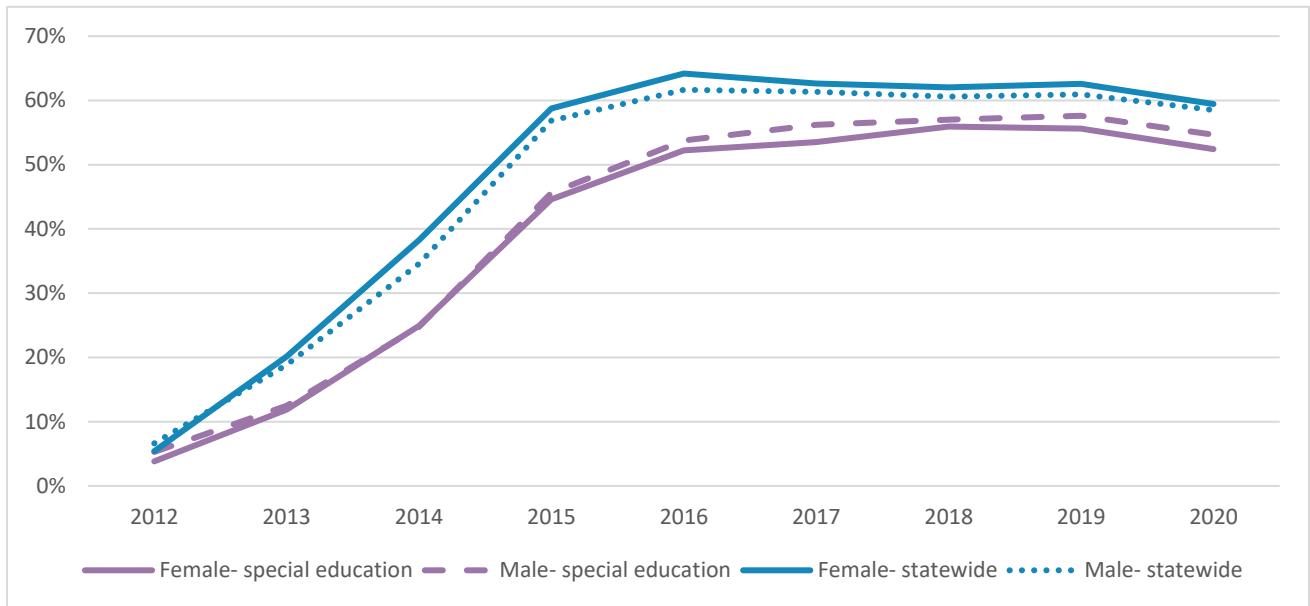


Figure B-13: Percentage of 2015 cohort students annually employed by race/ethnicity

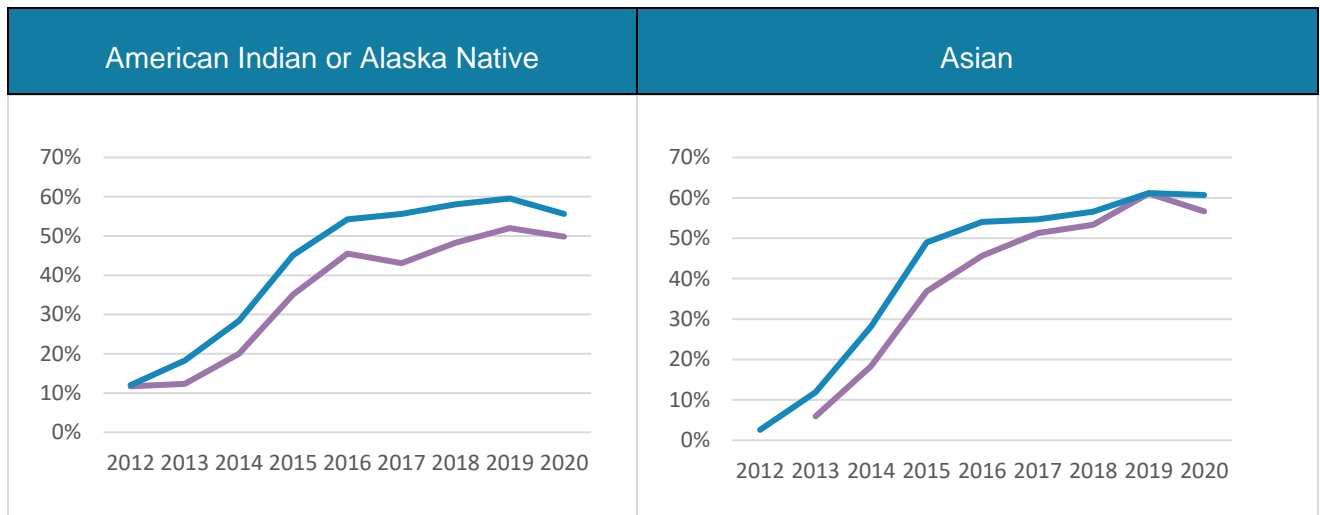




Table B-7: Percentage of 2015 cohort students who are continuously employed during all quarters each year by gender and race/ethnicity

