

# The Post-High School Outcomes of Youth With Disabilities up to 4 Years After High School

A Report From the National Longitudinal Transition Study-2 (NLTS2)





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April 2009

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## Executive Summary

At various times in history, changes in economic and social conditions have generated a reconsideration of how best to characterize the life stages through which most individuals in a society progress. Increasingly, researchers contend that changes in the latter part of the 20th century and the early 21st century have brought us to another such time of reconsideration (e.g., Fussell and Furstenberg 2005). They suggest that, among other social shifts, an increasing emphasis on postsecondary education and the growing struggles postadolescents face in becoming economically self-sufficient elongate or postpone the transitions usually associated with adulthood—“completion of schooling, movement from the parental household, entrance into the labor force, formation of partnerships, and the onset of childbearing and parenting” (Furstenberg, Rumbaut, and Settersten 2005, p. 7). Recognizing this reality, a growing body of research focuses on the period of “early adulthood” as distinct from adolescence and full adulthood (e.g., Arnett 2002; 2001).

The National Longitudinal Transition Study-2 (NLTS2), funded by the National Center for Special Education Research at the Institute of Education Sciences, U.S. Department of Education, 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 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, under the Individuals With Disabilities Education Act (IDEA) in the 2000–01 school year. 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. The study is designed to collect data on sample members from multiple sources in five waves, beginning in 2001 and ending in 2009.

Much of the information reported in this document comes from youth with disabilities themselves in the form of responses to either a telephone interview or a self-administered mail survey with a subset of key items from the telephone interview<sup>1</sup> conducted in 2005, as part of NLTS2’s third wave of what will eventually be five waves of data collection, referred to as Wave 3. Data for youth who were reported by parents to be unable to respond to an interview or complete a questionnaire or who did not respond to interview or survey attempts were provided by parents. Data from the three sources were combined for the analyses reported here and subsetting to include only data for out-of-high school youth. In constructing variables that describe youth’s experiences since leaving high school, data from the Wave 2 youth telephone interview and mail survey or the Wave 2 parent telephone interview (conducted in 2003) also were used for youth who were out of high school at that time. When similar data are available, comparisons are made between youth with disabilities and the same-age youth in the general population. General population comparison data were taken from The National Longitudinal Survey of Youth, 1997 (NLSY97), 2001 data collection, and from The National Longitudinal Study of Adolescent Health (Add Health), Wave 3. Both sets of general population data were

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<sup>1</sup> Only a subset of items was included in the mail survey because the full set of items was considered too lengthy to be feasible for a mail questionnaire format.

collected in 2001 and comparison analyses of these weighted data include a subset of respondents who were out of high school at the time and were 17 to 21 years old in NLSY97 or 18 to 21 years old in Add Health.<sup>2</sup>

This report focuses on the subset of youth with disabilities who were out of secondary school and 17 to 21 years old when telephone interviews were conducted with their parents and, whenever possible, with youth themselves in 2005. Youth included in this report varied in the length of time they were out of high school, ranging from less than 1 month to 4 years post-high school. NLTS2 findings reported in this document use information collected from these youth or parents to describe the experiences of youth with disabilities in the postsecondary education, employment, independence, and social domains in their first 4 years out of high school. Findings are presented for youth with disabilities as a whole and for those who differ in disability category, length of time out of high school, high school completion status, age, gender, parent's household income, and race/ethnicity.

This report is organized to provide information on out-of-high school youth with disabilities in several key domains, including the following:

- Postsecondary education enrollment and educational experiences, such as major field of study and support services received.
- Employment status and characteristics of youth's current or most recent job.
- Productive engagement in school, work, or preparation for work.
- Residential independence; the prevalence of marriage, parenting, and sexual behavior; and aspects of their financial independence.
- Social and community involvement, including friendship activities and community participation in both positive and negative ways.

This executive summary presents all findings related to these key domains that are included in the full report for out-of-high school youth with disabilities as a group as well as all differences between youth who differ in their high-school leaving and demographic characteristics that are significantly different at at least the  $p < .01$  level. Patterns of significant differences between disability categories are noted and illustrated by specific examples of significant findings.

## **Postsecondary Education**

As the American economy becomes progressively more knowledge based, attaining a postsecondary education becomes more critical (Carnevale and Desrochers 2003). NLTS2 provides the opportunity to examine the postsecondary education experiences of youth with disabilities who have been out of secondary school up to 4 years, including both those who completed high school (those who graduated, received a certificate of attendance or completion, or who passed a high school exit exam or completed a GED program) and those who did not (dropped out or were permanently suspended or expelled).

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<sup>2</sup> Youth 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.



- Forty-five percent of youth with disabilities reported having continued on to postsecondary education within 4 years of leaving high school.
- Youth with disabilities were reported to be more likely to have enrolled in 2-year or community colleges (32 percent) than in vocational, business, or technical schools (23 percent) or 4-year colleges or universities (14 percent), and of those options, were least likely to have enrolled in 4-year colleges.
- On average, students with disabilities who continued on to postsecondary school did so within 5 months of leaving high school. Students enrolled in 4-year colleges sooner after high school than they did in postsecondary vocational, business, or technical schools (3 months vs. 7 months).
- Most students with disabilities were enrolled in postsecondary education programs on a consistent (86 percent), full-time (71 percent) basis.
- Postsecondary students who attended 2-year colleges were more likely to have been enrolled in an academic than vocational course of study (57 percent vs. 29 percent). Students at all types of colleges focused on a broad range of majors.
- To receive accommodations or supports from a postsecondary school because of a disability, students first must disclose a disability to their school. Fifty-five percent of postsecondary students who were identified by their secondary schools as having a disability did not consider themselves to have a disability by the time they transitioned to postsecondary school. Thirty-seven percent of postsecondary students with disabilities identified themselves as having a disability and informed their postsecondary schools of their disability.
- Twenty-four percent of postsecondary students who were identified as having a disability by their secondary schools were reported to receive accommodations or supports from their postsecondary schools because of their disability. In contrast, when these postsecondary students were in high school, 84 percent received some type of accommodation or support because of a disability.
- Postsecondary students who were given assistance because of their disability received a range of accommodations and supports from their schools. Additional time to complete tests was the most frequently received type of assistance, with 68 percent receiving this type of accommodation.
- Postsecondary students received help with their schoolwork beyond the support provided by schools because of their disability. Forty-four percent reported receiving some type of help, whether or not the assistance was related to their disability.
- Most students who received any type of help with their schoolwork reported that these supports were “very” or “somewhat” useful (90 percent) and that they “probably” or “definitely” (86 percent) were getting enough assistance.
- Eighty-nine percent of students with disabilities who were currently enrolled in postsecondary school reported that they were working toward a diploma or certificate. A total of 29 percent had graduated or completed their programs by the time they left their postsecondary schools.

## Employment

Many adults consider employment a central component of their lives (Levinson and Palmer 2005). Employment has been linked to a range of positive outcomes, including economic independence and enhanced self-esteem (Fabian 1992; Lehman et al. 2002; Polak and Warner 1996).

- Working for pay outside the home was an aspect of the early post-high school experiences of a majority of youth with disabilities. Seventy-two percent of youth with disabilities out of high school up to 4 years reported having been employed at some time since leaving high school, holding an average of two or three jobs.
- Among youth with disabilities who had been out of high school 1 to 4 years, 58 percent worked full time at their current or most recent job.
- Wages of working youth averaged \$8.20 per hour in 2005, and 44 percent received at least one of the benefits investigated in NLTS2 (paid vacation or sick leave, health insurance, or retirement benefits).
- Youth working full time (35 hours or more per week) were more likely to earn more than \$9.00 per hour than youth working part time (35 percent vs. 15 percent). Youth working full time were more likely to receive paid vacation or sick leave and health insurance (43 percent and 40 percent, respectively) than those working part time (21 percent and 15 percent, respectively).
- About 19 percent of working youth reportedly had employers who were aware of their disability, and 3 percent reported receiving some kind of accommodation on the job, most often adaptations to assignments or supervisory arrangements.
- Approximately 85 percent of working youth reported that they liked their job at least fairly well and 87 percent reported being treated pretty well by others at their job. Approximately 67 percent to 78 percent agreed that their job paid pretty well, offered opportunities for advancement, put their education and training to good use, and, among those employed 6 months or more, had thus far involved a raise or promotion.
- Despite positive feelings about their jobs, out-of-high school youth with disabilities were more likely to have quit their last job (53 percent) than to have left for other reasons.

## Productive Engagement in the Community

NLTS2 considered youth with disabilities as being productively engaged in the community if 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 youth 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”—i.e., “the percent of youth 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.

- Eighty-five percent of youth with disabilities who had been out of secondary school up to 4 years were reported to have been engaged in employment, postsecondary education, and/or job training during this post-high school period.
- Thirty-six percent had paid employment as their only mode of engagement.
- Thirty-one percent had been employed since leaving high school and also had been enrolled in postsecondary education.
- Nine percent had been employed and also involved in other activities, including job training.
- Postsecondary education was the only mode of engagement since high school for 6 percent of those with disabilities.

### **Household Circumstances of Out-of-High School Youth With Disabilities**

Markers on the path to adult life typically have included financial and residential independence and self-sufficiency, marriage, relationships, and parenting (Hogan and Astone 1986; Modell 1989; Rindfuss 1991).

- Within the first few years of leaving high school, 25 percent of youth with disabilities had lived independently (on their own or with a spouse, partner, or roommate), and 6 percent had lived semi-independently (primarily in a college dormitory or military housing).
- When youth were asked about their satisfaction with their current living arrangement, 58 percent reported being satisfied with their residential arrangement. Those who lived independently or semi-independently were more than twice as likely to be satisfied with their residential arrangement as those who lived with their parents (45 percent vs. 17 percent).
- Seventy-three percent of youth with disabilities who were age 18 or older reported ever having had sexual intercourse.
- Of those who had ever had sexual intercourse, 70 percent reported that they or their partner used a condom the last time they had intercourse, and 87 percent reported having used any contraception.
- Eleven percent of youth with disabilities reported having had or fathered a child by the time they had been out of high school for up to 4 years. Seven percent of males reported having fathered a child and 18 percent of females reported having had a child.
- Ten percent of youth with disabilities were married or living in a marriage-like relationship.
- Fifty-six percent of youth with disabilities had a savings account, 46 percent had a checking account, and 28 percent had a credit card in their own name. Eighty-nine percent had annual individual incomes (or for those living with a spouse, household incomes) of \$25,000 or less.

## **Social and Community Involvement of Out-of-High School Youth With Disabilities**

Living successfully in their communities has long been considered central to youth with disabilities' quality of life (Halpern 1985). An important aspect of whether a youth 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. 480).

- NLTS2 findings suggest that youth with disabilities had active friendships—87 percent reported seeing friends outside of organized activities at least weekly.
- Forty-eight percent were reported to communicate by computer at least once a week, with 24 percent doing so once a day or more often.
- The participation rate in any one of three types of extracurricular activities—lessons or classes outside of school, volunteer or community service activities, and organized school or community groups—was 49 percent, ranging from 22 percent to 31 percent of youth across the three types of activities.
- Six percent of youth were reported never to see friends outside of organized activities, and 51 percent did not take part in any of the three types of extracurricular activities mentioned above.
- Two-thirds (69 percent) of out-of-high school youth with disabilities had driving privileges and 67 percent exercised civic participation through registering to vote.
- Several negative forms of community participation or involvement also characterized the out-of-high school experiences of some youth with disabilities. For example, 21 percent reported having been in a physical fight in the past year, 11 percent reported carrying a weapon in the past 30 days, and 2 percent reported being gang members.
- Fifty-three percent of out-of-high school youth with disabilities reported at some time having been stopped and questioned by police for reasons other than a traffic violation, and 28 percent had been arrested. Fifteen percent had spent a night in jail and 17 percent were reported to have been on probation or parole.

## **Disability Category Differences**

Disability category differences are apparent in many of the post-high school outcomes examined in this report. For example, youth with sensory impairments, emotional disturbances, mental retardation, or multiple disabilities were quite different from each other in their patterns of post-high school outcomes.

### ***Youth With Sensory Impairments***

- For example, youth with visual or hearing impairments were more likely to attend postsecondary school (78 percent and 72 percent, respectively) than were those with speech/language, other health, or orthopedic impairments; learning disabilities; multiple disabilities; emotional disturbances; or mental retardation (55 percent, 55 percent, 54 percent, 47 percent, 35 percent, 34 percent, and 27 percent, respectively).
- Youth with visual or hearing impairments also were more likely to consider themselves to have a disability (83 percent and 71 percent, respectively) than were youth in the categories of orthopedic, other health, or speech/language impairment; mental retardation; traumatic brain injury; learning disability; or emotional disturbance

(69 percent, 43 percent, 26 percent, 60 percent, 53 percent, 43 percent, and 37 percent, respectively). Postsecondary students with visual or hearing impairments were more likely to have disclosed that disability to their postsecondary schools (79 percent and 65 percent, respectively) than were youth with orthopedic, other health, or speech/language impairments; mental retardation; traumatic brain injuries; learning disabilities; or emotional disturbances (63 percent, 38 percent, 18 percent, 56 percent, 52 percent, 36 percent, and 21 percent, respectively). Youth with visual or hearing impairments also were more likely to have received accommodations and supports from their schools because of a disability (58 percent and 56 percent, respectively) than were youth in the categories of traumatic brain injury; orthopedic, other health, or speech/language impairment; mental retardation; learning disability; and emotional disturbance (46 percent, 40 percent, 19 percent, 10 percent, 26 percent, 24 percent, and 13 percent, respectively).

- Employed youth with visual or hearing impairments were more likely to have disclosed a disability to employers (65 percent and 60 percent, respectively) compared with youth with other health impairments, mental retardation, emotional disturbances, learning disabilities, or speech/language impairments (29 percent, 25 percent, 18 percent, 16 percent, and 15 percent, respectively).
- Youth with hearing or visual impairments also were more likely to use computers at least daily to e-mail, instant message, or participate in chat rooms (39 percent and 45 percent, respectively) compared with youth with mental retardation (12 percent); youth with visual impairments also exceeded those with emotional disturbances (19 percent) in their use of electronic communication. Youth with visual impairments were more likely to have taken lessons or classes outside of formal school enrollment (52 percent) than were youth in the categories of emotional disturbance (19 percent) or mental retardation (9 percent). They also had a significantly higher rate of participation in volunteer or community service activities (67 percent) than did youth in seven disability categories: learning disability (25 percent); mental retardation (20 percent); emotional disturbance (24 percent); hearing, orthopedic, and other health impairment (26 percent, 28 percent, and 24 percent, respectively); and autism (16 percent). Youth with visual impairments also were more likely to have belonged to an organized community or extracurricular group than youth with mental retardation (46 percent vs. 12 percent).

### ***Youth With Emotional Disturbances***

- Youth in several categories were more likely than those with emotional disturbances to have enrolled in postsecondary programs, including those with visual or hearing impairments; autism; other health, speech/language or orthopedic impairments (34 percent vs. 78 percent, 72 percent, 58 percent, 55 percent, and 54 percent, respectively). Youth with emotional disturbances who were enrolled in postsecondary programs were more likely than youth in several other disability categories to report that they did not consider themselves to have a disability, including those with autism, hearing or visual impairments, and multiple disabilities (63 percent vs. 31 percent, 29 percent, 17 percent, and 19 percent, respectively). Thus, youth in several other categories were more likely to have informed their schools of a disability than were

those with emotional disturbances, including youth with visual, hearing, or orthopedic impairments; multiple disabilities; mental retardation; and autism (21 percent vs. 79 percent, 65 percent, 63 percent, 79 percent, 56 percent, and 55 percent, respectively).

- Involvement with the criminal justice system also was more common for youth with emotional disturbances than those in many other categories. They were more likely to have been stopped by the police other than for a traffic violation (82 percent) than youth in all other categories except traumatic brain injury (17 percent to 54 percent).
- Youth with emotional disturbances also were more likely to have spent a night in jail (39 percent) than youth with other health or speech/language impairments (18 percent and 8 percent, respectively), visual or hearing impairments (6 percent), mental retardation (14 percent), traumatic brain injuries (12 percent), learning disabilities (11 percent), multiple disabilities or deaf-blindness (4 percent), or autism or orthopedic impairments (2 percent).
- Arrest was more common among youth with emotional disturbances (60 percent) than youth in all of the other categories, whose arrest rates ranged from 3 percent to 27 percent. They also were more likely to have been on probation or parole (39 percent) than youth in all other categories except traumatic brain injury (1 percent to 16 percent).

### ***Youth With Mental Retardation or Multiple Disabilities***

- Youth with mental retardation or multiple disabilities were exceeded by youth in several categories in their rates of being engaged in school, work, or preparation for work. For example, youth with other health impairments were more likely than those with mental retardation or multiple disabilities to report having been engaged in these activities since leaving high school (92 percent vs. 66 percent and 65 percent, respectively). Youth with learning disabilities or visual or hearing impairments also significantly exceeded youth with mental retardation in their rates of engagement (89 percent, 88 percent, and 86 percent, respectively, vs. 66 percent).
- In the postsecondary education domain, students with multiple disabilities were more likely to have reported considering themselves as having a disability than were those with speech/language impairments or emotional disturbances (81 percent vs. 27 percent and 37 percent). Students with multiple disabilities also were more likely to receive accommodations or supports because of a disability than were those with speech/language impairments, emotional disturbances, or other health impairments (67 percent vs. 10 percent, 13 percent, and 19 percent, respectively).
- In the social domain, 33 percent of youth with multiple disabilities reported seeing friends informally at least weekly. This rate was exceeded by youth in the categories of learning disability and visual impairment (92 percent), emotional disturbance (84 percent), and speech/language, hearing, and other health impairment (88 percent, 82 percent, and 79 percent, respectively). Youth with visual, hearing, or other health impairments also were more likely than youth with mental retardation to have belonged to an organized community group, taken extracurricular lessons or classes, or taken part in volunteer service activities (82 percent, 59 percent, and 58 percent, respectively, vs. 28 percent).

- In the financial domain, youth in most disability categories were more likely to have used several types of financial tools than were youth with mental retardation. For example, compared with youth with mental retardation, youth with hearing or other health impairments were more likely to have a savings account (65 percent and 66 percent, respectively, vs. 41 percent), checking account (63 percent and 58 percent, respectively, vs. 26 percent), or credit card (37 percent and 36 percent, respectively, vs. 9 percent), and those with visual or speech/language impairments or learning disabilities were more likely to have a checking account (71 percent, 57 percent, and 49 percent, respectively) or credit card (51 percent, 34 percent, and 31 percent, respectively).

From 65 percent to 92 percent of those in every disability category had engaged in school, work, or training for work since leaving high school. With the exception of youth with multiple disabilities, more than half of youth in each category (59 percent to 92 percent) saw friends at least weekly, and from 59 percent to 78 percent were registered to vote.

### **Differences in Experiences by Length of Time Out of High School**

Youth included in this report varied in their length of time out of high school, ranging from 1 month or less to 4 years post-high school. Thirty-nine percent of youth had been out of high school less than 1 year, 26 percent out between 1 and 2 years, and 36 percent out of high school for 2 to 4 years. Most post-high school experiences did not differ significantly across the number of years since youth had left high school. The experience that did differ by length of time out of high school was related to enrollment in postsecondary school. The likelihood of ever having been enrolled in postsecondary education was higher for those who had been out of high school longer than 1 year. Thirty-one percent of those out of high school up to 1 year had been enrolled in postsecondary school at some point, compared with 63 percent of those out of high school 1 to 2 years and 65 percent of those out of high school 2 to 4 years.

### **Differences in Experiences by High School Completion Status**

High school completers (those who graduated, received a certificate of attendance or completion, or who passed a high school exit exam or completed a GED program) were more likely to experience several positive post-high school outcomes than were the approximately 20 percent of youth with disabilities who left high school without finishing.

- High school completers were three times as likely as their peers who did not complete high school to have enrolled in a postsecondary school (51 percent vs. 17 percent).
- School completion status was not significantly related to rates of employment; however, those who had completed high school were more likely than noncompleters to use financial tools, such as savings (60 percent vs. 35 percent) or checking accounts (53 percent vs. 13 percent) or credit cards (32 percent vs. 8 percent).
- High school completers were more likely than noncompleters to take part in some form of community activity (55 percent vs. 20 percent) and in extracurricular classes specifically (26 percent vs. 4 percent).
- Youth who left high school without finishing were more likely than high school completers to have been involved with the criminal justice system, including being stopped by police other than for a traffic violation (73 percent vs. 48 percent), arrested (49 percent vs. 22 percent), and put in jail overnight (33 percent vs. 11 percent).

## Demographic Differences in Post-High School Experiences

Differences were apparent across youth demographic characteristics, such as gender, age, household income, and race/ethnicity for some post-high school outcomes but not for others.

Postsecondary school enrollment; engagement in school, work, or training for work; and most aspects of independence, including residential arrangements, marital status, having driving privileges, and using personal financial management tools, were similar for young men and women with disabilities. However, some gender differences were apparent:

- Males were more likely than females to work full time (68 percent vs. 35 percent).
- Males were more likely than females to report carrying a weapon in the preceding 30 days (17 percent vs. 1 percent), to have been stopped by police other than for a traffic violation (59 percent vs. 38 percent), and to have been arrested (33 percent vs. 17 percent).

Youth with disabilities who came from households with different income levels were similar in several aspects of their post-high school experiences. For example, social and community involvement, residential independence, parenting status, and involvement in violence-related activities or with the criminal justice system did not differ significantly by the economic status of the households in which youth with disabilities grew up. However, youth from wealthier families<sup>3</sup> were more likely than their peers to experience several positive outcomes:

- Those from households with incomes of more than \$50,000 were almost twice as likely as their peers from household with incomes of \$25,000 or less to have enrolled in 2-year colleges (57 percent vs. 30 percent), to have been employed since leaving high school (81 percent vs. 61 percent), and to have been productively engaged in education, employment, or job training since leaving high school (93 percent vs. 75 percent).
- They also were more likely to have a savings (69 percent vs. 40 percent), a checking account (60 percent vs. 29 percent), or a credit card (44 percent vs. 11 percent). Youth with disabilities in the highest income group were more likely to be reported to have electronic communication at least daily than youth from households in the lowest income group (33 percent vs. 13 percent), and youth with disabilities from the middle and the upper income groups were significantly more likely to have driving privileges than youth from households with incomes of \$25,000 or less (75 percent and 83 percent, respectively, vs. 51 percent).

Similarities and differences also were apparent for youth with different racial/ethnic backgrounds.<sup>4</sup> There were no significant differences across racial/ethnic groups in the likelihood of being engaged in school, work, or preparation for work; in postsecondary school enrollment; in social or community involvement; in parenting status; and in involvement in violence-related activities or with the criminal justice system. For post-high school outcomes that differed by race/ethnicity:

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<sup>3</sup> Parent/guardian household income was analyzed using three categories: \$25,000 or less, \$25,001 to \$50,000, and more than \$50,000.

<sup>4</sup> NLTS2 analyses included three racial/ethnic categories: White, African American, and Hispanic.



- White youth were more likely to have been employed since high school than their African American peers (80 percent vs. 47 percent).
- White youth were more likely than Hispanic youth to live independently (29 percent vs. 10 percent) and were more likely than their African American peers to have a checking account (55 percent vs. 24 percent) and a driver's license (79 percent vs. 49 percent).

## **Comparisons With the General Population**

When similar data items were available, comparisons were made between youth with disabilities and the same-age youth in the general population. Comparison data were taken from The National Longitudinal Survey of Youth, 1997 (NLSY97), 2001 data collection, and The National Longitudinal Study of Adolescent Health, (ADD Health), Wave 3, collected in 2001-02.

