



What's Happening

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School mobility, dropout, and graduation rates across student disability categories in Utah

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Summary

Utah students classified with disabilities had poorer outcomes than their general education classmates. They had higher rates of mobility, retention in grade 12, and dropout, as well as lower rates of high school graduation. These outcomes varied by the 13 federally defined disability categories, highlighting the differences among students with disabilities. Identifying the outcomes for different subgroups will allow school officials to investigate further and design programs to support the most vulnerable groups.

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Summary

Research has established that students with disabilities are an academically vulnerable group, more likely to drop out and less likely to graduate than their general education classmates. Although the literature recognizes that these students are not a homogeneous group, it offers limited information about how outcomes vary across the 13 disability categories identified by the Individuals with Disabilities Education Act of 2004 (IDEA).

To understand which students are at greatest risk of leaving school without a diploma and who are thus in need of additional interventions, REL West examined the rates at which Utah students with different types of disabilities moved to other schools, dropped out, or graduated compared with all students with disabilities and with general education students.

The Utah State Office of Education provided two datasets: single-year data on the full population of more than 250,000 general education students and nearly 35,000 students with disabilities enrolled in grades 6–12 in Utah public schools in 2010/11 and longitudinal data collected on the four-year 2011 cohort of more than 41,000 students statewide, including nearly 4,000 students with disabilities, who started grade 9 in 2007/08.

The study team used these datasets to identify the demographic and school characteristics of students with disabilities in grades 6–12 during school year 2010/11. The study team also identified the rate and types of school exits other than by promotion (changing schools or dropping out) for these students, including whether the rates differed by disability category, plus the dropout and graduation rates for all students with disabilities and for students with different types of disabilities in the 2011 cohort.

The 12 percent of Utah students in grades 6–12 classified with a disability showed higher percentages of students who were male, of a racial/ethnic minority, or classified as low socioeconomic status compared with the general education population. These students were classified according to the 13 federally defined disability categories: autism, deaf-blindness, deafness, emotional disturbance, hearing impairment, mental retardation/intellectual disability, multiple disabilities, orthopedic impairment, other health impairment, specific learning disability, speech or language impairment, traumatic brain injury, and visual impairment.

Students in one disability category (specific learning disability) accounted for 60 percent of students with disabilities, while each of the other categories accounted for less than 10 percent. Nearly all students with a disability were enrolled in a regular school, and about half of them spent at least 80 percent of the school day in classes with general education students; however, there were some differences by disability category.

As a group, Utah students with disabilities had poorer outcomes than their general education classmates, but outcomes varied by disability category, highlighting the differences among students with disabilities. For example, students with an emotional disturbance had the weakest outcomes overall. Compared with students in all other disability categories, they had the highest rates of leaving their school or dropping out. After four years of high school, more than 50 percent either dropped out or remained in school without graduating. Students with multiple disabilities, intellectual disability, traumatic brain injury, and autism also had four-year graduation rates below 50 percent.

Students in some disability categories had lower dropout rates than general education students or all students with disabilities but still had low graduation rates. Students with autism, multiple disabilities, or intellectual disability had the highest rates of retention in grade 12. Under IDEA, some students with disabilities may remain in high school until age 22, which may, in combination with academic challenges, explain these higher retention rates.

Students with hearing impairment/deafness or speech or language impairment generally had the strongest outcomes, with four-year graduation rates higher than other students with disabilities and roughly on par with general education students. In fact, lower percentages of students with speech or language impairment than general education students changed schools or dropped out in 2010/11.

By disaggregating student outcomes by disability category, this study provides educators and policymakers with information on which disability categories include students who are most in need of interventions to keep them in school and on track to receive a high school diploma.

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Why this study?

Under the Individuals with Disabilities Education Act of 2004 (IDEA), more than 5.7 million students ages 6–21 in the United States have been identified as having a disability and receive special education services to address their educational needs (Technical Assistance and Dissemination Network, 2011). Despite these services, students with disabilities are an academically vulnerable group, more likely to drop out and less likely to graduate than their general education classmates.

As a group, students with disabilities drop out of school at higher rates than students in the general education population (Wagner, Newman, Cameto, Garza, & Levine, 2005). For students nationwide, the 2009/10 single-year dropout rate was 3 percent (Stillwell & Sable, 2013). While no comparable national single-year rate was available for students with disabilities, the National Dropout Prevention Center for Students with Disabilities (2012b) reported a mean rate of 5 percent from data from 47 states. Similarly, while there is no official national four-year cohort dropout rate (see box 1 for definition of key terms), states that report these rates have found them to be consistently higher for students with disabilities than for general student populations. For example, in Utah, for school year 2010/11, students with disabilities had a four-year adjusted cohort dropout rate of 26 percent compared with 21 percent for all students (Utah State Office of Education, 2011c).

As a group, students with disabilities drop out of school at higher rates than students in the general education population

Students with disabilities also graduate at lower rates than general education students (Gwynne, Lesnick, Hart, & Allensworth, 2009). The National Center for Education Statistics reported a 2009/10 median state average freshman graduation rate of 79 percent for the overall student population (Stillwell & Sable, 2013), whereas the median state four-year adjusted cohort graduation rate for students with disabilities across the 20 reporting states was 57 percent (National Dropout Prevention Center for Students with Disabilities, 2012a).

The prospects for students who leave school without a diploma are bleak by almost any standard. Students who fail to graduate from high school are more likely to experience unemployment, underemployment, poverty, health problems, and incarceration, though studies do not establish a causal link (Legters & Balfanz, 2010; Rumberger, 2011). Nevertheless, for students with disabilities who already face physical, intellectual, emotional, or behavioral challenges, evidence indicates that the lack of a high school diploma may compound their difficulties (Thurlow & Johnson, 2011).

Examining the outcomes of students with disabilities within the first two years of their leaving high school, the National Longitudinal Transitions Study-2 showed that students who had dropped out were less likely than students who had graduated to have enrolled in college or career training and more likely to have been arrested (Wagner et al., 2005). Studies also reported that, for students with disabilities, dropping out was associated with an increased likelihood of extended financial and social dependence on family members and a decreased likelihood of adult self-sufficiency (Heal & Rusch, 1995; Landmark, Ju, & Zhang, 2010).

Utah, like other states, seeks to reduce its overall dropout rate and the dropout rate of students with disabilities, in particular. To that end, the Utah State Office of Education is interested in better understanding the dropout rate of students with disabilities in

Box 1. Key terms

Average freshman graduation rate. An estimate of the percentage of an entering freshman class that will graduate four years later. The total number of diploma recipients is divided by an estimate of the corresponding incoming freshman class size (which is calculated by taking the average of the enrollment over three years, grade 8 for one year, grade 9 for the next year, and grade 10 for the year after).

Cohort. From the beginning of grade 9 (or the earliest high school grade), students who are entering that grade for the first time form a cohort that is “adjusted” by adding any students who subsequently transfer into the cohort and subtracting any students who subsequently transfer out of a school system. *The Utah 2011 cohort* includes all Utah public school students who started grade 9 in 2007/08, adding students who transferred to Utah schools and were expected to graduate in 2011, and subtracting students who subsequently transferred out of Utah schools. There were 41,496 students in the 2011 cohort, 3,967, or 9.6 percent, of whom were students with disabilities.

Continuing students. Students who remain enrolled in school after their cohort has graduated. They include students with disabilities (some of whom are eligible to be continuously enrolled until age 22) and students who transferred to higher education or the Utah College of Applied Technology without receiving a high school diploma.

Disability categories. The 13 federally defined categories in the Individuals with Disabilities Education Act of 2004 (IDEA): autism, deaf-blindness, deafness, emotional disturbance, hearing impairment, mental retardation/intellectual disability, multiple disabilities, orthopedic impairment, other health impairment, specific learning disability, speech or language impairment, traumatic brain injury, and visual impairment. In Utah and for this analysis, the categories deafness and hearing impairment are reported as one group. (See box 2 for definitions of each category.)

Dropouts. Students who have officially dropped out of school, those who have withdrawn but not requested a transcript for reenrollment elsewhere, those who have left school for unknown reasons, and those who have been expelled from school without receiving a high school diploma.

Four-year adjusted cohort dropout rate. The number of students who drop out during the four years of analysis divided by the number of students who form the adjusted cohort for the graduating class. See *cohort*.

Four-year adjusted cohort graduation rate. The number of students who graduate in four years with a basic high school diploma or an adult education secondary diploma divided by the number of students who form the adjusted cohort for the graduating class. See *cohort*.

General education students. Students who neither had an individualized education program on record nor were eligible for special education services in the Utah public schools.

Graduates. Students who have earned the state’s basic high school diploma or an adult education secondary diploma based on completion of class-time requirements.

Mobility rate. Percentage of students in a class year who change schools within the Utah public school system.

(continued)

Box 1. Key terms *(continued)*

Other completers. Students who have earned a General Educational Development (GED) certificate while in high school, a Utah high school diploma (earned by passing the five GED tests in an adult education program), or a certificate of completion; students with disabilities who earned a high school diploma through participation in the Utah Alternate Assessment, the state’s criterion-referenced test individualized for students with significant cognitive disabilities; or students with disabilities who aged out of special education at age 22.

School characteristics. School and county of enrollment, school type, and percentage of the day that students with disabilities spent in general education classes.

School exits other than by promotion. Changing schools within the Utah school system (reported as the mobility rate), transferring out of the Utah system, and dropping out (reported as the single-year dropout rate for 2010/11).

Single-year dropout rate. The percentage of students who dropped out of school in a single year, regardless of their cohort.

Student demographic characteristics. Gender, race/ethnicity, English language learner status, and economic status based on eligibility for the free or reduced-price lunch program.

Students with disabilities. Students with an individualized education program on record and eligible for special education services in the Utah public schools.

grades 6–12, a subgroup of students with a documented high risk of dropping out (Thurlow & Johnson, 2011).

Of particular interest are the four-year dropout and graduation rates for each of the 13 disability categories defined under IDEA (box 2). The state is also interested in the extent to which students with disabilities—as a group and by category—exit school for any reason other than being promoted from one grade to the next, including changing schools, within the course of a given school year. This type of student mobility has been associated with negative academic consequences, including dropping out (Gasper, DeLuca, & Estacion, 2012; Reynolds, Chen, & Herbers, 2009; Rumberger, Larson, Ream, & Palardy, 1999).

Because students with disabilities are not a homogeneous group in terms of capabilities and needs, designing and delivering interventions to reduce dropout, and knowing who is or is not likely to need such interventions, requires understanding more about the differences among students with different types of disability. The research literature on dropout and graduation rates is limited on how outcomes for students with disabilities compare with outcomes for general education students and how outcomes vary by the different disability categories. By examining this variation within the population of students with disabilities, this study can inform decisions about which students with disabilities most need interventions; suggest refinements to state and district data systems to provide more detail about dropout reasons and longitudinal tracking of students retained in grade 12, for example; and suggest areas in need of further research on lowering dropout rates and raising graduation rates.

Because students with disabilities are not a homogeneous group in terms of capabilities and needs, designing and delivering interventions to reduce dropout requires understanding more about the differences among students with different types of disability

Box 2. Categories of disability under the Individuals with Disabilities Education Act of 2004

The Individuals with Disabilities Education Act of 2004 defines the following 13 categories of student disability:

1. **Autism** means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age 3, which adversely affects a child'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.
2. **Deaf-blindness** means concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness.
3. **Deafness** means a hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, that adversely affects a child's educational performance.
4. **Emotional disturbance** means a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance: A) An inability to learn that cannot be explained by intellectual, sensory, or health factors. B) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers. C) Inappropriate types of behavior or feelings under normal circumstances. D) A general pervasive mood of unhappiness or depression. E) A tendency to develop physical symptoms or fears associated with personal or school problems.
5. **Hearing impairment** means an impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance but that is not included under the definition of deafness in this section.
6. **Mental retardation/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 child's educational performance.
7. **Multiple disabilities** means concomitant impairments (such as mental retardation-blindness or mental retardation-orthopedic impairment), the combination of which causes such severe educational needs that they cannot be accommodated in special education programs solely for one of the impairments. Multiple disabilities does not include deaf-blindness.
8. **Orthopedic impairment** means a severe orthopedic impairment that adversely affects a child's educational performance. The term includes impairments caused by a congenital anomaly, impairments caused by disease (for example, poliomyelitis and bone tuberculosis), and impairments from other causes (for example, cerebral palsy, amputations, and fractures or burns that cause contractures).
9. **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 child's educational performance.

(continued)

Box 2. Categories of disability under the Individuals with Disabilities Education Act of 2004 *(continued)*

10. **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 do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.
11. **Speech or language impairment** means a communication disorder, such as stuttering, impaired articulation, a language impairment, or a voice impairment, that adversely affects a child's educational performance.
12. **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 child'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.
13. **Visual impairment** means an impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness.

