U.S. Department of Education
March 2017







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

Volume 1: Comparisons with other youth

Findings from the National Longitudinal Transition Study 2012

Executive Summary

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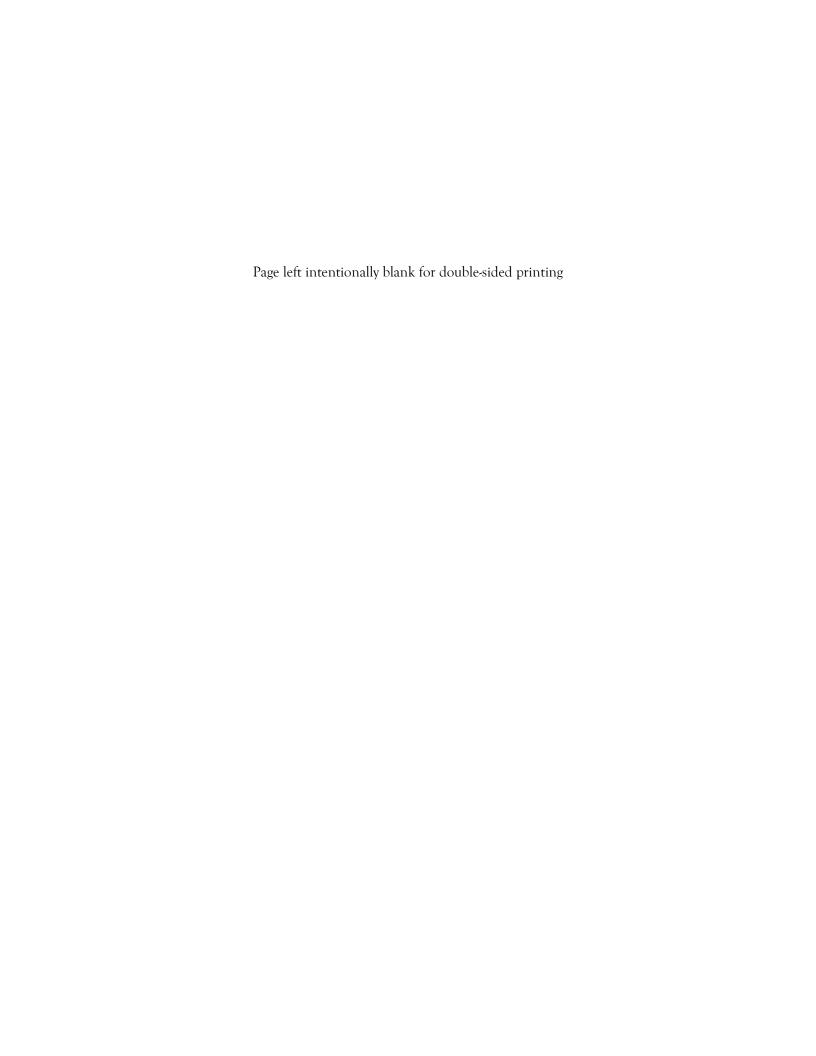
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This publication was prepared for the Institute of Education Sciences (IES) under Contract ED-IES-10-C-0073. The content of the publication does not necessarily reflect the views or policies of IES or the U.S. Department of Education nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

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Lipscomb, S., Haimson, J., Liu, A.Y., Burghardt, J., Johnson, D.R., & Thurlow, M.L. (2017). Preparing for life after high school: The characteristics and experiences of youth in special education. Findings from the National Longitudinal Transition Study 2012. Volume 1: Comparisons with other youth: Executive summary (NCEE 2017-4017). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance.

This report is available on the IES website at https://ies.ed.gov/ncee/projects/evaluation/disabilities nlts2012.asp.

Executive summary

Policymakers have long recognized the importance of addressing the needs of youth with disabilities, who today account for 12 percent of all youth in the United States. Beginning with landmark legislation in 1975 and continuing through the most recent updates to the Individuals with Disabilities Education Act (IDEA) in 2004, the U.S. Congress has mandated that these students have access to a free appropriate public education and provided funds to school districts nationwide to help serve them. Still, concern about the challenges youth with disabilities face and interest in understanding their characteristics and experiences remains—particularly given the changing educational, social, and economic landscape that can affect all youth or youth with disabilities differentially (Colby & Ortman, 2015; Dee, Jacob, & Schwartz, 2013; Oreopoulos & Petronijevic, 2013; Oreopoulos, von Wachter, & Heisz, 2012; Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013).

The National Longitudinal Transition Study (NLTS) 2012 provides updated information on youth with disabilities in light of these changes, to inform efforts to address their needs. Sponsored by the U.S. Department of Education under a congressional mandate to study IDEA 2004 and the students it serves, the NLTS 2012 describes 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. Through surveys in 2012 and 2013, the study collected data on a nationally representative set of nearly 13,000 students—mostly those with an individualized education program (IEP) and expected to receive special education services. The study also includes students without an IEP who either have no identified disability or who have an impairment that does not qualify them for special education but allows them to receive accommodations through a 504 plan under the Rehabilitation Act, another federal law pertaining to the rights and needs of youth with disabilities. Students with a 504 plan are a growing segment of the public school population, making it important to understand their needs and how their needs differ from those of students with an IEP.