The picture of youth with disabilities presented in this report differed from that of youth in the general population in several dimensions; for example:

- Youth with disabilities were less likely to enroll in postsecondary programs than were their peers in the general population (45 percent vs. 53 percent).
- Rates of attendance at 2-year colleges were similar for both groups; the gap in postsecondary enrollment between youth with disabilities and those in the general population was most apparent for enrollment in 4-year universities (8 percent vs. 29 percent for enrollment at the time of the interview).
- Out-of-high school youth with disabilities were less likely than general population peers to be working when they were interviewed (57 percent vs. 66 percent), and the jobs held by youth with disabilities were of a shorter duration (on average, 10 months) than the average for youth in the general population (15 months) among those employed.
- Youth in the general population who were age 18 or older were more likely than their similar-age peers with disabilities to report ever having had sexual intercourse (83 percent vs. 73 percent). Youth with disabilities were more likely than those in the general population to report having used any contraception (87 percent vs. 75 percent).
- Youth in the general population were more likely than youth with disabilities to have a checking account (68 percent vs. 46 percent) or a credit card (50 percent vs. 28 percent).

## **Cautions in Interpreting Findings**

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

- The analyses are descriptive; none of the findings should be interpreted as implying causal relationships. Neither should differences between disability categories be interpreted as reflecting disability differences alone, because of the confounding of disability and other demographic factors.
- Data presented are combined youth self-report and parent-report data. If a Wave 3 youth interview/survey was completed, youth's responses to these items were used in this report. 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, parent 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—that is, would the same findings result if parents’ responses were reported instead of youth’s responses. When both parents and youth were asked whether the youth belonged to an organized community group, currently worked for pay, and worked for pay in the past 2 years, and the wages currently employed youth earned per hour, their responses agreed from 69 percent to 80 percent of the time.

- It is important to note that descriptive findings are reported for the full sample of out-of-high school youth; those findings are heavily influenced by information provided for youth with learning disabilities, who constitute 64 percent of the weighted sample. Comparisons also were conducted between groups of youth who differed with respect to disability category, high school-leaving status and timing, 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 youth with disabilities, as well as being distributed differently across disability categories. These complex interactions and relationships among subgroups relative to the variables included in this report have not been explored.
- Several types of analyses were conducted for this report, including between-group means, between-group percentages, and within-subject percentages. Because of the weighted nature of NLTS2 data, equality between the mean values of the responses to a single survey item in two disjoint subpopulations was based on a test statistic essentially equivalent to a two-sample *t* test for independent samples using weighted data. Sample sizes for each group being compared were never less than 30. For a two-tailed test, the test statistic was the square of the *t* statistic, which then followed an approximate chi-square distribution with one degree of freedom, that is, an *F* (1, infinity) distribution.
- Although discussions in the report emphasize only differences that reach a level of statistical significance of at least  $p < .01$ , the large number of comparisons made in this report will result in some significant differences that are “false positives,” or differences mistakenly determined to be significant when they are not (i.e., type I errors). Readers also are cautioned that the meaningfulness of differences reported here cannot be derived from their statistical significance.

## Looking Ahead

This report provides a national picture of the post-high school experiences of youth with disabilities who had been out of high school up to 4 years, how these experiences differed across disability categories and demographic groups, and, when data are available, how they compared with those of youth in the general population. NLTS2 will continue to follow the lives of youth with disabilities as they age, which will provide information to examine how post-high school outcomes might evolve over time.

## **1. The Early Adulthood of Youth With Disabilities**

At various times in history, changes in economic and social conditions have generated a reconsideration of how best to characterize the life stages through which most individuals in a society progress. The introduction of the notion of “adolescence” by Hall (1904) was such a change. The spread of public schooling and the industrialization of the economy increasingly pointed to the inappropriateness of dividing human experience into a stage associated with childhood and one associated with adulthood; adolescence, the years between 11 and 18, became accepted as a period of life distinct from both the years before and those after.

Increasingly, researchers contend that changes in the latter part of the 20th century and the early 21st century have brought us to another such time of reconsideration (e.g., Fussell and Furstenberg 2005). They suggest that, among other social shifts, an increasing emphasis on postsecondary education and the growing struggles postadolescents face in becoming economically self-sufficient elongate or postpone the transitions usually associated with adulthood—“completion of schooling, movement from the parental household, entrance into the labor force, formation of partnerships, and the onset of childbearing and parenting” (Furstenberg, Rumbaut, and Settersten 2005, p. 7). Recognizing this reality, a growing body of research focuses on the period of “early adulthood” as distinct from adolescence and full adulthood (e.g., Arnett 2002; 2001). The John T. and Catherine D. MacArthur Foundation Research Network on Transitions to Adulthood and Public Policy recently assembled an extensive collection of analyses of the social forces shaping the early adult period and the experiences that characterize it (Settersten, Furstenberg, and Rumbaut 2005). However, after reviewing available data, the authors conclude that there remains a need to “pioneer research efforts aimed at understanding the new frontiers of early adult life” (Settersten, Furstenberg, and Rumbaut 2005, p. 7).

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. This report focuses on the subset of youth with disabilities who were out of secondary school and 17 to 21 years old<sup>1</sup> when telephone interviews were conducted with their parents and, whenever possible, with youth themselves in 2005. NLTS2 findings reported in this document use information about these youth to describe the experiences of youth with disabilities in the postsecondary education, employment, independence, and social domains in their first 4 years out of high school.

### **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

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<sup>1</sup> Age was based on birthdates provided by parents during interviews and date of Wave 3 interview was used to determine youth age in 2005.

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.<sup>2</sup> (Details of the NLTS2 design, sample, and analysis procedures are presented in appendix A.)<sup>3</sup> The study is designed to collect data on sample members from multiple sources in five waves, beginning in 2001 and ending in 2009.<sup>4</sup>

The NLTS2 sample was constructed in two stages. 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 7th through 12th grades. 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 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.

## **Data Sources for Youth With Disabilities**

Multiple data sources were used in this report to describe the post-high school experiences of youth with disabilities at the time of the Wave 3 interview. Primary sources were the Wave 3 youth telephone interview and mail survey or the Wave 3 parent telephone interview, conducted in 2005.<sup>5</sup> In addition, those variables that describe youth's experiences since leaving high school were constructed based on data from the Wave 2 youth telephone interview and mail survey or the Wave 2 parent telephone interview (conducted in 2003) for youth who were out of high

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<sup>2</sup> The definitions of the 12 primary disability categories used here are specified by law and presented in table A-4, appendix A.

<sup>3</sup> Additional information about NLTS2 is available at [www.nlts2.org](http://www.nlts2.org).

<sup>4</sup> 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 telephone interviews and mail survey of youth, as in Waves 4 and 5 (2007 and 2009). High school transcripts were collected annually for youth leaving high school each year.

<sup>5</sup> NLTS2 instruments are available at [www.nlts2.org](http://www.nlts2.org).

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

Source	Number	Percent of eligible youth
Sample members with responses to Wave 3 survey, known to be out of secondary school at the time of the Wave 3 data collection	2,670	100.0
Wave 3 survey		
Youth telephone interview	1,620	60.7
Youth mail questionnaire	180	6.8
Parent telephone interview	470	17.6
Wave 2 survey		
Youth telephone interview	800	30.0
Youth mail questionnaire	70	2.6
Parent telephone interview	270	10.1
Wave 1 survey		
Parent interview	2,670	100.0
Student's school program survey	1,820	68.1
School and school district student rosters	2,670	100.0

school at that time. School district rosters and the Wave 1 parent interview or mail survey also provided a small amount of data used in this report. Each data source for youth with disabilities is described briefly below and discussed in greater detail in appendix A.

The data for this report were obtained on approximately 2,670 NLTS2 sample members with responses to the Wave 3 survey, who were known to be out of high school at the time of the Wave 3 data collection (table 1).

### ***Parent/Youth Data***

#### **Wave 3 Data**

Much of the information reported in this document comes from youth with disabilities themselves in the form of responses to either a telephone

interview or a self-administered mail survey with a subset of key items from the telephone interview.<sup>6</sup> Data for youth who were reported by parents to be unable to respond to an interview or complete a questionnaire or who did not respond to interview or survey attempts were provided by parents. Data from the three sources were combined for the analyses reported here and subsetted to include only data for out-of-high school youth.

**Youth telephone interview.** NLTS2 sample members who were eligible for a Wave 3 youth telephone interview were those (1) for whom working telephone numbers or addresses were available so that they could be reached by phone (a total of approximately 7,990 youth) 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 3,070 youth).<sup>7</sup> 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 adolescent children with disabilities were 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

<sup>6</sup> Only a subset of items was included in the mail survey because the full set of items was considered too lengthy to be feasible for a mail questionnaire format.

<sup>7</sup> See appendix A for more information on sample eligibility.

be asked.<sup>8</sup> Parents of youth 18 or older were informed of the kinds of questions that would be asked of the youth, but permission was not requested because the youth were no longer minors. Interviewers obtained contact information for these youth and attempted to complete telephone interviews with them. Telephone interviews were completed with approximately 2,810 youth, 92 percent of the approximately 3,070 youth who were eligible.<sup>9</sup> Approximately 1,620 telephone interview respondents to the Wave 3 youth telephone interview were out-of-high school youth, the focus of this report.

**Youth mail survey.** If parent respondents to the Wave 2 or Wave 3 telephone interview 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 3-eligible youth responded affirmatively, making their children eligible for a mail survey.<sup>10</sup> 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 480 youth, 65 percent of the approximately 740 youth who were eligible; approximately 180 mail questionnaire respondents were out-of-high school youth who are part of the sample that generated the findings reported in this document.

**Parent/guardian interview.** In addition to sample members who completed a telephone interview or mail survey, parents completed a telephone interview for approximately 1,560 sample members who did not respond for themselves, either because they were reported not to be able to do so or because youth who were reported to be able to respond could not be reached or refused to respond. 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 470 youth 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. Out-of-high school youth whose parents responded for

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<sup>8</sup> Parents were told that interview questions would pertain to “school or work and social activities, as well as a few questions about things like...” For youth younger than 18, the sentence was completed with “[his/her] attitudes and experiences, like ever having been arrested.” For youth age 18 or older, the sentence was completed with “[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. The parent continuation interview did not include any items addressed in this report; hence, these children are not represented in the findings presented here. 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.

<sup>9</sup> 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.

<sup>10</sup> 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.

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 Data**

As mentioned previously, several variables (a total of nine)<sup>11</sup> that were created for this report indicate whether a youth had had a particular experience “since high school.” Fifty-one percent of out-of-high school respondents (approximately 1,140 youth) had left high school since the Wave 2 data collection; thus, Wave 3 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 1,100 youth) were already out of high school in Wave 2. Thus, data from both Waves 2 and 3 needed to be taken into account to generate values for variables measuring experiences “since high school.” Wave 2 data also were used to determine whether youth had completed high school or left without completing and the year in which they left. Wave 2 data collection mirrored procedures followed for Wave 3. The Wave 2 youth telephone interview produced data for approximately 800 youth included in the sample that forms the basis of this report, the mail questionnaire generated data for approximately 70 youth, and parent interviews provided data for approximately 270 youth, for a total of approximately 1,140 sample members.

Because of the relatively small percentage of youth enrolled in postsecondary schools, Wave 2 data also were used to augment data for variables related to the postsecondary education experiences of students who had been enrolled in these types of schools. Variables included those related to timing and intensity of enrollment, course of study, receipt of accommodations and supports, and postsecondary school completion. Including Wave 2 data increased the sample size, enabling broader analyses of these variables, particularly analyses by disability category. For these variables, those youth who did not have Wave 3 data but who were out of high school in Wave 2 and had Wave 2 data, these data were combined with the responses of postsecondary attendees in Wave 3. Wave 3 data account for 86 percent to 97 percent of the variables related to postsecondary experiences, with a mean of 89 percent variables.

### **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 (youth’s gender and race/ethnicity) were drawn from these Wave 1 sources for the subset of out-of-high school youth with disabilities that forms the basis of this report.

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<sup>11</sup> The nine variables that focused on youth’s experiences “since high school” included employment status, wages, number of hours worked at current or most recent job, number of hours worked at all jobs, number of paid jobs, receipt of TANF, receipt of Food Stamps, classes taken to earn a high school diploma or certificate, and living arrangements.

### ***Student's School Program Survey***

One item reported in chapter 5 regarding whether youth had received reproductive-health/pregnancy-prevention education during high school came from the NLTS2 Student's School Program Survey. This mail survey was administered to school staff who were most knowledgeable about the overall school programs of NLTS2 sample members who attended their schools. Data were taken from the survey administered in Wave 1 for youth who were out of high school in Wave 2 and from Wave 2 for youth still in secondary school at that time. Survey data were available for approximately 1,820 youth who were out of high school in Wave 3 and had Wave 3 parent or youth data.

### ***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.

### **Data Sources for Comparisons With Youth in the General Population**

When similar data items were available, comparisons were made between youth with disabilities and the same-age youth in the general population.<sup>12</sup> Comparison data were taken from:

- 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 2001 data collection for youth who were 17 to 21 years old and out of high school at the time, to match the sample of NLTS2 youth included in this report. Calculations were made from public-use data available at <http://www.nlsinfo.org/web-investigator/webgator.php>. 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.

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<sup>12</sup> 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.



- The National Longitudinal Study of Adolescent Health, Wave 3. Comparisons with the general population regarding sexual behavior, 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.

## **Youth Included in the Report**

The youth who are the focus of this report represent only a subset of youth 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 youth 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 youth who were out of high school. To illustrate, consider the following groups:

A = The NLTS2 sample.

A1 = The portion of A for whom parental contact was attempted because parents stated that youth were unable to respond to an interview or complete a questionnaire. This also includes youth known to be deceased.

A2 = The portion of A for whom youth contact was attempted by telephone or mail survey because their parents stated they were capable of responding and, in the case of telephone interviews for youth younger than 18, gave consent for an interview.

For each of these three sample groups (A, A1, and A2), there is a corresponding group in the universe, which we denote as B, B1, and B2. The sizes of these universe subgroups can be estimated by weighting all youth in A (as if they all were respondents) up to the entire universe, B. Then the sum of the weights of all youth in A, A1, and A2 are estimates of the number of youth in B, B1, and B2.

However, responses were not obtained for all youth in A1 or A2. Let those youth for whom responses were obtained be labeled  $A_r$ . Weights were computed (adjusting for various youth and school characteristics used as stratifying or poststratifying variables) that project  $A_r$  up to B. These weights also allow respondents in A1 to be projected to B1 and respondents in A2 to be projected to B2. Analyses in this report were restricted to youth in A1 and A2 who were out of high school in Wave 3.

## Analysis Approaches

Analyses reported in this document involve simple descriptive statistics (e.g., percentages, means), bivariate relationships (i.e., cross-tabulations), and correlations. 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.

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. For example, each of the four possible response categories to a 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 youth 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., youth 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., youth with learning disabilities are significantly more likely than those with mental retardation to report that they are cared for “a lot” by parents), 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 Bernoullian-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 1971) and approximately follows a chi-square distribution with one degree of freedom. However, because the test statistic

itself is more similar in form to the square of a two-sample  $t$  statistic with unequal variances<sup>13</sup> (Satterthwaite 1946) and 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 1970), this statistic can be considered the same as an  $F$  value; it also can be considered “chi-squared.”

Tests also were conducted to examine differences in the rates at which youth with disabilities as a whole provided specific kinds of self-representations (for example, the percentage of youth 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.<sup>14</sup> 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  $F(1, \text{infinity})$  distribution.

In contrast to the dichotomous approach used in statistical tests examining differences in specific responses given by subgroups or across items by the same group, correlations were calculated by comparing responses on a scale that reflects the number of response category options. For example, a 4-point scale was created for variables with response categories related to youth’s perceptions of their strengths: “very good” (4 points), “pretty good,” “not very good,” or “not at all good” (1 point).

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<sup>13</sup> 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, 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. This test statistic is essentially equivalent to a two-sample  $t$  test for independent samples (Welch 1947) with design effect adjustments. The adjustment to the variances were 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 (Wilks 1962), an approximate 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  $F(1, \text{infinity})$  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 degrees of freedom, rather than 31 degrees of freedom, nevertheless resulted in actual  $p$  values that were slightly lower than nominal  $p$  values.

<sup>14</sup> 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  $F(1, \text{infinity})$  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 youth. 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 youth responded as they did or why responses differ for youth in different subgroups (e.g., disability categories).
- **Subgroups reported.** In each chapter, the descriptive findings are reported for the full sample of youth; those findings are heavily influenced by information provided by youth with learning disabilities, who constitute 64 percent of the weighted sample (see appendix B). Youth 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 youth in each federal special education disability category. Comparisons also were conducted between groups of youth who differed with respect to age, 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 youth with disabilities, as well as being distributed differently across disability categories (e.g., youth 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 youth within each disability category, by demographic characteristics).<sup>15</sup> 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  $1.96 \times 2$ , or

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<sup>15</sup> See Wagner et al. (2003) for relationships of demographic factors and disability categories for the full NLTS2 sample.

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 youth self-report and parent-report data.** If a Wave 3 youth interview/survey was completed, youth's responses to these items were used in this report. 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, parent 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 who did not have a youth interview. 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. When both parents and youth were asked whether the youth belonged to an organized community group, currently works for pay, and worked for pay in the past 2 years, and wages currently employed youth 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 youth 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 youth with deaf-blindness, estimates for that group have relatively 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 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 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 organized to provide information on out-of-high school youth with disabilities in several key domains. Chapter 2 describes the extent to which youth with disabilities enrolled in any postsecondary education and their participation in 2- and 4-year colleges and vocational or trade schools specifically; features of their educational experience, such as their major field of study and support services they accessed, also are presented. Chapter 3 considers the employment status of out-of-high school youth with disabilities, including current employment and employment since leaving high school. Characteristics of youth's current or most recent job also are described. Chapter 4 addresses the extent to which youth with disabilities were productively engaged in school, work, or preparation for work after they left high school.

The household circumstances of youth with disabilities are considered in chapter 5, including the extent to which youth were living away from home; the prevalence of marriage, parenting, and sexual behavior; and aspects of their financial independence. Chapter 6 focuses on the social and community involvement of youth with disabilities, including their friendship activities and community participation in both positive and negative ways, such as participation in extracurricular lessons or classes and organized group and volunteer activities, and involvement in violence-related activities and with the criminal justice system. The final chapter highlights key findings about the experiences of out-of-high school youth with disabilities across the domains that are the focus of individual chapters.

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

The following chapters provide the most recent national picture of multiple dimensions of the experiences of youth with disabilities who had been out of secondary school up to 4 years. These findings will be augmented in the next few years of NLTS2 as more youth transition to early adulthood and have increasing exposure to opportunities for postsecondary education, employment, and independent living.

## 2. Postsecondary Education

Over the past decades, enrollment in postsecondary education has become increasingly prevalent. Between 1960 and 2004, there was a 26-percentage-point increase in the college enrollment rate of recent high school graduates (U.S. Department of Education, National Center for Education Statistics 2006). 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, youth 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, youth 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). Postsecondary students with disabilities are not entitled to a free appropriate public education, as in high school, nor is there a mandatory Individualized Education Program (IEP) process to identify and provide for the supports they may need to succeed in school (Office for Civil Rights, U.S. Department of Education 2007). In high school, IDEA places “the burden on the school to find and serve the student with an IEP. In higher education the burden is on the student, not the school, to find the appropriate services and navigate through higher education” (Wolanin and Steele 2004, p. 27).

This understanding of the challenges posed by the postsecondary school environment for youth with disabilities raises the following questions:

- To what extent do youth 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 experiences of those enrolled in postsecondary schools, including the intensity of their enrollment and their course of study?
- To what extent do those who enroll receive supports and accommodations as part of their postsecondary education?
- What are the completion rates for students who enroll in postsecondary schools?

This chapter examines the postsecondary education experiences of youth with disabilities who have been out of secondary school up to 4 years. It focuses on participation in three types of institutions: 2-year or community colleges; postsecondary vocational, business, or technical schools; and 4-year colleges. The chapter begins with an examination of postsecondary education enrollment rates<sup>1</sup> and continues with findings regarding the experiences of postsecondary students with disabilities, including their courses of study, receipt of accommodations and modifications, and rates of completion. These findings are presented for youth with disabilities as a whole and for those who differ in length of time out of high school, high school completion status, disability category, age, gender, household income, and race/ethnicity.

## **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 youth who continue their education after high school, even for those who have not earned a degree (Marcotte et al. 2005).

For youth in the general population, “postsecondary enrollments are at an all-time high” (Ewell and Wellman 2007, p. 2). For youth with disabilities, 45 percent were reported to have continued on to postsecondary education within 4 years of leaving high school<sup>2</sup> (figure 1). The rate of postsecondary school enrollment for youth in the general population was higher than that of youth with disabilities, with 53 percent of similar-age youth in the general population<sup>3</sup> ever having attended postsecondary school ( $p < .001$ ).

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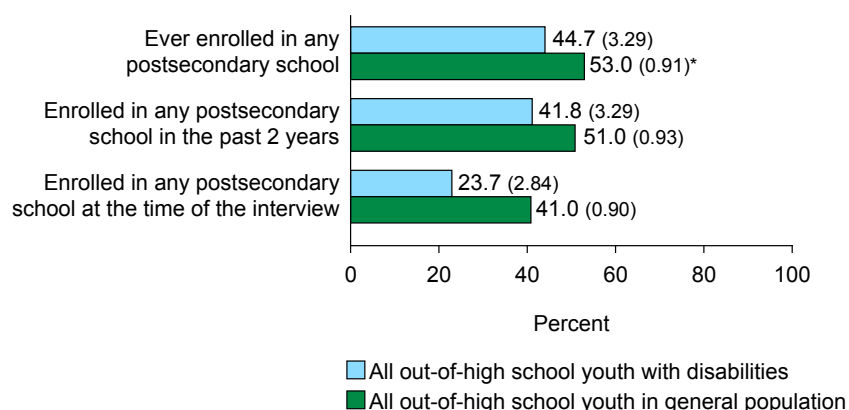
<sup>1</sup> Postsecondary education enrollment rates of youth with disabilities represented in NLTS2 are not compared with those reported for the original NLTS because age differences in the two samples make straightforward comparisons misleading.

<sup>2</sup> Respondents were asked, “Since leaving high school have you taken any classes from a [postsecondary school]?”

<sup>3</sup> U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97) 2001 youth survey, responses for 17- to 21-year-olds.



Figure 1. Postsecondary school enrollment of youth with disabilities and youth in the general population



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

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLT2 percentages are weighted population estimates based on samples of approximately 2,650 youth for ever enrolled and 2,620 youth for enrolled in the past 2 years and for currently enrolled in postsecondary school.

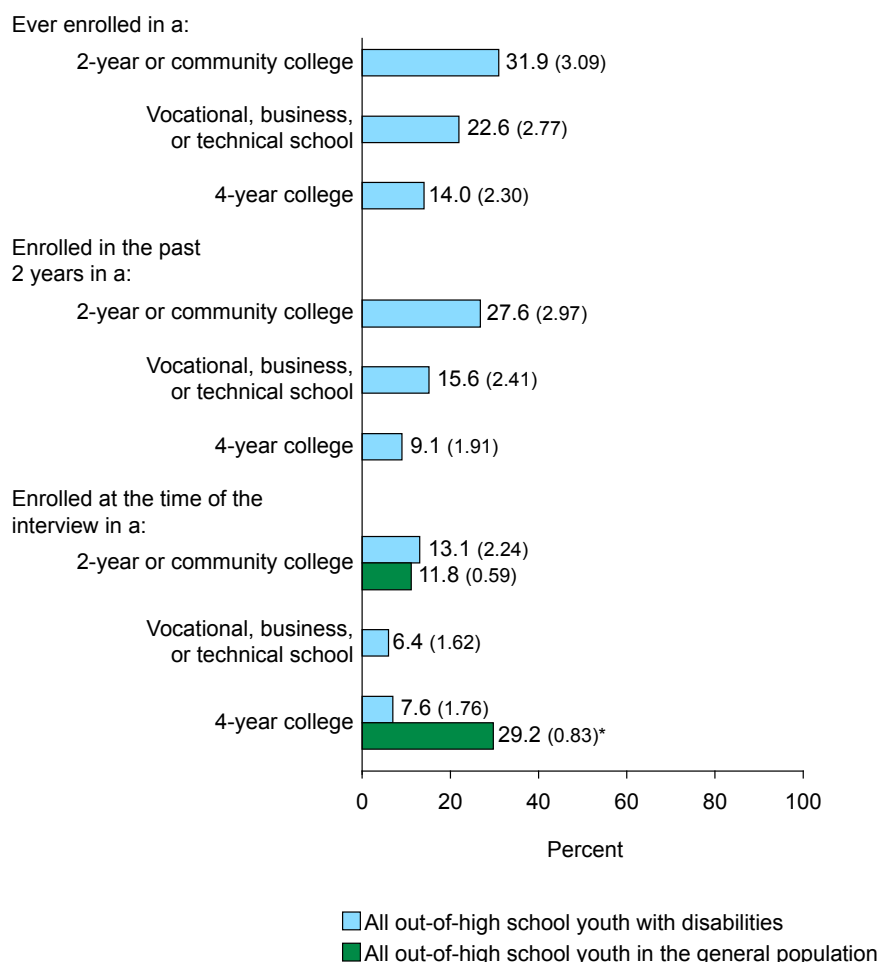
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLT2), Wave 3 parent interview and youth interview/survey, 2005; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97) 2001 youth survey, responses for 17- to 21-year-olds.

