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The Post-High School Outcomes of Young Adults With Disabilities up to 6 Years After High School

Key Findings From the National Longitudinal Transition Study-2 (NLTS2)

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1. Introduction

Traditional social indicators of adolescents emerging into adulthood include living independently, earning a postsecondary degree, obtaining full-time employment, getting married, or becoming a parent (Haber et al. 2008; Keller, Cusick, and Courtney 2007; Oesterle et al. 2010; Settersten and Ray 2010). Although there has been a shift in the timing and sequence of adult transitions these core indicators have remained the same (Furstenberg 2010). As youth with disabilities leave high school and transition to adulthood, they are increasingly exposed to opportunities for postsecondary education, employment, and independent living (Newman et al. 2010). Current national policy mandates are holding schools and states more accountable for the postschool outcomes of youth with disabilities. The 2004 reauthorization of the Individuals With Disabilities Education Act (IDEA) highlighted the importance of improving the postschool outcomes of youth with disabilities by requiring schools to develop "measurable postschool goals in the areas of employment, education/training, and, if appropriate, independent living" and states to "report student postschool outcome performance" (Morningstar et al. 2010).

The National Longitudinal Transition Study-2 (NLTS2) provides a unique source of information to help in developing an understanding of the experiences of secondary school students with disabilities nationally as they go through their early adult years. NLTS2 addresses questions about youth with disabilities in transition by providing information over a 10-year period about a nationally representative sample of secondary school students with disabilities who were receiving special education services under the Individuals With Disabilities Education Act (IDEA) in the 2000–01 school year.

The NLTS2 Wave 4 overview report describes key postsecondary outcomes for the subset of young adults with disabilities who were out of secondary school up to 6 years and 19 to 23 years old[1] when telephone interviews were conducted in 2007. This report, as all NLTS2 reports are guided by the NLTS2 framework. Specifically, this report addresses questions that reflect critical domains of young adulthood, which are central to the purpose of IDEA as expressed in 20 U.S.C. 1400(d)(1)(A) to "prepare them [children with disabilities] for future education, employment, and independent living." This report focuses on the following research questions:

- What are the postsecondary education, employment, independence, and social outcomes of young adults with disabilities in their first 6 years out of high school?
- How do these outcomes differ for young adults in different disability categories, for those with different school-exit characteristics (high school completion status and length of time out of high school), and demographic characteristics (young adults' gender, young adults' race/ethnicity, and parents' household income)?[2]

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[1] The age of young adults with disabilities in 2007 was based on birthdates provided by parents during interviews and the date of the Wave 4 interview.

[2] Findings are reported for White, African American, and Hispanic youth; other racial/ethnic categories are too small (less than 3 percent of the population of youth with disabilities) to report findings separately. Parent's household income is reported using the three income categories included in the data collection instrument (i.e., $25,000 or less, $25,001 to $50,000, and more than $50,000. NLTS2 household income item categories were based on a review of general population statistics to ensure that the household income response categories fairly

- How do the post-high school outcomes of young adults with disabilities compare with those of similar-age peers in the general population?

As indicated by these research questions, this NLTS2 Wave 4 report focuses on post-high school outcomes, such as postsecondary enrollment rates and employment rates; it does not describe post high-school experiences, such as receipt of accommodations in postsecondary school or job search activities. The NLTS2 Wave 3 and Wave 5 overview reports include full descriptions of both post-high-school outcomes and experiences (Newman et al. 2009; Newman et al. in review).

Study Overview

NLTS2 is a 10-year-long study of the characteristics, experiences, and outcomes of a nationally representative sample of youth with disabilities who were 13 to 16 years old and receiving special education services in grade 7 or above on December 1, 2000. NLTS2 findings generalize to youth with disabilities nationally and to youth in each of the 12 federal special education disability categories in use for students in the NLTS2 age range.[3] (Details of the NLTS2 design, sample, and analysis procedures are presented in appendix A.)[4] The study was designed to collect data on sample members from multiple sources in five waves, beginning in 2001 and ending in 2009. Wave 1 included parent interviews (2001), surveys of school staff (2002), and assessments of the academic abilities of students who were 16 to 18 years old in 2002. Wave 2 involved interviews with both parents and youth (2003), a mail survey of youth whose parents reported they were able to respond to questions but not by phone (2003), school staff surveys for youth still in high school (2004), and assessments of the academic abilities of youth who were 16 to 18 years old in 2004. Wave 3 (2005) repeated the parent telephone interviews as well as the youth interviews and mail surveys. Wave 4 (2007) and Wave 5 (2009) included telephone interviews and mail surveys both of parents and of youth. High school transcripts were collected annually for youth leaving high school each year.

The NLTS2 sample was constructed in two stages, beginning in 2000. The NLTS2 district sample was stratified to increase the precision of estimates, to ensure that low-frequency types of districts (e.g., large urban districts) were adequately represented in the sample, to improve comparisons with the findings of other research, and to make NLTS2 responsive to concerns voiced in policy debate (e.g., differential effects of federal policies in particular regions, districts of different sizes). Three stratifying variables were used: region, size (student enrollment), and community wealth. A stratified random sample of school districts was selected from the universe of approximately 12,000 that served students receiving special education in at least one grade from the 7th through 12th grades. In order to be nationally representative of youth with disabilities who attended the most common types of publicly-supported schools, all known state-supported “special schools”—i.e., those that served primarily students with hearing and visual

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evenly divided the population. In NLTS2 Wave 1, the income breakdown was 35 percent for the category of $25,000 or less, 31 percent for $25,001 to $50,000, and 34 percent for more than $50,000.

For consistency across the report, all comparisons are presented for all variables unless otherwise noted in a section (i.e., by length of time out of high school, high school completion status, disability category, age, gender, household income, and race/ethnicity.)

[3] The definitions of the 12 primary disability categories used in this report are specified by law and presented in table A-4, appendix A.

[4] Additional information about NLTS2 is available at www.nlts2.org.

impairments and multiple disabilities (77 in NLTS2)—also were invited to participate in the studies. These districts and 77 state-supported special schools that served primarily students with hearing and vision impairments and multiple disabilities were invited to participate in the study, with the intention of recruiting approximately 500 districts and as many special schools as possible from which to select a target sample of about 12,000 students. Recruitment efforts resulted in 501 school districts and 38 special schools agreeing to participate and providing rosters of students receiving special education services in the designated age range, from which the student sample was selected.

The roster of all students in the NLTS2 age range who were receiving special education services from each district and special school was stratified by primary disability category, as reported by the districts. Students then were selected randomly from each disability category. Sampling fractions were calculated that would produce enough students in each category so that, in the final study year, findings would generalize to most categories individually with an acceptable level of precision, accounting for attrition and for response rates to the parent/young adult interview. A total of 11,276 students were selected and eligible to participate in NLTS2.

Data Sources for Young Adults With Disabilities

This section presents the multiple data sources used in this report to describe the post-high school experiences of young adults with disabilities at the time of the Wave 4 interview, who were known to be out of secondary school at the time of the Wave 4 data collection. Appendix A includes a description of the overall response rates for each wave of data collection.

Primary sources used in this report were the Wave 4 youth telephone interview and mail survey or the Wave 4 parent telephone interview, conducted in 2007.[5] In addition, those variables that describe young adults' experiences since leaving high school were constructed on the basis of data from the Waves 2 and 3 (conducted in 2003 and 2005, respectively) youth telephone interviews and mail surveys or from the Waves 2 and Wave 3 parent telephone interviews for young adults who were out of high school at those times. School district rosters, high school transcripts, and the Wave 1 parent interview or mail survey also provided a small amount of the data used in this report. Each data source for young adults with disabilities is described briefly below and discussed in greater detail in appendix A.

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[5] NLTS2 instruments are available at www.nlts2.org.

Table 1. NLTS2 data sources for post-high school experiences of young adults with disabilities included in this report

Source	Approximate number	Percent of young adults included in this report
Total number of sample members with responses to Wave 4 survey known to be out of secondary school at the time of the Wave 4 data collection	4,650	100.0
Youth telephone interview	2,300	49.3
Youth mail questionnaire	360	7.8
Parent telephone interview	1,990	42.9
Number in Wave 4 report and out of school in Wave 3, with Wave 3 survey data coming from	2,160	46.5
Youth telephone interview	1,360	29.3
Youth mail questionnaire	160	3.4
Parent telephone interview	640	13.8
Number in Wave 4 report and out of school in Wave 2, with Wave 2 survey data coming from	890	19.0
Youth telephone interview	570	12.2
Youth mail questionnaire	50	<1.0
Parent telephone interview	270	5.8
Number in Wave 4 report with Wave 1 survey data		
Parent interview	4,480	96.0
High school transcript	3,570	77.0
School and school district student rosters	4,650	100.0

The data for young adults with disabilities, the focus of this report, were obtained for approximately 4,650 sample members[6] with responses to the Wave 4 survey who were known to be out of high school at the time of the Wave 4 data collection (table 1).

Parent/Young Adult Data

Wave 4 Data

Information on the outcomes of young adults with disabilities came from young adults themselves in the majority of cases (see table 1), usually from the youth telephone interview. These respondents were young adults with disabilities who were reported by parents to be able to answer questions for themselves by telephone. Young adults who were reported to be able to answer questions for themselves, but not by telephone (e.g., young adults with hearing impairments), were sent a mail questionnaire. For young adults who were reported by parents not to be able to answer questions for themselves (e.g., young adults with significant cognitive impairments), interviews were attempted with parents. Thus, there are three sources of data for Wave 4 of NLTS2. Data from these three sources were combined for the analyses reported here and subsetted to include only data for young adults with disabilities, aged 19 and older.

Youth telephone interview. NLTS2 sample members who were eligible for a Wave 4 youth telephone interview were those (1) for whom working telephone numbers or addresses for the youth or their parents were available so that they could be reached by phone (a total of approximately 8,130 young adults) and (2) whose parents or guardians (referred to here as parents) had reported in the Wave 2 parent telephone interview (if interviewed at that time) or the Wave 3 parent interview (if interviewed in Wave 3 for the first time) that the youth could answer questions about his or her experience by phone (a total of approximately 8,130 youth).[7]

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[6] All unweighted sample sizes included in the text, figures, and tables of this report are rounded to the nearest 10, per IES Disclosure Review Board requirements.

[7] See appendix A for more information on sample eligibility.

Wave 4 interview attempts were made directly with youth who were reported in Waves 2 or 3 to be able to participate in a telephone interview, without attempts being made to contact parents in advance. For youth whose parents were not interviewed in Waves 2 or 3 and, therefore, whose ability to participate in a telephone interview or mail survey was unknown, parent interviews were attempted first. At those times, after making the initial telephone contact with the parents of sample members and completing items intended only for parent respondents, parents were asked whether their child was able to respond to questions about their experiences by telephone for themselves. Parents who responded affirmatively and whose sample children were younger than age 18 then were asked to grant permission for their children to be interviewed and told the kinds of questions that would be asked.[8] Parents of young adults 18 or older were informed of the kinds of questions that would be asked, but permission was not requested because the young adults were no longer minors. Interviewers obtained contact information for these young adults and attempted to complete telephone interviews with them. Telephone interviews were completed with approximately 2,490 young adults, 72 percent of the approximately 3,430 young adults who were eligible. If a youth could not be reached by phone or did not return a mailed questionnaire, an attempt was made to recontact the parent and complete the second part of the telephone interview with the parent, which included only items readily answerable by many parents about their adolescent and young adult children with disabilities. Approximately 2,300 telephone interview respondents to the Wave 4 telephone interview were young adults, the focus of this report.

Youth mail survey. If parent respondents to the Waves 2, 3, or 4 telephone interviews indicated that youth were not able to respond to questions about their experiences for themselves by telephone, interviewers asked whether youth would be able to complete a mail questionnaire. Parents of approximately 740 Wave 4-eligible youth responded affirmatively, making their children eligible for a mail survey. Permission for youth to be sent a mail questionnaire was not asked of parents because that questionnaire did not contain items considered potentially sensitive and because parents' providing a mailing address for the questionnaire was considered to be permission to send it. Mailing addresses were obtained for those sample members, and questionnaires were sent to the youth. Questionnaires were tailored to the circumstances of individual youth. For example, if a parent indicated in the telephone interview that a youth was employed, the questionnaire for that youth contained a section on employment experiences, which was not included in questionnaires for youth reported not to be employed. Questionnaires were returned by approximately 400 young adults, 54 percent of the approximately 740 young adults who were eligible. Approximately 360 mail questionnaire respondents were young adults who are part of the sample that generated the findings reported in this document.[9]

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[8] Parents of youth age 18 or older were told that interview questions would pertain to "school or work and social activities, as well as a few questions about things like [his/her] attitudes and experiences, including smoking, drinking, and ever having been arrested"; items related to these kinds of risk behaviors were asked only of youth age 18 or older. A total of 164 parents reported that their children could respond to the telephone interview but did not give permission for their children to be interviewed (4 percent of those reportedly able to respond); the interview then continued with the parents and obtained additional information on subjects such as employment and postsecondary education. Analyses of the disability category distribution and demographic factors of youth who were able to respond and given permission to do so and those who were not permitted to be interviewed revealed no significant or sizable differences between the two groups.

[9] Readers should be aware of the potential for differences in reports across modes of data collection (i.e., mail questionnaire vs. telephone interview). Differences between modes of data collection were explored and most

Parent/guardian interview. In addition to sample members who completed a telephone interview or mail survey, parents completed a telephone interview for approximately 2,300 sample members who did not respond for themselves, either because they were reported not to be able to do so or because young adults who were reported to be able to respond could not be reached or refused to respond.[10] In the latter case, parents were contacted to complete a subset of interview items that experience demonstrated could readily be answered by many parents (e.g., whether a youth was employed or enrolled in postsecondary education). A total of approximately 1,990 young adults for whom parents were the sole respondents were out of secondary school and are included in the sample that forms the basis of this report. Young adults whose parents responded for them did not differ significantly in their disability category, age identified as having a disability, or functional abilities (appendix B provides detailed information regarding comparisons between these groups).

Wave 2 and Wave 3 Data

Several variables created for this report indicate whether a young adult had had a particular experience "since high school" (e.g., postsecondary enrollment, employment, and parenting and marital status). Fifty-three percent of y respondents (approximately 2,490 young adults) had left high school since the Wave 3 data collection; thus, Wave 4 data are all that are required to generate values for these variables for them. However, the remainder of young adult respondents (approximately 2,160 young adults) were already out of high school in Wave 2 and/or Wave 3. Thus, data from Waves 2 and 3 needed to be taken into account to generate values for variables measuring experiences "since high school." Wave 2 and Wave 3 data also were used to determine whether young adults had completed high school or left without completing and the year in which they left. Waves 2 and 3 data collections mirrored procedures followed for Wave 4. The Wave 3 youth telephone interview produced data for approximately 1,360 young adults included in the sample that forms the basis of this report, the mail questionnaire generated data for approximately 160 young adults, and parent interviews provided data for approximately 640 young adults, for a total of approximately 2,160 sample members. The Wave 2 youth telephone interview produced data for approximately 570 young adults included in the sample that forms the basis of this report, the mail questionnaire generated data for approximately 50 youth, and parent interviews provided data for approximately 270 young adults, for a total of approximately 890 sample members.

Wave 1 Data

The initial wave of NLTS2 data collection involved parent telephone interviews and a mail survey of parents who could not be reached by telephone. Data for two demographic items (gender and race/ethnicity) were drawn from these Wave 1 sources for approximately 4,480 young adults with disabilities that forms the basis of this report.

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were minor and did not support further examination, The one exception was that more young adults with hearing impairments responded to the mail rather than the telephone survey.

[10] Youth respondents were informed that the study would contact parents and that the youth could ask that their parent not be contacted; 20 percent of parent part 2 interviews were completed by parents after young adult could not be reached.

High School Transcripts

High school completion status and high school leave date were based on data from high school transcripts. High school transcripts were requested for all NLTS2 sample members. Transcript data were collected for approximately 3,570 young adults included in this report. For those for whom transcript data were not available, school completion status and leave dates were based on information from parent/youth interviews.

School and School District Student Rosters

Information about the primary disability category of NLTS2 sample members came from rosters of students in the NLTS2 age range receiving special education services in the 2000–01 school year under the auspices of participating school districts and state-supported special schools. Additionally, data on the racial/ethnic background of sample members were taken from this source when they were included on rosters. In the absence of roster data on youth's racial/ethnic background, data were taken from the Wave 1 parent interview or mail survey; both sources provide similar racial/ethnic classifications.

Data Sources for Comparisons With Young Adults in the General Population

When similar data items were available, comparisons were made between young adults with disabilities and the same-age young adults in the general population. The analyses approach used for the general population databases mirrors the approach used for NLTS2 data.[11] Comparison data were taken from the following:

- The National Longitudinal Survey of Youth, 1997 (NLSY97). This study includes a nationally representative sample of approximately 9,000 youth who were 12 to 16 years old as of December 31, 1996. Round 1 of the survey took place in 1997. In that round, both the eligible youth and one of each youth's parents received hour-long personal interviews. Youth have continued to be interviewed annually. Comparison data for this report were taken from the 2003 data collection for young adults who were 19 to 23 years old and out of high school at the time, to match the sample of NLTS2 young adults included in this report. Calculations were made from public-use data available at http://www.nlsinfo.org/web-investigator/webgator.php. NLSY data collected in 2003 were the best match for NLTS2 2007 data because of the age of the young adults in both data sets at those time points, however readers should note the 4 year difference between the two data collection periods. Many of the comparisons between data from NLTS2 and NLSY used identical data items and response categories. Any differences in the wording of items and/or response categories are pointed out in footnotes. Readers also should be aware that the population of youth with disabilities in this age range differs from the general population of youth in ways other than disability status (e.g., the

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[11] Young adults with disabilities are included in the general population comparison sample because excluding them would require using self-reported disability data, which frequently are not an accurate indicator of disability, resulting in both over- and underestimations of disability. For example, a large proportion of self-identified disabilities in postsecondary are visual impairments because of confusion by students who wear glasses. In addition, NLTS2 findings indicate that less than one-third (32 percent) of youth who were identified by their secondary school as having a disability consider themselves to have a disability by the time they are age 17 or older.

population of youth with disabilities is 63 percent male; see appendix B for further description of the populations represented in NLTS2).

- The National Longitudinal Study of Adolescent Health, Wave 3. Comparisons with the general population regarding financial independence, reported in chapter 5, are based on the public-use version of the National Institutes of Health, National Institute of Child Health and Human Development (NICHD), National Longitudinal Study of Adolescent Health (Add Health), Wave 3, a nationally representative study that explores health-related behaviors of adolescents in grades 7 through 12 and their outcomes in young adulthood. Wave 3 data were collected in 2001–02. Comparisons included a subset of approximately 2,000 respondents who were 18 to 21 years old.

Young Adults Included in the Report

The young adults who are the focus of this report represent only a subset of young adults with disabilities who received special education services in secondary school in 2000–01, not the entire population. The full population to which the NLTS2 sample generalizes is a cohort of youth who were 13 to 16 years old and received special education services in grade 7 or above in participating schools and school districts as of December 1, 2000. Weights for analyses reported in this document were calculated so that all young adults who were out of secondary school and for whom a telephone interview or mail survey was completed or for whom parents responded to the second part of the parent interview generalize to all young adults who were out of high school. Weights were computed adjusting for various youth and school characteristics used as stratifying or poststratifying variables. (See appendix A for additional information related to sample weighting).

Analysis Approaches

Analyses reported in this document involve simple descriptive statistics (e.g., percentages, means) and bivariate relationships (i.e., cross-tabulations). All statistics were weighted to be representative of a larger population of students (as discussed earlier). These analysis approaches excluded cases with missing values; no imputation of missing values was conducted.[12]

Statistical tests examining differences between independent subgroups or between responses to different items given by the same group that involve categorical variables with more than two possible response categories were conducted by treating each of the possible response categories as separate dichotomous items.[13] For example, each of the four possible response categories to a

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[12] Given that interview/survey respondents were weighted to represent the universe and individuals who failed to respond to the survey as a whole were assigned a weight of zero, imputing missing values for nonrespondents would not affect analysis results. In addition, for those who responded to the interview/survey, item nonresponse was relatively low—item nonresponse ranged from less than 1 percent to less than 3 percent for the key outcome variables.

[13] All standard errors in this report were calculated using formula-based estimates rather than estimates based on replicate weights. See Appendix A for description of estimating standard errors. As a 10-year longitudinal study, NLTS2 has used this formula-based procedure to calculate standard errors throughout the duration of the study, rather than use currently available procedures. This decision to maintain consistency in analytical approaches was based on the need to support comparisons of findings across NLTS2 reports. To examine possible differences between approaches, replicate weights were created for chapter 5 of this report. Findings using the replicate weights were then compared with the findings using formula-based estimate. Of the 623 possible comparisons in

question regarding satisfaction with the amount of services youth received from their postsecondary school ("definitely getting enough," "probably getting enough," "probably not getting enough," and "definitely not getting enough") was treated as a separate dichotomous item. The percentages of young adults who gave each response were then compared across disability or demographic groups or across different questionnaire/interview items. This approach, rather than using scale scores (e.g., the average response for a disability group on a 4-point scale created by assigning values of 1 through 4 to the response categories), was adopted for two reasons: the proper scaling for the response categories was not apparent, and it was felt that reporting differences in percentages responding in each of the response categories would be more meaningful and easier for readers to interpret than reporting differences in mean values. Rather than test for differences between all independent subgroups (e.g., young adults in different disability categories) simultaneously (e.g., using a $k \times 2$ chi-square test of homogeneity of distribution, where k is the number of disability groups), the statistical significance of differences between selected pairs of independent subgroups was tested. This approach was followed because the intent was to identify significant differences between specific groups (e.g., young adults with visual impairments are significantly more likely than those with emotional disturbances to report ever having enrolled in a postsecondary program), rather than to identify a more general "disability effect" (e.g., the observed distribution across disability categories differs significantly from what would be expected from the marginal distributions) for the variable of interest.

The test statistic used to compare Bernoulli-distributed responses (i.e., responses that can be allocated into one of two categories and coded as 0 or 1) for two independent subgroups is analogous to a chi-square test for equality of distribution (Conover 1999) and approximately follows a chi-square distribution with one degree of freedom. However, because a chi-square distribution with one degree of freedom is the same as an *F* distribution with one degree of freedom in the numerator and infinite degrees of freedom in the denominator (Johnson and Kotz 1995), this statistic can be considered the same as an *F* value; it also can be considered "chi-squared."[14]

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the chapter, 19 differences (3 percent) were noted, supporting the decision to maintain the use of formula-based estimates.

[14] In the case of unweighted data, two percentages are usually compared by using nonparametric statistics, such as the Fisher exact test. In the case of NLTS2, the data were weighted, and the usual nonparametric tests would yield significance levels that are too small (Heeringa, West, and Berglund 2010) because the NLTS2 effective sample size is less than the nominal sample size. Instead, to test for the equality between the mean values of the responses to a single survey item in two disjoint subpopulations, we began by computing a ratio where the numerator was the difference of the sample means for those subpopulations. (In the case of Bernoulli variables, each mean was a weighted percentage.) The denominator for the ratio was the estimated standard error of the numerator, where the standard errors were adjusted to take into account clustering, stratification, and unequal weights. The adjustment to the variances was determined in a design effect study that compared traditionally calculated variances with those calculated using 32 balanced repeated replicate weights. Sample sizes (and consequently degrees of freedom) for Student *t* types of ratios were typically reasonably large (i.e., never fewer than 30 in each group), so the ratio follows, by the Central Limit Theorem, an approximately normal distribution. For a two-tailed test, the test statistic is the square of the ratio, which then follows an approximate chi-square distribution with one degree of freedom. Because a chi-square distribution with one degree of freedom is the same as an *F* distribution with one degree of freedom in the numerator and an infinite number of degrees in the denominator, the test statistic approximately follows an *F* (1, infinity) distribution. Since the application of adjustments from the design effect study tended to slightly overestimate the standard errors from balanced repeated replicates, the use of infinite

Tests also were conducted to examine differences in the rates at which young adults with disabilities as a whole provided specific kinds of self-representations (for example, the percentage of young adults who reported relying on parents for support “a lot” compared with the percentage who relied on friends “a lot”), using an analogous one-sample statistic based on difference scores.[15] The test statistic follows a chi-square distribution with one degree of freedom for sample sizes 30 or larger and, for similar reasons to those cited above, is considered roughly equivalent to an *F* (1, infinity) distribution.

Technical Notes

Readers should remember the following issues when interpreting the findings in this report:

- **Purpose of the report.** The purpose of this report is descriptive; as a nonexperimental study, NLTS2 does not provide data that can be used to address causal questions. The descriptions provided in this document concern the post-high school experiences of young adults. No attempt is made to “validate” respondents’ reports with information on their understanding of the survey items or with third-party information on their experiences (e.g., from employers or postsecondary education institutions). Further, the report does not attempt to explain why parents or young adults responded as they did or why responses differ for young adults in different subgroups (e.g., disability categories).
- **Subgroups reported.** In each chapter, the descriptive findings are reported for the full sample of young adults; those findings are heavily influenced by information provided by young adults with learning disabilities, who constitute 64 percent of the weighted sample (see appendix B). Young adults with emotional disturbances, mental retardation, other health impairments, and speech/language impairments constitute 13 percent, 10 percent, 5 percent, and 3 percent of the weighted sample, respectively. The other seven categories together make up less than 5 percent of the weighted sample. Findings then are reported separately for young adults in each federal special education disability category in tables that are ordered by disability prevalence, as determined at the beginning of the study. Comparisons also were conducted between groups of young adults who differed with respect to years since leaving high school, school-leaving status, gender, race/ethnicity, and parents’ household income. These bivariate analyses should not be interpreted as implying that a factor on which subgroups are differentiated (e.g., disability category) has a causal relationship with the differences reported. Further, readers should be aware that demographic factors (e.g., race/ethnicity and parents’ household income) are correlated among young adults with disabilities, as well as being

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degrees of freedom, rather than 31 degrees of freedom, nevertheless resulted in actual *p* values that were slightly lower than nominal *p* values.

[15] Testing for the significance of differences in responses to two survey items for the same individuals involves identifying for each youth the pattern of response to the two items. The response to each item (e.g., the youth reported relying “a lot” on parents for support—yes or no—and reported relying on friends “a lot” for support—yes or no) is scored as 0 or 1, producing difference values for individual students of +1 (responded affirmatively to the first item but not the second), 0 (responded affirmatively to both or neither item), or -1 (responded affirmatively to the second item but not the first). The test statistic is the square of a ratio, where the numerator of the ratio is the weighted mean change score and the denominator is an estimate of the standard error of that mean. Since the ratio approaches a normal distribution by the Central Limit Theorem, this test statistic approximately follows a chi-square distribution with one degree of freedom, that is, an *F* (1, infinity) distribution.

distributed differently across disability categories (e.g., young adults in the category of mental retardation are disproportionately likely to be African American, and those in the other health impairment category are disproportionately likely to be White, relative to the general population; see appendix B table B-4, for percentage of young adults within each disability category, by demographic characteristics).[16] The complex interactions and relationships among subgroups relative to the other variables included in this report (e.g., postsecondary enrollment status) have not been explored.

