

**Preparing for life after high school:
The characteristics and experiences of youth in
special education**

**Volume 3:
Comparisons over time**

Findings from the National Longitudinal Transition Study 2012

Chapters 1-6

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Chapter 1. Why and how is this study being conducted?

For more than 40 years, policymakers have committed to supporting the education of students with disabilities, who have grown as a share of all students in the United States (Snyder, de Brey, & Dillow, 2016). Concern that these needs were not being adequately met led Congress to pass landmark legislation in 1975, now known as the Individuals with Disabilities Education Act (IDEA). IDEA mandates that students with disabilities have access to a free, appropriate public education. It also authorizes nationwide funding to help school districts provide services to meet students' unique needs. A core component of IDEA is the requirement that schools and families work together to develop an individualized education program (IEP) for each student in special education to guide the provision of educational and related services that the student needs to progress academically. Congress has updated IDEA several times, most recently in 2004, placing an increased emphasis on helping youth prepare for postsecondary education, careers, and independent living.

Despite these policies, concern about the challenges youth with an IEP face and interest in understanding their experiences remains. Research beginning more than two decades ago found that many of these youth struggled during and after high school, although the extent and nature of their challenges varied with their characteristics (see, for example, Newman, Wagner, Cameto, Knokey, & Shaver, 2010; Wagner et al., 1991). Since then, the educational, social, and economic landscapes for all youth, including those with an IEP, have changed in important ways. Schools and teachers face greater demands to help students progress academically, and school climate has received greater public attention (Dee, Jacob, & Schwartz, 2013; Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013). The nation is more racially and ethnically diverse, the economy is recovering from the Great Recession (from 2007 to 2009), and employers place greater value on postsecondary education (Colby & Ortman, 2015; Oreopoulos & Petronijevic, 2013; Oreopoulos, von Wachter, & Heisz, 2012).

The National Longitudinal Transition Study (NLTS) 2012 provides updated information on youth with disabilities in light of these changes. Sponsored by the U.S. Department of Education under a congressional mandate to examine IDEA 2004, the NLTS 2012 is the third study in the NLTS series. The new study offers a current picture of the backgrounds of secondary school youth and their functional abilities, activities in school and with friends, academic supports received from schools and parents, and preparation for life after high school. The NLTS 2012 collected data that, for the first time, allow direct comparisons of youth with and without an IEP. The study also compares youth with different disabilities and uses data from the prior studies in the NLTS series to examine trends in their characteristics and experiences over three decades. Three initial report volumes have been developed, each with a different focus (see box 1). Together, the volumes are designed to inform efforts by educators and policymakers to address the needs of youth in special education.

Box 1. Three volumes reporting findings from the National Longitudinal Transition Study 2012

Preparing for life after high school: The characteristics and experiences of youth in special education

Volume 1: Comparisons of youth in special education with other youth examines the characteristics of youth in special education overall and how these youth are faring relative to their peers. Comparisons are made between youth with and without an IEP, and within the latter group, those with a disability under Section 504 of the Rehabilitation Act. The findings highlight the distinctive features of the characteristics and experiences of youth with an IEP.

Volume 2: Comparisons of youth in special education across disability groups describes the characteristics of youth in 12 disability groups based on IDEA 2004 definitions and how these groups of youth are faring relative to one another. The findings highlight the diversity of needs and challenges faced by youth in special education.

Volume 3: Comparisons of youth in special education over time identifies trends in the characteristics and experiences of youth in special education over the past three decades. The findings highlight the extent of progress students in special education are making.

Note: The three volumes are available on the [Institute of Education Sciences website for the NLTS 2012](#).

This volume, the third from the NLTS 2012, examines how the characteristics and experiences of youth ages 15 to 21 in special education have changed over time, using data from the three studies in the NLTS series. It provides information to assess the progress that the nation has made in preparing youth with an IEP for life after high school. The report also aims to inform policymakers and educators who seek new ways to improve special education services.

In addition to describing the trends for youth with an IEP overall, this report examines how the characteristics and experiences of youth have changed for 12 disability groups (see table 1 and box 2 for definitions of the groups). Based on states' annual reporting for each group over time—from 1987, when the data for the original NLTS were collected, to 2012, representing the current study—the number of youth with an IEP increased by 74 percent overall, with growth in all but one disability group.⁷ Youth with intellectual disabilities are the exception: the size of that group decreased by 13 percent. The number of youth with other health impairments (which encompasses many types of impairments including epilepsy, asthma, diabetes, and attention deficit hyperactivity disorders [ADHD]) grew the most, increasing by more than 1,600 percent over the past three decades. During this period, youth with an IEP (ages 15 to 21) grew from 8 percent of total enrollment in public secondary schools in 1987 to 11 percent in 2003 and to 12 percent in 2012 (Snyder et al., 2016; U.S. Department of Education, 1989, 2006, 2012).

Table 1. Percentage growth in the number of youth with an IEP ages 15 to 21, by disability group

Disability group	2012 (NLTS 2012)	2003 (NLTS2)	1987 (NLTS)	Percentage growth		
				1987 to 2012	1987 to 2003	2003 to 2012
Youth with an IEP overall	1,702,082	1,583,976	978,382	74	62	7
Autism	100,113	20,916	—	—	—	379
Deaf-blindness	517	529	272	90	94	2
Emotional disturbance	158,517	176,357	113,863	39	55	-10
Hearing impairment	20,965	20,658	11,068	89	87	1
Intellectual disability	185,131	218,513	213,569	-13	2	-15
Multiple disabilities	49,684	44,801	18,395	170	144	11
Orthopedic impairment	17,331	19,802	12,212	42	62	-12
Other health impairment	235,022	100,678	13,523	1,638	644	133
Specific learning disability	864,471	925,063	554,424	56	67	-7
Speech or language impairment	52,383	41,251	36,188	45	14	27
Traumatic brain injury	10,275	7,698	—	—	—	33
Visual impairment	7,673	7,710	4,868	58	58	0

— = not available.

NLTS is National Longitudinal Transition Study.

Note: Because the disability growth rates are based on the universe of youth identified in each disability group, statistical tests were not conducted to determine whether they differed across groups or periods. The year listed indicates the calendar year in which the school year ends. For example, 2012 represents the 2011–2012 school year. Autism and traumatic brain injury were not recognized as separate disability groups until IDEA 1990.

Source: U.S. Department of Education (2012, 2006, 1989).

⁷ In this report, data collected in 2012–2013 are referred to as 2012, data collected in 2003 are referred to as 2003, and data collected in 1987 as 1987.

The growth in the number of youth in each disability group has not been steady over time. For most disability groups, the increases took place primarily in the early period, from 1987 to 2003. During the recent decade, from 2003 to 2012, the number of youth declined in five disability groups: deaf-blindness, emotional

Box 2. Definitions of 12 disability groups recognized by the Individuals with Disabilities Education Act for adolescent youth

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.

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 either deafness or blindness.

Emotional disturbance means a condition exhibiting one or more of the following characteristics over a long period and to a marked degree that adversely affects a child's educational performance: (1) an inability to learn that cannot be explained by intellectual, sensory, or health factors; (2) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; (3) inappropriate types of behavior or feelings under normal circumstances; (4) a general pervasive mood of unhappiness or depression; or (5) a tendency to develop physical symptoms or fears associated with personal or school problems.

Hearing impairment (includes deafness)¹ is a limited ability to hear, whether permanent or fluctuating, which adversely affects a child's educational performance. The term as used in the study includes deafness, which means a hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, which adversely affects a child's educational performance.

Intellectual disability means significantly below-average general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period, which adversely affects a child's educational performance.

Multiple disabilities are concomitant impairments (such as intellectual disability-blindness or intellectual disability-orthopedic impairment), the combination of which causes such severe educational needs that cannot be accommodated in special education programs solely for one of the impairments. Multiple disabilities does not include deaf-blindness.

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, bone tuberculosis), and impairments from other causes (for example, cerebral palsy, amputations, fractures, or burns).

Other health impairment means having limited strength, vitality, or alertness, including greater awareness of external stimuli that can result in reduced attention to the educational environment, which (1) is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit/hyperactivity disorder (ADHD), diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia, and Tourette syndrome; and (2) adversely affects a child's educational performance.

Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which can manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or perform mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.

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

Traumatic brain injury means an acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, which 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.

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

¹ IDEA 2004 recognizes hearing impairment and deafness as separate categories. Because youth with these disabilities are small groups, they are combined in this volume under "hearing impairment."

Note: The definitions in this box incorporate minor editorial changes that do not change the meaning of those in IDEA 2004.

Source: Individuals with Disabilities Education Act, 34 C.F.R. Part 300 § 300.8 (C).

disturbance, intellectual disability, orthopedic impairments, and specific learning disabilities. However, the number identified in other groups has continued to climb. Autism grew the most from 2003 to 2012 (379 percent growth), which may reflect greater awareness of the condition, improved approaches for identifying it, or other factors that affect its actual prevalence among youth (Blumberg et al., 2013).

Changes to IDEA may be partly responsible for some of the trends in disability group identification. For instance, IDEA did not recognize autism and traumatic brain injury as distinct disability categories until 1990. In addition, IDEA 2004 encouraged states to develop new approaches for identifying specific learning disabilities. The change was intended to shift away from a model of identification based on the size of the discrepancy between achievement and IQ measures to an approach referred to as response to intervention (RTI) that includes universal screening and increasingly intensive interventions designed to support learning (Cortiella & Horowitz, 2014). This approach aims to provide early assistance for struggling students and reduce the number who need IDEA services for a specific learning disability. Box 3 summarizes major changes to IDEA since 1990, to provide context for the trends reported in this volume.

Box 3. Major changes to IDEA in 1990, 1997, and 2004 for youth with an IEP

1990 amendments

- **Autism and traumatic brain injury**: IDEA began recognizing these two disabilities as distinct categories of disability.
- **IEP development and transition planning**: IEPs for youth ages 16 and older need to include a transition plan. This plan identifies a coordinated set of activities designed to promote the student's movement from school to post-school life. Schools must invite youth with an IEP and their parents to a transition-planning meeting that includes a discussion of postsecondary goals and the assistance needed to reach those goals.

1997 amendments

- **Discipline**: Schools cannot suspend or expel students with disabilities for behavior that is a manifestation of their disability.
- **Accountability**: Schools must include all students with disabilities in standard state assessments and develop an alternate assessment for those who cannot participate even with accommodations.
- **Inclusion in the general education curriculum**: IEPs must describe how students with disabilities will be involved with and progress in the general education curriculum designed for all students.
- **Parent participation**: The roles of parents in disability evaluation, IEP development, and placement decisions are strengthened. For example, parents are included in placement decisions, whereas before they only had a right to be included in IEP meetings.
- **IEP development and transition planning**: A statement of transition service needs is to be provided to youth starting at age 14. The transition plan must consider their preferences and interests, as well as include an examination of their coursework and a determination of whether they are on track for their goals at graduation.

2004 amendments

- **IEP development and transition planning**: IEPs must include statements about not only the students' levels of academic achievement but also their functional performance. Transition planning must begin no later than age 16, the age originally specified in the 1990 amendments before being lowered to age 14 in 1997. Transition plans must include the development of appropriate postsecondary goals that can be measured. Students' goals and transition services must consider their strengths along with their preferences and interests.
- **Discipline**: School personnel may consider circumstances on a case-by-case basis when considering appropriate discipline for students with disabilities who violate codes of conduct. The amendments provide standards for determining whether misconduct is caused by the disability or a failure to implement the IEP.
- **Specific learning disabilities**: Schools no longer need to document the existence of a discrepancy between IQ and achievement to identify a specific learning disability. They may instead use RTI approaches, which include early

interventions and assessments of whether youth are able to make sufficient progress to meet grade-level standards without special education services.

- **Parent participation:** To communicate about the development of a student's IEP, schools and parents can use conference calls and other means that do not require a parent's physical presence.
- **Preparation for further education:** The free, appropriate public education provided to students should be designed to prepare them not only for employment and independent living, but also for further education.
- **Disproportionality:** States must collect and report data by student race and ethnicity to determine whether any racial or ethnic groups are disproportionately being identified for special education, suspended, or expelled.

Note: This box focuses on major changes affecting youth with an IEP and is not intended to be comprehensive of all amendments to IDEA.

Source: Public Law 101-476 (1990 amendments); Public Law 105-17 (1997 amendments); Public Law 108-446 (2004 amendments).

Overview of the National Longitudinal Transition Study 2012 and its predecessors

The NLTS 2012 is a national study of nearly 13,000 youth, including youth with an IEP (81 percent) and without an IEP (19 percent). These students were chosen to be representative of all students with and without an IEP in the United States in grades 7 through 12 (or ungraded secondary classes) who were enrolled in public school districts, charter schools, and special schools. Among the youth with an IEP are students who represent each of 12 disability categories recognized by IDEA 2004: autism, deaf-blindness, emotional disturbance, hearing impairment,⁸ intellectual disability, multiple disabilities, orthopedic impairment, other health impairment, specific learning disability, speech or language impairment, traumatic brain injury, and visual impairment. Among the youth without an IEP are students who represent those who receive disability accommodations in accordance with Section 504 of the Rehabilitation Act (although they do not receive IDEA special education services).⁹ The study surveyed youth and their parents in 2012 or 2013, when the vast majority of youth (97 percent) were 13 to 21 years old.¹⁰ It spans multiple ages and grades to provide a broad view of students' school experiences at a point in time. In this volume, we refer to the NLTS 2012 as providing data for 2012, because the data represent the student population in this year.

Two earlier studies in the NLTS series were conducted over the past three decades. The first study, called the NLTS, was a nationally representative study of over 6,800 13- to 21-year-old students in special education at public school districts and special schools in 1985. The study interviewed the students' parents in summer and

⁸ Because youth with deafness and hearing impairments are small groups, they have been combined into one group for this study.

⁹ Section 504 is a civil rights statute that bars the exclusion of individuals from programs and activities that receive federal assistance based on their having a physical or mental impairment that substantially limits major life activities. Examples of major life activities include the following: performing manual tasks, speaking, learning, working, thinking, and communicating. Section 504 also covers individuals who have a history of, or are regarded as having, a physical or mental impairment that limits major life activities. The definition of a disability is broader under Section 504 than under IDEA 2004, which requires disabilities to adversely affect students' educational performance. Five percent of the nearly 13,000 youth receive disability accommodations through Section 504 but do not have an IEP.

¹⁰ Youth were ages 12 to 23 when interviews took place. Less than 2 percent were 12 years old, and less than 1 percent were 22 or 23 years old. All students were enrolled in grades 7 through 12 or a secondary ungraded class when sampled for the study.

fall 1987, and then both students and parents from fall 1990 through winter 1991. The second study, the NLTS2, included more than 9,200 youth with an IEP who were ages 13 to 16 in December 2000. The NLTS2 conducted parent interviews in 2001 and interviews with both parents and youth in 2003. Additional waves of the study were conducted in 2005, 2007, and 2009, focusing mostly on students' post-high school outcomes.

This volume draws on data from all three studies in the NLTS series to examine trends in students' characteristics and high school experiences over the past three decades for youth with an IEP overall and for disability groups. Most analyses examine trends for in-school youth ages 15 to 18 from 2003 to 2012, using Wave 2 of the NLTS2 and NLTS 2012 data. The study team selected the 2003 year of the NLTS2 because the vast majority of NLTS2 students were high school age and the data for the first time included both youth-reported and parent-reported information, as is the case in the NLTS 2012. Where comparable data were available in 1987 from the original NLTS (only available for some parent-reported measures), the volume extends the trends back a decade to 1987 for youth ages 15 to 18 and adds trends for youth ages 19 to 21 who are still enrolled in secondary school.¹¹ In these instances, the volume refers to youth ages 15 to 18 as "younger youth" and those ages 19 to 21 as "older youth." Trend data are not available for older youth in 2003, given that the oldest youth in the NLTS2 were 19 years old. For each of the three studies, the study team identified youth in the relevant age range for whom data were available and re-weighted their responses to make them representative of all youth of those ages with an IEP in the appropriate study year (2012, 2003, and 1987). Box 4 provides more information on the three data sources and the presentation of information in this volume. Appendix A presents more detail on the weighting procedure as well as other technical notes and methodology.

Box 4. The NLTS series at a glance

Students in the studies and how they were selected

All three studies in the NLTS series provide information on nationally representative sets of students at specific points in time. To represent all youth with an IEP in the United States for each disability category, the study teams first drew nationally representative samples of districts. The participating districts provided lists of enrolled students with their IEP status and category, from which students within each category were selected. See [appendix A](#) for more detail on the study.