Forty-two percent of youth with disabilities out of high school up to 4 years were reported to have been enrolled in a postsecondary program in the 2 years prior to the interview. Youth in the general population were more likely than youth with disabilities to be enrolled in postsecondary education in the 2 years prior to the interview, as well as at the time of the interview. Approximately half (51 percent) of youth in the general population had been enrolled in college in the 2 years prior to the interview (vs. 42 percent,  $p < .01$ ). At the time of the interview, 41 percent of youth in the general population were enrolled in a postsecondary program, compared with 24 percent of those with disabilities<sup>4</sup> ( $p < .001$ ).

Rates of enrollment varied by type of postsecondary program. More youth with disabilities were reported to have ever enrolled in 2-year or community colleges (32 percent) than in postsecondary vocational, business, or technical schools (23 percent,  $p < .001$ ) or 4-year colleges or universities (14 percent,  $p < .001$ ; figure 2). Youth also were more likely to continue their education at a postsecondary vocational, business, or technical school than at a 4-year college ( $p < .01$ ).

<sup>4</sup> Respondents were asked, “Are you going to a [postsecondary school] now?” Those who had been enrolled in a postsecondary school but were not currently enrolled, were asked, “Are you not going to a [postsecondary school] now because you: are on school vacation, graduated or completed the program, or some other reason?” Respondents who were on school vacation were recoded as being currently enrolled in postsecondary school.

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



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

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,620 to 2,650 youth. General population comparison data only is available for enrollment at the time of the interview and is not available for vocational, business, or technical school enrollment

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 3 parent interview and youth interview/survey, 2005; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97) 2001 youth survey, responses for 17- to 21-year-olds.

The rate of enrollment of youth with disabilities in 2-year or community colleges at the time of the interview was not significantly different from that of their peers in the general population (13 percent and 12 percent). This stands in contrast to differences in enrollment rates at 4-year colleges. Similar-age youth in the general population were almost four times as likely as youth with disabilities to be taking courses at the time of the interview at a 4-year college (29 percent vs. 8 percent,  $p < .001$ ).

## Disability Differences in Postsecondary School Enrollment

Enrollment in postsecondary programs varied widely by disability category (table 2). Postsecondary attendance since high school ranged from 27 percent to 78 percent. Seventy-eight percent of youth with visual impairments and 72 percent of those with hearing impairments were reported to have ever attended a postsecondary program. More than half of those with autism (58 percent); speech/language (55 percent), or other health impairments (55 percent), deaf-blindness (55 percent); orthopedic impairments (54 percent); or traumatic brain injury (52 percent) were reported to have continued their education after high school. Approximately 3 in 10 youth with emotional disturbances (34 percent) or multiple disabilities (35 percent) and one-quarter of those with mental retardation (27 percent) participated in postsecondary programs.

Youth with visual or hearing impairments were more likely to attend postsecondary school than were those in several other disability categories. Seventy-eight percent of youth with visual impairments and 72 percent of those with hearing impairments had ever attended a postsecondary program, compared with 27 percent of youth with mental retardation ( $p < .001$  for both comparisons), 34 percent of youth with emotional disturbances ( $p < .001$  for both comparisons), 35 percent of youth with multiple disabilities ( $p < .001$  for both comparisons), 47 percent of youth with learning disabilities ( $p < .001$  and  $p < .01$ , respectively), 54 percent of youth with orthopedic impairments ( $p < .01$  in comparison with visual impairment), and 55 percent of youth with speech/language or other health impairments ( $p < .01$  in comparison with visual impairment for both disability categories).

Youth in several disability categories were more likely to have ever enrolled in a postsecondary program than were those with emotional disturbances, specifically, youth with speech/language ( $p < .01$ ), hearing ( $p < .001$ ), visual ( $p < .001$ ), orthopedic ( $p < .01$ ), or other health impairments ( $p < .01$ ). Similarly, postsecondary enrollment was higher for youth in several categories than for those with mental retardation, including learning disabilities ( $p < .01$ ); speech/language ( $p < .001$ ), hearing ( $p < .001$ ), visual ( $p < .001$ ), orthopedic ( $p < .001$ ), or other health impairments ( $p < .001$ ); or autism ( $p < .01$ ).

Table 2. Postsecondary school enrollment since leaving high school, 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	47.3 (4.95)	54.6 (5.24)	27.4 (5.10)	34.0 (4.79)	71.8 (5.60)	77.8 (7.06)	53.7 (5.88)	54.7 (5.02)	57.5 (8.98)	51.5 (10.82)	35.2 (8.25)	54.6 (11.01)
2-year or community college	34.7 (4.72)	30.5 (4.83)	20.0 (4.58)	20.6 (4.10)	45.7 (6.23)	56.3 (8.48)	40.3 (5.79)	43.2 (5.01)	37.8 (8.81)	29.2 (9.84)	17.9 (6.63)	31.3 (10.25)
Vocational, business, or technical school	22.1 (4.11)	22.8 (4.41)	20.8 (4.64)	23.2 (4.27)	31.5 (5.78)	12.0 (5.52)	18.7 (4.60)	31.9 (4.70)	26.7 (8.04)	31.8 (10.08)	15.6 (6.27)	23.3 (9.35)
4-year college	15.9 (3.62)	26.1 (4.62)	4.6 (2.39)	5.5 (2.31)	30.8 (5.75)	43.8 (8.43)	22.3 (4.91)	13.2 (3.42)	22.3 (7.56)	6.7 (5.41)	10.4 (5.28)	29.0 (10.03)

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,880 to 2,930 youth.

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

Consistent with the pattern for overall enrollment, youth with hearing or visual impairments were more likely to have attended 2-year or community colleges (46 percent and 56 percent) and 4-year colleges or universities (31 percent and 44 percent), compared with those in several other disability categories, including mental retardation (20 percent and 5 percent,  $p < .001$  for all comparisons), multiple disabilities (18 percent and 10 percent,  $p < .01$  for comparisons with hearing impairments and  $p < .001$  for comparisons with visual impairments), emotional disturbances (21 percent and 6 percent,  $p < .001$  for all comparisons), traumatic brain injuries (7 percent at a 4-year college;  $p < .01$  for comparison with hearing impairments and  $p < .001$  for comparison with visual impairments) or other health impairments (13 percent at a 4-year college;  $p < .01$  for comparison with hearing impairments and  $p < .001$  for comparison with visual impairments).

Students with speech/language impairments were more likely to be enrolled in a 4-year college than were those with mental retardation, emotional disturbances, or traumatic brain injuries ( $p < .01$  for comparison with traumatic brain injury,  $p < .001$  for other comparisons).

In contrast to enrollment at other types of postsecondary schools, enrollment at postsecondary vocational, business, or technical schools did not differ significantly across disability categories.

### ***Differences in Postsecondary School Enrollment by High School-Leaving Characteristics***

Secondary school completers were more likely to be reported to have enrolled in postsecondary school than were high school noncompleters (table 3). High school completers were approximately three times as likely as noncompleters to continue on to postsecondary education, with 51 percent of completers having attended postsecondary school since leaving high school up to 4 years earlier, compared with 17 percent of noncompleters ( $p < .001$ ).

Table 3. Postsecondary school enrollment since leaving high school, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
			Percent		
Any postsecondary school	50.8 (3.79)	16.6 (5.75)	31.0 (4.96)	62.5 (5.52)	65.4 (6.14)
2-year or community college	38.6 (3.69)	4.0 (3.06)	20.5 (4.36)	28.4 (5.58)	46.4 (5.69)
Vocational, business, or technical school	22.9 (3.18)	14.2 (5.39)	17.5 (4.08)	21.7 (5.09)	28.8 (5.17)
4-year college	17.5 (2.88)	0.4 (0.97)	14.6 (3.79)	11.2 (3.89)	15.2 (4.10)

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,880 to 2,930 youth.

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

Differences between high school completers and noncompleters were apparent for enrollment across the various types of postsecondary programs. Completers were more likely than noncompleters to have ever been enrolled in 2-year or community colleges (39 percent vs. 4 percent,  $p < .001$ ), vocational, business, or technical schools (23 percent vs. 14 percent,  $p < .01$ ), and 4-year colleges (18 percent vs. less than 1 percent,  $p < .001$ ).

The likelihood of ever having been enrolled in postsecondary education increased as youth were out of high school longer. Thirty-one percent of those out of high school up to 1 year had been enrolled in postsecondary school at some point, compared with 63 percent of those out of high school 1 to 2 years and 65 percent of those out of high school 2 to 4 years ( $p < .001$  for both comparisons).

Youth with disabilities who were out of high school 2 to 4 years were more likely to ever have been enrolled in a 2-year college (46 percent) than were those out of high school less than 1 year (21 percent,  $p < .001$ ). However, all rates of enrollment in postsecondary vocational, business, or technical schools or in 4-year colleges did not differ significantly by length of time out of high school.

### ***Demographic Differences in Postsecondary School Enrollment***

As other studies have found for youth in the general population (e.g., Corak, Lipps, and Zhao 2005), household income is related to the likelihood of enrolling in postsecondary school (table 4). Youth with disabilities from households with incomes of more than \$50,000 were almost twice as likely as those with household incomes of \$25,000 or less ever to have been enrolled in postsecondary education (57 percent vs. 30 percent,  $p < .001$ ).

Family income differences were apparent in enrollment at 2-year colleges. Youth from wealthier households (those with incomes of more than \$50,000) were more likely than those from lower-income households (\$25,000 or less) to have ever enrolled in a 2-year college (40 percent vs. 22 percent,  $p < .01$ ). In contrast, household income was not significantly related to enrollment in vocational, business, or technical schools or 4-year colleges.

Table 4. Postsecondary school enrollment since leaving high school, by household income, 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	29.9 (5.29)	46.0 (6.75)	56.7 (5.15)	45.9 (4.05)	45.2 (6.93)	39.3 (10.40)	42.9 (4.05)	48.9 (5.54)
2-year or community college	22.0 (4.80)	31.6 (6.30)	40.2 (5.09)	32.5 (3.81)	34.3 (6.62)	26.5 (9.47)	29.3 (3.74)	37.6 (5.38)
Vocational, business, or technical school	18.4 (4.47)	30.0 (6.21)	23.4 (4.40)	20.2 (3.26)	28.5 (6.29)	24.6 (9.17)	21.7 (3.38)	24.7 (4.78)
4-year college	8.7 (3.25)	13.2 (4.59)	19.9 (4.15)	15.8 (2.96)	5.3 (3.12)	15.0 (7.61)	15.1 (2.93)	11.3 (3.51)

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,880 to 2,930 youth.

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

In the general population, females had higher 2-year and 4-year college current enrollment rates than males (14 percent vs. 10 percent at 2-year colleges and 33 percent vs. 26 percent at 4-year colleges;  $p < .01$  for both comparisons).<sup>5</sup> In contrast to their peers in the general population, youth with disabilities' postsecondary enrollment did not differ significantly by gender (43 percent for males and 49 percent for females).

Rates of enrollment in postsecondary schools also did not differ significantly by race or ethnicity for youth with disabilities. Thirty-nine percent of Hispanic youth, 45 percent of African American youth, and 46 percent of White youth had ever enrolled in a postsecondary program.

## **Postsecondary School Experiences**

The findings reported thus far indicate that youth differed in their rates of enrollment in postsecondary programs; those who were enrolled also differed in aspects of their schooling. This section shifts the focus from youth enrollment in postsecondary schools to the experiences of those who had enrolled in these types of programs, examining students' experiences related to timing and intensity of enrollment, postsecondary course taking, accommodations and supports, and completion rates.<sup>6</sup>

### ***Timing and Intensity of Enrollment***

Most students with disabilities who continued on to postsecondary school did so within a few months of leaving high school.<sup>7</sup> On average, approximately 5 months elapsed between a student's leaving high school and enrolling in a postsecondary program. More than one-third (37 percent) were reported to have enrolled in a postsecondary school within 2 months of leaving high school, 45 percent enrolled within 2.1 to 6 months, 14 percent enrolled within 6.1 to 12 months, and 4 percent waited longer than 1 year before continuing their education.

On average, students waited 5 months to enroll in 2-year colleges, 7 months for vocational, business, or technical schools, and 3 months for 4-year institutions. Students enrolled in 4-year colleges sooner after high school than they did in postsecondary vocational, business, or technical schools ( $p < .01$ ). Other differences in the length of time elapsing between high school and postsecondary school by type of postsecondary school were not significant.

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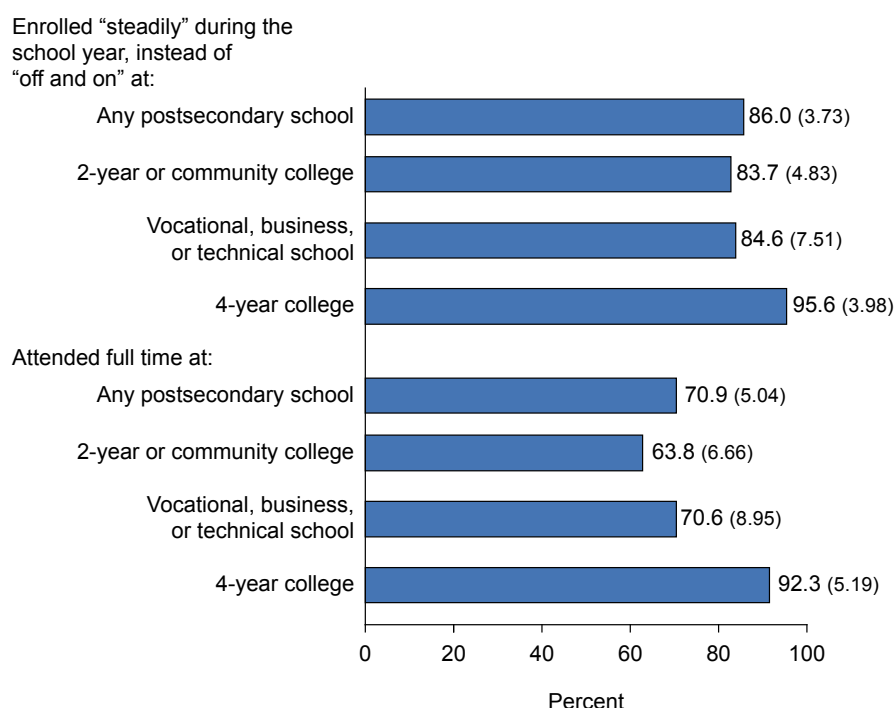
<sup>5</sup> Calculated for out-of-high-school 17- to 21-year-olds from the U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97), 2001.

<sup>6</sup> Because of the relatively small percentage of youth enrolled in postsecondary schools, Wave 2 data also were used to augment data for variables related to the postsecondary education experiences of students who had been enrolled in these types of schools. Variables included those related to timing and intensity of enrollment, course of study, receipt of accommodations and supports, and postsecondary school completion. Including Wave 2 data increased the sample size, enabling broader analyses of these variables, particularly analyses by disability category. For these variables, those youth who did not have Wave 3 data but who were out of high school in Wave 2 and had Wave 2 data, these data were combined with the responses of postsecondary attendees in Wave 3. Wave 3 data account for 86 percent to 97 percent of the variables related to postsecondary experiences, with a mean of 89 percent variables.

<sup>7</sup> Respondents were asked, "About how long after leaving high school was it before you started going to a [postsecondary school]?"

Eighty-six percent of students with disabilities who were enrolled in postsecondary school were reported to have enrolled on a steady basis,<sup>8</sup> whereas 14 percent took classes some semesters or quarters but not others (figure 3). Eighty-four percent of students at 2-year colleges or at vocational, business, or technical schools and 96 percent of those at 4-year institutions were enrolled steadily during the school year.

Figure 3. Intensity of enrollment in postsecondary schools by youth with disabilities ever enrolled in postsecondary school



NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 320 to 1,100 youth.

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

Similarly, postsecondary school was a full-time commitment for many youth with disabilities.<sup>9</sup> A report on community college student engagement suggests that full-time students were more likely to interact with faculty, academic advisors, or other students, than were their part-time peers (Inside Higher Ed 2006). Seventy-one percent of postsecondary students with disabilities were reported to have attended school full time, whereas 29 percent were reported to have been part-time students. Students at 4-year colleges were more likely to attend school full time (92 percent) than were those at 2-year colleges (64 percent,  $p < .001$ ).

<sup>8</sup> Respondents were asked, "Have you been enrolled steadily during the school year or have you been enrolled off and on, taking classes some semesters or quarters but not others?"

<sup>9</sup> Respondents were asked, "Are you going to a [postsecondary school] full time or part time?" If they asked, respondents were told that full time means taking a full course load of 12 credits or more at a time.

### Disability Differences in Timing and Intensity of Enrollment

Disability differences in all aspects of enrollment intensity were not statistically significant. The length of time between leaving high school and beginning a postsecondary program ranged, on average, from 4 months for students with autism to 6 months for those with emotional disturbance (table 5). The rate of consistent enrollment in a school year varied from 75 percent of students with mental retardation to 91 percent of students with autism. Attending a postsecondary school on a full-time basis ranged from 49 percent of students with traumatic brain injuries to 85 percent of those with speech/language impairments.

Table 5. Intensity of enrollment of those ever enrolled in a postsecondary program, 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
Number of months between having left high school and began going to a postsecondary school	4.8 (0.87)	5.3 (1.63)	5.4 (2.60)	6.4 (1.98)	3.8 (0.91)	5.7 (1.98)	4.3 (0.90)	4.5 (0.85)	4.0 (1.06)	‡	4.1 (1.26)	‡
Percentage enrolled "steadily" during the school year instead of "off and on"	87.5 (5.07)	89.5 (5.02)	75.4 (12.90)	83.4 (6.91)	88.0 (5.89)	89.6 (6.69)	87.2 (4.97)	81.4 (5.80)	91.2 (6.87)	91.2 (9.95)	89.0 (10.69)	‡
Percentage enrolled full time (greater than or equal to 12 credit hours)	70.6 (7.09)	85.1 (5.76)	69.2 (13.22)	66.0 (8.81)	78.9 (7.32)	83.8 (8.18)	76.0 (6.35)	72.0 (6.70)	59.8 (11.74)	49.1 (17.12)	50.7 (15.09)	‡

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

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 1,080 to 1,170 youth.

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



### Differences in Timing and Intensity of Enrollment by High School-Leaving Characteristics

Timing and intensity of enrollment in postsecondary school did not differ significantly by high school-leaving status or length of time out of secondary school (table 6).

Table 6. Intensity of enrollment of those ever enrolled in a postsecondary program, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
Number of months between having left high school and began going to a postsecondary school	4.7 (0.67)	9.6 (4.41)	4.7 (0.87)	5.8 (1.56)	4.4 (0.93)
Percentage enrolled "steadily" during the school year instead of "off and on"	87.5 (3.68)	75.5 (29.54)	94.5 (3.97)	83.4 (7.84)	83.1 (6.43)
Percentage enrolled full time (greater than or equal to 12 credit hours)	73.7 (5.09)	23.9 (26.59)	75.6 (7.21)	62.4 (10.09)	73.0 (8.06)

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,880 to 2,930 youth.

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

### Demographic Differences in Timing and Intensity of Enrollment

The length of time between leaving high school and beginning postsecondary school and the intensity of enrollment in postsecondary programs did not differ significantly by students' demographic characteristics (table 7).

Table 7. Intensity of enrollment of those ever enrolled in a postsecondary program, by household income, race/ethnicity, and gender

	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	White	African American	Hispanic	Male	Female
Number of months between having left high school and began going to a postsecondary school	6.7 (1.89)	4.8 (1.38)	4.6 (0.77)	4.4 (0.85)	5.3 (1.29)	8.2 (2.44)	4.7 (0.87)	5.4 (1.16)
Percentage enrolled "steadily" during the school year instead of "off and on"	82.0 (8.69)	87.4 (7.02)	87.7 (4.98)	87.8 (4.25)	91.5 (6.90)	63.9 (17.26)	84.1 (4.93)	89.9 (5.47)
Percentage enrolled full time (greater than or equal to 12 credit hours)	62.5 (10.66)	73.2 (10.99)	72.3 (6.74)	69.6 (6.25)	76.7 (10.29)	62.8 (16.92)	72.6 (6.32)	67.8 (8.30)

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,880 to 2,930 youth.

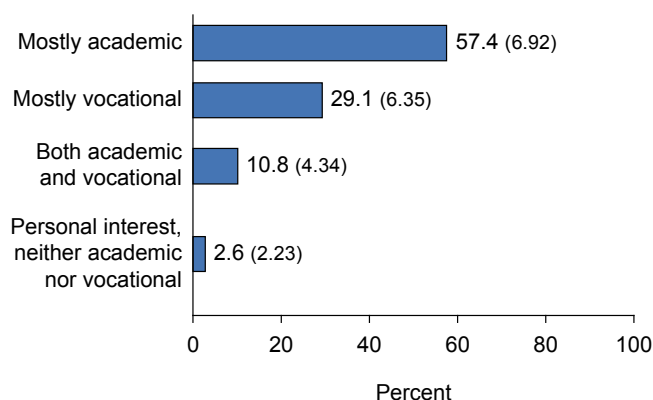
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 3 parent interview and youth interview/survey, 2005.

### **Postsecondary Course of Study<sup>10</sup>**

Postsecondary schools frequently offer a wide range of instructional program options. For example, the National Center for Education Statistics' Classification of Instructional Programs taxonomy describes more than 60 major postsecondary fields of study, not including hundreds of intermediate and specific instructional program subcategories (U.S. Department of Education, National Center for Education Statistics 2002). With this range of options, students with disabilities varied in the types of courses they took while in postsecondary school.

Postsecondary students who attended 2-year colleges were more likely to be enrolled in an academic than a vocational course of study, with 57 percent majoring in academic areas and 29 percent in vocational areas ( $p < .01$ ; figure 4).<sup>11</sup> Eleven percent reported both an academic and vocational focus, and 3 percent attended classes primarily for recreation and personal interest.

Figure 4. Primary focus of courses taken at a 2-year or community college by youth with disabilities ever enrolled in postsecondary school



NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 670 youth.