Note: This study combines the categories deafness and hearing impairment, as hearing impairment/deafness is how these categories are reported in Utah.

Source: U.S. Department of Education, 2011.

What the study examined

The study addressed three questions about students with disabilities in Utah public schools:

- What were the demographic and school characteristics of students with disabilities in grades 6–12 during school year 2010/11?
- What were the rate and types of school exits other than by promotion (school transfer, dropout) for students with disabilities in grades 6–12 during school year 2010/11? Did they vary by disability category?
- What were the four-year cohort dropout and graduation rates for students with disabilities in the 2011 cohort? Did the rates vary by disability category?

The description of demographic and school characteristics highlights the distribution of students across disability categories. School exits other than by promotion, the 2010/11 single-year dropout rate, and the mobility rate (percentage of students who changed schools within the Utah public school system) are given for general education students and for students with disabilities, with attention to variation by disability category. Finally, the Utah 2011 cohort data show the four-year cohort dropout and graduation rates of students with disabilities, compared with their general education classmates and then for each disability category. (For data sources and methodology, see box 3 and appendix B.)

By disaggregating school mobility rates, single-year dropout rates, and the four-year longitudinal cohort dropout and graduation rates according to disability categories this study

By disaggregating school mobility rates, single-year dropout rates, and the four-year cohort dropout and graduation rates by disability categories this study provides educators with information about which disability categories of students are at the greatest risk of leaving school without a diploma

Box 3. Data and methods

Study data were collected from two secondary statewide administrative data sources:

- **Enrollment data for grade 6–12 students for school year 2010/11 (Utah State Office of Education, 2011a).** This extract included information on student and school characteristics, enrollment records, exit dates, and reasons for exiting for the full population of more than 250,000 general education students and nearly 35,000 students with disabilities enrolled in Utah public schools in grades 6–12 for school year 2010/11. For students with disabilities, the data were complemented by information from the Self-Contained and Resource Attendance Management database, which contains data on student disability categories and educational environments, including school types and the percentage of the day spent in general education classes.
- **High school completion outcomes of the 2011 cohort (Utah State Office of Education, 2011b).** This data extract included the disability status, student disability category, and the four-year dropout and graduation outcomes for the more than 41,000 students statewide that constituted the 2011 cohort, including nearly 4,000 students with disabilities. Following federal reporting standards for graduation and dropout rates, the 2011 cohort is defined as all students who started grade 9 for the first time in 2007/08, adding students who subsequently transferred into the cohort, and subtracting students who subsequently transferred out.

As a group, Utah students with disabilities had poorer dropout and graduation outcomes than their general education classmates

The researchers used a unique student state identification number to link all data sources.

This study describes the state’s entire grade 6–12 public school population, as well as the entire 2011 cohort, including all students with disabilities in those populations. Because the populations of analysis are not a sample of larger populations, tests of statistical significance were not conducted. No statistical inference is implied or needed. To allow readers to make comparisons with other analyses, counts of students in each category analyzed are reported in appendix C. Unless specified, the percentages reported are computed from nonmissing values. Following Utah State Office of Education reporting conventions, cell sizes smaller than 10 were masked.

See appendix B for further details on methodology.

provides educators and policymakers with information about which disability categories of students are at the greatest risk of leaving school without a diploma.

What the study found

As a group, Utah students with disabilities had poorer dropout and graduation outcomes than their general education classmates. Specifically, they had higher dropout rates, higher mobility rates during the school year, higher rates of retention in grade 12, and lower graduation rates during the standard four-year time frame.

Examining the dropout and graduation outcomes by the 13 disability categories highlights the heterogeneity among students with disabilities and provides a more detailed understanding of which groups of students are most likely to leave school without a diploma and, thus, to need additional interventions to stay in school:

- Students with a specific learning disability, by far the largest group of students with disabilities in the state (60 percent), graduated at a lower rate than their general education classmates.

- Students with emotional disturbance, multiple disabilities, intellectual disability, traumatic brain injury, or autism were at greatest risk of failing to graduate during the standard four-year high school time frame, with graduation rates lower than 50 percent.
- Students with emotional disturbance generally had the poorest outcomes. During school year 2010/11, they had the highest rate of changing schools within the Utah public school system, transferring out of the system, or dropping out. After four years of high school the most frequent final high school outcome for these students in the 2011 cohort was dropping out.
- Students with autism, multiple disabilities, or intellectual disability had dropout rates lower than those of general education students and students with disabilities as a group.
- Among students with intellectual disability, the percentage of those retained after four years was nearly as high as the percentage of those who graduated.
- Students with multiple disabilities had the smallest percentage of graduates among disability categories, with a four-year graduation rate of 16.3 percent. The most common four-year outcome for this group was to remain in school as continuing students.
- Students with hearing impairment/deafness or speech or language impairment had four-year graduation rates roughly on par with the graduation rate for general education students. In fact, students with speech or language impairment had lower rates of changing schools or dropping out in 2010/11 than general education students.

Examining the dropout and graduation outcomes by the 13 disability categories highlights the heterogeneity among students with disabilities

These findings are discussed in detail below.

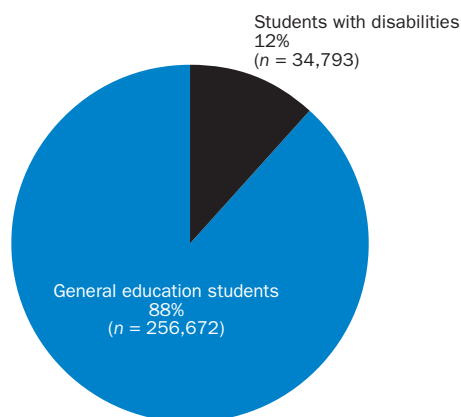
Utah students with disabilities in grades 6–12 in 2010/11

Most (60 percent) Utah students with disabilities are classified as having a specific learning disability. Demographically, students with disabilities are more likely to be male, a racial/ethnic minority, an English language learner, and classified as low socioeconomic status. About 95 percent attend regular schools. Around a third of students classified with multiple disabilities, intellectual disability, or traumatic brain injury were enrolled in grade 12, which they can repeat until graduation or age 22. More than 80 percent of students with multiple disabilities or intellectual disability were over-age in grade 12.

Twelve percent of students in grades 6–12 were classified with a disability. Nearly 12 percent of the students enrolled in grades 6–12 in school year 2010/11 had disabilities and were eligible to receive special education services. That year 291,465 students were enrolled in Utah public schools and 34,793 (11.9 percent) were classified as having disabilities (figure 1).

The percentages of students who were male, a racial/ethnic minority, an English language learner, or classified as low socioeconomic status was higher for students with disabilities than for their general education classmates. Nationally, students who receive special education services are disproportionately male, a racial/ethnic minority, and classified as low socioeconomic status (Swanson, 2008). Utah students with disabilities showed a similar pattern (see figure A1 in appendix A for more detail).

Figure 1. About 12 percent of grade 6–12 students enrolled in Utah public schools were classified as having disabilities, 2010/11



Source: Authors' analysis based on Utah State Office of Education (2011a).

Most (60 percent) Utah students with disabilities are classified as having a specific learning disability

The majority of students with disabilities were classified with a specific learning disability. Students with disabilities were classified into 1 of 13 federally defined disability categories under IDEA (see box 2). The majority (60.1 percent) of Utah students with disabilities in grades 6–12 were classified as having a specific learning disability (table 1). The next most common classifications were other health impairment, intellectual disability, speech or language impairment, autism, emotional disturbance, and multiple disabilities,

Table 1. Number and percentage of grade 6–12 students classified with disabilities in Utah and nationally, by disability category, 2010/11

Disability category ^a	Utah		National IDEA estimates for children ages 11–21 (%)
	Number of students	Percentage of students	
Specific learning disability	20,029	60.1	50.1
Other health impairment	3,244	9.7	14.2
Intellectual disability	2,366	7.1	8.9
Speech or language impairment	2,238	6.7	6.8
Autism	2,033	6.1	6.2
Emotional disturbance	1,621	4.9	8.1
Multiple disabilities	1,070	3.2	2.4
Hearing impairment/deafness	255	0.8	1.2
Traumatic brain injury	211	0.6	0.5
Visual impairment	120	0.4	0.4
Orthopedic impairment	105	0.3	0.9
Deaf-blindness	20	0.1	<0.1
Total	33,312	100	100

IDEA is Individuals with Disabilities Education Act of 2004.

Note: Self-Contained and Resource Attendance Management information, including disability category, was available for 33,312 students eligible to receive special education services as of October 1, 2010.

a. These disability categories are defined in the IDEA (see box 2). The disability category hearing impairment/deafness, which is how these categories are reported in Utah, combines the two IDEA categories hearing impairment and deafness.

Source: Authors' analysis based on data from Utah State Office of Education (2011a) and Technical Assistance and Dissemination Network (2011).

each accounting for between 3 percent and 10 percent of students with disabilities. The remaining disability categories (hearing impairment/deafness, traumatic brain injury, visual impairment, orthopedic impairment, and deaf-blindness) were less common, each accounting for less than 1 percent of students with disabilities.

This distribution of Utah students with disabilities across the IDEA disability categories is somewhat different from the nationwide distribution estimated by the national IDEA data for students ages 11–21 (Technical Assistance and Dissemination Network, n.d.). Although the grade range for the IDEA data does not reflect exactly the grade range of this study, there were a few notable differences between Utah and the national estimates. Utah had a higher percentage of students with a specific learning disability (60.1 percent) than reported nationwide (50.1 percent), but a lower percentage of students classified with an other health impairment (9.7 percent in Utah compared with 14.2 percent nationwide), and the percentage of students with emotional disturbance in Utah (4.9 percent) was only about three-fifths the nationwide estimate (8.1 percent). For all other disability categories, Utah percentages were at most a couple tenths of a percentage point from the nationwide estimates.

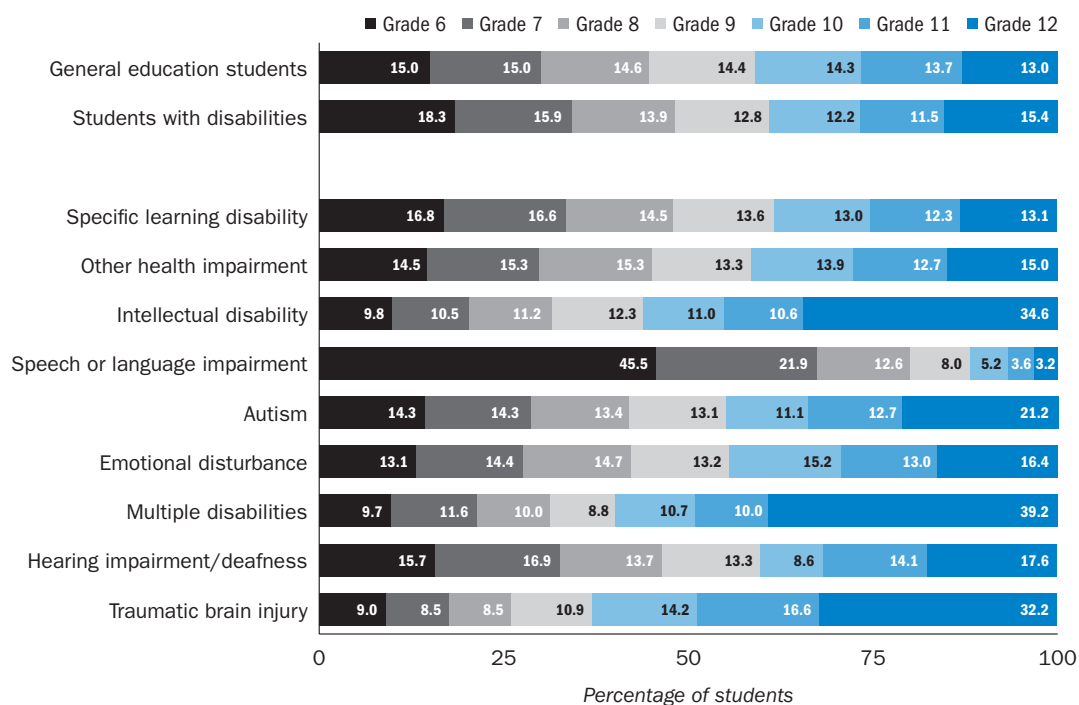
About 95 percent of students with disabilities were enrolled in regular schools. To the extent possible, IDEA advocates educating students with disabilities in classes with their general education classmates because inclusion is associated with better outcomes for them (see box A1 in appendix A). In Utah nearly all students with disabilities (94.8 percent) were enrolled in regular schools, and nearly half (48.6 percent) spent at least 80 percent of their school day in classes with their general education classmates. (Appendix A presents detailed information about the types of schools they attended and the amount of time they received instruction in general education classes by disability category.)