	Special education										Statewide								
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Female	<1%	1%	5%	11%	24%	29%	33%	35%	31%	1%	2%	11%	18%	30%	35%	37%	39%	38%	
Male	<1%	1%	4%	10%	24%	30%	35%	37%	34%	1%	2%	8%	15%	28%	33%	36%	38%	38%	
American Indian or Alaska Native	*	1%	1%	7%	16%	19%	24%	30%	26%	<1%	1%	5%	10%	22%	26%	30%	35%	33%	
Asian	0%	1%	3%	7%	22%	27%	32%	38%	34%	<1%	1%	6%	12%	22%	28%	30%	35%	38%	
Black or African American	*	<1%	2%	8%	21%	26%	30%	33%	27%	<1%	1%	6%	14%	26%	31%	33%	34%	30%	
Hispanic or Latino of any race(s)	1%	1%	5%	12%	28%	33%	38%	39%	37%	1%	2%	8%	17%	32%	38%	41%	42%	40%	
Native Hawaiian and Other Pacific Islander	*	*	1%	4%	22%	20%	23%	29%	20%	*	*	3%	8%	26%	28%	30%	32%	29%	
Two or More Races	<1%	1%	3%	7%	22%	29%	34%	38%	32%	<1%	1%	8%	15%	29%	34%	36%	38%	37%	
White	<1%	2%	5%	11%	24%	30%	34%	36%	33%	1%	2%	11%	17%	30%	34%	36%	38%	38%	
Total	<1%	1%	5%	11%	24%	30%	34%	37%	33%	1%	2%	9%	16%	29%	34%	36%	39%	38%	

* suppressed

Table B-8: Percentage of 2015 cohort students who are continuously employed during all quarters each year, by disability grouping and LRE

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Learning Disabled (specific learning disability, communication disorders, health impairment)	<1%	1%	5%	13%	28%	34%	38%	41%	37%
Intellectual and Developmental Disabilities (autism, intellectual disability, multiple disabilities)	*	1%	2%	3%	7%	11%	16%	21%	17%
Sensory Disability (deafness, deaf-blind, visual impairment, hearing impairment)	*	*	*	12%	20%	27%	30%	33%	32%
80–100% of school day in general education class	<1%	1%	5%	13%	28%	35%	39%	42%	38%
40–79% of school day in general education class	<1%	2%	4%	10%	24%	30%	34%	36%	32%
0–39% of school day in general education class	*	1%	1%	3%	7%	10%	13%	17%	12%
Separate day school facilities	*	*	*	*	19%	16%	18%	18%	19%
Correctional facilities	*	*	*	*	*	*	12%	13%	13%
Total	<1%	1%	5%	11%	24%	30%	34%	37%	33%

* suppressed

Due to small cell sizes, some categories do not appear in the table.