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

Students who had a primarily vocational focus at 2-year colleges and students who attended postsecondary vocational, business, or technical schools were enrolled in a range of vocational majors.<sup>12</sup> Thirteen percent of these students were training for careers in skilled crafts (e.g., plumbing, carpentry) or mechanics, and approximately 11 percent were majoring in each of the

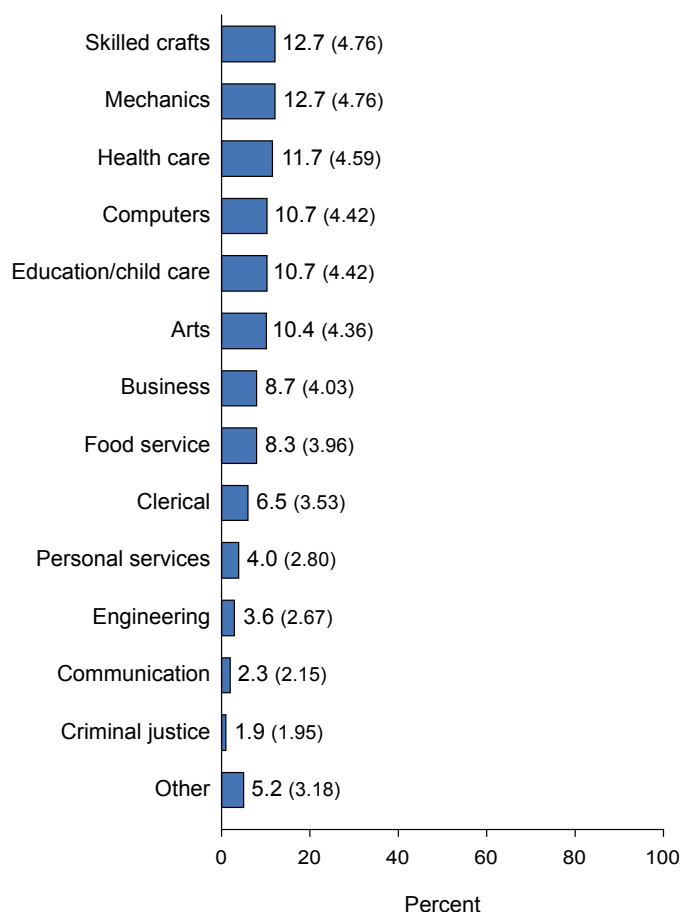
<sup>10</sup> Course of study was analyzed separately for students with a vocational focus at 2-year colleges and postsecondary vocational, business, or technical schools and for students at 4-year colleges. An across-postsecondary-school examination of students' majors was not possible because interview questions related to differed by type of postsecondary program (see footnotes 11 and 12 for item wording). With the need to focus separately on course-taking experiences at the various types of schools, sample size did not support analysis of course of study by disability, school leaving, or demographic characteristics.

<sup>11</sup> Respondents at 2-year colleges were asked, "Have you taken mostly vocational courses to train for a job, like computer or business courses, or have you taken mostly academic courses, like English or science?"

<sup>12</sup> Respondents at 2-year colleges who had a primarily vocational focus and respondents at vocational, business, or technical schools were asked, "What kind of job are you training for?"

areas of health care, computers, education or child care, or the arts (including graphic design; figure 5). Approximately 8 percent were focused on careers related to each of the areas of food service or business, 7 percent on clerical opportunities, and less than 5 percent were taking coursework for careers in each of the areas of personal services, engineering, communication, or criminal justice.

Figure 5. Vocational course of study of students with disabilities ever enrolled in postsecondary school who had a vocational focus at a 2-year or community college and students at vocational, business, or technical schools



NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 480 youth.

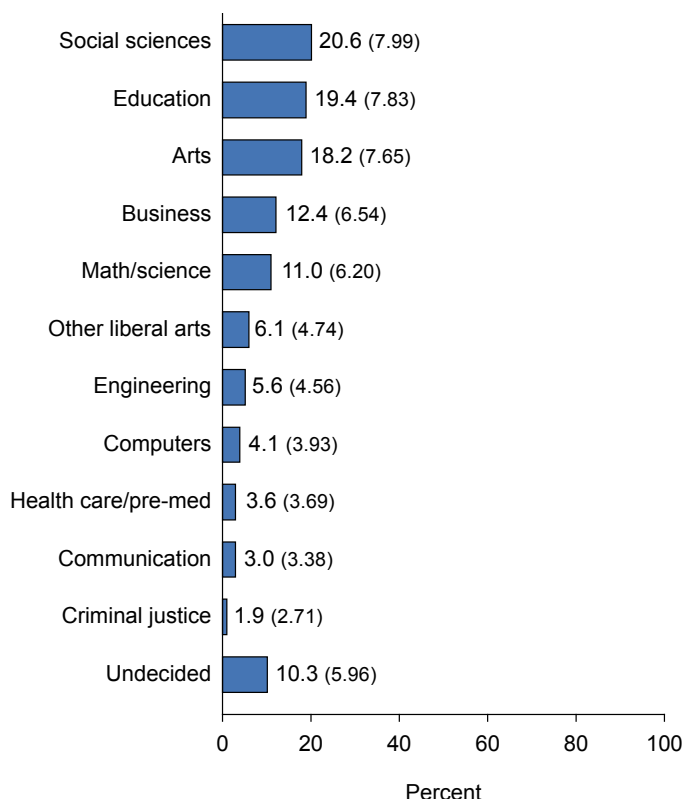
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005.

Students with disabilities at 4-year colleges also focused on a broad range of majors.<sup>13</sup> Social sciences (20 percent), education (19 percent), arts (18 percent), and business (12 percent) were popular courses of study (figure 6). In the general population, business, education, social sciences, psychology, and visual and performing arts also were prevalent majors, accounting for 51 percent of bachelor's degrees awarded in 2005 (U.S. Department of Education, National Center for Education Statistics 2007).

<sup>13</sup> Respondents at 4-year colleges were asked, "What is your major or your primary course of study?"

Eleven percent of students with disabilities were enrolled with a math or science major, 6 percent were majoring in engineering or other liberal arts, and less than 5 percent were majoring in each of the areas of computers, health care, communication, or criminal justice. Ten percent had not yet chosen a major and were undecided in their area of focus.

Figure 6. Primary course of study of youth with disabilities ever enrolled in a 4-year college or university



NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 360 youth.

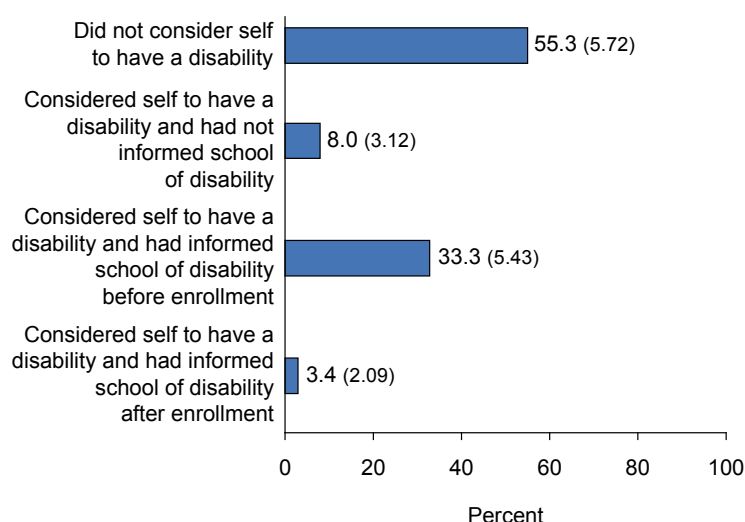
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005.

### ***Accommodations and Supports***

Receiving appropriate supports and accommodations in postsecondary programs has been shown to be related to school success and retention for students with disabilities (Mull, Sitlington, and Alper 2001; Pierangelo and Crane 1997; Stodden and Dowrick 2000; Stodden, Jones, and Chang 2002). Although a college is required to provide “appropriate academic adjustments as necessary to ensure that it does not discriminate on the basis of disability” (Office for Civil Rights, U.S. Department of Education 2007, p. 2), accommodations that are a fundamental alteration of a program or that would impose an undue financial or administrative burden are not mandatory (Wolanin and Steele 2004). Schools interpret these guidelines differently, and the types and extent of supports and accommodations available to students with disabilities vary widely (National Center for Education Statistics 1999; Stodden, Jones, and Chang 2002).

As noted earlier, when students leave secondary school and enter postsecondary institutions, the responsibility for arranging for accommodations and supports shifts from the school to the students. At the postsecondary level, students with disabilities are expected to advocate for themselves (Stodden, Jones, and Chang 2002). “To receive accommodations, students with disabilities must disclose their disabilities and take the initiative in requesting accommodations” (Wolanin and Steele 2004, p. ix). However, disclosure of a disability is voluntary. NLTS2 findings show that more than half (55 percent) of postsecondary students who were identified by their secondary school as having a disability did not consider themselves to have a disability by the time they had transitioned to postsecondary school (figure 7).<sup>14</sup> An additional 8 percent reported considering themselves to have a disability but chose not to disclose it to their postsecondary schools. Approximately one-third of postsecondary students with disabilities identified themselves as having a disability and had informed their postsecondary schools of their disability prior to enrollment, and 3 percent considered themselves to have a disability and had waited to inform the schools of their disability until after enrollment in the postsecondary institutions.<sup>15</sup>

Figure 7. Extent to which students with disabilities ever enrolled in a postsecondary school considered themselves as having a disability and informed postsecondary schools of disability



NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,040 youth.

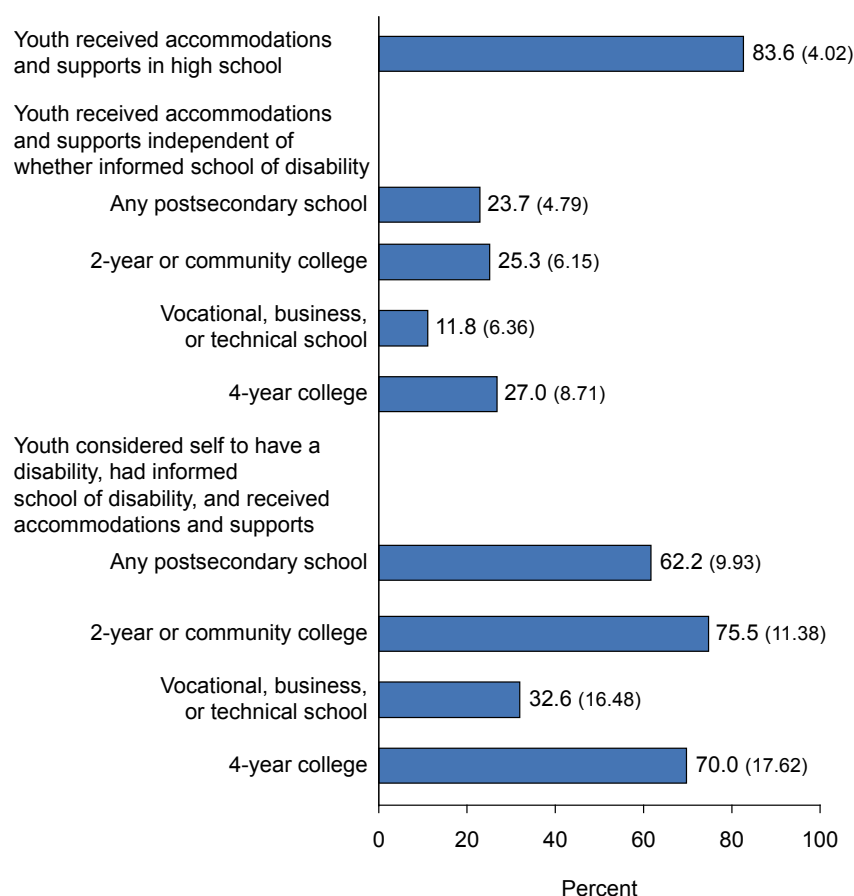
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005.

<sup>14</sup> Youth respondents were asked, “Some people have a disability or special need that makes it hard for them to do some things. Do you consider yourself to have any kind of disability or special need?”

<sup>15</sup> Youth respondents who asserted they had a disability were asked, “Was this school aware that you have a disability or special need before you enrolled there, after you enrolled, or is the school not aware of your disability or special need?”

To receive accommodations or supports from a postsecondary school because of a disability, students first must disclose a disability to their school. Approximately 37 percent of postsecondary students who were considered by their secondary schools as having a disability disclosed a disability to their postsecondary schools. Less than one-quarter (24 percent) of postsecondary students who were identified as having a disability by their secondary schools were reported to have received any accommodations or supports because of their disability from their postsecondary schools (figure 8).<sup>16</sup>

Figure 8. Receipt of accommodations and supports from school because of disability by youth with disabilities ever enrolled in postsecondary school



NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 140 to 1,100 youth.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 1 school program survey, 2002, and Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005.

<sup>16</sup> Respondents were asked, “Have you received any services, accommodations, or other help from the school to help you do your best there, like a note taker or more time to take tests because of a learning problem, disability, or other special need?”

In contrast, when these postsecondary students were in high school, more than three times as many (84 percent) received some type of accommodation or support because of a disability ( $p < .001$ ).<sup>17</sup> This pattern of less disability-related assistance at the postsecondary than the secondary level was consistent across the various types of postsecondary schools. Twenty-five percent of 2-year college students, 12 percent of postsecondary vocational, business, or technical school students, and 27 percent of 4-year college students received assistance from their schools because of their disability ( $p < .001$  for all comparisons with rate in high school).

Restricting responses to the 37 percent of students who had disclosed a disability to their postsecondary programs, 62 percent were reported to have received accommodations and supports from their postsecondary programs. Although students with disabilities who had disclosed a disability were more likely than postsecondary students with disabilities as a whole to receive accommodations and supports ( $p < .001$ ), they remained less likely to receive this type of help from their postsecondary schools than from their high schools (62 percent vs. 92 percent,  $p < .01$ ).<sup>18</sup>

The rate of receiving accommodations and supports in postsecondary schools for those who had disclosed a disability ranged from 33 percent at vocational, business, or technical schools to 70 percent at 4-year colleges or universities and 76 percent at 2-year or community colleges (not significant differences, possibly in part because of the large standard errors). Of those who considered themselves to have a disability and had not received accommodations or supports related to their disability from their postsecondary schools, 20 percent had applied for this type of assistance.

Postsecondary students who were given assistance because of their disability were reported to have received a range of accommodations, supports, and services from their schools.<sup>19</sup> Additional time to complete tests was a frequent type of assistance—received by approximately two-thirds (68 percent) of those who got accommodations, supports, and services (figure 9). Tests were administered in a different-than-usual setting for 9 percent, and 5 percent were provided with other testing accommodations. One-third (31 percent) had tutors, and 26 percent received help from note takers. Approximately 10 percent used technology aids, such as computer software designed for students with disabilities; received learning strategies, study skills, or behavior management support; or received help from a reader, interpreter, or in-class aide. Assignments were modified or deadlines were extended for 9 percent of postsecondary students who received some type of assistance. Other, less frequently occurring types of help included early registration, independent-living supports, physical adaptations to classrooms, and large print or Braille materials and books on tape.

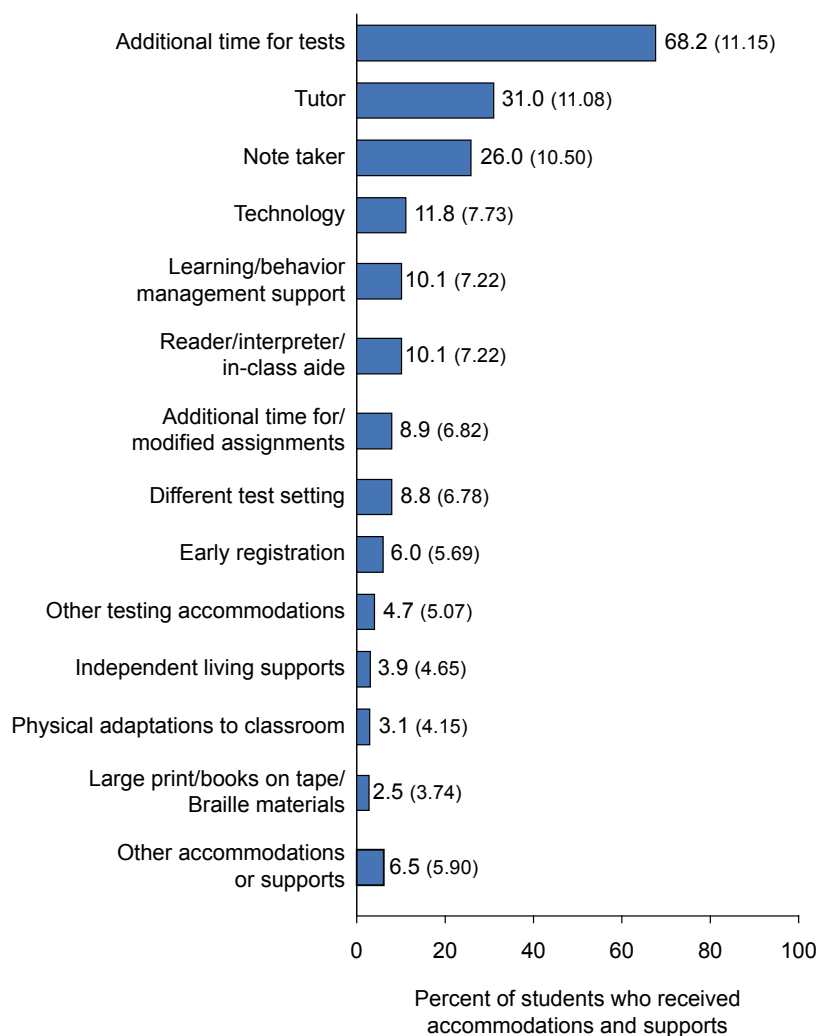
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<sup>17</sup> Source for high school accommodations and supports: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 1 school program survey, 2002; responses restricted to those who ever had been enrolled in postsecondary school.

<sup>18</sup> Source for high school accommodations and supports: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 1 school program survey, 2002; responses restricted to those who ever had been enrolled in postsecondary schools and had disclosed a disability to their postsecondary schools.

<sup>19</sup> Respondents who indicated that they received help from their school because of a disability were asked, “What services, accommodations, or other help have you received?”

Figure 9. Types of accommodations and supports received from postsecondary schools by students with disabilities ever enrolled in a postsecondary school and had received these types of assistance



NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 420 youth.

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

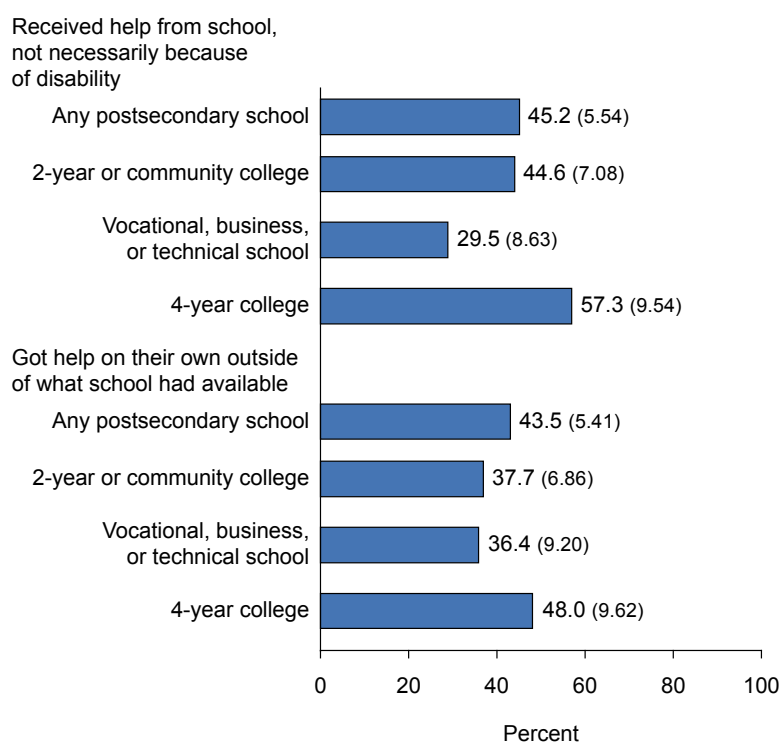
With the exception of early registration and independent-living supports, the types of accommodations received by students in postsecondary schools paralleled those provided during high school. Consistent with experiences in high school general education courses, testing modifications also were frequently received by students with disabilities in postsecondary school. For example, 75 percent were given more time to complete tests in high school (Newman, Marder, and Wagner 2003), and two-thirds of postsecondary students who received accommodations got additional time for tests. In contrast, students were much less likely in



postsecondary school than in high school to receive additional time for or modifications to assignments (8 percent vs. 86 percent,  $p < .001$ ).<sup>20</sup>

Postsecondary students received help beyond the support provided by schools because of their disability. When students were asked whether they had received help with their schoolwork from their postsecondary schools—whether or not the assistance was related to their disability—45 percent had received some type of help, including tutoring and study center assistance (figure 10).<sup>21</sup> Rates of receiving assistance with schoolwork ranged from 30 percent for those at postsecondary vocational, business, or technical schools to 57 percent for those at 4-year colleges or universities (not significant differences).

Figure 10. Receipt of help with schoolwork by postsecondary students with disabilities who had ever enrolled in a postsecondary school



NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 340 to 1,080 youth.

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

<sup>20</sup> Source for high school accommodations: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 1 general education teacher survey (2002). See Newman, Marder, and Wagner (2003) for discussion of accommodations received in general education classes in high school.

<sup>21</sup> Respondents were asked, “Did you ever get help with school work from this school, like going to a tutor or a study center or writing center?”

Some students also sought help on their own outside of what their postsecondary schools provided.<sup>22</sup> More than two in five (44 percent) had gotten help on their own. Almost half of 4-year college students (48 percent) were reported to have received help with their schoolwork beyond that provided by their schools, as were 36 percent of postsecondary vocational, business, or technical school students and 38 percent of community college students.

When postsecondary students who had received any type of help with their schoolwork—accommodations or supports from the schools independent of a disability or because of a disability, or help outside of what the schools provided—were asked to rate how useful those supports were in helping them stay in school and do their best,<sup>23</sup> 41 percent reported that the supports were “somewhat useful,” and 49 percent rated them as “very useful” (figure 11). One in 10 felt they were “not very” or “not at all useful” ( $p < .001$  for comparisons with “somewhat” and “very useful”). Students’ ratings of their schoolwork assistance as “very useful” ranged from 42 percent at 4-year colleges to 63 percent at postsecondary vocational, business, or technical schools (not significant differences).

Students who had received assistance also were asked whether they thought they were receiving enough help to do their best at school.<sup>24</sup> Forty-four percent reported they “probably” were, and 42 percent reported they “definitely” were getting enough assistance, while 14 percent reported they “probably” or “definitely” were not getting enough help ( $p < .001$  for comparisons with “probably” and “definitely” get enough assistance). Forty-one percent of students with disabilities at 2-year colleges, 42 percent of those at 4-year colleges or universities, and 47 percent of those at postsecondary vocational, business, or technical schools stated they were “definitely getting enough” services, accommodations, or help with schoolwork (not significant differences).

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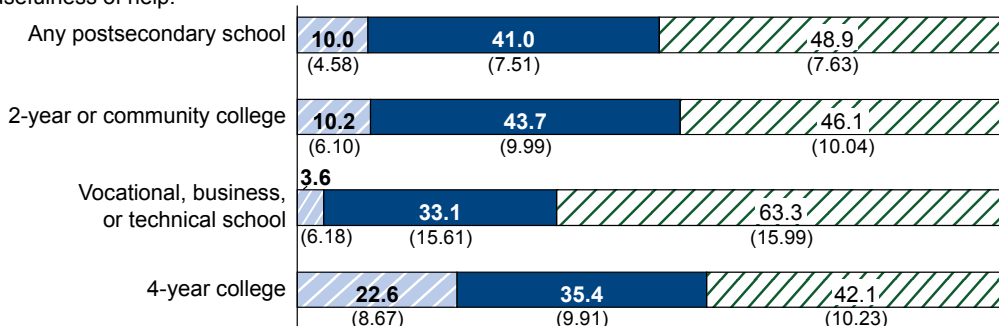
<sup>22</sup> Respondents were asked, “Besides what the school had available, have you gotten any services or help on your own to help you do your best at school?”

<sup>23</sup> Youth respondents were asked, “How useful have the services, accommodations, and help with schoolwork been in helping you stay in school and do your best there?” Response categories: “very useful,” “somewhat useful,” “not very useful,” or “not at all useful.”