While the proportion of general education students decreased from grade 6 to grade 12, the proportion of students with disabilities was higher in grade 12 than in grade 11. The proportion of students enrolled in grade 12 was higher for students with disabilities (15.4 percent) than for general education students (13.0 percent); the same was true for grade 6 (18.3 percent compared with 15.0 percent; figure 2). In contrast to the distribution of general education students across grades, the proportion of students with disabilities was higher in grade 12 (15.4 percent) than in grade 11 (11.5 percent), suggesting that some students, after being promoted from grade 11, were retained in grade 12 without dropping out or graduating. Under IDEA, students with disabilities may be eligible for ongoing special education services and remain in school until age 22, which may contribute to the higher proportion of grade 12 students.

Around a third of students in grades 6–12 with multiple disabilities, intellectual disability, or traumatic brain injury were enrolled in grade 12. In the disability categories of multiple disabilities, intellectual disability, traumatic brain injury, and autism a greater proportion of students in grades 6–12 were enrolled in grade 12 than in any other grade. Specifically, 39.2 percent of students with multiple disabilities, 34.6 percent of those with intellectual disability, 32.2 percent of those with traumatic brain injury, and 21.2 percent of those with autism were enrolled in grade 12, while in the earlier grades the percentages fluctuated between 9 percent and 17 percent. For these disability categories the distribution suggests that a large number of students were retained in grade 12.

For the disability categories of multiple disabilities, intellectual disability, traumatic brain injury, and autism the distribution suggests that a large number of students were retained in grade 12

Figure 2. Distribution of students across grades 6–12, by general education and student disability classification and disability category, 2010/11



Note: In 2010/11 there were 34,793 students with disabilities and 256,672 general education students. Self-Contained and Resource Attendance Management information, including disability category, was available for 33,312 students eligible to receive special education services as of October 1, 2010. Population size by disability category is provided in table C1 in appendix C. Grade level is recorded as of October 1, 2010. The disability category deaf-blindness, with only 20 students, was not included in this analysis because of small cell sizes. Percentages were computed based on nonmissing data.

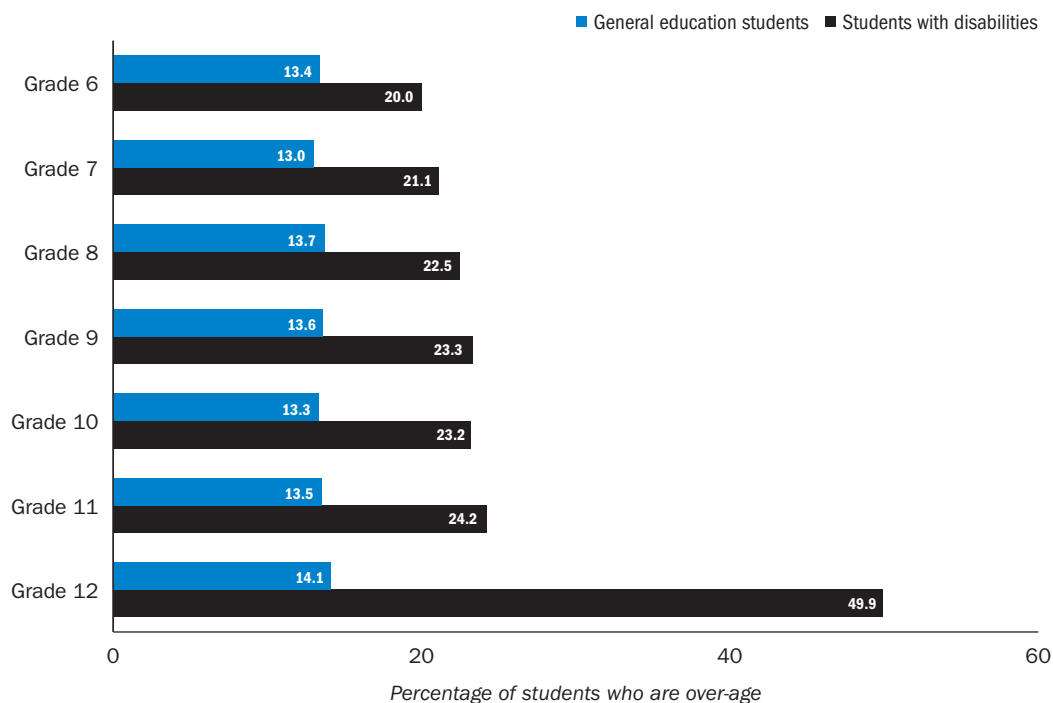
Source: Authors' analysis based on Utah State Office of Education (2011a).

The distribution of students with speech or language impairment across grades differed from the pattern for other disability categories. Almost half the students with speech or language impairment were enrolled in grade 6 (45.5 percent), and the percentage decreased consistently in each subsequent grade until there were only 3.2 percent of these students enrolled in grade 12. Higher proportions of students with visual impairment or a specific learning disability were also enrolled in grade 6 than in grade 12, but the proportion decreased more gradually through grade 12.

Compared with general education students, a higher percentage of students with disabilities were over-age for their grade level, especially in grade 12. The median age by grade was the same for students with disabilities and for general education students, with the majority in both groups being at grade level, specifically, age 11 in grade 6 and increasing one year in age by each grade level up to a median age of 17 in grade 12.

However, compared with general education students, a larger percentage of students with disabilities were over-age (at least one year older than expected at grade level) for each grade, indicating that they may have started school later, have been retained at one or more grade levels, or both (figure 3). While the proportion of students older for their grade varied from 13.0 percent to 14.1 percent across grades 6–12 for general education students, the

Figure 3. Nearly half the grade 12 students classified with disabilities were over-age for their grade level in 2010/11



Note: In 2010/11 there were 34,793 students with disabilities and 256,672 general education students. Population size by grade is provided in table C2 in appendix C.

Source: Authors' analysis based on Utah State Office of Education (2011a).

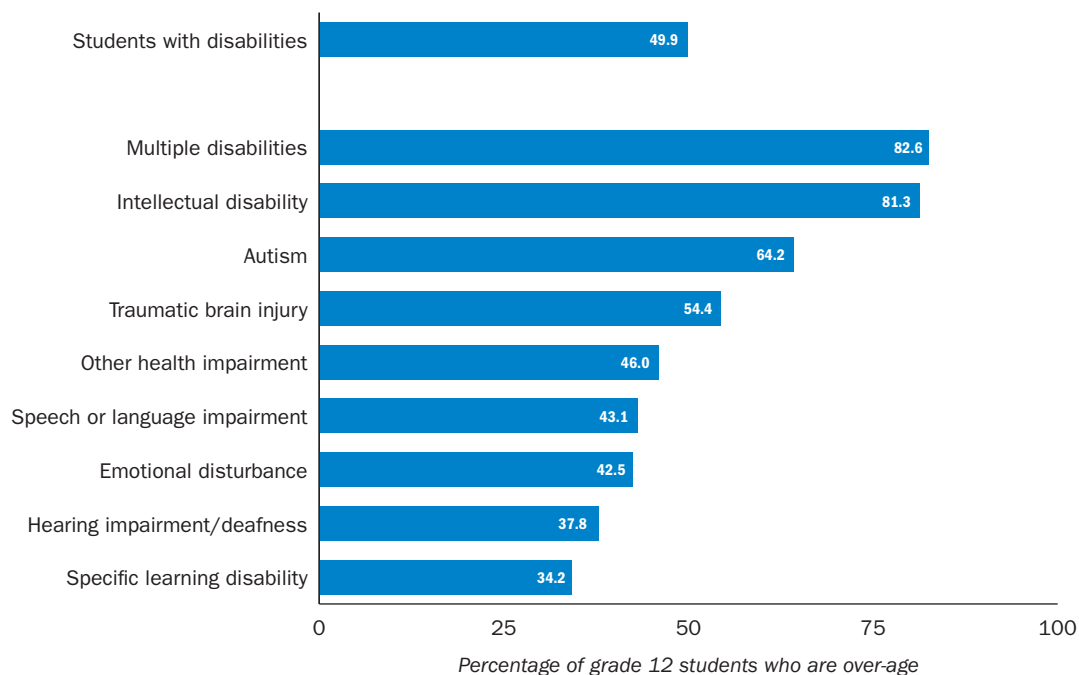
proportion was consistently higher for students with disabilities, rising from 20.0 percent in grade 6 to 24.2 percent in grade 11. The percentage doubled from grade 11 to grade 12, with nearly half (49.9 percent) of students with disabilities being over-age. This doubling may be related to the fact that some students with disabilities can remain in grade 12 until age 22.

The percentage of students over-age in grade 12 varied by disability category and was more than 80 percent for students classified with multiple disabilities or intellectual disability. While nearly half of all students with disabilities in grade 12 were over-age for their grade level, there was wide variation by disability category (figure 4). By far the highest concentration of over-age students was among students with multiple disabilities (82.6 percent) or an intellectual disability (81.3 percent). Roughly two-thirds of students with autism (64.2 percent) and half of students with traumatic brain injury (54.4 percent) were older by at least one year for their grade level. In contrast, less than half of students classified with other health impairment, speech or language impairment, emotional disturbance, or hearing impairment/deafness were over-age. The lowest concentration was among students with a specific learning disability (34.2 percent).

Rate and types of school exit for students with disabilities during school year 2010/11

A student may exit school by changing to a different school within the Utah public school system, transferring out of the system (for example, moving to another state or country), or dropping out. A greater proportion of students with disabilities than general education

Figure 4. The student disability categories of multiple disabilities, intellectual disability, autism, and traumatic brain injury had the highest percentages of over-age students in grade 12, 2010/11



Note: In 2010/11 there were 5,363 students with disabilities in grade 12. Disability categories visual impairment, orthopedic impairment, and deaf-blindness were not included in this analysis because of small cell sizes. Grade 12 population size by disability category is provided in table C3 in appendix C.

Source: Authors' analysis based on Utah State Office of Education (2011a).

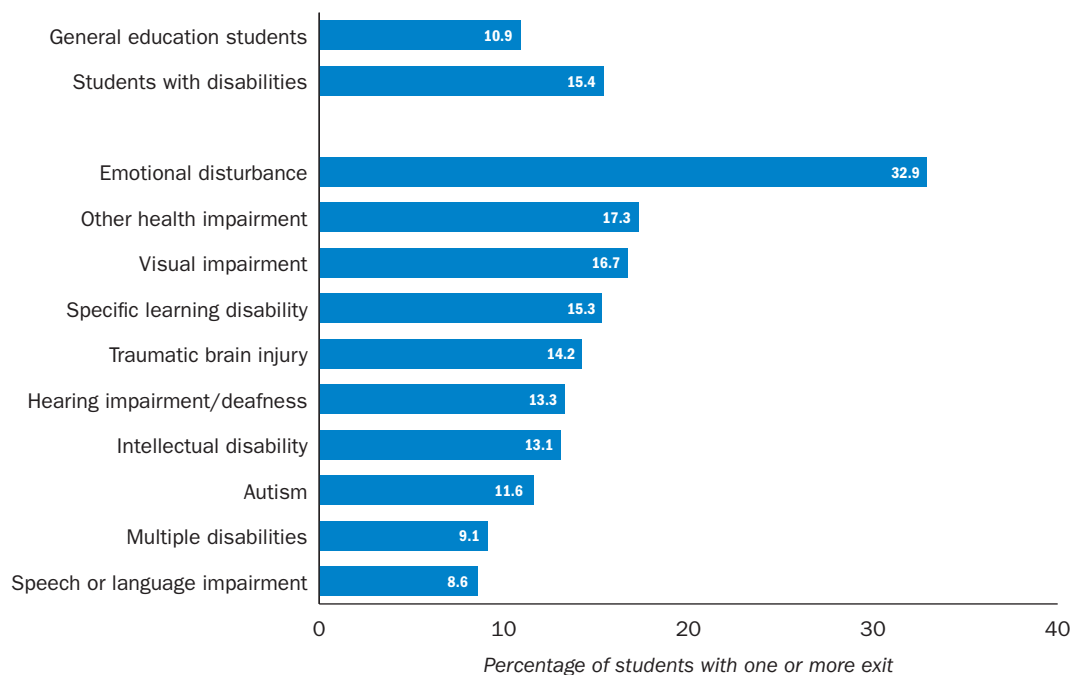
students exited school at least once. Students classified with emotional disturbance had the highest rate of exit—three times that of general education students—while students with speech or language impairment or multiple disabilities had exit rates lower than general education students.

Students with disabilities exited school during the year at a higher rate than general education students. During school year 2010/11 most students stayed in the same school all year, but a greater proportion of students with disabilities than general education students exited school at least once (figure 5). Among students with disabilities 15.4 percent exited school during the year, whereas 10.9 percent of general education students exited one or more times.