Figure B-14: 2015 Cohort post-high-school competitive employment

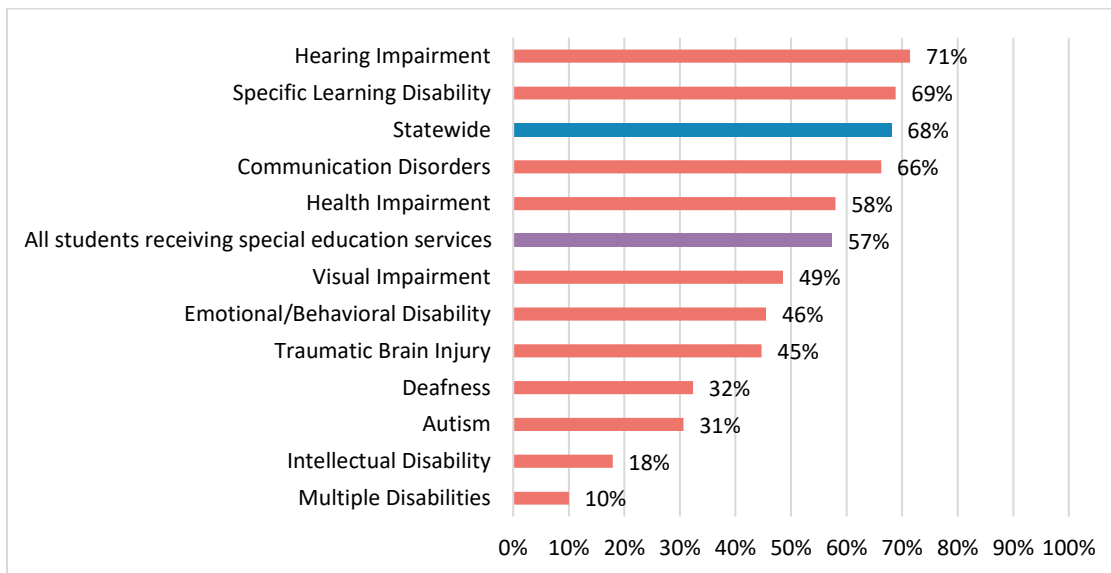


Figure B-15: 2015 Cohort