- **Findings are weighted.** NLTS2 was designed to provide a national picture of the characteristics, experiences, and achievements of youth with disabilities in the NLTS2 age range as they transition to young adulthood. Therefore, all the statistics presented in this report are weighted estimates of the national population of students receiving special education in the NLTS2 age group and of each disability category individually who satisfied the study's eligibility requirement (i.e., who were out of high school).
- **Standard errors.** For each mean and percentage in this report, a standard error is presented that indicates the precision of the estimate. For example, a variable with a weighted estimated value of 50 percent and a standard error of 2.00 means that the value for the total population, if it had been measured, would, with 95 percent confidence, lie between 46 percent and 54 percent (i.e., within plus or minus 1.96 × 2, or 3.92 percentage points of 50 percent). Thus, smaller standard errors allow for greater confidence to be placed in the estimate, whereas larger ones require caution.
- **Combined young adults self-report and parent-report data.** If a Wave 4 youth interview/survey was completed, the young adult's responses to these items were used in this report. If a youth interview/survey could not be completed for an eligible young adult or if a young adult was reported by parents not to be able to participate in an interview/survey, parent responses were used. For the subsample of young adults included in this report, the youth interview/survey was the source of data for post-high school outcomes for 84 percent of young adults, and the parent interview was the source for 16 percent of young adults who did not have a youth interview. Combining data across respondents raises the question of whether parent and young adults' responses would concur—that is, would the same findings result if parents' responses were reported instead of young adults' responses. When both parents and young adults were asked whether the young adults belonged to an organized community group, currently worked for pay, and worked for pay in the past 2 years, and wages currently employed young adults earned per hour, their responses agreed from 69 percent to 80 percent of the time (analyses presented in appendix A).
- **Small samples.** Although NLTS2 data are weighted to represent the population, the size of standard errors is influenced heavily by the actual number of young adults in a given group (e.g., a disability category). In fact, findings are not reported separately for groups that do not include at least 30 sample members because groups with very small samples have comparatively large standard errors. For example, because there are relatively few young adults with deaf-blindness, estimates for that group have relatively

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[16] See Wagner et al. (2003) for relationships of demographic factors and disability categories for the full NLTS2 sample.

large standard errors. Therefore, readers should be cautious in interpreting results for this group and others with small sample sizes and large standard errors.

- **Significant differences.** A large number of statistical analyses were conducted and are presented in this report. Because no explicit adjustments were made for multiple comparisons, the likelihood of finding at least one statistically significant difference when no difference exists (i.e., “false positives” or type I errors) in the population is substantially larger than the type I error for each individual analysis. To partially compensate for the number of analyses that were conducted, we have used a relatively conservative p value of $< .01$ in identifying significant differences. The text mentions only differences reaching that level of significance. If no level of significance is reported, the group differences described do not attain at least the $p < .01$ level. Readers also are cautioned that the meaningfulness of differences reported here cannot be inferred from their statistical significance.

Organization of the Report

This report is envisioned as a brief overview of the primary achievements of young adults with disabilities who have been out of high school for up to 6 years, focusing on key outcomes in postsecondary education, employment, residential and financial independence and social and community involvement.[17] Chapter 2 describes two outcomes, the extent to which young adults with disabilities enrolled in postsecondary education and for those who had enrolled, the extent to which they had completed their postsecondary programs. Chapter 3 considers the employment status of young adults and current wages. Chapter 4 addresses the extent to which young adults with disabilities were productively engaged in school, work, or preparation for work after they left high school.

The household circumstances of young adults with disabilities are considered in chapter 5, including the extent to which young adults were living away from home, the prevalence of marriage and parenting, and aspects of their financial independence. Chapter 6 focuses on the social and community involvement in both positive and negative ways of young adults with disabilities, including their participation in organized groups and volunteer activities, and their involvement with the criminal justice system.

Appendix A provides details of the NLTS2 design, sample, measures, and analysis approaches. Appendix B presents data on the characteristics of young adults with disabilities included in the out-of-high school sample.

The following chapters provide the most recent national picture of multiple dimensions of the outcomes of young adults with disabilities who had been out of secondary school up to 6 years. These findings will be augmented in the next few years of NLTS2 as more youth transition to adulthood and have increasing exposure to opportunities for postsecondary education, employment, and independent living.

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[17] The final NLTS2 overview report, (Newman et al., 2011), based on 2009 data, when young adults with disabilities had been out of high school up to 8 years will include a description of outcomes (e.g. employment status) as well as experiences (e.g. type of job, number of hours worked).

2. Postsecondary Education Key Findings

The potential benefits of attaining a postsecondary degree include increased earnings (Carnevale and Desrochers 2003), improved health (Mirowsky and Ross 2010), and increased job satisfaction (Wolniak and Pascarella 2005); and as the American economy becomes progressively more knowledge based, attaining a postsecondary education becomes more critical (Carnevale and Desrochers 2003). For example, only 20 percent of workers needed at least some college for their jobs in 1959; by 2000, that number had increased to 56 percent (Carnevale and Fry 2000).

Along with their peers in the general population, young adults with disabilities are increasingly focusing on postsecondary education. Postsecondary education is a primary post-high school goal for more than four out of five secondary school students with disabilities who have transition plans (Cameto, Levine, and Wagner 2004). In addition, young adults with disabilities increasingly are taking rigorous academic courses in high school, including college-preparatory courses, such as a foreign language and science (Wagner, Newman, and Cameto 2004).

However, even when their high school programs prepare them for postsecondary education, students with disabilities can encounter a variety of challenges in the transition from secondary to postsecondary school. Postsecondary schools are guided by a legal framework of rights and responsibilities that is different from the framework governing secondary schools. When students leave high school, their education no longer is covered under the IDEA umbrella but instead is under the auspices of two civil rights laws—Section 504 of the Rehabilitation Act and the Americans with Disabilities Act (ADA) (Stodden, Jones, and Chang 2002; Wolanin and Steele 2004).

This chapter describes the postsecondary education enrollment and completion rates of young adults with disabilities who had been out of high school up to 6 years. It focuses on participation in three types of postsecondary institutions—2-year or community colleges; postsecondary vocational, business, or technical schools; and 4-year colleges—and addresses the following questions:

- To what extent do young adults with disabilities enroll in postsecondary schools?
- How does their level of enrollment compare with that of their peers in the general population?
- What are the completion rates for young adults with disabilities who enroll in postsecondary schools?
- How do the postsecondary completion rates of young adults with disabilities compare with those of their peers in the general population?
- How do postsecondary enrollment and completion rates differ for young adults in different disability categories and for those with different school-exit and demographic characteristics?

This chapter presents findings related to postsecondary enrollment and completion for young adults with disabilities as a group as well as differences between young adults who differ in their disability category, high-school leaving status, and demographic characteristics that are significantly different at least at the $p < .01$ level.

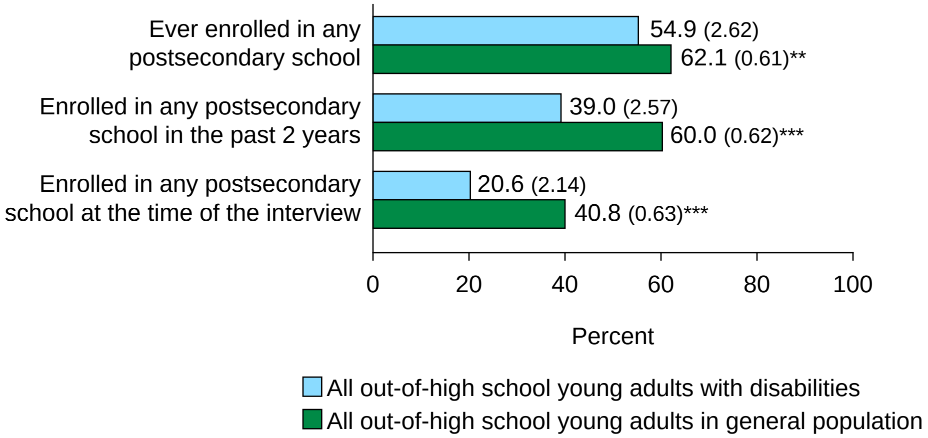
Postsecondary School Enrollment

Ensuring that students with disabilities have “access to and full participation in postsecondary education” has been identified as one of the key challenges in the future of secondary education and transition for such students (National Center on Secondary Education and Transition 2003, p. 1). Postsecondary education has been linked to increased earning potential for young adults who continue their education after high school, even for those who have not earned a degree (Marcotte et al. 2005).

Regarding postsecondary enrollment of young adults with disabilities who had been out of high school up to 6 years:

- Fifty-five percent reported having continued on to postsecondary school since leaving high school (figure 1).[18]
- They were less likely to enroll in postsecondary school than were their same-age peers in the general population, of whom 62 percent ever had attended postsecondary school ($p < .01$).[19]
- They were less likely to have been enrolled in any postsecondary school in the past 2 years than their same-age peers in the general population (39 percent vs. 60 percent, $p < .001$).
- They were less likely to have been enrolled in any postsecondary school at the time of the interview than their same-age peers in the general population (21 percent vs. 41 percent, $p < .001$).

Figure 1. Postsecondary school enrollment of young adults with disabilities and those in the general population



**$p < .01$; ***$p < .001$ for difference between young adults with disabilities and young adults in the general population.

NOTE: Standard errors are in parentheses. Findings are reported for young adults out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 3,610 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97) 2001 youth survey, responses for 19- to 23-year-olds.

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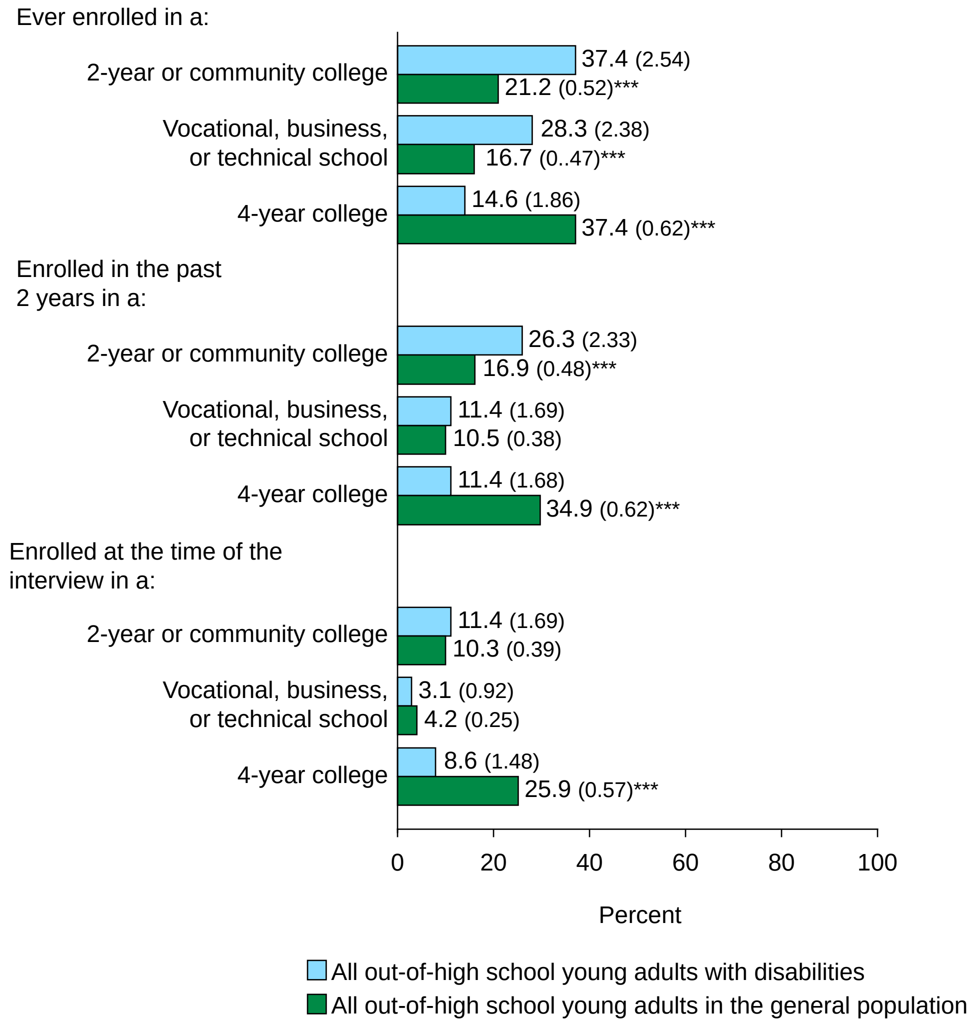
[18] Respondents were asked, “Since leaving high school have you taken any classes from a [postsecondary school]?”

[19] U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97) 2001 youth survey, responses for 19- to 23-year-olds.

Figure 2. Postsecondary school enrollment of young adults with disabilities and young adults in the general population, by school type



*** *p* < .001 for difference between young adults with disabilities and young adults in the general population.

NOTE: Young adults who had enrolled in more than one type of postsecondary school were included in each type of school they had attended. Standard errors are in parentheses. Findings are reported for young adults out of high school up to 6 years**.** NLTS2 percentages are weighted population estimates based on a sample of approximately 3,610 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97) 2001 youth survey, responses for 19- to 23-year-olds.

- Young adults with disabilities were more likely to have ever been enrolled in 2-year or community colleges (37 percent) than in vocational, business, or technical schools (28 percent, *p* < .01) or 4-year colleges or universities (15 percent, *p* < .001), and of those options, were least likely to have ever been enrolled in 4-year colleges (figure 2).
- Young adults in the general population were more likely to have ever been enrolled in a 4-year college (37 percent) than were young adults with disabilities (15 percent, *p* < .001). Conversely, young adults with disabilities were more likely to have ever been enrolled in a 2-year or community college (37 percent) or vocational school (28 percent)

than were young adults in the general population (21 percent and 17 percent, respectively; *p* < .001 for both comparisons).

- The rate of enrollment of young adults with disabilities in 2-year or community colleges or vocational schools at the time of the interview (11 percent and 3 percent, respectively)[20] did not differ significantly from that of their peers in the general population (10 percent and 4 percent, respectively). This stands in contrast to differences in enrollment rates at 4-year colleges. Similar-age young adults in the general population were about three times as likely as young adults with disabilities to be taking courses at a 4-year college at the time of the interview (26 percent vs. 9 percent, *p* < .001).

Disability Differences in Postsecondary Enrollment

- Overall postsecondary enrollment varied widely by disability category, with attendance since high school ranging from 28 percent to 71 percent (table 2).
- Young adults with hearing impairments or visual impairments were more likely to attend any postsecondary school (71 percent, each) than were those with autism (47 percent, *p* < .001 for comparison with hearing impairments and *p* < .01 for comparison with visual impairments), emotional disturbances (45 percent, *p* < .001 for both comparisons), multiple disabilities (31 percent, *p* < .001 for both comparisons), or mental retardation (28 percent, *p* < .001 for both comparisons).

Table 2. Postsecondary school enrollment of young adults, by disability category

	Learning disability	Speech/ language impairment	Mental retardation	Emotional disturbance	Hearing impairment	Visual impairment	Orthopedic impairment	Other health impairment	Autism	Traumatic brain injury	Multiple disabilities	Deaf-blindness
	Percent											
Any postsecondary school	60.9 (3.88)	63.0 (3.77)	27.6 (3.64)	44.9 (4.36)	70.6 (4.63)	70.8 (5.23)	59.8 (4.59)	56.6 (4.14)	46.6 (5.25)	56.2 (7.49)	31.3 (5.28)	48.8 (6.83)
2-year or community college	41.0 (3.93)	40.9 (3.84)	21.5 (3.35)	29.7 (4.01)	44.9 (5.06)	47.0 (5.74)	45.5 (4.66)	42.9 (4.14)	32.6 (4.93)	33.5 (7.12)	17.2 (4.31)	29.1 (6.21)
Vocational, business, or technical school	31.5 (3.71)	21.3 (3.21)	15.2 (2.92)	28.1 (3.94)	36.8 (4.92)	21.2 (4.70)	21.2 (3.83)	27.7 (3.74)	20.4 (4.26)	33.6 (7.18)	14.8 (4.05)	18.9 (5.35)
4-year college	15.5 (2.89)	29.1 (3.55)	6.3 (1.98)	7.6 (2.32)	31.3 (4.71)	42.7 (5.69)	22.5 (3.91)	19.5 (3.31)	15.5 (3.82)	15.7 (5.49)	8.0 (3.09)	18.2 (5.27)

NOTE: Young adults who had enrolled in more than one type of postsecondary school were included in each type of school they had attended. Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 4,650 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

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[20] Respondents were asked, “Are you [YOUTH] going to a [postsecondary school] now?” Those who had been enrolled in a postsecondary school but were not currently enrolled, were asked, “Are you [YOUTH] not going to a [postsecondary school] now because you: are on school vacation, graduated or completed the program, or some other reason?” Young adults who were on school vacation were recoded as being currently enrolled in postsecondary school.

- Enrollment at any postsecondary school was higher for young adults with learning disabilities (61 percent), speech/language impairments (63 percent), orthopedic impairments (60 percent), other health impairments (57 percent), traumatic brain injuries (56 percent), autism (47 percent), or emotional disturbances (45 percent) than for those with mental retardation (28 percent, $p < .01$ for comparison with autism and emotional disturbances, $p < .001$ for other comparisons).
- Similarly, overall postsecondary enrollment was higher for young adults with learning disabilities (61 percent), speech/language impairments (63 percent), orthopedic impairments (60 percent), other health impairments (57 percent), or traumatic brain injuries (56 percent) than for those with multiple disabilities (31 percent, $p < .01$ for comparison with traumatic brain injuries, $p < .001$ for other comparisons).
- In addition, young adults with speech/language impairments (63 percent) or learning disabilities (61 percent) were more likely ever to have enrolled in any postsecondary program than were those with emotional disturbances (45 percent, $p < .01$ for all comparisons).
- Young adults with visual (47 percent), orthopedic (46 percent), hearing (45 percent), other health (43 percent), or speech/language impairments (41 percent), or learning disabilities (41 percent) were more likely than those with multiple disabilities ($p < .001$ for all comparisons) or mental retardation ($p < .001$ for all comparisons) to attend a 2-year or community college.
- Young adults with hearing impairments (37 percent) were more likely than those with multiple disabilities (15 percent, $p < .001$), mental retardation (15 percent, $p < .001$), deaf-blindness (19 percent, $p < .01$), speech/language impairments (21 percent, $p < .01$), or orthopedic impairments (21 percent, $p < .01$), to attend a vocational, business, or technical school.
- In addition, young adults with learning disabilities (32 percent) were more likely than those with mental retardation (15 percent $p < .001$) or multiple disabilities (19 percent, $p < .01$) to attend a vocational, business, or technical school.
- Young adults with visual impairments (43 percent) were more likely than those with mental retardation (6 percent), emotional disturbances (8 percent), multiple disabilities (8 percent), learning disabilities (16 percent), autism (16 percent), traumatic brain injuries (16 percent), deaf-blindness (18 percent), other health impairments (20 percent), or orthopedic impairments (23 percent) to attend a 4-year college ($p < .01$ for comparison with deaf-blindness and orthopedic impairments; $p < .001$ for other comparisons).
- Young adults with hearing impairments (31 percent) were more likely than those with mental retardation (6 percent), emotional disturbances (8 percent), multiple disabilities (8 percent), learning disabilities (16 percent), autism (16 percent), or traumatic brain injuries (16 percent) to attend a 4-year college ($p < .01$ for comparison with learning disabilities and autism; $p < .001$ for other comparisons).
- Young adults with orthopedic impairments (23 percent) were more likely than those with mental retardation (6 percent, $p < .001$), emotional disturbances (8 percent, $p < .01$), or multiple disabilities (8 percent, $p < .01$) to attend a 4-year college.

- Young adults with other health impairments (20 percent) were more likely than those with mental retardation (6 percent, $p < .001$) or emotional disturbances (8 percent, $p < .01$) to attend a 4-year college.
- Young adults with learning disabilities (16 percent) were more likely than those with mental retardation (6 percent, $p < .01$) to attend a 4-year college.

Differences in Postsecondary Enrollment by High School-Leaving Characteristics

- High school completers were three times as likely as their peers who did not complete high school to have enrolled in any postsecondary school (59 percent vs. 17 percent, $p < .001$, table 3).
- Completers were more likely than noncompleters to ever have been enrolled in 2-year or community colleges (40 percent vs. 12 percent, $p < .001$); vocational, business, or technical schools (31 percent vs. 6 percent, $p < .001$); and 4-year colleges (16 percent vs. <1 percent, $p < .001$).
- Rates of enrollment in postsecondary schools did not differ significantly by the number of years since leaving high school.

Table 3. Postsecondary school enrollment of young adults with disabilities, by high school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 2 years	2 up to 4 years	4 up to 6 years
	Percent				
Any postsecondary school	59.4 (2.79)	16.9 (5.13)	51.6 (5.06)	52.1 (3.94)	60.4 (4.62)
2-year or community college	40.4 (2.79)	11.6 (4.42)	34.7 (4.83)	32.3 (3.70)	45.5 (4.71)
Vocational, business, or technical school	30.9 (2.62)	6.1 (3.31)	18.8 (3.97)	29.5 (3.61)	31.9 (4.41)
4-year college	16.3 (2.10)	0.2 (0.61)	14.2 (3.54)	11.5 (2.52)	18.9 (3.69)

NOTE: Young adults who had enrolled in more than one type of postsecondary school were included in each type of school they had attended. Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 4,650 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Demographic Differences in Postsecondary Enrollment

- Postsecondary enrollment differences were apparent for families with different income levels. Young adults with disabilities from households with parent incomes of more than $50,000 were more likely to have ever enrolled in any postsecondary school (68 percent, table 4) than were those from households with parent incomes of $25,000 or less (43 percent, $p < .001$) or $25,001 to $50,000 (51 percent, $p < .01$). Young adults with disabilities from households with parent incomes of more than $50,000 were more likely than those from households with parent incomes of $25,000 or less to have enrolled in a

2-year or community college (49 percent vs. 24 percent, $p < .001$) or a 4-year college (22 percent vs. 8 percent, $p < .01$).

- Rates of enrollment in postsecondary schools did not differ significantly by race/ethnicity or gender.

Table 4. Postsecondary school enrollment of young adults with disabilities, by parents' household income and young adults' race/ethnicity and gender

	$25,000 or less	$25,001 to $50,000	More than $50,000	White	African American	Hispanic	Male	Female
	Percent							
Any postsecondary school	42.8 (4.73)	50.8 (5.22)	68.0 (3.70)	56.4 (3.14)	50.6 (6.04)	62.5 (7.71)	53.5 (3.27)	57.3 (4.39)
2-year or community college	24.4 (4.12)	36.1 (5.02)	48.9 (3.97)	38.7 (3.09)	30.5 (5.56)	46.0 (8.00)	38.0 (3.19)	36.3 (4.28)
Vocational, business, or technical school	27.9 (4.29)	26.8 (4.64)	30.7 (3.67)	28.8 (2.88)	24.1 (5.17)	35.9 (7.64)	28.5 (2.97)	28.0 (3.99)
4-year college	8.3 (2.64)	10.6 (3.22)	22.0 (3.29)	15.2 (2.28)	14.4 (4.24)	12.0 (5.17)	15.1 (2.34)	14.0 (3.08)

NOTE: Young adults who had enrolled in more than one type of postsecondary school were included in each type of school they had attended. Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 4,650 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Postsecondary School Completion

For many students in the general population, postsecondary school enrollment does not result in degree attainment or program completion. Fewer than two-thirds of students in the general population who began as full-time freshmen in 4-year universities in 1995 received a bachelor's degree within a 6-year period (Berkner, He, and Cataldi 2002). This section examines the postsecondary completion rates of young adults with disabilities who have been out of high school up to 6 years. Postsecondary completion is considered for the 63 percent of young adults who had ever attended postsecondary school but no longer were enrolled at the time of the interview.

- Within 6 years of leaving high school, of the 63 percent of young adults with disabilities who had ever enrolled in postsecondary education, but no longer were attending, 38 percent had graduated or completed their programs (figure 3).[21]

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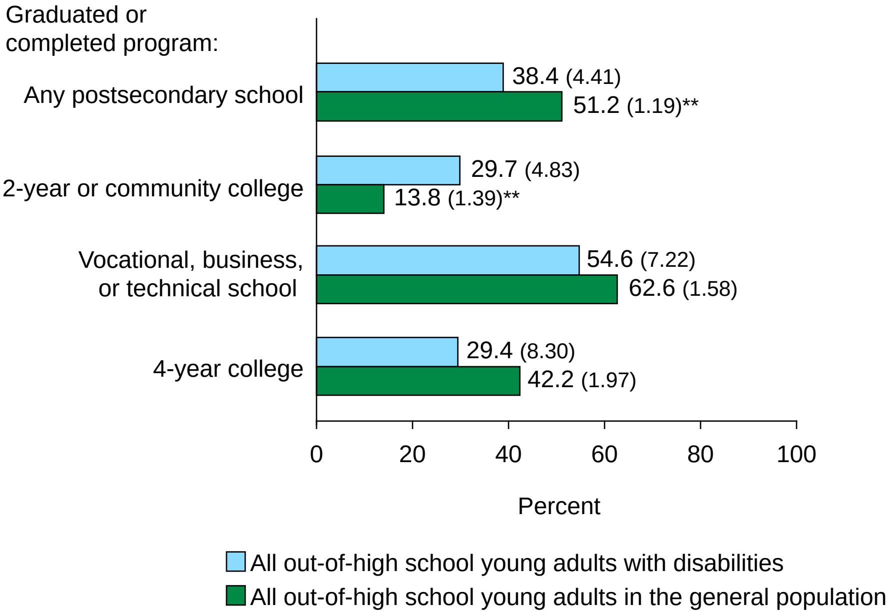
[21] Respondents who had been in a postsecondary program earlier but were not currently enrolled were asked, "Are you [YOUTH] not going to a [postsecondary school] now because you are on school vacation, graduated or completed the program, or some other reason?"