Students classified with emotional disturbance had the highest school exit rates. For students with disabilities, the school exit rate during 2010/11 differed by disability type. Of students classified with emotional disturbance, 32.9 percent exited at least once, which was twice the rate of students with disabilities as a group and more than three times the rate for general education students that year.

Students with autism, hearing impairment/deafness, intellectual disability, traumatic brain injury, specific learning disability, visual impairment, or other health impairment had exit rates between 1 and 6 percentage points higher than general education students.

Figure 5. Grade 6–12 students classified in the emotional disturbance category had the highest school exit rate, and students with speech or language impairment and multiple disabilities had the lowest, 2010/11



Note: In 2010/11 there were 34,793 students with disabilities and 256,672 general education students. Self-Contained and Resource Attendance Management information, including disability category, was available for 33,312 students eligible to receive special education services as of October 1, 2010. Population size by disability category is provided in table C1 in appendix C. The disability categories deaf-blindness and orthopedic impairment were not included in this analysis because of small cell size. Exits during the school year include transfers to another Utah public school or out of the Utah public school system, dropouts or withdrawals, transfers to adult education, and others (death or expulsion); early graduation or transfers to another track in the same school are not counted as exits. For all values, see table C4 in appendix C. Percentages were computed based on nonmissing data. Percentages may not add to 100 percent because of rounding.

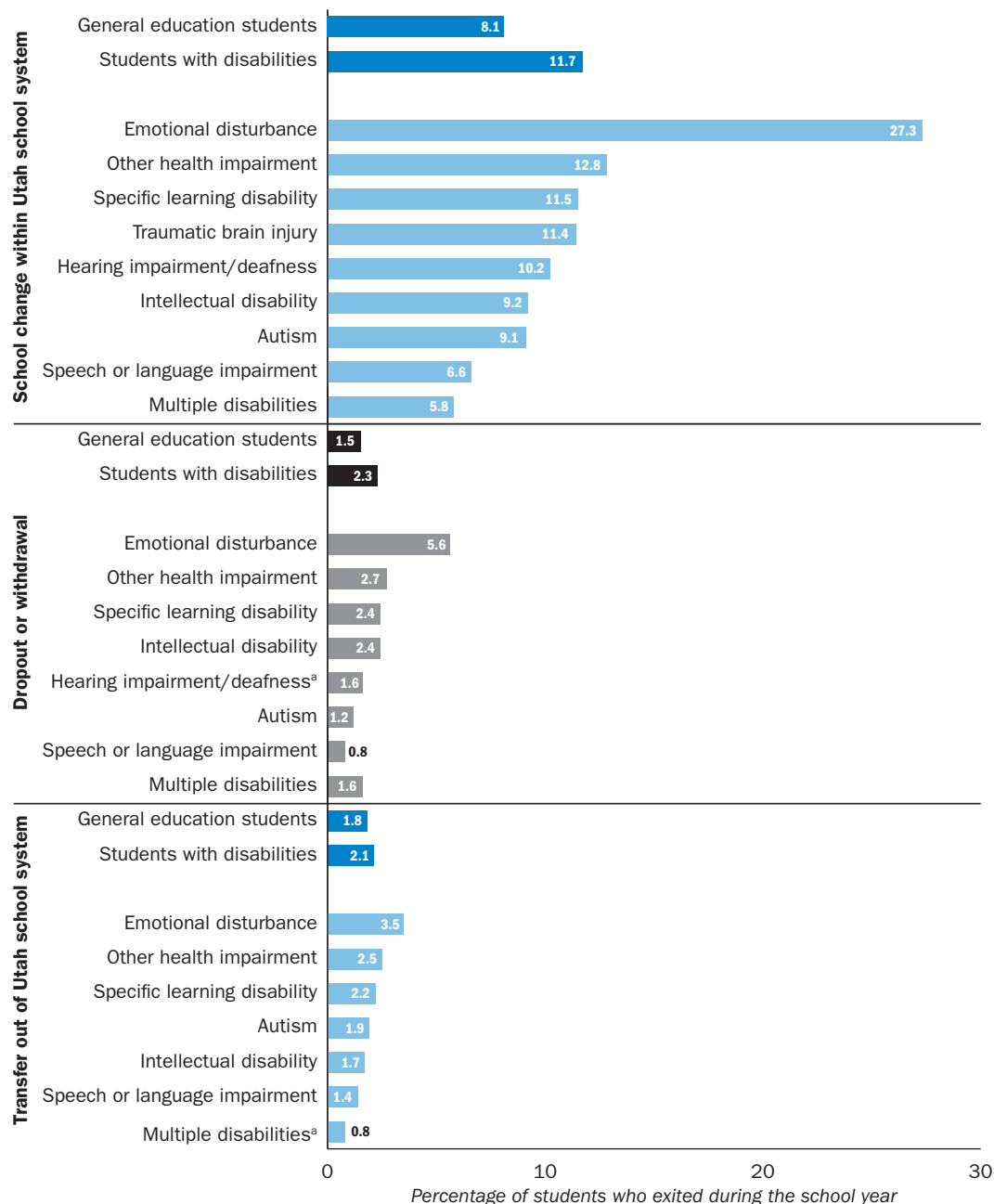
Source: Authors' analysis based on Utah State Office of Education (2011a).

In contrast, a relatively small proportion of students with speech or language impairment (8.6 percent) or multiple disabilities (9.1 percent) exited school during the school year—rates lower than the 10.9 percent exit rate for general education students.

Students with disabilities changed schools and dropped out at higher rates than their general education classmates. For students with disabilities, as well as for general education students, changing schools within the Utah public school system was the most common type of school exit. The mobility rate was higher for students with disabilities (11.7 percent) than for general education students (8.1 percent; figure 6). Dropout rates were also higher for students with disabilities (2.3 percent) than for general education students (1.5 percent), as were transfers out of the Utah school system (2.1 percent compared with 1.8 percent).

Students classified with emotional disturbance had the highest mobility and dropout rates. School exit types varied by disability category. Students classified with other health impairment, specific learning disability, traumatic brain injury, hearing impairment/deafness, intellectual disability, or autism had roughly similar mobility rates within the

Figure 6. Grade 6–12 students classified with emotional disturbance had the highest rates of school change, dropout, and transfer to other school systems, 2010/11



Note: In 2010/11 there were 34,793 students with disabilities and 256,672 general education students. Self-Contained and Resource Attendance Management information, including disability category, was available for 33,312 students eligible to receive special education services as of October 1, 2010. Population size by disability category is provided in table C5 in appendix C. Percentages were computed based on nonmissing data. Students with more than one type of exit during the school year are double counted across exit categories. Only a small number of students in the disability categories deaf-blindness, visual impairment, and orthopedic impairment exited during the school year and were not included in this figure. Due to small cell sizes, the dropout rate for students classified with traumatic brain injury and the rate of transfer out of the Utah school system for students classified with traumatic brain injury or hearing impairment/deafness could not be reported. The numbers of students who exited during the school year because they transferred to adult education or because of other reasons (death or expulsion) represented 1 percent or less for all disability categories and are not displayed.

a. The upper bound of the percentage, which was rounded up based on small cell counts.

Source: Authors' analysis based on Utah State Office of Education (2011a).

Utah public school system, with about 3 percentage points difference from students with disabilities as a whole (11.7 percent). Students with speech or language impairment or multiple disabilities changed schools within the Utah system at rates about half as high as those for students with disabilities overall and at a lower rate than general education students. In contrast, the 27.3 percent rate of school mobility within the Utah school system for students with emotional disturbance was more than twice as high as the rate for any other disability category and more than three times as high as the 8.1 percent rate for general education students.

Students classified in the emotional disturbance category also had the highest dropout rate. At 5.6 percent, the single-year dropout rate for these students was more than three times higher than that of general education students (1.5 percent) and more than two times higher than that of any other disability category.

Students classified in the emotional disturbance category also had the highest rate of transfer outside of the Utah school system (3.5 percent) among all the disability categories.

Four-year graduation and dropout rates for the 2011 cohort

Students in the 2011 cohort were classified as either graduates (that is, received a basic high school diploma or an adult education secondary diploma) or nongraduates. Among nongraduates, students were further classified as either dropouts, other completers (received a General Education Development (GED) certificate, a Utah high school completion diploma, a certificate of completion, or a high school diploma through the Utah Alternate Assessment, or aged out of special education), or continuing students (that is, retained seniors). Based on these classifications, the cohort data were used to provide the four-year longitudinal dropout and graduation rates for the 2011 cohort. No subsequent high school outcome was captured for students who were retained in grade 12 and would have been able to remain in school until age 22. Therefore, the ultimate dropout and graduation rates could differ from those presented in this report.

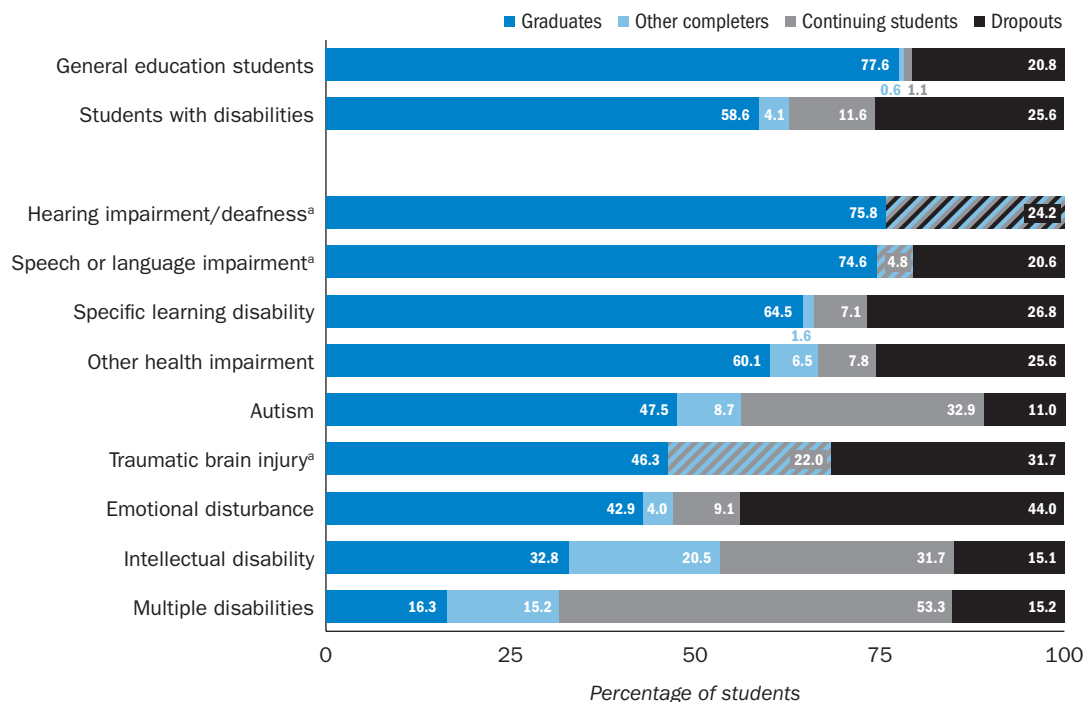
Students with disabilities in the 2011 cohort had a lower graduation rate and higher dropout rate than general education students. Students with emotional disturbance had the highest dropout rate while students with a speech or language impairment had a dropout rate comparable to that of general education students. Students with a specific learning disability, the largest disability category, had a graduation rate of nearly 65 percent and a dropout rate of nearly 27 percent.

Students with disabilities had a lower four-year graduation rate and higher four-year dropout rate than general education students. Students with disabilities in the 2011 cohort had a four-year graduation rate of 58.6 percent, nearly 20 percentage points lower than that for general education students in the same cohort (77.6 percent; figure 7). Students with disabilities had a higher dropout rate (25.6 percent) than their general education classmates (20.8 percent). They also had a higher percentage of continuing students (11.6 percent compared with 1.1 percent) and other completers (4.1 percent compared with 0.6 percent).

Students with multiple disabilities had the lowest graduation and highest retention rates, while students with emotional disturbance had the highest dropout rate. The four-year graduation rate was lower for students in all disability categories than for their general

Students with disabilities in the 2011 cohort had a four-year graduation rate of 58.6 percent, nearly 20 percentage points lower than that for general education students in the same cohort (77.6 percent)

Figure 7. Students classified with multiple disabilities, intellectual disability, emotional disturbance, traumatic brain injury, and autism had lower graduation rates than the overall rate for students with disabilities, 2011 cohort



Note: Among students in the 2011 cohort there were 3,967 students with disabilities and 37,529 general education students. Population size by disability category and final high school outcome is provided in table C7 in appendix C. Percentages were computed based on nonmissing data. The disability categories orthopedic impairment, visual impairment, and deaf-blindness were not included in this analysis due to the low number of students in these categories ($n < 30$) in the 2011 cohort.

a. Disaggregated percentages are not provided for nongraduates because of small cell sizes ($n < 10$) in one or several categories.