post-high-school engagement

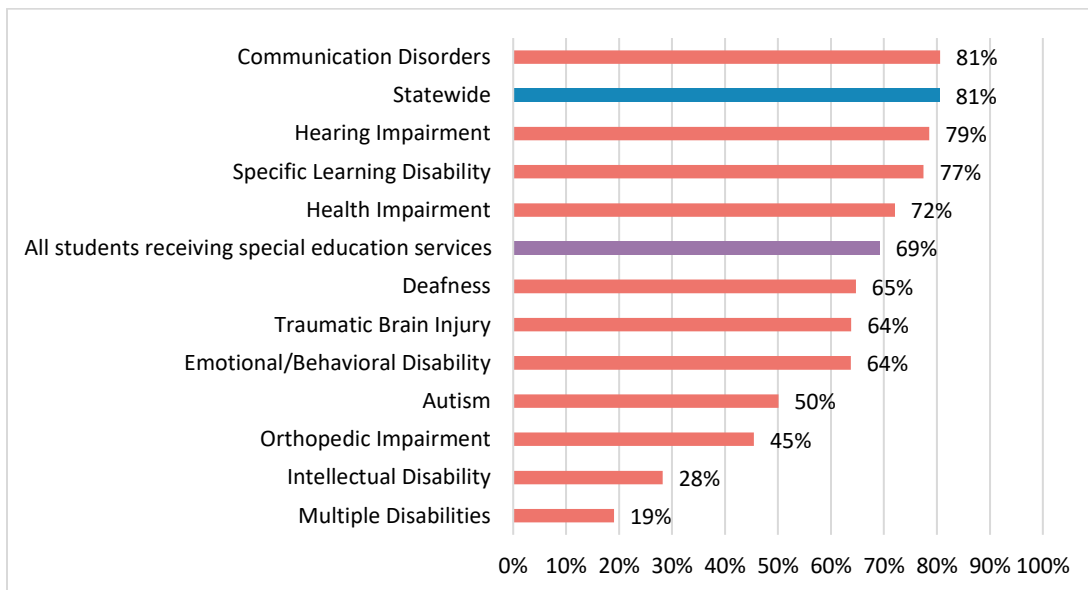


Figure B-16: Annual median earnings of the 2015 student cohort by gender