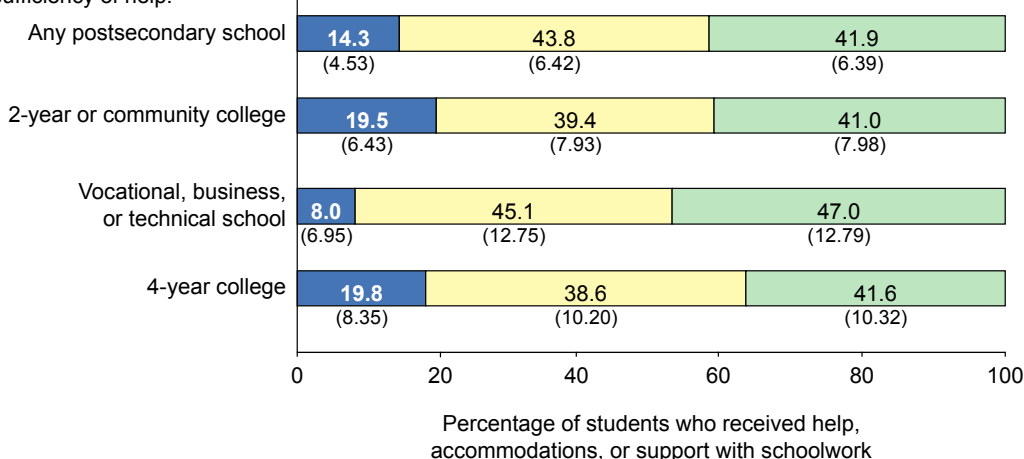
<sup>24</sup> Youth were asked, “Do you think you are getting enough services, accommodations, or help with schoolwork to do your best there?” Response categories: “definitely getting enough,” “probably getting enough,” “probably not getting enough,” or “definitely not getting enough.”

Figure 11. Perceptions of assistance with schoolwork by youth with disabilities who had ever enrolled in postsecondary school and had received assistance

Youth who received any help with schoolwork rated usefulness of help:



Youth who received any help with schoolwork rated sufficiency of help:



Percentage of students who received help, accommodations, or support with schoolwork

■ Not at all or not very useful ■ Somewhat useful ■ Very useful

■ Definitely or probably not getting enough ■ Probably getting enough ■ Definitely getting enough

NOTE: Standard errors are in parentheses. Response categories "not at all useful" and "not very useful," and "probably not getting enough" and "definitely not getting enough," have been collapsed for reporting purposes. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 160 to 700 youth.

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

### Disability Differences in Disclosure of Disability and Receipt of Accommodations

Students with different disabilities varied widely in the extent to which they identified themselves as an individual with a disability; the rate of not considering themselves to have a disability ranged from 17 percent to 73 percent (table 8). Students with speech/language impairments (73 percent) or emotional disturbances (63 percent) were more likely to have reported not considering themselves as having a disability than were those with visual

impairments (17 percent,  $p < .001$  for both comparisons), multiple disabilities (19 percent,  $p < .001$  and  $p < .01$  respectively), or orthopedic impairments (31 percent,  $p < .001$  and  $p < .01$  respectively). Students with speech/language impairments also were more likely to have reported not considering themselves as having a disability than were those with hearing impairments (29 percent,  $p < .001$ ) or autism (31 percent,  $p < .01$ ). In addition, students with learning disabilities (57 percent) or other health impairments (57 percent) were more likely than those with visual impairments ( $p < .001$  for both comparisons) to view themselves as not having a disability.

Table 8. Extent to which students ever enrolled in a postsecondary school considered themselves as having a disability and informed postsecondary schools of disability, 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											
Student did not consider self to have a disability	56.7 (8.11)	73.4 (7.24)	40.0 (14.85)	62.7 (9.46)	29.2 (9.54)	17.3 (8.39)	30.6 (7.03)	56.8 (7.43)	30.6 (12.27)	42.8 (17.31)	18.9 (13.21)	‡
Student considered self to have a disability and had informed school of disability	35.5 (7.83)	18.0 (6.29)	55.6 (15.06)	21.2 (7.99)	64.7 (10.03)	79.0 (9.03)	62.9 (7.37)	38.1 (7.28)	55.1 (13.24)	52.2 (17.47)	78.7 (13.82)	‡
Student considered self to have a disability and had not informed school of disability	7.8 (4.39)	8.6 (4.59)	4.4 (6.22)	16.2 (7.21)	6.2 (5.06)	3.7 (4.19)	6.4 (3.74)	5.1 (3.30)	14.2 (9.29)	5.0 (7.62)	2.4 (5.16)	‡

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

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. Response categories "student considers self to have a disability and has informed school of disability before enrollment" and "student considers self to have a disability and has informed school of disability after enrollment" have been collapsed for reporting purposes. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,080 youth.

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

A similar pattern of disability differences was apparent for those who had informed their postsecondary schools of a disability. Students with visual impairments (79 percent), multiple disabilities (79 percent), or orthopedic impairments (63 percent) were more likely to consider themselves as having a disability and to have disclosed that disability to their postsecondary schools than were those with speech/language impairments (18 percent) or emotional disturbances (21 percent,  $p < .001$  for all comparisons).

Students with visual impairments also were more likely to disclose a disability than were those with learning disabilities (36 percent) or other health impairments (38 percent,  $p < .001$  for both comparisons) and those with multiple disabilities were more likely to disclose a disability than were those with learning disabilities ( $p < .01$ ). Students with hearing impairments were more likely to disclose their disability than were those with speech/language impairments or emotional disturbances ( $p < .001$  for both comparisons).

Postsecondary students also differed in their rates of receipt of accommodations and supports from their schools. Rates of receiving accommodations or supports because of a disability ranged from 10 percent to 60 percent (table 9). Students in disability categories who were more likely to disclose a disability to their postsecondary schools also were more likely to receive accommodations and supports from their schools because of a disability. Students with multiple disabilities (67 percent), visual impairments (58 percent), or hearing (56 percent) or orthopedic impairments (40 percent) were more likely to receive accommodations or supports because of a disability than were those with speech/language impairments (10 percent;  $p < .001$  for all comparisons), emotional disturbances (13 percent;  $p < .001$  for all comparisons, with the exception of  $p < .01$  for comparisons with orthopedic impairments and multiple disabilities) or other health impairments (19 percent;  $p < .001$  for comparison with hearing impairment,  $p < .01$  for comparisons with visual and orthopedic impairments, comparison with multiple disabilities significant at  $p < .05$ ).

The rate of receiving help with schoolwork overall—whether or not specifically due to a disability—did not differ across disability categories. Students’ rate of receiving help with schoolwork outside of what was provided by their postsecondary schools also did not differ significantly across disability categories.

Table 9. Receipt of accommodations, supports, and help with schoolwork by students ever enrolled in a postsecondary school, 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											
Accommodations and supports received from school because of disability, independent of informing school of disability	23.7 (6.77)	10.1 (4.89)	26.4 (12.79)	13.1 (6.48)	56.1 (9.04)	58.4 (10.84)	40.1 (7.35)	18.8 (5.81)	32.7 (11.47)	46.1 (17.07)	66.5 (15.40)	‡
Received help with schoolwork from school overall	47.4 (7.87)	44.5 (8.11)	43.2 (14.17)	27.9 (8.48)	44.5 (9.14)	50.5 (10.96)	56.0 (7.47)	43.9 (7.35)	40.1 (11.92)	43.6 (16.98)	40.0 (15.09)	‡
Student got help on own	46.0 (7.80)	38.0 (7.92)	36.9 (13.80)	33.2 (9.23)	29.3 (8.37)	63.5 (10.66)	43.9 (7.63)	39.1 (7.38)	32.4 (11.55)	43.5 (13.77)	59.7 (15.36)	‡

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

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 520 to 1,160 youth.

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

Students' perceptions of their accommodations, supports, and help with schoolwork did not differ significantly by disability category, with the exception that youth with emotional disturbances were more likely than those with speech/language impairments to indicate that they definitely were getting enough services (67 percent vs. 32 percent,  $p < .01$ ; table 10).

Table 10. Perceptions of assistance with schoolwork by youth with disabilities who had ever enrolled in postsecondary school and had received assistance, 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											
Youth who received any help with schoolwork rated the help as:												
Very useful	44.1 (10.44)	45.0 (10.25)	79.2 (16.96)	59.0 (13.14)	55.6 (11.49)	54.8 (10.77)	55.6 (12.28)	60.5 (9.59)	47.0 (13.99)	29.5 (15.88)	72.2 (15.64)	‡
Somewhat useful	46.1 (10.48)	40.2 (10.10)	8.9 (11.90)	28.6 (12.07)	32.9 (10.87)	32.8 (10.16)	38.7 (12.04)	34.3 (9.31)	38.7 (13.65)	52.4 (17.39)	22.1 (14.48)	‡
Not at all or not very useful	9.8 (6.25)	14.8 (7.32)	11.9 (13.53)	12.4 (8.80)	11.5 (7.38)	12.4 (7.13)	5.7 (5.73)	5.1 (4.32)	14.3 (9.81)	18.1 (13.41)	5.7 (8.09)	‡
Youth who received any help with schoolwork thought they were:												
Definitely getting enough	37.0 (8.72)	32.0 (8.58)	47.8 (19.06)	67.2 (9.71)	52.3 (10.54)	52.8 (10.25)	52.1 (11.21)	54.4 (8.39)	61.4 (13.36)	41.5 (16.85)	54.8 (17.60)	‡
Probably getting enough	47.1 (9.01)	58.5 (9.06)	34.5 (18.14)	25.7 (9.04)	34.6 (10.04)	35.2 (9.81)	37.6 (10.87)	37.4 (8.15)	30.2 (12.60)	51.3 (17.09)	32.9 (16.61)	‡
Probably or definitely not getting enough	15.9 (6.60)	9.4 (5.37)	17.7 (14.56)	7.1 (5.31)	13.1 (7.12)	12.0 (6.68)	10.2 (6.79)	8.2 (4.62)	8.4 (7.61)	7.2 (8.84)	12.3 (11.61)	‡

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

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. Response categories "not at all useful" and "not very useful" and response categories "probably not getting enough" and "definitely not getting enough" have been collapsed for reporting purposes. NLTS2 percentages are weighted population estimates based on samples that range from approximately 720 to 900 youth.

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

## Differences in Disclosure of Disability and Receipt of Accommodations by High School-Leaving Characteristics

Self-identification as a student with disabilities, disclosure of a disability to postsecondary schools, receipt of accommodations, supports, and help with schoolwork from school and on their own, and perceptions of accommodations, supports, and help did not differ significantly by students' high school-leaving characteristics (table 11).

Table 11. Disclosure of disability to postsecondary school and receipt of and perceptions of accommodations, supports, and help with schoolwork by youth with disabilities who had ever enrolled in postsecondary school, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
			Percent		
Student did not consider self to have a disability	57.9 (5.92)	16.7 (23.53)	63.5 (8.01)	51.4 (10.49)	53.1 (9.53)
Student considered self to have a disability and had informed school of disability	34.9 (5.72)	74.4 (27.53)	32.2 (7.77)	34.6 (9.99)	40.2 (9.36)
Student considered self to have a disability and had not informed school of disability	7.2 (3.10)	8.9 (17.96)	4.2 (3.34)	14.0 (7.28)	6.6 (4.74)
Accommodations and supports received from school because of disability, independent of informing school of disability	24.7 (5.03)	16.3 (24.24)	25.2 (7.43)	13.5 (7.09)	28.7 (8.38)
Received help with schoolwork from school overall	47.9 (5.80)	13.7 (21.26)	49.2 (8.43)	41.2 (10.12)	45.1 (9.15)
Student got help on own	45.6 (5.62)	14.9 (22.56)	48.9 (8.44)	35.0 (9.83)	45.2 (9.09)
Youth who received any help with schoolwork rated the help as:					
Very useful	49.0 (7.93)	‡	56.1 (10.75)	58.4 (11.21)	40.2 (13.10)
Somewhat useful	41.1 (7.80)	‡	28.0 (9.73)	30.4 (10.46)	54.2 (13.31)
Not at all or not very useful	9.9 (4.74)	‡	15.9 (7.92)	11.2 (7.17)	5.6 (6.14)
Youth who received any help with schoolwork thought they were:					
Definitely getting enough	42.0 (6.63)	‡	40.1 (9.47)	31.1 (10.32)	48.7 (11.11)
Probably getting enough	43.1 (6.65)	‡	50.1 (9.67)	56.3 (11.06)	33.2 (10.46)
Probably or definitely not getting enough	14.9 (4.78)	‡	9.8 (5.75)	12.6 (7.40)	18.1 (8.56)

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

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,880 to 2,930 youth.

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

## Demographic Differences in Disclosure of Disability and Receipt of Accommodations

Self-identification as a student with disabilities, disclosure of a disability to postsecondary schools, receipt of accommodations, supports, and help with schoolwork from school and on their own, and perceptions of accommodations, supports, and help did not differ significantly by students' demographic characteristics (table 12).

Table 12. Disclosure of disability to postsecondary school and receipt of and perceptions of accommodations, supports, and help with schoolwork by youth with disabilities who had ever enrolled in postsecondary school, by household income, race/ethnicity, and gender

	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	White	African American	Hispanic	Male	Female
				Percent				
Student did not consider self to have a disability	54.7 (11.20)	63.5 (12.16)	48.8 (7.88)	47.3 (7.10)	76.4 (10.49)	69.3 (16.59)	55.1 (7.25)	55.8 (9.19)
Student considered self to have a disability and had informed school of disability	35.7 (10.78)	29.6 (11.53)	42.5 (7.79)	42.3 (7.03)	23.0 (10.40)	24.3 (15.43)	35.7 (6.99)	38.7 (9.02)
Student considered self to have a disability and had not informed school of disability	9.6 (6.63)	7.0 (6.44)	8.8 (4.46)	10.4 (4.34)	0.6 (1.91)	6.4 (8.80)	9.3 (4.23)	5.5 (4.22)
Accommodations and supports received from school because of disability, independent of informing school of disability	20.3 (9.11)	25.4 (10.75)	26.1 (6.74)	26.8 (6.10)	20.2 (9.78)	11.2 (11.63)	25.3 (6.22)	20.8 (7.37)
Received help with schoolwork from school overall	42.5 (10.88)	46.2 (12.19)	49.1 (7.61)	42.9 (6.75)	55.5 (12.08)	46.0 (17.63)	47.9 (7.11)	40.2 (8.70)
Student got help on own	32.9 (10.70)	40.2 (10.12)	47.1 (7.73)	39.7 (6.46)	58.6 (12.01)	45.7 (17.91)	45.4 (6.79)	39.7 (8.91)
Youth who received any help with schoolwork rated the help as:								
Very useful	50.0 (17.80)	63.8 (14.40)	47.4 (10.39)	41.7 (9.03)	64.4 (12.81)	72.6 (31.69)	44.8 (10.39)	55.4 (10.75)
Somewhat useful	41.5 (17.54)	31.4 (13.91)	39.1 (10.16)	46.3 (9.13)	31.7 (12.45)	22.5 (29.67)	41.5 (10.30)	40.3 (10.61)
Not at all or not very useful	8.5 (9.93)	4.8 (6.41)	13.5 (7.11)	12.0 (5.95)	3.9 (5.18)	4.9 (15.34)	13.7 (7.18)	4.3 (4.39)
Youth who received any help with schoolwork thought they were:								
Definitely getting enough	41.3 (14.62)	33.7 (11.42)	41.0 (8.94)	40.3 (7.68)	34.1 (11.50)	65.1 (25.75)	42.7 (8.39)	40.6 (9.78)
Probably getting enough	28.9 (13.46)	60.8 (11.80)	46.3 (9.06)	41.5 (7.71)	62.1 (11.77)	24.4 (23.20)	36.8 (8.18)	55.0 (9.90)
Probably or definitely not getting enough	29.8 (13.58)	5.5 (5.51)	12.7 (6.05)	18.2 (6.04)	3.8 (4.64)	10.6 (16.63)	20.5 (6.85)	4.4 (4.08)

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,880 to 2,930 youth.

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

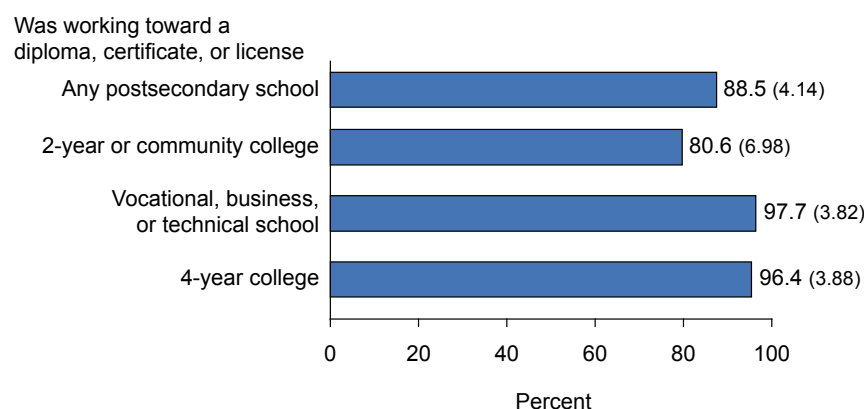


## Postsecondary School Completion

For many students in the general population, postsecondary school enrollment does not result in degree attainment or program completion. Less than two-thirds of students in the general population who began as full-time freshmen in 4-year universities in 1995 had received a bachelor's degree within 6 years (Berkner, He, and Cataldi 2002). The economic benefits associated with college enrollment frequently are not realized by those who begin postsecondary education but fail to graduate. For example, the earning gap between those with a bachelor's degree and those with only a high school diploma has continuously widened over the past 30 years, whereas those who enroll in college but don't graduate "have made only slight gains" (Carey 2004, p. 3).

The majority of students with disabilities who attended postsecondary school envisioned themselves graduating from the institution. Nine out of 10 students with disabilities who were currently enrolled in postsecondary school (89 percent) asserted that they were "working toward a diploma, certificate, or license" (figure 12).<sup>25</sup> This percentage ranged from 81 percent of students at 2-year or community colleges to 96 percent of students at 4-year colleges and 98 percent of those at vocational, business, or technical schools (not significant differences).

Figure 12. School completion goal of postsecondary students with disabilities enrolled at the time of the interview



NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 180 to 830 youth.

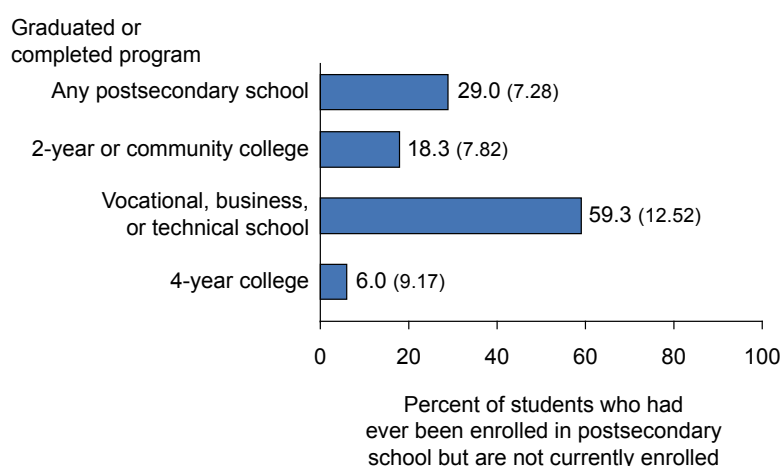
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005.

Despite the 89 percent of students who reported intending to finish their programs, when students left their postsecondary schools few left because they had graduated or completed their programs. Of those who left postsecondary institutions, 29 percent had graduated or completed their programs ( $p < .001$  for comparison with working toward diploma; figure 13). Within 4 years of leaving high school, students at vocational, business, or technical schools were more than three times as likely to have completed their programs as were those at 2-year or community colleges (59 percent vs. 18 percent,  $p < .01$ ) and were 10 times as likely to finish as were those who had left 4-year universities (6 percent,  $p < .001$ ). With sample students having been out of

<sup>25</sup> Respondents were asked, "Are you working toward a diploma, certificate, or license from this work?"

high school for less than four years (and many out for less than two), when comparing graduation rates across postsecondary schools it is important to be aware that the time needed to complete vocational programs is shorter than the 2 years or 4 years usually required to complete other programs. On average, students at vocational, business, or technical schools took slightly more than 1 year (13 months) to complete their postsecondary programs.

Figure 13. Postsecondary school completion within 4 years of leaving high school by youth with disabilities who had ever enrolled in a postsecondary school



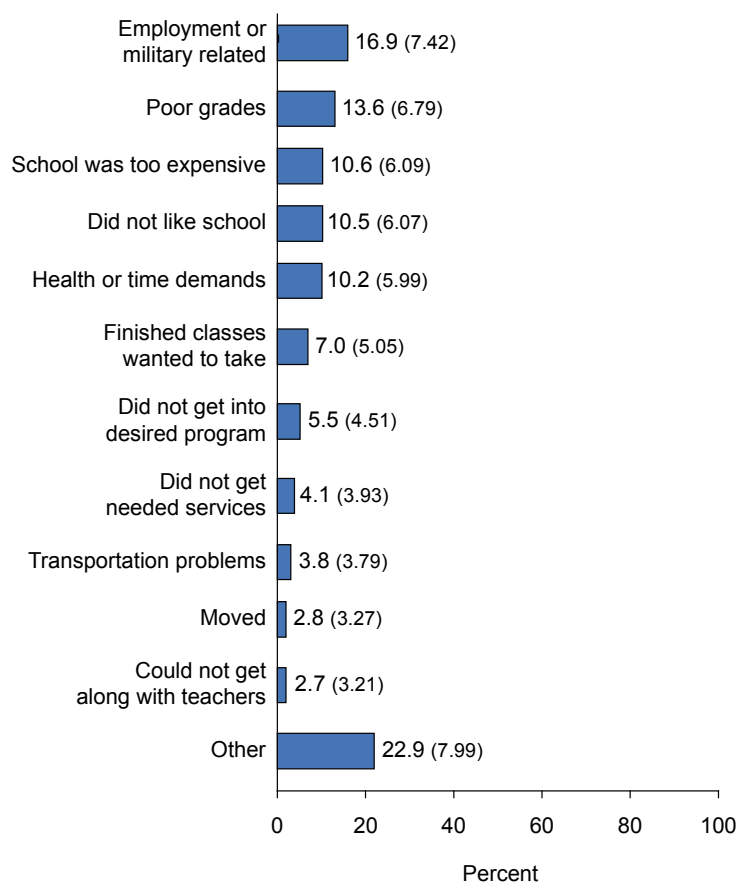
NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 70 to 440 youth.

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

Reasons for leaving postsecondary school varied for the 71 percent of postsecondary school leavers who did not graduate or complete their programs (figure 14).<sup>26</sup> For example, 17 percent reportedly left for job or military reasons, including being offered a job, choosing to work, needing to find a job, or wanting to enter the military. Approximately 14 percent asserted that they left because of poor grades, 11 percent cited school as being too expensive or not liking school. Health or time demands were cited by 10 percent of leavers. Seven percent reported leaving because they had finished the classes they wanted to take, even though these classes did not result in a diploma or certificate. Approximately 5 percent or fewer reported leaving postsecondary school because the necessary services or programs were not available, and less than 5 percent reported leaving because of transportation problems, having to move, or not getting along with teachers. One in five (23 percent) described leaving for other reasons, including getting married and wanting to travel.

<sup>26</sup> Respondents who had been in a postsecondary program earlier but were not currently enrolled and had not graduated were asked, "Why did you stop going to college?"

Figure 14. Reasons why youth who had not graduated from or completed postsecondary school and no longer were enrolled, had left postsecondary school



NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 290 youth.

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

### Disability Differences in Postsecondary School Completion

The majority of students in all disability categories who were enrolled in postsecondary school at the time of the interview reported that they were working toward a diploma, certificate, or license, with rates ranging from 84 percent of those with emotional disturbances to 99 percent of students with speech/language impairments (no significant differences; table 13).