Source: Authors' analysis based on Utah State Office of Education (2011b).

education classmates. However, there was wide variation by disability category (see table C7 in appendix C). For example, graduation rates for students with hearing impairment/deafness (75.8 percent) or with speech or language impairment (74.6 percent) were only a couple of percentage points lower than rates for general education students (77.6 percent). The dropout rate for students with speech or language impairment (20.6 percent) was also comparable with that for general education students (20.8 percent). Four-year graduation rates were lower for students with a specific learning disability (64.5 percent) or other health impairment (60.1 percent), and their dropout rates (26.8 percent and 25.6 percent) were about 5 percentage points higher than that of their general education classmates (20.8 percent).

Most students with autism, traumatic brain injury, or emotional disturbance did not graduate on time, with graduation rates ranging between 47.5 percent and 42.9 percent. Others were at even greater risk of not graduating: only one in three students with intellectual disability (32.8 percent) and only one in six students with multiple disabilities (16.3 percent) graduated in four years.

As for the other high school completion outcomes, students with emotional disturbance had the highest percentage of dropouts; at 44.0 percent their four-year dropout rate was nearly 20 percentage points higher than the overall average for students with disabilities. For this group, dropping out was actually the most frequent outcome: their dropout rate was higher than their graduation rate. The second highest dropout rate was for students classified with traumatic brain injury, at 31.7 percent.

In contrast, students with autism (11.0 percent), intellectual disability (15.1 percent), or multiple disabilities (15.2 percent) had the lowest four-year dropout rates, even lower than the rate of the general education population (20.8 percent). However, the simultaneously low graduation rates and low dropout rates for these students corresponded to a higher percentage of continuing students. Close to a third of students with intellectual disability (31.7 percent) or autism (32.9 percent) were continuing students. For students with multiple disabilities, being retained was the most likely outcome after four years in high school (53.3 percent).

Study limitations

The study has some key limitations. The exit codes used by the state serve accountability purposes and are not detailed enough to describe the academic or personal reasons why students leave school before graduating. Nor do state data capture what happens to students who transfer out of the Utah school system. In addition, because the study investigated the outcomes of the 2011 cohort, it did not capture the dropout and graduation outcomes for students who remained in high school beyond the conventional four years. Because of low numbers of students in some disability categories, the study is unable to report all outcomes for all disability categories. (For more detail about study limitations, see appendix B.)

Implications and next steps

The extensive research literature on dropout issues remains limited for students with disabilities, especially for the different disability categories. This study helps fill this information gap by providing Utah education leaders and policymakers with new information about single-year mobility and dropout rates and about four-year dropout and graduation rates for students with disabilities by disability category—information that can be used to better inform student, school, and state interventions. In doing so, it lays the groundwork for further investigations on the dropout and graduation outcomes of students with disabilities.

Among the questions that emerge from these findings are why students with disabilities drop out at a higher rate than their general education classmates and why students in some disability categories drop out at much higher rates than students in other categories. In the literature the reasons for dropping out are often assumed to be similar for students with disabilities and general education students, but the specific reasons for dropping out need further investigation by disability category.

While this study documents the rate and types of school exits by students in different disability categories, the exit codes used by the state for accountability purposes shed little new light on the academic and personal reasons that these students leave school before

Among the questions that emerge from these findings are why students with disabilities drop out at a higher rate than their general education classmates and why students in some disability categories drop out at much higher rates than students in other categories

graduating. This remains a virtually unexamined area in the literature. More research, especially accounts from students at risk of dropping out or who have dropped out, is needed to construct a more complete understanding of the reasons why students with disabilities, especially students with certain disabilities, drop out. These insights could provide educators with new information about what is needed to keep and support these students in school so they earn a diploma.

Refinements to state and district data systems, such as expanding the number and type of exit codes by including codes specifying personal reasons for exiting school (such as employment, parenting, or being behind in credits) could provide more detailed information about each student's single-year school exit history and final high school outcome, including dropping out and graduating.

Gender and racial/ethnic minority disproportionality for students with disabilities, and in different disability categories, is not yet fully understood. While the literature reports that male and racial/ethnic minority students have comparatively higher dropout rates and lower graduation rates than their classmates, it is unclear whether this holds to the same extent for students with disabilities in general or for specific disability categories.

Finally, since students with disabilities as a group and students in some disability categories have such high rates of remaining in high school beyond the conventional four years, further research is needed to know what happens to these students—whether they eventually graduate from high school, just in a longer time frame, or whether they exit without graduating, just at a later date.

The academic and personal reasons that students in different disability categories leave school before graduating remains virtually unexamined

Appendix A. Student and school characteristics for students with disabilities, 2010/11

Most Utah students with disabilities live in or near Salt Lake City, having about the same distribution in the state as general education students. As is the case for students with disabilities nationwide, the percentages of students who are male, racial/ethnic minority, English language learners, or classified as low socioeconomic status are higher among students with disabilities than among their general education classmates. Nearly all students with disabilities were enrolled in regular schools, and about half spend most of their time in classes with general education students.

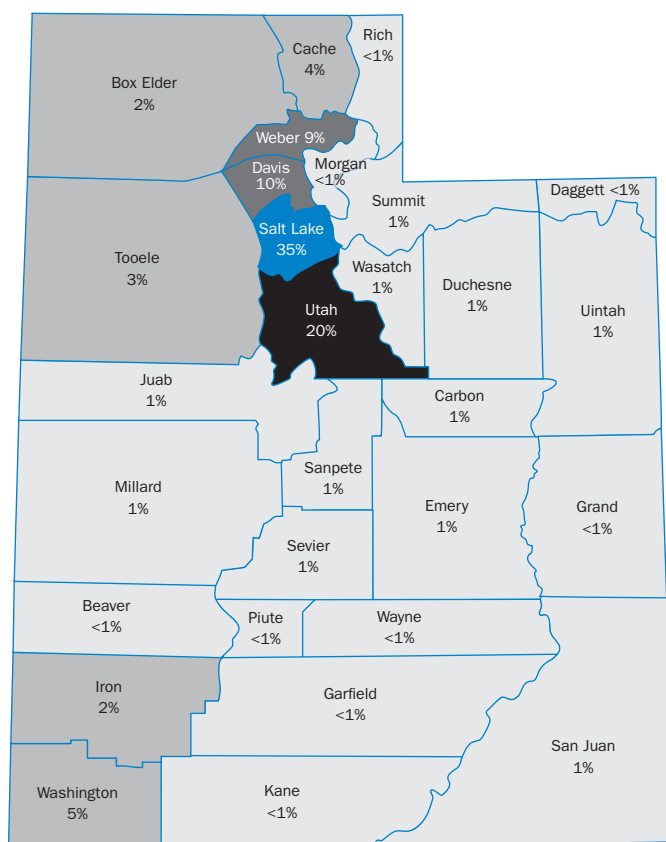
Student characteristics

The majority of students with disabilities were enrolled in schools in the counties nearest Salt Lake City. Students with disabilities enrolled in Utah public schools in 2010/11 were distributed unevenly across the state's 29 counties, with most of them in or near Salt Lake County. Their distribution across counties was fairly similar to that of general education students. The number of students with disabilities ranged from fewer than 10 enrolled in Daggett County schools to more than 12,000 enrolled in Salt Lake County schools, and the percentage of students with disabilities within a county ranged from 7.2 percent in Morgan County to 18.1 percent in Carbon County (see table C8 in appendix C).

The majority of students with disabilities were enrolled in schools in the counties on the western side of the Wasatch Mountains and closest to the state's capital and most populous city, Salt Lake City (map A1). Of the nearly 35,000 students with disabilities statewide in grades 6–12, 35.2 percent were enrolled in Salt Lake County schools. Another 39.6 percent were in three counties contiguous to Salt Lake County: 20.1 percent in Utah County, to the south, 10.4 percent in Davis County and 9.1 percent in Weber County, to the north. Schools in the 20 sparsely populated counties in central and eastern Utah each enrolled 1 percent or less of the state's students with disabilities. The five counties in the northwestern and southwestern corners of the state each accounted for between 2 percent and 5 percent of the state's population of students with disabilities.

Utah students with disabilities had higher percentages of students who were male, racial/ethnic minority, English language learners, and classified as low socioeconomic status than did their general education classmates (figure A1). The demographic characteristics of students with disabilities differed from those of their general education classmates in several ways. A higher percentage of students with disabilities were male (64.3 percent), whereas general education students had about equal percentages of male and female students (49.8 percent were male). Students with disabilities also had a higher percentages of racial/ethnic minority students than did general education students. Specifically, they had higher percentages of Hispanic students (17.7 percent compared with 14.1 percent), Black students (2.2 percent compared with 1.3 percent), and American Indian/Alaska Native students (2.2 percent compared with 1.3 percent). They had lower percentages of Asian students (0.9 percent compared with 2.0 percent) and Hawaiian Native/Pacific Islander students (1.1 percent compared with 1.6 percent). About 1 percent of students with disabilities and general education students had a multirace background. Both groups were predominately White, but students with disabilities had a smaller proportion of White students (74.9 percent) than did the general education population (78.7 percent).

Map A1. Most Utah grade 6–12 students with disabilities, like most other students, are clustered in the counties around Salt Lake City, 2010/11



Note: In 2010/11 there were 34,793 students with disabilities in Utah. Population size by county is provided in table C8 in appendix C. Percentages are percentages of students with disabilities in Utah.

Source: Authors' analysis based on Utah State Office of Education (2011a).

Similarly, while more than 90 percent of students in both groups were proficient English speakers, students with disabilities had a higher percentage of English language learner students (9.4 percent) than did the general education population (3.9 percent).

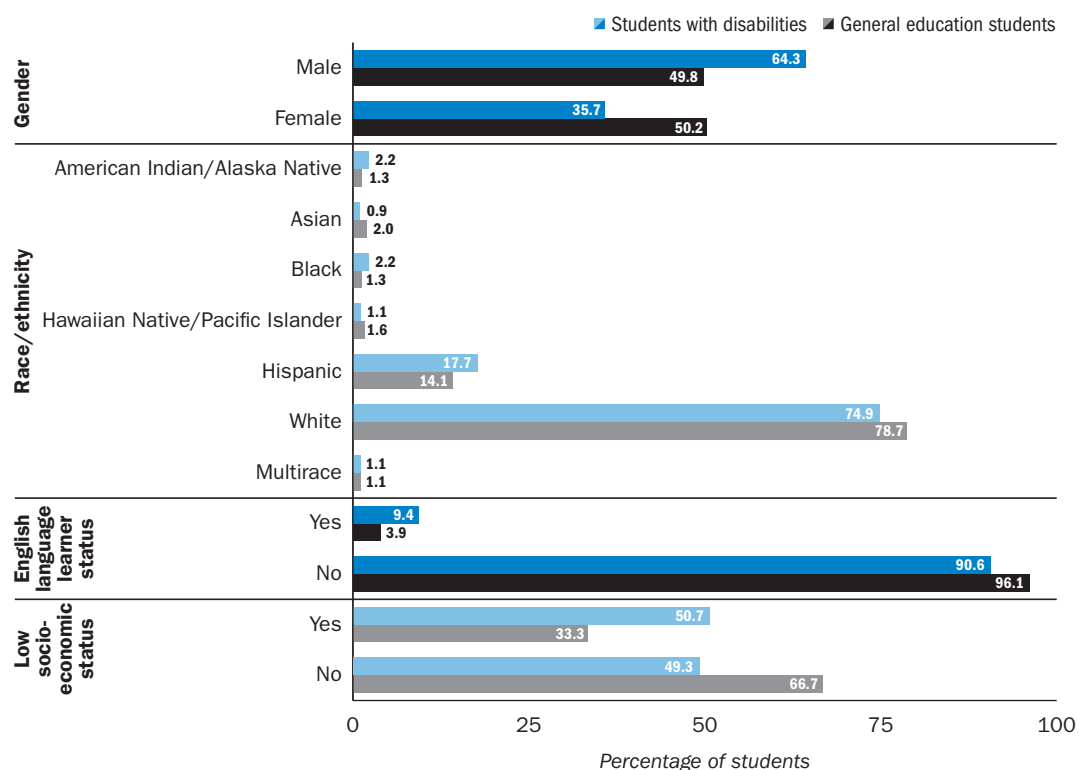
Finally, about half of students with disabilities (50.7 percent) were classified as low socio-economic status based on their eligibility for the free or reduced-price lunch program compared with a third of general education students (33.3 percent).

School characteristics

To the extent possible, the Individuals with Disabilities Education Act of 2004 (IDEA) advocates educating students with disabilities in classes with their general education classmates because inclusion is associated with better outcomes for students with disabilities (box A1). Other types of schools are a recourse when the nature or severity of a student's disability and the student's individualized education program necessitate a separate school to provide an appropriate education.