The NLTS 2012 provides information on students in grades 7 through 12 or who were ages 13 to 21 and attended secondary ungraded classes when selected for the study in December 2011. Of the 572 sampled districts, charter schools, and special schools for deaf and/or blind students, 432 (76 percent) agreed to participate in the study. Of the 17,476 sample members with an IEP, surveys were completed for 10,459 parents and 8,960 youth, response rates of 60 and 51 percent, respectively. This volume examines two age groups of youth with an IEP who were enrolled in school and surveyed during 2012 or 2013: those ages 15 to 18 and ages 19 to 21. The findings for younger youth who were enrolled in school are based on 5,194 observations for parent-reported measures and 4,400 observations for youth-reported measures. The findings for older youth who were enrolled in school are based on 957 observations for parent-reported measures and 777 observations for youth-reported measures.

The NLTS2 provides information on students with an IEP who were ages 13 to 16 in December 2000. The study sampled 3,712 local education agencies and special schools, of which 538 (15 percent) agreed to participate. In 2003, of the 11,276 sample members, surveys were completed for 6,714 parents and 6,322 youth (60 and 56 percent of the initial sample) when youth were ages 15 to 19. The findings in this volume are based on 5,457 observations for parent-reported measures and 2,773 observations for youth-reported measures for youth ages 15 to 18 who were enrolled in school in 2003.

¹¹ For youth ages 19 to 21, findings are only reported for the aggregate group due to small sample sizes in some of the disability groups.

The NLTS provides information on students with an IEP who were ages 13 to 21 in 1985. Of the 712 sampled local education agencies and special schools, 325 (46 percent) agreed to participate in the study. Out of a possible 10,369 sample members, surveys were completed for 6,896 parents (67 percent) during summer and fall 1987, when youth were ages 15 to 23. The parent-reported findings in this volume are based on 3,941 observations for youth ages 15 to 18 and 1,404 observations for youth ages 19 to 21.

Collection of information for the study

The NLTS 2012 parent and youth surveys were completed during winter, spring, and summer 2012 and 2013, using a combination of computer-assisted interviewing (over the telephone and in person) and responses to web-based surveys. Parent survey respondents provided proxy responses for youth who were unable to self-report even with accommodations offered by the study (19 percent of youth with an IEP overall). Proxy responses were not obtained for questions that depended on the youth's perspective. See appendix A for more detail.

The NLTS2 parent and youth surveys were completed in winter and spring 2003 using telephone surveys. Nonrespondents to the telephone survey received a written version of the survey by mail. Parents provided proxy responses to the youth survey if they did not think the youth would be able to accurately answer questions, both over the telephone and in a written questionnaire; 47 percent of youth survey respondents were parent proxies.

The NLTS parent surveys were completed during summer and fall 1987 using telephone surveys. The data collection process did not allow for responses to the parent survey by a proxy.

Analysis and presentation of information collected

This volume presents comparisons of group averages and tests for statistically significant differences over time.¹ Because of the large number of comparisons made, the text highlights only the statistically significant differences that are at least 5 percentage points between time points. The study team selected this level in consultation with IES and content experts, judging differences of less magnitude not large enough to inform policy, practice, or the targeting of technical assistance. The 5 percentage point level was not empirically derived or based on an external standard. The main analyses are for youth who were 15 to 18 years old in 2003 and 2012, although findings are also reported for youth who were 19 to 21 years old and for youth in 1987, data permitting. For youth ages 19 to 21, findings are only reported for the aggregate group due to small sample sizes in some of the disability groups.

Limitations of comparing across studies in the NLTS series

The trends presented in this volume could partially reflect changes in the disability groups recognized in federal legislation or in the ways that youth with different disabilities are identified. In particular, autism and traumatic brain injury were not recognized as separate disability groups until IDEA 1990. As such, they are not included as disability categories in the NLTS, but they are included in the NLTS2 and NLTS 2012. The trends may also partly reflect differences in the study design, such as the methods the three NLTS studies used to recruit districts and students. See appendix A for more detail on each study.

Because low response rates can lead to bias in results if survey nonrespondents have different characteristics than the respondents, the studies used several methods to examine the potential for nonresponse bias in the parent and youth surveys (see appendix A for detail). Together, the results from applying these methods suggest that nonresponse adjustments to the weights succeeded in limiting the potential for bias. However, it remains possible that the nonresponse-adjusted weights do not fully account for all differences between respondents and nonrespondents. Thus, readers should draw conclusions with caution. Another limitation is that the study only describes trends among groups of youth with an IEP; it does not attempt to definitively explain the origin of those trends.

¹ The threshold for statistical significance in the report is $p < .05$. Given the large number of comparisons in the report, an increased chance exists that a trend will appear to be upward or downward on at least one measure by random chance alone. Multiple comparison adjustments have not been made in the findings presented in this report, perhaps increasing the number of statistically significant findings.

Key questions of interest and the organization of the volume

This volume is organized around five questions of interest to policymakers, educators, and other stakeholders. As such, only the survey measures most relevant to addressing these questions that can be compared across the studies in the NLTS series are analyzed in this report (appendix A provides more detail about the measures). While this report examines changes over time in youth and family characteristics and in youths' school experiences, it does not do both at the same time (e.g., showing how participation in extracurricular activities has changed for low-income youth in each disability group and for higher-income youth in each disability group) because of the complexity and number of tables this would involve.

- ***Chapter 2: How have the background characteristics of youth and the schools they attend changed?*** Shifts in the nation's demographics and economic climate as well as in IDEA itself (as noted above) could affect the types of youth receiving special education services overall or in specific disability groups. Characteristics such as income, race/ethnicity, age, gender, and school quality can influence youth experiences and aspirations, independent of or in concert with their disabilities. Documenting trends in the backgrounds of youth with an IEP and the schools they attend can shed light on the emerging challenges these youth face and provide useful context for interpreting findings described in other chapters of this report.
- ***Chapter 3: Are the challenges youth face with health, functional abilities, and independent living different than in the past?*** Helping youth with an IEP enhance their functional performance to achieve greater independence has become a key objective of transition planning under IDEA 2004. Because health conditions can influence functional performance and students' potential for becoming independent, examining the trends in the health, functional abilities, and levels of independence of youth with an IEP can indicate how their needs for supports and services might be changing.
- ***Chapter 4: Are youth engaging in school in different ways or to different degrees?*** Youth who enjoy school, are involved in activities, and stay out of trouble are more likely to progress in school (Finn, 1989; Noltemeyer, Ward, & McLoughlin, 2015; Wang & Fredricks, 2014). Describing the shifts in how youth with an IEP engage in school, including their participation in extracurricular activities and the extent to which they experience negative events such as suspension or expulsion, provides useful information for helping to strengthen schools' connections with youth with an IEP.
- ***Chapter 5: Have the academic and special education supports that youth receive changed?*** Students' success hinges in part on whether they receive the academic supports and services they need to address their disabilities. Schools and parents are the two most important sources of these supports for students. IDEA requires that schools provide all appropriate services to youth with an IEP, and updates to the law over time have sought to increase parents' participation and their role in decision making. Examining trends in the types of support students receive at school and from their parents provides information on how youth are being served and might also reflect changes in students' needs, resources, or family priorities.
- ***Chapter 6: How have youth changed the way they prepare for life after high school?*** How successful youth will be at continuing their education, finding jobs, and being self-sufficient can depend on the steps they take to prepare for adulthood. To inform efforts to enhance the transition-planning process, it is particularly useful to examine shifts in how involved students are in defining their post-high school goals and how they

are preparing for future employment. The trends over time are important indicators of youth progress in achieving IDEA transition goals.

More detail on the NLTS series and the findings in this volume is available in appendices, described below.

- ***Appendix A: Technical notes and methodology.*** This appendix includes technical information on the NLTS 2012, NLTS2, and NLTS, as well as the analyses in this volume. The appendix includes sections describing the purpose and design of the study; the sample design; the parent and youth surveys; data collection methods, procedures, and results; the population of interest and the analytic sample; weighting; unit nonresponse bias analysis; imputation of variables; disclosure risk analysis and protection; statistical procedures; variance estimation; and analytic variables.
- ***Appendices B through F: Detailed tables for chapters 2 through 6.*** These appendices, one supporting each chapter, include detailed findings for measures in the main text and for supplemental measures.

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Chapter 2. How have the background characteristics of youth and the schools they attend changed?

The characteristics of youth, their families, and their schools can play a role in shaping their experiences and aspirations. These characteristics may influence students' outcomes in ways that are independent of or related to their disability. Research not limited to youth with disabilities suggests, for example, that lower socioeconomic status and school quality are linked to lower rates of high school completion, college enrollment, and later success in the labor market (Newman, Wagner, Knokey, et al., 2011; Aud, KewalRamani, & Frohlich, 2011; Fryer & Katz, 2013; Schifter, 2015; Wagner, Newman, & Javitz, 2014).

Key findings in chapter 2

- **The proportion of youth with an IEP whose families face economic challenges has grown over the past decade, with larger increases among some disability groups.** Overall, the proportion of youth with an IEP without a working parent rose by nearly 5 percentage points from 2003 to 2012 (from 15 to 20 percent), with increases of at least 8 percentage points for youth with autism, multiple disabilities, and other health impairments. The proportion living in low-income households grew during this same period in four disability groups (emotional disturbance, hearing impairments, intellectual disability, and other health impairments). In addition, parent-reported receipt of federal food benefits through the Supplemental Nutrition Assistance Program doubled among all youth with an IEP (from 16 to 33 percent) and in every disability group except youth with deaf-blindness. Reported receipt of federal disability benefits through the Supplemental Security Income (SSI) Program also climbed (from 16 to 21 percent) overall and specifically for youth with other health impairments (from 11 to 17 percent).
- **The gender, racial, and ethnic makeup of youth with an IEP has mostly been stable.** Just over two-thirds of youth with an IEP overall were male in both 2003 and 2012. The proportions who were Black and who were Hispanic were also similar over the decade (each are about one in five), and the same is true in most of the disability groups. Three exceptions are that, compared to 2003, in 2012 youth with autism were less likely to be Black (19 versus 12 percent), youth with intellectual disability were more likely to be Hispanic (11 versus 19 percent), and youth with other health impairments were more likely to be Black (9 versus 19 percent). In the prior decade (1987 to 2003), there was little change in the proportion of youth who were male (69 versus 68 percent) or Black (24 versus 18 percent). However, in the earlier decade there was significant growth in the proportion who were Hispanic (9 versus 20 percent), consistent with trends in the racial-ethnic composition of youth overall (U.S. Bureau of the Census, 1990, 2005, 2014).
- **Over the past decade, 4 percent of youth with an IEP have attended schools only for students with disabilities.** This proportion was reported by parents of all youth with an IEP in both 2003 and 2012. This consistency across years is evident in all disability groups with the exception of youth with visual impairments, for whom attending a school just for students with disabilities declined from 18 percent in 2003 to 7 percent in 2012. IDEA 2004 encourages districts and schools to educate youth with disabilities in the least restrictive environment possible.

Ongoing changes in the nation's demographics and economic climate could affect the types of youth receiving special education services and their outcomes in early adulthood. Between 2003 and 2012, the proportions of youth in public schools who were White (59 to 51 percent) and Black (17 to 16 percent) decreased, while the proportions of youth who were Hispanic, Asian, and other race increased (Snyder et al., 2016). The national unemployment rate also increased from 6 to 8 percent over the same period (U.S. Department of Labor, Bureau

of Labor Statistics, 2014). These trends also may mask trends for youth with disabilities specifically. In 2012, males and Black youth represented larger shares of youth with an IEP than of youth without an IEP, and youth with an IEP were more likely than their peers to be socioeconomically disadvantaged.

Detailed tables supporting the findings presented in this chapter are available in [appendix B](#).

The proportion of youth with an IEP whose families face economic challenges has grown over the past decade, with larger increases among some disability groups

In 2012, the lingering effects of the recession following the financial crisis affected many families. The national unemployment rate was just over 8 percent, compared with 6 percent in 2003 (U.S. Department of Labor, Bureau of Labor Statistics, 2014). The proportion of high school youth eligible for the federal free or reduced-price lunch program, which depends on the federal poverty level (and to a lesser extent community poverty via community-based eligibility rules), rose from 30 percent in 2004 to 42 percent in 2011.¹² Similarly, the proportion of all children receiving federal food assistance benefits through the Supplemental Nutrition Assistance Program (SNAP) rose 13 percentage points, from 15 percent in 2003 to 28 percent in 2012 (Child Stats.gov, n.d.; Cunningham & Brown, 2003; Gray & Eslami, 2014). Nationally, households of youth with an IEP in 2012 were more likely than those of other youth to have low incomes and receive SNAP benefits (Volume 1).

¹² These statistics are based on public high schools in the United States in the Common Core of Data for the 2003–2004 and 2011–2012 school years that had nonmissing counts for total students, students eligible for free lunch, and students eligible for reduced-price lunch.

- **Living with nonworking parents and in low-income households has become more common among youth with an IEP in several disability groups** (table 2; see tables B-1 and B-2 for more detail). According to their parents, overall the proportion of youth with an IEP who did not have an employed parent in their household increased by nearly 5 percentage points from 2003 to 2012, from 15 to 20 percent. The rate of parent joblessness rose particularly for youth with autism, multiple disabilities, and other health impairments. Over the same time period, the proportion of youth who lived in low-income households increased in four disability groups that represent about one-third of all youth with an IEP in 2012: emotional disturbance, hearing impairments, intellectual disabilities, and other health impairments. Having lived in a low-income household was about as common for youth with an IEP overall in 1987 as in 2012 (59 and 56 percent, respectively).

Table 2. Percentages of youth with an IEP ages 15 to 18 living in households facing economic challenges, by disability group and year

Disability group	Youth living in households in which no parent has a paid job		Youth living in low-income households		
	2012	2003	2012	2003	1987
Youth ages 15 to 18	20	15*	56	50	59[^]✓
Autism	17	9*✓	35	31	—
Deaf-blindness	‡	14!	37!	52	44
Emotional disturbance	27	25	61	50*✓	58
Hearing impairment	17	12	58	43*✓	54 [^] ✓
Intellectual disability	32	28	72	62*✓	69
Multiple disabilities	28	17*✓	51	45	62 [^] ✓
Orthopedic impairment	18	12	49	41	57 [^] ✓
Other health impairment	19	9*✓	46	37*✓	62*✓, [^] ✓
Specific learning disability	17	12	58	50	57
Speech or language impairment	15	15	51	45	58 [^] ✓
Traumatic brain injury	17	12	49	40	—
Visual impairment	10	11	49	48	57

* = $p < .05$ for comparison with 2012 estimate; [^] = $p < .05$ for comparison with 2003 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate; — = not available; ‡ = reporting standards not met. The standard error represents more than 50 percent of the estimate.

Note: Parent survey respondents were asked to indicate their employment status and that of their spouse, if they have one, at the time of the survey, and to indicate their household size and income in the previous year. Data for a small number of observations were imputed when not available from either the parent survey or the sample information. Low household income is household income below 185 percent of the federal poverty level, which was \$22,350 in 2012, \$18,100 in 2003, \$11,000 in 1987 for a family of four living in the continental United States in 2012.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who live with parents at least some of the time. More information is provided in appendix B, tables B-1 and B-2.

- Compared with a decade ago, youth with an IEP are more likely to receive federal benefits, particularly food assistance (table 3; see tables B-3 to B-5 for more detail). From 2003 to 2012, the proportion of all youth with an IEP in households that received SNAP food assistance doubled from 16 to 33 percent, based on parent reports. Receipt of SNAP rose in every disability group except for youth with deaf-blindness. Although participation in SNAP grew, the proportion of youth with an IEP who received Temporary Assistance for Needy Families (TANF), another federal program that targets low-income households and through which states provide welfare benefits, was fairly stable, at 8 percent in 2003 and 10 percent in 2012. A growing share of youth overall received SSI benefits, for which eligibility depends on youths' disability conditions in addition to their households' financial needs.¹³ Youth participation in SSI increased from 16 to 21 percent, although this growth appears to be concentrated among those with other health impairments (from 11 to 17 percent).

Table 3. Percentages of youth with an IEP ages 15 to 18 in households that received benefits through three federal assistance programs for low-income households in the past two years, by disability group and year

Disability group	Youth's household received Supplemental Nutrition Assistance Program (SNAP) benefits in the past two years		Youth's household received Temporary Assistance for Needy Families (TANF) benefits in the past two years		Youth who received Supplemental Security Income (SSI) benefits in the past two years	
	2012	2003	2012	2003	2012	2003
Youth ages 15 to 18	33	16*✓	10	8	21	16*✓
Autism	17	6*✓	5	5	28	26
Deaf-blindness	14!	13!	‡	9!	48	42
Emotional disturbance	44	24*✓	14	13	29	23
Hearing impairment	29	13*✓	10	7	31	24
Intellectual disability	44	21*✓	14	11	48	40
Multiple disabilities	35	13*✓	10	7	41	39
Orthopedic impairment	26	9*✓	6	6	38	35
Other health impairment	28	13*✓	8	8	17	11*✓
Specific learning disability	33	14*✓	8	6	14	9
Speech or language impairment	27	18*✓	7	11	11	8!
Traumatic brain injury	29	11*✓	6!	6	30	23
Visual impairment	27	8*✓	7!	3	33	33

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate; ‡ = reporting standards not met. The standard error represents more than 50 percent of the estimate.