This first volume of findings from the NLTS 2012 focuses on the similarities or dissimilarities between youth with an IEP and their "peers" — youth without an IEP (both groups combined, though youth with a 504 plan are also examined separately). This assessment provides context for understanding how youth in special education have fared in the decade following IDEA 2004 and suggests several key points:

• Youth with an IEP are more likely than their peers to be socioeconomically disadvantaged and to face problems with health, communication, and completing typical tasks independently. For example, they are 12 percentage points more likely to live in low-income households (58 versus 46 percent), and less likely to have parents who are employed or have a college education. Although, according to parents, 70 percent of youth with an IEP are in very good or excellent health, nearly 30 percent have chronic physical or mental health conditions or use prescription behavioral medication (about three times more common than among youth without an IEP). Parents also report that 44 percent of youth in special education have trouble understanding what others say to them (versus 8 percent of their peers) and that they are less likely to perform each of several activities of daily living without help, such as using an automated teller machine (ATM) (37 versus 55 percent) and getting to places outside the home (85 versus 95 percent). However, on average youth with an IEP are no more likely than their peers to face other challenges, such as limited English proficiency or attending an academically lower-performing school.

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¹ The share of public school students with a 504 plan has grown from 0.7 percent in 2000 to 1.5 percent in 2012 (U.S. Department of Education, Office of Civil Rights, 2016).

- Males represent a larger share of youth with an IEP than of youth without an IEP. Policymakers and educators have long been concerned that some groups of students might be identified for special education services at different rates. Although the study cannot unravel the mix of factors that could be responsible for this pattern, two-thirds of youth with an IEP are male, compared with about half of their peers.
- The vast majority of youth with and without an IEP feel positive about school, but those with an IEP experience bullying and are suspended at higher rates, and are less engaged in school and social activities. Like their peers, more than 80 percent of youth in special education report that they are happy with school and with school staff. However, not only do youth with an IEP more commonly experience some types of bullying (for example, 37 versus 28 percent for being teased or called names), but their parents also indicate they are more than twice as likely to be suspended (29 versus 14 percent) or expelled (8 versus 3 percent) from school. In addition, they report having lower participation rates in school extracurricular sports and clubs than their peers (64 versus 81 percent), and are less likely to get together with friends on a weekly basis (52 versus 66 percent).
- Youth with an IEP are more likely than youth without an IEP to struggle academically, yet less likely to receive some forms of school-based support. Half of all youth with an IEP report they have trouble with their classes, about 15 percentage points more than reported by their peers. However, they are 6 percentage points less likely to report receiving school-based academic help before or after school (72 versus 78 percent). On the other hand, parents of youth with an IEP report being more likely than other parents to help their children with homework weekly (62 versus 54 percent) and to attend a parent-teacher conference (84 versus 65 percent).
- Youth with an IEP lag their peers in planning and taking steps to obtain postsecondary education and jobs. Nearly 20 percentage points fewer youth with an IEP expect to enroll in some type of postsecondary education or training, compared with youth without an IEP (76 versus 94 percent). The gap is nearly 30 percentage points for those expecting to obtain a four-year college degree (51 versus 80 percent). Reflecting these gaps, youth in special education are almost half as likely as their peers to report taking college entrance and placement tests (42 versus 70 percent). Forty percent report having recent paid work experience, compared with 50 percent of youth without an IEP. In addition, parents of youth with an IEP are less likely than other parents to anticipate that their children will live independently as adults (78 versus 96 percent).
- Youth with a 504 plan face fewer functional, social, and educational challenges than do youth with an IEP, but more than other youth without an IEP. On several indicators examined, youth with a 504 plan fare better than youth with an IEP but worse than other youth without an IEP. These indicators include communication and performance on some activities of daily living, involvement in school activities, being suspended from school, and expectations about obtaining a four-year college degree. For example, the proportion who participate in a school sport or club (76 percent) is between that of youth with an IEP (64 percent) and other youth without an IEP (81 percent). However, youth with a 504 plan have more advantaged backgrounds than these other groups and are less likely to attend lower-performing schools.

Study design and research questions

The NLTS 2012 is a national study of nearly 13,000 youth with and without an IEP. These students were chosen to represent all students with and without an IEP in the United States in grades 7 through 12 (or secondary ungraded classes). 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 (which includes deafness), 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 with no identified disability and those who receive disability accommodations through Section 504 of the Rehabilitation Act (but not IDEA special education services). The study surveyed youth and their parents in 2012 or 2013 when the vast majority (97 percent) of the former were 13 to 21 years old. It spans multiple ages and grades to provide a broad view of students' school experiences at a point in time.

This volume focuses on youth with and without an IEP who were enrolled in school in the year they were surveyed. The analysis uses data from 11,853 parent surveys and 10,144 youth surveys, and excludes more than 1,000 youth who were no longer enrolled in school in the year in which they were surveyed.³ The findings are based on comparisons of averages for all youth with an IEP and three groups of youth without an IEP, namely all youth without an IEP, those with a 504 plan but no IEP, and those with neither a 504 plan nor an IEP. Differences that are statistically significant (not due to chance) and at least 5 percentage points are highlighted to call attention to those that are substantive and policy relevant.⁴

The volume addresses the following five research questions:

- 1. What are the background characteristics of youth and the schools they attend?
- 2. What challenges do youth face relating to health, functional abilities, and independence?
- 3. How engaged are youth in school and with friends?
- 4. What academic supports do youth receive?
- 5. How are youth preparing for life after high school?

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² Youth were ages 12 to 23 when interviews took place. Less than two percent were 12 years old, and less than one 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.

³ Parent survey respondents provided proxy responses for youth who were unable to self-report even with accommodations offered by the study (16 percent of youth respondents overall; 19 percent of those with an IEP). Proxy responses were not obtained for questions that depended on the youth's perspective.

⁴ The study team selected this level in consultation with the U.S. Department of Education's Institute of Education Sciences and content experts, judging differences of lesser 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. Some statistically significant differences in the report appear to be 5 percentage points because of rounding but are actually smaller. The discussion does not typically highlight these differences.