Except for students with multiple disabilities, nearly all other students with disabilities (94.8 percent) were enrolled in regular schools (figure A2). For each disability category

Figure A1. Demographic characteristics of grade 6–12 students, by student disability and general education classification, 2010/11



Note: In 2010/11 there were 34,793 students with disabilities and 256,672 general education students. Population size by demographic characteristic is provided in table C9 in appendix C.

Source: Authors' analysis based on Utah State Office of Education (2011a).

except multiple disabilities, a large majority of students were enrolled in regular schools, with percentages ranging from 84.2 percent to 98.8 percent. However, for students classified with multiple disabilities, more than half were enrolled in regular schools (57.3 percent).

For students with disabilities as a group, 4 percent were enrolled in separate public or private schools for students with disabilities while less than 1 percent received their education in separate homebound, hospitalized, or residential settings, or in correctional facilities (table C10 in appendix C).

In contrast, a large proportion of students classified with multiple disabilities (40.3 percent) were enrolled in separate schools for students with disabilities. About 15 percent of students classified with an intellectual disability were enrolled in schools for students with disabilities. The percentage of students enrolled in separate schools was below 10 percent for all other disability categories and less than 1 percent for students classified with a specific learning disability or speech or language impairment.

Across disability categories the percentages of students enrolled in separate residential, homebound, or hospital settings was low (0.3–2.3 percent).

Box A1. The six main principles of the Individuals with Disabilities Education Act of 2004

1. **Free appropriate public education**—IDEA guarantees that each child with a disability, eligible for special education, will be entitled to a free appropriate public education.
2. **Appropriate evaluation**—IDEA requires that each child suspected of having a disability receive an appropriate evaluation.
3. **Individualized education program**—To ensure that students with disabilities receive an appropriate and individualized education, IDEA requires that, after drawing on current evaluation information, the individualized education program team develop a written program designed to meet the unique educational needs of each student with disabilities.
4. **Least restrictive environment**—IDEA guarantees that a child with a disability will receive a free appropriate public education in the least restrictive environment appropriate. This principle reflects IDEA’s strong preference for educating students with disabilities in general education classes with access to general education curriculum. Placement in the general education classroom is the first placement option the individualized education program team must consider.
5. **Parent and student participation in decision making**—IDEA requires that parents (and students, as appropriate) participate in each step of the special education process. Students must be invited to participate in individualized education program meetings where transition services are to be discussed.
6. **Procedural safeguards**—Procedural safeguards are a set of activities whose purpose is to ensure that the rights of children with disabilities and their parents are protected, all information needed to make decisions about the provision of a free appropriate public education to the student is provided to parents of children with disabilities and to the student when appropriate, and procedures (mediation and due process) are in place to resolve disagreements between parties.

Note: IDEA is the Individuals with Disabilities Education Act of 2004.

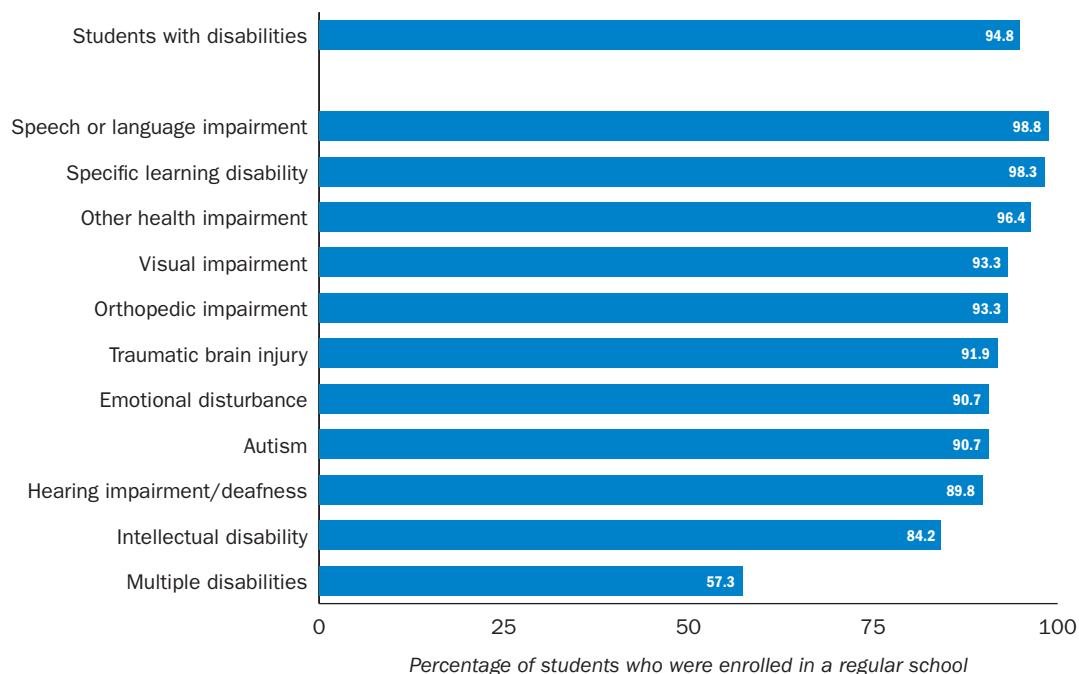
Source: Excerpted from Utah Parent Center website <http://www.utahparentcenter.org/resources/laws/idea/>. Retrieved August 19, 2014.

Finally, the percentage of students enrolled in correctional facilities was about 1 percent or less for all disability categories, with the exception of students classified with emotional disturbance, for which it was 3.7 percent.

While nearly half of students with disabilities spent at least 80 percent of their school day in general education classes, the educational environments in regular schools varied by disability category. Among all students with disabilities who were enrolled in a regular school, nearly half (48.6 percent) spent at least 80 percent of their school day in classes with their general education classmates, 36.0 percent spent 40–79 percent of their school day in general education classes, and 15.5 percent spent less than 40 percent of their school day in general education classes (figure A3).

There were large variations by disability category in the percentage of time students attended classes with general education classmates. The percentage of students who spent most of their school day (at least 80 percent) in general education classes was highest for students classified with speech or language impairment (79.4 percent). The percentage was slightly more than half for students classified with a visual impairment (53.6 percent), hearing

Figure A2. Distribution of enrollment in a regular school for grade 6–12 students with disabilities, by disability category, 2010/11

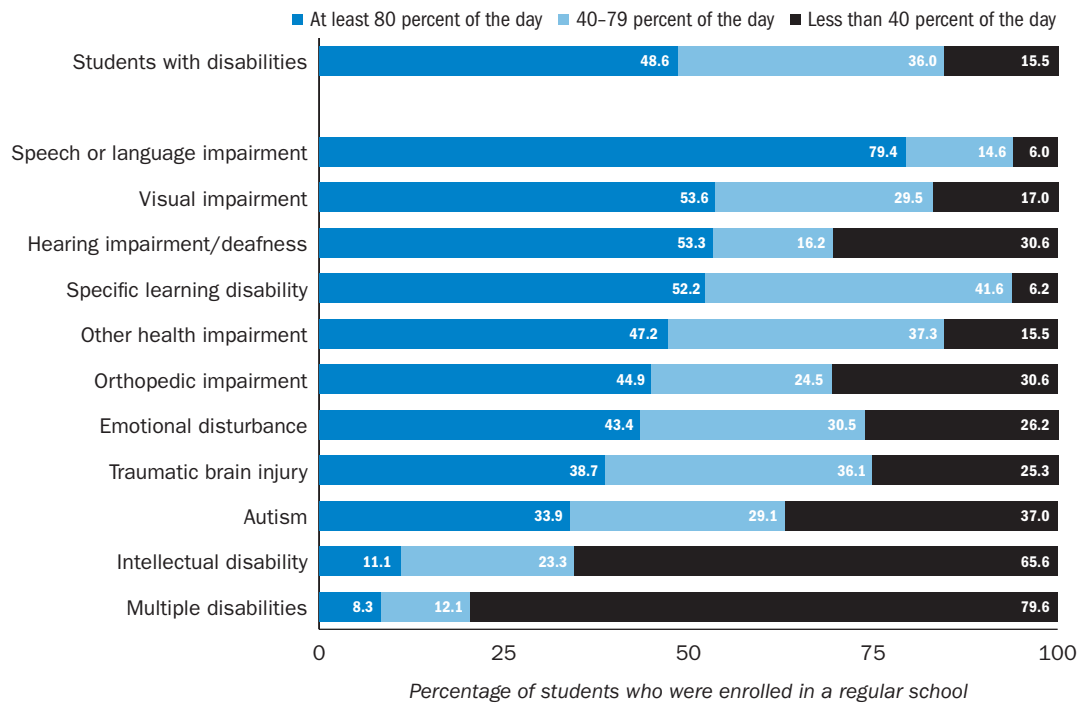


Note: In 2010/11 there were 34,793 students with disabilities. Self-Contained and Resource Attendance Management information, including disability category, was available for 33,312 students eligible to receive special education services as of October 1, 2010. Population size by disability category is provided in table C10 in appendix C. Percentages were computed based on nonmissing data. The disability category deaf-blindness, with only 20 students, was not included in this analysis because of small cell sizes. Only 10 students with disabilities were placed by parents in private schools and the percentage in that type of school rounded to zero for all disability categories; those students are not included in the figure.

Source: Authors' analysis based on Utah State Office of Education (2011a).

impairment/deafness (53.3 percent), and specific learning disability (52.2 percent). In contrast, only 11.1 percent of students classified with intellectual disability and 8.3 percent of students classified with multiple disabilities spent most of their school day in general education classes. The majority of these students (65.6 percent for students with intellectual disability and 79.6 percent for students with multiple disabilities) spent less than 40 percent of their school day in general education classes.

Figure A3. Percentage of grade 6–12 students with disabilities enrolled in a regular school, by percentage of time spent in general education classes and disability category, 2010/11



Note: In 2010/11 there were 31,581 students with disabilities enrolled in a regular school. Self-Contained and Resource Attendance Management information, including disability category, was available for 33,312 students eligible to receive special education services as of October 1, 2010. Population size by disability category is provided in table C11 in appendix C. Percentages were computed based on nonmissing data. The disability category deaf-blindness, with 20 students only, was not included in this analysis because of small cell sizes.

Source: Authors' analysis based on Utah State Office of Education (2011a).

Appendix B. Data and methodology

This appendix describes the data sources and analyses used in this study as well as the data's limitations.

Data sources

This descriptive analysis used two secondary statewide administrative data sources:

Enrollment data for 2010/11 students (Utah State Office of Education, 2011a). The Utah State Office of Education (USOE) provided a data extract from its data clearinghouse, a statewide longitudinal data system, containing all enrollment records for all students enrolled in grades 6–12 as of October 1, 2010. The extract included the unique statewide student identifier, student demographic characteristics, and all enrollment records during school year 2010/11, including entry and exit dates, schools of enrollment, and, where appropriate, the exit codes and high school final status codes. For all students in grades 6–12 as of October 1, 2010, with an individualized education program on record, the USOE also provided a complementary dataset extracted from the Self-Contained and Resource Attendance Management database including the statewide student identifier, information on Individuals with Disabilities Education Act (IDEA) student disability categories, and educational environments, including school types and the percentage of the day spent in general education classes.

High school completion outcomes of the 2011 cohort (Utah State Office of Education, 2011b). The USOE provided a separate data extract from its data clearinghouse for all students in the four-year cohort who were expected to graduate in 2011. This dataset contained the statewide student identifier, the demographic characteristics of all students in the four-year cohort, and the four-year dropout and graduation outcomes. These data also included information about disability status and student IDEA disability categories.

Data analyses

This study describes the state's entire grade 6–12 public school population, as well as the entire 2011 cohort, including all students with disabilities in those populations. Since the populations of analysis are not samples of larger populations, tests of statistical significance were not conducted. No statistical inference is implied or needed. To enable comparisons with other analyses, counts of students in each category analyzed are reported in appendix C. Unless specified, the percentages reported are computed from nonmissing values. Following the USOE's reporting conventions, cell sizes less than 10 were masked.

Populations of analysis

Population of students enrolled in school year 2010/11. Enrollment data for 2010/11 students were used to identify all 256,672 students enrolled in grades 6–12 in a Utah public school as of October 1, 2010. The special education status variable allowed for the identification of 34,793 students eligible for special education services, composing the population of students with disabilities for 2010/11. Unique statewide student identifiers were used to link the enrollment data and the Self-Contained and Resource Attendance Management data for students with disabilities, disability category, and educational environment information for 33,312 students with disabilities.