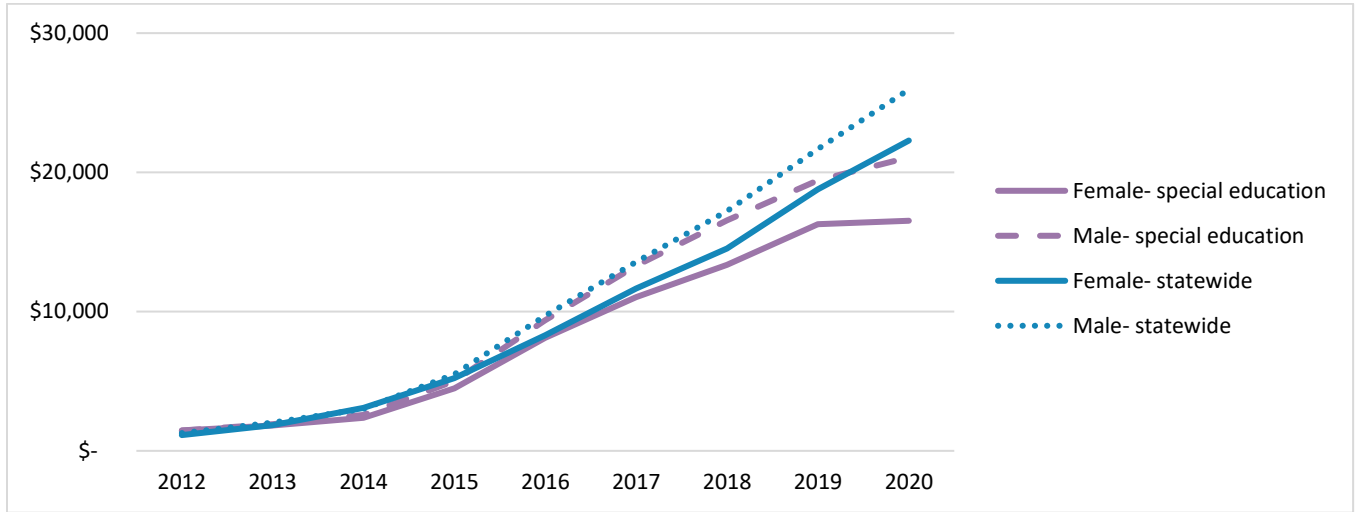
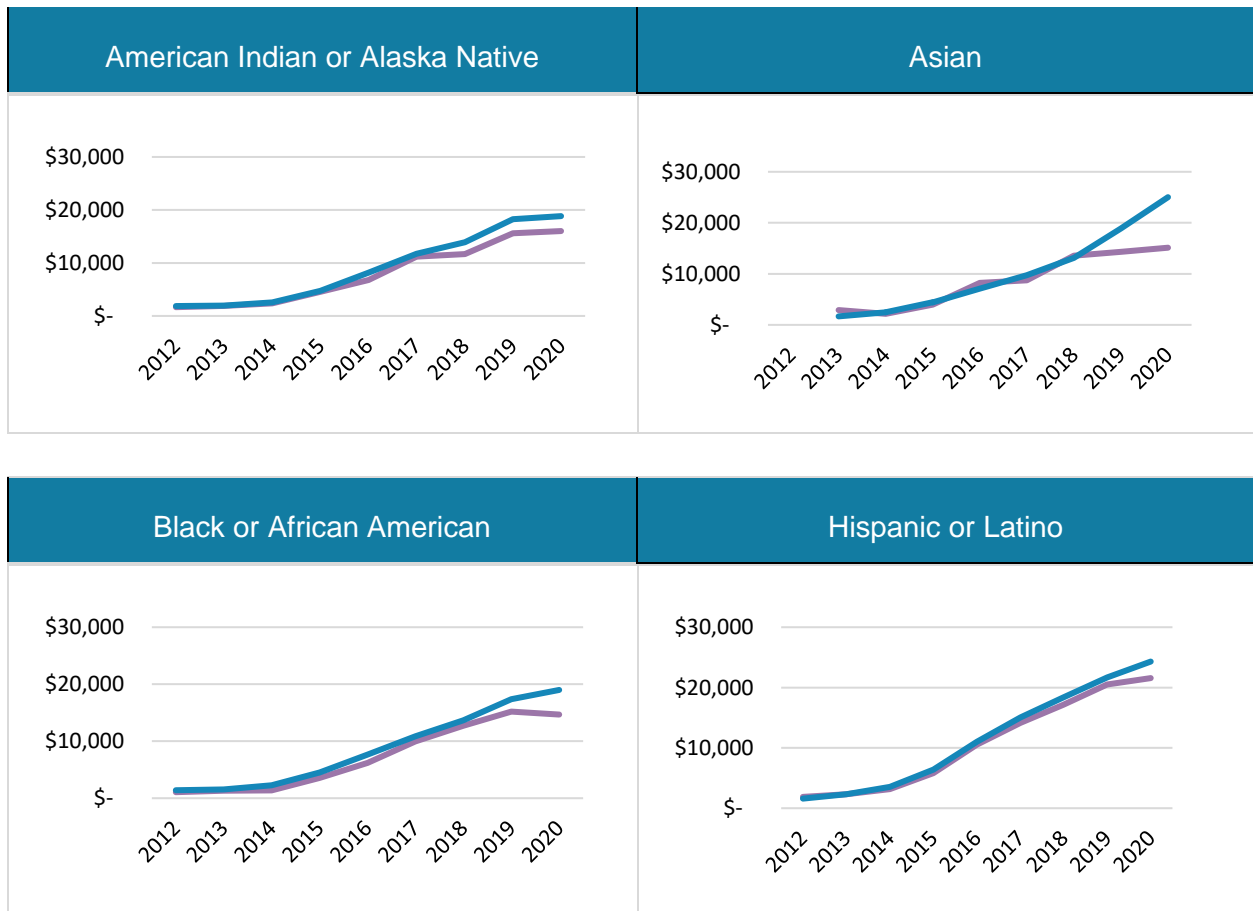
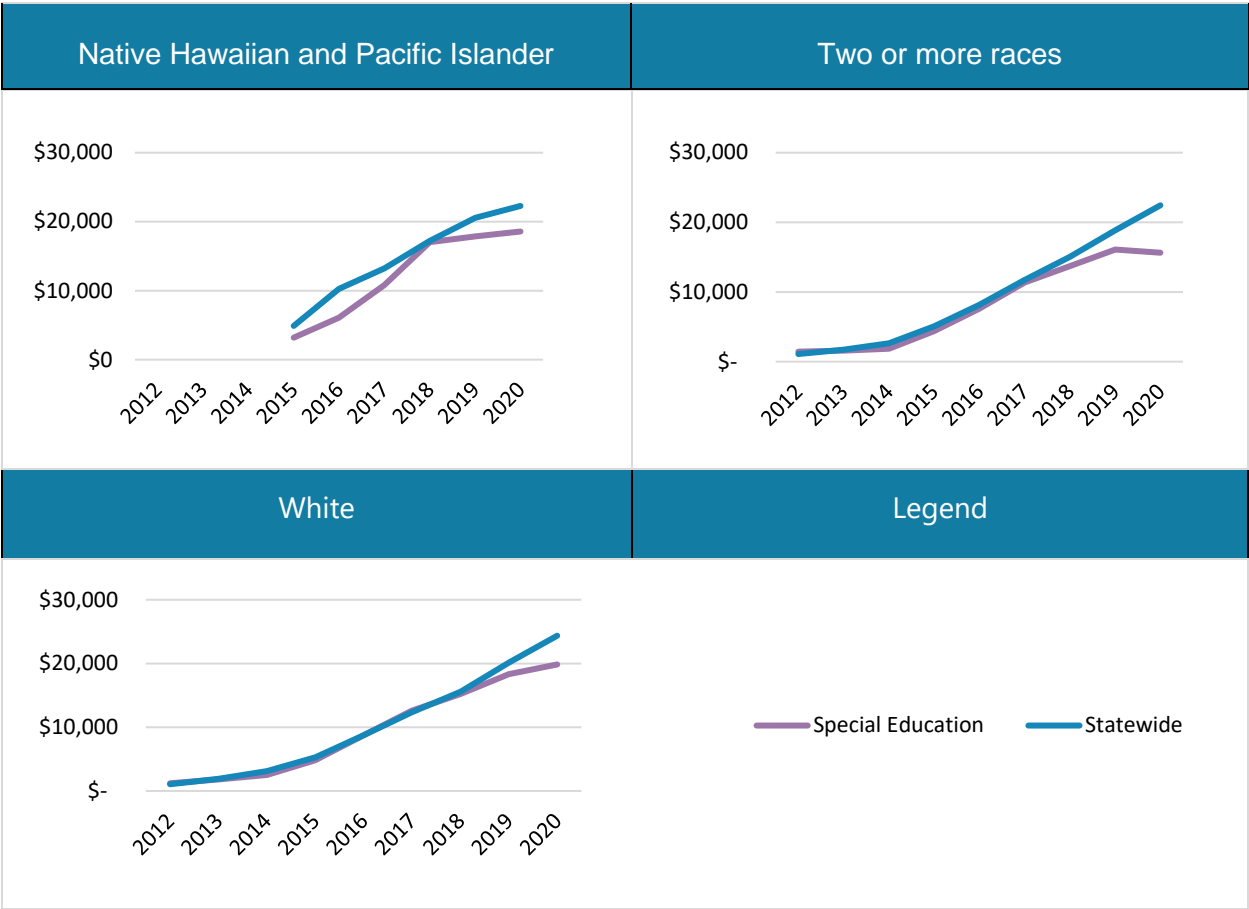