Detailed findings

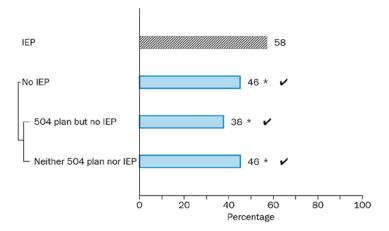
Volume 1 from the NLTS 2012 provides comprehensive information to address the research questions, beyond the key findings summarized earlier.

What are the background characteristics of youth and the schools they attend?

It has long been known that the characteristics of students, their families, and the schools they attend are related to—though do not necessarily determine—the supports students need and their later success (Aud, KewalRamani, & Frohlick, 2011; Fryer & Katz, 2013). Students with an IEP may have characteristics that, perhaps separate from their disability, are linked to greater difficulty in transitioning to college, employment, and self-sufficiency, as suggested in previous research (Newman et al., 2011; Wagner et al., 2003; Wagner, Newman, & Javitz, 2014). The distinctive features of students' backgrounds and school characteristics serve as a foundation for understanding how the needs of youth with an IEP might differ from those of their peers. Such information can also be useful in the ongoing debate about whether students with certain characteristics are more common among youth with an IEP than among other youth (for example, see Harry & Klingner, 2014).

- Youth with an IEP are more likely than their peers to be socioeconomically disadvantaged. For example, 58 percent of youth with an IEP live in low-income households, compared with 46 percent of youth without an IEP (figure ES1). Moreover, parents of youth with an IEP report being less likely than other parents to have a college education, be employed, or be married (table ES1). Youth with a 504 plan have relatively advantaged socioeconomic backgrounds, compared with both youth with an IEP and other youth without an IEP.
- Males and black youth represent larger shares of youth with an IEP than of youth without an IEP. Two-thirds of youth with an IEP are male, compared with about half of their peers (figure ES2). Youth with an IEP are also 5 percentage points more likely than youth without an IEP to be black (19 versus 14 percent; table ES1), but about as likely to be Hispanic (24 and 25 percent) and to be limited English proficient (10 and 8 percent). The proportions of youth with a 504 plan who are male (60 percent) and black (13 percent) are lower than among youth with an IEP as well.
- Youth with an IEP are not more concentrated than those without an IEP in lower-performing schools. Similar proportions of youth with and without an IEP (27 and 24 percent) attend a school with state-reported academic proficiency rates in the bottom quarter statewide (figure ES3). Youth with a 504 plan (19 percent) are less likely than youth with an IEP to attend a lower-performing school.

Figure ES1. Percentages of youth who live in low-income households, by IEP status



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

Note: Parent survey respondents were asked to indicate their income and household size 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 \$42,643 for a family of four living in the continental United States in 2012. This figure also appears as figure 1.

Source: National Longitudinal Transition Study 2012. The universe is youth who lived with their parents at least some of the time. Appendix B provides more information.

Table ES1. Percentages of youth with specified background characteristics, by IEP status

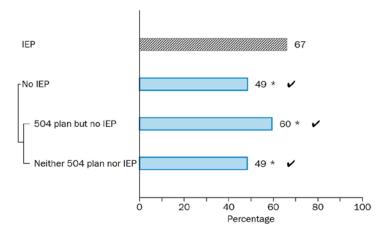
Background characteristic	IEP	No IEP	504 plan but no IEP	Neither 504 plan nor IEP
Parent (or parent's spouse) has a four-year college degree or higher	26	37*✔	43*✔	37*✔
Parent (or parent's spouse) has a paid job	80	87* √	87* √	87* √
Parent is married or in a marriage-like relationship	63	72* √	75* √	72*✔
Black (not Hispanic)	19	14*	13*✔	14*
Hispanic	24	25	16*✔	25
White, Asian, or other race (not Hispanic)	57	61*	71* √	61

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

Note: Parent survey respondents provided information for the measures in this table. Black includes African American; Hispanic includes Latino; and other race includes American Indian or Alaska Native, and Native Hawaiian or other Pacific Islander. This table summarizes data presented in figures 2, 3, and 4, and table 2.

Source: National Longitudinal Transition Study 2012. The universe for rows 1, 2, and 3 is youth who lived with their parents at least some of the time. The universe for rows 4, 5, and 6 is all youth. Appendix B provides more information.

Figure ES2. Percentages of youth who are male, by IEP status

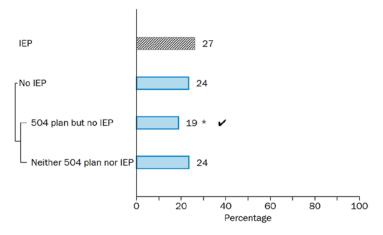


^{*=}p < .05 for comparison with IEP estimate; ✓=comparison is statistically significant and at least 5 percentage points in magnitude.

Note: Parent survey respondents were asked to confirm or correct school district information about a youth's gender. Sample information was used when parent-reported data were not available. This figure also appears as figure 5.

Source: National Longitudinal Transition Study 2012. The universe is all youth. Appendix B provides more information.

Figure ES3. Percentages of youth who attend a lower-performing school, by IEP status



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

Exhibit reads: The bar graph compares youth with an IEP (gray bar) with three groups. The key comparison is between youth with an IEP and all youth without an IEP (top blue bar). Youth with an IEP are also compared with youth with a 504 plan but no IEP (second blue bar) and youth with neither a 504 plan nor an IEP (bottom blue bar). An asterisk next to the bar indicates the difference with youth with an IEP is statistically significant (at the .05 level), and a check mark notes a statistically significant difference of at least 5 percentage points.

Note: Lower-performing schools are schools with an average math and reading proficiency rate in the lowest 25 percent of schools in the same state. Math and reading proficiency rates are standardized within each state and then averaged within each school. This figure also appears as figure 7.