Figure 3. Postsecondary school completion of young adults with disabilities and young adults in the general population who had ever enrolled in a postsecondary school, by school type



** $p < .01$ for difference between young adults with disabilities and young adults in the general population.

NOTE: Standard errors are in parentheses. Findings are reported for young adults out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 340 to 1,520 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

- The postsecondary completion rate of young adults with disabilities was lower than that of their peers in the general population. Fifty-one percent of similar-age peers in the general population had graduated or completed postsecondary programs ($p < .01$).
- Postsecondary school completion rates for young adults with disabilities ranged from 29 percent at 4-year universities, to 30 percent at 2-year or community college, to 55 percent at postsecondary vocational, business, or technical school. When considering completion rates at 4-year universities it is important to be aware that some young adults had been out of high school for less than 4 years.
- Rates of completion did not differ significantly by disability category, secondary-school leaving characteristics, parents' household income; or young adults' race/ethnicity or gender (tables 5 through 7).

Table 5. Postsecondary school completion of young adults, by disability category

	Learning disability	Speech/ language impairment	Mental retardation	Emotional disturbance	Hearing impairment	Visual impairment	Orthopedic impairment	Other health impairment	Autism	Traumatic brain injury	Multiple disabilities	Deaf-blindness
	Percent											
Graduation or completion rate of students who had been enrolled in postsecondary school but were not enrolled at the time of the interview	37.5 (6.13)	48.4 (6.64)	40.0 (3.65)	41.1 (10.17)	38.9 (8.80)	49.7 (9.35)	35.7 (7.55)	33.8 (6.09)	35.2 (10.35)	50.4 (12.59)	32.1 (10.55)	‡

‡ Responses for items with fewer than 30 respondents are not reported.

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,520 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2, 3, and 4 parent interview and youth interview/survey, 2003, 2005, 2007.

Table 6. Postsecondary school completion of young adults with disabilities, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 2 years	2 up to 4 years	4 up to 6 years
	Percent				
Graduation or completion rate of students who had been enrolled in postsecondary school but were not enrolled at the time of the interview	38.5 (4.50)	34.8 (21.60)	35.0 (11.84)	32.3 (6.35)	45.4 (6.94)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,520 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2, 3, and 4 parent interview and youth interview/survey, 2003, 2005, 2007.

Table 7. Postsecondary school enrollment of young adults with disabilities, by parents' household income and young adults' race/ethnicity and gender

	$25,000 or less	$25,001 to $50,000	More than $50,000	White	African American	Hispanic	Male	Female
	Percent							
Graduation or completion rate of students who had been enrolled in postsecondary school but were not enrolled at the time of the interview	32.8 (8.75)	39.2 (9.00)	39.9 (6.25)	39.2 (5.25)	29.3 (9.24)	46.3 (13.27)	36.2 (5.22)	41.9 (7.87)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,520 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2, 3, and 4 parent interview and youth interview/survey, 2003, 2005, 2007.

3. Employment Key Findings

Employment during the years identified as *emerging adulthood* is associated with differences in psychological well-being (Galambos, Barker, and Krahn 2006) and improved chances for a higher quality of life (Stodden and Mruzek 2010). Full-time employment leads to financial independence and is an important first step on the path to adulthood (Janus 2009). Unemployment not only results in lost wages, but also a reduced quality of life for the individual and diminished growth capacity for society as a whole (Wisman 2010). People with disabilities have a much higher unemployment rate than the overall population (The National Collaborative on Workforce & Disability for Youth and Workforce Strategy Center 2009); and low adult employment is associated with poor quality of life for individuals with disabilities and their families (O'Day and Stapleton 2009).

As young adults with disabilities continue on their path through emerging adulthood, opportunities for employment increase. For those already employed, the opportunity for higher wages increases, as well. This chapter describes the employment of young adults with disabilities who had been out of high school up to 6 years. It focuses on the employment status and wages of post high school young adults and addresses the following questions:

- To what extent do young adults with disabilities have a paid job other than work around the house?
- How does their employment status compare with that of their peers in the general population?
- What is the hourly wage for young adults with disabilities who are currently or who have recently been employed?
- How do the hourly wages of young adults with disabilities compare with those of their peers in the general population?
- How do employment and hourly wage rates differ for young adults in different disability categories and for those with different demographic characteristics?

This chapter presents findings related to employment and hourly wages for young adults with disabilities as a group as well as differences between young adults who differ in their disability category and demographic characteristics. Only differences that are significant at least at the $p < .01$ level are reported.

Employment Status at Time of Interview

Regarding the employment status of young adults with disabilities who were out of secondary school at the time of the interview:

- Seventy-one percent were reported to have a paid job at the time of the interview other than work around the house (figure 4).[22]
- They were as likely to have a paid job at the time of the interview as were their same-age peers in the general population, of whom 71 percent reported currently having a paid job.[23]

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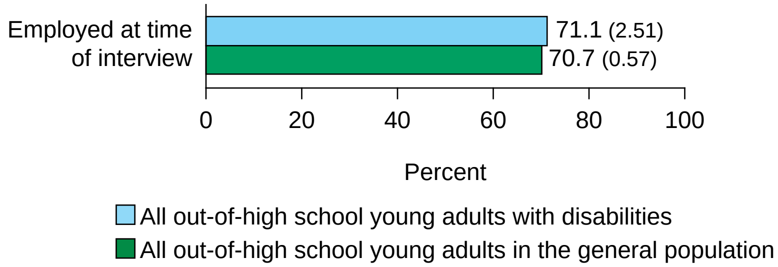
[22] Respondents were asked, "Do you [YOUTH] have a paid job now, other than work around the house?"

Figure 4. Employment status of young adults with disabilities and young adults in the general population



NOTE: Standard errors are in parentheses. Findings are reported for young adults out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 4,140 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97) 2001 youth survey, responses for 19- to 23-year-olds.

Disability Differences in Employment Status

- The employment status of young adults with disabilities at the time of the interview varied widely by disability category with employment at the time of the interview ranging from 30 percent to 79 percent (table 8).
- Young adults with learning disabilities (79 percent) were more likely to have a paid job than were those with deaf-blindness (30 percent), orthopedic impairments (38 percent), visual impairments (40 percent), traumatic brain injuries (44 percent), autism (45 percent), mental retardation (46 percent), or multiple disabilities (46 percent, $p < .001$ for all comparisons).
- Similarly, young adults with other health impairments or speech/language impairments were more likely to have a paid job (68 percent, each) than were those with deaf-blindness (30 percent, $p < .001$ for both comparisons), orthopedic impairments (38 percent, $p < .001$ for both comparisons), visual impairments (40 percent, $p < .001$ for both comparisons), traumatic brain injuries (44 percent, $p < .01$ for both comparisons), autism (45 percent, $p < .01$ for both comparisons), mental retardation (46 percent, $p < .001$ for both comparisons), or multiple disabilities (46 percent, $p < .01$ for both comparisons).
- Young adults with emotional disturbances were more likely to have a paid job (65 percent) than were those with deaf-blindness (30 percent, $p < .001$), orthopedic impairments (38 percent, $p < .001$), visual impairments (40 percent, $p < .01$), autism (45 percent, $p < .01$), or mental retardation (46 percent, $p < .01$).
- Young adults with hearing impairments were more likely to have a paid job (64 percent) than were those with deaf-blindness (30 percent, $p < .001$), orthopedic impairments (38 percent, $p < .001$), visual impairments (40 percent, $p < .01$), or mental retardation (46 percent, $p < .01$).

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[23] Respondents to the general population NLSY97 2001 survey were asked, “Are you currently working for an employer?”

Table 8. Paid employment outside the home of young adults, by disability category

Employment status	Learning disability	Speech/ language impairment	Mental retardation	Emotional disturbance	Hearing impairment	Visual impairment	Orthopedic impairment	Other health impairment	Autism	Traumatic brain injury	Multiple disabilities	Deaf-blindness
	Percent											
Percentage reported to have been:												
Employed at time of interview	78.6 (3.39)	67.8 (3.81)	46.0 (4.42)	64.5 (4.41)	63.9 (5.24)	40.3 (6.08)	37.7 (4.71)	68.2 (4.06)	45.2 (5.82)	44.1 (7.79)	46.1 (6.24)	29.8 (6.75)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years**.** NLTS2 percentages are weighted population estimates based on samples of approximately 4,150 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Differences in Employment Status by High School-Leaving Characteristics

- High school completers were more likely to have been reported to be employed at the time of the interview than were their peers who did not complete high school (73 percent vs. 52 percent, $p < .01$; table 9).
- Employment status at the time of the interview did not differ by the number of years since leaving high school.

Table 9. Paid employment outside the home of young adults with disabilities, by high school-leaving status and years since leaving high school

Employment status	Completers	Non-completers	Less than 2 years	2 up to 4 years	4 up to 6 years
	Percent				
Percentage reported to have been:					
Employed at time of interview	73.2 (2.62)	52.3 (7.61)	60.4 (5.30)	72.9 (3.67)	74.4 (4.31)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years**.** NLTS2 percentages are weighted population estimates based on samples ranging from approximately 3,690 to 4,150 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Demographic Differences in Employment Status

- Post-high school employment differences were apparent for families with varying income levels. Young adults from households with parent incomes of more than $50,000 were more likely to have a paid job at the time of the interview (79 , table 10) than were those from households with parent incomes of $25,000 or less (58 percent, $p < .001$).
- Employment status did not differ significantly by race or ethnicity or gender.

Table 10. Paid employment outside the home of young adults with disabilities, by parents' household income and young adults' race/ethnicity and gender

	$25,000 or less	$25,001 to $50,000	More than $50,000	White	African American	Hispanic	Male	Female
Employment status	Percent							
Percentage reported to have been:								
Employed at time of interview	58.3 (5.08)	74.7 (4.74)	78.9 (3.35)	75.8 (2.82)	59.5 (6.44)	63.6 (8.07)	75.2 (2.96)	63.7 (4.53)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years**.** NLTS2 percentages are weighted population estimates based on samples ranging from approximately 3,690 to 4,150 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

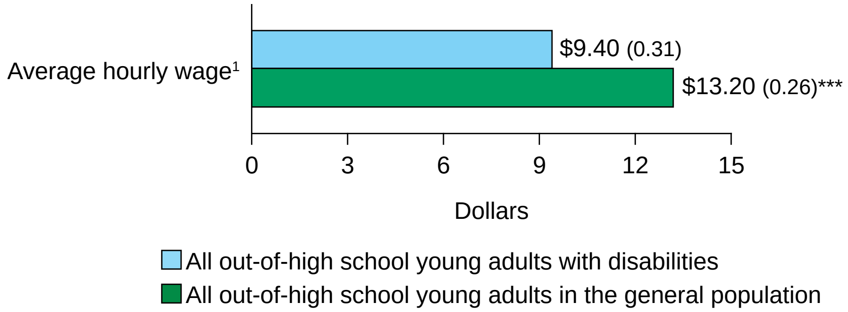
Hourly Wages at Time of Interview

Earning a livable wage is integral to an acceptable quality of life. As set by the Fair Labor Standards Act (FLSA), the federal minimum wage in 2007 started at $5.15 per hour before being increased to $5.85 per hour effective July 24, 2007 (see http://www.dol.gov/whd/minwage/coverage.htm). Although there is some variability in the minimum wages by state, federal minimum wage law supersedes state minimum wage laws where the federal minimum wage is greater than the state minimum wage (see http://www.dol.gov/whd/minwage/america.html). In those states where the state minimum wage is greater than the federal minimum wage, the state minimum wage prevails. As a result, the minimum wages across the states in 2007 ranged from $5.15 to $7.93 per hour. Young adults with disabilities were asked to report the hourly wage received at their current or most recent job. The average hourly wage is reported here.

Regarding the hourly wages of young adults with disabilities who were out of secondary school at the time of the interview:

- The mean hourly wage was reported to be \$9.40 (figure 5).[24]
- They earned less than their same-age peers in the general population, who earned a mean hourly wage of \$13.20 ($p < .001$).

Figure 5. Average hourly wage of young adults with disabilities and young adults in the general population



*** $p < .001$ for difference between young adults with disabilities and young adults in the general population.

NOTE: Standard errors are in parentheses. Findings are reported for young adults out of high school up to 6 years**.** NLTS2 percentages are weighted population estimates based on a sample of approximately 2,110 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97) 2001 youth survey, responses for 19- to 23-year-olds.

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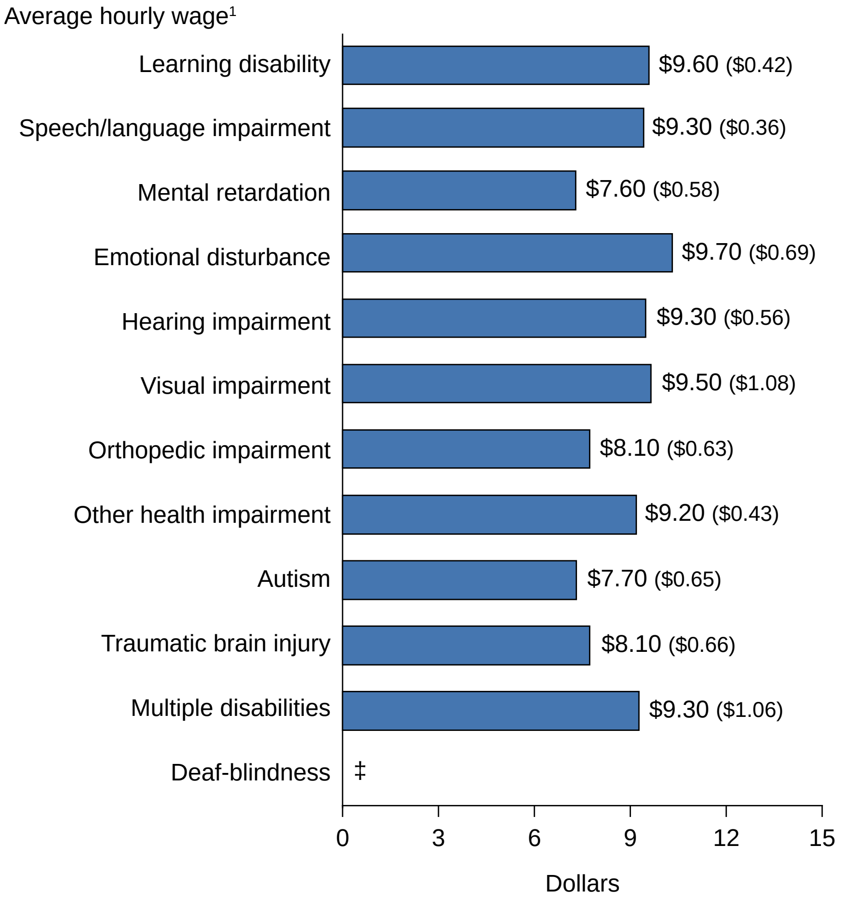
[24] Respondents were asked, “About how much are you [YOUTH] paid at this job?” Weekly, yearly, and monthly wages were converted to hourly wages by dividing the wage by the number of hours worked per week, and then multiplying by 4.3 for monthly-reported wages or by 52 for yearly-reported wages.

Disability Differences in Hourly Wages

- The average hourly wage did not differ significantly by disability category, with one exception (figure 6). Young adults with learning disabilities were reported to earn a higher average hourly wage ($9.60) than those with mental retardation ($7.60, $p < .01$).

Figure 6. Average hourly wage of young adults, by disability category



‡ Responses for items with fewer than 30 respondents are not reported.

[1] Rounded to nearest $0.10.

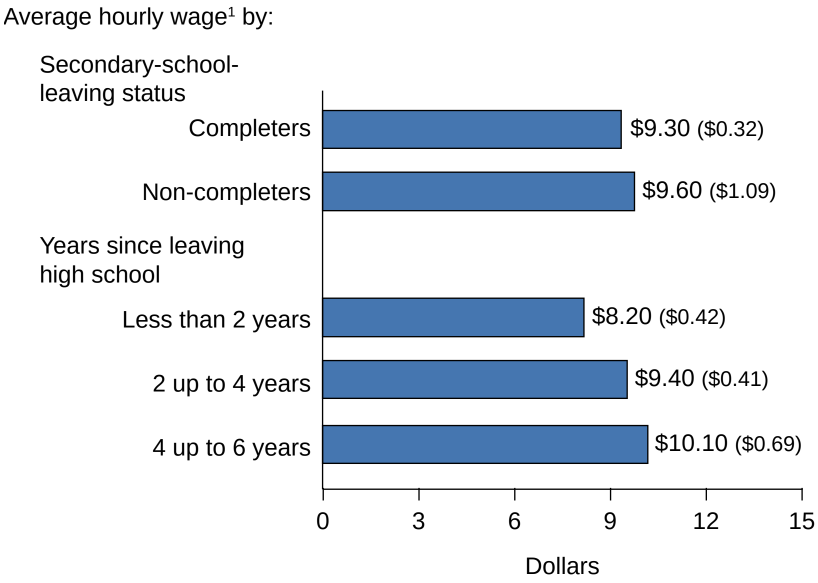
NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years**.** NLTS2 percentages are weighted population estimates based on samples ranging from approximately 3,690 to 4,150 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Differences in Hourly Wages by High School-Leaving Characteristics

- Average hourly wages did not differ significantly by secondary school-leaving status or the number of years since leaving high school (figure 7).

Figure 7. Average wage of young adults with disabilities, by secondary-school-leaving status and years since leaving high school



[1] Rounded to nearest $0.10.

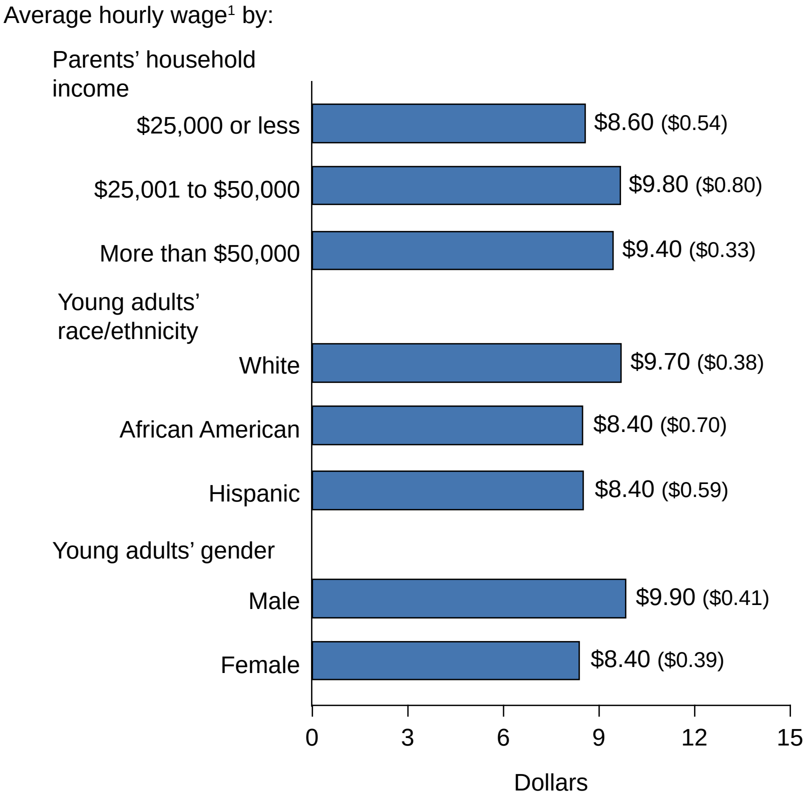
NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years**.** NLTS2 percentages are weighted population estimates based on samples ranging from approximately 3,690 to 4,150 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Differences in Hourly Wages by Demographic Characteristics

- Males earned a higher mean hourly wage at their current or most recent job than females ($9.90 vs. $8.40, $p < .01$; figure 8).
- Average hourly wages did not differ significantly by parents' household income or young adults' race/ethnicity.

Figure 8. Average hourly wage of young adults with disabilities, by parents' household income and young adults' race/ethnicity and gender



[1] Rounded to nearest $0.10.

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years**.** NLTS2 percentages are weighted population estimates based on samples ranging from approximately 3,690 to 4,150 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

4. Engagement Key Findings

NLTS2 considered young adults with disabilities as being productively engaged in the community when they had participated in employment, education, and/or job training activities since leaving secondary school. Addressing this broader concept of engagement, rather than considering individual outcomes (employment or postsecondary education) separately, was encouraged by the advisory panel during the design of the initial NLTS; as a result, NLTS was one of the first studies to present a broader perspective on how young adults and young adults with disabilities could be productively engaged in their communities. The advisory panel for the current study continued to endorse that view of engagement. The importance of this broader view of what constitutes a successful transition is now incorporated in the current federal policy that requires states to collect data on "Indicator 14"—that is, "the percent of young adults who had IEPs, are no longer in secondary school, and who have been competitively employed, enrolled in some type of postsecondary school, or both, within one year of leaving high school" (20 U.S.C. 1416(a)(3)(B)). The NLTS2 operationalization of this concept, as endorsed by the NLTS2 design advisory panel, is somewhat broader than Indicator 14, in that NLTS2 includes all forms of employment, not just competitive employment, and includes job training as a productive form of preparation for work, in addition to enrollment in postsecondary education.

In this chapter, young adults with disabilities are considered productively engaged in the community when they had participated in one or more of the following activities since leaving secondary school:

- Employment—worked for pay, other than work around the house,[25] including supported or sheltered[26] employment.
- Education—attended a vocational, business, or technical school; a 2-year, junior, or community college; or a 4-year college or university.
- Job training—received training in specific job skills (e.g., car repair, web page design, food service) from someone other than an employer or a family member, such as an agency or a government training program.

This chapter describes the productive engagement in the community of young adults with disabilities who had been out of high school up to 6 years. It focuses on the education, employment, and/or job training of young adults with disabilities since leaving secondary school and addresses the following questions:

- To what extent do young adults with disabilities productively engage in the community?
- How does their engagement in the community compare with that of their peers in the general population?[27]

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[25] This chapter focuses on involvement in any type of paid employment (other than work around the house), mirroring much of what is presented in this report's employment chapter.

[26] Sheltered employment is employment provided for individuals with disabilities in a protected environment under an institutional program.

[27] Young adults in the general population were considered to have been positively engaged if they were employed or had a job since turning 18; or had ever attended a postsecondary school.

- How does engagement differ for young adults in different disability categories and for those with different demographic characteristics?

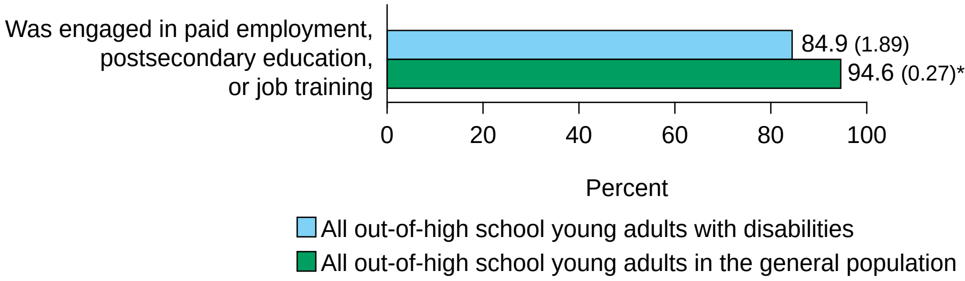
This chapter presents findings related to productive engagement in the community of young adults with disabilities as a group as well as differences between young adults who differ in their disability category and demographic characteristics that are significantly different at the $p < .01$ or $p < .001$ level.

Engagement in Education, Employment, or Training for Employment

Regarding the productive engagement in the community of young adults with disabilities who were out-of secondary school at the time of the interview:

- Eighty-five percent were reported to have engaged in employment, postsecondary education, or job training since leaving high school (figure 9).

Figure 9. Productive engagement of young adults with disabilities and those in the general population



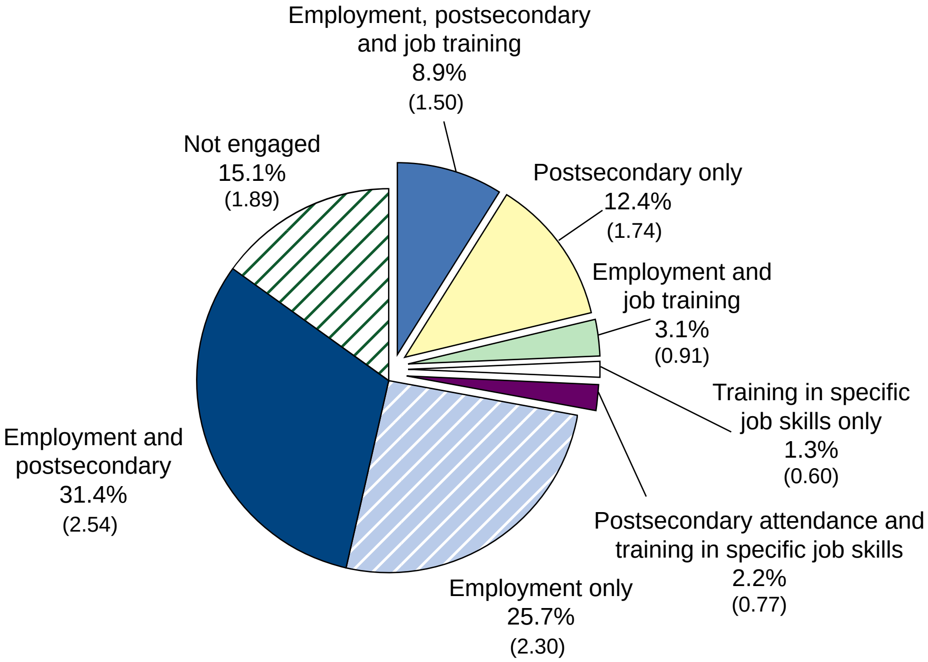
***$p < .001$ for difference between young adults with disabilities and young adults in the general population.

NOTE: Standard errors are in parentheses. Findings are reported for young adults out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 4,650 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97) 2001 youth survey, responses for 19- to 23-year-olds.

- They were less likely to engage in these activities than were their same-age peers in the general population, of whom 95 percent reported to have been engaged in employment, postsecondary education, or job training since leaving high school ($p < .001$).
- The productive engagement of young adults with disabilities ranged from training in specific job skills (1 percent) to a combination of paid employment and postsecondary education (31 percent, figure 10). Except for “paid employment only,” young adults with disabilities were more likely to engage in a combination of paid employment and postsecondary education than in other modes of engagement ($p < .001$ for all comparisons).