Note: Parent survey respondents were asked whether anyone in the household received SNAP benefits in the past two years, whether anyone in the household received SSI benefits for the youth in the past two years, and whether anyone in the household received TANF or state welfare benefits in the past two years.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who live with parents at least some of the time. More information is provided in appendix B, tables B-3, B-4, and B-5.

¹³ Parents were asked about SSI benefits for youth, although adults with disabilities also can be eligible for SSI.

- **Youth with intellectual disability, multiple disabilities, other health impairments, or traumatic brain injuries are more likely to live in single-parent households than a decade ago** (table 4; see table B-6 for more detail). Overall, about one-third of parents in both 2003 and 2012 said they were neither married nor in a marriage-like relationship (31 and 37 percent, respectively).¹⁴ However, the proportion of youth in single-parent households grew among those with intellectual disability, multiple disabilities, other health impairments, and traumatic brain injuries. These four groups represented 28 percent of youth with an IEP in 2012. Going back even further, between 1987 and 2012 there was little change in the proportion of youth with an IEP who lived in a single-parent household (35 and 37 percent, respectively), declining over this longer period only for youth with speech or language impairments (from 43 to 32 percent).

Table 4. Percentages of youth with an IEP ages 15 to 18 whose parent is not married or in a marriage-like relationship, by disability group and year

Disability group	2012	2003	1987
Youth ages 15 to 18	37	31	35
Autism	28	23	—
Deaf-blindness	32	35	‡
Emotional disturbance	48	43	41
Hearing impairment	37	30	35
Intellectual disability	43	36*✓	37
Multiple disabilities	41	26*✓	35
Orthopedic impairment	33	29	37
Other health impairment	38	25*✓	42^✓
Specific learning disability	35	29	32
Speech or language impairment	32	30	43*✓,^✓
Traumatic brain injury	39	26*✓	—
Visual impairment	25	30	34

* = $p < .05$ for comparison with 2012 estimate; ^ = $p < .05$ for comparison with 2003 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; — = not available; ‡ = reporting standards not met. The standard error represents more than 50 percent of the estimate.

Note: Parent survey respondents were asked if they are married, in a marriage-like relationship, separated, divorced, widowed, or single (and never married).

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2; National Longitudinal Transition Study. The universe is youth who live with parents at least some of the time. More information is provided in appendix B, table B-6.

- **Youth with an IEP in 2012 are less likely to have private health insurance than in the past, but the proportion without any health insurance appears unchanged** (table 5; see tables B-7 to B-9 for more detail). The proportion of youth with private health insurance, as reported by parents, decreased by 16 percentage points from 2003 to 2012, from 67 to 51 percent. Reductions in private health insurance coverage ranged from 12 to 20 percentage points in seven disability groups: emotional disturbance, hearing impairments, intellectual disability, other health impairments, specific learning disabilities, speech or language impairments, and traumatic brain injuries. Despite these declines, the proportion of youth not covered by

¹⁴ The term *marriage-like relationship* is not defined in either the NLTS 2012 parent survey or the NLTS2 parent survey from which the item was drawn. For this report, the term has been interpreted as including domestic partnerships. However, parents may have interpreted the term in other ways.

some form of health insurance did not increase (8 percent in 2003 and 2012), suggesting that those who did not have private coverage obtained insurance through a government-assisted or public health plan.¹⁵

Table 5. Percentages of youth with an IEP ages 15 to 17 who have private health insurance and who do not have any health insurance, by disability group and year

Disability group	Youth who have private health insurance		Youth who have neither private nor public health insurance	
	2012	2003	2012	2003
Youth ages 15 to 17	51	67*✓	8	8
Autism	71	77	2!	2!
Deaf-blindness	58	56	‡	4!
Emotional disturbance	42	62*✓	6	8!
Hearing impairment	45	62*✓	7	6
Intellectual disability	30	49*✓	6	10
Multiple disabilities	50	59	3!	5
Orthopedic impairment	52	61	5!	7!
Other health impairment	56	74*✓	5	4
Specific learning disability	52	71*✓	10	8
Speech or language impairment	58	71*✓	9	6!
Traumatic brain injury	54	72*✓	‡	3!
Visual impairment	53	63	7!	5!

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate; ‡ = reporting standards not met. The standard error represents more than 50 percent of the estimate.

Note: Parent survey respondents were asked if the youth was currently enrolled in private health insurance and whether the youth was currently enrolled in government-assisted or public health insurance.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who live with parents at least some of the time, who do not live alone, with a spouse or roommate, or in military housing, and are younger than 18. More information is provided in appendix B, tables B-7, B-8, and B-9.

The gender, racial, and ethnic makeup of youth with an IEP has mostly been stable

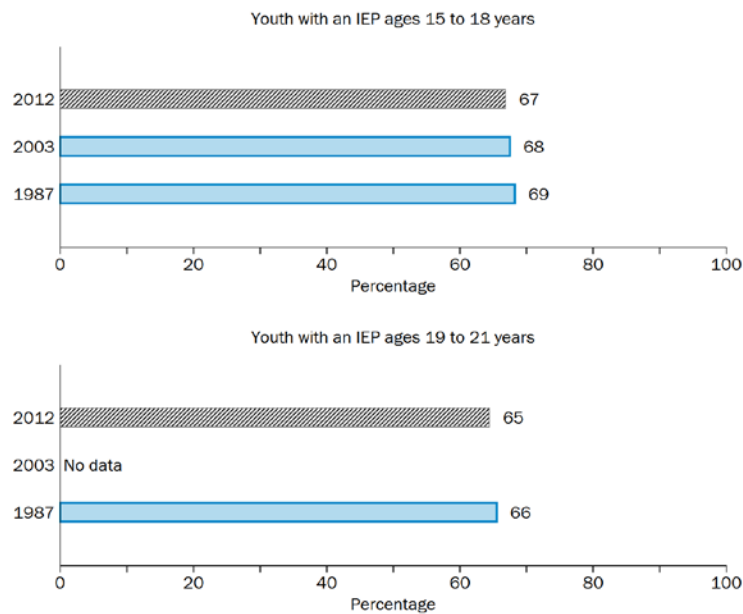
Ensuring appropriate access to special education has been a longstanding goal among policymakers and educators, in part to help address outcome disparities by gender, race, and ethnicity for students in general. Over the last several decades, boys have fallen behind girls in terms of academic achievement and attainment (Freeman, 2004). And although the achievement gap between students from different racial or ethnic groups has closed somewhat, gaps remain for Black students (Bohrnstedt, Kitmitto, Ogut, Sherman, & Chan, 2015) and Hispanic students (Hemphill & Vanneman, 2011). Prior research using the National Household Education Surveys in 2003 and 2012 indicates that the composition of youth in public schools has changed over the last decade. Although youth are just as likely to be male (51 and 52 percent, respectively), they are less likely to be White (62 to 52 percent) and more likely to be Hispanic (16 to 23 percent) (Vaden-Kiernan & McManus, 2005; Noel, Stark, & Redford, 2015). Furthermore, longstanding concerns remain about whether males and minority students are

¹⁵ For both NLTS 2012 and NLTS2, only youth who did not have private health insurance coverage were asked about their coverage by public or government health insurance. The data in both studies were collected before the first open enrollment period in fall 2013 for health insurance through marketplaces established by the Affordable Care Act.

being identified appropriately for special education and whether these or other groups of students are being over- or under-identified (Coutinho & Oswald, 2005; Harry & Klingner, 2014; Morgan et al., 2015).

- **About two-thirds of youth with an IEP overall are male, and this proportion has held steady over the past 25 years** (figure 1 and table 6; see table B-10 for more detail). The proportions of all youth with an IEP who are male were similar across the decades for both younger youth and older youth. Among younger youth, there were three exceptions: youth with other health impairments, specific learning disabilities, and speech or language impairments. Specifically, the share of younger males rose from 1987 to 2012 for youth with other health impairments (from 54 to 73 percent) and speech or language impairments (from 57 to 66 percent) and fell for youth with specific learning disabilities (from 72 to 65 percent).

Figure 1. Percentages of youth with an IEP who are male, by year and age group



* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Exhibit reads: The bar graphs compare youth with an IEP in 2012 (gray bar) to two groups. The key comparison is between youth with an IEP in 2012 and those in 2003 (top blue bar). Youth with an IEP in 2012 are also compared with those in 1987 (bottom blue bar). An asterisk next to the bar indicates whether the difference with youth with an IEP in 2012 is statistically significant (at the .05 level), and a check mark notes a statistically significant difference of at least 5 percentage points. Data from 2003 are not available for youth with an IEP ages 19 to 21 years.

Note: Parent survey respondents were asked to confirm or correct school district information on their children's gender. Sample information was used when parent-reported data were not available.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2; National Longitudinal Transition Study. The universe is all youth. More information is provided in appendix B, table B-10.

Table 6. Percentages of youth with an IEP ages 15 to 18 who are male, by disability group and year

Disability group	2012	2003	1987
Youth ages 15 to 18	67	68	69
Autism	84	85	—
Deaf-blindness	69	60	61
Emotional disturbance	74	74	76
Hearing impairment	54	47	52
Intellectual disability	59	59	58
Multiple disabilities	65	63	68
Orthopedic impairment	62	55	54
Other health impairment	73	72	54*✓,^✓
Specific learning disability	65	70	72*✓
Speech or language impairment	66	58	57*✓
Traumatic brain injury	66	68	—
Visual impairment	52	54	57

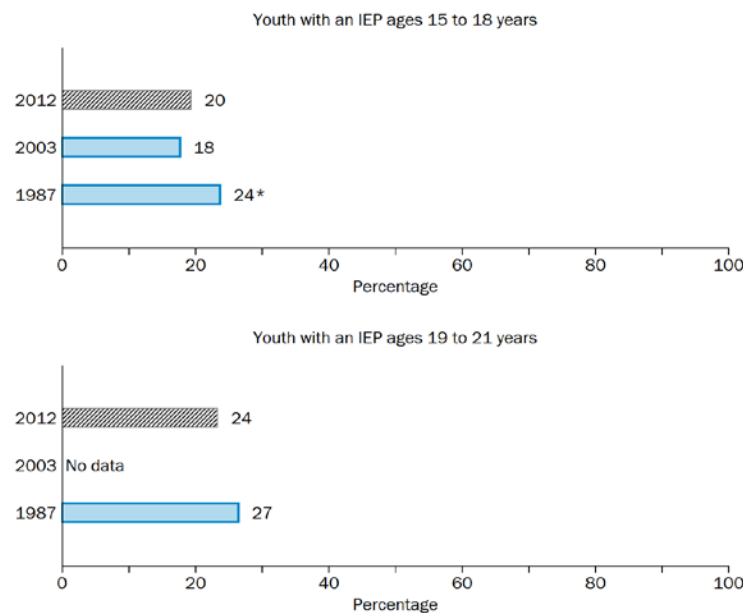
* = $p < .05$ for comparison with 2012 estimate; ^ = $p < .05$ for comparison with 2003 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; — = not available.

Note: Parent survey respondents were asked to confirm or correct school district information on their children's gender. Sample information was used when parent-reported data were not available.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2; National Longitudinal Transition Study. The universe is all youth. More information is provided in appendix B, table B-10.

- Although the proportions of youth with an IEP overall who are Black and Hispanic have mostly been stable, there have been changes among some disability groups (figures 2 and 3 and table 7; see tables B-11 to B-13 for more detail). Over the decades, Black students represented a similar share of younger youth with an IEP (18 percent in 2003 and 20 percent in 2012) and of older youth with an IEP (27 percent in 1987 and 24 percent in 2012), according to parents. Among all students, the proportions of students who are Black have held steady as well (17 percent in 2003 and 16 percent in 2012) (Snyder et al., 2016). However, during the most recent decade (2003 to 2012), the proportion of Black students decreased among younger youth with autism (from 19 to 12 percent) and increased among those with other health impairments (from 9 to 19 percent). The proportion of youth with an IEP who are Hispanic has held steady over the most recent decade (20 and 23 percent) but, like the general population of U.S. students,¹⁶ it increased over the past 25 years (from 9 percent in 1987 to 23 percent in 2012). This increase occurred in all disability groups except those with deaf-blindness and multiple disabilities.

Figure 2. Percentages of youth with an IEP who are Black, by year and age group



* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

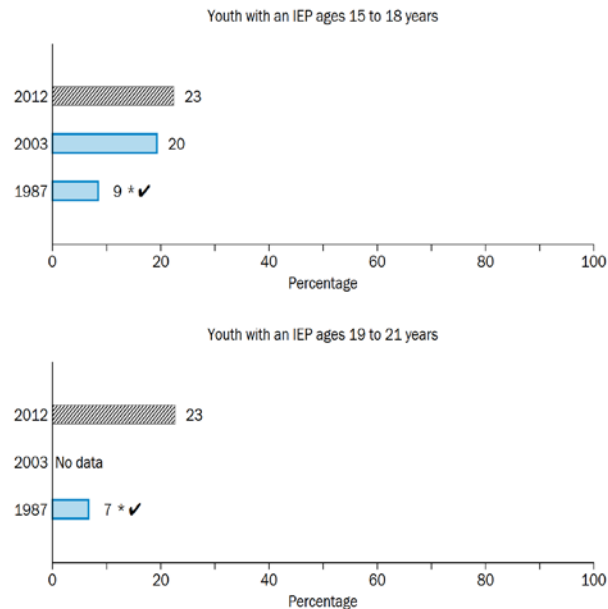
Exhibit reads: The bar graphs compare youth with an IEP in 2012 (gray bar) to two groups. The key comparison is between youth with an IEP in 2012 and those in 2003 (top blue bar). Youth with an IEP in 2012 are also compared with those in 1987 (bottom blue bar). An asterisk next to the bar indicates whether the difference with youth with an IEP in 2012 is statistically significant (at the .05 level), and a check mark notes a statistically significant difference of at least 5 percentage points. Data from 2003 are not available for youth with an IEP ages 19 to 21 years.

Note: Parent survey respondents were asked to indicate their children's race and ethnicity. Sample information was used when parent-reported data were not available. Black includes African American.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2; National Longitudinal Transition Study. The universe is all youth. More information is provided in appendix B, table B-11.

¹⁶ Enrollment of Hispanic students grew from 10 percent of the general population in public and private elementary and secondary schools in 1987 to 18 percent in 2003 and 26 percent in 2012 (U.S. Census Bureau, 1990, 2005, 2014).

Figure 3. Percentages of youth with an IEP who are Hispanic, by year and age group



* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Exhibit reads: The bar graphs compare youth with an IEP in 2012 (gray bar) to two groups. The key comparison is between youth with an IEP in 2012 and those in 2003 (top blue bar). Youth with an IEP in 2012 are also compared with those in 1987 (bottom blue bar). An asterisk next to the bar indicates whether the difference with youth with an IEP in 2012 is statistically significant (at the .05 level), and a check mark notes a statistically significant difference of at least 5 percentage points. Data from 2003 are not available for youth with an IEP ages 19 to 21 years.

Note: Parent survey respondents were asked to indicate their children's race and ethnicity. Sample information was used when parent-reported data were not available. Hispanic includes Latino.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2; National Longitudinal Transition Study. The universe is all youth. More information is provided in appendix B, table B-12.

Table 7. Percentages of youth with an IEP ages 15 to 18 who are Black or Hispanic, by disability group and year

Disability group	Black (not Hispanic)			Hispanic		
	2012	2003	1987	2012	2003	1987
Youth ages 15 to 18	20	18	24*,^✓	23	20	9*✓,^✓
Autism	12	19*✓	—	15	10	—
Deaf-blindness	15!	15	14!	18!	19!	15!
Emotional disturbance	25	18	22	19	17	6*✓,^✓
Hearing impairment	13	17	21*✓	31	27	14*✓,^✓
Intellectual disability	28	32	32	19	11*✓	6*✓
Multiple disabilities	18	15	22	18	13	13
Orthopedic impairment	13	12	20^✓	26	18	15*✓
Other health impairment	19	9*✓	19^✓	16	12	26*✓,^✓
Specific learning disability	20	17	22	26	23	9*✓,^✓
Speech or language impairment	16	15	29*✓,^✓	26	21!	15*✓
Traumatic brain injury	15!	13	—	20	14	—
Visual impairment	13	15	24*✓,^✓	22	19	9*✓,^✓

* = $p < .05$ for comparison with 2012 estimate; ^ = $p < .05$ for comparison with 2003 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate; — = not available.