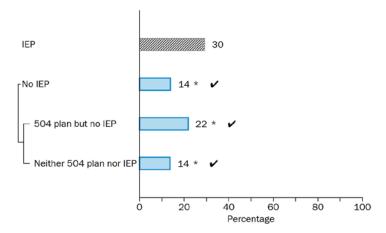
Source: National Longitudinal Transition Study 2012 and EDFacts data. The universe is all youth. Appendix B provides more information.

What challenges do youth face relating to health, functional abilities, and independence?

Students' health and other capacities can be important factors in their development and future success (Carter, Austin, & Trainor, 2012; Currie, Stabile, Manivong, & Roos, 2010; Wagner, Newman, Cameto, Garza, & Levine, 2005). In recognition of this, an update to the IDEA in 2004 required that IEPs consider and support students' functional performance as well as their academic achievement. In addition, IEPs under IDEA 2004 must include a set of postsecondary goals that reflect not only students' preferences and interests, but also their strengths. These requirements reflect the concept of self-determination (combining an ability to act independently with a sense of self-direction), which researchers consider important for youth development (Berry, Ward, & Caplan, 2012; Shogren & Shaw, 2016).

- Most youth with an IEP are healthy and have few functional limitations, but they are three times more likely than their peers to experience challenges with health, communication, and understanding. According to parents, 30 percent of youth with an IEP do not have very good or excellent general health, compared with 14 percent of youth without an IEP (figure ES4). Chronic physical or mental health conditions and use of prescription behavioral medicine are three times more common among youth with an IEP than among their peers (table ES2). In addition, parents indicate that 29 percent of youth with an IEP have difficulty communicating and 44 percent have difficulty understanding others, proportions that are at least five times greater than among youth without an IEP (4 and 8 percent). Youth with a 504 plan are more likely than youth with an IEP to have chronic health conditions and use prescription behavioral medicine. The proportions of youth with a 504 plan who have difficulty communicating and understanding others are smaller than for youth with an IEP, but larger than for other youth without an IEP.
- Youth with an IEP engage in fewer activities independently than do other youth, but they are as likely to have one aspect of self-determination—a strong sense of self-direction. Youth with an IEP are less likely than their peers to perform several activities of daily living without help, such as using an automated teller machine (ATM) (37 versus 55 percent) and getting to places outside the home (85 versus 95 percent), according to parents (table ES3). Youth with an IEP are less likely than those without an IEP to exhibit autonomy, a key component of self-determination, such as with choosing what to do with friends (56 versus 66 percent) and making plans for the weekend (51 versus 61 percent). However, both youth with and without an IEP appear to have a positive sense of self-direction: for example, about 9 in 10 report knowing how to make good choices and being confident in their abilities. Youth with a 504 plan are at least as likely as youth with an IEP to complete activities of daily living and other activities demonstrating autonomy.

Figure ES4. Percentages of youth who do not have very good or excellent general health, by IEP status



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

Note: Parent survey respondents were asked to rate youth's general health as excellent, very good, good, fair, or poor. This figure also appears as figure 9.

Source: National Longitudinal Transition Study 2012. The universe is all youth. Appendix C provides more information.

Table ES2. Percentages of youth who have health and communication needs, by IEP status

Indicator of health or communication ability	IEP	No IEP	504 plan but no IEP	Neither 504 plan nor IEP
Has a chronic physical or mental health condition	28	10*✔	38*✔	9*✔
Uses prescription behavioral medicine	27	7*✔	40*✔	6*✔
Has trouble communicating by any means	29	4*✔	10*✔	4*✔
Has trouble understanding what other people say to him or her	44	8*✔	22*✔	7*✔

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

Note: Parent survey respondents provided information for the measures in this table. Trouble refers to parents' responses of a little trouble, a lot of trouble, or no ability, versus a response of no trouble. This table summarizes data presented in figures 10 and 11 and table 5.

Source: National Longitudinal Transition Study 2012. The universe is all youth. Appendix C provides more information.

Table ES3. Percentages of youth who demonstrate capabilities to function independently, by IEP status

Indicator of capability to be independent and self-directed	IEP	No IEP	504 plan but no IEP	Neither 504 plan nor IEP
Uses an ATM without help	37	55*✔	48*✔	55*✔
Gets to places outside the home without help	85	95*✔	92*✔	95*✔
Chooses activities to do with friends	56	66*✔	61	66*✔
Plans weekend activities that they like to do	51	61* √	65*✔	61*✔
Knows how to make good choices	94	97*	95	97*
Confident in own abilities	92	93	93	93

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

Note: Parent survey respondents provided information for the first two measures in this table, which are considered activities of daily living. The percentages are for responses of very well or pretty well. The other response categories included not very well, not at all well, and not allowed. Youth survey respondents, excluding proxies, provided information for the last four measures, which are considered indicators of self-determination. The percentages for choosing activities with friends and for planning weekend activities are for responses of every time or most of the time when they have a chance. The other response categories included sometimes and never. The last two measures were presented to youth as binary choices. This table summarizes data presented in tables 7, 9, and 10.

Source: National Longitudinal Transition Study 2012. The universe is all youth. Appendix C provides more information.

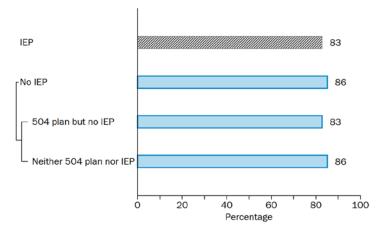
How engaged are youth in school and with friends?