Figure 10. Modes of engagement of young adults with disabilities



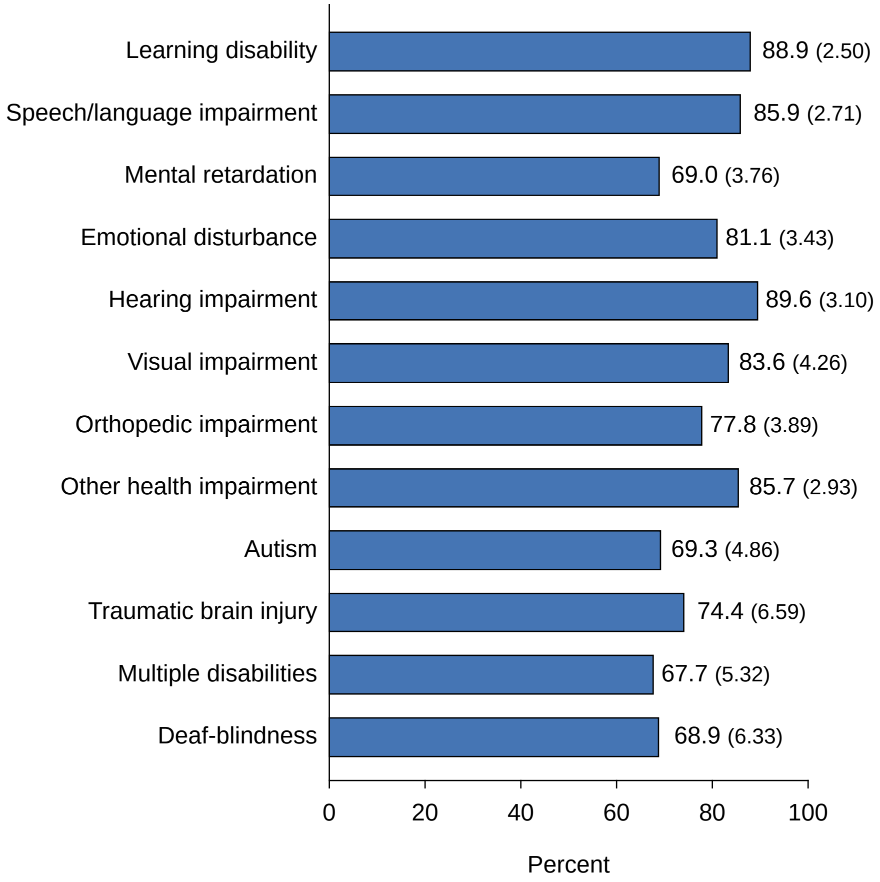
NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 4,650 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Disability Differences in Engagement in Education, Employment, or Training for Employment

- Young adults with hearing impairments (90 percent, figure 11), learning disabilities (89 percent), speech/language impairments (86 percent), or other health impairments (86 percent) were more likely to have been productively engaged since high school than were those with mental retardation (69 percent, $p < .001$ for all comparisons) or autism (69 percent, $p < .001$ for comparison with hearing impairments and learning disabilities; and $p < .01$ for comparison with speech/language impairments and other health impairments).
- Similarly, young adults with hearing impairments (90 percent), learning disabilities (89 percent), speech/language impairments (86 percent), or other health impairments (86 percent) were more likely to have been productively engaged than were those with multiple disabilities (68 percent, $p < .001$ for comparison with hearing impairments and learning disabilities; and $p < .01$ for comparison with speech/language impairments and other health impairments) or deaf-blindness (69 percent, $p < .01$ for comparison with hearing impairments and learning disabilities).

Figure 11. Productive engagement of young adults with disabilities, by disability category



NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 4,650 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

- Young adults with speech/language impairments were more likely to have been engaged in a combination of paid employment and postsecondary education since high school (42 percent, table 11) than were those with mental retardation (11 percent, $p < .001$), multiple disabilities (11 percent, $p < .001$), deaf-blindness (19 percent, $p < .001$), autism (23 percent, $p < .01$), orthopedic impairments (25 percent, $p < .01$), or emotional disturbances (26 percent, $p < .01$).
- Young adults with other health impairments (39 percent), visual impairments (35 percent), learning disabilities (36 percent), hearing impairments (34 percent), emotional disturbances (26 percent), or orthopedic impairments (25 percent) were more likely to have been engaged in a combination of paid employment and postsecondary education since high school than were those with mental retardation or multiple disabilities (11 percent, each; $p < .001$ for all comparisons except for emotional disturbances and orthopedic impairments).

Table 11. Modes of engagement of young adults, by disability category

	Learning disability	Speech/ language impairment	Mental retardation	Emotional disturbance	Hearing impairment	Visual impairment	Orthopedic impairment	Other health impairment	Autism	Traumatic brain injury	Multiple disabilities	Deaf-blindness
	Percent											
Employment only	24.2 (3.41)	18.8 (3.05)	33.4 (3.83)	33.4 (4.14)	15.9 (3.71)	10.0 (3.45)	10.8 (2.91)	24.9 (3.62)	15.3 (3.79)	12.5 (4.99)	24.2 (4.87)	14.5 (4.81)
Postsecondary education only	14.0 (2.76)	14.9 (2.78)	7.2 (2.10)	8.4 (2.43)	15.3 (3.66)	14.8 (4.09)	19.5 (3.71)	8.4 (2.32)	9.3 (3.06)	15.3 (5.43)	10.5 (3.49)	16.2 (5.04)
Employment and postsecondary education	35.5 (3.81)	41.2 (3.84)	10.8 (2.52)	25.8 (3.84)	34.3 (4.82)	34.8 (5.48)	24.9 (4.05)	38.6 (4.07)	23.2 (4.44)	28.6 (6.82)	10.8 (3.53)	18.9 (5.35)
Employment, postsecondary education, and job training	9.0 (2.28)	6.3 (1.90)	9.0 (2.32)	8.3 (2.42)	18.7 (3.96)	14.8 (4.09)	10.8 (2.91)	8.7 (2.36)	10.4 (3.21)	12.2 (4.94)	5.0 (2.48)	8.7 (3.85)
Employment and job training	2.5 (1.24)	3.0 (1.33)	5.2 (1.80)	2.6 (1.40)	2.3 (1.52)	1.9 (1.57)	6.4 (2.29)	3.7 (1.58)	6.0 (2.50)	5.5 (3.44)	9.8 (3.38)	4.6 (2.86)
Job training only	1.3 (0.90)	1.1 (0.81)	2.3 (1.22)	0.5 (0.62)	0.4 (0.64)	0.9 (1.09)	0.7 (0.78)	0.2 (0.37)	1.5 (1.28)	0.1 (0.48)	2.4 (1.74)	1.1 (1.43)
Postsecondary and job training	2.5 (1.24)	0.7 (0.65)	1.1 (0.85)	2.0 (1.23)	2.6 (1.62)	6.5 (2.84)	4.5 (1.94)	1.3 (0.95)	3.6 (1.96)	0.1 (0.48)	4.9 (2.46)	4.9 (2.95)
No engagement	11.1 (2.50)	14.1 (2.71)	31.0 (3.76)	18.9 (3.43)	10.4 (3.10)	16.4 (4.26)	22.2 (3.89)	14.3 (2.93)	30.7 (4.86)	25.6 (6.59)	32.3 (5.32)	31.1 (6.33)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 4,650 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

- The percentage of young adults with disabilities reported to have been engaged only in paid employment since leaving high school ranged from 10 percent of young adults with visual impairments to 33 percent of those with emotional disturbance or mental retardation. Young adults with mental retardation or emotional disturbances were more likely to have been engaged only in paid employment (33 percent, each) than were those with visual impairments (10 percent, $p < .001$ for both comparisons), orthopedic impairments (11 percent, $p < .001$ for both comparisons), traumatic brain injuries (13 percent, $p < .001$ for comparison with mental retardation and $p < .01$ for comparison with emotional disturbance), deaf-blindness (15 percent, $p < .01$ for both comparisons), autism (15 percent, $p < .01$ for comparison with mental retardation and $p < .01$ for comparison with emotional disturbance), hearing impairments (16 percent, $p < .01$ for both comparisons), or speech/language impairments (19 percent, $p < .01$ for both comparisons).
- The percentage of young adults with disabilities reported to have been engaged only in postsecondary education ranged from 7 percent of young adults with mental retardation to 20 percent of those with orthopedic impairments. Young adults with orthopedic impairments were more likely to have been engaged in postsecondary attendance only than were those with mental retardation (20 percent vs. 7 percent, $p < .01$).
- The percentage of young adults with disabilities reported to have been engaged in a combination of paid employment, postsecondary education, and job training since

leaving high school ranged from 5 percent of young adults with multiple disabilities to 19 percent of those with hearing impairments. Young adults with hearing impairments were more likely to be engaged in the combination of these activities (19 percent) than were those with multiple disabilities (5 percent, *p* < .01) or speech/language impairments (6 percent, *p* < .01).

- Engagement in a combination of paid employment and job training ranged from 2 percent of young adults with visual impairments to 10 percent of those with multiple disabilities. Engagement in the combination of these activities did not differ significantly by disability category.
- The percentage of young adults with disabilities reported to have been engaged in a combination of postsecondary education and job training since leaving high school ranged from less than 1 percent of young adults with traumatic brain injuries to 7 percent of those with visual impairments. Engagement in the combination of these activities did not differ significantly by disability category.
- Two percent or fewer of young adults with disabilities in each disability category were reported to have been engaged only in job training since leaving high school. Engagement in the combination of these activities did not differ significantly by disability category.
- The percentage of young adults with disabilities reported to have not been engaged in paid employment, postsecondary education, or job training since leaving high school ranged from 10 percent of young adults with hearing impairments to 32 percent of those with multiple disabilities. Young adults with mental retardation were more likely to not be engaged in any of these activities than were those in several other disability categories (31 percent), including young adults with hearing impairments (10 percent, *p* < .001), learning disabilities (11 percent, *p* < .001), speech/language impairments (14 percent, *p* < .001), or other health impairments (14 percent, *p* < .001).
- Similarly, young adults with multiple disabilities (32 percent) or autism (31 percent) were more likely to not be engaged than were those in several other disability categories, including young adults with hearing impairments (10 percent, *p* < .001 for both comparisons), learning disabilities (11 percent, *p* < .001 for both comparisons), or other health impairments (14 percent, *p* < .01 for both comparisons).

Differences in Engagement in Education, Employment, or Training for Employment by High School-Leaving Characteristics

- Young adults with disabilities who completed high school were more likely than those who did not complete high school to have been engaged in a combination of paid employment and postsecondary education (34 percent vs. 12 percent, $p < .001$; table 12); in postsecondary education only (13 percent vs. 4 percent, $p < .01$); or in a combination of paid employment, postsecondary education, and job training (10 percent vs. 1 percent, $p < .001$).
- Young adults with disabilities who did not complete high school were more likely than those who did complete high school to have been engaged be in paid employment only (44 percent vs. 24 percent, $p < .01$) or to not be engaged at all (36 percent vs. 13 percent, $p < .001$).
- Engagement did not vary significantly by the number of years since leaving high school.

Table 12. Modes of engagement of young adults with disabilities, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 2 years	2 up to 4 years	4 up to 6 years
	Percent				
Employment only	23.5 (2.40)	43.8 (6.76)	23.6 (4.29)	28.0 (3.54)	23.7 (4.01)
Postsecondary education only	13.4 (1.93)	4.2 (2.73)	14.4 (3.55)	11.6 (2.52)	12.5 (3.12)
Employment and postsecondary education	33.8 (2.68)	11.5 (4.35)	26.2 (4.44)	32.8 (3.70)	32.4 (4.42)
Employment, postsecondary education, and job training	9.8 (1.69)	1.2 (1.48)	9.0 (2.89)	5.4 (1.78)	13.4 (3.21)
Employment and job training	3.2 (1.00)	2.1 (1.95)	1.9 (1.38)	3.5 (1.45)	3.1 (1.64)
Job training only	1.3 (0.64)	0.6 (1.05)	0.6 (0.78)	0.3 (0.43)	2.9 (1.58)
Postsecondary and job training	2.4 (0.87)	1.0 (1.36)	1.8 (1.34)	2.3 (1.18)	2.4 (1.44)
No engagement	12.6 (1.88)	35.5 (6.52)	22.6 (4.23)	16.1 (2.90)	9.7 (2.79)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 4,650 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Demographic Differences in Engagement in Education, Employment, or Training for Employment

- Family income differences were apparent in the rate of engagement in paid employment and postsecondary education. Young adults with disabilities from households with incomes of more than $50,000 were more likely to have been engaged in the combination of these activities (40 percent) than were those from households with incomes of $25,000 or less (24 percent, *p* < .01; table 13).
- Engagement did not vary significantly by race or ethnicity or gender.

Table 13. Modes of engagement of young adults with disabilities, by parents' household income and young adults' race/ethnicity and gender

	$25,000 or less	$25,001 to $50,000	More than $50,000	White	African American	Hispanic	Male	Female
	Percent							
Employment only	29.4 (4.35)	32.0 (4.87)	18.2 (3.06)	27.1 (2.82)	20.9 (4.91)	19.9 (6.35)	25.6 (2.86)	25.8 (3.87)
Postsecondary education only	8.6 (2.68)	14.7 (3.70)	13.4 (2.71)	11.6 (2.03)	8.7 (3.40)	24.2 (6.81)	11.1 (2.06)	14.7 (3.13)
Employment and postsecondary education	24.4 (4.10)	28.0 (4.69)	40.0 (3.89)	35.6 (3.03)	27.0 (5.36)	23.6 (6.76)	31.1 (3.03)	32.0 (4.13)
Employment, postsecondary education, and job training	7.8 (2.56)	5.4 (2.36)	12.6 (2.64)	7.9 (1.71)	11.3 (3.82)	12.2 (5.21)	9.3 (1.90)	8.1 (2.41)
Employment and job training	2.6 (1.52)	3.8 (2.00)	3.2 (1.40)	3.8 (1.21)	1.7 (1.56)	1.6 (2.00)	3.1 (1.14)	3.0 (1.51)
Job training only	3.4 (1.73)	0.1 (0.33)	0.3 (0.43)	0.3 (0.35)	4.9 (2.61)	0.6 (1.23)	1.6 (0.82)	0.7 (0.74)
Postsecondary and job training	2.0 (1.34)	2.9 (1.75)	1.9 (1.08)	1.5 (0.77)	3.2 (2.13)	2.5 (2.48)	2.3 (0.98)	2.2 (1.30)
No engagement	21.8 (3.94)	13.2 (3.54)	10.4 (2.42)	12.2 (2.07)	22.2 (5.02)	15.4 (5.74)	16.0 (2.40)	13.4 (3.01)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 4,650 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

5. Household Circumstances Key Findings

Financial and residential independence have been considered as two important indicators of adult status (Janus 2009). In addition, other identifiers of adulthood include marriage and parenting (Hogan and Astone 1986; Katz-Wise, Priess, and Hyde 2010; Modell 1989; Rindfuss 1991). This chapter describes the household circumstances of young adults with disabilities who had been out of high school up to 6 years. It focuses on the residential independence (rather than residential status), parenting and marriage status, and financial independence of young adults, and addresses the following questions:

- To what extent do young adults with disabilities achieve residential independence, become parents, get married, or use financial management tools?
- How do their experiences compare with those of their peers in the general population?
- How does residential independence, parenting and marriage status, and use of financial management tools vary by disability category and demographic characteristics?

This chapter presents findings related to the household circumstances of young adults with disabilities as a group as well as differences between young adults who differ in their disability category and demographic characteristics that are significantly different at least at the $p < .01$ level.

Residential Independence

Regarding the residential independence of young adults with disabilities who were out-of secondary school at the time of the interview:[28]

- Thirty-six percent were reported to be living independently at the time of the interview (figure 12). Young adults were considered to be living independently if they were living alone or with a spouse, partner, or roommate.
- Three percent were reported to be living semi-independently. Young adults are considered to be living semi-independently if they were living in a college dormitory, military housing, or a group home.[29]
- Young adults with disabilities were less likely to be living independently than were their same-age peers in the general population, of whom 44 percent were reported to be living independently at the time of the interview ($p < .01$).

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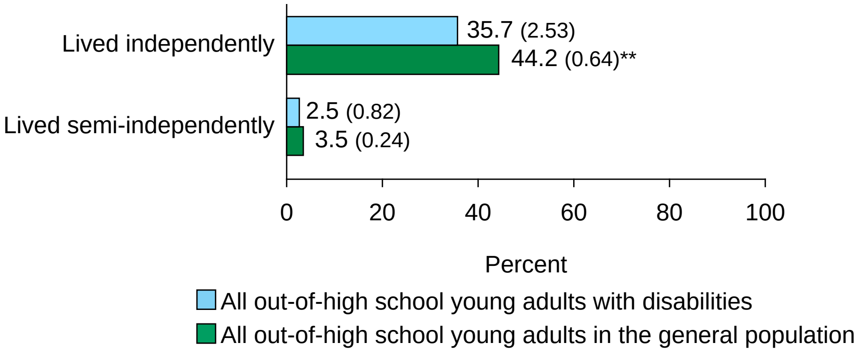
[28] Respondents were asked where youth had lived in the past 2 years and where youth lived “now.” A variable measuring the degree of residential independence since high school was derived from three items: if the young adult had lived independently or semi-independently in the past 2 years, was currently living independently or semi-independently, and when he or she had left school.

[29] This section has focused on young adults who lived independently or semi-independently at the time of the interview. Young adults not included in figure 9 are those who lived with a parent or family member or guardian (62 percent at the time of the interview), in an institution (1 percent at the time of the interview), or in a group home (1 percent at the time of the interview).

Figure 12. Residential independence of young adults with disabilities and young adults in the general population at the time of the interview



*** $p < .01$ for difference between young adults with disabilities and young adults in the general population.

NOTE: Standard errors are in parentheses. Findings are reported for young adults out of high school up to 6 years**.** NLTS2 percentages are weighted population estimates based on a sample of approximately 4,520 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97) 2001 youth survey, responses for 19- to 23-year-olds.

Disability Differences in Residential Independence

- Young adults with learning disabilities were more likely to be living independently at the time of the interview (41 percent) than were those with multiple disabilities (11 percent, $p < .001$; table 14), autism (12 percent, $p < .001$), deaf-blindness (14 percent, $p < .001$), orthopedic impairments (14 percent, $p < .001$), or mental retardation (21 percent, $p < .001$).
- Young adults with emotional disturbances were more likely to be living independently at the time of the interview (34 percent) than were those with multiple disabilities (11 percent, $p < .001$), autism (12 percent, $p < .001$), deaf-blindness (14 percent, $p < .001$), or orthopedic impairments (14 percent, $p < .001$).
- Similarly, young adults with other health impairments (31 percent) or speech/language impairments (30 percent) were more likely to be living independently than were those with multiple disabilities (11 percent, $p < .001$ for both comparisons), autism (12 percent, $p < .001$ for both comparisons), orthopedic impairments (14 percent, $p < .001$ for both comparisons), or deaf-blindness (14 percent, $p < .01$ for both comparisons).
- In addition, young adults with visual impairments were more likely to be living independently at the time of the interview (31 percent) than were those with multiple disabilities (11 percent, $p < .01$), autism (12 percent, $p < .01$), or orthopedic impairments (14 percent, $p < .01$).
- Young adults in with hearing impairments (29 percent) were more likely to have been living independently at the time of the interview than were those with multiple disabilities (11 percent, $p < .01$) or autism (12 percent, $p < .01$).

Table 14. Residential independence of young adults with disabilities at the time of the interview, by disability category

	Learning disability	Speech/ language impairment	Mental retardation	Emotional disturbance	Hearing impairment	Visual impairment	Orthopedic impairment	Other health impairment	Autism	Traumatic brain injury	Multiple disabilities	Deaf-blindness
	Percent											
Lived independently	40.6 (3.91)	30.4 (3.60)	21.2 (3.32)	34.4 (4.17)	28.5 (4.60)	31.3 (5.35)	14.0 (3.26)	30.8 (3.86)	11.8 (3.40)	24.8 (6.52)	10.6 (3.50)	13.7 (4.70)
Lived semi-independently	2.9 (1.34)	4.6 (1.64)	0.2 (0.36)	1.3 (0.99)	5.6 (2.34)	3.9 (2.23)	1.6 (1.18)	4.5 (1.73)	1.4 (1.24)	2.6 (2.40)	0.6 (0.88)	3.2 (2.41)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 4,640 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Differences in Residential Independence by High School-Leaving Characteristics

- Young adults who had been out of high school 4 to 6 years were more likely to live independently (47 percent) than were those who had been out of high school less than 2 years (21 percent, *p* < .001; table 15).
- Residential independence did not differ significantly by high school-leaving status.

Table 15. Residential independence of young adults with disabilities, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 2 years	2 up to 4 years	4 up to 6 years
	Percent				
Lived independently	35.0 (2.71)	41.9 (6.74)	21.0 (4.12)	33.5 (3.72)	46.6 (4.71)
Lived semi-independently	3.0 (0.94)	0.0 (0.00)	4.0 (1.98)	3.5 (1.45)	0.5 (0.67)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 4,640 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Demographic Differences in Residential Independence

- Race or ethnicity differences were apparent in the residential independence of young adults with disabilities. Young adults who were White were more likely to live independently (39 percent) than were those who were African American (21 percent, *p* < .01; table 16).
- Residential independence did not differ significantly by parents' household income; or young adults' gender.

Table 16. Residential independence of young adults with disabilities, by parents' household income and young adults' race/ethnicity and gender

	$25,000 or less	$25,001 to $50,000	More than $50,000	White	African American	Hispanic	Male	Female
	Percent							
Lived independently	31.0 (4.42)	41.7 (5.16)	34.6 (3.78)	38.6 (3.09)	21.1 (4.93)	38.2 (7.73)	33.8 (3.10)	39.0 (4.32)
Lived semi-independently	0.4 (0.60)	4.4 (2.14)	2.9 (1.33)	2.9 (1.06)	2.8 (1.99)	0.3 (0.87)	3.1 (1.14)	1.5 (1.08)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 4,640 young adults with disabilities.

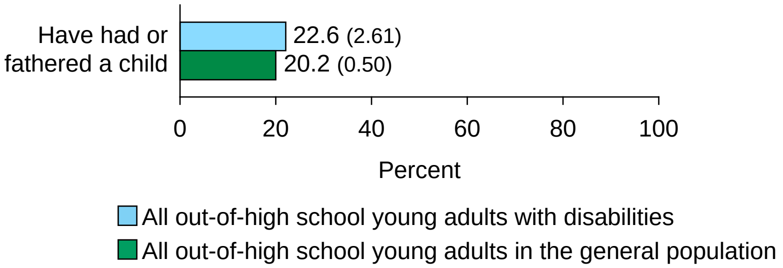
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Parenting Status

Regarding the parenting status of young adults with disabilities who were out of secondary school at the time of the interview:

- Twenty-three percent were reported to have ever had or fathered a child (figure 13).[30]
- Young adults with disabilities were just as likely to have ever had or fathered a child as were their same-age peers in the general population, of whom 20 percent reported to have done so since leaving high school.[31]

Figure 13. Parenting status of young adults with disabilities and young adults in the general population



NOTE: Standard errors are in parentheses. Findings are reported for young adults out of high school up to 6 years**.** NLTS2 percentages are weighted population estimates based on a sample of approximately 3,470 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97) 2001 youth survey, responses for 19- to 23-year-olds.

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[30] Respondents were asked, "Have you [Has youth] ever had or fathered any children?"

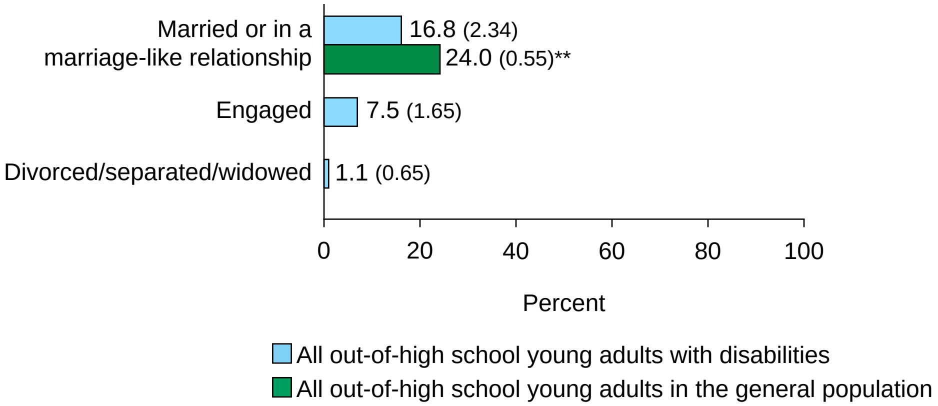
[31] Calculated from the National Longitudinal Survey of Youth (NLSY), 2001, for out-of-high school 19- to 23-year-olds.

Marital Status

Regarding the marital status of young adults with disabilities who were out of secondary school at the time of the interview:

- Seventeen percent were reported to have been married or living in a marriage-like relationship within 6 years of leaving high school (figure 14).[32]
- Young adults with disabilities were less likely to be married or living in a marriage-like relationship than were their same-age peers in the general population, of whom 24 percent reported to have been married or living in a marriage-like relationship within 6 years of leaving high school ($p < .01$).[33]

Figure 14. Marital status of young adults with disabilities and young adults in the general population at the time of the interview



** $p < .01$ for difference between young adults with disabilities and young adults in the general population.

NOTE: Standard errors are in parentheses. Findings are reported for young adults out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 3,520 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97) 2001 youth survey, responses for 19- to 23-year-olds.

Disability Differences in Parenting and Marriage

- Young adults with learning disabilities or emotional disturbances were more likely to have ever had or fathered a child (26 percent, each) than were those with deaf-blindness (1 percent, $p < .001$ for both comparisons; table 17), autism (3 percent, $p < .001$ for both comparisons), multiple disabilities (3 percent, $p < .001$ for both comparisons), orthopedic impairments (4 percent, $p < .001$ for both comparisons), visual impairments (8 percent, $p < .01$ for both comparisons), or speech/language impairments (11 percent, $p < .01$ for both comparisons).

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[32] Respondents were asked, “Are you [Is youth] engaged, single, never married, married, in a marriage-like relationship, divorced, separated, or widowed?”

[33] Calculated from the National Longitudinal Survey of Youth (NLSY), 2001, for out-of-high school 19- to 23-year-olds. Engaged and divorced/separated/widowed were not available in NLSY.

- Similarly, young adults with mental retardation or other health impairments were also more likely to have ever had or fathered a child (18 percent, each) than were those with deaf-blindness (1 percent, $p < .001$ for both comparisons), autism (3 percent, $p < .001$ for both comparisons), multiple disabilities (3 percent, $p < .001$ for comparison with mental retardation and $p < .01$ for comparison with other health impairments), or orthopedic impairments (4 percent, $p < .001$ for comparison with mental retardation and $p < .01$ for comparison with other health impairments).
- Young adults with learning disabilities or other health impairments were more likely to be married or living in a marriage-like relationship (19 percent and 17 percent, respectively) than were those with autism (2 percent, $p < .001$ for both comparisons), multiple disabilities (2 percent, $p < .001$ for both comparisons), deaf-blindness (4 percent, $p < .01$ for both comparisons), or orthopedic impairments (4 percent, $p < .001$ for comparison with learning disabilities and $p < .01$ for comparison with other health impairments).
- Similarly, young adults with speech/language impairments were more likely to be married or living in a marriage-like relationship (15 percent) than were those with autism (2 percent, $p < .001$), multiple disabilities (2 percent, $p < .01$), or orthopedic impairments (4 percent, $p < .01$).
- In addition, young adults with emotional disturbances were more likely to be married or living in a marriage-like relationship (14 percent) than were those with autism (2 percent, $p < .01$) or multiple disabilities (2 percent, $p < .01$).