Within 4 years of leaving high school, postsecondary school graduation rates ranged from 12 percent for youth with visual impairments to 45 percent of those with emotional disturbances (no significant differences).

Table 13. Postsecondary school completion within 4 years of leaving high school, 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											
Students enrolled at the time of the interview who were working toward a diploma, certificate, or license	87.7 (6.10)	98.7 (2.15)	‡	83.8 (9.25)	95.0 (4.52)	96.9 (4.13)	88.3 (5.75)	90.4 (5.28)	90.1 (8.06)	88.3 (12.84)	72.6 (16.77)	‡
Graduation or completion rate of students who had been enrolled in postsecondary school but were not enrolled at the time of the interview	25.2 (9.55)	40.8 (12.95)	‡	44.8 (11.90)	15.4 (9.85)	12.2 (9.98)	27.3 (10.46)	29.4 (10.38)	‡	‡	‡	‡

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

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 460 youth for graduation rate to 850 youth for working toward a diploma.

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

### Differences in Postsecondary School Completion by High School-Leaving Characteristics

Postsecondary school completion expectations and rates of completion did not differ significantly by secondary-school leaving characteristics (table 14). Postsecondary completion ranged from 19 percent of those who had left high school less than 1 year earlier to 41 percent for those who had been out of high school from 2 to 4 years (no significant differences).

Table 14. Postsecondary school completion within 4 years of leaving high school, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
	Percent				
Students enrolled at the time of the interview who were working toward a diploma, certificate, or license	88.2 (4.37)	85.4 (21.42)	96.4 (3.87)	78.7 (8.73)	88.8 (7.22)
Graduation or completion rate of students who had been enrolled in postsecondary school but were not enrolled at the time of the interview	29.3 (7.64)	‡	19.0 (10.41)	14.5 (11.05)	40.7 (11.71)

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

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,880 to 2,930 youth.

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

## Demographic Differences in Postsecondary School Completion

Postsecondary school completion expectations and rates of completion also did not differ significantly by demographic characteristics (table 15).

Table 15. Postsecondary school completion within 4 years of leaving high school, by household income, race/ethnicity, and gender

	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	Percent			Male	Female
				White	African American	Hispanic		
Students enrolled at the time of the interview who were working toward a diploma, certificate, or license	87.1 (10.29)	88.2 (8.37)	95.5 (3.37)	87.5 (5.22)	88.9 (9.42)	93.4 (8.44)	88.5 (5.39)	88.5 (6.39)
Graduation or completion rate of students who had been enrolled in postsecondary school but were not enrolled at the time of the interview	31.0 (13.64)	28.6 (14.42)	25.1 (10.49)	23.7 (8.22)	33.7 (15.37)	55.9 (29.86)	32.7 (9.55)	22.5 (10.92)

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,880 to 2,930 youth.

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

## Summary

This chapter describes the postsecondary enrollment and experiences of youth with disabilities who had been out of secondary school up to 4 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.

Forty-five percent of youth with disabilities were reported to have continued on to postsecondary education within 4 years of leaving high school. They were less likely to enroll in postsecondary programs than were their peers in the general population, of whom more than half ever had attended postsecondary school. Youth with disabilities were reported to be more likely to have enrolled in 2-year or community colleges than in vocational, business, or technical schools or 4-year colleges or universities, and were least likely to have enrolled in 4-year colleges. With similar rates of attendance at 2-year colleges, the gap in postsecondary enrollment between youth with disabilities and those in the general population was most apparent for enrollment in 4-year universities.

Postsecondary enrollment varied widely by disability category, with attendance since high school ranging from 27 percent to 78 percent. With enrollment rates of 70 percent and higher, youth with visual or hearing impairments were more likely to attend postsecondary school than were those in several other disability categories. For example, youth with visual or hearing impairments were more likely to attend postsecondary school (78 percent and 72 percent, respectively) than were those with speech/language or other health impairments (55 percent), orthopedic impairments (54 percent), learning disabilities (47 percent), multiple disabilities (35 percent), emotional disturbances (34 percent), or mental retardation (27 percent).

Youth in several disability categories were more likely to have ever enrolled in a postsecondary program than were those with emotional disturbances (34 percent), specifically, youth with speech/language, hearing, visual, orthopedic, or other health impairments (ranging from 55 percent to 77 percent). Similarly, postsecondary enrollment was higher for youth in several categories than for those with mental retardation, including learning disabilities ; speech/language, hearing, visual, orthopedic, or other health impairments; or autism (ranging from 54 percent to 77 percent).

High school graduates were reported to be more likely to have enrolled in postsecondary school than were those who left high school by dropping out (51 percent vs. 17 percent). The likelihood of ever having been enrolled in postsecondary education increased as youth were out of high school longer, with those out of high school more than 1 year more likely to have been enrolled than those out up to 1 year (65 percent vs. 31 percent). Household income also was related to the likelihood of postsecondary enrollment, with youth from wealthier households being almost twice as likely ever to have enrolled (57 percent vs. 30 percent). Rates of enrollment in postsecondary schools did not differ significantly by race or ethnicity for youth with disabilities.

On average, students with disabilities who continued on to postsecondary school did so within 5 months of leaving high school. Students enrolled in 4-year colleges sooner after high school than they did in postsecondary vocational, business, or technical schools (3 months vs. 7 months). Most students with disabilities were enrolled in postsecondary education programs on a consistent (86 percent), full-time (71 percent) basis.

Postsecondary students who attended 2-year colleges were reported to be more likely to have been enrolled in an academic than vocational course of study (57 percent vs. 29 percent). Students who had primarily a vocational focus at 2-year colleges and those who attended vocational, business, or technical schools were enrolled in a range of vocational majors. Similarly, students with disabilities at 4-year colleges also focused on a broad range of majors.

When students with disabilities leave high school and enter postsecondary institutions, the responsibility for arranging for accommodations and supports shifts from the school to the student. To receive accommodations or supports from a postsecondary school because of a disability, students first must disclose a disability to their school. However, disclosure of a disability is voluntary. More than half (55 percent) of postsecondary students who were identified by their secondary schools as having a disability did not report considering themselves to have a disability by the time they transitioned to postsecondary school. An additional 8 percent considered themselves to have a disability but chose not to disclose it to their postsecondary schools. Slightly more than one-third of postsecondary students with disabilities (37 percent) identified themselves as having a disability and informed their postsecondary schools of their disability.

Twenty-four percent of postsecondary students who were identified as having a disability by their secondary schools were reported to have received accommodations or supports from their postsecondary schools because of their disability. In contrast, when these postsecondary students were in high school, more than three times as many (84 percent) received some type of accommodation or support because of a disability. Postsecondary students who were given assistance because of their disability received a range of accommodations and supports from their schools. Additional time to complete tests was a frequent type of assistance—received by 68 percent of those who were reported to get accommodations and supports.

Postsecondary students were reported to receive help with their schoolwork beyond the support because of their disability provided by schools. Forty-five percent received some type of help, including tutoring and study center assistance—whether or not the assistance was related to their disability. Forty-four percent of students also sought help on their own outside of what their postsecondary schools provided.

Most students who received any type of help with their schoolwork—from the school independent of or because of a disability, or help outside of what the school provided—reported that these supports were “very” or “somewhat” useful (90 percent) and that they “probably” or “definitely” (86 percent) were getting enough assistance.

Students varied widely by disability category in the extent to which they identified themselves as individuals with a disability and had informed their postsecondary schools of the disability. For example, students with visual impairments (79 percent), multiple disabilities (79 percent), or orthopedic impairments (63 percent) were more likely to report considering themselves as having a disability and to have disclosed that disability to their postsecondary schools than were those with speech/language impairments (18 percent), emotional disabilities (21 percent), or learning disabilities (36 percent). Students in disability categories that were more likely to disclose a disability to their postsecondary schools also were more likely to receive accommodations and supports from their schools because of a disability. The rate of receiving help with schoolwork overall—whether or not specifically because of a disability—did not differ across most disability categories.

Most students with disabilities who were currently enrolled in postsecondary school reported that they were working toward a diploma or certificate. Despite the 89 percent of students who reported intending to finish their programs, when students left their postsecondary schools fewer than 3 in 10 (29 percent) were reported to have graduated or completed their programs. Reasons for leaving postsecondary school varied for the 71 percent of postsecondary school leavers who did not graduate or complete their programs.

This chapter has presented a national picture of the postsecondary experiences of youth with disabilities. Chapter 3 will examine employment experiences, and chapter 4 will focus on the overlap between these two outcomes, describing engagement in school, work, or preparation for work.





### 3. Employment

Many adults consider employment a central component of their lives (Levinson and Palmer 2005). Employment has been linked to a range of positive outcomes, including economic independence and enhanced self-esteem (Fabian 1992; Lehman et al. 2002; Polak and Warner 1996).

As youth with disabilities leave high school, many have increased opportunities and expectations for employment, and their work experiences can begin to resemble more closely those of adults. Although some youth go on to postsecondary education or training and do not work, and others both work and go to school, for some youth with disabilities and youth in the general population, the early years after high school are a time to begin to engage in employment as a means of support. This chapter examines the employment status and experiences of youth with disabilities who had been out of high school up to 4 years, including

- employment status;
- number and duration of jobs;
- types of jobs;
- hours worked per week;
- wages and benefits;
- job accommodations;
- perceptions of working conditions;
- job leaving; and
- job search activities.

Findings are reported for youth with disabilities as a whole and for those who differed in their primary disability classification while in secondary school and in selected demographic characteristics, when differences were significant.

#### Employment Status

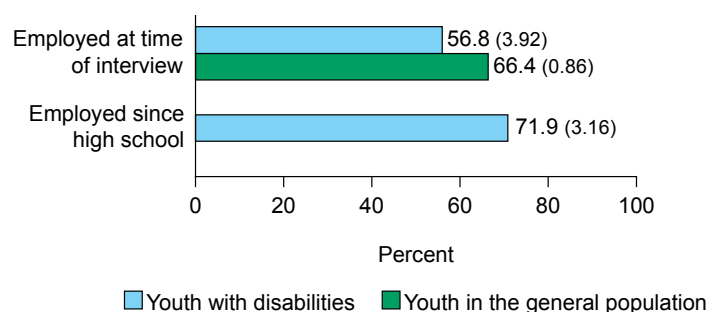
At the time of the 2005 Wave 3 interview, 57 percent of youth with disabilities who had left high school were employed for pay outside the home (figure 15). Sixty-six percent of similarly aged youth (17 to 21 years old) in the general population were employed outside the home. A larger majority of youth with disabilities (72 percent) had been employed at some point since leaving high school than were working at the time of the interview.<sup>1</sup> The difference in the

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<sup>1</sup> Respondents were asked whether youth had “worked for pay outside the home” in the past 2 years and, if so, whether youth were currently employed; they were not asked whether youth had been employed since leaving high school. An employed-since-high-school variable was derived from three items: if the youth had been employed in the past 2 years, were currently employed, and when they had left school. Out-of-high school youth who were employed at the time of the Wave 3 interview were considered to have ever been employed since high school. For youth who were not currently employed but had been recently or in a prior wave, knowing the length of time since leaving high school was essential to avoid including youth whose employment had occurred during high school. A job held by youth in the past 2 years who had been out of high school 2 or more years was in the appropriate time frame. For youth who had been out of high school in Wave 2 and had not been employed in Wave 3 or were missing the Wave 3 employment item, the Wave 2 response for the youth being currently

percentages of youth with disabilities employed since leaving high school (72 percent) and employed at the time of the interview (57 percent) indicates fluctuation in their employment status during the period since leaving school. About 15 percent of out-of-high school youth with disabilities had been employed after leaving high school but were unemployed at the time of the interview.

Figure 15. Paid employment outside the home of out-of-high school youth with disabilities and youth in the general population



NOTE: Standard errors are in parentheses. NLTS2 percentages are weighted population estimates based on samples of approximately 1,990 youth for employed at the time of the interview and 2,400 youth for employed since high school. General population comparison data not available for employed since high school.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97), round 5 youth questionnaire, 2001. Data are for 17- to 21-year-olds.

### ***Disability Differences in Employment Status***

The early post-high school employment experiences of youth with disabilities varied with their primary disability classification. The percentages of youth who were employed at the time of the interview ranged from 27 percent to 68 percent (table 16). Youth with other health impairments or learning disabilities were more likely to be employed at the time of the interview (68 percent and 64 percent, respectively) than youth with orthopedic impairments, mental retardation, or emotional disturbance (27 percent to 42 percent;  $p < .001$  compared with youth with orthopedic impairments or mental retardation,  $p < .01$  compared with youth with emotional disturbance). Youth with speech/language impairments were more likely to be employed at the time of the interview than youth with orthopedic impairments or mental retardation (58 percent vs. 27 percent;  $p < .001$  for youth with orthopedic impairments and 58 percent vs. 31 percent,  $p < .01$  for youth with mental retardation); differences also were noted between youth with hearing impairments and those with orthopedic impairments (54 percent vs. 27 percent,  $p < .01$ ).

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employed in Wave 2 was used. If youth were in school in Wave 2 and had been out of high school for 2 or more years in Wave 3, the Wave 3 response regarding employment in the past 2 years was used. If youth had been out of high school for less than 2 years in Wave 3, employment since high school was based solely on youth currently having a paid job. For unemployed youth who had a paid job within the last 2 years but had been out of high school less than 2 years, we could not determine whether that employment was when they were attending high school or after leaving school; we could use only current employment with certainty. Therefore, there is the potential for the percentage of youth ever employed since high school to be underestimated.

Table 16. Paid employment outside the home of out-of-high school youth, 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	63.6 (5.64)	57.5 (6.15)	31.0 (6.05)	42.3 (5.98)	53.9 (7.27)	42.7 (8.95)	27.3 (6.04)	67.8 (5.45)	46.9 (10.18)	43.4 (12.63)	48.8 (11.04)	‡
Employed since high school	77.2 (4.40)	72.8 (5.03)	51.8 (5.99)	63.4 (5.20)	65.5 (6.33)	59.9 (8.50)	39.5 (5.98)	79.9 (4.29)	66.4 (8.83)	62.5 (10.90)	50.4 (9.48)	50.5 (11.40)

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

NOTE: Standard errors are in parentheses. NLTS2 percentages are weighted population estimates based on samples ranging from approximately 2,130 to 2,620 youth.

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

The percentage of youth who had been employed at some time since leaving high school ranged from 40 percent of youth with orthopedic impairments to about twice that percentage (80 percent) for youth with other health impairments. Youth with learning disabilities, speech/language impairments, or other health impairments (73 percent to 80 percent) all were more likely to have had a job at some time since high school than youth with orthopedic impairments or mental retardation (40 percent and 52 percent, respectively,  $p < .001$  for all comparisons, except  $p < .01$  comparing youth with speech/language impairments and those with mental retardation). Youth with other health impairments also were more likely than those with multiple disabilities to have been employed since high school (80 percent vs. 50 percent,  $p < .01$ ). Youth with emotional disturbances also were more likely than youth with orthopedic impairments to have been employed since high school (63 percent vs. 40 percent,  $p < .01$ ).

### ***Differences in Employment Status by High School-Leaving Characteristics***

Differences in the employment status between youth with disabilities who had completed high school and those who had not were not significant in the early post-high school years. At the time of the interview, 61 percent of completers and 41 percent of noncompleters were employed; and 75 percent of completers and 63 percent of noncompleters had been employed at some point since leaving high school (table 17).

Table 17. Paid employment outside the home of out-of-high school youth, by secondary-school-leaving status and years since leaving high school

Employment status	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
	Percent				
Percentage reported to have been:					
Employed at time of interview	61.0 (4.34)	40.7 (9.91)	58.2 (6.80)	49.2 (6.65)	61.8 (6.66)
Employed since high school	75.2 (3.47)	63.3 (8.02)	71.9 (5.35)	62.4 (6.24)	78.0 (4.84)

NOTE: Standard errors are in parentheses. NLTS2 percentages are weighted population estimates based on samples ranging from approximately 2,130 to 2,620 youth.

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

### ***Demographic Differences in Employment Status***

Table 18 shows the percentages of youth with disabilities employed at the time of the interview and since leaving high school by household income, race/ethnicity, and gender. No significant differences in employment status were noted for youth with disabilities related to their household income (ranging from 48 percent to 63 percent) or gender (62 percent for males and 46 percent for females) at the time of the interview. Although no differences were noted by gender for employment over the time since leaving high school, the differences for youth related to household income were significant. Youth from households earning more than \$50,000 were more likely than youth from households earning \$25,000 or less to have held a job over the time since leaving high school (81 percent vs. 61 percent,  $p < .01$ ). Differences both at the time of the interview and over the time since leaving high school were noted for White and African American youth. At the time of the interview, 63 percent of White youth were employed, compared with 35 percent of African American youth ( $p < .01$ ). The percentages of these youth who had been employed since leaving high school also differed significantly, with 80 percent of White youth having been employed since high school compared with 47 percent of African American youth ( $p < .001$ ).

Table 18. Paid employment outside the home of out-of-high school youth, by household income, race/ethnicity, and gender

Employment status	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	Percent			Male	Female
				White	African American	Hispanic		
Percentage reported to have been:								
Employed at time of interview	47.8 (6.73)	63.2 (7.99)	56.3 (6.17)	62.6 (4.77)	35.2 (7.90)	53.8 (12.24)	62.2 (4.84)	45.7 (6.36)
Employed since high school	61.3 (5.86)	71.2 (6.54)	80.5 (4.41)	79.7 (3.49)	47.2 (7.33)	68.4 (10.45)	75.2 (3.81)	65.0 (5.49)

NOTE: Standard errors are in parentheses. NLTS2 percentages are weighted population estimates based on samples ranging from approximately 2,130 to 2,620 youth.

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

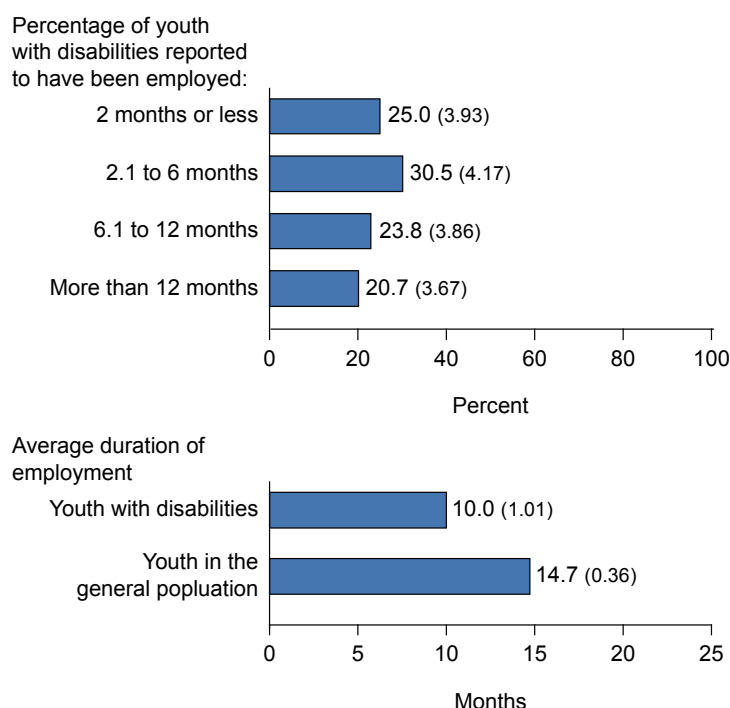
## Job Characteristics

To gain a fuller understanding of the characteristics of youth with disabilities' early post-high school employment, analyses in this section focused on youth who were employed at the time of the interview or had been employed after leaving high school.<sup>2</sup> Because several job characteristics items were not asked of those who had been out of high school for less than one year, findings are reported for those who had been out of high school from 1 to 4 years.

### Number and Duration of Jobs

The majority of youth with disabilities (56 percent) who had been employed had held their job for 6 months or less<sup>3</sup> (figure 16). On average, youth with disabilities out of high school 1 to 4 years had held two to three jobs, with a job lasting an average of 10 months. This compares with an average job duration of 15 months for youth in the general population ( $p < .001$ ).

Figure 16. Duration of jobs of youth with disabilities out of high school 1 to 4 years and youth in the general population



NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on samples of approximately 1,420 youth for duration of employment.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97), round 5 youth questionnaire, 2001. Data are for 17- to 21-year-olds.

<sup>2</sup> Respondents were asked whether youth had had a paid job outside of the home within the past 2 years and, if so, whether they were currently employed. For those who were currently employed, questions were asked about the current job; for those who were not currently employed, questions were asked about the youth's most recent job within the 2-year time frame. For reporting purposes, employment items were combined to reflect either the youth's current (at the time of the interview) or most recent job.

<sup>3</sup> Respondents were asked, "How long have you (has YOUTH) had this job?"

### Disability Differences in Number and Duration of Jobs

The average number of jobs youth in different disability categories had held during the 1 to 4 years they had been out of high school ranged from 1.6 to 3.4 jobs (table 19). Youth with emotional disturbances, learning disabilities, or other health impairments had held more jobs, on average (3.4, 2.9, and 2.8 jobs, respectively), than youth with orthopedic impairments (1.6 jobs,  $p < .01$  for comparison with youth with emotional disturbances and  $p < .001$  for comparisons with youth with learning disabilities and youth with other health impairments). Youth with learning disabilities also had held more jobs than youth with mental retardation (2.9 jobs vs. 2.1 jobs,  $p < .001$ ). Youth with other health impairments also held more jobs (an average of 2.8 jobs) than youth with autism, visual impairments and hearing impairments (1.7 jobs to 2.0 jobs,  $p < .01$  for all comparisons).

Job duration ranged from 8 months to 16 months. Although there were significant differences in the number of jobs held by youth in different disability categories there were no significant differences in the duration of jobs held.

Table 19. Number of jobs and duration of employment of youth out of high school 1 to 4 years, by disability category

Number of jobs and duration	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
Average number of jobs held since high school	2.9 (0.33)	2.7 (0.30)	2.1 (0.21)	3.4 (0.62)	2.0 (0.22)	1.9 (0.27)	1.6 (0.19)	2.8 (0.19)	1.7 (0.29)	2.1 (0.32)	3.4 (0.87)	‡
Average duration of job (months) <sup>1</sup>	9.9 (1.29)	12.4 (2.00)	11.7 (2.21)	7.6 (1.64)	10.8 (2.20)	12.4 (2.82)	9.5 (1.90)	10.1 (1.69)	12.5 (3.19)	10.1 (3.42)	15.6 (3.98)	‡
Percentage of youth reported to have been employed: <sup>1</sup>												
2 months or less	21.8 (5.18)	25.1 (5.81)	28.5 (8.01)	41.3 (6.67)	32.1 (8.46)	21.4 (9.18)	27.6 (8.74)	29.2 (5.91)	32.4 (12.22)	28.4 (14.60)	22.0 (11.36)	‡
2.1 to 6 months	32.9 (5.89)	23.7 (5.70)	19.0 (6.96)	27.9 (6.07)	18.9 (7.09)	25.1 (9.71)	22.4 (8.15)	31.2 (6.02)	8.4 (7.25)	29.5 (14.77)	22.1 (11.37)	‡
6.1 to 12 months	24.4 (5.39)	28.2 (6.03)	25.2 (7.70)	19.5 (5.37)	23.6 (7.69)	26.9 (9.93)	30.8 (9.02)	18.5 (5.05)	22.6 (10.92)	16.0 (11.87)	20.4 (11.05)	‡
More than 12 months	20.9 (5.10)	23.0 (5.64)	27.4 (7.91)	11.3 (4.29)	25.4 (7.89)	26.7 (9.90)	19.2 (7.70)	21.1 (5.30)	36.6 (12.58)	26.1 (14.22)	35.4 (13.11)	‡

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

<sup>1</sup> For youth's current or most recent job.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on samples ranging from approximately 1,510 to 2,050 youth.