School engagement and positive peer relationships are crucial components of youth development that may have important academic and social benefits (Anderson, Christenson, Sinclair, & Lehr, 2004; Juvonen, Espinoza, & Knifsend, 2012; Wang & Eccles, 2012). IDEA 2004 promotes efforts to help youth with an IEP stay engaged and avoid negative outcomes, reflecting concerns they could be at greater risk for disengagement based on their experiences in school (Wagner et al., 2003; Sullivan, Van Norman, & Klingbeil, 2014). In particular, the law requires states to monitor the rates at which youth with an IEP are suspended and expelled from school in recognition that these actions might not always be appropriate. In addition, the U.S. Department of Education has recently focused on the threat bullying can pose to youth with disabilities, clarifying that it has the potential to deny youth their rights under IDEA 2004 and section 504 of the Rehabilitation Act (U.S. Department of Education, 2014). The focus on bullying is particularly important given research linking it with lower academic performance and higher dropout rates (Cornell, Gregory, Huang, & Xitao, 2013; Lacey & Cornell, 2013). Helping youth to stay engaged and avoid negative experiences are important priorities for policymakers, educators, and parents alike.

- Most youth with and without an IEP feel positive about school, but those with an IEP are more likely to struggle academically and be bullied, suspended, expelled, or arrested. At least 80 percent of youth with and without an IEP report feeling happy to be at school (figure ES5). But half of youth with an IEP find coursework difficult and have trouble keeping up with homework, about 15 percentage points more than their peers (table ES4). They are also more likely to be teased at school (37 versus 28 percent) and, according to parents, more than twice as likely as their peers to repeat grades or be suspended, expelled, or arrested (table ES5). Youth with a 504 plan have similar perceptions about school as youth with an IEP, but they are less likely to repeat grades and be suspended (though still more likely than other youth without an IEP).
- Youth with an IEP are less likely than their peers to participate in extracurricular sports and clubs and to
 get together with friends. Nearly two-thirds of youth with an IEP report participating in a school sport or
 club activity, compared with more than three-quarters of youth without an IEP (table ES6). About half of

youth with an IEP report taking part in activities organized outside of school and getting together with friends weekly, versus two-thirds of their peers (figure ES6). Youth with a 504 plan are similar to other youth without an IEP in terms of participation in nonschool activities and social involvement. Their participation rate in school activities is between that of youth with an IEP and other youth without an IEP.

Figure ES5. Percentages of youth who feel happy to be at school, by IEP status



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

Exhibit reads: The bar graph compares youth with an IEP (gray bar) with three groups. The key comparison is between youth with an IEP and all youth without an IEP (top blue bar). Youth with an IEP are also compared with youth with a 504 plan but no IEP (second blue bar) and youth with neither a 504 plan nor an IEP (bottom blue bar). An asterisk next to the bar indicates the difference with youth with an IEP is statistically significant (at the .05 level), and a check mark notes a statistically significant difference of at least 5 percentage points.

Note: Youth survey respondents, excluding proxies, were asked how strongly they agree that they are happy 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. This figure also appears as part of table 13.

Source: National Longitudinal Transition Study 2012. The universe is youth who were not homeschooled. Appendix D provides more information.

Table ES4. Percentages of youth who struggle academically or are teased in school, by IEP status

Indicator of struggling academically or being teased in school	IEP	No IEP	504 plan but no IEP	Neither 504 plan nor IEP
Class work is hard to learn	54	38*✔	52	38*✔
Has trouble keeping up with homework	47	33*✔	44	32*✔
Has ever repeated a grade	32	9*✔	17*✔	9*✔
Teased or called names	37	28*✔	35	28*✔

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

Note: Youth survey respondents, excluding proxies, provided information for all measures in this table except for the repeating a grade measure; parent survey respondents provided information for this latter measure. The percentages for the classwork and homework measures are for responses of agree a lot or agree a little. The other response categories were disagree a little and disagree a lot. The reference period for being teased or called names at school is during this school year. This table summarizes data presented in figure 13 and tables 14 and 16.

Source: National Longitudinal Transition Study 2012. The universe for rows 1, 2, and 4 is youth who were not homeschooled. The universe for row 3 is all youth. Appendix D provides more information.

Table ES5. Percentages of youth who have been suspended, expelled, or arrested, by IEP status

Indicator of getting into trouble	IEP	No IEP	504 plan but no IEP	Neither 504 plan nor IEP
Has been suspended	29	14*✓	24*✔	13*✔
Has been expelled from school	8	3*✔	7	3*✔
Has been arrested in the past two years	6	2*	3*	2*

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

Note: Parent survey respondents provided information for all the measures. This table summarizes data presented in figures 17, 18, and 19.

Source: National Longitudinal Transition Study 2012. The universe is all youth. Appendix D provides more information.

Table ES6. Percentages of youth who participate in extracurricular activities, by IEP status

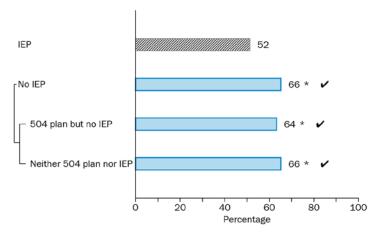
Indicator of extracurricular activities	IEP	No IEP	504 plan but no IEP	Neither 504 plan nor IEP
Participated in a school sport or club	64	81*✔	76*✔	81* √
Participated in a sport or club organized outside of school	55	68*✓	67*✔	68*✔

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

Note: Youth survey respondents provided information for all the measures in this table. The reference period is during the past year. This table summarizes data presented in figures 14 and 15.

Source: National Longitudinal Transition Study 2012. The universe for row 1 is youth who were not home schooled. The universe for row 2 is all youth. Appendix D provides more information.

Figure ES6. Percentages of youth who usually got together with friends outside of school at least weekly in the past year, by IEP status



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

Exhibit reads: The bar graph compares youth with an IEP (gray bar) with three groups. The key comparison is between youth with an IEP and all youth without an IEP (top blue bar). Youth with an IEP are also compared with youth with a 504 plan but no IEP (second blue bar) and youth with neither a 504 plan nor an IEP (bottom blue bar). An asterisk next to the bar indicates the difference with youth with an IEP is statistically significant (at the .05 level), and a check mark notes a statistically significant difference of at least 5 percentage points.