Table 17. Parenting and marital status of young adults, by disability category

Parenting and marital status	Learning disability	Speech/ language impairment	Mental retardation	Emotional disturbance	Hearing impairment	Visual impairment	Orthopedic impairment	Other health impairment	Autism	Traumatic brain injury	Multiple disabilities	Deaf-blindness
	Percent											
Ever had or fathered a child	25.7 (4.21)	11.4 (2.96)	18.0 (3.66)	25.6 (4.57)	11.2 (4.05)	7.8 (3.42)	4.0 (2.07)	17.5 (3.76)	2.9 (1.96)	10.9 (5.44)	3.4 (2.42)	1.4 (1.84)
Married or living in a marriage-like relationship	19.3 (3.84)	15.2 (3.34)	12.2 (3.08)	13.7 (3.60)	11.0 (3.90)	13.5 (4.41)	4.2 (2.10)	16.9 (3.70)	2.4 (1.73)	14.7 (6.18)	2.4 (2.05)	4.0 (2.97)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on samples of approximately 3,480 young adults with disabilities for having or fathering a child to 3,520 young adults with disabilities for marital status.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Differences in Parenting and Marriage by High School-Leaving Characteristics

- Parenting and marital status did not differ significantly by school-leaving status or by the number of years since leaving high school (table 18).

Table 18. Parenting and marital status of young adults with disabilities, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 2 years	2 up to 4 years	4 up to 6 years
	Percent				
Parenting and marital status					
Ever had or fathered a child	21.6 (2.69)	39.5 (9.04)	14.9 (4.09)	21.4 (3.87)	28.8 (5.15)
Married or living in a marriage-like relationship	17.9 (2.51)	9.4 (5.40)	12.8 (3.84)	14.8 (3.34)	21.8 (4.76)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years.NLTS2 percentages are weighted population estimates based on samples of approximately 3,480 young adults with disabilities for having or fathering a child to 3,520 young adults with disabilities for marital status.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Demographic Differences in Parenting and Marriage

- Family income differences were apparent in the parenting status of young adults with disabilities. Young adults from households with incomes of between $25,001 and $50,000 were more likely to have ever had or fathered a child (31 percent) than were those from households with incomes of more than $50,000 (13 percent, *p* < .01; table 19).

Table 19. Parenting and marital status of young adults with disabilities, by parents' household income and young adults' race/ethnicity and gender

	$25,000 or less	$25,001 to $50,000	More than $50,000	White	African American	Hispanic	Male	Female
	Percent							
Parenting and marital status								
Ever had or fathered a child	26.9 (4.83)	30.8 (5.86)	13.0 (3.14)	20.1 (3.05)	32.7 (6.21)	22.5 (7.95)	15.0 (2.78)	35.3 (4.97)
Married or living in a marriage-like relationship	16.7 (4.10)	20.8 (5.14)	14.3 (3.27)	20.3 (3.06)	10.5 (4.11)	9.0 (5.47)	16.0 (2.87)	18.0 (3.99)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on samples of approximately 3,480 young adults with disabilities for having or fathering a child to 3,520 young adults with disabilities for marital status.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

- Gender differences were apparent in the parenting status of young adults with disabilities, as well. Females were more likely to have ever had a child (35 percent) than were males to have fathered a child (15 percent, *p* < .001).

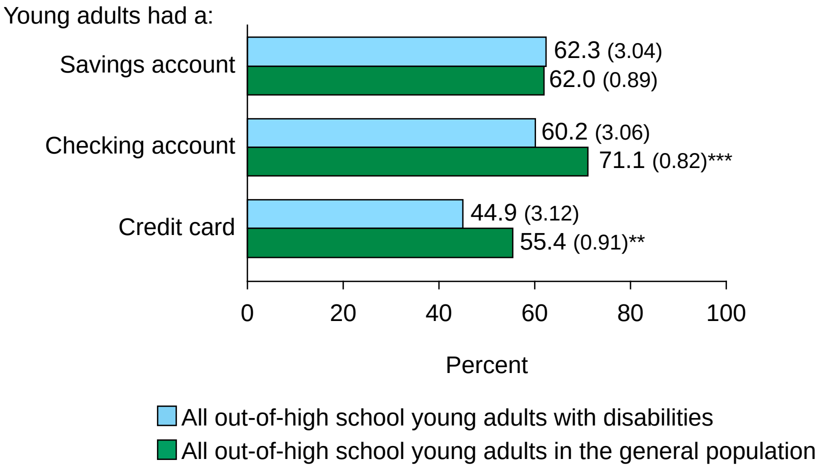
- Parenting status did not differ significantly by race or ethnicity.
- Marital status did not differ significantly by family income, race or ethnicity, or gender.

Financial Independence

Regarding the financial independence of young adults with disabilities who were out of secondary school at the time of the interview:

- Sixty-two percent of young adults with disabilities were reported to have a savings account, 60 percent a checking account and 45 percent a credit card in his or her name, at the time of the interview (figure 15).[34]
- Young adults with disabilities were less likely to have a checking account or credit card than were their same-age peers in the general population, of whom 71 percent and 55 percent, respectively, reported to have achieved this level of financial independence.

Figure 15. Financial management tools used by young adults with disabilities and young adults in the general population at the time of the interview



***p* < .01; ****p* < .001 for difference between young adults with disabilities and young adults in the general population.

NOTE: Standard errors are in parentheses. Findings are reported for young adults out of high school up to 6 years**.** NLTS2 percentages are weighted population estimates based on a sample of approximately 3,510 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007; National Institutes of Health, National Institute of Child Health and Human Development (NICHD), The National Longitudinal Study of Adolescent Health (Add Health), Wave 3, 2001–02, responses calculated for 19- to 23-year-olds.

Disability Differences in Financial Independence

- Young adults in several disability categories were more likely to have a savings account at the time of the interview than were those with mental retardation (45 percent; table 20), including young adults with learning disabilities (67 percent, *p* < .001), speech/language impairments (66 percent, *p* < .001), other health impairments (66 percent, *p* < .001), or hearing impairments (65 percent, *p* < .01).

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[34] Respondents were asked, "Do you have [a savings account], [a checking account where you write checks], and [a credit card or charge account in your own name]?"

Table 20. Financial independence of young adults at the time of the interview, by disability category

Financial independence	Learning disability	Speech/ language impairment	Mental retardation	Emotional disturbance	Hearing impairment	Visual impairment	Orthopedic impairment	Other health impairment	Autism	Traumatic brain injury	Multiple disabilities	Deaf-blindness
	Percent											
Young adults had a:												
Savings account	67.0 (4.60)	65.7 (4.42)	44.5 (4.68)	54.5 (5.21)	64.9 (6.01)	63.0 (6.20)	59.1 (5.19)	65.5 (4.67)	61.8 (5.47)	54.4 (8.64)	54.3 (6.66)	51.3 (7.70)
Checking account	67.7 (4.57)	63.4 (4.49)	32.6 (4.42)	50.1 (5.20)	68.5 (5.80)	70.3 (5.86)	58.8 (5.18)	63.8 (4.73)	49.6 (5.60)	47.4 (8.38)	37.9 (6.40)	47.3 (7.63)
Credit card	53.7 (4.88)	42.0 (4.59)	19.4 (3.76)	32.1 (4.87)	46.1 (6.27)	48.9 (6.43)	43.8 (5.22)	41.5 (4.84)	21.1 (4.58)	34.3 (8.24)	24.2 (5.73)	19.4 (6.04)
Young adults' annual income:												
$25,000 or less	82.2 (3.86)	85.6 (3.43)	87.0 (3.50)	85.7 (3.75)	84.1 (4.83)	88.6 (4.30)	94.4 (2.74)	84.7 (3.69)	91.3 (3.40)	95.2 (3.55)	87.7 (4.90)	98.4 (2.11)
$25,001 to $50,000	15.7 (3.67)	13.1 (3.30)	11.0 (3.25)	12.3 (3.51)	15.5 (4.78)	5.0 (2.95)	4.5 (2.47)	13.9 (3.55)	6.5 (2.97)	3.1 (2.88)	10.5 (4.57)	0.0 (0.00)
More than $50,000	2.1 (1.45)	1.3 (1.11)	2.0 (1.46)	2.0 (1.50)	0.4 (0.83)	6.4 (3.31)	1.1 (1.24)	1.4 (1.11)	2.2 (1.77)	1.7 (2.15)	1.7 (1.93)	1.6 (2.11)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on samples of approximately 3,520 young adults with disabilities for financial management tools and 3,130 young adults with disabilities for annual income.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

- Young adults in several disability categories were more likely to have a checking account at the time of the interview than were those with mental retardation (33 percent), including young adults with visual impairments (70 percent, $p < .001$), hearing impairments (69 percent, $p < .001$), learning disabilities (68 percent, $p < .001$), other health impairments (64 percent, $p < .001$), speech/language impairments (63 percent, $p < .001$), or orthopedic impairments (59 percent, $p < .001$).
- Similarly, young adults in several disability categories were more likely to have a checking account at the time of the interview than were those with multiple disabilities (38 percent), including young adults with visual impairments (70 percent, $p < .001$) hearing impairments (69 percent, $p < .001$), learning disabilities (68 percent, $p < .001$), other health impairments (64 percent, $p < .01$), or speech/language impairments (63 percent, $p < .01$).
- In addition, young adults with visual impairments were more likely to have a checking account at the time of the interview (70 percent) than were those with emotional disturbances (50 percent, $p < .01$).
- Young adults with learning disabilities were more likely to have a credit card in their name (54 percent) than were those with mental retardation (19 percent, $p < .001$), deaf-blindness (19 percent, $p < .001$), autism (21 percent, $p < .001$), multiple disabilities (24 percent, $p < .001$), or emotional disturbances (32 percent, $p < .001$).
- Young adults in several disability categories were more likely to have a credit card than were those with mental retardation (19 percent), deaf-blindness (19 percent), or autism (21 percent), including young adults with learning disabilities (54 percent, $p < .001$ for

all comparisons), visual impairments (49 percent, $p < .001$ for all comparisons), hearing impairments (46 percent, $p < .001$ for comparison with mental retardation and $p < .01$ for comparison with deaf-blindness and autism), orthopedic impairments (44 percent, $p < .001$ for comparison with mental retardation and $p < .01$ for comparison with deaf-blindness and autism), speech/language impairments (42 percent, $p < .001$ for comparison with mental retardation and $p < .01$ for comparison with deaf-blindness and autism), or other health impairments (42 percent, $p < .001$ for comparison with mental retardation and $p < .01$ for comparison with deaf-blindness and autism).

- Eighty-four percent of young adults with disabilities were reported to have annual incomes of $25,000 or less.
- Young adults with deaf-blindness were more likely to have a reported annual income of $25,000 or less (98 percent) than were those with learning disabilities (82 percent, $p < .001$), hearing impairments (84 percent, $p < .01$), other health impairments (85 percent, $p < .01$), speech/language impairments (86 percent, $p < .01$), emotional disturbances (86 percent, $p < .01$), or mental retardation (87 percent, $p < .01$).
- In addition, young adults with orthopedic impairments were more likely to have a reported income of $25,000 or less (94 percent) than were those with learning disabilities (82 percent, $p < .01$).

Differences in Financial Independence by High School-Leaving Characteristics

- High school completers were more likely to have a savings or checking account (66 percent for both) than were their peers who did not complete high school (25 percent and 20 percent, respectively, $p < .001$ for both comparisons; table 21).

Table 21. Financial independence of young adults with disabilities at the time of the interview, by secondary-school-leaving status and years since leaving high school

Financial independence	Completers	Non-completers	Less than 2 years	2 up to 4 years	4 up to 6 years
	Percent				
Young adults had a:					
Savings account	66.3 (3.14)	24.6 (8.05)	63.5 (5.55)	65.2 (4.50)	57.6 (5.69)
Checking account	65.5 (3.17)	19.7 (7.42)	55.3 (5.70)	63.8 (4.52)	58.6 (5.69)
Credit card	48.1 (3.30)	23.2 (7.89)	38.4 (5.63)	40.2 (4.63)	55.2 (5.72)
Young adults' reported annual income:					
$25,000 or less	82.8 (2.59)	88.7 (6.11)	92.2 (3.32)	81.9 (3.76)	81.2 (4.77)
$25,001 to $50,000	14.5 (2.45)	11.2 (6.09)	6.1 (2.96)	17.0 (3.67)	15.4 (4.41)
More than $50,000	2.2 (1.02)	0.1 (0.61)	1.8 (1.65)	1.0 (0.97)	3.4 (2.21)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on samples of approximately 3,520 young adults with disabilities for financial management tools and 3,130 young adults with disabilities for annual income.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

- High school completers were more likely to have a credit card in their name (48 percent) than were those who did not complete high school (23 percent, *p* < .01).
- The annual incomes of young adults with disabilities did not differ significantly by school completion status or the number of years since leaving high school.

Demographic Differences in Financial Independence

- Family income differences were apparent in the financial independence of young adults with disabilities. Young adults from households with incomes of more than $50,000 were more likely to have a savings (71 percent) or checking account (73 percent), or a credit card (55 percent) than were those from households with incomes of $25,000 or less (49 percent, *p* < .01, 40 percent, *p* < .001, and 31 percent, *p* < .001, respectively; table 22).
- In addition, young adults from households with incomes of $25,001 to $50,000 were more likely to have a checking account (65 percent) than were those from households with incomes of $25,000 or less (40 percent, *p* < .01).
- White young adults with disabilities were more likely to have a checking account (69 percent) than were African American young adults with disabilities (41 percent, *p* < .001).
- Financial status did not differ significantly by gender.

Table 22. Financial independence of young adults with disabilities at the time of the interview, by parents' household income and young adults' race/ethnicity and gender

Financial independence	$25,000 or less	$25,001 to $50,000	More than $50,000	White	African American	Hispanic	Male	Female
	Percent							
Young adults had a:								
Savings account	49.0 (5.46)	64.9 (6.17)	70.9 (4.23)	65.2 (3.64)	53.1 (6.66)	58.0 (9.36)	65.2 (3.72)	57.2 (5.18)
Checking account	40.4 (5.36)	65.4 (6.11)	72.6 (4.15)	68.9 (3.52)	40.6 (6.59)	50.9 (9.49)	59.8 (3.83)	60.9 (5.09)
Credit card	31.4 (5.09)	45.7 (6.44)	54.7 (4.63)	45.9 (3.81)	36.0 (6.44)	50.9 (9.48)	45.8 (3.89)	43.4 (5.22)
Young adults' annual income:								
$25,000 or less	91.0 (3.44)	79.2 (5.40)	80.8 (3.77)	80.2 (3.17)	87.4 (4.72)	95.0 (4.37)	79.0 (3.30)	91.9 (3.07)
$25,001 to $50,000	7.7 (3.20)	18.1 (5.12)	17.1 (3.61)	17.2 (3.01)	12.0 (4.62)	4.2 (4.03)	19.1 (3.18)	6.0 (2.67)
More than $50,000	1.3 (1.36)	2.7 (2.16)	2.1 (1.37)	2.6 (1.27)	0.6 (1.10)	0.8 (1.79)	1.9 (1.11)	2.1 (1.61)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on samples of approximately 3,520 young adults with disabilities for financial management tools and 3,130 young adults with disabilities for annual income.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

6. Social and Community Involvement Key Findings

Living successfully in their communities has long been considered central to young adults with disabilities' quality of life (Halpern 1985). An important aspect of whether a young adult is living successfully in the community is the "adequacy of his or her social and interpersonal network [which]…is possibly the most important of all" aspects of adjustment for young adults with disabilities (Halpern 1985, p. 485).

This chapter describes the social and community involvement of young adults with disabilities who had been out of high school up to 6 years. It focuses on the friendship interactions, community participation, and involvement with the criminal justice system of these young adults and addresses the following questions:

- To what extent do young adults with disabilities interact with friends; participate in community groups, classes, or volunteer activities; or enter into the criminal justice system?
- How does their social and community involvement status compare with that of their peers in the general population?
- How does social and community involvement status differ for young adults in different disability categories and for those with different demographic characteristics?

This chapter presents findings related to the social and community involvement of young adults with disabilities as a group as well as differences between young adults who differ in their disability category and demographic characteristics. Because the items in this chapter refer to activities in the preceding 12 months (friendship interactions and community participation) or in the preceding 2 years (criminal justice system involvement) and the focus of this report is activities of young adults with disabilities after high school, findings are reported only for young adults who had been out of secondary school at least a year or at least 2 years, respectively, so as to avoid including secondary school experiences.

- Ninety-three percent of young adults included in this report have been out of high school 1 or more years.

Friendship Interactions

Unlike adolescence, which is a time for discovering who one is and what one's role in the world is, the primary developmental task for the young adult is the development of intimate relationships (Erikson 1974). Considerable research has documented the importance of personal relationships as "protective factors"[35] against a variety of adolescent risk behaviors. For example, results regarding factors associated with emotional health, youth violence, substance use, and sexuality from the National Longitudinal Study on Adolescent Health (Add Health), a comprehensive survey of adolescents, provide "consistent evidence that perceived caring and connectedness to others is important in understanding the health of young people today" (Resnick et al. 1997, p. 830). Connectedness with friends has been found to be associated with a variety of youth behaviors in either a prosocial or antisocial direction, depending on the nature of

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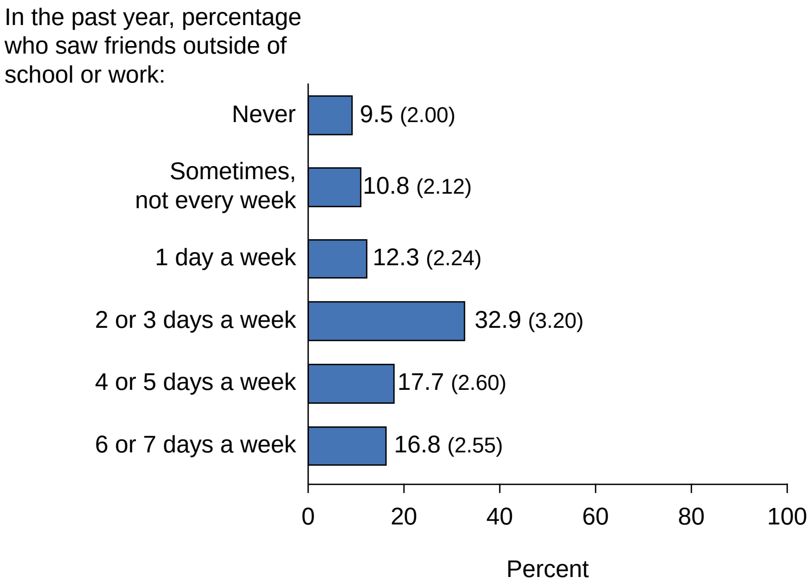
[35] Protective factors have been defined as "those aspects of the individual and his or her environment that buffer or moderate the effect of risk" (U.S. Department of Health and Human Services 2001, chapter 4, paragraph 1).

the friendships (e.g., Bearman and Moody 2004; Crosnoe and Needham 2004; Fraser 1997; Rodgers and Rose 2002; Smith et al. 1995).

- Eighty percent of young adults with disabilities who had been out of high school 1 to 6 years were reported to get together with friends informally at least once a week, compared with the 20 percent who never or only sometimes spent time with friends ($p < .001$; figure 16).[36]

Figure 16. Friendship interactions of young adults with disabilities



NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school 1 to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 2,930 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Disability Differences in Friendship Interactions

- Young adults with learning disabilities who had been out of secondary school up to 6 years were more likely to see friends informally at least weekly (85 percent, table 23) than were those with autism (48 percent, $p < .001$), multiple disabilities (58 percent, $p < .01$), mental retardation (62 percent, $p < .001$), or orthopedic impairments (68 percent, $p < .01$).
- Young adults with speech/language impairments (76 percent), emotional disturbances (79 percent), other health impairments (79 percent), and visual impairments (79 percent), were more likely see friends informally at least once a week than were those with autism (48 percent, $p < .001$).

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[36] Respondents were asked, “During the past 12 months, about how many days a week [did you/did *name of youth*] get together with friends (outside of school *if youth was in school*) and outside of organized activities or groups?”

Table 23. Friendship interactions of young adults, by disability category

Friendship interactions	Learning disability	Speech/ language impairment	Mental retardation	Emotional disturbance	Hearing impairment	Visual impairment	Orthopedic impairment	Other health impairment	Autism	Traumatic brain injury	Multiple disabilities	Deaf-blindness
	Percent											
In the past year, percentage who saw friends outside of school or work at least weekly	84.9 (3.78)	76.1 (4.28)	61.8 (5.06)	78.7 (4.80)	76.4 (5.91)	78.8 (5.73)	67.6 (5.22)	78.5 (4.32)	47.6 (6.51)	71.5 (8.35)	58.4 (7.61)	63.0 (8.13)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school 1 to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 2,930 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Differences in Friendship Interactions by High School-Leaving Characteristics

- Friendship interactions of young adults with disabilities did not differ significantly by school leaving status or the number of years since leaving high school (table 24).

Table 24. Friendship interactions of young adults with disabilities, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 2 years	2 up to 4 years	4 up to 6 years
	Percent				
In the past year, percentage who saw friends outside of school or work at least weekly	80.3 (2.86)	73.2 (9.21)	77.6 (6.07)	77.3 (4.06)	83.9 (4.55)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school 1 to 6 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 2,930 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 youth interview/survey, 2007.

Demographic Differences in Friendship Interactions

- Friendship interactions of young adults with disabilities did not differ significantly by household income, race or ethnicity, or gender (table 25).

Table 25. Friendship interactions of young adults with disabilities, by parents' household income and young adults' race/ethnicity and gender

	$25,000 or less	$25,001 to $50,000	More than $50,000	White	African American	Hispanic	Male	Female
	Percent							
In the past year, percentage who saw friends outside of school or work at least weekly	73.5 (5.31)	79.8 (5.75)	83.7 (3.63)	80.7 (3.28)	73.8 (6.19)	85.6 (7.53)	82.8 (3.22)	74.6 (4.93)

NOTE: Standard errors are in parentheses. Findings regarding friendships are reported for young adults with disabilities out of high school 1 to 6 years. NLTS2 percentages are weighted population estimates based on a sample of 2,930 young adults with disabilities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Community Participation

Engaging in activities in the community can provide opportunities for young adults to meet people with like interests, develop new skills, and experience the satisfaction of shared accomplishments and of making a contribution to the community. NLTS2 investigated three forms of community participation in the year preceding the Wave 4 interview/survey by young adults with disabilities:

- taking lessons or classes outside of formal school enrollment;[37]
- participating in a volunteer or community service activity;[38] and
- belonging to an organized community or extracurricular group.[39]
- Forty-one percent of young adults with disabilities who had been out of secondary school from 1 to 6 years were reported to have engaged in some kind of extracurricular activity in the preceding year (figure 17).

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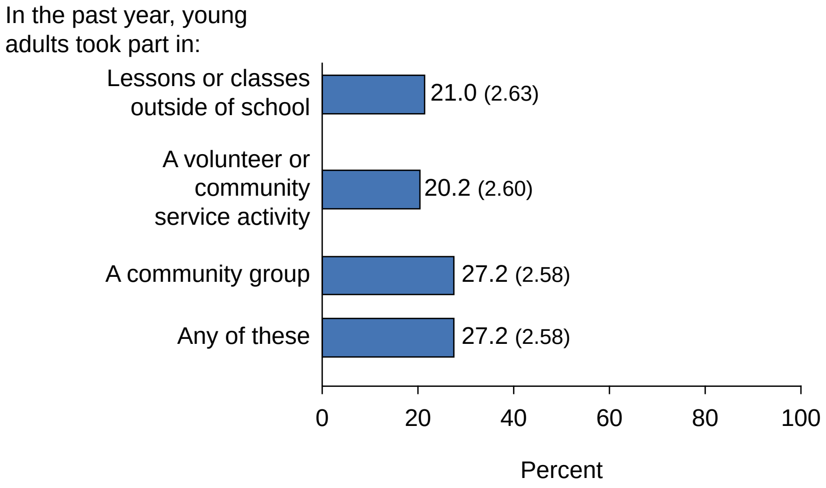
[37] Respondents were asked, "During the past 12 months [have you/has *name of youth*] taken lessons or classes (outside of school *for those in school*) in things like art, music, dance, a foreign language, religion, or computer skills?"

[38] Respondents were asked, "During the past 12 months [have you/has *name of youth*] done any volunteer or community service activities? This could include community service that is part of a school class or other group activity."

[39] Respondents were asked, if a youth was not enrolled in school, "During the past 12 months [have you/has *name of youth*] participated in any school activities outside of class, such as a sports team, band or chorus, a school club, or student government?" All respondents were asked, "During the past 12 months [have you/has *name of youth*] participated in any [out-of-high school, *for those in school*] group activity, such as scouting, church or temple youth group, or nonschool team sports like soccer or softball?"

- Twenty-one percent of young adults with disabilities took lessons or classes outside of school, 20 percent participated in volunteer or community service activities, and 27 percent participated in a community group.

Figure 17. Community participation of young adults with disabilities



NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school 1 to 6 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 3,240 to 3,790 young adults with disabilities across variables.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Disability Differences in Community Participation

- General community involvement of young adults with disabilities ranged from 10 percent to 43 percent for participation in at least one of the activities (table 26).
- Young adults with speech/language impairments were more likely to have participated in at least one of the community activities investigated in NLTS2 (56 percent) than were those with mental retardation and emotional disturbances (35 percent and 33 percent, respectively, $p < .001$ for both comparisons).
- Young adults with visual impairments were likely to have participated in out-of-school lessons or classes (43 percent) than were those with mental retardation (10 percent, $p < .001$), emotional disturbances (16 percent, $p < .001$), other health impairments (23 percent, $p < .01$), multiple disabilities (19 percent, $p < .01$) or learning disabilities (23 percent, $p < .01$).
- Young adults with speech/language impairments (36 percent), orthopedic impairments (31 percent), autism (27 percent), or visual impairments (43 percent), were more likely to have participated in out-of-school lessons or classes than were those with mental retardation (10 percent, $p < .001$ for comparison with speech/language impairments, orthopedic impairments and visual impairments; and $p < .01$ for comparison with autism).
- Young adults with deaf-blindness (43 percent), visual impairments (36 percent), hearing impairments (32 percent), speech/language impairments (31 percent), or orthopedic

impairments (31 percent) were more likely to have participated in volunteer or community services activities than were those with mental retardation (13 percent, $p < .01$ for all comparisons except deaf-blindness, where $p < .001$).