Note: Parent survey respondents were asked to indicate their children's race and ethnicity. Sample information was used when parent-reported data were not available. Black includes African American. Hispanic includes Latino.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2; National Longitudinal Transition Study. The universe is all youth. More information is provided in appendix B, tables B-11, B-12, and B-13.

Over the past decade, 4 percent of youth with an IEP have attended schools only for students with disabilities

Over the past few decades, interest and legislative support have grown for including youth with disabilities in educational settings with other students. From the enactment of IDEA in 1975, schools have been required to place youth with an IEP in the “least restrictive environment” that enables them to receive a free and appropriate education. Since then, amendments to the law have emphasized the importance of ensuring that students with disabilities are involved with, and can make progress in, the general education curriculum. Research suggests that youth with disabilities who are educated in an inclusive setting are more likely to enroll and persist in postsecondary education (Rojewski, Lee, & Gregg, 2015). However, when students’ needs cannot be met in a regular public school, parents and district staff can decide that they are better served through schools for students with disabilities only.

As reported by parents, the proportion of all youth with an IEP who attend schools exclusively for students with disabilities remained at 4 percent over the past decade (table 8; see table B-14 for more detail). Youth with visual impairments were less likely attend such schools, the proportion decreasing from 18 percent in 2003 to 7 percent in 2012. This disability group represented less than 1 percent of youth with an IEP in 2012.

Table 8. Percentages of youth with an IEP ages 15 to 18 who attend a school that serves only students with disabilities, by disability group and year

Disability group	2012	2003
Youth ages 15 to 18	4	4
Autism	10	14
Deaf-blindness	25!	41
Emotional disturbance	8	10
Hearing impairment	10	17
Intellectual disability	5	5!
Multiple disabilities	17	16
Orthopedic impairment	3!	5!
Other health impairment	2!	1!
Specific learning disability	1!	‡
Speech or language impairment	‡	‡
Traumatic brain injury	6!	9!
Visual impairment	7!	18*✓

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate; ‡ = reporting standards not met. The standard error represents more than 50 percent of the estimate.

Note: Parent survey respondents were asked what type of school their children currently attend.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is all youth. More information is provided in appendix B, table B-14.

Chapter 3. Are the challenges youth face with health, functional abilities, and independent living different than in the past?

The extent to which students are healthy, able to communicate with others, and becoming independent can have important implications for their development and future success (Carter, Austin, & Trainor, 2012; Currie, Stabile, Manivong, & Roos, 2010; Forrest, Bevans, Riley, Crespo, & Louis, 2011; Smith, 2009). Congress added a requirement to the Individuals with Disabilities Education Act (IDEA) in 2004 that individualized educational programs (IEPs) include services designed to improve students' functional and not just academic performance. Functional performance is understood to be nonacademic and related to successful day-to-day life and future independence (U.S. Department of Education, 2006). How students' health, functional abilities, and independence have changed is one indicator of whether IDEA's goal of preparing students with disabilities for the future is being more fully fulfilled.

Key findings in chapter 3

- **Most youth with an IEP continue to be healthy, but the use of prescription behavioral medicines has climbed over the past decade.** Nearly three-quarters of all youth with an IEP in both 2003 and 2012 (72 and 71 percent, respectively) had very good or excellent health according to parents. However, parent responses also indicated that youths' use of behavioral medicines increased by half over the same period, from 17 to 26 percent. Two factors appear to have contributed to this growth: (1) an increase in the proportion of youth who use these medicines among those with intellectual disability; and (2) growth in the number of youth with autism and with other health impairments, two disability groups that in the past decade included many youth who used behavioral medicines (Frazier et al., 2011).
- **Youth with an IEP are more likely than in the previous decade to have trouble understanding others.** The proportion of youth with an IEP who, according to their parents, had trouble understanding what other people say to them grew by more than 10 percentage points, from 29 to 41 percent. However, there was no change in the proportion having trouble communicating using any method including sign language or oral speech, with about one-quarter of youth (26 percent) having had some trouble in both 2003 and 2012. Youth with autism were the only group to have experienced progress with both communicating with and understanding others.
- **Youth with an IEP are just as likely as those in the previous decade to perform typical teenage tasks independently but less likely to be gaining personal finance experience.** Youth with an IEP overall and in most disability groups were as likely in 2012 as in 2003 to perform five activities of daily living, according to parents, such as fixing meals and getting to places outside the home. Youth with emotional disturbance were the only disability group to show an increase in performing all five activities without help (from 5 to 12 percent). However, proportionally fewer youth with an IEP reported having money they could decide how to spend, declining from 79 percent in 2003 to 62 percent in 2012. Half of the disability groups experienced a similar downward trend, and no group in 2012 reported being more likely than youth in 2003 to have a bank account.

Detailed tables supporting the findings presented in this chapter are available in [appendix C](#).

Most youth with an IEP continue to be healthy, but the use of prescription behavioral medicines has climbed over the past decade

Health and medical conditions can be important factors in students' academic progress and post-high school transitions (Forrest et al., 2011; Currie et al., 2010). Overall, youth with an IEP are more likely than their peers to have poorer health (see Volume 1). Among them, health status is a particular concern for those with intellectual disability, multiple disabilities, and orthopedic impairments (see Volume 2). Policymakers and educators have become interested in the growing use of prescription behavioral medicines (Angold, Erkanli, Egger, & Costello, 2000)—typically among those with emotional disorders, behavioral disorders, and ADHD—and what happens when youth either do not take or rely excessively on them (Mattison, Rundberg-Rivera, & Michel, 2014; Setlik, Bond, & Ho, 2009; Wilens et al., 2008).¹⁷

- The proportion of youth with an IEP who have very good or excellent health has been stable during the past decade, and it increased among those with deaf-blindness (table 9; see table C-1 for more detail). In both 2003 and 2012, nearly three-quarters of all youth with an IEP had very good or excellent general health, according to their parents (72 and 71 percent, respectively). This consistency across years is evident in all disability groups except for youth with deaf-blindness (who make up less than 1 percent of all youth with an IEP), where the proportion who have at least very good health rose from 55 percent in 2003 to 74 percent in 2012.

Table 9. Percentages of youth with an IEP ages 15 to 18 who have very good or excellent health, by disability group and year

Disability group	2012	2003
Youth ages 15 to 18	71	72
Autism	74	77
Deaf-blindness	74	55*✓
Emotional disturbance	69	63
Hearing impairment	67	73
Intellectual disability	56	61
Multiple disabilities	58	58
Orthopedic impairment	58	65
Other health impairment	72	68
Specific learning disability	75	76
Speech or language impairment	81	77
Traumatic brain injury	68	62
Visual impairment	70	61

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

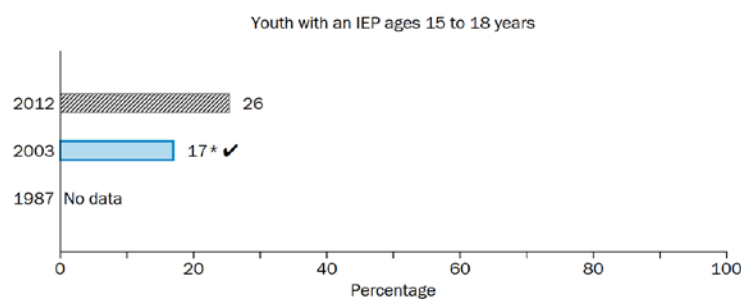
Note: Parent survey respondents were asked to rate their children's general health as excellent, very good, good, fair, or poor.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is all youth. More information is provided in appendix C, table C-1.

¹⁷ Visser et al. (2014) found that parent-reported ADHD diagnoses by a health care provider among children ages 4 through 17 increased from 7.6 to 11.0 percent from 2003 to 2011. They also reported that the proportion of children taking medication for ADHD increased during this period from 4.8 to 6.1 percent.

- **Use of behavioral medicines among youth with an IEP increased by 50 percent over the past decade** (figure 4 and table 10; see table C-2 for more detail). As reported by parents, the proportion of youth with an IEP using prescription medicine to control their attention, behavior, activity level, or changes in mood rose 9 percentage points, from 17 percent in 2003 to 26 percent in 2012. Two factors appear to have contributed to this trend. The first factor is the close to 50 percent increase in the use of these medications among those with intellectual disabilities (from 18 percent in 2003 to 26 percent in 2012). The second factor is the substantial growth in the number of youth in two disability groups that, in the previous decade, included many youth who used behavioral medicines: autism and other health impairments (including ADHD, see chapter 1) (Frazier et al., 2011).

Figure 4. Percentages of youth with an IEP ages 15 to 18 who use prescription behavioral medicine, by year



* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Exhibit reads: The bar graph compares youth with an IEP in 2012 (gray bar) to those in 2003 (blue bar). An asterisk next to the bar indicates whether the difference with youth with an IEP in 2012 is statistically significant (at the .05 level), and a check mark notes a statistically significant difference of at least 5 percentage points. Data from 1987 are not available.

Note: Parent survey respondents were asked whether their children are taking any prescription medicine to control their attention, behavior, activity level, or changes in mood, such as Ritalin or an antidepressant.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is all youth. More information is provided in appendix C, table C-2.

Table 10. Percentages of youth with an IEP ages 15 to 18 who use prescription behavioral medicine, by disability group and year

Disability group	2012	2003
Youth ages 15 to 18	26	17*✓
Autism	44	44
Deaf-blindness	16!	19
Emotional disturbance	47	39
Hearing impairment	14	8
Intellectual disability	26	18*✓
Multiple disabilities	34	28
Orthopedic impairment	21	19
Other health impairment	46	44
Specific learning disability	15	11
Speech or language impairment	10	13
Traumatic brain injury	38	28
Visual impairment	11	18

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate.

Note: Parent survey respondents were asked whether their children are taking any prescription medicine to control their attention, behavior, activity level, or changes in mood, such as Ritalin or an antidepressant.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is all youth. More information is provided in appendix C, table C-2.

Youth with an IEP are more likely than in the previous decade to have trouble understanding others

Functional limitations, such as those relating to communication, sensory, and motor abilities, can make it more challenging for youth to engage in educational activities, obtain employment, and live independently (Wagner, Newman, Cameto, Garza & Levine, 2005). During the past decade, new assistive technologies and other advances such as computer applications were developed to mitigate some of these limitations (Blum, 2005; Chantry & Dunford, 2010). However, the rapid growth in autism, a social and communicative disorder, may have also increased the prevalence of functional challenges among students with disabilities overall (Adreon & Durocher, 2007; Happé, Booth, Charlton, & Hughes, 2006). In addition, growing emphasis on academic accountability for all students, such as occurred under the 2001 No Child Left Behind Act, could both reflect and contribute to rising expectations about what youth should be able to understand.

- Although the proportion of youth with an IEP who have trouble communicating has changed little overall during the past decade, four groups—including youth with autism—show progress in these functional abilities (table 11; see table C-3 for more detail). In both 2003 and 2012, 26 percent of youth with an IEP were reported by their parents as having trouble communicating by any means, including sign language, manual communication, lip reading, cued speech, oral speech, and a communication board or book. However, these communication challenges became less common among youth with autism, other health impairments, speech or language impairments, or visual impairments; together, these four groups make up 15 percent of youth with an IEP.

Table 11. Percentages of youth with an IEP ages 15 to 18 who have trouble communicating, by disability group and year

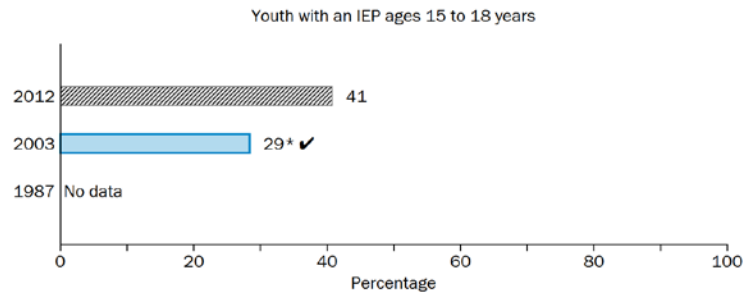
Disability group	2012	2003
Youth ages 15 to 18	26	26
Autism	52	64*✓
Deaf-blindness	70	67
Emotional disturbance	17	15
Hearing impairment	48	55
Intellectual disability	54	52
Multiple disabilities	62	62
Orthopedic impairment	39	42
Other health impairment	19	26*✓
Specific learning disability	18	20
Speech or language impairment	33	43*✓
Traumatic brain injury	43	39
Visual impairment	11	25*✓

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Note: Parent survey respondents were asked how well their children communicate by any means. Means of communication include sign language, manual communication, lip reading, cued speech, oral speech, and a communication board or book. Trouble refers to parents' responses of a little trouble, a lot of trouble, or no ability, versus a response of no trouble.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is all youth. More information is provided in appendix C, table C-3.

- Larger shares of youth with an IEP are having trouble understanding others now than in the past, both overall and in six disability groups (figure 5 and table 12; see table C-4 for more detail). The percentage of all youth with an IEP having trouble understanding what others say to them, according to parents, rose from 29 to 41 percent between 2003 and 2012. According to parents, youth in six disability groups that made up 83 percent of all youth with an IEP in 2012—deaf-blindness, hearing impairment, intellectual disability, other health impairment, specific learning disability, and traumatic brain injury—were more likely than those in 2003 to have trouble understanding others. In contrast, youth with autism were the only group to experience progress in both communicating with and understanding others.

Figure 5. Percentages of youth with an IEP ages 15 to 18 who have trouble understanding what other people say to them, by year

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Exhibit reads: The bar graph compares youth with an IEP in 2012 (gray bar) to those in 2003 (blue bar). An asterisk next to the bar indicates whether the difference with youth with an IEP in 2012 is statistically significant (at the .05 level), and a check mark notes a statistically significant difference of at least 5 percentage points. Data from 1987 are not available.

Note: Parent survey respondents were asked how well their children understand what other people say to them. Trouble refers to parents' responses of a little trouble, a lot of trouble, or no ability, versus a response of no trouble.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is all youth. More information is provided in appendix C, table C-4.

Table 12. Percentages of youth with an IEP ages 15 to 18 who have trouble understanding what other people say to them, by disability group and year

Disability group	2012	2003
Youth ages 15 to 18	41	29*✓
Autism	70	78*✓
Deaf-blindness	85	65*✓
Emotional disturbance	41	35
Hearing impairment	72	55*✓
Intellectual disability	67	49*✓
Multiple disabilities	57	60
Orthopedic impairment	28	31
Other health impairment	43	31*✓
Specific learning disability	31	21*✓
Speech or language impairment	37	32
Traumatic brain injury	51	32*✓
Visual impairment	16	22

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Note: Parent survey respondents were asked how well their children understand what other people say to them. Trouble refers to parents' responses of a little trouble, a lot of trouble, or no ability, versus a response of no trouble.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is all youth. More information is provided in appendix C, table C-4.

Youth with an IEP are just as likely as those in the previous decade to perform typical teenage tasks independently, but less likely to be gaining personal finance experience

The ability to function independently at home and in the community may signal the extent to which youth are likely to need help from others in carrying out basic tasks in the future. Typical teenage “activities of daily living” can include fixing meals, doing laundry, straightening up living areas, shopping, and getting to nearby places. In addition, other activities such as opening bank accounts and managing money provide experiences that will be useful for establishing financial independence. A key goal of IDEA is to help youth develop the capacity to live as independently as possible. Most notably, IDEA 2004 added a requirement that IEPs include services designed to improve functional as well as academic performance, as a way to facilitate independence after high school.

- Although overall the ability of youth with an IEP to perform daily tasks on their own has not changed, youth with autism, deaf-blindness, emotional disturbance, and specific learning disabilities have made progress (tables 13 and 14; see tables C-5 to C-10 for more detail). Parents reported that youth with an IEP overall (ages 15 to 16) and in most disability groups in 2012 were as likely as those in 2003 to perform each of five activities of daily living usually or pretty well, according to parents. However, in 2012 a higher proportion of youth performed at least one of these activities among those with autism, deaf-blindness, emotional disturbance, or specific learning disabilities. Among these groups, only youth with emotional disturbance showed gains in performing all five activities of daily living without help, from 5 to 12 percent. This disability group represented 9 percent of all youth with an IEP in 2012.