Note: Youth survey respondents were asked about how many days a week they usually got together with friends outside of school and organized activities in the past 12 months. The response categories were 6 or 7 days a week; 4 or 5 days a week; 2 or 3 days a week; 1 day a week; sometimes, but not every week; and never. This figure also appears as figure 16.

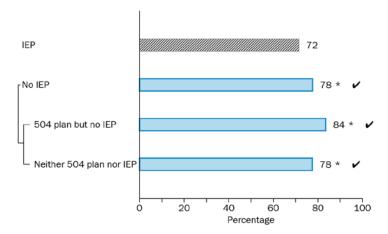
Source: National Longitudinal Transition Study 2012. The universe is all youth. Appendix D provides more information.

What academic supports do youth receive?

Schools and families play important roles in supporting students' educational needs, and this support can be particularly important for preparing youth in special education for their futures (Mazzotti et al., 2016; Test et al., 2009). As noted previously, youth with an IEP are more likely than their peers to struggle academically, consistent with findings that youth with an IEP in the past had lower test scores (Wagner, Newman, Cameto, & Levine, 2006). Schools can use several strategies to support student achievement, including offering academic help outside school hours and catch-up courses. Parent-teacher conferences are opportunities for school staff and parents to coordinate their efforts to support students' academic development in school and at home. Prior studies have linked parental involvement with greater student engagement in IEP and transition planning (Wagner, Newman, Cameto, Javitz, & Valdes, 2012) and postsecondary education outcomes for youth with disabilities (Wagner et al., 2014).

- Youth with an IEP in high school are less likely than their peers to receive academic help from schools outside of the regular school day, but just as likely to take catch-up courses. More than two-thirds (72 percent) of youth with an IEP reported that their high schools provide them academic help outside school hours, compared with 78 percent of youth without an IEP (figure ES7). However, youth with and without an IEP are equally likely (14 percent) to take catch-up academic classes during school hours according to parents. Youth with a 504 plan are more likely than other youth without an IEP to receive school-based academic help outside school hours (84 percent), and they are as likely as both youth with an IEP and other youth without an IEP to take catch-up courses.
- Parents of youth with an IEP are more likely than other parents to attend parent-teacher conferences and help their children with homework, but less likely to attend school events or volunteer at school. Eighty-four percent of parents of youth with an IEP reported attending a parent-teacher conference during the school year, compared with 65 percent of other parents (table ES7). In addition, 62 percent of them indicated helping their children with homework at least once a week, compared with 54 percent of other parents. However, they less commonly reported attending school events (58 versus 71 percent) or volunteering at school (22 versus 28 percent). Parents of youth with a 504 plan (79 percent) are less likely than those of youth with an IEP to attend a parent-teacher conference, but more likely to do so than parents of other youth without an IEP.

Figure ES7. Percentages of youth who receive school-based academic help outside regular hours during the school year, by IEP status



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

Note: Youth survey respondents, excluding proxies, were asked whether school staff provided them with extra help before or after school or on weekends in academic subjects in this school year. This figure also appears as part of table 20.

Source: National Longitudinal Transition Study 2012. The universe is youth who either received instruction in grades 9 through 13 or are both in an ungraded grade and at least 15 years old. Appendix E provides more information.

Table ES7. Percentages of youth whose parents (or another adult in the household) are engaged at home and in school in four ways, by IEP status

Indicator of parental engagement in school	IEP	No IEP	504 plan but no IEP	Neither 504 plan nor IEP
Parent went to a parent-teacher conference	84	65*✔	79*✔	65*✔
Parent helped with homework at least weekly	62	54*✔	66	54*✔
Parent attended a school or class event in the school year	58	71*✔	73*✔	71* √
Parent volunteered at school in the school year	22	28*✔	34*✔	28*✔

^{*=}p < .05 for comparison with IEP estimate; \checkmark = comparison is statistically significant and at least 5 percentage points in magnitude.

Note: Parent survey respondents provided information for all the measures in this table. The percentages are for responses indicating they (or another household adult) did the activities listed in the table at least once since the beginning of the school year. This table summarizes data presented in figures 20 and 21 and table 21.

Source: National Longitudinal Transition Study 2012. The universe is all youth. Appendix E provides more information.

How are youth preparing for life after high school?

High school is a time for students to gain experience and knowledge and to take steps that lay the foundation for their transition to adulthood. IDEA 2004 increased the emphasis on helping youth with an IEP prepare for the future through thoughtful, goals-oriented planning. Congress added a requirement that when school staff help youth with an IEP define postsecondary goals, they make sure these goals are measurable and thus well defined. In addition, transition planning must reflect not only youths' preferences and interests, but also their strengths. The stakes for these plans and for students' preparation might be higher now than in the past based on the growing premium in the U.S. economy for postsecondary education and evidence that graduating during a recession can have long-term implications for labor market success (Avery & Turner, 2012; Oreopoulos & Petronijevic, 2013; Oreopoulos et al., 2012). In addition, research increasingly points to the value of paid work experience in high school for increasing the likelihood that youth with disabilities will find jobs as adults (Mazzotti et al., 2016; Test et al., 2009).