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

### Differences in Number and Duration of Jobs by High School-Leaving Characteristics

The average number and duration of jobs of youth with disabilities who were high school completers or noncompleters during the 1 to 4 years they had been out of high school did not differ significantly (table 20). Although there were no significant differences in the number of jobs youth held based on the number of years out of high school, significant differences were apparent in the length of time these youth had held a job. Youth who had been out of high school less than 1 year were more likely than youth who had been out 1 to 2 years to have held a job for 6 months to 1 year (41 percent vs. 13 percent,  $p < .01$ ), whereas youth who had been out of high school 2 to 4 years were more likely than youth out of high school less than 1 year to have held a job for more than 12 months (34 percent vs. 8 percent,  $p < .01$ ).

Table 20. Number of jobs and duration of employment of youth with disabilities out of high school 1 to 4 years, by secondary-school-leaving status and years since leaving high school

Number of jobs and duration	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
Average number of jobs held since high school	2.9 (0.29)	2.8 (0.55)	2.9 (0.55)	3.0 (0.47)	2.7 (0.23)
Average duration of job (months) <sup>1</sup>	10.2 (1.10)	8.1 (2.93)	8.1 (1.32)	9.9 (2.16)	11.8 (1.63)
Percentage of youth reported to have been employed: <sup>1</sup>					
2 months or less	24.4 (4.32)	30.1 (11.43)	28.5 (7.42)	27.8 (6.96)	19.6 (5.92)
2.1 to 6 months	29.2 (4.58)	36.9 (12.02)	22.7 (6.88)	40.3 (7.62)	30.5 (6.86)
6.1 to 12 months	24.0 (4.30)	22.2 (10.35)	40.9 (8.08)	12.8 (5.19)	16.1 (5.48)
More than 12 months	22.4 (4.20)	10.9 (7.76)	7.9 (4.43)	19.2 (6.12)	33.8 (7.05)

<sup>1</sup> For youth's current or most recent job.

NOTE: Standard errors are in parentheses. NLTS2 percentages are weighted population estimates based on samples ranging from approximately 2,130 to 2,620 youth.

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

### Demographic Differences in Number and Duration of Jobs

Table 21 shows the number and duration of jobs held by youth with disabilities by household income, race/ethnicity, and gender. No significant differences in the number of jobs held was noted. The length of time youth held their jobs ranged from 9 months to 12 months by household income categories, 9 months to 14 months by race/ethnicity, and 9 months to 10 months by gender; no significant differences were noted.

Table 21. Number of jobs and duration of employment of youth with disabilities out of high school 1 to 4 years, by household income, race/ethnicity, and gender

Number of jobs and duration	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	Race/Ethnicity			Gender	
				White	African American	Hispanic	Male	Female
Average number of jobs held since high school	2.8 (0.47)	2.6 (0.33)	3.0 (0.46)	2.9 (0.30)	3.2 (0.74)	2.7 (0.44)	3.0 (0.27)	2.6 (0.51)
Average duration of job (months) <sup>1</sup>	9.1 (1.71)	12.3 (2.38)	9.0 (1.38)	9.9 (1.20)	13.5 (2.76)	9.2 (2.64)	10.4 (1.24)	9.0 (1.72)
Percentage of youth reported to have been employed: <sup>1</sup>								
2 months or less	30.9 (7.81)	19.1 (7.20)	24.7 (5.84)	26.0 (4.78)	11.0 (6.55)	16.9 (11.03)	22.1 (4.68)	31.3 (7.00)
2.1 to 6 months	26.4 (7.45)	24.4 (7.87)	37.5 (6.55)	29.5 (4.97)	35.2 (9.99)	39.9 (14.42)	29.6 (5.15)	32.6 (7.07)
6.1 to 12 months	26.1 (7.42)	30.1 (8.40)	18.1 (5.21)	24.2 (4.67)	20.9 (8.51)	28.0 (13.22)	26.6 (4.98)	17.7 (5.76)
More than 12 months	16.5 (6.27)	26.4 (8.07)	19.7 (5.38)	20.3 (4.38)	33.0 (9.84)	15.2 (10.57)	21.7 (4.65)	18.4 (5.85)

<sup>1</sup> For youth's current or most recent job.

NOTE: Standard errors are in parentheses. NLTS2 percentages are weighted population estimates based on samples ranging from approximately 2,130 to 2,620 youth.

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

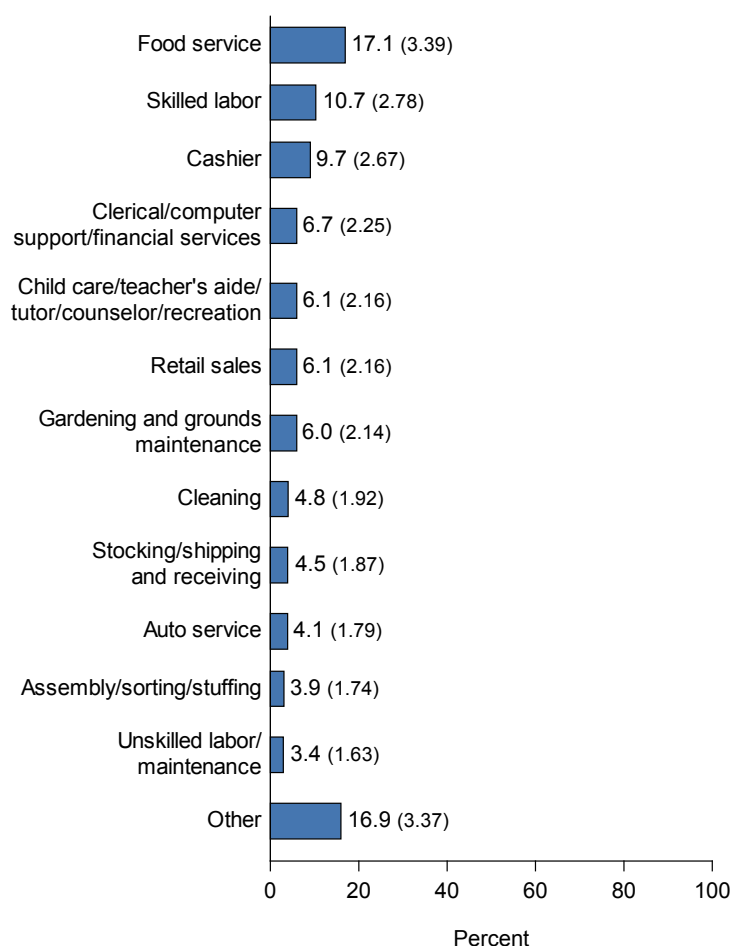
### ***Types of Jobs***

Out-of-high school youth with disabilities held a variety of types of jobs<sup>4</sup> (figure 17). Seventeen percent worked in food service, 11 percent worked as a skilled laborer, and an additional 10 percent were employed as a cashier. Youth were significantly more likely to work in food service than in several other types of jobs, including assembly/sorting/stuffing, auto service, and unskilled (from 3 percent to 4 percent held these types of jobs,  $p < .001$ ), and child care or recreation, cleaning, gardening and grounds maintenance, retail sales, or stocking/shipping and receiving; (from 5 percent to 6 percent held these types of jobs,  $p < .01$ ). There were no other significant differences in the percentages of youth employed in any particular type of job.

<sup>4</sup> Respondents were asked, "What is your (YOUTH's) job title? Briefly tell me about your (YOUTH's) main job duties."



Figure 17. Type of employment of youth with disabilities out of high school 1 to 4 years



NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,430 youth. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005.

### Disability Differences in Types of Jobs

The likelihood of youth's holding a particular type of job did not differ significantly across disability categories for most types of jobs investigated. However, differences did exist for youth employed in cleaning and skilled labor jobs (table 22).

Table 22. Type of employment of youth out of high school 1 to 4 years, by disability category

	Learning disability	Speech/ language impair- ment	Mental retar- dation	Emo- tional distur- bance	Hearing impair- ment	Visual impair- ment	Ortho- pedic impair- ment	Other health impair- ment	Autism	Trau- matic brain injury	Multiple disabili- ties	Deaf- blind- ness
Type of employment	Percent											
Percentage whose current or most recent job was:												
Food service	16.9 (4.70)	14.7 (4.74)	22.1 (7.27)	17.2 (5.04)	13.4 (6.12)	15.3 (8.04)	17.9 (7.62)	16.1 (4.74)	16.1 (9.50)	13.0 (10.90)	7.5 (7.15)	‡
Skilled labor	12.8 (4.19)	3.6 (2.49)	0.9 (1.65)	10.1 (4.03)	4.0 (3.52)	0.4 (1.41)	5.2 (4.41)	7.8 (3.46)	3.0 (4.41)	0.5 (2.29)	1.2 (2.96)	‡
Retail sales	6.8 (3.16)	6.1 (3.21)	1.9 (2.39)	4.1 (2.65)	6.4 (4.40)	5.9 (5.26)	4.1 (3.94)	7.8 (3.46)	1.6 (3.24)	1.3 (3.67)	0.4 (1.71)	‡
Cashier	7.9 (3.39)	14.8 (4.76)	16.4 (6.49)	12.9 (4.48)	2.6 (2.86)	22.5 (9.33)	9.7 (5.88)	15.4 (4.65)	5.1 (5.68)	14.9 (11.55)	15.3 (9.78)	‡
Clerical/computer support/financial services	6.0 (2.98)	9.8 (3.98)	6.2 (4.23)	7.5 (3.52)	12.4 (5.92)	15.8 (8.15)	30.4 (9.14)	8.6 (3.61)	4.4 (5.30)	10.5 (9.94)	8.2 (7.45)	‡
Child care/ teacher's aide/ tutor/counselor/ recreation	6.9 (3.18)	9.4 (3.91)	4.0 (3.43)	3.0 (2.28)	9.2 (5.20)	17.7 (8.53)	1.5 (2.42)	1.6 (1.62)	2.7 (4.19)	1.4 (3.81)	1.5 (3.30)	‡
Gardening/ grounds maintenance	7.1 (3.22)	4.7 (2.83)	3.0 (2.99)	2.2 (1.96)	2.0 (2.52)	2.8 (3.69)	3.7 (3.75)	6.6 (3.20)	4.2 (5.18)	2.5 (5.06)	4.1 (5.38)	‡
Cleaning	4.4 (2.57)	6.8 (3.37)	8.0 (4.75)	2.9 (2.24)	5.3 (4.03)	3.9 (4.32)	1.0 (1.98)	3.8 (2.46)	16.2 (9.52)	3.0 (5.53)	41.7 (13.39)	‡
Stocking/shipping and receiving	3.5 (2.31)	6.1 (3.21)	9.9 (5.23)	5.0 (2.91)	5.8 (4.20)	1.9 (3.05)	2.0 (2.78)	7.2 (3.33)	15.7 (9.40)	5.0 (7.07)	0.8 (2.42)	‡
Auto service	4.2 (2.52)	1.3 (1.52)	4.6 (3.67)	5.4 (3.02)	1.5 (2.18)	0.1 (0.71)	0.4 (1.25)	3.1 (2.23)	#	5.6 (7.45)	3.9 (5.26)	‡
Assembly/sorting/ stuffing	3.3 (2.24)	2.8 (2.21)	8.1 (4.78)	5.6 (3.07)	2.8 (2.97)	0.4 (1.41)	8.8 (5.63)	1.2 (1.40)	15.5 (9.35)	11.3 (10.27)	5.4 (6.14)	‡
Unskilled labor/ maintenance	2.7 (2.03)	2.0 (1.87)	10.0 (5.26)	4.4 (2.74)	1.5 (2.18)	2.6 (3.56)	0.7 (1.66)	4.7 (2.73)	#	1.1 (3.38)	1.1 (2.83)	‡
Other	17.6 (4.78)	17.8 (5.12)	5.0 (3.82)	19.8 (5.32)	33.0 (8.45)	10.6 (6.88)	14.5 (7.00)	16.0 (4.73)	15.5 (9.35)	30.0 (14.86)	9.0 (7.77)	‡

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

# Rounds to zero.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. For youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,520 youth.

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

**Cleaning jobs.** The percentages of youth who had been employed in cleaning jobs ranged from 1 percent to 42 percent. Youth with multiple disabilities were more likely to be employed in cleaning jobs than youth in every other disability category except speech/language impairments, mental retardation, and autism. Forty-two percent of youth with multiple disabilities were reported to have been employed in cleaning jobs, compared with 1 percent to

5 percent of youth with learning disabilities, emotional disturbances, hearing impairments, visual impairments, other health impairments, and traumatic brain injuries ( $p < .01$  for all comparisons).

**Skilled labor jobs.** The percentages of youth employed in skilled labor positions ranged from less than 1 percent to 13 percent. Youth with learning disabilities (13 percent) were more likely to be employed as skilled laborers than youth with mental retardation (1 percent;  $p < .01$ ).

### Differences in Types of Jobs by High School-Leaving Characteristics

With one exception, no significant differences in the types of jobs held by youth with disabilities based on their high school-leaving status were apparent. However, high school completers were significantly more likely to work in retail jobs than noncompleters (7 percent vs. 0 percent,  $p < .01$ , table 23). No significant differences in the types of jobs held by youth with disabilities based on the number of years they had been out of high school were noted.

Table 23. Type of employment of youth with disabilities out of high school 1 to 4 years, by secondary-school-leaving status and years since leaving high school

Type of employment	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
			Percent		
Percentage whose current or most recent job was:					
Food service	18.0 (3.84)	13.9 (8.68)	14.6 (5.80)	23.4 (6.47)	14.5 (5.23)
Skilled labor	10.6 (3.07)	13.1 (8.47)	12.8 (5.49)	6.7 (3.82)	11.9 (4.81)
Retail sales	7.0 (2.55)	#	10.8 (5.10)	1.7 (1.98)	5.1 (3.27)
Cashier	10.3 (3.03)	8.1 (6.85)	12.0 (5.34)	10.5 (4.69)	7.1 (3.81)
Clerical/computer support/financial services	6.1 (2.39)	4.0 (4.92)	9.8 (4.89)	6.6 (3.80)	4.1 (2.94)
Child care/ teacher's aide/tutor/counselor/ recreation	5.8 (2.33)	7.9 (6.77)	5.0 (3.58)	3.1 (2.65)	9.3 (4.31)
Gardening/grounds maintenance	5.5 (2.28)	4.4 (5.15)	8.7 (4.63)	8.9 (4.35)	1.4 (1.74)
Cleaning	3.0 (1.70)	17.6 (9.56)	3.1 (2.85)	9.2 (4.42)	3.1 (2.57)
Stocking/shipping and receiving	4.5 (2.07)	5.1 (5.52)	4.0 (3.22)	2.2 (2.24)	6.6 (3.69)
Auto service	4.3 (2.03)	4.0 (4.92)	0.9 (1.55)	3.3 (2.73)	7.6 (3.94)
Assembly/sorting/stuffing	3.3 (1.78)	8.3 (6.92)	3.0 (2.80)	6.0 (3.63)	3.0 (2.53)
Unskilled labor/maintenance	2.7 (1.62)	7.5 (6.61)	1.0 (1.64)	3.1 (2.65)	5.9 (3.50)
Other	18.9 (3.91)	5.9 (5.91)	14.5 (5.79)	15.2 (5.49)	20.5 (6.00)

# Rounds to zero.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. For youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,520 youth.

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

## Demographic Differences in Types of Jobs

No significant differences based on household income were noted in the types of jobs held by youth with disabilities (table 24). With one exception, no differences based on race/ethnicity were noted for these youth. Skilled labor jobs were significantly more likely to be held by White youth than by African American youth (12 percent vs. 1 percent,  $p < .01$ ). Some gender differences in the types of jobs held were apparent among youth with disabilities, 16 percent and 9 percent of males held skilled labor and gardening or grounds maintenance jobs, respectively, whereas no female youth with disabilities did so ( $p < .001$  for skilled labor and  $p < .01$  for gardening or grounds maintenance).

Table 24. Type of employment of youth with disabilities out of high school 1 to 4 years, by household income, race/ethnicity, and gender

Type of employment	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	Percent			Male	Female
				White	African American	Hispanic		
Percentage whose current or most recent job was:								
Food service	14.6 (5.94)	17.5 (6.88)	13.4 (4.59)	16.2 (3.98)	23.0 (8.76)	18.4 (11.21)	15.3 (4.05)	21.0 (6.02)
Skilled labor	10.0 (5.05)	18.9 (7.09)	4.1 (2.67)	12.1 (3.53)	1.2 (2.27)	7.3 (7.52)	15.6 (4.08)	#
Retail sales	7.3 (4.38)	8.2 (4.97)	4.2 (2.70)	5.0 (2.36)	3.4 (3.77)	16.3 (10.68)	5.4 (2.54)	7.4 (3.87)
Cashier	12.1 (5.49)	6.2 (4.36)	11.0 (4.22)	8.8 (3.06)	20.9 (8.47)	3.3 (5.17)	7.0 (2.87)	15.8 (5.39)
Clerical/computer support/financial services	7.0 (4.29)	3.1 (3.14)	9.9 (4.02)	6.3 (2.63)	4.6 (4.36)	13.2 (9.79)	3.8 (2.15)	13.3 (5.02)
Child care/ teacher's aide/ tutor/counselor/recreation	4.2 (3.38)	6.2 (4.36)	8.2 (3.70)	5.0 (2.36)	5.5 (4.75)	12.3 (9.50)	3.3 (2.01)	12.2 (4.84)
Gardening/grounds maintenance	2.9 (2.82)	1.3 (2.05)	10.6 (4.15)	8.0 (2.93)	1.9 (2.84)	0.1 (0.91)	8.7 (3.17)	#
Cleaning	3.4 (3.05)	2.6 (2.88)	8.0 (3.65)	4.6 (2.26)	2.6 (3.31)	7.9 (7.80)	2.9 (1.89)	9.1 (4.25)
Stocking/shipping and receiving	6.6 (4.18)	5.5 (4.13)	2.7 (2.18)	4.2 (2.17)	6.9 (5.28)	2.3 (4.34)	6.4 (2.75)	0.3 (0.81)
Auto service	1.4 (1.98)	8.0 (4.91)	4.0 (2.64)	5.2 (2.40)	2.8 (3.44)	#	5.8 (2.63)	0.3 (0.81)
Assembly/sorting/stuffing	3.3 (3.01)	8.0 (4.91)	1.9 (1.84)	4.8 (2.31)	2.6 (3.31)	1.2 (3.15)	3.4 (2.04)	5.0 (3.22)
Unskilled labor/maintenance	4.8 (3.60)	2.9 (3.04)	3.3 (2.41)	3.4 (1.96)	0.3 (1.14)	7.7 (7.71)	5.0 (2.45)	#
Other	22.4 (7.02)	11.6 (5.80)	18.6 (5.24)	16.5 (4.01)	24.3 (8.93)	10.0 (8.68)	17.5 (4.28)	15.7 (5.38)

# Rounds to zero.

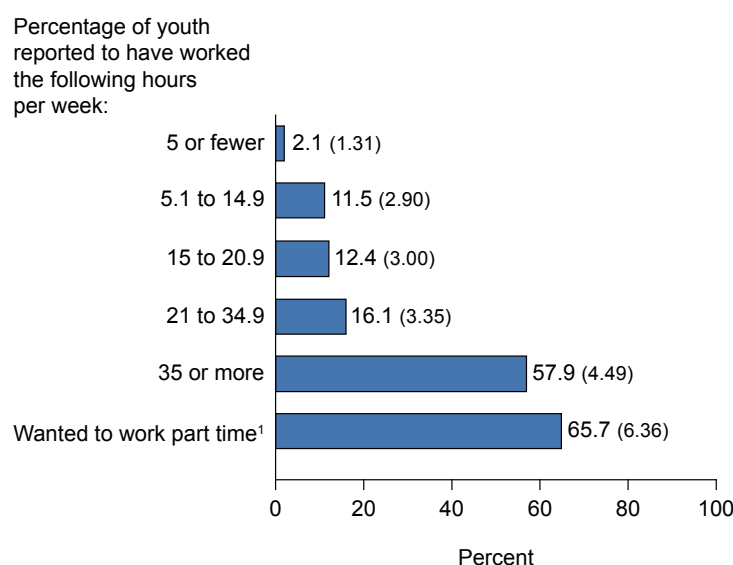
NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. For youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,520 youth.

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

### Hours Worked Per Week

A majority of youth with disabilities (58 percent) who had been out of high school 1 to 4 years worked full time (35 or more hours per week) at the job they held at the time of the interview or their most recent job<sup>5</sup> (figure 18). The percentage of youth with disabilities who worked part time ranged from 16 percent who worked 21 to 34 hours to 2 percent who worked 5 or fewer hours per week. On average, youth with disabilities worked 34 hours per week. Sixty-six percent of out-of-high school youth with disabilities who worked part time reportedly wanted to do so.

Figure 18. Hours worked by youth with disabilities out of high school 1 to 4 years



<sup>1</sup> For youth working part time (less than 35 hours per week) at current or most recent job.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on samples of approximately 1,420 youth for hours worked per week and 710 youth for wanting to work part time.

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

### Disability Differences in Hours Worked

The percentages of youth in different disability categories working full time (35 or more hours per week) ranged from 22 percent to 61 percent (table 25). Youth with learning disabilities, other health impairments, or emotional disturbances were more likely to work full time (61 percent, 60 percent, and 56 percent, respectively) than youth with visual impairments or autism (23 percent and 22 percent;  $p < .001$  for comparison of youth with learning disabilities and visual impairments,  $p < .01$  for all other comparisons).

<sup>5</sup> Respondents were asked, "About how many hours a week do you (YOUTH) usually work at this job?"

The average number of hours worked per week by youth in different disability categories ranged from 23 to 35. The average number of hours worked per week was significantly higher among youth with emotional disturbances (35 hours), learning disabilities (34 hours) and other health impairments (33 hours) than for youth with visual impairments and autism (23 hours; all comparisons  $p < .01$ ). There were no significant differences in the proportions of youth who worked part time and reported wanting to do so.

Table 25. Hours worked by youth out of high school 1 to 4 years, by disability category

Hours worked	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
Average hours worked per week <sup>1</sup>	34.1 (1.91)	31.4 (2.06)	30.1 (3.21)	34.8 (2.25)	28.7 (2.35)	22.8 (3.10)	26.0 (2.84)	33.4 (1.90)	22.9 (3.39)	30.6 (4.40)	27.1 (3.95)	‡
Percentage reported having worked the following hours per week: <sup>1</sup>												
5 or fewer	1.2 (1.38)	5.0 (2.92)	5.4 (4.08)	2.5 (2.10)	7.7 (4.78)	5.2 (4.98)	8.2 (5.59)	3.0 (2.21)	7.6 (6.90)	1.1 (3.33)	13.4 (9.44)	‡
5.1 to 14.9	11.9 (4.11)	7.9 (3.61)	11.2 (5.70)	11.5 (4.28)	9.3 (5.21)	24.8 (9.68)	15.6 (7.39)	7.7 (3.46)	12.8 (8.71)	10.5 (9.80)	10.2 (8.39)	‡
15 to 20.9	11.1 (3.98)	16.5 (4.97)	24.7 (7.79)	9.2 (3.88)	13.8 (6.18)	27.5 (10.01)	17.8 (7.79)	12.7 (4.32)	43.7 (12.92)	26.0 (14.02)	12.2 (9.07)	‡
21 to 34.9	14.9 (4.52)	22.2 (5.57)	15.9 (6.61)	20.4 (5.41)	28.5 (8.09)	19.9 (8.95)	20.5 (8.22)	17.1 (4.88)	14.2 (9.10)	9.7 (9.46)	18.4 (10.74)	‡
35 or more	61.0 (6.19)	48.4 (6.69)	42.8 (8.94)	56.3 (6.66)	40.8 (8.81)	22.5 (9.36)	37.9 (9.88)	59.5 (6.37)	21.6 (10.72)	52.7 (15.96)	45.7 (13.81)	‡
Percentage who wanted to work part time <sup>2</sup>	72.8 (8.84)	54.8 (10.07)	49.6 (11.11)	44.5 (10.35)	60.5 (15.04)	81.4 (10.79)	68.1 (11.55)	61.5 (9.59)	44.4 (16.54)	75.8 (15.20)	57.8 (15.84)	‡

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

<sup>1</sup> For youth's current or most recent job.