Table 13. Percentages of youth with an IEP ages 15 to 16 who complete activities of daily living without help at least pretty well or usually, by disability group and year

Disability group	Fixes own breakfast or lunch		Does laundry		Straightens up own room or living area		Buys a few items they need		Gets to places outside the home	
	2012	2003	2012	2003	2012	2003	2012	2003	2012	2003
Youth ages 15 to 16	56	53	34	31	50	47	43	42	87	91*
Autism	44	40	15	9	40	38	21	15	59	47*✓
Deaf-blindness	48	42	39!	12!	71	48	21!	24	79	42*✓
Emotional disturbance	53	55	28	16*✓	37	29	41	30	92	95
Hearing impairment	57	63	39	45	60	53	41	54	91	90
Intellectual disability	41	45	22	19	45	48	28	31	65	72
Multiple disabilities	28	30	18	19	36	26	26	27	52	55
Orthopedic impairment	24	39	13!	17	28	27	27	32	61	60
Other health impairment	54	61	30	30	42	34	42	38	90	90
Specific learning disability	64	53*✓	40	36	58	51	50	47	94	95
Speech or language impairment	59	64	38	38	59	57	49	51	92	94
Traumatic brain injury	53	54	13!	24	37	36	28	25	87	85
Visual impairment	47	47	27	19	55	39	40	30	61	60

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; !=estimate is unstable because the standard error represents 30 to 50 percent of the estimate.

Note: Parent survey respondents were asked to indicate the youth's ability to perform the activity without help. Possible ratings for the first measure are very well, pretty well, not very well, not at all well, and not allowed. Possible ratings for the last four measures are always, usually, sometimes, or never.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who live with parents at least some of the time and are younger than age 17. More information is provided in appendix C, tables C-5, C-6, C-7, C-8, and C-9.

Table 14. Percentages of youth with an IEP ages 15 to 16 who perform all five activities of daily living pretty well or usually, by disability group and year

Disability group	2012	2003
Youth ages 15 to 16	16	12
Autism	5	2!
Deaf-blindness	‡	‡
Emotional disturbance	12	5*✓
Hearing impairment	19	19
Intellectual disability	11	10!
Multiple disabilities	6!	4!
Orthopedic impairment	8!	4!
Other health impairment	12	9!
Specific learning disability	20	13
Speech or language impairment	20	22
Traumatic brain injury	‡	‡
Visual impairment	6!	5!

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate; ‡ = reporting standards not met. The standard error represents more than 50 percent of the estimate.

Note: Parent survey respondents were asked to indicate the youth's ability to perform five activities of daily living without help: fixing breakfast or lunch, doing laundry, straightening up their living area, buying things they need at the store, and getting to places outside the home. Possible ratings for the first measure are very well, pretty well, not very well, not at all well, and not allowed. Possible ratings for the last four measures are always, usually, sometimes, or never.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who live with parents at least some of the time and are younger than age 17. More information is provided in appendix C, table C-10.

- **Youth with an IEP overall and in six disability groups are less likely than those in the previous decade to decide how to spend money, and some of these groups are also less likely to have a bank account** (table 15; see tables C-11 to C-12 for more detail). Overall, the proportion of youth who reported having an allowance or money from a job that they could decide how to spend declined by 17 percentage points between 2003 and 2012 (from 79 to 62 percent). Youth in six disability groups experienced this downward trend: hearing impairment, multiple disabilities, orthopedic impairment, other health impairment, specific learning disability, and traumatic brain injury. Youth in three of these groups—orthopedic impairment, other health impairments, and traumatic brain injury—were also less likely to have a bank account. The decline in youths' engagement with personal finance may be related to a reduction in their paid employment during the decade (chapter 6), to their parents' greater economic challenges (chapter 3), or to other factors.

Table 15. Percentages of youth with an IEP ages 15 to 18 who are gaining experience managing money, by disability group and year

Disability group	Has money to spend, such as from an allowance or job		Has a checking or savings account	
	2012	2003	2012	2003
Youth ages 15 to 18	62	79*✓	46	52
Autism	62	73	51	65
Deaf-blindness	50	70	36	53
Emotional disturbance	61	70	42	42
Hearing impairment	62	76*✓	50	59
Intellectual disability	60	69	36	46
Multiple disabilities	54	76*✓	39	51
Orthopedic impairment	58	73*✓	46	62*✓
Other health impairment	64	78*✓	51	64*✓
Specific learning disability	63	84*✓	46	54
Speech or language impairment	63	70	53	49
Traumatic brain injury	65	82*✓	49	70*✓
Visual impairment	67	75	52	59

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Note: Youth survey respondents were asked whether they have a savings or checking account, and whether they have an allowance or other money they can decide how to spend.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is all youth. More information is provided in appendix C, tables C-11 and C-12.

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Chapter 4. Are youth engaging in school in different ways or to different degrees?

Students' engagement at school is a crucial component of youth development that may have important academic benefits (Anderson, Christenson, Sinclair, & Lehr, 2004; Sinclair, Christenson, & Thurlow, 2005; Juvonen, Espinoza, & Knifsend, 2012; Wang & Eccles, 2012b). Positive interactions with peers and adults at school, participating in class and extracurricular activities, and completing school work are all dimensions of engagement. Conversely, suspensions, expulsions, and arrests are indicators of disengagement. Research has found that school engagement is positively associated with academic performance, whereas disengagement is negatively associated with these outcomes (Finn, 1989; Noltemeyer et al., 2015; Wang & Fredricks, 2014).

Key findings in chapter 4

- **Youth with an IEP increasingly feel connected to school, but there is little change in a particular form of bullying.** Overall and in nearly all disability groups, the proportion of youth with an IEP who agreed “a lot” that they are part of their school rose by more than 20 percentage points, from 31 to 52 percent. The vast majority of youth with an IEP also continued to feel that school is a safe place (93 percent in 2003 and 89 percent in 2012). Similar proportions of youth with an IEP reported being teased or called names at school during the school year as well (37 percent in 2003 and 31 percent in 2012). However, four disability groups were less likely to report being teased—those with emotional disturbance, multiple disabilities, speech or language impairments, or traumatic brain injuries.
- **Participation in extracurricular activities is growing among youth with an IEP, primarily in clubs rather than sports.** Overall, 61 percent of youth with an IEP in 2003 were involved in a school or out-of-school club or sports team within the past year, compared with 74 percent in 2012. Their participation rates climbed during this period in both school-sponsored activities (from 48 to 62 percent) and out-of-school activities (from 38 to 54 percent). Most of the growth in these school and out-of-school activities was in clubs rather than sports teams, especially clubs focused on volunteering (from 2 to 29 percent), fine arts (from 10 to 26 percent), and academics (from 1 to 9 percent).
- **The incidence of grade retention, suspension, and expulsion among youth with an IEP has remained stable during the past decade.** Across the disability groups, few changes occurred between 2003 and 2012 in the proportions of youth who ever repeated a grade or were suspended or expelled, according to parents. About 1 in 3 youth had repeated a grade (35 and 37 percent, respectively), and the same proportion had been suspended (34 and 32 percent, respectively) in each year. Less than 1 in 10 youth had ever been expelled from school (7 and 9 percent, respectively in 2003 and 2012). Suspension rates have fallen for youth with intellectual disability (from 38 to 25 percent) and visual impairments (from 14 to 5 percent).

Public interest in student engagement has grown, particularly over the past decade. Concerns about bullying and violence have led schools to renew their focus on promoting a safe environment (Cornell & Mayer, 2010). Educators have also begun to reconsider disciplinary policies in light of how suspensions can negatively affect students and how much more common suspensions and expulsions are among youth with an individualized education program (IEP) than among their peers (Sullivan, Van Norman, & Klingbeil, 2014; Zablocki & Krezmien, 2013; see Volume 1). The Individuals with Disabilities Education Act (IDEA) 2004 gives school personnel new authority to apply discipline policies on a case-by-case basis, out of concern that suspensions and expulsions may not always be appropriate and can lead youth to remain out of school for substantial periods of time. IDEA 2004 also aims to ensure that students with disabilities have equal opportunities to participate in

academic and nonacademic activities, including sports and clubs. Trends in student engagement and disengagement can provide some indication of the extent of progress in achieving positive educational objectives.

Detailed tables supporting the findings presented in this chapter are available in [appendix D](#).

Youth with an IEP increasingly feel connected to school, but there is little change in teasing

Feeling good about school can both reflect and contribute to students' engagement in the learning process. Research has linked positive attitudes toward school with better academic performance and stronger ties to classmates (Bond et al., 2007; Sinclair et al., 2005). Feeling unsafe at school, in contrast, might be a source of stress and anxiety that inhibits academic performance or social development.

Concerns about school safety, particularly about bullying, have contributed to an increase in the number of states passing bullying-prevention legislation during the past decade (National Center for Mental Health Promotion and Youth Violence Prevention, 2011). Federal policymakers also have sought to address this problem and have focused particularly on reducing bullying experienced by students with disabilities. For example, the U.S. Department of Education notified school districts that bullying can deny youth with an IEP their rights under IDEA (U.S. Department of Education, 2013). National data indicate that reports of bullying declined from 28 percent of all adolescents in 2005 to 22 percent in 2013 (U.S. Department of Education, National Center for Education Statistics, 2014), perhaps reflecting the success of some efforts to address this problem, or simply a change in the extent to which bullying is reported. Even if this decline for all students represents a real trend, questions remain about whether bullying experiences have declined specifically among youth with an IEP and, more broadly, how their perceptions of the school environment have changed.

- **The proportion of youth with an IEP reporting a positive connection with school grew by two-thirds over the past decade** (table 16; see tables D-1 to D-2 for more detail). Overall, the percentage of youth with an IEP who agreed “a lot” that they felt a part of their school increased by 21 percentage points, from 31 percent in 2003 to 52 percent in 2012.¹⁸ Nearly all of the disability groups were more likely in 2012 than in 2003 to feel part of the school, except for those with deaf-blindness, emotional disturbance, or hearing impairments, for whom there was no change. In addition, about 9 in 10 youth with an IEP reported agreeing at least a little that an adult at school cares about them, both in 2003 and 2012. However, the proportion increased in five disability groups—emotional disturbance, multiple disabilities, speech or language impairments, traumatic brain injuries, and visual impairments—which represent 16 percent of all youth with an IEP.

¹⁸ The construction of the youth who agree that they feel a part of their school is based on those who agreed “a lot” due to comparability concerns between the NLTS 2012 and NLTS2.

Table 16. Percentages of youth with an IEP ages 15 to 18 with positive views about their school experience, by disability group and year

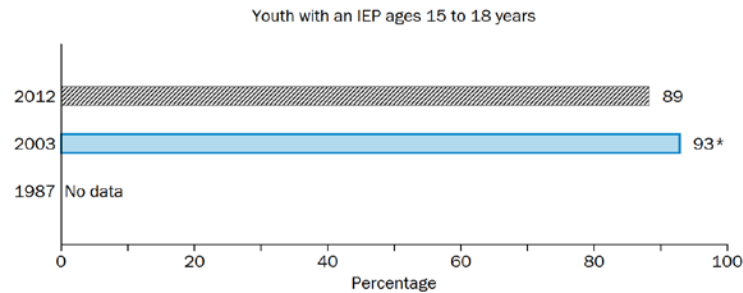
Disability group	Agree a lot that they are part of the school		Agree that a school adult cares about them	
	2012	2003	2012	2003
Youth ages 15 to 18	52	31*✓	91	86*
Autism	53	25*✓	97	94
Deaf-blindness	65	45	85	97
Emotional disturbance	41	32	92	83*✓
Hearing impairment	51	38	93	86
Intellectual disability	58	39*✓	88	83
Multiple disabilities	68	41*✓	93	76*✓
Orthopedic impairment	71	47*✓	95	87
Other health impairment	57	31*✓	92	89
Specific learning disability	51	29*✓	89	87
Speech or language impairment	53	24*✓	91	77*✓
Traumatic brain injury	56	22*✓	97	86*✓
Visual impairment	64	44*✓	97	89*✓

*= $p < .05$ for comparison with 2012 estimate; ✓= comparison is statistically significant and at least 5 percentage points in magnitude.

Note: Youth survey respondents, excluding proxies, were asked how strongly they agree or disagree that they are part of the school and that a school adult cares about them. The response categories were agree a lot, agree a little, disagree a little, and disagree a lot. Positive views for the first measure are responses of agree a lot, and positive views for the second measure are agree a lot or agree a little.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who are not homeschooled. More information is provided in appendix D, tables D-1 and D-2.

- **Youth with an IEP overall are as likely to feel safe at school as in the past decade, though some groups feel less safe** (figure 6 and table 17; see tables D-3 to D-4 for more detail). Overall, about 9 in 10 youth with an IEP in both 2003 and 2012 reported feeling safe at school. However, the proportion who felt safe at school declined among two groups: those with other health impairments and those with specific learning disabilities (from 94 to 87 percent and 94 to 89 percent, respectively). Together, these two groups comprise two-thirds of all youth with an IEP. The proportion of youth who reported having things taken from them at school was similar over the decade (26 percent in 2003 and 21 percent in 2012). Two exceptions are youth with multiple disabilities, who reported a reduction in theft (from 32 to 14 percent), and youth with orthopedic impairments (from 7 to 20 percent), who reported an increase. These groups make up only 4 percent of all youth with an IEP.

Figure 6. Percentages of youth with an IEP ages 15 to 18 who agree that they feel safe at school, by year

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Exhibit reads: The bar graph compares youth with an IEP in 2012 (gray bar) to those in 2003 (blue bar). An asterisk next to the bar indicates whether the difference with youth with an IEP in 2012 is statistically significant (at the .05 level), and a check mark notes a statistically significant difference of at least 5 percentage points. Data from 1987 are not available.

Note: Youth survey respondents, excluding proxies, were asked how strongly they agree or disagree with feeling safe in school. The response categories were agree a lot, agree a little, disagree a little, and disagree a lot. Positive views are responses of agree a lot or agree a little.

Source: National Longitudinal Transition Study 2012; and National Longitudinal Transition Study 2. The universe is youth who are not homeschooled. More information is provided in appendix D, table D-3.

Table 17. Percentages of youth with an IEP ages 15 to 18 with positive views about school safety, by disability group and year

Disability group	Feel safe in school		Had items stolen from my locker, desk, or other place at school	
	2012	2003	2012	2003
Youth ages 15 to 18	89	93*	21	26
Autism	92	95	14	11
Deaf-blindness	100	98	‡	21!
Emotional disturbance	85	90	28	36
Hearing impairment	85	87	27	32
Intellectual disability	89	92	24	25
Multiple disabilities	90	81	14	32*✓
Orthopedic impairment	92	94	20!	7*✓
Other health impairment	87	94*✓	28	26
Specific learning disability	89	94*✓	19	25
Speech or language impairment	91	93	22	24
Traumatic brain injury	92	94	25	16!
Visual impairment	95	98	13	17

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate; ‡ = reporting standards not met. The standard error represents more than 50 percent of the estimate.

Note: Youth survey respondents, excluding proxies, were asked how strongly they agree or disagree with feeling safe in school and whether they had items stolen from their locker, desk, or other place at school. The response categories were agree a lot, agree a little, disagree a little, and disagree a lot. Positive views are responses of agree a lot or agree a little.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who are not homeschooled. More information is provided in appendix D, tables D-3 and D-4.

- About one-third of youth with an IEP report one form of bullying—having been teased or called names at school—both now and a decade ago (table 18; see table D-5 for more detail). Overall, about one-third of

youth with an IEP reported being teased at school in 2003 and 2012 (37 and 31 percent, respectively). However, there was a decline among four disability groups that together make up 16 percent of all youth with an IEP (youth with emotional disturbance, multiple disabilities, traumatic brain injury, or speech or language impairment). The reported declines in teasing of youth with deaf-blindness, emotional disturbance, and multiple disabilities are important to highlight because these groups were the most likely to report being teased in 2003.

Table 18. Percentages of youth with an IEP ages 15 to 18 who were teased or called names at school, by disability group and year

Disability group	2012	2003
Youth ages 15 to 18	31	37
Autism	38	46
Deaf-blindness	‡	47
Emotional disturbance	41	57*✓
Hearing impairment	36	42
Intellectual disability	41	37
Multiple disabilities	30	51*✓
Orthopedic impairment	25	36
Other health impairment	38	45
Specific learning disability	26	33
Speech or language impairment	25	37*✓
Traumatic brain injury	38	59*✓
Visual impairment	27	39

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate; ‡ = reporting standards not met. The standard error represents more than 50 percent of the estimate.

Note: Youth survey respondents, excluding proxies, were asked whether they were teased or called names at school. The response categories were agree a lot, agree a little, disagree a little, and disagree a lot. Positive views are responses of agree a lot or agree a little.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who are not homeschooled. More information is provided in appendix D, tables D-5.

Participation in extracurricular activities is growing among youth with an IEP, primarily in clubs rather than sports

Participating in organized extracurricular activities is considered a way to enrich students' lives, help them build esteem and social connections, and gain admission to competitive colleges (Eime, Young, Harvey, Charity, & Payne, 2013; Swanson, 2002). These activities can include sports teams as well as clubs, such as those focused on the arts, academic subjects, volunteering or community service, and career and technical training. In addition to school-sponsored extracurricular activities, many community organizations offer similar kinds of opportunities. Studies have linked participating in these kinds of extracurricular activities with improved academic performance, educational attainment, and labor market success (Barron, Ewing, & Waddell, 2000; Lipscomb, 2007; Stevenson, 2010). Nationally, participation in sports, lessons, and clubs for the general population of youth ages 12 to 17 decreased between 2006 and 2011 (Dye & Johnson, 2009; Laughlin, 2014), underscoring the importance of examining the trends for youth with an IEP.