School characteristics were merged with this analysis dataset using the unique school identification number for the school of enrollment as of October 1, 2010. The resulting dataset was used to answer the first two research questions:

1. What were the demographic and school characteristics for students with disabilities in grades 6–12 during school year 2010/11?
2. What were the rate and types of school exits (for example, school change, dropout) for students with disabilities in grades 6–12 during school year 2010/11? Did they vary by disability category?

Population of students in the 2011 cohort. There were 41,496 students in the cohort of students expected to graduate in 2011. This four-year cohort dataset, built and tracked by the USOE to align with the federal No Child Left Behind regulations for graduation rate calculation, included all students who started grade 9 for the first time in 2007/08 and students who subsequently transferred into the cohort through 2010/11, subtracting any students who subsequently transferred out of Utah public schools through 2010/11. Special education status was included in the data extract and defined by eligibility for special education services at entry into the cohort; 3,967 students were identified as eligible for those services. Disability category was also available for all students eligible for special education services. This second analysis dataset was used to answer the third research question:

3. What were the four-year cohort dropout and graduation rates for students with disabilities in the 2011 cohort? Did the rates vary by disability category?

Definition of the variables of analysis

Students with disabilities, general education students, and disability categories. Students with disabilities were grade 6–12 students who had an individualized education program on record and were eligible for special education services in the Utah public schools. General education students were grade 6–12 students who neither had an individualized education program on record nor were eligible for special education services in the Utah public schools. Students with disabilities were classified by 1 of 13 federally defined IDEA disability categories: autism, deaf-blindness, deafness, emotional disturbance, hearing impairment, intellectual disability, multiple disabilities, orthopedic impairment, other health impairment, specific learning disability, speech or language impairment, traumatic brain injury, and visual impairment. In Utah and for this analysis, the categories hearing impairment and deafness are reported as one group.

Other demographic characteristics. The source for the student demographic characteristics age, race/ethnicity, English language learner status, and socioeconomic status was the USOE enrollment extract for 2010/11, and those variables represent student status as of October 1, 2010. Specifically:

- Age was computed based on the date of birth and corresponds to age as of October 1, 2010.
- English language learner status was determined by the USOE's English language proficiency test.
- Socioeconomic status was determined by eligibility for the free or reduced-price lunch program.

School characteristics. Grade level, school characteristics, and school and county of enrollment correspond to the school of enrollment as of October 1, 2010. In cases of concurrent enrollment as of October 1, 2010, the school used for the analysis was the one in which the student was enrolled the longest during the school year. *School type and educational environment information* were obtained from the Self-Contained and Resource Attendance Management data extract for the school of enrollment as of October 1, 2010. The original categories of the school type variable were grouped as indicated in table B1 due to the small cell sizes for the analysis by disability category.

Educational environment information, documenting the amount of time spent in general education classes, was reported only for students enrolled in regular schools.

School exits and exit types (other than by promotion). An entry date is recorded at the beginning of every school year, along with the school of enrollment, for every student enrolled in a Utah public school. If the student exits a school for any reason, the USOE’s enrollment database records an exit code indicating the reason for the exit (see table C5 in appendix C). Any student with an exit code other than “transferred to another track within school” or “early graduation” was considered to have exited during the school year. The exit codes recorded by the USOE were grouped for this study, as indicated in table B2, because of the small cell sizes for the analysis by disability category. Even so, the number of students who exited was not reported for some disability categories because of small cell sizes.

Cohort graduation and dropout rates. Starting in 2011, the USOE reported the following rates for all students in the 2011 cohort:

- Percentage of graduates.
- Percentage of other completers.
- Percentage of continuing students.
- Percentage of dropouts.

A cohort dataset was provided by the USOE including the final high school status for each student:

- *Graduates.* Students who have earned the state’s basic high school diploma or an adult education secondary diploma based on completion of class time requirements.

Table B1. Original and grouped school type categories

Original categories	Grouped categories
Regular school setting	Regular schools
Homebound/hospitalized	Homebound/hospitalized/residential
Public residential	Homebound/hospitalized/residential
Private residential facility	Homebound/hospitalized/residential
Parentally placed in private school	Parentally placed in private schools
Public separate school that enrolls only students with an individualized education program (for example, a state or district school for a specific disability category)	Separate schools
Private separate school for students with an individualized education program	Separate schools
Correctional facility	Correctional facilities

Source: Authors’ analysis based on Utah State Office of Education (2011a).

Table B2. Original and grouped exit codes

USOE exit code	Grouped exit codes
TD = Transferred within district	School change within Utah public school system
TN = Transferred to another school by choice	School change within Utah public school system
TR = Transferred to charter school	School change within Utah public school system
TS = Transferred to another district within the state	School change within Utah public school system
TT = Transferred to another track with school	Not considered an exit in this report
FE = Foreign exchange student	Transfer out of the public school system
TC = Transferred out of the country	Transfer out of the public school system
TH = Transferred to home schooling	Transfer out of the public school system
TO = Transferred out of state	Transfer out of the public school system
TP = Transferred to a private school	Transfer out of the public school system
UN = Unknown	Dropout/withdrawal/unknown
WD = Withdrawal	Dropout/withdrawal/unknown
DO = Dropout	Dropout/withdrawal/unknown
AE = Transferred to adult education	Transfer to adult education/GED
GE = General Education Development (GED) certificate	Transfer to adult education/GED
HE = Transferred to higher education, except Utah College of Applied Technology	Transfer to adult education/GED
11 = Early graduate—11th grade	Early graduates—Not considered an exit in this report
Q1 = Early graduate—1st quarter of senior year	Early graduates—Not considered an exit in this report
Q2 = Early graduate—2nd quarter of senior year	Early graduates—Not considered an exit in this report
Q3 = Early graduate—3rd quarter of senior year	Early graduates—Not considered an exit in this report
T1 = Early graduate—1st trimester of senior year	Early graduates—Not considered an exit in this report
T2 = Early graduate—2nd trimester of senior year	Early graduates—Not considered an exit in this report
DE = Death	Other
EX = Expelled	Other

Source: Authors' analysis based on Utah State Office of Education (2011a).

- *Other completers.* Students who have earned a General Education Development (GED) certificate while in high school, a Utah high school completion diploma (earned by passing the five GED tests through an adult education program), or a certificate of completion; students with disabilities who have earned a high school diploma through participation in the Utah Alternate Assessment, the state's criterion-referenced test individualized for students with significant cognitive disabilities; and students who have aged out of special education at age 22.
- *Continuing students.* Students who remain enrolled in school after their cohort has graduated. They include students with disabilities (some of whom are eligible to be continuously enrolled until age 22) and students who transferred to higher education or the Utah College of Applied Technology without receiving a high school diploma.
- *Dropouts.* According to federal and state reporting guidelines, students who have officially dropped out of school, those who have withdrawn but not requested a transcript for reenrollment somewhere else, those who have left school for unknown reasons, and those who have been expelled from school without receiving a high school diploma.

The cohort rates for each of the four outcomes for the 2011 cohort were computed as the number of students in the adjusted cohort with a given outcome divided by the number of students in the cohort. For example, the graduation rate for the 2011 cohort was computed as follows:

$$2011 \text{ cohort graduation rate} = (\text{Number of graduates})/(\text{Number of students in the cohort}).$$

Data limitations

The statewide student enrollment data for 2010/11 tracks all enrollment records of students in Utah state public schools. It does not include the education trajectories of students who have transferred out of the Utah public school system. As a consequence, any further exits, transfers, or dropouts outside the Utah school system are not known.

For school year 2010/11, 34,793 grade 6–12 students had an individualized education program on record and were eligible for special education services in the Utah public schools. However, Self-Contained and Resource Attendance Management database information, including disability category, was available for only 33,312 students eligible to receive special education services as of October 1, 2010. Following the USOE's reporting conventions, some analyses were not reported for some disability categories because cell sizes were smaller than 10. Additionally, some analyses with cell sizes 10 or greater were masked to prevent indirect identification.

Similarly, while the state longitudinal dataset has the benefit of tracking students longitudinally, it is limited in its ability to track the education trajectory of students who left the Utah public school system and subsequently enrolled in schools outside the system. For this reason the terms *dropout* and *graduate* in this study refer solely to students who dropped out or graduated from a Utah public school.

Furthermore, for the cohort extract, special education status was defined by the eligibility for special education services at entry into the cohort. Any subsequent change to special education eligibility or disability classification is not represented in this analysis. The cohort extract is also limited to the conventional four-year high school time frame; thus, it does not account for the ultimate graduation and dropout outcomes of students with disabilities who were retained in grade 12 but may have remained in school for additional years, possibly until aging out at 22.

Finally, the exit codes used by the state serve accountability purposes and are not detailed enough to describe the actual academic or personal reasons why students with disabilities leave school before graduating.

Appendix C. Frequency tables for Utah public school system grade 6–12 students

Because the populations analyzed were not a sample of larger populations, tests of statistical significance were not conducted in this study. To allow readers to make comparisons with other analyses, counts of students in each category analyzed are reported in these tables.

Table C1. Number and percentage of grade 6–12 students, by grade level, general education and student disability classification, and disability category, 2010/11

Student classification or disability category	Number of students								Percentage of students							
	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Grades 6–12	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
General education students	38,447	38,394	37,426	37,004	36,667	35,277	33,457	256,672	15.0	15.0	14.6	14.4	14.3	13.7	13.0	
Students with disabilities	6,359	5,510	4,828	4,468	4,246	4,019	5,363	34,793	18.3	15.9	13.9	12.8	12.2	11.5	15.4	
Specific learning disability	3,371	3,325	2,910	2,716	2,602	2,473	2,632	20,029	16.8	16.6	14.5	13.6	13.0	12.3	13.1	
Other health impairment	472	495	496	433	450	411	487	3,244	14.5	15.3	15.3	13.3	13.9	12.7	15.0	
Intellectual disability	231	249	265	292	261	250	818	2,366	9.8	10.5	11.2	12.3	11.0	10.6	34.6	
Speech or language impairment	1,019	490	282	178	116	81	72	2,238	45.5	21.9	12.6	8.0	5.2	3.6	3.2	
Autism	290	290	272	266	226	259	430	2,033	14.3	14.3	13.4	13.1	11.1	12.7	21.2	
Emotional disturbance	212	233	238	214	247	211	266	1,621	13.1	14.4	14.7	13.2	15.2	13.0	16.4	
Multiple disabilities	104	124	107	94	115	107	419	1,070	9.7	11.6	10.0	8.8	10.7	10.0	39.2	
Hearing impairment/deafness	40	43	35	34	22	36	45	255	15.7	16.9	13.7	13.3	8.6	14.1	17.6	
Traumatic brain injury	19	18	18	23	30	35	68	211	9.0	8.5	8.5	10.9	14.2	16.6	32.2	
Visual impairment	21	13	18	20	20	14	14	120	17.5	10.8	15.0	16.7	16.7	11.7	11.7	
Orthopedic impairment	17	13	14	20	11	13	17	105	16.2	12.4	13.3	19.0	10.5	12.4	16.2	
Deaf-blindness	<10	<10	<10	<10	<10	<10	<10	20	—	—	—	—	—	—	—	

— Data are masked because the number of students on which the calculation is based is less than 10.

Note: Self-Contained and Resource Attendance Management information, including disability category, was available for 33,312 students eligible to receive special education services as of October 1, 2010. Percentages were computed based on nonmissing data. Percentages may not add to 100 percent because of rounding.

Source: Authors' analysis based on Utah State Office of Education (2011a).

Table C2. Number and percentage of students who were over-age for their grade, by general education and student disability classification and grade level, 2010/11

Grade level	General education students			Students with disabilities		
	Total number of students	Number of over age students	Percentage of over age students	Total number of students	Number of over age students	Percentage of over age students
6	38,447	5,136	13.4	6,359	1,271	20.0
7	38,394	4,974	13.0	5,510	1,165	21.1
8	37,426	5,108	13.7	4,828	1,086	22.5
9	37,004	5,044	13.6	4,468	1,041	23.3
10	36,667	4,894	13.4	4,246	985	23.2
11	35,277	4,777	13.5	4,019	974	24.2
12	33,457	4,718	14.1	5,363	2,674	49.9
Total	256,672	34,651	13.5	34,793	9,196	26.4

Source: Authors' analysis based on Utah State Office of Education (2011a).

Table C3. Number and percentage of grade 12 students with disabilities who were over-age, by disability category, 2010/11

Disability category	Total number of students	Number of over age students	Percentage of over age students
Specific learning disability	2,632	900	34.2
Intellectual disability	818	665	81.3
Other health impairment	487	224	46.0
Autism	430	276	64.2
Multiple disabilities	419	346	82.6
Emotional disturbance	266	113	42.5
Speech or language impairment	72	31	43.1
Traumatic brain injury	68	37	54.4
Hearing impairment/deafness	45	17	37.8
Orthopedic impairment	17	<10	—
Deaf-blindness	<10	<10	—
Visual impairment	—	<10	—

— Data are masked because the number of students on which the calculation is based is less than 10 or to prevent calculation of other values that are less than 10.