Figure B-17: Annual median earnings of the 2015 student cohort across race/ethnicity groups





Earnings are adjusted to 2020 Consumer Price Index (CPI)

Some years are not displayed for student groups with suppressed data. For smaller student groups, trends are more volatile.

Figure B-18: Annual median hours worked of 2015 cohort students by gender

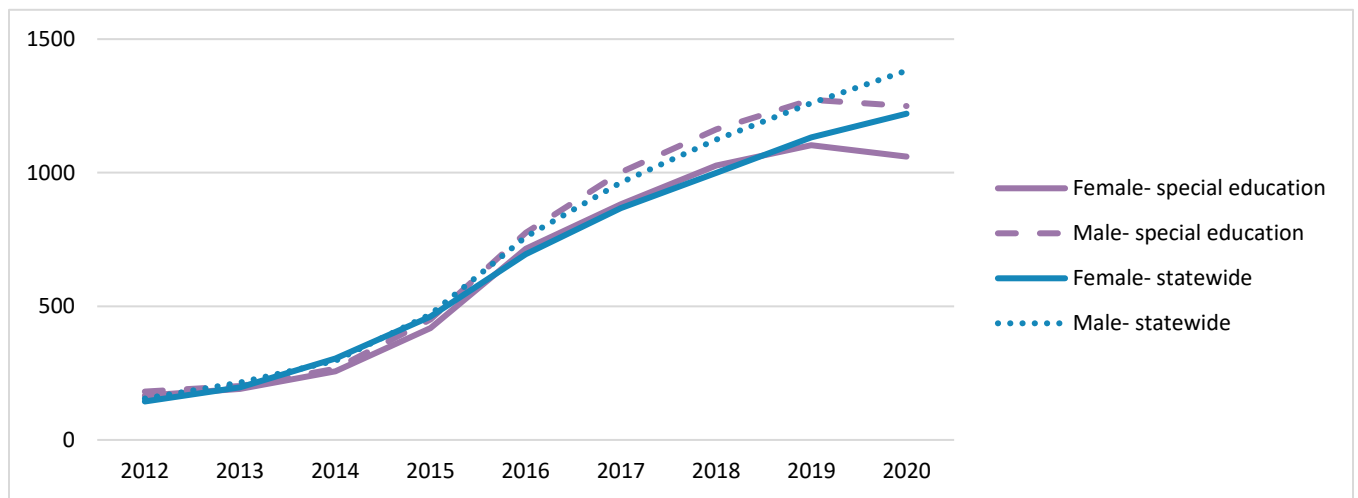


Figure B-19: 2015 Cohort students' competitive employment by gender

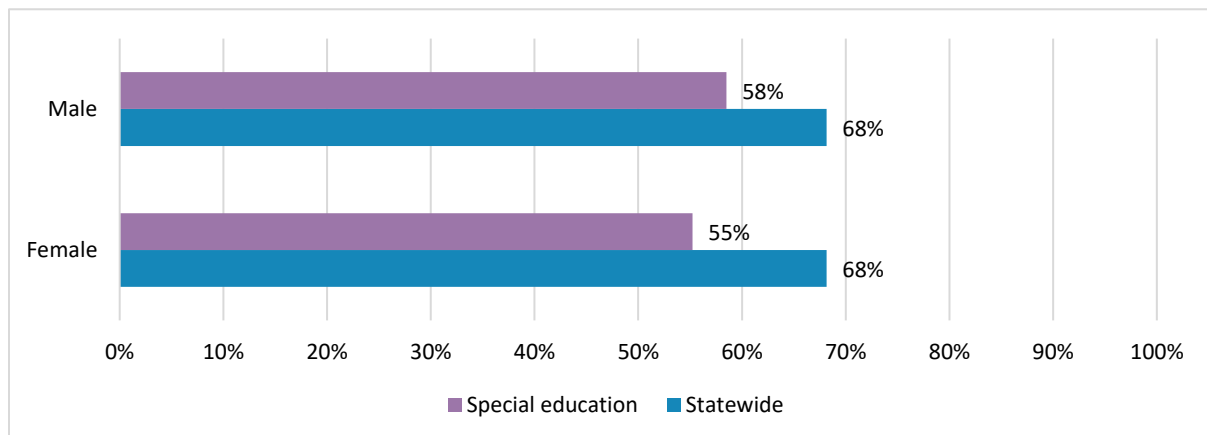


Figure B-20: 2015 Cohort students' competitive employment by race/ethnicity

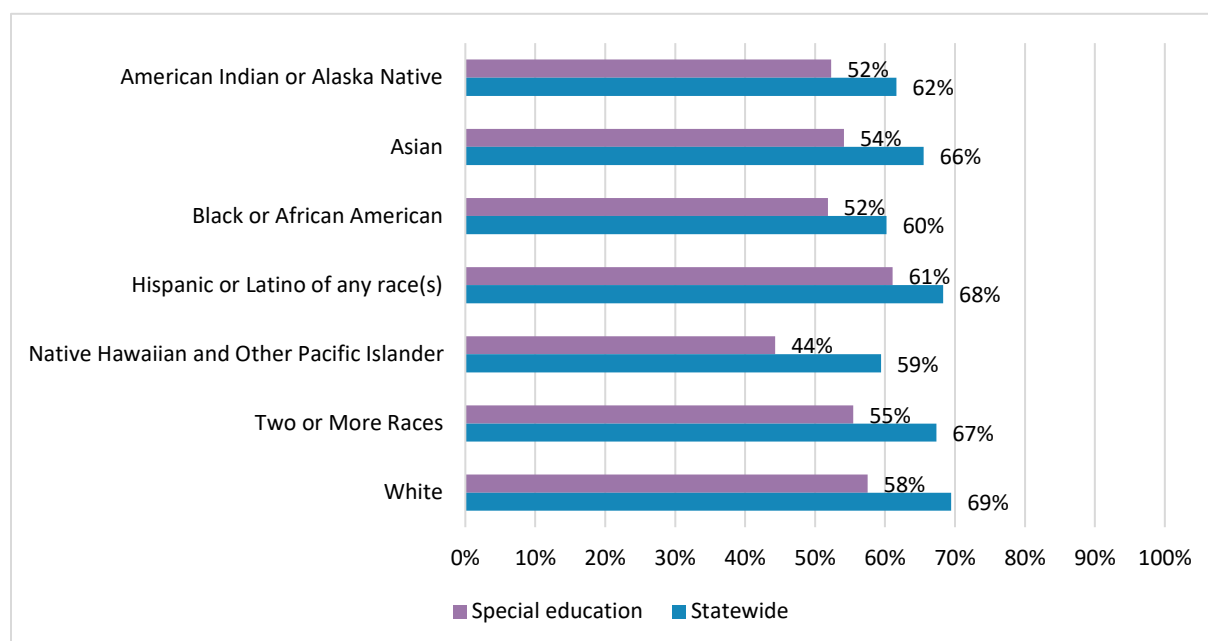
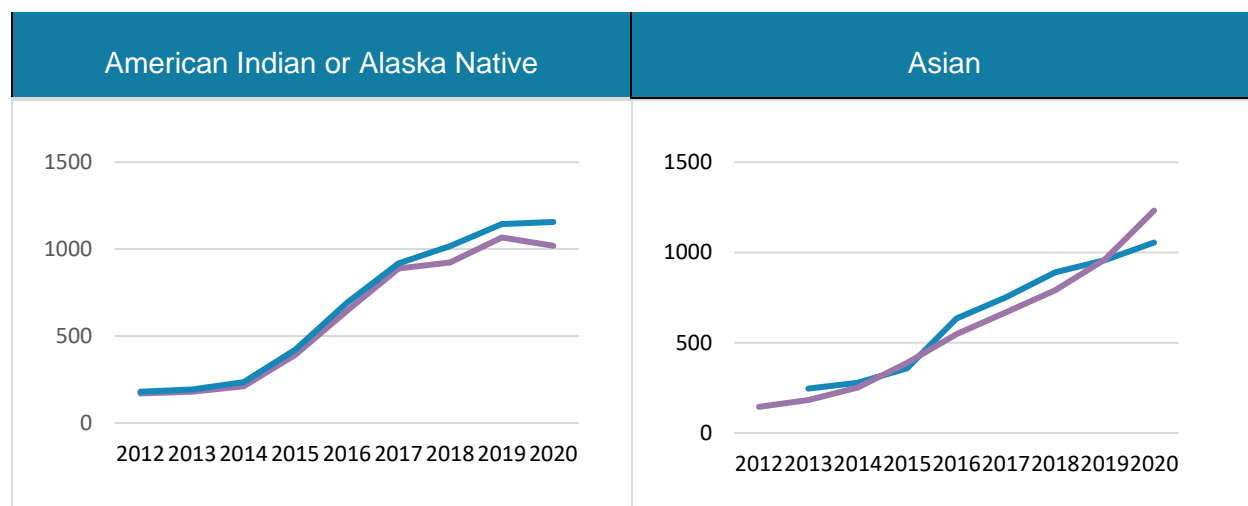
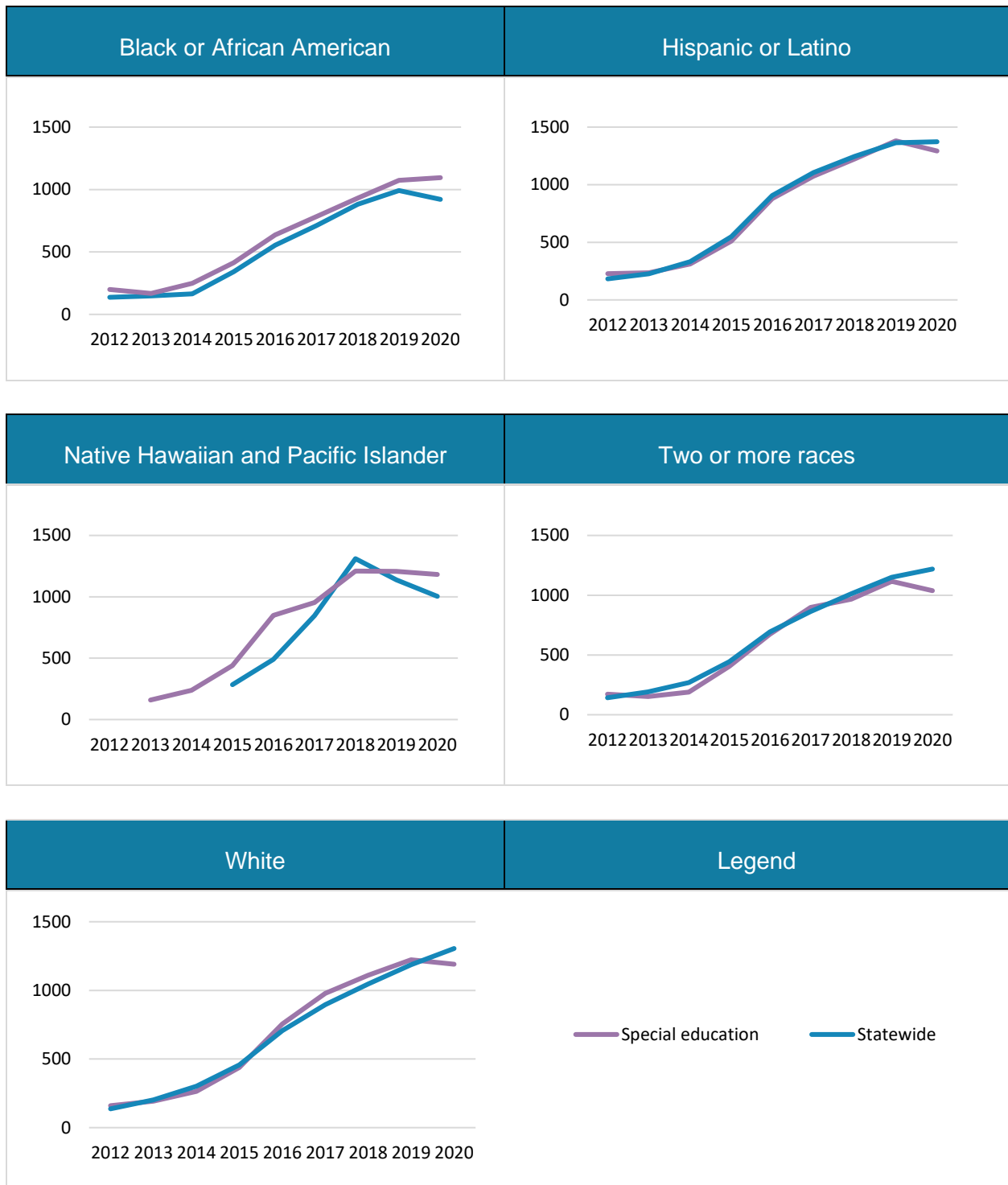