- Youth with an IEP are less likely than youth without an IEP to have plans and take steps to obtain postsecondary education. Although 76 percent of youth with an IEP expect to obtain some postsecondary education, 94 percent of their peers have this expectation, a gap of nearly 20 percentage points (table ES8). The gap in planning to attend a four-year college is nearly 30 percentage points (51 versus 80 percent). Differences in the extent to which youth in the two groups are preparing to apply to college also reflect these gaps; only 42 percent of high school youth with an IEP report having taken college entrance or placement tests, compared with 70 percent of those without an IEP (figure ES8). Youth with a 504 plan hold similar expectations as other youth without an IEP about obtaining postsecondary education, and are as likely to take college entrance tests.
- Paid jobs during school, and parents' expectations that youth will live independently, are less common for those with an IEP than for other youth. Forty percent of youth with an IEP report having had a paid job in the past year, compared with half of their peers (table ES9). Schools appear to be filling part of the gap; youth with an IEP are more likely than youth without an IEP to have paid or unpaid school-sponsored work experiences (12 versus 7 percent). Nonetheless, schools play only a modest role in finding jobs for both youth with and without an IEP, because most paid jobs are not school sponsored. Consistent with their lower rates of work experience and performing daily living tasks on their own, youth with an IEP are nearly 20 percentage points less likely to have parents who anticipate that they will be living independently by age 30 (78 versus 96 percent) (figure ES9). Youth with 504 plans have similar employment rates as other youth without an IEP, and their parents are as confident in their children's ability to live independently as other parents of youth without an IEP.

Table ES8. Percentages of youth who are expected to obtain postsecondary education, by IEP status

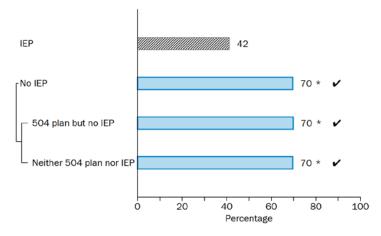
Indicator of educational expectations	IEP	No IEP	504 plan but no IEP	Neither 504 plan nor IEP
Youth expects to obtain postsecondary education	76	94*✔	92*✔	94*✔
Youth expects to obtain a four-year college degree or higher	51	80*✔	72* √	81*✔
Parent expects youth will obtain postsecondary education	61	90*✔	85*✔	90*✔
Parent expects youth will obtain a four-year college degree or higher	34	76*✔	60*✔	76*✔

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

Note: Youth survey respondents, excluding proxies, provided information for the first two measures in this table. Parent survey respondents provided information for the other two measures. This table summarizes data presented in figure 22 and tables 24 and 25.

Source: National Longitudinal Transition Study 2012. The universe is all youth. Appendix F provides more information.

Figure ES8. Percentages of youth who have taken a college entrance or placement test, by IEP status



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

Exhibit reads: The bar graph compares youth with an IEP (gray bar) with three groups. The key comparison is between youth with an IEP and all youth without an IEP (top blue bar). Youth with an IEP are also compared with youth with a 504 plan but no IEP (second blue bar) and youth with neither a 504 plan nor an IEP (bottom blue bar). An asterisk next to the bar indicates the difference with youth with an IEP is statistically significant (at the .05 level), and a check mark notes a statistically significant difference of at least 5 percentage points.

Note: Youth survey respondents were asked whether they have taken any of the following college placement tests: the Preliminary Scholastic Aptitude Test; the American College Test; the Scholastic Assessment Test; or the placement test for a local college, such as Accuplacer or other tests used by community colleges. This figure also appears as figure 23.

Source: National Longitudinal Transition Study 2012. The universe is youth who are at least 16 years old. Appendix F provides more information.

Table ES9. Percentages of youth with recent work experiences, by IEP status

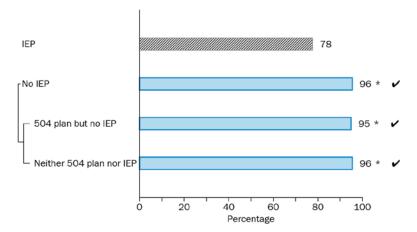
Indicator of recent work experience	IEP	No IEP	504 plan but no IEP	Neither 504 plan nor IEP
Has had paid work experience in past year	40	50*✔	48*✔	50*✔
Has had paid or unpaid school-sponsored work activity in past year	12	7*	6*✔	7*

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

Note: Youth survey respondents provided information for all the measures in this table. School-sponsored work activities include work-study or co-op jobs, internships, or work in a school-based business. This table summarizes data presented in figure 26 and table 28.

Source: National Longitudinal Transition Study 2012. The universe is all youth. Appendix F provides more information.

Figure ES9. Percentages of youth whose parent expects they will live independently by age 30, by IEP status



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

Note: Parent survey respondents, excluding proxies, were asked where they think youth will be living at age 30. The response categories were on his or her own, at home with parents, with a relative, with friends, with a spouse or partner, in military housing, in a group home, in an institution, or some other place. Independent living refers to living on his or her own, with friends, with a spouse or partner, or in military housing. This figure also appears as figure 27.

Source: National Longitudinal Transition Study 2012. The universe is all youth. Appendix F provides more information.

Additional publications and data collection

This volume is the first of three publications from the NLTS 2012 Phase I series reporting findings about youth in special education in 2012 and 2013. Volume 2 focuses on comparisons of youth with an IEP across disability groups. Volume 3 focuses on comparisons of youth with an IEP across time. The volumes will be available on the Institute of Education Sciences website for the NLTS 2012 when published.

Later reports will examine outcomes for the youth described in Volumes 1 through 3, based on data collected in 2016 and beyond.