Note: Self-Contained and Resource Attendance Management information, including disability category, was available for 5,363 grade 12 students eligible to receive special education services as of October 1, 2010. Percentages were computed based on nonmissing data.

Source: Authors' analysis based on Utah State Office of Education (2011a).

Table C4. Number and percentage of grade 6–12 students who exited school during the school year, by number of exits, general education and student disability classification, and disability category, 2010/11

Student classification and disability category	Number of students		Percentage of students	
	No exit	1 or more exit	No exit	1 or more exit
General education students	228,685	27,987	89.1	10.9
Students with disabilities	29,432	5,361	84.6	15.4
Specific learning disability	16,962	3,067	84.7	15.3
Other health impairment	2,682	562	82.7	17.3
Intellectual disability	2,055	311	86.9	13.1
Speech or language impairment	2,045	193	91.4	8.6
Autism	1,797	236	88.4	11.6
Emotional disturbance	1,088	533	67.1	32.9
Multiple disabilities	973	97	90.9	9.1
Hearing impairment/deafness	221	34	86.7	13.3
Traumatic brain injury	181	30	85.8	14.2
Visual impairment	100	20	83.3	16.7
Orthopedic impairment	<10	<10	—	—
Deaf-blindness	<10	<10	—	—

— Data are masked because the number of students on which the calculation is based is less than 10.

Note: Self-Contained and Resource Attendance Management information, including disability category, was available for 33,312 students eligible to receive special education services as of October 1, 2010. Exits during the school year other than by promotion include transfers to another Utah public school or out of the Utah public school system, dropouts/withdrawals, transfers to adult education, and others (that is, death or expulsion); early graduation or transfers to another track in the same school are not counted as exits for this analysis. Percentages were computed based on nonmissing data. Percentages may not add to 100 percent because of rounding.

Source: Authors' analysis based on Utah State Office of Education (2011a).

Table C5. Number and percentage of grade 6–12 students who exited school during the school year, by reason for exit, general education and student disability classification, and disability category, 2010/11

Student classification and disability category	Number of students			Percentage of students		
	School change within Utah school system	Dropout or withdrawal	Transfer out of the Utah school system	School change within Utah school system	Dropout or withdrawal	Transfer out of the Utah school system
General education students	20,678	3,732	4,657	8.1	1.5	1.8
Students with disabilities	4,069	806	731	11.7	2.3	2.1
Specific learning disability	2,304	477	434	11.5	2.4	2.2
Other health impairment	414	87	80	12.8	2.7	2.5
Intellectual disability	217	56	40	9.2	2.4	1.7
Speech or language impairment	148	17	32	6.6	0.8	1.4
Autism	185	25	39	9.1	1.2	1.9
Emotional disturbance	443	91	57	27.3	5.6	3.5
Multiple disabilities	62	17	<10	5.8	1.6	<1.0
Hearing impairment/deafness	26	<10	<10	10.2	<1.6	—
Traumatic brain injury	24	<10	<10	11.4	—	—

— Data are masked because the number of students on which the calculation is based is less than 10.

Note: Self-Contained and Resource Attendance Management information, including disability category, was available for 33,312 students eligible to receive special education services as of October 1, 2010. One hundred eighteen students with disability exited because they transferred to adult education; 19 students with disabilities exited because they died or were expelled. The numbers by disability category for those exits are too low to be presented in this table. Data for students classified with visual impairment, orthopedic impairment, or deaf-blindness could not be reported because the number of students with an exit was too small for this analysis. Students may have more than one type of exit during the school year. Those students are double counted across exit categories. Percentages were computed based on nonmissing data from the total number of students in grades 6–12 in each group as documented in table C1.

Source: Authors' analysis based on Utah State Office of Education (2011a).

Table C6. Number and percentage of grade 9–12 students with disabilities, by disability category, 2011 cohort

Disability category	Number of students	Percentage of students
Specific learning disability	2,598	65.5
Other health impairment	386	9.7
Intellectual disability	259	6.5
Emotional disturbance	252	6.4
Autism	219	5.5
Multiple disabilities	92	2.3
Speech or language impairment	63	1.6
Traumatic brain injury	41	1.0
Hearing impairment/deafness	33	0.8
Orthopedic impairment	12	0.3
Visual impairment	<10	<0.3
Deaf-blindness	<10	<0.3
Total	3,967	100

Note: Percentages may not add to 100 percent because of rounding.

Source: Authors' analysis based on Utah State Office of Education (2011b).

Table C7. Number and percentage of four-year final high school outcomes, by general education and student disability classification and disability category, 2011 cohort

Student classification and disability category	Total number of students in cohort	Number of students by four year high school outcomes				Percentage of students by four year high school outcomes			
		Graduates	Other completers	Continuing students	Dropouts	Graduates	Other completers	Continuing students	Dropouts
General education students	37,529	29,116	220	404	7,789	77.6	0.6	1.1	20.8
Students with disabilities	3,967	2,325	164	461	1,017	58.6	4.1	11.6	25.6
Specific learning disability	2,598	1,676	41	185	696	64.5	1.6	7.1	26.8
Other health impairment	386	232	25	30	99	60.1	6.5	7.8	25.6
Intellectual disability	259	85	53	82	39	32.8	20.5	31.7	15.1
Emotional disturbance	252	108	10	23	111	42.9	4.0	9.1	44.0
Autism	219	104	19	72	24	47.5	8.7	32.9	11.0
Multiple disabilities	92	15	14	49	14	16.3	15.2	53.3	15.2
Speech or language impairment	63	47	<10	<10	13	74.6	—	—	20.6
Traumatic brain injury	41	19	<10	<10	13	46.3	—	—	31.7
Hearing impairment/deafness	33	25	<10	<10	<10	75.8	—	—	—
Orthopedic impairment	12	<10	<10	<10	<10	—	—	—	—
Visual impairment	<10	<10	<10	<10	<10	—	—	—	—
Deaf-blindness	<10	<10	<10	<10	<10	—	—	—	—

— Data are masked because the number of students on which the calculation is based is less than 10.

Note: Percentages may not add to 100 percent because of rounding.

Source: Authors' analysis based on Utah State Office of Education (2011b).

Table C8. Number and percentage of grade 6–12 general education students and students with disabilities, by county, 2010/11

County	Number of general education students	Number of students with disabilities	Percentage of students with disabilities	Percentage of students with disabilities in Utah	Percentage of general education students in Utah
Beaver	694	112	13.9	0.3	0.3
Box Elder	5,269	558	9.6	1.6	2.1
Cache	10,354	1,312	11.2	3.8	4.0
Carbon	1,613	356	18.1	1.0	0.6
Daggett	75	<10	—	<0.1	0.0
Davis	31,561	3,605	10.3	10.4	12.3
Duchesne	1,959	324	14.2	0.9	0.8
Emery	1,020	178	14.9	0.5	0.4
Garfield	412	71	14.7	0.2	0.2
Grand	719	99	12.1	0.3	0.3
Iron	3,895	639	14.1	1.8	1.5
Juab	1,193	175	12.8	0.5	0.5
Kane	532	86	13.9	0.2	0.2
Millard	1,300	256	16.5	0.7	0.5
Morgan	1,219	95	7.2	0.3	0.5
Piute	158	29	15.5	0.1	0.1
Rich	212	—	—	<0.1	0.1
Salt Lake	88,149	12,236	12.2	35.2	34.3
San Juan	1,435	215	13.0	0.6	0.6
Sanpete	2,400	392	14.0	1.1	0.9
Sevier	2,067	294	12.5	0.8	0.8
Summit	3,505	352	9.1	1.0	1.4
Tooele	6,157	871	12.4	2.5	2.4
Uintah	2,831	309	9.8	0.9	1.1
Utah	52,836	6,994	11.7	20.1	20.6
Wasatch	2,371	335	12.4	1.0	0.9
Washington	12,041	1,648	12.0	4.7	4.7
Wayne	247	38	13.3	0.1	0.1
Weber	20,448	3,183	13.5	9.1	8.0
Total	256,672	34,793	11.9	100	100

— Data are masked because the number of students on which the calculation is based is less than 10 or to prevent calculation of other values that are less than 10.

Note: Percentages may not add to 100 percent because of rounding.

Source: Authors' analysis based on Utah State Office of Education (2011a).

Table C9. Number and percentage of grade 6–12 students, by general education and student disability classification and demographic characteristics, 2010/11

Demographic characteristic	General education students		Students with disabilities	
	Number	Percent	Number	Percent
Gender				
Male	127,778	49.8	22,358	64.3
Female	128,894	50.2	12,435	35.7
Race/ethnicity				
White	201,906	78.7	26,068	74.9
Hispanic	36,237	14.1	6,150	17.7
Asian	5,107	2.0	318	0.9
Native Hawaiian/Pacific Islander	4,062	1.6	377	1.1
American Indian/Alaska Native	3,214	1.3	761	2.2
Black	3,247	1.3	753	2.2
Multirace	2,899	1.1	366	1.1
English language learner student				
Yes	10,095	3.9	3,283	9.4
No	246,577	96.1	31,510	90.6
Low socioeconomic status				
Yes	85,560	33.3	17,639	50.7
No	171,112	66.7	17,154	49.3

Note: Percentages may not add to 100 percent because of rounding.

Source: Authors' analysis based on Utah State Office of Education (2011a).

Table C10. Number and percentage of grade 6–12 students with disabilities, by type of school of enrollment and disability category, 2010/11

Disability category	Number of students				Percentage of students			
	Regular school	Homebound/hospitalized/residential setting	Separate school	Correctional facility	Regular school	Homebound/hospitalized/residential setting	Separate school	Correctional facility
Students with disabilities	31,581	145	1,332	244	94.8	0.4	4.0	0.7
Specific learning disability	19,681	51	145	148	98.3	0.3	0.7	0.7
Other health impairment	3,128	17	84	15	96.4	0.5	2.6	0.5
Intellectual disability	1,992	<10	351	<10	84.2	—	14.8	—
Speech or language impairment	2,212	<10	18	<10	99.1	—	0.8	—
Autism	1,843	<10	181	<10	90.9	—	8.9	—
Emotional disturbance	1,471	18	72	60	90.7	1.1	4.4	3.7
Multiple disabilities	613	25	430	<10	57.4	2.3	40.3	—
Hearing impairment/deafness	229	<10	20	<10	89.8	—	7.8	—
Traumatic brain injury	194	<10	13	<10	93.3	—	6.3	—
Visual impairment	112	<10	—	<10	94.1	—	—	—
Orthopedic impairment	98	<10	—	<10	93.3	—	—	—
Deaf-blindness	<10	<10	10	<10	—	—	50.0	—

— Data are masked because the number of students on which the calculation is based is less than 10 or to prevent calculation of other values that are less than 10.

Note: Information on disability categories was missing for 1,481 students with disabilities. Percentages were computed based on nonmissing data. Only 10 students with disabilities were placed by parents in private schools and the percent in that type of school rounded to zero for all disability categories. The numbers are not presented because of very small cell sizes. Percentages may not add to 100 percent because of rounding.

Source: Authors' analysis based on Utah State Office of Education (2011a).

Table C11. Number and percentage of grade 6–12 students with disabilities enrolled in regular schools, by time spent in general education classes and disability category, 2010/11

Disability category	Number of students by time spent in general education classes			Percentage of students by time spent in general education classes		
	At least 80 percent of the day	40 79 percent of the day	Less than 40 percent of the day	At least 80 percent of the day	40 79 percent of the day	Less than 40 percent of the day
Students with disabilities	15,339	11,362	4,880	48.6	36.0	15.5
Specific learning disability	10,270	8,185	1,226	52.2	41.6	6.2
Other health impairment	1,475	1,167	486	47.2	37.3	15.5
Intellectual disability	222	464	1,306	11.1	23.3	65.6
Speech or language impairment	1,757	323	132	79.4	14.6	6.0
Autism	624	537	682	33.9	29.1	37.0
Emotional disturbance	638	448	385	43.4	30.5	26.2
Multiple disabilities	51	74	488	8.3	12.1	79.6
Hearing impairment/deafness	122	37	70	53.3	16.2	30.6
Traumatic brain injury	75	70	49	38.7	36.1	25.3
Visual impairment	60	33	19	53.6	29.5	17.0
Orthopedic impairment	44	24	30	44.9	24.5	30.6
Deaf-blindness	<10	<10	<10	—	—	—

— Data are masked because the number of students on which the calculation is based is less than 10.

Note: Information on disability categories was missing for 1,481 students with disabilities. Number of students in each category enrolled in regular schools is presented in table C10. Percentages were computed based on nonmissing data. Percentages may not add to 100 percent because of rounding.

Source: Authors' analysis based on Utah State Office of Education (2011a).

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