Figure B-21: Annual median work hours by race/ethnicity of 2015 cohort students between 2011 and 2020, special education vs. statewide





Some years are not displayed due to student groups with suppressed data. For smaller student groups, trends are more volatile.

Figure B-22: 2015 Cohort student post-high-school engagement by gender

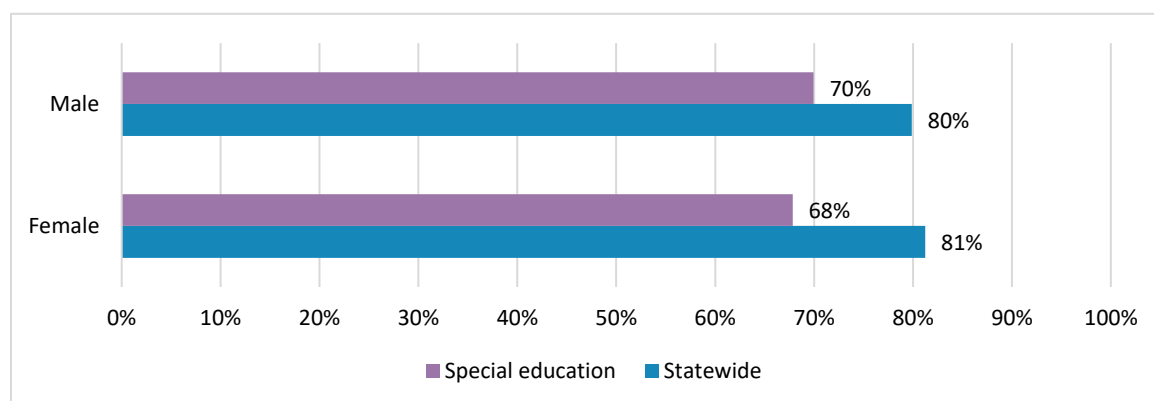
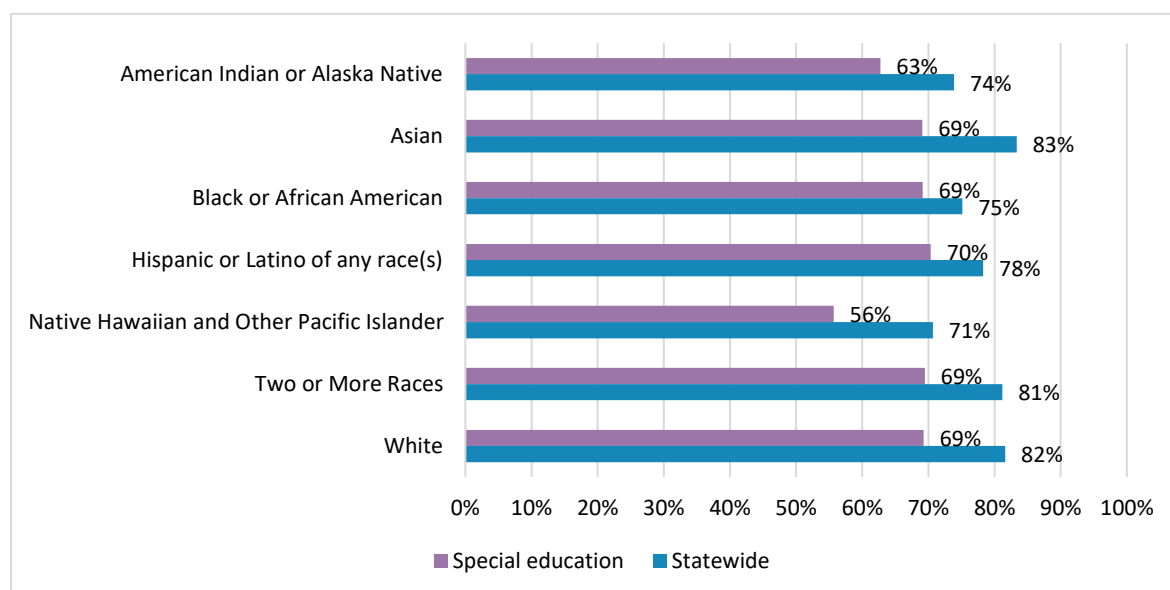


Figure B-23: 2015 Cohort student post-high-school engagement by race/ethnicity



Appendix C: How this report can and cannot address statutory requirements

Revised Code of Washington ([RCW 28A.155.220](#)) directs the ERDC to monitor outcomes for students who received special education services after high school, to the extent that data is available.

(a)(i)	The number of students who, within one year of high school graduation: Enter integrated employment paid at the greater of minimum wage or competitive wage for the type of employment, with access to related employment and health benefits; or	ERDC can provide data on UI covered employment but does not have the data to determine whether employees have benefits.
(a)(ii)	The number of students who, within one year of high school graduation: Enter a postsecondary education or training program focused on leading to integrated employment;	ERDC does not have data to answer, but a data sharing agreement is in place to request in the future.
(b)	The wages and number of hours worked per pay period;	Due to data limitations, ERDC can report wages and hours by quarter, not by pay period.
(c)	The impact of employment on any state and federal benefits for individuals with disabilities;	While social benefits data is available, the ERDC is limited under FERPA to using P20W data for evaluation of educational programs.
(d)	Indicators of the types of settings in which students who previously received transition services primarily reside;	ERDC does not have data to answer.

(e)	Indicators of improved economic status and self-sufficiency;	ERDC can provide additional measures such as continuous employment.
(f)(i)	Data on those students for whom a postsecondary or integrated employment outcome does not occur within one year of high school graduation, including: Information on the reasons that the desired outcome has not occurred;	ERDC does not have data to answer.
(f)(ii)	Data on those students for whom a postsecondary or integrated employment outcome does not occur within one year of high school graduation, including: The number of months the student has not achieved the desired outcome;	Data is not detailed enough to provide months, but it is possible to provide quarters or years.
(f)(iii)	Data on those students for whom a postsecondary or integrated employment outcome does not occur within one year of high school graduation, including: The efforts made to ensure the student achieves the desired outcome.	ERDC does not have data to answer.