- Youth with an IEP are more likely now than a decade ago to participate in extracurricular activities, organized either through or outside of school (table 19; see tables D-6 to D-8 for more detail). Youth with an IEP overall reported that their participation in sports or clubs grew by 13 percentage points overall between 2003 and 2012 (from 61 to 74 percent). This growth in extracurricular participation reflects increases in the percentages participating in both activities that are school sponsored (from 48 to 62 percent) and that are organized out of school (from 38 to 54 percent). Increases in both school and out-of-school activities occurred among youth in four groups—those with emotional disturbance, intellectual disability, specific learning disability, or speech or language impairments.

Table 19. Percentages of youth with an IEP ages 15 to 18 who participated in a school or out-of-school sport or club in the past year, by disability group and year

Disability group	Youth who participated in a school or out-of-school club or sports team		Youth who participated in a school club or sports team		Youth who participated in an out-of-school club or sports team	
	2012	2003	2012	2003	2012	2003
Youth ages 15 to 18	74	61*✓	62	48*✓	54	38*✓
Autism	75	51*✓	59	44	58	30*✓
Deaf-blindness	75	85	73	56	38	66*✓
Emotional disturbance	72	52*✓	56	40*✓	50	26*✓
Hearing impairment	73	63	62	57	54	34*✓
Intellectual disability	71	48*✓	56	36*✓	50	30*✓
Multiple disabilities	69	68	54	54	50	41
Orthopedic impairment	71	70	60	53	52	45
Other health impairment	76	64	62	51	57	38*✓
Specific learning disability	75	64*✓	65	50*✓	52	42*✓
Speech or language impairment	79	57*✓	71	47*✓	58	35*✓
Traumatic brain injury	72	57	62	34*✓	52	39
Visual impairment	85	77	74	68	62	37*✓

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Note: Youth survey respondents were asked whether they participated in any of the following school activities outside of class in the past 12 months: school sports team; music, dance, art, or theater; student government; academic subject matter club; volunteer or community service group; vocational or career-focused student organization; or other school-sponsored clubs or activities. Youth survey respondents were also asked whether they had taken part in any of the following nonschool activities in the past 12 months: organized sport supervised by an adult; music, dance, art, or theater lessons; a religious youth group or religious instruction; math, science, or computer camps or lessons, volunteer or community service group; scouting or another group or club activity; or another camp or type of nonschool activity.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who are not homeschooled. More information is provided in appendix D, tables D-6, D-7, and D-8.

- **Participation in clubs increased more than 20 percentage points, but sports involvement changed little overall** (table 20, see tables D-9 to D-10 for more detail). The proportion of youth with an IEP overall who reported being in a club organized either through or outside of school increased 23 percentage points, from 40 percent in 2003 to 63 percent in 2012. Club participation rates grew in 9 of the 12 disability groups. By contrast, about a third of youth with an IEP overall in both 2003 and 2012 reported participating in sports teams (31 and 38 percent). However, sports participation rates did increase in seven disability groups that make up 36 percent of all youth with an IEP: autism, hearing impairment, intellectual disability, orthopedic impairment, other health impairment, speech or language impairment, and traumatic brain injury. Engaging youth in all disability groups in sports has been identified by the Government Accountability Office (2010) as an ongoing challenge for schools.

Table 20. Percentages of youth with an IEP ages 15 to 18 who participated in a sport or club, by disability group and year

Disability group	Youth who participated in a club		Youth who participated in a sports team	
	2012	2003	2012	2003
Youth ages 15 to 18	63	40*✓	38	31
Autism	70	36*✓	31	8*✓
Deaf-blindness	63	58	65	37!
Emotional disturbance	61	37*✓	31	26
Hearing impairment	64	37*✓	46	28*✓
Intellectual disability	61	27*✓	35	14*✓
Multiple disabilities	58	38*✓	39	34
Orthopedic impairment	64	57	35	15*✓
Other health impairment	65	44*✓	37	25*✓
Specific learning disability	61	43*✓	41	35
Speech or language impairment	64	37*✓	51	26*✓
Traumatic brain injury	65	44*✓	34	17!*✓
Visual impairment	76	65	29	27

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate.

Note: Youth survey respondents were asked whether they participated in any of the following school activities outside of class in the past 12 months: school sports team; music, dance, art, or theater; student government; academic subject matter club; volunteer or community service group; vocational or career-focused student organization; or other school-sponsored clubs or activities. Youth survey respondents were also asked whether they had taken part in any of the following nonschool activities in the past 12 months: organized sport supervised by an adult; music, dance, art, or theater lessons; a religious youth group or religious instruction; math, science, or computer camps or lessons, volunteer or community service group; scouting or another group or club activity; or another camp or type of nonschool activity.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who are not homeschooled. More information is provided in appendix D, tables D-9 and D-10.

- The largest growth has been in volunteering or community service clubs, followed by clubs focused on fine arts and academics (table 21; see tables D-11 to D-17 for more detail). Combining school and out-of-school extracurricular activities, the largest growth in youth-reported participation from 2003 to 2012 has been in clubs focused on volunteering (2 versus 29 percent). In addition, youth with an IEP increasingly participated in clubs emphasizing fine arts (from 10 to 26 percent), which include music, art, dance, and theater, and academic clubs (from 1 to 9 percent), such as those focused on math or science.

Table 21. Percentages of youth with an IEP ages 15 to 18 who participated in a volunteer, arts, academic, or vocational activity, by year

All youth with an IEP	2012	2003
Youth who participated in a volunteer group	29	2!*
Youth who participated in a fine arts club or lesson	26	10*
Youth who participated in an academic club or lesson	9	1!*
Youth who participated in a vocational or career club	7	3*

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate.

Note: Youth survey respondents were asked whether they participated in any of the following school activities outside of class in the past 12 months: music, dance, art, or theater; academic subject matter club; volunteer or community service group; or vocational or career-focused student organization. Youth survey respondents were also asked whether they had taken part in any of the following nonschool activities in the past 12 months: organized sport supervised by an adult; music, dance, art, or theater lessons; a religious youth group or religious instruction; math, science, or computer camps or lessons, volunteer or community service group; scouting or another group or club activity; or another camp or type of nonschool activity.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who are not homeschooled. More information is provided in appendix D, tables D-11, D-12, D-13, D-14, D-15, D-16, and D-17.

The incidence of grade retention, suspension, and expulsion among youth with an IEP has remained stable during the past decade

Student disengagement can be both the cause and the effect of difficulties in school and it can have longer-run consequences. Students who are held back a grade are less likely than other youth to graduate from high school (Jimerson, Anderson, & Whipple, 2002), and youth who are suspended or expelled from school are more likely than other youth to become involved in the juvenile justice system (Fabelo et al., 2011). Nationally, the percentage of all high school youth who were retained a grade in the past year remained stable at 3 percent in 2003 and 2012 (U.S. Department of Commerce, 2014), and the percentage of students who have ever been suspended from school increased from 17 percent in 2003 to 20 percent in 2012 (U.S. Department of Education, National Center for Education Statistics, 2012). The percentage of students who have ever been expelled was unchanged from 2004 to 2011 at 0.22 percent, although the proportion of expelled students who were Black or Hispanic has increased over time (U.S. Department of Education, 2007; U.S. Department of Education, 2014). Over the past decade, policymakers and educators sought to reduce rates of suspensions and expulsions, particularly among youth who have an IEP and youth who are Black, two groups that historically experienced these negative events most often (U.S. Department of Education, Office for Civil Rights, 2014). One part of the strategy was to more closely monitor these rates. For instance, in 2004 states were required to report how often and why youth with an IEP in different race and ethnicity groups were suspended and expelled, both overall and in each disability group. Ongoing concerns about continued high suspension and expulsion rates among youth

with an IEP led the U.S. Department of Education and the U.S. Department of Justice in 2015 to encourage districts to rethink their discipline policies.¹⁹

- **Just over a third of youth with an IEP, both now and a decade ago, repeated a grade** (table 22; see table D-18 for more detail). The proportion of all youth with an IEP who ever were retained was stable from 2003 to 2013 (35 and 37 percent, respectively), according to their parents. This pattern in grade retention is also evident for each disability group.

Table 22. Percentages of youth with an IEP ages 15 to 18 who have repeated a grade, by disability group and year

Disability group	2012	2003
Youth ages 15 to 18	37	35
Autism	24	19
Deaf-blindness	44	43
Emotional disturbance	35	30
Hearing impairment	30	28
Intellectual disability	45	43
Multiple disabilities	29	28
Orthopedic impairment	23	25
Other health impairment	36	35
Specific learning disability	41	35
Speech or language impairment	31	32
Traumatic brain injury	29	29
Visual impairment	20	22

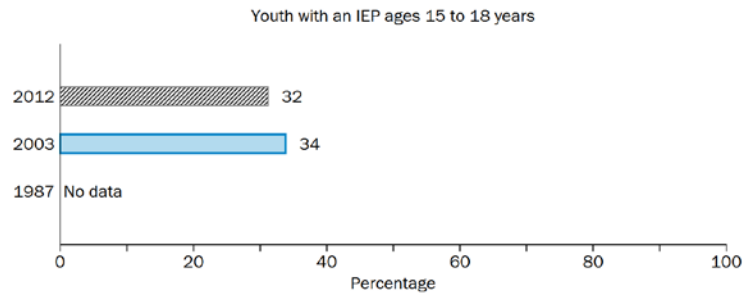
* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Note: Parent survey respondents were asked whether their child has ever been held back a grade in school since entering kindergarten.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who are enrolled in school. More information is provided in appendix D, table D-18.

- **Although youth with an IEP were as likely in 2012 as in 2003 to be suspended or expelled from school, suspension rates have fallen for those with intellectual disability and visual impairments** (figure 7 and table 23; see tables D-19 to D-20 for more detail). About one-third of youth with an IEP overall in both 2003 and 2012 had ever been suspended from school (34 and 32 percent, respectively), and less than 1 in 10 had been expelled (7 and 9 percent, respectively), according to parents. Nonetheless, suspension rates declined for youth with intellectual disability (from 38 to 25 percent) and visual impairments (from 14 to 5 percent).

¹⁹ Although this 2015 initiative came after the NLTS 2012 data collection, it reflects policymakers' interests over the past decade in finding new ways to address negative student behavior, without suspending or expelling students.

Figure 7. Percentages of youth with an IEP ages 15 to 18 who have received an out-of-school suspension, by year

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Exhibit reads: The bar graph compares youth with an IEP in 2012 (gray bar) to those in 2003 (blue bar). An asterisk next to the bar indicates whether the difference with youth with an IEP in 2012 is statistically significant (at the .05 level), and a check mark notes a statistically significant difference of at least 5 percentage points. Data from 1987 are not available.

Note: Parent survey respondents were asked whether their children have ever had an out-of-school suspension.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is all youth. More information is provided in appendix D, table D-19.

Table 23. Percentages of youth with an IEP ages 15 to 18 who have received an out-of-school suspension and who have been expelled from school, by disability group and year

Disability group	Youth who have received an out-of-school suspension		Youth who have been expelled from school	
	2012	2003	2012	2003
Youth ages 15 to 18	32	34	9	7
Autism	20	22	4	2!
Deaf-blindness	‡	16!	‡	‡
Emotional disturbance	68	75	21	24
Hearing impairment	19	25	6	2*
Intellectual disability	25	38*✓	7	8
Multiple disabilities	18	22	4	3
Orthopedic impairment	9	14	‡	3!
Other health impairment	39	39	14	11
Specific learning disability	29	28	7	5
Speech or language impairment	20	23	5	5
Traumatic brain injury	27	35	‡	4!
Visual impairment	5!	14*✓	‡	‡

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate; ‡ = reporting standards not met. The standard error represents more than 50 percent of the estimate.

Note: Parent survey respondents were asked whether their children have ever had an out-of-school suspension and have ever been expelled.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is all youth. More information is provided in appendix D, tables D-19 and D-20.

- The proportion of youth with an IEP who were arrested has been stable over the past decade, overall and in each disability group (table 24; see table D-21 for more detail). Overall, 8 percent of youth with an IEP in 2003 and 7 percent in 2012 had been arrested in the previous two years, according to their parents. The percentages were also similar for all of the disability groups in 2003 and 2012. Youth with an IEP are nevertheless three times more likely to be arrested than their peers (see Volume 1). The persistence of relatively high arrest rates continues to pose a challenge for youth because being arrested can make it more difficult for them to obtain jobs and housing as adults (Holzer, Raphael, & Stoll, 2003; Hagan & McCarthy, 2005).

Table 24. Percentages of youth with an IEP ages 15 to 18 who have been arrested in the past two years, by disability group and year

Disability group	2012	2003
Youth ages 15 to 18	7	8
Autism	1!	2!
Deaf-blindness	‡	‡
Emotional disturbance	21	31
Hearing impairment	3!	5!
Intellectual disability	5	4!
Multiple disabilities	3!	3!
Orthopedic impairment	‡	2!
Other health impairment	9	14!
Specific learning disability	6	5!
Speech or language impairment	4	9
Traumatic brain injury	2!	‡
Visual impairment	‡	‡

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate; ‡ = reporting standards not met. The standard error represents more than 50 percent of the estimate.

Note: Parent survey respondents were asked whether their children have been arrested in the past two years. An arrest is any time someone is taken into custody by police or a legal authority. The item response rate for youth who have been arrested in the past two years is less than 85 percent for data in 2003.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is all youth. More information is provided in appendix D, table D-21.

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Chapter 5. Have the academic and special education supports that youth receive changed?

Schools and parents seek to help students with disabilities succeed in school in various ways. Under the Individuals with Disabilities Education Act (IDEA), schools are required to support youth with an individualized education program (IEP) by offering special education services that aim to develop academic and functional competencies as well as instructional accommodations that can help students overcome barriers to learning (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). The No Child Left Behind Act (NCLB), beginning in 2002, further underscored an expectation that schools improve the academic proficiency of all students, including youth with an IEP, and IDEA 2004 included provisions to better align with NCLB goals. Both IDEA 2004 and NCLB may have altered the types of supports schools provide to youth in special education.

Parents can also help youth in their educational progression in ways that have been associated with academic, social, and behavioral outcomes (Jeynes, 2007; Wagner et al., 2014; Wang, Dishion, Stormshak, & Willett, 2011). For instance, parents can support their children by attending meetings and participating in activities at school, identifying service needs, or helping with homework. Parent participation has been a key concept in IDEA since 1997. The current law recognizes the importance of parental engagement for youth with an IEP by ensuring opportunities for parents to participate in discussions about their children's education program and services. IDEA 2004 specifically calls for greater flexibility in how parents can participate in meetings (such as via teleconference or phone) and also provide options for consolidating meetings to accommodate parents' schedules. States are required to track the extent to which schools facilitate parent involvement in their children's education (IDEA Part B Indicator 8).

Key findings in chapter 5

- **Receipt of school-provided support services has grown among youth with an IEP, particularly tutoring and psychological services.** The proportion of youth using any support services at school grew between 2003 and 2012, both overall (from 44 to 65 percent) and among almost all disability groups, based on parent reports. These support services include tutoring, reader or interpreter services, speech or language therapy, audiology services, psychological or mental health counseling, physical or occupational therapy, orientation and mobility services, and special transportation. The largest growth was in receipt of services from a tutor, reader, or interpreter, which increased from 18 to 33 percent, and psychological or mental health counseling, which increased from 13 to 28 percent.
- **Parents of youth with an IEP are more likely now than in the past decade to attend parent-teacher conferences, but less likely to help with homework.** The proportion of parents who indicated that they attended a regular parent-teacher conference during the past school year grew from 67 to 83 percent for youth with an IEP overall and by at least 10 percentage points in nearly all disability groups from 2003 to 2012. However, the proportion of parents who reported providing weekly homework help declined by 7 percentage points, from 62 to 55 percent. Parents were just as likely as in the past to say that they discuss school experiences regularly with their children (84 and 87 percent, respectively) and attend other types of school meetings and events (74 percent in both years).

Detailed tables supporting the findings presented in this chapter are available in [appendix E](#).