- Participation in community groups by disability category ranged from 21 percent to 42 percent. Young adults with visual impairments (41 percent) were more likely to have participated in community groups than were those with emotional disturbances (22 percent, $p < .01$).

Table 26. Community participation of young adults, by disability category

Community activities	Learning disability	Speech/ language impairment	Mental retardation	Emotional disturbance	Hearing impairment	Visual impairment	Orthopedic impairment	Other health impairment	Autism	Traumatic brain injury	Multiple disabilities	Deaf-blindness
	Percent											
In the past year, percentage who took part in:												
Lessons or classes outside of school	22.5 (4.16)	35.8 (4.59)	9.5 (2.87)	16.0 (4.0)	21.8 (5.33)	43.3 (6.61)	31.4 (4.99)	22.6 (4.23)	26.5 (5.43)	24.5 (7.68)	18.9 (5.65)	24.3 (6.71)
A volunteer or community service activity	19.2 (3.94)	30.8 (4.42)	13.4 (3.33)	21.4 (4.48)	31.8 (6.03)	36.0 (6.40)	31.1 (4.97)	24.1 (4.36)	30.1 (5.66)	30.1 (8.19)	30.6 (6.70)	43.1 (7.80)
A community group (e.g., sports team, hobby club, religious group)	26.5 (3.82)	36.5 (4.18)	28.0 (4.11)	22.1 (4.01)	33.9 (5.38)	41.2 (6.11)	28.4 (4.59)	32.8 (4.24)	29.4 (5.40)	21.1 (6.76)	34.0 (6.51)	42.1 (7.49)
Any of these	40.2 (4.25)	56.4 (4.31)	35.1 (4.37)	33.3 (4.55)	52.4 (5.64)	62.8 (6.00)	50.5 (5.09)	48.9 (4.51)	54.2 (5.90)	48.9 (8.28)	53.2 (6.84)	62.8 (7.34)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school 1 to 6 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately (3,240 to 3,790) young adults with disabilities across variables.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2007.

Differences in Community Participation by High School-Leaving Characteristics

- Young adults with disabilities who had completed high school were more likely to have participated in at least one of the community activities investigated by NLTS2 (43 percent, table 27) than were those who had not completed school (16 percent, $p < .001$).
- Young adults with disabilities who completed high school were more likely to have participated in out-of-school lessons or classes (22 percent) or community groups (29 percent) than were those who did not complete school (5 percent and 9 percent, respectively, $p < .001$ for both comparisons).
- Participation in at least one of the community activities or in volunteer or community service groups did not differ significantly by length of time since leaving high school.

Table 27. Community participation of young adults with disabilities, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 2 years	2 up to 4 years	4 up to 6 years
	Percent				
In the past year, percentage who took part in:					
Lessons or classes outside of school	22.4 (2.86)	5.2 (4.21)	25.4 (6.03)	16.5 (3.47)	24.8 (4.91)
A volunteer or community service activity	21.2 (2.80)	10.0 (5.69)	22.1 (5.76)	18.2 (3.62)	22.0 (4.72)
A community group (e.g., sports team, hobby club, religious group)	29.2 (2.83)	9.3 (4.44)	29.5 (6.02)	22.8 (3.49)	31.9 (4.70)
Any of these	43.3 (3.09)	16.3 (5.66)	43.9 (6.55)	35.9 (3.98)	45.4 (5.02)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school 1 to 6 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 3240 – 3800 young adults with disabilities across variables.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 youth interview/survey, 2007.

Demographic Differences in Community Participation

- Young adults with disabilities from households with an income of more than \$50,000 were more likely to have participated in at least one of the community activities investigated by NLTS2 (51 percent, table 28) than were those from households with an income of \$25,000 or less (30 percent, $p < .01$).
- Young adults with disabilities from households with an income of more than \$50,000 were more likely to have taken out-of-school lessons or classes (28 percent) than were those from households with an income of \$25,000 or less (11 percent, $p < .01$).
- White young adults were more likely to have participated in a community group (32 percent) than were Hispanic young adults (13 percent, $p < .01$).
- General participation in the community (i.e., participating in at least one of the community activities) did not differ significantly by race or ethnicity or gender.
- Participation in out-of-school lessons or classes did not differ significantly by race or ethnicity or gender.
- Participation in volunteer or community service groups did not differ significantly by household income, race or ethnicity, or gender.
- Participation in community groups did not differ significantly by household income or gender.

Table 28. Community participation of young adults with disabilities, by parents' household income and young adults' race/ethnicity and gender

	$25,000 or less	$25,001 to $50,000	More than $50,000	White	African American	Hispanic	Male	Female
	Percent							
In the past year, percentage who took part in:								
Lessons or classes outside of school	10.7 (3.54)	20.7 (5.33)	27.6 (4.28)	22.8 (3.30)	20.4 (5.48)	13.5 (6.94)	21.1 (3.30)	20.7 (4.36)
A volunteer or community service activity	17.2 (4.32)	14.7 (4.66)	27.3 (4.28)	21.9 (3.25)	13.6 (4.66)	24.1 (8.69)	21.4 (3.32)	18.2 (4.16)
A community group (e.g., sports team, hobby club, religious group)	21.6 (4.42)	24.9 (4.96)	32.7 (4.04)	31.9 (3.23)	22.6 (5.45)	12.6 (6.12)	28.0 (3.25)	25.7 (4.26)
Any of these	30.3 (4.93)	38.5 (5.59)	50.6 (4.31)	45.4 (3.45)	33.7 (6.15)	31.6 (8.57)	40.4 (3.55)	41.0 (4.8)

NOTE: Standard errors are in parentheses. Findings are reported for young adults with disabilities out of high school 1 to 6 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 3,160 to 3,800 young adults with disabilities across variables.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 youth interview/survey, 2007.

Criminal Justice System Involvement

Becoming involved with the criminal justice system is a negative aspect of community involvement that is more prevalent among young adults with disabilities than among young adults in the general population. A recent compendium of statistics on the prevalence of juvenile crime among young adults with disabilities indicates that youth with learning, cognitive, behavior, or emotional disabilities are entering the correctional system at rates four to five times those of youth[40] in the general population (Rutherford et al. 2002), and estimated 37 percent of youth in state juvenile corrections facilities are eligible for special education and related services under IDEA (Quinn et al. 2005). A variety of individual and social costs are associated with this criminal justice system involvement, including the disruption to youth's educational programs; 16 percent of youth in short-term youth detention facilities, 52 percent of those in long-term youth corrections facilities, and 71 percent of those in adult corrections facilities were not enrolled in any kind of educational program during their incarceration (Howell and Wolford 2002). Although these statistics are available regarding incarcerated youth with disabilities, less is known nationally about other kinds of criminal justice system involvement for this population or about the characteristics of those who become involved. NLTS2 is helping to fill this information gap by providing information on the percentages of young adults with disabilities who were reported to have

- been stopped by police for other than a traffic violation;[41]
- been arrested;[42]

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[40] Youth are those less than 18 years old.

[41] Respondents were asked, "In the past 2 years, [have you/has *name of youth*] been stopped and questioned by police except for a traffic violation?"

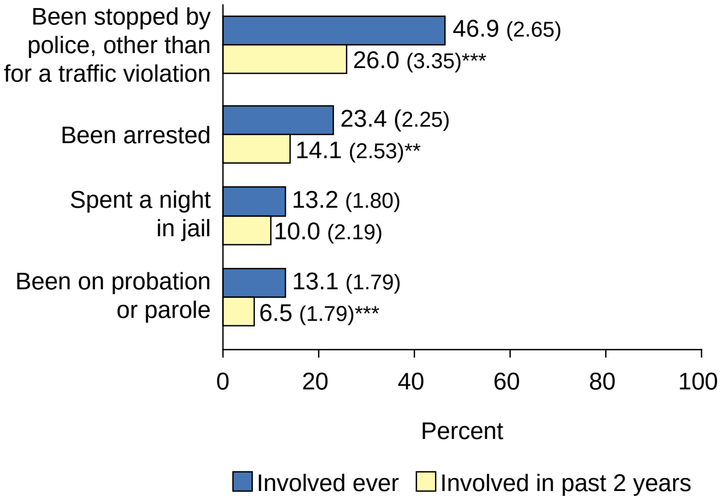
[42] Respondents were asked, "[Have you/has *name of youth*] been arrested at any time in the past 2 years?"

- spent a night in jail,[43] or
- been on probation or parole.[44]

Findings are reported for the full sample of young adults with disabilities regarding whether they had ever had each of these experiences.[45] To assess more recent involvement, respondents also were asked to report on these forms of criminal justice system involvement in the 2 years preceding Wave 4 data collection.

- At some time in their lives, 47 percent of young adults with disabilities were reported to have been stopped by police for other-than-a-traffic violation (figure 18); 26 percent were reported to have been stopped by police in the preceding 2 years.
- Twenty-three percent of young adults with disabilities reportedly had been arrested at some time, approximately twice the rate for youth in the general population (12 percent, $p < .001$).[46]
- The rate of arrest in the 2 years preceding the interview, for young adults with disabilities was 14 percent.
- Overall, 13 percent of young adults with disabilities had spent a night in jail, and 13 percent had been on probation or parole.
-

Figure 18. Criminal justice system involvement of young adults with disabilities



$^{**}p < .01$; $^{***}p < .001$ for difference between young adults with disabilities and young adults in the general population.

NOTE: Standard errors are in parentheses. Findings regarding involvement in the past 2 years are reported for young adults with disabilities out of high school from 2 to 6 years so as not to include high school experiences; other findings are for young adults with disabilities out of high school up to 6 years NLTS2 percentages are weighted population estimates based on samples that range from approximately 3,350 to 4,600 young adults with disabilities across variables.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 youth interview/survey, 2007.

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[43] Respondents were asked, “In the past 2 years, [have you/has *name of youth*] been in jail overnight?”

[44] Respondents were asked, “In the past 2 years, [have you/has *name of youth*] been on probation or parole?”

[45] Data on criminal justice system involvement in the preceding 2 years that were collected in Wave 4 were combined with reports of involvement in Waves 1, 2, and 3 to construct variables measuring whether youth had ever experienced each form of involvement.

[46] Calculated from the National Longitudinal Study of Adolescent Health (Add Health), Wave 3, 2001–02, for out-of-high school 19- to 23-year-olds.

Disability Differences in Criminal Justice System Involvement

- Involvement with the criminal justice system varied by disability category; in particular, students with emotional disturbances had the highest incidence of criminal justice involvement (table 29).
- Young adults with emotional disturbances were more likely ever to have been stopped by police for reasons other than a traffic violation (72 percent) than were young adults in all other disability categories (21 percent to 50 percent, $p < .001$ for all comparisons with emotional disturbances).
- Young adults with emotional disturbances were more likely to have been stopped by police for reasons other than a traffic violation in the past 2 years (50 percent) than were young adults in all other disability categories except traumatic brain injury (6 percent to 25 percent, $p < .001$ for all comparisons except $p < .01$ for young adults with learning disabilities).
- Young adults with emotional disturbances were more likely ever to have been arrested (49 percent) than were young adults in all other disability categories (8 percent to 23 percent, $p < .001$ for all comparisons with young adults with disabilities).
- Young adults with emotional disturbances were more likely to have been arrested in the preceding 2 years (22 percent) than were those with speech/language impairments (6 percent, $p < .01$), hearing impairments (7 percent, $p < .01$), visual impairments (5 percent, $p < .01$), multiple disabilities (5 percent, $p < .01$), orthopedic impairments (4 percent, $p < .001$), or autism (3 percent, $p < .001$).
- Young adults with emotional disturbances were more likely ever to have been in jail overnight (32 percent) than were young adults in all other disability categories (2 percent to 13 percent, $p < .001$ for all comparisons with emotional disturbances, except $p < .01$ for traumatic brain injury).
- Young adults with emotional disturbances were more likely to have spent the night in jail in the preceding 2 years (18 percent) than were those in several disability categories, including young adults with autism (1 percent, $p < .001$), multiple disabilities (2 percent, $p < .01$), orthopedic impairments (2 percent, $p < .01$), hearing impairments (3 percent, $p < .01$), or speech/language impairments (5 percent, $p < .01$).
- Young adults with emotional disturbances were more likely ever to have been on probation or parole (34 percent) than were young adults in all other disability categories except traumatic injury (1 percent to 12 percent, $p < .001$ for all comparisons with emotional disturbances).
- Young adults with other health impairments or learning disabilities were more likely ever to have been stopped by police for reasons other than a traffic violation (50 percent and 47 percent, respectively) than were young adults with deaf-blindness (21 percent, $p < .001$ for both comparisons), orthopedic impairments (22 percent, $p < .001$ for both comparisons), multiple disabilities (22 percent, $p < .001$ for both comparisons), autism (23 percent, $p < .001$ for both comparisons), visual impairments (28 percent, $p < .001$ for comparison with other health impairment and $p < .01$ for comparison with learning disabilities), hearing impairments (30 percent, $p < .01$ for both comparisons), or mental retardation (31 percent, $p < .001$ for comparison with other health impairments and $p < .01$ for comparison with learning disabilities).

- Young adults with other health impairments (23 percent), learning disabilities (25 percent), speech/language impairments (23 percent), or mental retardation (23 percent) were more likely to have been stopped by the police for reasons other than a traffic violation in the past 2 years than were those with autism (7 percent, $p < .01$ for all comparisons.
- Young adults with other health impairments or learning disabilities were more likely to ever have been arrested (22 percent, each) than were young adults in several other disability categories, including those with autism (6 percent, $p < .001$ for both comparisons), orthopedic impairments (8 percent, $p < .001$ for both comparisons), visual impairments (8 percent, $p < .01$ for both comparisons), multiple disabilities (8 percent, $p < .01$ for both comparisons), or hearing impairments (10 percent, $p < .01$ for both comparisons).
- Young adults with learning disabilities (15 percent, $p < .01$) were more likely to have been arrested in the past 2 years than those with autism (3 percent).
- Young adults with other health impairments or learning disabilities were more likely ever to have been in jail overnight (13 percent and 12 percent, respectively) than were those with multiple disabilities (2 percent, $p < .01$ for both comparisons); autism 2 percent, $p < .01$ for both comparisons), deaf-blindness (3 percent, $p < .01$ for both comparisons), or orthopedic impairments (3 percent, $p < .01$ for both comparisons).
- Young adults with other health impairments or learning disabilities were more likely ever to have been on probation or parole (12 percent, each) than were young adults with deaf-blindness (1 percent, $p < .001$ for both comparisons); autism (2 percent, $p < .01$ for both comparisons), visual impairments (3 percent, $p < .01$ for both comparisons), hearing impairments (3 percent, $p < .01$ for both comparisons), or orthopedic impairments (4 percent, $p < .01$ for both comparisons).
- Young adults with traumatic brain injuries, were more likely ever to have been on probation or parole (19 percent) than were those with deaf-blindness (1 percent, $p < .01$), autism, (2 percent, $p < .01$), or visual impairments (3 percent $p < .01$).

Table 29. Criminal justice system involvement of young adults, by disability category

Criminal justice system involvement	Learning disability	Speech/ language impairment	Mental retardation	Emotional disturbance	Hearing impairment	Visual impairment	Orthopedic impairment	Other health impairment	Autism	Traumatic brain injury	Multiple disabilities	Deaf-blindness
	Percent											
Stopped by police other than for a traffic violation												
Ever	47.3	38.8	31.0	71.6	30.4	27.8	21.6	50.0	22.5	42.8	22.1	20.8
	(4.00)	(3.84)	(3.79)	(3.99)	(4.71)	(5.17)	(3.88)	(4.18)	(4.40)	(7.51)	(4.78)	(5.65)
In past 2 years	24.5	22.6	22.5	50.3	13.3	14.7	8.7	22.7	6.8	24.4	17.6	4.0
	(5.03)	(4.81)	(4.81)	(6.42)	(5.04)	(5.53)	(3.28)	(4.78)	(3.53)	(9.15)	(7.02)	(3.73)
Arrested												
Ever	22.3	16.5	12.5	49.4	10.3	7.9	7.5	22.4	6.2	23.2	8.1	10.5
	(3.34)	(2.92)	(2.71)	(4.41)	(3.12)	(3.12)	(2.48)	(3.49)	(2.54)	(6.41)	(3.14)	(4.27)
In past 2 years	15.2	6.4	8.4	22.3	6.5	4.5	3.8	11.7	2.5	17.8	5.1	0.0
	(3.98)	(2.70)	(3.08)	(4.87)	(3.56)	(3.13)	(2.19)	(3.56)	(2.31)	(7.55)	(4.01)	(0.00)
Spent a night in jail												
Ever	11.7	6.8	9.5	31.7	5.0	6.7	2.6	12.8	2.4	12.8	2.2	2.5
	(2.58)	(1.98)	(2.40)	(4.11)	(2.23)	(2.89)	(1.50)	(2.79)	(1.61)	(5.07)	(1.69)	(2.17)
In past 2 years	10.7	4.5	5.8	17.5	2.9	4.2	2.1	7.3	1.2	15.5	1.8	0.0‡
	(3.43)	(2.29)	(2.61)	(4.46)	(2.44)	(3.04)	(1.66)	(2.88)	(1.62)	(7.14)	(2.42)	(0.00)
Been on probation or parole												
Ever	11.8	6.3	5.2	34.0	3.0	2.9	3.6	12.4	2.2	19.2	5.0	1.1
	(2.59)	(1.91)	(1.82)	(4.18)	(1.75)	(1.94)	(1.76)	(2.76)	(1.55)	(5.98)	(2.51)	(1.45)
In past 2 years	6.6	2.8	3.6	13.2	0.6	1.1	0.7	4.5	0.8	14.1	3.1	0.0‡
	(2.75)	(1.83)	(2.07)	(3.98)	(1.08)	(1.54)	(0.94)	(2.30)	(1.28)	(6.86)	(3.15)	(0.00)

‡ Responses for items with fewer than 30 respondents are not reported.

NOTE: Standard errors are in parentheses. Findings regarding involvement in the past 2 years are reported for young adults with disabilities out of high school from 2 to 6 years so as not to include high school experiences; other findings are for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,410 to 2,570 young adults with disabilities across variables.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 youth interview/survey, 2007.

Differences in Criminal Justice System Involvement by High School-Leaving Characteristics

- High school non-completers were more likely ever to have been stopped by the police for reasons other than a traffic violation (72 percent, table 30) than were those who completed high school (44 percent, $p < .001$).
- Young adults who did not complete high school were more likely ever to have been arrested (48 percent) than were those who completed high school (21 percent, $p < .001$).
- Young adults who did not complete high school were more likely ever to have been in jail overnight or ever to have been on probation or parole (33 percent, each) than were those who completed high school (11 percent, each, $p < .01$ and, $p < .001$, respectively).

- Young adults who had completed high school 4 to 6 years earlier were more likely ever to have been on probation or parole (19 percent) than were those who had completed high school less than 2 years prior to the interview (6 percent, $p < .01$).
- The rates of ever being stopped by the police, arrested, or spending the night in jail did not differ significantly by the number of years since leaving high school.
- The rates of criminal justice system involvement within the preceding 2 years did not differ significantly by school leaving status or the number of years since leaving high school.

Table 30. Criminal justice system involvement of young adults with disabilities, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 2 years	2 up to 4 years	4 up to 6 years
	Percent				
Stopped by police for other than a traffic violation					
Ever	43.9	72.2	43.2	46.6	49.3
	(2.84)	(6.21)	(5.05)	(3.96)	(4.78)
In the past 2 years	23.9	51.4	†	25.7	26.5
	(3.43)	(11.84)		(4.32)	(5.32)
Arrested					
Ever	20.5	47.6	20.1	20.9	28.3
	(2.31)	(6.92)	(4.08)	(3.23)	(4.30)
In the past 2 years	12.1	32.7	†	13.5	14.9
	(2.53)	(9.49)		(3.22)	(4.07)
Spent a night in jail					
Ever	10.9	32.8	8.2	12.5	16.9
	(1.78)	(6.50)	(2.79)	(2.63)	(3.57)
In the past 2 years	8.0	29.5	†	9.8	10.3
	(2.10)	(9.28)		(2.81)	(3.47)
On probation or parole					
Ever	10.7	32.9	5.5	11.8	18.8
	(1.77)	(6.51)	(2.32)	(2.56)	(3.73)
In the past 2 years	5.6	14.2	†	5.6	7.6
	(1.79)	(7.11)		(2.16)	(3.03)

† Not applicable. Young adults out of high school less than 2 years not included in these analyses.

NOTE: Standard errors are in parentheses. Findings regarding involvement in the past 2 years are reported for young adults with disabilities out of high school from 2 to 6 years so as not to include high school experiences; other findings are for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,410 to 2,570 young adults with disabilities across variables.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 youth interview/survey, 2007.

Demographic Differences in Criminal Justice System Involvement

- Males were more likely than females ever to have spent the night in jail (16 percent vs. 8 percent, *p* < .01, table 31).
- Rates of young adults with disabilities ever spending the night in jail did not differ significantly by household income or race or ethnicity.
- Rates of ever being stopped by the police, being arrested, or being on probation or parole did not differ significantly by household income, race or ethnicity, or gender.
- In the 2 years preceding the interview, males were more likely than females to have been stopped by police other than for a traffic violation (32 percent vs. 15 percent, *p* < .01), to have been arrested (18 percent vs. 6 percent, *p* < .01), and to have been in jail overnight (14 percent vs. 3 percent, *p* < .01).
- Rates of young adults with disabilities being involved in the criminal justice system within the 2 years preceding the interview did not differ significantly by household income or race or ethnicity.

Table 31. Criminal justice system involvement of young adults with disabilities, by parents' household income and young adults' race/ethnicity and gender

	$25,000 or less	$25,001 to $50,000	More than $50,000	White	African American	Hispanic	Male	Female
	Percent							
Stopped by police for other than a traffic violation								
Ever	44.0	54.3	46.1	46.4	47.3	44.5	51.8	38.5
	(4.77)	(5.24)	(3.97)	(3.19)	(6.10)	(7.93)	(3.30)	(4.36)
In the past 2 years	31.7	22.5	25.1	24.4	29.5	29.7	32.2	14.5
	(6.28)	(6.83)	(4.74)	(4.01)	(7.36)	(10.94)	(4.41)	(4.59)
Arrested								
Ever	26.0	23.1	22.5	23.0	22.7	21.6	26.3	18.2
	(4.21)	(4.44)	(3.32)	(2.69)	(5.10)	(6.57)	(2.91)	(3.46)
In the past 2 years	16.8	12.4	13.5	13.3	15.8	17.7	18.4	5.8
	(4.93)	(4.94)	(3.59)	(2.98)	(5.55)	(8.85)	(3.49)	(2.89)
Spent a night in jail								
Ever	18.6	11.7	10.3	12.2	16.8	8.9	16.4	7.6
	(3.74)	(3.38)	(2.42)	(2.09)	(4.55)	(4.55)	(2.45)	(2.37)
In the past 2 years	15.4	6.7	8.3	8.6	14.1	13.2	13.7	2.9
	(4.75)	(3.77)	(2.90)	(2.46)	(5.29)	(7.84)	(3.10)	(2.07)
On probation or parole								
Ever	16.2	12.5	11.5	14.1	11.0	5.8	15.0	9.7
	(3.54)	(3.48)	(2.54)	(2.22)	(3.81)	(3.73)	(2.36)	(2.65)
In the past 2 years	7.2	6.1	6.5	6.2	9.1	5.2	8.4	2.6
	(3.40)	(3.60)	(2.58)	(2.11)	(4.37)	(5.16)	(2.50)	(2.98)

NOTE. Standard errors are in parentheses. Findings regarding involvement in the past 2 years are reported for young adults with disabilities out of high school from 2 to 6 years so as not to include high school experiences; other findings are for young adults with disabilities out of high school up to 6 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,410 to 2,570young adults with disabilities across variables.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 youth interview/survey, 2007.

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Appendix A

NLTS2 Sampling, Data Collection, and Analysis Procedures

Appendix A. NLTS2 Sampling, Data Collection, and Analysis Procedures

This appendix describes several aspects of the NLTS2 methodology relevant to the data reported here, including

- sampling local education agencies (LEAs) and students;
- data sources and response rates;
- weighting the data;
- estimation and use of standard errors;
- unweighted and weighted sample sizes;
- calculating statistical significance; and
- measurement and reporting issues.

NLTS2 Sample Overview

The NLTS2 sample was constructed in two stages. A stratified random sample of 3,634 LEAs was selected from the universe of approximately 12,000 LEAs that serve students receiving special education in at least one grade from 7th through 12th grades. These LEAs and 77 state-supported special schools that served primarily students with hearing and vision impairments and multiple disabilities were invited to participate in the study, with the intention of recruiting 497 LEAs and as many special schools as possible from which to select the target sample of about 12,000 students. The target LEA sample was reached; 501 LEAs and 38 special schools agreed to participate and provided rosters of students receiving special education in the designated age range, from which the student sample was selected.

The roster of all students in the NLTS2 age range who were receiving special education from each LEA[47] and special school was stratified by disability category. Students then were selected randomly from each disability category. Sampling fractions were calculated that would produce enough students in each category so that, in the final study year, findings will generalize to most categories individually with an acceptable level of precision, accounting for attrition and for response rates to the parent/youth interview. A total of 11,276 students were selected and eligible to participate in NLTS2.

Details of the LEA and student samples are provided below.

The NLTS2 LEA Sample

Defining the Universe of LEAs

The NLTS2 sample includes only LEAs that have teachers, students, administrators, and operating schools—that is, "operating LEAs." It excludes such units as supervisory unions; Bureau of Indian Affairs schools; public and private agencies (e.g., correctional facilities); LEAs

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[47] LEAs were instructed to include on the roster any student for whom they were administratively responsible, even if the student was not educated within the LEA (e.g., attended school sponsored by an education cooperative or was sent by the LEA to a private school). Despite these instructions, some LEAs may have underreported students served outside the LEA.

from U.S. territories; and LEAs with 10 or fewer students in the NLTS2 age range, which would be unlikely to have students with disabilities.

The public school universe data file maintained by Quality Education Data (Quality Education Data 1999) was used to construct the sampling frame because it had more recent information than the alternative list maintained by the National Center for Education Statistics. Correcting for errors and duplications resulted in a master list of 12,435 LEAs that met the selection criteria. These comprised the NLTS2 LEA sampling frame.

Stratification

The NLTS2 LEA sample was stratified to increase the precision of estimates, to ensure that low-frequency types of LEAs (e.g., large urban districts) were adequately represented in the sample, to improve comparisons with the findings of other research, and to make NLTS2 responsive to concerns voiced in policy debate (e.g., differential effects of federal policies in particular regions, LEAs of different sizes). Three stratifying variables were used: region, size (student enrollment), and community wealth. The three variables generate a 64-cell grid into which the universe of LEAs was arrayed.