References

- Anderson, A. R., Christenson, S. L., Sinclair, M. F., & Lehr, C. A. (2004). Check & connect: the importance of relationships for promoting engagement with school. *Journal of School Psychology*, 42, 95–113.
- Aud, S., KewalRamani, A., & Frohlich, L. (2011). America's youth: transitions to adulthood (NCES 2012-026). Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Avery, C., & Turner, S. (2012). Student loans: Do college students borrow too much—or not enough? *Journal of Economic Perspectives*, 26(1), 165–192.
- Berry, H. G., Ward, M., & Caplan, L. (2012). Self-determination and access to postsecondary education in transitioning youths receiving Supplemental Security Income benefits. Career Development and Transition for Exceptional Individuals, 35(2), 68–75.
- Carter, E. W., Austin, D., & Trainor, A. A. (2012). Predictors of postschool employment outcomes for young adults with severe disabilities. *Journal of Disability Policy Studies*, 23(1), 50–63.
- Colby, S. L., & Ortman, J. M. (2015). Projections of the Size and Composition of the U.S. Population: 2014 to 2060. Washington, DC: U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau.
- Cornell, D., Gregory, A., Huang, F., & Fan, X. (2013). Perceived prevalence of teasing and bullying predicts high school dropout rate. *Journal of Educational Psychology*, 105(1), 138–149.
- Currie, J., Stabile, M., Manivong, P., & Roos, L. L. (2010). Child health and young adult outcomes. *Journal of Human Resources*, 45(3), 517–548.
- Dee, T. S., Jacob, B., & Schwartz, N. L. (2013). The effects of NCLB on school resources and practices. Educational Evaluation and Policy Analysis, (35)2, 252–279.
- Fryer, Jr., R. G., & Katz, L. F. (2013). Achieving escape velocity: Neighborhood and school interventions to reduce persistent inequality. *The American Economic Review*, (103)3, 232–237.
- Harry, B., & Klingner, J. (2014). Why are so many minority students in special education? Understanding race and disability in schools. (2nd edition). New York: Teachers College Press.
- Juvonen, J., Espinoza, G., & Knifsend, C. (2012). The role of peer relationships in student academic and extracurricular engagement. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 387–401). New York: Springer.
- Lacey, A., & Cornell, D. (2013). The impact of teasing and bullying on schoolwide academic performance. *Journal of Applied School Psychology*, 29(3), 262–283.
- Mazzotti, V. L., Rowe, D. A., Sinclair, J., Poppen, M., Woods, W. E., & Shearer, M. L. (2016). Predictors of post-school success: A systematic review of NLTS2 secondary analyses. Career Development and Transition for Exceptional Individuals, 39(4), 196–215.
- Newman, L., Wagner, M., Knokey, A., Marder, C., Nagle, K., Shaver, D., et al. (with Cameto, R., Contreras, E., Ferguson, K., Greene, S., & Schwarting, M.). (2011). The post-high school outcomes of young adults with disabilities up to 8 years after high school: A report from the National Longitudinal Transition Study-2 (NLTS2) (NCSER 2011-3005). Menlo Park, CA: SRI International.
- Oreopoulos, P., & Petronijevic, U. (2013). Making college worth it: A review of the returns to higher education. *The Future of Children*, 23(1), 41–65.
- Oreopoulos, P., von Wachter, T., & Heisz, A. (2012). The short- and long-term career effects of graduating in a recession. *American Economic Journal: Applied Economics*, 4(1), 1–29.

- Shogren, K. A., & Shaw, L. A. (2016). The role of autonomy, self-realization, and psychological empowerment in predicting outcomes for youth with disabilities. *Remedial and Special Education*, 37(1), 55–62.
- Sullivan, A. L., Van Norman, E. R., & Klingbeil, D. A. (2014). Exclusionary discipline of students with disabilities: Student and school characteristics predicting suspension. *Remedial and Special Education*, 35(4), 199–210.
- Test, D. W., Mazzotti, V. L., Mustian, A. L., Fowler, C. H., Kortering, L., & Kohler, P. (2009). Evidence-based secondary transition predictors for improving postschool outcomes for students with disabilities. *Career Development for Exceptional Individuals*, 32(3), 160–181.
- Thapa, A., Cohen, J., Guffey, S., & Higgins-D'Alessandro, A. (2013). A review of school climate research. *Review of Educational Research*, 83(3), 357–385.
- U.S. Department of Education, Office of Civil Rights. (2014, October 21). [Letter to colleagues]. Retrieved December 22, 2014, from http://www2.ed.gov/about/offices/list/ocr/letters/colleague-bullying-201410.pdf.
- U.S. Department of Education, Office of Civil Rights. (2016). State and National Statistics, 2000 and 2011–2012 data files. Washington, DC: ED, OCR, Civil Rights Data Collection.
- Wagner, M., Cadwallader, T. W., & Marder, C. (with Cameto, R., Cardoso, D., Garza, N., Levine, P., & Newman, L.). (2003). Life outside the classroom for youth with disabilities: A report from the National Longitudinal Transition Study-2 (NLTS2). Menlo Park, CA: SRI International.
- Wagner, M., Newman, L., Cameto, R., Garza, N., & Levine, P. (2005). After high school: A first look at the postschool experiences of youth with disabilities: A report from the National Longitudinal Transition Study-2 (NLTS2). Menlo Park, CA: SRI International.
- Wagner, M., Newman, L., Cameto, R., Javitz, H., & Valdes, K. (2012). A national picture of parent and youth participation in IEP and transition planning meetings. *Journal of Disability Policy Studies*, 23(3), 140–155.
- Wagner, M., Newman, L., Cameto, R., & Levine, P. (2006). The academic achievement and functional performance of youth with disabilities: A report from the National Longitudinal Transition Study-2 (NLTS2) (NCSER 2006-3000). Menlo Park, CA: SRI International.
- Wagner, M., Newman, L. A., & Javitz, H. S. (2014). The influence of family socioeconomic status on the post-high school outcomes of youth with disabilities. *Career Development and Transition for Exceptional Individuals* 37(1), 5–17.
- Wang, M., & Eccles, J. S. (2012). Social support matters: Longitudinal effects of social support on three dimensions of school engagement from middle to high school. *Child Development*, 83(3), 877–895.