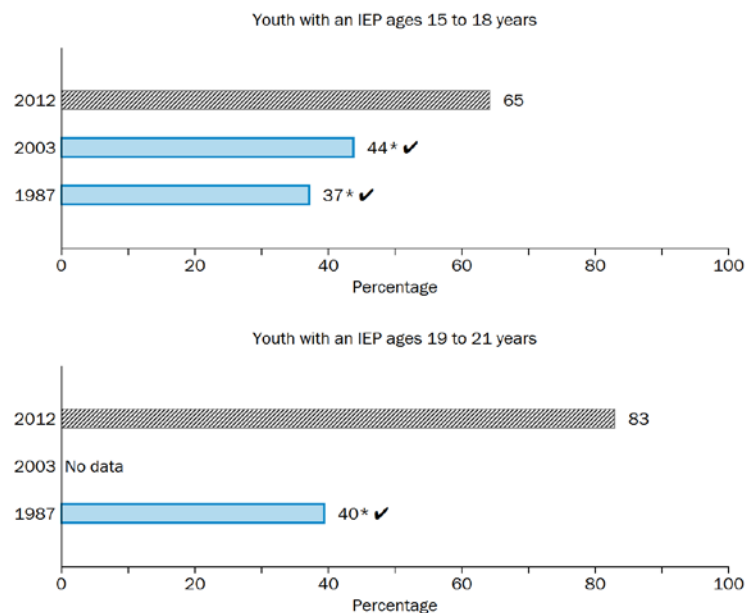
Receipt of school-provided support services has grown among youth with an IEP, particularly tutoring and psychological services

Under IDEA, schools provide students with support services to address their academic and functional needs. Support services can include tutoring, a reader or interpreter, psychological services, speech and language therapy, physical and occupational therapy, and others. Schools make a substantial investment in these services, accounting for about a quarter of all special education expenditures (Chambers, Parrish, & Harr, 2004).

The evolving policy environment has increased the emphasis on the academic achievement of all youth, including those with an IEP. Both IDEA 1997 and 2004 increased the emphasis on improving the academic achievement of youth in special education. Some of the 1997 amendments focused on including students with disabilities in state assessment systems and improving educational outcomes. IDEA 2004 went further in this regard, aligning IDEA more closely with NCLB, which expected states to include all students with disabilities in accountability systems using either regular or alternate assessments based on their needs (U.S. Department of Education, 2011). NCLB also promoted tutoring for youth in low-performing schools (Warkentien & Grady, 2009).

- Use of a broad set of support services at school almost doubled over three decades, with most of the growth occurring over the past 10 years and among older youth (figure 8 and table 25; see table E-1 for more detail). More than half (65 percent) of younger youth with an IEP (those ages 15 to 18) received at least one of the following support services at school in 2012, according to parents: tutoring, reader or interpreter services, speech or language therapy, audiology services, psychological or mental health counseling, physical or occupational therapy, orientation and mobility services, and special transportation.²⁰ This represents an increase of 21 percentage points since 2003 (44 percent), and of 28 percentage points compared to 1987 (37 percent). The growing use of these services at school among younger youth was concentrated in 5 of the 12 disability groups (emotional disturbances, intellectual disability, multiple disabilities, other health impairments, and specific learning disabilities). Youth ages 19 to 21 enrolled in secondary school also increased their use of these services, doubling the rate from 40 percent in 1987 to 84 percent in 2012.

Figure 8. Percentages of youth with an IEP who any received support services at school, by year and age group



* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Exhibit reads: The bar graphs compare youth with an IEP in 2012 (gray bar) to two groups. The key comparison is between youth with an IEP in 2012 and those in 2003 (top blue bar). Youth with an IEP in 2012 are also compared with those in 1987 (bottom blue bar). An asterisk next to the bar indicates whether the difference with youth with an IEP in 2012 is statistically significant (at the .05 level), and a check mark notes a statistically significant difference of at least 5 percentage points. Data from 2003 are not available for youth with an IEP ages 19 to 21 years.

Note: Parent survey respondents were asked whether their children received the following support services in the past 12 months: tutoring or reader/interpreter services, speech or language therapy, audiology services, psychological or mental health counseling, physical or occupational therapy, orientation and mobility services, and special transportation.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2; National Longitudinal Transition Study. The universe is youth who received special education at school. More information is provided in appendix E, table E-1.

²⁰ The services described in the note to figure 8 were the ones consistently captured in the NLTS, NLTS2, and NLTS 2012; data on the extent of changes in receipt of other services are not available.

Table 25. Percentages of youth with an IEP ages 15 to 18 who received any support services at school, by disability group and year

Disability group	2012	2003	1987
Youth ages 15 to 18	65	44*✓	37*✓
Autism	80	86	—
Deaf-blindness	94	93	91
Emotional disturbance	79	49*✓	32*✓, ^✓
Hearing impairment	84	82	82
Intellectual disability	76	58*✓	51*✓
Multiple disabilities	91	80*✓	87
Orthopedic impairment	85	76	62*✓, ^✓
Other health impairment	62	42*✓	42*✓
Specific learning disability	52	36*✓	32*✓
Speech or language impairment	69	61	37*✓, ^✓
Traumatic brain injury	66	56	—
Visual impairment	69	73	50*✓, ^✓

* = $p < .05$ for comparison with 2012 estimate; ^ = $p < .05$ for comparison with 2003 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; — = not available.

Note: Parent survey respondents were asked whether their children received the following support services in the past 12 months: tutoring or reader/interpreter services, speech or language therapy, audiology services, psychological or mental health counseling, physical or occupational therapy, orientation and mobility services, and special transportation.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2; National Longitudinal Transition Study. The universe is youth who received special education at school. More information is provided in appendix E, table E-1.

- **Receipt of tutoring and psychological counseling services doubled over the past 25 years** (tables 26 and 27; see tables E-2 to E-7 for more detail). Parents of youth with an IEP reported that receipt of school-based services from a tutor, reader, or interpreter for youth with an IEP grew by 17 percentage points, from 16 percent in 1987 to 33 percent in 2012, with most of this growth occurring between 2003 and 2012. The use of psychological or mental health counseling at school grew by 20 percentage points from 1987 to 2012, from 8 to 28 percent. Receipt of speech or language therapy at school also increased by 10 percentage points, from 15 percent in 1987 to 25 percent in 2012. Increases in the receipt of services from a tutor, reader, or interpreter occurred for several groups, including youth with autism, intellectual disabilities, and multiple disabilities. Receipt of counseling services increased for 7 of the 12 disability groups, with the largest growth among youth with emotional disturbance (18 percent in 1987, 29 percent in 2003, and 62 percent in 2012).

Table 26. Percentages of youth with an IEP ages 15 to 18 who received selected support services at school, by year

All youth with an IEP	2012	2003	1987
Youth who received services from a tutor, reader, or interpreter	33	18*✓	16*✓
Youth who received speech or language therapy	24	18*✓	15*✓
Youth who received audiology services	3	2*	1*
Youth who received psychological or mental health counseling	28	13*✓	8*✓,^✓
Youth who received physical or occupational therapy	13	6*✓	13^✓
Youth who received special transportation	14	12	6*✓,^✓

* = $p < .05$ for comparison with 2012 estimate; ^ = $p < .05$ for comparison with 2003 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Note: Parent survey respondents were asked whether their children received the following special education services in the past 12 months: tutoring or reader/interpreter services, speech or language therapy, audiology services, psychological or mental health counseling, physical or occupational therapy (including orientation and mobility services), and special transportation at school.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2; National Longitudinal Transition Study. The universe is youth who received special education at school. More information is provided in appendix E, tables E-2, E-3, E-4, E-5, E-6, and E-7.

Table 27. Percentages of youth with an IEP ages 15 to 18 who received services from a tutor at school and who received psychological counseling services at school, by disability group and year

Disability group	Youth who received services from a tutor at school			Youth who received psychological or mental health counseling at school		
	2012	2003	1987	2012	2003	1987
Youth ages 15 to 18	33	18*✓	16*✓	28	13*✓	8*✓,^✓
Autism	27	12*✓	—	34	16*✓	—
Deaf-blindness	55	23*✓	35!	12!	9!	‡
Emotional disturbance	29	15*✓	9*✓	62	29*✓	18*✓,^✓
Hearing impairment	46	43	40	17	13	12
Intellectual disability	36	14*✓	14*✓	30	16*✓	6*✓,^✓
Multiple disabilities	33	14*✓	15*✓	31	14*✓	14*✓
Orthopedic impairment	29	11*✓	18*✓,^✓	22	9*✓	8*✓
Other health impairment	36	18*✓	14*✓	33	15*✓	9*✓
Specific learning disability	34	20*✓	17*✓	17	10	7*✓
Speech or language impairment	25	12*✓	8*✓	22	14!	2!*✓,^✓
Traumatic brain injury	34	19	—	35	16*✓	—
Visual impairment	36	21*✓	21*✓	8!	12	7

* = $p < .05$ for comparison with 2012 estimate; ^ = $p < .05$ for comparison with 2003 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate; — = not available; ‡ = reporting standards not met. The standard error represents more than 50 percent of the estimate.

Note: Parent survey respondents were asked whether their children received the following special education services in the past 12 months: tutoring or reader/interpreter services and psychological or mental health counseling.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2; National Longitudinal Transition Study. The universe is youth who received special education at school. More information is provided in appendix E, tables E-2 and E-3.

Parents of youth with an IEP are more likely now than in the past decade to attend parent-teacher conferences, but less likely to help with homework

Some research suggests that parents can increase their children's academic engagement and achievement by providing more support at home and being involved in their child's school (Jeynes, 2007; Wang & Eccles, 2012a). Despite policy interest in greater parent engagement, such as the addition of a statutory definition of parent engagement in the No Child Left Behind Act (U.S. Department of Education, 2004), little has changed over the last decade in the extent to which parents of all students participate in school meetings, and the frequency with which parents help with homework has declined (Vaden-Kiernan & McManus, 2005; Noel et al., 2015; U.S. Department of Education, 2012). A key question is whether these overall trends in the general population are similar for parents of youth with an IEP.

- **Parents of youth with an IEP have increased their attendance at parent-teacher conferences by 16 percentage points during the past decade** (table 28; see table E-8 for more detail). The proportion of parents who reported that they or another adult in the household attended a parent-teacher conference during the past school year grew from 67 to 83 percent from 2003 to 2012. Attendance at parent-teacher conferences rose by almost 10 percentage points for youth in every disability group. These increases contrast with the lack of change in parent participation among parents of all students in elementary and secondary schools (77 percent in 2003 and 76 percent in 2012) (Noel et al., 2015; Vaden-Kiernan & McManus, 2005).

Table 28. Percentages of youth with an IEP ages 15 to 18 whose parent attended a parent-teacher conference, by disability group and year

Disability group	2012	2003
Youth ages 15 to 18	83	67*✓
Autism	87	78*✓
Deaf-blindness	84	63*✓
Emotional disturbance	82	69*✓
Hearing impairment	82	67*✓
Intellectual disability	84	67*✓
Multiple disabilities	84	63*✓
Orthopedic impairment	82	66*✓
Other health impairment	85	71*✓
Specific learning disability	83	67*✓
Speech or language impairment	75	63*✓
Traumatic brain injury	84	61*✓
Visual impairment	83	57*✓

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Note: Parent survey respondents were also asked how often they attended a parent-teacher conference in the current school year. Possible responses are never, 1 to 2 times, 3 to 4 times, 5 to 6 times, and more than 5 to 6 times.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who are enrolled in school in a school setting. More information is provided in appendix E, table E-8.

- **Parents of youth with an IEP are less likely than in the past to provide homework assistance, and this is particularly the case among lower-income parents** (table 29; see tables E-9 to E-10 for more detail). The proportion of parents who reported that they or another adult in the household helped their child with homework at least once a week declined by 7 percentage points, from 62 percent in 2003 to 55 percent in 2012.²¹ This mirrors a national trend in parental help with homework: the percentage of all students in grades 9 through 12 whose parents help with homework at least once per week decreased by 5 percentage points, from 41 percent in 2007 to 36 percent in 2012 (U.S. Department of Education, 2012). The decrease in homework help among parents of youth with an IEP overall was driven by the decrease in four groups: autism, intellectual disability, specific learning disabilities, and speech or language impairments. Additional analyses (table E-10) show that the decline in homework help by parents of youth with an IEP was concentrated among lower-income households. The proportion of lower-income parents who reported providing weekly homework help declined by 11 percentage points (from 66 to 55 percent), whereas the proportion of other parents was little changed (from 58 to 55 percent).

Table 29. Percentages of youth with an IEP ages 15 to 18 whose parent or another adult in the household helped them with homework at least once a week during the school year, by disability group and year

Disability group	2012	2003
Youth ages 15 to 18	55	62*✓
Autism	48	60*✓
Deaf-blindness	66	48
Emotional disturbance	48	48
Hearing impairment	60	58
Intellectual disability	59	70*✓
Multiple disabilities	56	51
Orthopedic impairment	62	62
Other health impairment	59	63
Specific learning disability	55	63*✓
Speech or language impairment	55	65*✓
Traumatic brain injury	61	60
Visual impairment	60	53

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Note: Parent survey respondents were asked how often they or another adult in the household helped their child with homework each week. The response categories were 5 or more times a week, 3 to 4 times a week, 1 to 2 times a week, less than once a week, and never.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who live with parents at least some of the time, are not homeschooled, and do not live in a residential school. More information is provided in appendix E, table E-9.

²¹ The decrease in parent homework help was offset by the concurrent increase in school-based services from a tutor, reader, or interpreter (though the study did not assess the relationship between the two trends). Specifically, the proportion of students who receive either school-based services from a tutor, reader, or interpreter or homework help from parents has not changed significantly in the past decade. However, the proportion who receive both types of support has increased by 9 percentage points (tables E-11 and E-12).

- **Parents' participation in their children's education, through discussing school experiences or attending meetings or activities at school, has not changed** (table 30; see tables E-13 to E-15 for more detail). Parents of youth with an IEP reported that they or another adult in the household regularly discussed school experiences with their children at approximately the same rates in 2012 as they did in 2003 (87 and 84 percent, respectively). Only parents of youth with orthopedic impairments or other health impairments were less likely in 2012 than they were in 2003 to discuss their children's school experiences regularly with them (94 to 83 percent and 94 to 87 percent, respectively). These two disability groups make up 15 percent of all youth with an IEP. From 2003 to 2012, the proportions of youth with an IEP whose parent reported attending a general school meeting was unchanged, at 74 percent, as were the proportions for every disability group. About one in five parents reported volunteering at school in both 2003 and 2012, and the proportions for every disability group did not change from 2003 to 2012. Among all parents of school-age youth in 2003 and 2012, the proportions who reported attending a general school meeting (88 and 87 percent) and volunteering at school (42 percent in both years) also did not change, although the proportions were larger (Noel et al., 2015; U.S. Department of Education, 2005).

Table 30. Percentages of youth with an IEP ages 15 to 18 whose parent talks with them regularly about school experiences, whose parent attended a general school meeting, and whose parent volunteered at school, by disability group and year

Disability group	Youth whose parents talk with them regularly about school experiences		Youth whose parent attended a general school meeting		Youth whose parent volunteered at school	
	2012	2003	2012	2003	2012	2003
Youth ages 15 to 18	84	87	74	74	21	20
Autism	86	84	75	75	28	29
Deaf-blindness	78	85	81	68	17!	28
Emotional disturbance	85	85	67	66	16	14
Hearing impairment	84	90	74	74	22	25
Intellectual disability	80	80	66	69	19	16
Multiple disabilities	83	84	73	76	27	26
Orthopedic impairment	83	94*✓	77	79	34	28
Other health impairment	87	94*✓	74	76	21	25
Specific learning disability	83	88	77	76	20	19
Speech or language impairment	87	88	75	71	24	29
Traumatic brain injury	87	93	75	77	23	23
Visual impairment	93	88	78	74	33	28

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate.

Note: Parent survey respondents were asked how often they or another adult in the household talk with youth about school experiences in the current school year, how often they or another adult attended a general school meeting in the current school year, and how often they or another adult volunteered at school in the current school year. Possible responses for the first measure are regularly, occasionally, rarely, and not at all. Possible responses for the second and third measures are never, 1 to 2 times, 3 to 4 times, 5 to 6 times, and more than 5 to 6 times.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe for the first measure is youth who live with parents at least some of the time and are enrolled in school in a school setting. The universe for the second and third measures is youth who are enrolled in school in a school setting. More information is provided in appendix E, tables E-13, E-14, and E-15.

Chapter 6. How have youth changed the way they prepare for life after high school?

Parents and schools also play important roles in helping youth with an individualized education program (IEP) transition to adulthood. Since 1990, the Individuals with Disabilities Education Act (IDEA) has required schools to invite youth with an IEP and their parents to meet with school staff to discuss goals for life after school and provide assistance to help them reach those goals. The amendments in 1997 strengthened the role that parents play in the development of the IEP and required that transition plans assess whether academic coursework helped youth make progress toward their goals. IDEA 2004 requires that the IEP include postsecondary goals that are measurable and that the transition plan reflect not only students' preferences and interests but also their strengths. Some research suggests that the process of helping youth formulate and pursue transition goals may improve their outcomes later in life (Test et al., 2009). However, IDEA 2004 delayed the age when transition planning is first required from 14 to 16 years old.