Region. This variable captures essential political differences, as well as subtle differences in the organization of schools, the economic conditions under which they operate, and the character of public concerns. The regional classification variable selected has been used by the Department of Commerce, the Bureau of Economic Analysis, and the National Assessment of Educational Progress (categories are Northeast, Southeast, Midwest, and West).

Size (student enrollment). LEAs vary considerably in size, the most useful available measure of which is student enrollment. A host of organizational and contextual variables are associated with size that exert considerable potential influence over the operations and effects of special education and related programs. In addition, total enrollment serves as an initial proxy for the number of students receiving special education served by an LEA. The QED database provides enrollment data from which LEAs were sorted into four categories serving approximately equal numbers of students:

- very large (estimated[48] enrollment greater than 14,931 in grades 7 through 12);
- large (estimated enrollment from 4,661 to 14,930 in grades 7 through 12);
- medium (estimated enrollment from 1,622 to 4,660 in grades 7 through 12); and
- small (estimated enrollment from 11 to 1,621 in grades 7 through 12).

Community wealth. As a measure of district wealth, the Orshansky index (the proportion of the student population living below the federal definition of poverty, Employment Policies Institute 2002) is a well-accepted measure. The distribution of Orshansky index scores was organized into four categories of LEA/community wealth, each containing approximately 25 percent of the student population in grades 7 through 12:

- high (0 percent to 13 percent Orshansky);
- medium (14 percent to 24 percent Orshansky);

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[48] Enrollment in grades 7 through 12 was estimated by dividing the total enrollment in all grade levels served by an LEA by the number of grade levels to estimate an enrollment per grade level. This was multiplied by 6 to estimate the enrollment in grades 7 through 12.

- low (25 percent to 43 percent Orshansky); and
- very low (more than 43 percent Orshansky).

LEA Sample Size

On the basis of an analysis of LEAs' estimated enrollment across LEA size and estimated sampling fractions for each disability category, 497 LEAs (and as many state-sponsored special schools as would participate) was considered sufficient to generate the student sample. Taking into account the rate at which LEAs were expected to refuse to participate, a sample of 3,635 LEAs was invited to participate, from which 497 participating LEAs might be recruited. A total of 501 LEAs actually provided students for the sample, 101 percent of the target number needed and 14 percent of those invited. Analyses of the region, size, and wealth of the LEA sample, both weighted and unweighted, confirmed that the weighted LEA sample closely resembled the LEA universe with respect to those variables.

In addition to matching the LEA sample to the universe of LEAs on variables used in sampling, it was important to ascertain whether the stratified random sampling approach resulted in skewed distributions on relevant variables not included in the stratification scheme. Several analyses were conducted.

First, three variables from the QED database were chosen to compare the "fit" between the first-stage sample and the population: the LEA's racial/ethnic distribution of students, the proportion who attended college, and the urban/rural status of the LEA. This analysis revealed that the sample of LEAs somewhat underrepresented African American students and college-bound students and overrepresented Hispanic students and LEAs in rural areas. Thus, in addition to accounting for stratification variables, LEA weights were calculated to achieve a distribution on the urbanicity and racial/ethnic distributions of students that matched the universe.

To determine whether the resulting weights, when applied to the participating NLTS2 LEAs, accurately represented the universe of LEAs serving the specified grade levels, data collected from the universe of LEAs by the U.S. Department of Education's Office of Civil Rights (OCR) and additional items from QED were compared for the weighted NLTS2 LEA sample and the universe. Finally, the NLTS2 participating LEAs and a sample of 1,000 LEAs that represented the universe of LEAs were surveyed to assess a variety of policies and practices known to vary among LEAs and to be relevant to secondary-school-age youth with disabilities. Analyses of both the extant databases and the LEA survey data confirm that the weighted NLTS2 LEA sample accurately represents the universe of LEAs (Javitz and Wagner 2003).

The NLTS2 Student Sample

Determining the size of the NLTS2 student sample took into account the duration of the study, desired levels of precision, and assumptions regarding attrition and response rates. Analyses determined that approximately three students would need to be sampled for each student who would have a parent/youth interview in Wave 5 of NLTS2 data collection.

The NLTS2 sample design called for findings to be generalizable to students receiving special education as a whole and for the 12 special education disability categories currently in use and reported in this document. Standard errors were to be no more than 3.6 percent, except for the low-incidence categories of traumatic brain injury and deaf-blindness. Thus, by sampling 1,250 students per disability category (with the two exceptions noted), 402 students per category were expected to have a parent or youth interview in year 9 (Wave 5). Assuming a 50 percent sampling efficiency[49] (which is likely to be exceeded for most disability categories), 402 students would achieve a standard error of estimate of slightly less than 3.6 percent. All students with traumatic brain injury or with deaf-blindness in participating LEAs and special schools were selected. Students were disproportionately sampled by age to assure that there would be an adequate number of students who would be age 24 or older at the conclusion of the study. Among the eligible students, 40.2 percent will be 24 or older as of the final interview.

LEAs and special schools were contacted to obtain their agreement to participate in the study and request rosters of students receiving special education who were 13 to 16 years old on December 1, 2000, and in at least seventh grade.[50] Requests for rosters specified that they contain the names and addresses of students receiving special education under the jurisdiction of the LEA, the disability category of each student, and the students' birthdates or ages. Some LEAs would provide only identification numbers for students, along with the corresponding birthdates and disability categories. When students were sampled in these LEAs, identification numbers of selected students were provided to the LEA, along with materials to mail to their parents/guardians (without revealing their identity).

After estimating the number of students receiving special education in the NLTS2 age range, the appropriate fraction of students in each category was selected randomly from each LEA and special school. In cases in which more than one child in a family was included on a roster, only one was eligible to be selected.[51] LEAs and special schools were notified of the students selected, and contact information for their parents/guardians was requested.

Data Sources

Data are reported here for the subset of NLTS2 sample members (approximately 4,650) who were out of high school at the time of Wave 4 data collection and who have data from the Wave 4 youth telephone interview or mail survey or the Wave 4 parent telephone interview (2007). In addition to Wave 4 data, several variables that were created for this report indicate whether a young adult had had a particular experience "since high school," (e.g. postsecondary enrollment, employment status, wages, and living arrangements). Fifty-four percent of out-of-high school respondents (approximately 2,500 young adults with disabilities) had left high school since the Wave 4 data collection; thus, Wave 4 data are all that are required to generate values for these variables for them. However, the remainder of the out-of-high school respondents (approximately 2,160 young adults) were already out of school in Waves 2 or 3. Thus, data from prior waves needed to be taken into account to generate values for variables measuring experiences "since high school." Prior wave data also were used to

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[49] The"50 percent sampling efficiency" indicated in the above text means that a simple random sample of half the size as NLTS2 would have the same standard error as obtained in NLTS2 when the complex sampling design is taken into account. Sampling efficiency is the inverse of the DEFT, where DEFT is the square foot of DEFF (the design effect).

[50] Students who were designated as being in ungraded programs also were sampled if they met the age criteria.

[51] As part of the process of selecting the student sample, random numbers were generated and the sample universe file was sorted by these numbers. Sample members were selected beginning at the start of the file until the required number of students had been selected. If two students were selected from the same family, the first student on the list was chosen for the sample (i.e., the one with the smaller random number).

determine whether young adults had completed high school or left without completing and the year in which they left. Wave 2 and 3 data collections mirrored procedures followed for Wave 4.

The Wave 3 youth telephone interview produced data for approximately 1,360 young adults included in the sample that forms the basis of this report, the mail questionnaire generated data for approximately 160 young adults, and parent interviews provided data for approximately 640 young adults, for a total of approximately 2,160 sample members. The Wave 2 youth telephone interview produced data for approximately 570 young adults included in the sample that forms the basis of this report, the mail questionnaire generated data for approximately 50 young adults, and parent interviews provided data for approximately 270 young adults, for a total of approximately 890 sample members.

Wave 1 parent telephone interview or mail survey data are the source for data about youth's gender, race/ethnicity, and household income. Information about the primary disability category of NLTS2 sample members came from rosters of students in the NLTS2 age range receiving special education services in the 2000–01 school year under the auspices of participating school districts and state-supported special schools. High school transcripts provided data on high school completion status and completion date. Each source is described below. Although Wave 4 data have generated the majority of findings reported in this document, parent/youth telephone interviews/mail surveys are described in chronological order because procedures applied in earlier waves of data collection shape the respondent groups for Wave 4.

Wave 1 Parent Interview/Survey[52]

The NLTS2 conceptual framework suggests that a youth's nonschool experiences, such as extracurricular activities and friendships; historical information, such as age when disability was first identified; household characteristics, such as socioeconomic status; and a family's level and type of involvement in school-related areas are crucial to student outcomes. Parents/guardians are the most knowledgeable about these aspects of students' lives. They also are important sources of information on outcomes across domains. Thus, parents/guardians of NLTS2 sample members were interviewed by telephone or surveyed by mail in 2001, as part of Wave 1 data collection.

Matches of names, addresses, and telephone numbers of NLTS2 parents with existing national locator databases were conducted to maximize the completeness and accuracy of contact information and subsequent response rates. A student was required to have a working telephone number and an accurate address to be eligible for the parent interview sample.

Letters were sent to parents to notify them that their child had been selected for NLTS2 and that an interviewer would be attempting to contact them by telephone. The letter included a toll-free telephone number for parents to call to be interviewed if they did not have a telephone number where they could be reached reliably or if they wanted to make an appointment for the interview at a specific time.

Computer-assisted telephone interviewing (CATI) was used for parent interviews, which were conducted between mid-May and late September 2001. Ninety-five percent of interviews were conducted in English and 5 percent in Spanish.

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[52] All NLTS2 instruments are available on the NLTS2 website, www.nlts2.org.

All parents who could not be reached by telephone were mailed a self-administered questionnaire in a survey period that extended from September through December 2001. The questionnaire contained a subset of key items from the telephone interview. Overall, 91 percent of respondents reported that they were parents of sample members (biological, adoptive, or step), and 1 percent were foster parents. Six percent were relatives other than parents, 2 percent were nonrelative legal guardians, and less than 1 percent reported other relationships to sample members.

Wave 2 Parent/Youth Interviews

NLTS2 sample members for whom working telephone numbers and addresses were available were eligible for the Wave 2 parent/youth telephone interview or youth mail survey in 2003. Database matching procedures were used to maximize the eligible sample, as in Wave 1. Contact procedures alerting parents of the interviews also were similar for the two waves. The major distinction between the data collection methods in Waves 1 and 2 is that interviews in Wave 2 were sought both with parents of NLTS2 sample members and with the youth themselves if they were able to respond to questions.

The first interview contact was made with parents of eligible sample members. Those who agreed to participate were interviewed with CATI. Items in this portion of the interview, referred to as Parent Part 1, focused on topics for which the parent was considered the most appropriate respondent (e.g., services received, family expectations, and support). At the end of Parent Part 1, the respondent was asked the following:

> *My next questions are about jobs (YOUTH’S NAME) may have had, schools (he/she) may have gone to, and about (his/her) feelings about (him/herself) and (his/her) life. The questions are similar to those I’ve been asking you, where (he/she) will be asked to answer using scales, like “very well,” “pretty well,” “not very well,” or “not at all well.” The interview would probably last about 20 to 30 minutes. Do you think that (YOUTH’S NAME) would be able to accurately answer these kinds of questions over the telephone?*

If youth could answer questions by phone, they also were told:

> *I also have some questions about (his/her) involvement in risk behaviors, like smoking, drinking, and sexual activity. Is it all right for me to ask (YOUTH”S NAME) questions like that?*

If parents consented, interviewers asked to speak with the youth or asked for contact information to reach the youth in order to complete the youth portion of the interview, referred to as Youth Part 2.

Parents who reported that youth could not answer questions by telephone were asked:

> *Would (he/she) be able to accurately answer these kinds of questions using a written questionnaire?*

If parents indicated that youth could complete a written questionnaire, they were asked for the best address to which to send a questionnaire, and a questionnaire was sent. The questionnaire contained a subset of items from the telephone interview that were considered most important for understanding the experiences and perspectives of youth. Multiple follow-up phone or mail contacts were made to maximize the response rate for the mail survey. Data from the mail survey and Youth Part 2 of the telephone interview were merged for analysis purposes.

If parents reported that youth could not answer questions either by telephone or written questionnaire or declined to have youth asked questions related to risk behaviors, interviewers asked them to continue the interview, referred to as Parent Part 2. If youth were reported to be able to complete a telephone interview or a written questionnaire but did not do so after repeated attempts, parents were contacted again and asked to complete Parent Part 2 in lieu of Youth Part 2.

Wave 3 Parent/Youth Interviews

As in early waves of data collection, NLTS2 sample members for whom working telephone numbers and addresses were available were eligible for the Wave 3 parent/youth telephone interview or youth mail survey (2005). Database matching procedures were used to maximize the eligible sample, as previously. Contact procedures alerting respondents of the interviews also were similar across waves. Wave 3 data collection was similar to Wave 2 in that both parents and youth were sought as respondents, and youth respondents who were reported to be able to respond for themselves but not by telephone were surveyed by mail. The major distinction between the data collection methods in Waves 2 and 3 is that for youth for whom Wave 2 data had been collected, interviews were sought with parents and with youth themselves simultaneously, rather than interviewing parents first, relying on parents’ reports in Wave 2 regarding youth’s ability to respond for themselves by telephone or mail. For sample members who were eligible for Wave 3 data collection but who could not be reached for data collection in Wave 2, a telephone interview was sought first with parents, and the screening process for the youth interview survey that was described for Wave 2 was repeated when a parent was reached.

Wave 4 Parent/Youth Interviews

Wave 4 data collection (e.g. determining the NLTS2 sample members, matching names and addresses through a database, contacting respondents, conducting interviews) was fielded the same as Wave 3 data collection.

High School Transcripts

High school completion status and high school leave date were based on data from high school transcripts. High school transcripts were requested for all NLTS2 sample members. Transcript data were collected for approximately 3,570 young adults included in this report. For those for whom transcript data were not available, school completion status and leave dates were based on information from parent/youth interviews.

School and School District Student Rosters

Information about the primary disability category of NLTS2 sample members came from rosters of students in the NLTS2 age range receiving special education services in the 2000–01 school year under the auspices of participating school districts and state-supported special schools. Additionally, data on the racial/ethnic background of sample members were taken from this source when they were included on rosters. In the absence of roster data on youth’s racial/ethnic background, data were taken from the Wave 1 parent interview or mail survey.

Response Rates

Table A-1 reports response rates for Waves 1 through 4 parent/youth interviews/surveys and for high school transcripts.

Table A-1. Response rates for NLTS2 Waves 1 through 4 parent/youth data collection

Respondents	Number	Percent
Wave 1		
Total sample	11,244	
Respondents		
Completed telephone interview	8,670	76.9
Completed partial telephone interview	300	2.7
Completed mail questionnaire	260	2.3
Total respondents	9,220	81.9
Total nonrespondents	2,046	18.1
Wave 2		
Total sample	11,226	
Respondents		
Completed Parent Part 1 telephone interview	6,860	61.1
Completed Parent Part 2 telephone interview	2,960	26.4
Completed Youth Part 2 telephone interview or mail questionnaire	3,360	30.0
Total respondents with Part 1 and either Parent or Youth Part 2	6,320	56.3
Total nonrespondents (no parent or youth data)	1,350	12.0
Wave 3		
Total sample	11,225	
Respondents		
Completed Parent Part 1 telephone interview	5,190	46.2
Completed Parent Part 2 telephone interview	1,580	14.1
Completed Youth Part 2 telephone interview or mail questionnaire	3,290	29.3
Total respondents with Part 1 and either Parent or Youth Part 2	4,660	41.5
Total respondents with Parent Part 1 or Parent Part 2, or Youth Part 2	5,370	47.8
Total nonrespondents (no parent or youth data)	2,620	23.3
Wave 4		
Total sample	11,128	
Respondents		
Completed Parent Part 1 telephone interview	4,610	41.4
Completed Parent Part 2 telephone interview	1,590	14.3
Completed Youth Part 2 telephone interview or mail questionnaire	2,500	22.5
Total respondents with Part 1 and either Parent or Youth Part 2	3,790	34.1
Total respondents with Parent Part 1 or Parent Part 2, or Youth Part 2	4,900	44.0
Total nonrespondents (no parent or youth data)	3,230	29.0
High School Transcripts		
Total transcript data	9,070	80.5

NOTE: Deceased youth were eliminated from the pool of sample members.

Combining Parent and Youth Data

If a youth interview/survey was completed, youth's responses were used. If a youth interview/survey could not be completed for an eligible youth or if a youth was reported by parents not to be able to participate in an interview/survey, parents' responses were used. For the subsample of out-of-high school youth included in this report, the youth interview/survey was the source of data for post-high school outcomes for 84 percent of youth, and the parent interview was the source for 16 percent of youth.

Combining data across respondents raises the question of whether parent and youth responses would concur—i.e., would the same findings result if parents' responses were reported instead of youth's responses. Table A-2 shows the level of congruence in parents' and youth's responses to four items related to key outcomes of interest.

When both parents and youth were asked whether the youth belonged to an organized community group, currently worked for pay, worked for pay in the past 2 years, and ever enrolled in a community college since high school, their responses agreed from 74 percent to 88 percent of the time. The greatest congruence are noted regarding youth's enrollment in a community college since high school (88 percent, *K* = .74, *p*. < .001) and current employment status (86 percent, *K* = .66, *p*. < .001). There was 77 percent congruence (*K* = .52, *p*. < .001) evident regarding employment in the preceding 2 years and 74 percent agreement (*K* = .41, *p*. < .001) regarding whether youth belonged to an organized group in the community.

Table A-2. Congruence of parent and youth responses to key items

	Percentage with			
	Congruent responses	Parent answering yes (higher), youth no (lower)	Parent answering no (lower), youth yes (higher)	Kappa (*K*) score
Youth currently working for pay	86.2	5.9	7.97	.66
Youth worked for pay in past 2 years	77.1	12.5	10.4	.52
Youth belongs to an organized group in the community	73.5	10.5	16.1	.41
Youth ever enrolled in a community college since high school	87.5	8.4	4.1	.74

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent interview and youth interview/survey, 2005.

It is impossible to determine the cause of discrepant responses. Complete congruence would not be expected, even with both respondents answering accurately, because the parent interview and youth interview/survey could have been completed several months apart during the 7-month interview period; the status of youth could have changed in the intervening period. In such cases, both responses would be accurate at the time given. However, discrepancies also could result from one response being inaccurate, either because a respondent gave a socially desirable response (e.g., reported a youth was employed when he or she was not) or because the respondent (usually the parent) had inaccurate information (e.g., a youth no longer living with a parent had not informed the parent regarding a community group he or she had joined, leading to a negative parent response regarding group membership when a positive response was accurate). Although it is not possible to tell which of two discrepant responses is correct, it is noteworthy that with the exception of current employment, discrepant cases are more likely to result from a positive response from youth when parents responded negatively (e.g., youth reported higher wages or a higher rate of group membership than parents). Thus, for some items, youth for whom data were collected through the youth interview/survey may appear to have more positive experiences than those for whom data were collected through a parent interview because of the source of the data, in addition to or instead of actual differences in their experiences. Again, this difference does not necessarily imply inaccuracies in the data, but it does affirm the difference in the knowledge and perspectives of parents and youth.

Weighting the Wave 4 Young Adult/Parent Data

The percentages and means reported in the data tables throughout this report are estimates of the true values for the population of young adults with disabilities in the NLTS2 age range. The response for each sample member is weighted to represent the number of young adults in his or her disability category in the kind of LEA (i.e., region, size, and wealth) or special school from which he or she was selected. Responses also are weighted to represent the best estimate of the number of young adults with disabilities by racial/ethnic category (non-Hispanic White, non-Hispanic Black, non-Hispanic other, and Hispanic).

Table A-3 illustrates the concept of sample weighting and its effect on percentages or means that are calculated for young adults with disabilities as a group. In this example, 10 young adults are included in a sample, 1 from each of 10 disability groups, and each has a hypothetical value regarding whether that youth participated in organized group activities in the community (1 for yes, 0 for no). Six young adults participated in such activities. Summing the hypothetical values for the 10 youth results in an average of 60 percent for the full group. However, this would not accurately represent the national population of young adults with disabilities because many more young adults are classified as having a learning disability than as having orthopedic or other health impairments, for example. Therefore, in calculating a population estimate, weights in the example are applied that correspond to the proportion of young adults in the population who are from each disability category (actual NLTS2 weights account for disability category and several aspects of the districts from which young adults were chosen). The sample weights for this example appear in column C. Using these weights, the weighted population estimate is 88 percent. The percentages in all NLTS2 tables are similarly weighted population estimates, whereas the sample sizes are the actual numbers of cases on which the weighted estimates are based (similar to the 10 cases in column A in table A-3).

Table A-3. Example of weighted percentage calculation

Disability category	A Number in sample	B Participated in group activities	C Example weight for category	D Weighted value for category
Total	10	6	10.0	8.8
Learning disability	1	1	5.0	5.0
Speech/language impairment	1	1	1.9	1.9
Mental retardation	1	1	1.0	1.0
Emotional disturbance	1	0	.8	0
Hearing impairment	1	1	.2	.2
Visual impairment	1	1	.1	.1
Orthopedic impairment	1	0	.1	0
Other health impairment	1	1	.6	.6
Autism	1	0	.2	0
Multiple disabilities	1	0	.1	0
	Unweighted sample percentage = 60 percent (Column B total divided by Column A total)		Weighted population estimate = 88 percent (Column D total divided by Column C total)	

The students in LEAs and state schools with data for each survey were weighted to represent the universe of students in LEAs and state schools by using the following methodology:

- Let i=1, 2, 3, …, 64 index the NLTS2 LEA strata and i = 65 denote the state school stratum. Let N(i) denote the number of LEAs or state schools in the i-th strata. Let M(i) denote the prespecified sample size of LEAs or state schools in the i-th strata. Within each stratum, all N(i) LEAs and state schools were assigned a uniformly distributed random number and were sorted on the basis of that random number in increasing order. The first M(i) of those LEAs or state schools were selected for the sample in the i-th stratum; consequently the LEA/state school sample in each stratum was drawn with equal probabilities and without replacement. Let P(i, j) denote the probability of selection of the j-th LEA or state school within the i-th stratum. Then P(i, j) = M(i) / N(i). The j-th selected LEA or state school in the i-th stratum was assigned an initial weight of W(i, j) = 1/P(i, j) = N(i) / M(i).
- Let Q(i) denote the number of respondent LEAs or state schools in the i-th stratum. Let R(i) denote the response rate in the i-th stratum. Then R(i) = Q(i)/M(i). The adjusted weight for the j-th selected LEA or state school in the i-th stratum, denoted W*(i, j), was set to 0 if the j-th selected LEA or state school in the i-th stratum was a nonrespondent and to W*(i, j) = W(i, j)/R(i) = N(i)/Q(i) if the j-th selected LEA or state school was a respondent. Note that all LEAs in the i-th stratum have the same adjusted weight.
- When rosters were obtained from each respondent LEA or state school, they were separated by disability category and student age groups (13 to 15.99, and 16 to 17.99). Samples were independently selected and weighted for each disability and age category, using the same methodology (with the exception of deaf-blind as discussed later). Without loss of generality, therefore, discussion is restricted to the selection and weighting of students with learning disabilities in the older age category.

- Let (i, j, k) denote the k-th older students with learning disabilities in the j-th LEA/state school in the i-th stratum. Let $Ns(i, j)$ denote the number of older students with learning disabilities in the (i, j)-th LEA/state school. Let $V(i)$ denote the predetermined sampling fraction for older students with learning disabilities in the i-th stratum. A uniformly generated random number, denoted $U(i, j, k)$ was generated for each older student with learning disabilities in the (i, j)-th LEA/state school roster. The (i, j, k)-th older student with learning disabilities was selected for the study without replacement if $U(i, j, k) < V(i)$. Let $Ws(i, j, k)$ denote the initial weight for the (i, j, k)-th older student with learning disabilities. Then $Ws(i, j, k) = W^*(i, j) / V(i)$. Since $W^*(i, j)$ is a constant for all LEA/state schools in the i-th stratum, note that $Ws(i, j, k)$ is constant for all older students with learning disabilities in the i-th stratum.
- Let $Ms(i, j)$ be the number of sampled older students with learning disabilities in the (i, j)-th LEA/state school and let $Ms(i)$ be the total number of selected older students with learning disabilities in the i-th stratum. Let $Qs(i, j)$ be the number of responding older students with learning disabilities in the (i, j)-th LEA/state school and let $Qs(i)$ be the total number of responding older LD students in the i-th stratum. Let $Rs(i)$ denote the older students with learning disabilities response rate in the i-th stratum among selected students. Then $Rs(i) = Qs(i) / Ms(i)$. The adjusted weight for the (i, j, k)-th older student with learning disabilities, denoted $Ws^*(i, j, k)$ is defined to be 0 if the student is a nonrespondent and $Ws^*(i, j, k) = Ws(i, j, k) / R(i)$ otherwise. Note that $Ws^*(i, j, k)$ is a constant for all responding older students with learning disabilities in the i-th stratum.
- Data from Department of Education reports, the Common Core, the rosters of the respondent LEAs and state schools, and the student weights were combined to estimate the following: (1) total number of students in each disability category by age category (for example, the total number of older students with learning disabilities in the universe), (2) the total number of students by disability and race/ethnicity (coded non-hispanic white, non-Hispanic Black, Hispanic, Asian/Pacific Islander, and American Indian/Alaska native), and (3) the total number of students by disability and LEA/state school strata. Deming's raking algorithm was used to adjust the $Ws^*(i, j, k)$ weights so that the sum of the adjusted weights in these subgroups (for example, older students with learning disabilities in the universe) approximated their known or estimated national totals.
- Analysis of NLTS2 data after the first wave revealed that respondents to the later waves differed from the Wave 1 respondents with respect to the distribution of their household incomes, whether the parents had volunteered at the school, and whether the student had been held back one or more grade levels. The Wave 1 weights and parental survey responses were used to estimate, by disability and age category, the national number of students in each household income category, each parental volunteering category, and each student advancement category (i.e., whether the student had ever been held back). To reduce nonresponse bias in these later waves, the Deming raking algorithm was extended to modify weights so that their totals also approximate these estimated national totals.
- Recruitment was attempted with all students with deaf-blindness who appeared on the rosters of the responding LEAs and state schools and these students were subject to the

same weighting approach as described above (excluding the Deming raking). A few students in the hearing impairment disability category and in the visually impaired disability category with sufficiently severe hearing and vision problems to be classified as deaf-blind were identified. These students were retained in their original disability/age categories for purposes of developing weights for students in those categories, but were classified as deaf-blind for purposes of analysis. The sum of the weights for all students with deaf-blindness (i.e., those originally found in the deaf-blind category and those who were later reclassified as deaf-blind) was equal to 3,196. Due to the small number of students who qualified for the deaf-blind category, SRI and the U.S. Department of Education agreed that the weights for all of these students would be set to a constant, such that the sum of those weights was equal to 3,196.