Key findings in chapter 6

- **Youth and parents are less likely to have discussed transition plans with school staff than in the previous decade.** From 2003 to 2012, the proportion of youth (ages 17 to 18) and their parents who reported ever having met with school staff to discuss post-high school transition plans declined by nearly 10 percentage points for youth (79 versus 70 percent) and almost 20 percentage points for parents (79 versus 60 percent). However, their participation rates in IEP meetings in the past two years did not decline during this period (from 74 to 81 percent for youth, and from 89 to 91 percent for parents). The declining prevalence of transition planning might reflect the policy change in IDEA 2004 that delayed the age when youth must start this planning process from 14 to 16 years old, which may have made it less likely for parents and students to have had memorable discussions about these issues with schools. Alternatively, it may reflect a declining emphasis on transition planning within the context of all IEP meetings, or a combination of these and perhaps other factors. In addition, parents reported that youth who attend IEP or transition-planning meetings were less likely than a decade ago to provide input during the meeting: 67 percent provided at least some input in 2003 compared with 59 percent in 2012.
- **Paid employment in a job not sponsored by school among youth with an IEP has declined, but participation in school-sponsored work activities remained stable.** The proportion of youth with an IEP overall who reported having a job that is not sponsored by school at the time of the interview declined from 27 percent in 2003 to 19 percent in 2012. Those with hearing impairments and other health impairments experienced the largest declines (from 35 to 14 percent and from 42 to 23 percent, respectively). By contrast, youth with an IEP overall were about as likely in both 2003 and 2012 to report having participated in school-sponsored work in the past year (14 and 13 percent, respectively). Although the proportions of youth in most disability groups with school-sponsored jobs were stable from 2003 to 2012, the percentage rose for youth with autism from 11 to 21 percent.

Another way youth prepare for life after high school is through working. Since the 1950s, schools have helped youth get paid and unpaid work experience through cooperative programs (co-ops), internships, school-based enterprises, and supported work (Johnson, 2012). Students can also obtain jobs on their own or with the help of their parents or others. Earlier research linked working during high school to higher postsecondary enrollment and employment rates after graduation among youth with an IEP (Baer et al., 2003; Carter et al., 2012; Cobb, Lipscomb, Wolgemuth, & Schulte, 2013; McDonnall & O'Mally, 2012; Simonsen & Neubert, 2013; Wagner

et al., 2014). If this linkage is true, given changes in the economic climate over the last decades, particularly with the recent Great Recession, shifts in high school work experience could have implications for youths' later work and career success.

Detailed tables supporting the findings presented in this chapter are available in [appendix F](#).

Youth and parents are less likely to have discussed transition plans with school staff than in the previous decade

IDEA has long required that IEPs for high school students include a transition plan that outlines their goals relating to postsecondary education, employment, and independent living, and a plan for achieving those goals. School staff develop these transition plans and must attempt to involve youth and their parents in their formulation. Educational experts have emphasized the importance of actively engaging youth in the planning process to help them learn how to self-advocate and to ensure that the transition plan is appropriate (HEATH Resource Center, 2006; Rehfeldt, 2006; Sitlington & Clark, 2007). The changes to IDEA in 2004 emphasized that transition plans should consider not only students' interests and preferences but also their strengths, to focus on abilities rather than disabilities, to promote better outcomes in adulthood. In addition, IDEA 2004 sought to make it easier for parents to provide input into IEP meeting activities by allowing them to participate in meetings by phone or by consolidating meetings. However, IDEA 2004 also may have discouraged early transition planning by changing the age when this planning must begin from 14 to 16.

- **Although youth and parents are less likely to have ever met with school staff to discuss transition plans, they are just as likely to have gone to an IEP meeting in the past two years** (tables 31 and 32; see tables F-1 to F-4 for more detail). From 2003 to 2012, a declining proportion of youth with an IEP ages 17 to 18 reported having ever met with school staff to discuss their plans for after high school (from 79 to 70 percent). The proportion of parents reporting that they met with school staff for the same purpose also declined (from 79 to 60 percent).²² In contrast to these trends, the proportion of youth and parents who reported going to an IEP meeting in the past two school years did not decline.²³ In both 2003 and 2012, about three-quarters

²² The report examines reflections about transition experiences among youth starting at age 17 (and their parents). Youth survey data are incomplete for 16-year-olds' reporting of whether they have met with school staff to develop a transition plan (appendix A). Youth-reported meeting attendance including 16-year-olds is likely to be less than reported in table 30 based on the results for parents; parents' reports of their own attendance are 4 percentage points lower overall in 2012 and 2 percentage points lower overall in 2003 when 16-year-olds are included.

²³ IDEA 2004 gave parents who cannot attend IEP meetings in person the flexibility to participate by other methods, such as by telephone. The NLTS 2012 questions on participation in IEP meetings and transition planning came from NLTS2 surveys that were administered prior to this policy change. The questions asked respondents whether they went to an IEP meeting in the last two years and whether they ever met with school staff to discuss transition plans. Some NLTS 2012 respondents may have interpreted these questions as referring to in-person meetings only, in which case the proportions reported in this volume for 2012 may understate the combined in-person and remote participation rate. However, the remote attendance policy change is unlikely to explain the decline in the proportion of respondents who reported meeting with school staff to discuss transition plans because their reported participation in IEP meetings did not decline, as would be expected for any systematic shift toward remote participation.

of youth in special education ages 17 to 18 reported going to an IEP meeting (74 and 81 percent, respectively). Similarly, about 9 in 10 of their parents in both time periods reported going to an IEP meeting (89 and 91 percent, respectively).²⁴ The declining participation in transition planning might reflect the policy change in IDEA that delayed the age when youth must start this planning process from 14 to 16 years old; by condensing the window of time when these issues are supposed to be discussed, the policy change might have reduced the likelihood that parents and youth have memorable discussions with school staff. Alternatively, it may reflect a declining emphasis on transition planning within the context of all IEP meetings, or a combination of these and/or other factors.²⁵

Table 31. Percentages of youth with an IEP ages 15 to 18 and parents who met with school staff to discuss transition plans, by disability group and year

Disability group	Youth who met with school staff to discuss transition plans		Youth whose parent met with school staff to discuss transition plans	
	2012	2003	2012	2003
Youth ages 15 to 18	70	79*✓	60	79*✓
Autism	63	75	65	78*✓
Deaf-blindness	51!	83	78	80
Emotional disturbance	71	69	66	79*✓
Hearing impairment	71	88*✓	58	82*✓
Intellectual disability	66	64	65	78*✓
Multiple disabilities	52	70	64	82*✓
Orthopedic impairment	63	88*✓	61	85*✓
Other health impairment	75	79	56	85*✓
Specific learning disability	72	83*✓	56	78*✓
Speech or language impairment	66	82	54	72*✓
Traumatic brain injury	55	81*✓	51	80*✓
Visual impairment	69	82	67	81

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate.

Note: Youth survey respondents and parent survey respondents, respectively, were asked whether they (or another adult in the household in the case of parents) have met with teachers to develop a transition plan (that is, goals for what youth will do after high school and a plan for how to achieve them).

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth whose parent reported that they received special education services in the past year and are 17 or 18 years old. More information is provided in appendix F, tables F-1 and F-2.

²⁴ The consistency in youth and parent attendance at IEP meetings between 2003 and 2012 is also apparent when calculated among youth who are 15 to 18 years old and 16 to 18 years old.

²⁵ For parents, their apparent downward trend in transition-planning meeting attendance between 2003 and 2012 also may partly reflect the difference in the way the NLTS2 and NLTS 2012 data were collected. The NLTS2 provided parents with two opportunities to report whether they ever attended a transition-planning meeting, but the NLTS 2012 provided only one opportunity to do so. In particular, the NLTS2 included the question in both the 2001 and the 2003 surveys, and the tabulations above combined these two variables to determine whether parents ever attended such a meeting. However, even using the 2003 data alone (which referenced attendance in the past two years), parent-reported attendance at transition-planning meetings was higher by a statistically significant amount in 2003 than in 2012 (69 versus 60 percent). Youth-reported data did not require any aggregation of responses across NLTS2 waves.

Table 32. Percentages of youth with an IEP ages 17 to 18 and parents who attended an IEP meeting in the past two years, by disability group and year

Disability group	Youth who attended an IEP meeting during the current or prior school year		Youth whose parent attended an IEP meeting during the current or prior school year	
	2012	2003	2012	2003
Youth ages 17 to 18	81	74	91	89
Autism	76	90*✓	94	97
Deaf-blindness	75	90	95	94
Emotional disturbance	80	80	92	90
Hearing impairment	79	93	85	92
Intellectual disability	82	73	87	82
Multiple disabilities	77	80	92	92
Orthopedic impairment	80	89	95	94
Other health impairment	81	85	90	95*✓
Specific learning disability	82	70	92	89
Speech or language impairment	85	80	88	89
Traumatic brain injury	71	78	82	90
Visual impairment	91	84	95	87

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude.

Note: Youth survey respondents and parent survey respondents, respectively, were asked whether they attended an IEP meeting during the current or prior school year.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth whose parent reported that they received special education services in the past year and are 17 or 18 years old. More information is provided in appendix F, tables F-3 and F-4.

- Youth with an IEP appear less likely to provide input into their IEP and transition plans than a decade ago (table 33; see table F-5 for more detail). In addition to their lower self-reported rates of attending transition-planning meetings, parents who attended an IEP or transition-planning meeting reported that youth with an IEP became 8 percentage points less likely to provide input or take a leadership role (from 69 percent in 2003 to 61 percent in 2012). This decline is noteworthy given increased policy interest in IDEA 2004 in helping students define and pursue their own postsecondary goals.

Table 33. Percentages of youth with an IEP ages 15 to 18 who provided at least some input in IEP and transition planning, by disability group and year

Disability group	2012	2003
Youth ages 15 to 18	61	69*✓
Autism	41	32
Deaf-blindness	41!	55
Emotional disturbance	65	68
Hearing impairment	73	73
Intellectual disability	44	44
Multiple disabilities	37	33
Orthopedic impairment	66	61
Other health impairment	66	72
Specific learning disability	67	77
Speech or language impairment	67	65
Traumatic brain injury	67	58
Visual impairment	79	71

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate.

Note: Parent survey respondents were asked to describe the youth's role in his/her IEP and transition planning. The response options were as follows: took a leadership role, provided some input, was present but participated very little, or did not participate at all. At least some input is defined as providing some input or taking a leadership role.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth whose parent reported that they received special education services in the past year and whose parent or another adult in the household attended an IEP in the past two years or ever attended a transition-planning meeting, and are 17 or 18 years old. More information is provided in appendix F, table F-5.

Paid employment during high school among youth with an IEP has declined, but participation in school-sponsored work activities has remained stable

Helping youth transition to employment has been and remains a key goal of IDEA since its inception in 1975. In addition to providing academic, career, and technical skill-building opportunities in the classroom, schools can facilitate youths' work experience. Studies suggest that working during high school may help youth receiving special education services increase their chances of being employed after they graduate (Baer et al., 2003; Carter et al., 2012; McDonnall & O'Mally, 2012; Simonsen & Neubert, 2013; Wagner et al., 2014).²⁶ Early work experiences may benefit youth in several ways, such as by exposing them to careers, helping them develop useful skills, and enabling them to develop a résumé (Mortimer, 2005). For this reason, some schools have sought to help youth with an IEP obtain work experience during the school year or summer through jobs, cooperative programs (co-ops), internships, school-based enterprises, and supported work.

Policymakers have increasingly emphasized the importance of helping youth with disabilities obtain jobs paying at least minimum wage in settings that include workers without disabilities (O'Day & Stapleton, 2009; Wehman, 2006; National Collaborative on Workforce and Disability, 2011). More recently, the Workforce Innovation and Opportunity Act of 2014 required vocational rehabilitation agencies to help schools place youth with disabilities in these "competitive integrated jobs." Although this Act was passed after NLTS 2012 surveys were conducted, it reflects the steady growth of interest in helping youth gain entry to good jobs. Changes in paid employment of youth may reflect not only the effects of these policies but also other factors, such as the strength of the labor market (Hoynes, Miller, & Schaller, 2012).

²⁶ Like other studies cited earlier, those examining the effects of high school work may not be able to adequately isolate the effects of working from differences in the characteristics of those who do and do not choose to work.

- The proportion of youth with an IEP who have a paid job that is not sponsored by school declined by 8 percentage points during the past decade, with the largest declines among those with hearing impairments or other health impairments (table 34; see table F-6 for more detail). The proportion of youth with an IEP overall who said they had this kind of job declined from 27 percent in 2003 to 19 percent in 2012. The measure of employment in this volume pertains to having a job at the time of the survey.²⁷ Youth with hearing impairments or other health impairments, who had among the highest employment rates in 2003, experienced the largest reductions (from 35 to 14 percent and 42 to 23 percent, respectively). Some of these reductions in paid employment might reflect the relative weakness of the labor market in 2012: employment rates for all youth (including those without an IEP) also declined by 7 percentage points between 2003 and 2012.²⁸

Table 34. Percentages of youth with an IEP ages 15 to 18 who currently have a paid job not sponsored by school, by disability group and year

Disability group	2012	2003
Youth ages 15 to 18	19	27*✓
Autism	6	7!
Deaf-blindness	‡	‡
Emotional disturbance	19	19
Hearing impairment	14	35*✓
Intellectual disability	11	16
Multiple disabilities	11	14!
Orthopedic impairment	6!	‡
Other health impairment	23	42*✓
Specific learning disability	23	29
Speech or language impairment	19	29
Traumatic brain injury	19	37
Visual impairment	12	22

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate; ‡ = reporting standards not met. The standard error represents more than 50 percent of the estimate.

Note: Youth survey respondents were asked if they currently have a paid job.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who are enrolled in school in a school setting. More information is provided in appendix F, table F-6.

²⁷ By contrast, the employment measure in Volumes 1 and 2 relates to having a job in the last year. The employment measure in this volume is different in order to make the measures comparable across the NLTS studies.

²⁸ Employment rates for youth ages 16 to 24 fell from 2003 to 2012, from 67.3 to 60.5 percent (U.S. Department of Labor, Bureau of Labor Statistics, 2014).

- **Participation in school-sponsored work activities in the past year was steady over the decade** (table 35; see tables F-7 to F-9 for more detail). These activities could include paid or unpaid jobs (for example, cooperative education or supported work, internships, or work in school-based enterprises like school stores or banks), as long as they were arranged with the help of school staff. The proportion of youth with an IEP overall who reported having paid or unpaid school-sponsored work activities in the last year was similar in 2003 and in 2012 (14 and 13 percent, respectively). Most school-arranged activities were unpaid, accounting for about 60 percent of all school-sponsored work experience in both years. Although there was no overall growth in participation in school-sponsored work, participation increased in these activities among youth with autism (11 versus 21 percent) and increased in unpaid school-sponsored work activities among youth with intellectual disability (5 versus 16 percent).

Table 35. Percentages of youth with an IEP ages 15 to 18 who have school-sponsored work activities, paid school-sponsored work activities, or unpaid sponsored-work activities in the past year, by disability group and year

Disability group	Youth who have school-sponsored work activities		Youth who have paid school-sponsored work activities		Youth who have unpaid school-sponsored work activities	
	2012	2003	2012	2003	2012	2003
Youth ages 15 to 18	13	14	4	7	8	8
Autism	21	11!*✓	6	5!	15	‡
Deaf-blindness	‡	45!	‡	‡	‡	31!
Emotional disturbance	14	16!	8	9!	6	7!
Hearing impairment	15	11!	7	‡	8	8!
Intellectual disability	23	16	7	11!	16	5!*✓
Multiple disabilities	21	17!	8	7!	13	10!
Orthopedic impairment	12	‡	‡	‡	8	4!
Other health impairment	10	8	3	3!	7	5
Specific learning disability	10	15	3	6!	6	9
Speech or language impairment	7	7!	3!	3!	4	4!
Traumatic brain injury	18	27!	6!	‡	12!	14!
Visual impairment	12	16	5!	10	7!	6!

* = $p < .05$ for comparison with 2012 estimate; ✓ = comparison is statistically significant and at least 5 percentage points in magnitude; ! = estimate is unstable because the standard error represents 30 to 50 percent of the estimate; ‡ = reporting standards not met. The standard error represents more than 50 percent of the estimate.

Note: Youth survey respondents were asked whether they had a school-sponsored job in the past 12 months, had a school-sponsored paid job in the past 12 months, and had a school-sponsored unpaid job in the past 12 months.

Source: National Longitudinal Transition Study 2012; National Longitudinal Transition Study 2. The universe is youth who are enrolled in school in a school setting, according to both youth and parents. More information is provided in appendix F, tables F-7, F-8, and F-9.

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