Estimating Standard Errors

Each estimate reported in the data tables is accompanied by a standard error. A standard error acknowledges that any population estimate that is calculated from a sample will only approximate the true value for the population. The true population value will fall within the range demarcated by the estimate, plus or minus 1.96 times the standard error, 95 percent of the time. For example, if the estimate for young adult's current postsecondary enrollment is 23.5 percent, with a standard error of 2.67, one can be 95 percent confident that the true current postsecondary enrollment rate for the population is between 18.3 percent and 28.7 percent.

Because the NLTS2 sample is both stratified and clustered, calculating standard errors by formula is not straightforward. Standard errors for means and proportions can, however, be estimated by using pseudoreplication, a procedure that is widely used by the U.S. Census Bureau and other federal agencies involved in fielding complex surveys. To that end, a set of weights was developed for each of 32 balanced half-replicate subsamples. Each half-replicate involved selecting half of the total set of LEAs that provided contact information, using a partial factorial balanced design (resulting in about half of the LEAs being selected within each stratum) and then weighting that half to represent the entire universe. The half-replicates could be used to estimate the variance of a sample mean by (1) calculating the mean of the variable of interest on the full sample and each half-sample, using the appropriate weights; (2) calculating the squares of the deviations of the half-sample estimate from the full-sample estimate; and (3) adding the squared deviations and dividing by (n-1), where n is the number of half-replicates. Since there were 32 replicates, the variance estimates would have 31 degrees of freedom.

Because the method of using replicate weights is computationally intensive and was not easily implemented in the Statistical Analysis System (SAS) during the first years of NLTS2, we sought a simpler formula-based procedure. We selected a variety of categorical and continuous Wave 1 variables and calculated their standard errors using replicate weights. We compared those standard error estimates with those obtained using a formula appropriate for an independent and identically distributed sample with unequal weights. (Under the latter assumptions, the effective sample size can be approximated as

$$N_{eff} = N\left(E^2[W] \Big/ E^2[W] + V[W] \right)$$

where N_{eff} is the effective sample size, $E^2[W]$ is the square of the arithmetic average of the weights, and $V[W]$ is the variance of the weights. For a variable X, the standard error of estimate can typically be approximated by $\sqrt{V[X]/N_{eff}}$, where *V[X]* is the weighted variance of *X*.) As expected, due to the complex sampling design in NLTS2, the use of the formula given above was not fully adequate. However, we found that if we multiplied these formula-based standard errors by 1.25, this yielded estimates that slightly exceeded the variance estimates via pseudo-replication for approximately 90 percent of the categorical and 90 percent of the continuous variables that were examined. Therefore we modified our formula by including a design factor of 1.25, which accounts for the stratified and clustered nature of the sample.

All standard errors in this report were calculated using formula-based estimates rather than estimates based on the replicate weights. Since our formula-based estimates tend to be slightly larger than the variances using pseudo-replicates, and the cutoff values for *t*-statistics based on infinite degrees of freedom rather than 31 degrees of freedom are similar, we calculated our p-values based on infinite degrees of freedom.

As a 10-year longitudinal study, NLTS2 has continued to use this formula-based procedure to calculate standard errors rather than use currently available procedures. This decision to maintain consistency in analytical approaches was based on the need to support comparisons of findings across NLTS2 reports. For example, key post-high school outcomes, such as employment rates, postsecondary enrollment rates, and wages, have been reported for NLTS2 data collection waves 2, 3, 4, and 5. Changing the analytic approach would call into question the longitudinal look at such variables. To examine possible differences between the approaches, replicate weights were created for chapter 5 of this report. Findings using the replicate weights were then compared with the findings using formula-based estimate. Of the 623 possible comparisons in the chapter, 19 differences (3percent) were noted: 9 differences that were reported at the $p < .01$ level dropped to $p < .05$; 5 decreased from $p < .001$ to $p < .01$; and 5 increased from either $p < .05$ to $p < .01$ or from $p < .01$ to $p < .001$.

Determining Statistical Significance

The following formula was used to determine the statistical significance of the differences between independent groups.

$$F = \frac{(P_1 - P_2)^2}{SE_1^{\,2} + SE_2^{\,2}}$$

For example, this formula could be used to determine whether the difference in the percentages of students who report a particular view among students with learning disabilities and among those with hearing impairments is greater than would be expected to occur by chance. In this formula, P_1 and SE_1 are the first percentage and its standard error and P_2 and SE_2 are the second percentage and its standard error. The squared difference between the two percentages of interest is divided by the sum of the two squared standard errors.

If the product of a calculation is larger than 3.84 (i.e., 1.96^2), the difference is significant at the .05 level—that is, it would occur by chance fewer than 5 times in 100. If the result of the calculation is at least 6.63, the significance level is .01; products of 10.8 or greater are significant at the .001 level (Owen 1962, pp. 12, 51).

Testing for the significance of differences in responses to two survey items for the same individuals involves identifying for each young adult the pattern of response to the two items. Responses to items (e.g., the young adult reported relying “a lot” on parents for support—yes or no—and reported relying on friends “a lot” for support—yes or no) are scored as 0 or 1, producing difference values for individual students of +1 (responded affirmatively to the first item but not the second), 0 (responded affirmatively to both items or neither item), or -1 (responded affirmatively to the second item but not the first). The test statistic is the square of a ratio, where the numerator of the ratio is the weighted mean change score and the denominator is an estimate of the standard error of that mean. Since the ratio approaches a normal distribution by the Central Limit Theorem, for samples of the sizes included in the analyses, this test statistic approximately follows a chi-square distribution with one degree of freedom—i.e., an F (1, infinity) distribution.

Regardless of whether comparisons are for independent or dependent samples, a large number of statistical analyses were conducted and are presented in this report. Since no explicit adjustments were made for multiple comparisons, the likelihood of finding at least one statistically significant difference when no difference exists in the population is substantially larger than the type I error for each individual analysis. This may be particularly true when many of the variables on which the groups are being compared are measures of the same or similar constructs, as is the case in this report. To partially compensate for the number of analyses that were conducted, we used a relatively conservative p value of .01. The text mentions only differences that reach a level of significance of at least $p < .01$. If no level of significance is reported, the group differences described do not attain the $p < .01$ level. Readers also are cautioned that the meaningfulness of differences reported here cannot be inferred from their statistical significance.

Measurement and Reporting Issues

The chapters in this report provide information on specific variables included in analyses. However, several general points about NLTS2 measures that are used repeatedly in analyses should be clear to readers as they consider the findings reported here.

Categorizing students by primary disability. Information about the nature of students’ disabilities came from rosters of all students in the NLTS2 age range receiving special education services in the 2000–01 school year under the auspices of participating LEAs and state-supported special schools. In analyses in this report, each student is assigned to a disability category on the basis of the primary disability designated by the student’s school or district. Although there are federal guidelines in making category assignments (table A-4), criteria and methods for assigning students to categories vary from state to state and even between districts within states, with the potential for substantial variation in the nature and severity of disabilities included in the categories (see, for example, MacMillan and Siperstein 2002). Therefore, NLTS2 data should not be interpreted as describing students who truly had a particular disability, but rather as describing students who were categorized as having that primary disability.

Table A-4. Definitions of disabilities

Autism. A developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age 3, that 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. The term does not apply if a child's educational performance is adversely affected primarily because the child has a serious emotional disturbance as defined below.

Deafness. A hearing impairment so severe that the child cannot understand what is being said even with a hearing aid.

Deaf-blindness. A combination of hearing and visual impairments causing such severe communication, developmental, and educational problems that the child cannot be accommodated in either a program specifically for the deaf or a program specifically for the blind.

Emotional disturbance.[1] A condition exhibiting one or more of the following characteristics, displayed over a long period of time and to a marked degree that adversely affects a child's educational performance:

An inability to learn that cannot be explained by intellectual, sensory, or health factors

An inability to build or maintain satisfactory interpersonal relationships with peers or teachers

Inappropriate types of behavior or feelings under normal circumstances

A general pervasive mood of unhappiness or depression

A tendency to develop physical symptoms or fears associated with personal or school problems.

This term includes schizophrenia, but does not include students who are socially maladjusted, unless they have a serious emotional disturbance.

Hearing impairment. An impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance but that is not included under the definition of deafness as listed above.

Mental retardation. Significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental period that adversely affects a child's educational performance.

Multiple disabilities. A combination of impairments (such as mental retardation-blindness, or mental retardation-physical disabilities) that causes such severe educational problems that the child cannot be accommodated in a special education program solely for one of the impairments. The term does not include deaf-blindness.

Orthopedic impairment. A severe orthopedic impairment that adversely affects educational performance. The term includes impairments such as amputation, absence of a limb, cerebral palsy, poliomyelitis, and bone tuberculosis.

Other health impairment. Having limited strength, vitality, or alertness due to chronic or acute health problems such as a heart condition, rheumatic fever, asthma, hemophilia, and leukemia, which adversely affect educational performance.[2]

Specific learning disability. A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. This term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. This term does not include children who have learning problems that are primarily the result of visual, hearing, or motor disabilities; mental retardation; or environmental, cultural or economic disadvantage.

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

See notes at end of table.

Table A-4. Definitions of disabilities—Concluded

Traumatic brain injury. An acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child's educational performance. The term 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. The term does not apply to brain injuries that are congenital or degenerative, or brain injuries induced by birth trauma.

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

[1] P.L. 105-17, the Individuals with Disabilities Education Act Amendments of 1997, changed “serious emotional disturbance” to “emotional disturbance.” The change has no substantive or legal significance. It is intended strictly to eliminate any negative connotation of the term “serious.”

[2] OSEP guidelines indicate that “children with ADD, where ADD is a chronic or acute health problem resulting in limited alertness, may be considered disabled under Part B solely on the basis of this disorder under the ‘other health impaired’ category in situations where special education and related services are needed because of the ADD” (Davila, Williams, and MacDonald 1991).

SOURCE: Definitions taken from Knoblauch and Sorenson (1998).

The exception to reliance on school or district category assignment involves students with deaf-blindness. Because of district variation in assigning students with both hearing and visual impairments to the category of deaf-blindness many students with those dual disabilities are assigned to other primary disability categories, most often hearing impairment, visual impairment, and multiple disabilities. As a result of these classification differences, national estimates suggest that there were 3,196 students with deaf-blindness who were 12 to 17 years old in 1999 (National Technical Assistance Center 1999), whereas the federal child count indicates that 681 were classified with deaf-blindness as their primary disability (Office of Special Education Programs 2001).

To describe the characteristics and experiences of the larger body of young adults with deaf-blindness more precisely, students who were reported by parents or by schools or school districts[53] as having both a hearing and a visual impairment were assigned to the deaf-blindness category for purposes of NLTS2 reporting, regardless of the primary disability category assigned by the school or school district.

Comparisons with the general population of students. In cases in which databases for the general population of young adults are publicly available (e.g., the National Longitudinal Survey of Youth), comparisons have been calculated from those databases for young adults with disabilities who match in age to those included in NLTS2. However, some comparisons have been made by using published data. For some of these comparisons, differences in samples (e.g., ages of young adults) or measurement (e.g., question wording on surveys) reduce the direct comparability of NLTS2 and general population data. Where these limitations affect the comparisons, they are pointed out in the text and the implications for the comparisons are noted.

Reporting statistics. Statistics are not reported for groups with fewer than 30 members. Statistics with a decimal of .5 are rounded to the next whole number in the text.

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[53] Some special schools and school districts reported secondary disabilities for students. For example, a student with visual impairment as his or her primary disability category also could have been reported as having a hearing impairment as a secondary disability.

Appendix A References

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Appendix B

Additional Analyses

Appendix B. Additional Analyses

Characteristics of Out-of-High School Young Adults With Disabilities

NLTS2 represents youth with disabilities nationally who were ages 13 through 16, in secondary school, and receiving special education services in grade 7 or above in the 2000–01 school year. This report focuses on young adults no longer in secondary school in 2007. Understanding the characteristics of young adults with disabilities is important for interpreting their after-high school experiences. Tables B-1 through B-3 describe this subsample—young adults with disabilities who were out of high school and for whom data were reported, either by young adult themselves or by their parents, as part of the NLTS2 Wave 4 parent and youth telephone interviews and youth mail survey. They report data for young adults as a group and for those for whom parents and young adults themselves, respectively, were respondents.

Table B-1. Primary disability category of out-of-high school youth, overall and by respondent

Primary disability category	All young adults	Parent respondents	Young adult respondents
	Percent		
Learning disability	63.7 (2.53)	64.1 (3.89)	63.4 (3.34)
Speech/language impairment	4.0 (1.03)	3.2 (1.43)	4.6 (1.45)
Mental retardation	11.0 (1.65)	12.6 (2.69)	9.8 (2.06)
Emotional disturbance	11.4 (1.67)	10.8 (2.52)	11.8 (2.24)
Hearing impairment	1.3 (0.60)	1.5 (0.97)	1.2 (0.76)
Visual impairment	0.5 (0.36)	0.2 (0.40)	0.6 (0.55)
Orthopedic impairment	1.1 (0.55)	0.8 (0.71)	1.3 (0.80)
Other health impairment	4.7 (1.11)	3.7 (1.53)	5.4 (1.57)
Autism	0.5 (0.38)	0.6 (0.64)	0.5 (0.46)
Traumatic brain injury	0.3 (0.28)	0.3 (0.44)	0.3 (0.37)
Multiple disabilities	1.5 (0.63)	2.1 (1.15)	1.0 (0.69)
Deaf-blindness	0.1 (0.19)	0.2 (0.31)	0.1 (0.23)

NOTE: Standard errors are in parentheses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent and youth telephone interview/mail survey, 2007.

The out-of-high school young adult's subsample, like the universe of secondary-school-age young adults with disabilities, is heavily dominated by young adults with learning disabilities; 64 percent of young adults with disabilities were classified for special education services in the learning disability category when they were in high school. At 11 percent for each, the categories of emotional disturbance and mental retardation are the second and third largest categories. All other categories comprise 14 percent of the weighted sample. The disability category distributions of the groups of young adults for whom parents were respondents and those who responded for themselves do not differ significantly.

The majority of young adults (72 percent) were reported by parents to have high functional cognitive skills,[54] from 13 percent to 30 percent had at least some limitation in the functional domains reported in table B-2, and almost one-third (30 percent) had excellent health. Young adults for whom parents responded for them were more likely to be reported as having excellent health than were young adults who responded for themselves (51 percent vs. 23 percent, *p*<.01). There were no other significant differences between respondent groups on these measures.

Table B-2. Functional characteristics of out-of-high school young adult respondents and those for whom parents responded

Functional characteristics	All young adults	Parent respondents	Young adult respondents
	Percent		
Functional cognitive skills scale score:			
High (13-16)	71.7 (2.67)	70.1 (4.34)	72.9 (3.38)
Medium (8-12)	25.1 (2.57)	24.6 (4.08)	25.5 (3.31)
Low (4-7)	3.2 (1.04)	5.4 (2.14)	1.7 (0.97)
Youth had at least “some trouble”:			
Seeing	15.1 (2.15)	16.0 (3.57)	14.5 (2.69)
Speaking	26.7 (2.69)	26.4 (4.32)	26.9 (3.43)
Understanding speech	30.3 (2.80)	32.2 (4.63)	29.1 (3.50)
Conversing with others	30.3 (2.80)	33.8 (4.66)	28.1 (3.48)
Using one or more appendages	13.3 (2.05)	14.7 (3.46)	12.5 (2.53)
Youth’s general health was excellent	29.8 (2.59)	40.5 (4.60)	23.0 (2.98)

NOTE: Standard errors are in parentheses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent and youth telephone interview/mail survey, 2007.

The majority of young adults with disabilities were identified as having a disability at school entry or in their early years in school (table B-3); 46 percent were reported to have had their disability first identified at ages of 5 to 7, although almost one-third (28 percent) had their disabilities first identified in their infant, toddler, or preschool years. The majority of young adults first began receiving special education services in elementary school, with 47 percent receiving services in their first few years in school and 32 percent receiving services for the first time between ages 8 and 10. No significant differences in the age when a young adult’s disability was first identified or when services were first received were apparent between the two respondent groups.

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[54] Parents were asked to use a 4-point scale ranging from “not at all well” to “very well” to evaluate four of their sons’ or daughters’ skills that often are used in daily activities: reading and understanding common signs, telling time on a clock with hands, counting change, and looking up telephone numbers and using the telephone. These skills are referred to as “functional cognitive skills” because they require the cognitive ability to read, count, and calculate. As such, they suggest much about students’ abilities to perform a variety of more complex cognitive tasks. However, they also require sensory and motor skills—to see signs, manipulate a telephone, and so on. Consequently, a high score indicates high functioning in all of these areas, but a low score can result from a deficit in the cognitive, sensory, and/or motor domains. A summative scale of parents’ ratings of these functional cognitive skills ranges from 4 (all skills done “not at all well”) to 16 (all skills done “very well”).

Table B-3. Age at identification of and first services for disabilities of out-of-high school young adults respondents and those for whom parents responded

Youth's age	All young adults	Parent respondents	Young adult respondents
	Percent		
Disability first identified at age:			
Birth-1	13.0 (1.86)	14.4 (2.99)	11.8 (2.34)
2-4	15.3 (1.99)	14.1 (2.95)	16.3 (2.68)
5-7	45.6 (2.75)	41.7 (4.19)	48.7 (3.63)
8-10	18.0 (2.12)	19.3 (3.36)	17.0 (2.72)
11 or older	8.2 (1.5)	10.6 (2.61)	6.2 (1.75)
Special education services in school first received at age:			
5-7	46.8 (2.74)	44.2 (4.23)	48.9 (3.57)
8-10	31.5 (2.55)	31.3 (3.95)	31.6 (3.32)
11-13	16.9 (2.06)	19.2 (3.36)	15.1 (2.56)
14 or older	4.8 (1.17)	5.3 (1.91)	4.4 (1.47)

NOTE: Standard errors are in parentheses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 4 parent and youth telephone interview/mail survey, 2007.

Distribution of Demographic Characteristics Across Disability Categories

Findings in this report are presented for young adults with disabilities as a group and then are reported separately for young adults in each federal special education disability category. Findings also are reported for young adults who differ in secondary school-leaving status, gender, race/ethnicity, and household income. These bivariate analyses should not be interpreted as implying that a factor on which subgroups are differentiated (e.g., disability category) has a causal relationship with the differences reported. Further, readers should be aware that demographic factors (e.g., race/ethnicity and household income) are correlated among young adults with disabilities, as well as being distributed differently across disability categories. Table B-4 presents demographic characteristics of young adults with disabilities overall and within each disability category.[55]

This report represents young adults who were in the 19- to 23-year-old age range. Thirty-three percent of young adults were 19- to-20 years old, 20 percent were 21-year-olds, 28 percent who were 22-year-olds, and 19 percent who were 22-year-olds. More young adults with speech/language impairments (45 percent) than youth with disabilities as a group (33 percent) were in the youngest age category (19-to-20 years old, $p < .01$).

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[55] See Wagner et al. (2003) for relationships of demographic factors and disability categories for the full NLTS2 sample.

Eleven percent of young adults with disabilities had left high school without a diploma or a certificate of completion.[56] Fewer young adults with visual impairments (3 percent) or hearing impairments (4 percent) than those with disabilities overall did not complete high school ($p < .001$ for both comparisons).

Table B-4. Demographic characteristics of out-of-high school young adults with disabilities, by disability category

Characteristics	All disabilities	Learning disability	Speech/language impairment	Mental retardation	Emotional disturbance	Hearing impairment	Visual impairment	Orthopedic impairment	Other health impairment	Autism	Traumatic brain injury	Multiple disabilities	Deaf-blindness
	Percent												
Age													
19-20	32.5	34.4	44.8	25.4	30.0	26.0	21.1	24.0	29.1	23.9	24.4	20.4	27.8
	(2.47)	(3.78)	(3.88)	(3.53)	(4.02)	(4.45)	(4.70)	(4.00)	(3.80)	(4.49)	(6.48)	(4.58)	(6.12)
21	20.3	18.6	22.8	21.6	24.0	21.6	26.1	21.5	27.8	19.6	20.4	19.2	21.4
	(2.12)	(3.10)	(3.27)	(3.34)	(3.75)	(4.18)	(5.05)	(3.85)	(3.75)	(4.18)	(6.08)	(4.48)	(5.60)
22	28.1	28.8	19.8	30.7	21.9	32.8	29.9	32.4	27.1	33.1	34.7	37.9	25.9
	(2.37	(3.60)	(3.11)	(3.75)	(3.63)	(4.77)	(5.27)	(4.38)	(3.72)	(4.95)	(7.19)	(5.52)	(5.99)
23	19.2	18.2	12.7	22.3	24.1	19.6	23.0	22.1	16.0	23.5	20.6	22.6	24.9
	(2.07)	(3.07)	(2.60)	(3.38)	(3.70)	(4.03)	(4.84)	(3.88)	(3.07)	(4.46)	(6.10)	(4.76)	(5.92)
High school-leaving status													
Completed high school	89.4	90.8	91.8	87.1	80.2	96.2	97.4	95.6	88.4	94.3	95.1	94.9	94.3
	(1.62)	(2.30)	(2.14)	(2.72)	(3.49)	(1.94)	(1.83)	(1.93)	(2.68)	(2.44)	(3.25)	(2.51)	(3.16)
Did not complete high school	10.6	9.2	8.2	12.9	19.8	3.8	2.6	4.5	11.6	5.7	4.9	5.1	5.7
	(1.62)	(2.30)	(2.14)	(2.72)	(3.49)	(1.94)	(1.83)	(1.93)	(2.68)	(2.44)	(3.25)	(2.51)	(3.16)
Gender													
Male	63.1	62.0	62.4	56.4	73.9	52.8	54.0	54.7	71.4	87.3	69.3	61.7	66.9
	(2.54)	(3.86)	(3.78)	(4.03)	(3.85)	(5.07)	(5.74)	(4.66)	(3.78)	(3.51)	(6.96)	(5.53)	(6.43)
Female	36.9	38.0	37.6	43.6	26.1	47.2	46.0	45.3	28.6	12.7	30.7	38.3	33.1
	(2.54)	(3.86)	(3.78)	(4.03)	(3.85)	(5.07)	(5.74)	(4.66)	(3.78)	(3.51)	(6.96)	(5.53)	(6.43)
Race/ethnicity													
White	64.4	64.7	70.8	56.2	63.5	61.0	64.4	66.6	75.5	72.0	72.1	69.9	59.9
	(2.53)	(3.82)	(3.55)	(4.03)	(4.23)	(4.97)	(5.52)	(4.41)	(3.62)	(4.75)	(6.78)	(5.24)	(6.70)
African American	19.6	17.7	14.0	32.1	23.9	15.5	18.8	16.2	13.8	17.0	15.5	16.2	12.7
	(2.10)	(3.05)	(2.71)	(3.79)	(3.74)	(3.69)	(4.50)	(3.44)	(2.90)	(3.97)	(5.46)	(4.21)	(4.55)
Hispanic	13.3	15.0	12.5	8.6	10.2	18.3	12.9	14.0	9.1	7.2	9.1	10.9	25.3
	(1.79)	(2.85)	(2.58)	(2.28)	(2.65)	(3.94)	(3.86)	(3.24)	(2.41)	(2.73)	(4.35)	(3.55)	(5.94)
Household income													
$25,000 or less	33.0	30.3	22.8	55.2	38.5	28.1	25.8	25.8	18.6	16.8	28.9	31.2	33.9
	(2.50)	(3.70)	(3.31)	(4.10)	(4.31)	(4.61)	(5.10)	(4.15)	(3.28)	(3.97)	(6.86)	(5.34)	(6.51)
$25,001 - $50,000	29.7	31.9	28.5	22.6	27.4	23.4	29.7	29.8	27.4	28.9	28.1	22.7	20.4
	(2.43)	(3.75)	(3.56)	(3.45)	(3.95)	(4.34)	(5.32)	(4.34)	(3.76)	(4.82)	(6.81)	(4.83)	(5.54)
More than $50,000	37.3	37.8	48.8	22.2	34.2	48.6	44.5	44.4	54.1	54.3	43.0	46.1	45.8
	(2.57)	(3.90)	(3.94)	(3.43)	(4.20)	(5.13)	(5.79)	(4.71)	(4.20)	(5.29)	(7.50)	(5.75)	(6.85)

NOTE: Standard errors are in parentheses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 5 parent and youth telephone interview/mail survey, 2009.

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[56] This includes 10 percent of young adults who were reported to have dropped out and 1 percent who reportedly left high school without finishing for other reasons (e.g., permanent expulsion). Approximately 8 percent had not completed high school in an earlier wave of NLTS2 data collection, but had since earned their GED or high school equivalency. These young adults are included in this report’s analyses as being high school completers.

Whereas about half of young adults in the general population (51 percent) were male,[57] more than two-thirds of out-of-high school young adults with disabilities (63 percent) were male ($p < .001$). Young adults with autism had a higher percentage of males (87 percent) compared with young adults with disabilities overall ($p < .001$).

Young adults with disabilities differed from those in the general population in their racial/ethnic backgrounds. They were disproportionately likely to be African American, relative to the general population; African Americans comprised 15 percent of young adults in the general population[58] but 20 percent of young adults with disabilities ($p < .01$). Young adults with mental retardation were more likely to be African American than were young adults with disabilities as a group (32 percent vs. 20 percent, $p < .01$).

Young adults with disabilities were more likely than those in the general population to have come from families with lower income level households. One-third of those with disabilities (33 percent) included in this report had families with incomes of $25,000 or less; in comparison, 29 percent[59] of their peers in the general population lived in low-income-level households ($p < .01$). Young adults with mental retardation (55 percent) were more likely and young adults with autism (17 percent) or other health impairments (19 percent) were less likely to come from families with incomes of $25,000 or less than were young adults with disabilities as a group (33 percent, $p < .001$).

Appendix B Reference

Wagner, M., Marder, C., Levine, P., Cameto, R., Cadwallader, T.W., Blackorby, J., Cardoso, D., and Newman, L. (2003). *The Individual and Household Characteristics of Youth with Disabilities. A Report from the National Longitudinal Transition Study-2 (NLTS2)*. Menlo Park, CA: SRI International.

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[57] General population data computed for 19- to 23-year-olds, using United States Census Bureau 2000 data.

[58] See footnote 4.

[59] See footnote 4.