<sup>2</sup> For youth working part time (less than 35 hours per week) at current or most recent job.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on samples ranging from approximately 1,520 youth for hours worked per week and 750 youth for wants to work part time.

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

### Differences in Hours Worked by High School-Leaving Characteristics

No significant differences in hours worked by youth with disabilities based on their high school-leaving status or the number of years out of high school were apparent (table 26).

Table 26. Hours worked by youth with disabilities out of high school 1 to 4 years, by secondary-school-leaving status and years since leaving high school

Hours worked	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
Average hours worked per week <sup>1</sup>	33.0 (1.55)	35.1 (4.40)	32.5 (2.47)	30.9 (2.16)	36.2 (2.48)
Percentage reported having worked the following hours per week: <sup>1</sup>					
5 or fewer	2.4 (1.54)	1.1 (2.70)	1.5 (2.00)	2.7 (2.53)	2.2 (2.19)
5.1 to 14.9	11.1 (3.16)	16.7 (9.67)	12.4 (5.42)	11.6 (5.00)	10.6 (4.60)
15 to 20.9	14.2 (3.51)	2.8 (4.28)	16.6 (6.12)	13.7 (5.37)	7.6 (3.96)
21 to 34.9	16.3 (3.72)	11.6 (8.30)	15.0 (5.87)	16.1 (5.74)	17.2 (5.64)
35 or more	56.0 (4.99)	67.8 (12.11)	54.6 (8.18)	55.8 (7.76)	62.4 (7.23)
Percentage who wanted to work part time <sup>2</sup>	64.4 (6.66)	69.6 (23.05)	67.8 (10.97)	67.7 (11.26)	61.7 (10.74)

<sup>1</sup> For youth's current or most recent job.

<sup>2</sup> For youth working part time (less than 35 hours per week) at current or most recent job.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on samples ranging from approximately 1,520 youth for hours worked per week and 750 youth for wants to work part time.

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

## Demographic Differences in Hours Worked

Although no significant differences related to household income or race/ethnicity were noted for the hours worked by youth with disabilities, there were significant gender differences in the percentage working full time and the average number of hours worked. Males were more likely than females to work full time (68 percent vs. 35 percent,  $p < .001$ , table 27). Males worked on average 36 hours per week whereas females worked 27 hours per week ( $p < .01$ ). No differences in the desire to work part time were apparent based on any demographic differences.

Table 27. Hours worked by youth with disabilities out of high school 1 to 4 years, by household income, race/ethnicity, and gender

Hours worked	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	White	African American	Hispanic	Male	Female
Average hours worked per week <sup>1</sup>	32.2 (2.42)	37.9 (2.72)	32.3 (2.23)	33.3 (1.66)	35.5 (3.80)	29.7 (3.96)	36.0 (1.71)	27.4 (2.20)
Percentage reported having worked the following hours per week: <sup>1</sup>								
5 or fewer	2.4 (2.58)	2.7 (3.02)	1.7 (1.75)	2.1 (1.58)	1.4 (2.43)	3.3 (5.14)	1.3 (1.27)	3.9 (2.95)
5.1 to 14.9	10.2 (5.11)	3.0 (3.18)	16.1 (4.97)	13.2 (3.73)	8.9 (5.90)	6.6 (7.14)	8.3 (3.10)	19.2 (6.00)
15 to 20.9	14.7 (5.98)	10.0 (5.59)	12.7 (4.50)	10.4 (3.36)	13.7 (7.12)	26.7 (12.72)	11.1 (3.53)	15.5 (5.51)
21 to 34.9	19.0 (6.62)	9.2 (5.38)	19.6 (5.37)	15.0 (3.93)	19.6 (8.22)	22.5 (12.01)	11.8 (3.63)	26.3 (6.70)
35 or more	53.6 (8.42)	75.3 (8.03)	50.0 (6.76)	59.2 (5.42)	56.4 (10.27)	40.9 (14.14)	67.5 (5.26)	35.0 (7.26)
Percentage who wanted to work part time <sup>2</sup>	58.2 (13.34)	65.2 (11.74)	67.1 (8.72)	68.5 (7.42)	62.4 (14.35)	52.7 (19.70)	69.3 (8.26)	61.9 (9.75)

<sup>1</sup> For youth's current or most recent job.

<sup>2</sup> For youth working part time (less than 35 hours per week) at current or most recent job.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on samples ranging from approximately 1,520 youth for hours worked per week and 750 youth for wants to work part time.

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

## Wages and Benefits

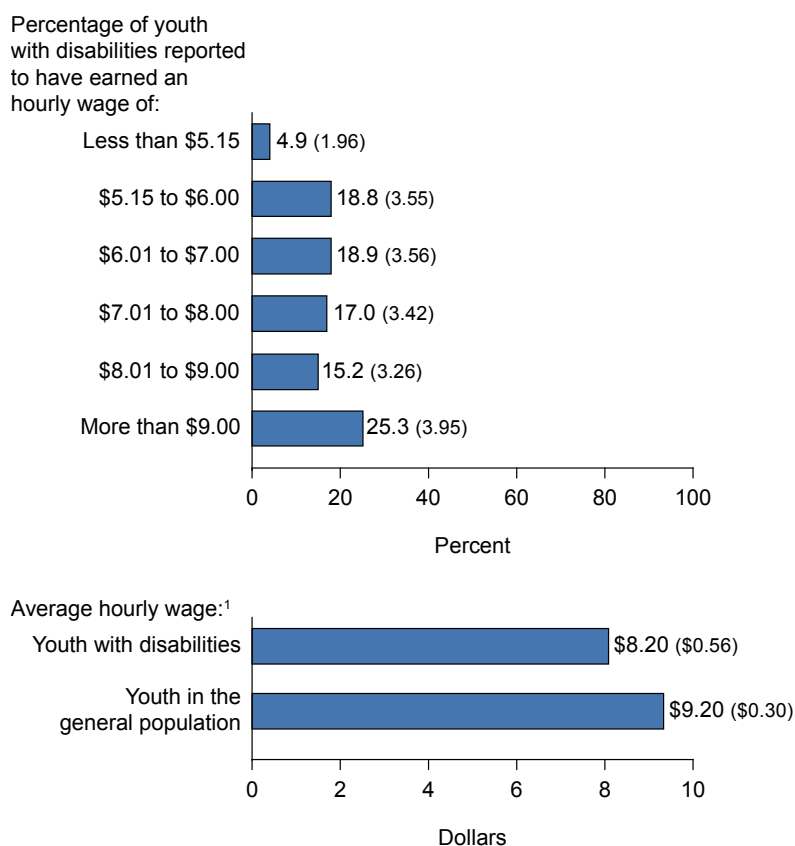
Youth with disabilities who had been out of high school 1 to 4 years earned an average of \$8.20 per hour,<sup>6</sup> reported in 2005 dollars (figure 19), not a significant difference from the average hourly wage of youth in the general population (\$9.20). Although 5 percent of youth with disabilities were paid less than minimum wage (\$5.15 at the time), the majority (58 percent) earned more than \$7.00 per hour, and 25 percent earned more than \$9.00 per hour.

Although no significant difference was noted in the average hourly wage between youth with disabilities employed full time (35 or more hours per week, \$8.90) and part time (\$7.50), those who worked full time were significantly more likely than youth working part time to earn more than \$9.00 per hour (35 percent vs. 15 percent,  $p < .01$ ; figure 20).

<sup>6</sup> Respondents were asked, "About how much are you (is YOUTH) paid at this job? Is that per hour?"



Figure 19. Wages of youth with disabilities out of high school 1 to 4 years and youth in the general population

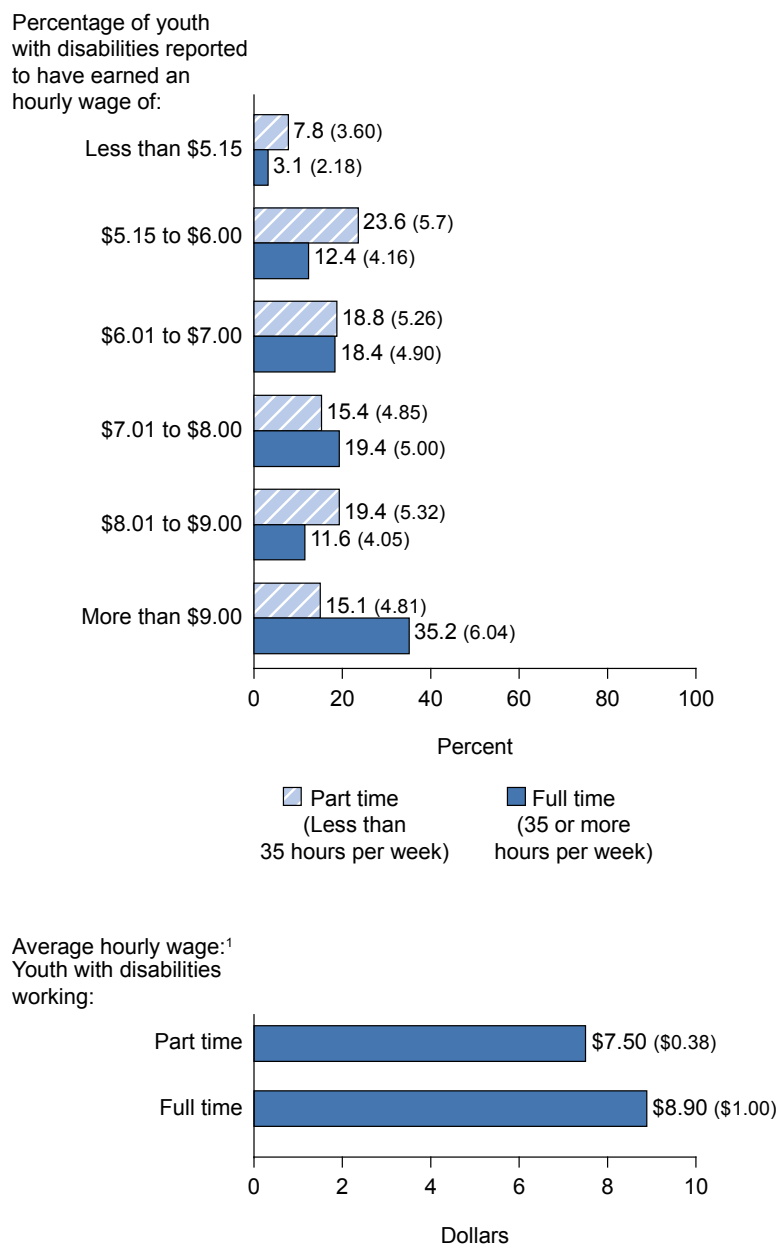


<sup>1</sup> Rounded to nearest \$.10.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,360 youth.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97), round 5 youth questionnaire, 2001. Data are for 17- to 21-year-olds.

Figure 20. Wages of youth with disabilities out of high school 1 to 4 years, by part-time and full-time employment



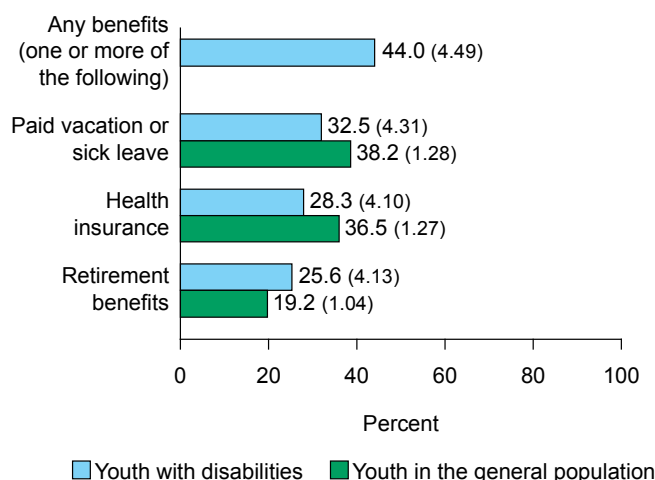
<sup>1</sup> Rounded to nearest \$.10.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,360 youth. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97), round 5 youth questionnaire, 2001. Data are for 17- to 21-year-olds.

Paid vacation or sick leave, health insurance, and a retirement plan are benefits that may be provided by employers. A minority of out-of-high school youth with disabilities and youth in the general population reportedly received each of these types of benefits<sup>7</sup> (figure 21), with no significant differences between the two populations. Thirty-three percent of out-of-high school youth with disabilities and 38 percent of youth in the general population received paid vacation or sick leave. Twenty-eight percent of out-of-high school youth with disabilities received health insurance from their employer, whereas 37 percent of youth in the general population did so. Twenty-six percent of out-of-high school youth with disabilities and 19 percent of youth in the general population received retirement benefits.

Youth with disabilities who worked full time (35 or more hours per week) were significantly more likely than youth who worked part time to receive employment benefits (figure 22). Fifty-seven percent of youth working full time received some type of employment benefits whereas 30 percent of youth working part time did so ( $p < .01$ ). Although differences did not differ significantly between youth employed full time compared with their peer employed part time for the receipt of retirement benefits, differences were significant for the receipt of paid vacation or sick leave (43 percent vs. 21 percent,  $p < .01$ ) and for health insurance (40 percent vs. 15 percent,  $p < .001$ ).

Figure 21. Benefits received by youth with disabilities out of high school 1 to 4 years and youth in the general population

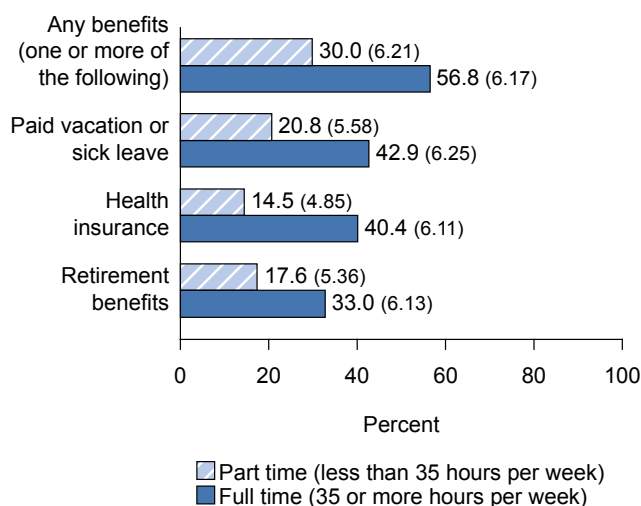


NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,330 youth. General population comparison data not available for any benefits.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97), round 5 youth questionnaire, 2001. Data are for 17- to 21-year-olds.

<sup>7</sup> Respondents were asked about each benefit type separately, "As part of this job, do you (does YOUTH) get paid vacation or sick leave; health insurance; retirement benefits, like a 401K?"

Figure 22. Benefits received by youth with disabilities out of high school 1 to 4 years, by part-time and full-time employment



NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,330 youth. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97), round 5 youth questionnaire, 2001. Data are for 17- to 21-year-olds.

### Disability Differences in Wages and Benefits

Although the hourly wage rate for youth in different disability categories ranged from \$7.00 to \$10.00 per hour, no significant differences existed between them (table 28). There also were no significant differences in the percentages of youth in different disability categories receiving paid vacation or sick leave, health insurance, or retirement benefits from their employer, with one exception. Youth with other health impairments were more likely than youth with traumatic brain injuries to receive paid vacation or sick leave benefits from their employer (44 percent vs. 10 percent,  $p < .01$ ).

Table 28. Wages and benefits of youth out of high school 1 to 4 years, by disability category

Wages and benefits	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
Average hourly wage <sup>1</sup>	\$8.10 (\$0.31)	\$8.70 (\$0.72)	\$7.00 (\$0.45)	\$10.00 (\$2.27)	\$7.50 (\$0.48)	\$7.90 (\$0.90)	\$7.30 (\$0.77)	\$8.10 (\$0.40)	\$7.50 (\$0.61)	\$7.40 (\$0.60)	\$8.80 (\$1.09)	‡
Percentage reported having earned an hourly wage of: <sup>1</sup>												
Less than \$5.15	4.0 (2.53)	10.5 (4.20)	5.9 (4.08)	8.1 (3.74)	8.0 (4.86)	2.5 (3.73)	7.2 (5.49)	4.8 (2.79)	5.5 (6.14)	2.5 (4.08)	4.7 (5.75)	‡
\$5.15 to \$6.00	17.4 (4.89)	8.4 (3.80)	39.1 (8.45)	19.0 (5.38)	27.7 (8.02)	21.8 (9.88)	23.9 (9.07)	11.9 (4.22)	28.1 (12.11)	18.3 (10.10)	22.8 (11.39)	‡
\$6.01 to \$7.00	17.3 (4.88)	13.0 (4.61)	15.0 (6.18)	28.5 (6.19)	20.8 (7.28)	30.9 (11.05)	25.6 (9.28)	25.6 (5.69)	17.8 (10.30)	32.8 (12.27)	12.0 (8.82)	‡
\$7.01 to \$8.00	16.3 (4.77)	22.9 (5.76)	20.6 (7.00)	11.2 (4.32)	16.9 (6.72)	27.0 (10.62)	31.5 (9.87)	25.6 (5.69)	18.0 (10.35)	19.4 (10.33)	26.0 (11.91)	‡
\$8.01 to \$9.00	17.7 (4.93)	20.0 (5.48)	4.9 (3.74)	10.6 (4.22)	9.3 (5.21)	5.2 (5.31)	3.2 (3.74)	8.9 (3.71)	3.1 (4.67)	19.5 (10.35)	7.5 (7.15)	‡
More than \$9.00	27.4 (5.76)	25.1 (5.94)	14.5 (6.10)	22.5 (5.72)	17.3 (6.78)	12.5 (7.91)	8.7 (5.99)	23.2 (5.50)	27.5 (12.03)	7.5 (6.88)	27.0 (12.05)	‡
Percentage reported having received:												
Any benefits (one or more of the following)	44.0 (6.25)	41.8 (6.64)	50.7 (8.67)	36.7 (6.45)	31.0 (8.35)	37.5 (10.82)	30.9 (9.23)	55.5 (6.40)	29.5 (11.86)	40.7 (15.78)	51.3 (13.76)	‡
Paid vacation or sick leave	31.1 (5.90)	33.8 (6.38)	40.0 (8.50)	32.3 (6.52)	25.8 (7.97)	20.8 (9.27)	24.8 (8.81)	44.3 (6.56)	17.3 (10.18)	9.9 (9.93)	44.9 (13.70)	‡
Health insurance	27.7 (5.68)	30.5 (6.20)	39.5 (8.40)	23.5 (5.77)	23.7 (7.87)	11.2 (7.08)	19.0 (7.86)	31.4 (6.05)	24.3 (11.24)	36.6 (15.98)	40.6 (13.52)	‡
Retirement benefits	26.7 (5.75)	23.9 (5.84)	31.3 (8.53)	16.5 (5.19)	12.1 (6.05)	20.0 (9.11)	14.4 (7.43)	24.7 (5.90)	17.9 (10.91)	33.9 (15.59)	36.8 (13.45)	‡

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

<sup>1</sup> Rounded to nearest \$.10.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,140 youth.

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

### Differences in Wages and Benefits by High School-Leaving Characteristics

No significant differences in the wages and benefits received by youth with disabilities based on their high school-leaving status or the number of years out of high school were apparent (table 29).

Table 29. Wages and benefits of youth with disabilities out of high school 1 to 4 years, by secondary-school-leaving status and years since leaving high school

Wages and benefits	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
Average hourly wage <sup>1</sup>	\$8.00 (\$0.26)	\$10.10 (\$4.07)	\$7.70 (\$0.40)	\$8.50 (\$1.65)	\$8.40 (\$0.49)
Percentage reported having earned an hourly wage of: <sup>1</sup>					
Less than \$5.15	4.3 (2.03)	7.9 (7.11)	3.4 (2.89)	3.7 (2.99)	7.2 (3.97)
\$5.15 to \$6.00	20.2 (4.01)	13.2 (8.93)	22.8 (6.70)	17.9 (6.07)	16.1 (5.64)
\$6.01 to \$7.00	18.0 (3.84)	18.3 (10.20)	22.2 (6.63)	20.0 (6.33)	15.2 (5.51)
\$7.01 to \$8.00	18.4 (3.87)	9.3 (7.66)	18.4 (6.18)	21.0 (6.45)	12.7 (5.11)
\$8.01 to \$9.00	14.9 (3.56)	18.2 (10.17)	14.5 (5.62)	17.4 (6.00)	13.9 (5.31)
More than \$9.00	24.1 (4.27)	33.1 (12.41)	18.7 (6.22)	20.0 (6.33)	34.9 (7.32)
Percentage reported having received:					
Any benefits (one or more of the following)	43.2 (4.96)	48.9 (12.83)	45.3 (8.16)	44.9 (7.61)	42.0 (7.43)
Paid vacation or sick leave	33.2 (4.78)	24.3 (11.32)	34.7 (7.89)	31.7 (7.29)	31.0 (7.06)
Health insurance	28.1 (4.53)	30.8 (11.89)	32.5 (7.59)	22.3 (6.49)	29.1 (6.99)
Retirement benefits	25.5 (4.58)	29.4 (12.09)	31.3 (8.02)	22.2 (6.64)	22.9 (6.52)

<sup>1</sup> Rounded to nearest \$.10.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,140 youth.

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

### Demographic Differences in Wages and Benefits

Unlike their general population peers whose wages are significantly different for males and females (\$10.30 vs. \$8.10,  $p < .001$ ), males and females with disabilities did not earn wages that differed significantly. No significant differences were noted for receipt of benefits by gender for youth with disabilities. Additionally, no significant differences in the wages and benefits received by youth with disabilities based on their household income or race/ethnicity, or gender were apparent (table 30).

Table 30. Wages and benefits of youth with disabilities out of high school 1 to 4 years, by household income, race/ethnicity, and gender

Wages and benefits	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	White	African American	Hispanic	Male	Female
Average hourly wage <sup>1</sup>	\$7.70 (0.45)	\$9.40 (2.12)	\$7.80 (0.33)	\$8.00 (0.29)	\$9.80 (3.18)	\$7.50 (0.72)	\$8.10 (0.84)	\$8.40 (0.49)
Percentage reported having earned an hourly wage of: <sup>1</sup>								
Less than \$5.15	6.60 (4.15)	3.90 (3.52)	4.90 (2.97)	5.20 (2.45)	7.00 (5.41)	2.80 (4.53)	2.80 (1.85)	9.70 (4.58)
\$5.15 to \$6.00	28.0 (7.51)	12.7 (6.06)	18.2 (5.31)	16.2 (4.06)	15.7 (7.72)	34.3 (13.04)	17.3 (4.23)	22.0 (6.40)
\$6.01 to \$7.00	14.4 (5.88)	17.1 (6.85)	21.0 (5.61)	21.1 (4.49)	11.0 (6.64)	18.1 (10.58)	19.0 (4.39)	18.7 (6.03)
\$7.01 to \$8.00	12.6 (5.55)	20.0 (7.28)	20.4 (5.55)	17.7 (4.20)	25.4 (9.23)	8.8 (7.78)	18.0 (4.30)	14.8 (5.49)
\$8.01 to \$9.00	13.4 (5.70)	17.3 (6.88)	17.0 (5.17)	14.5 (3.88)	19.4 (8.39)	10.5 (8.42)	14.1 (3.90)	17.4 (5.86)
More than \$9.00	25.0 (7.25)	29.0 (8.25)	18.4 (5.33)	25.2 (4.78)	21.5 (8.71)	25.4 (11.96)	28.8 (5.07)	17.3 (5.85)
Percentage reported having received:								
Any benefits (one or more of the following)	38.4 (8.22)	47.7 (9.16)	44.4 (6.71)	44.1 (5.42)	48.2 (10.33)	37.6 (13.90)	47.1 (5.63)	37.2 (7.25)
Paid vacation or sick leave	31.5 (7.91)	35.1 (8.94)	28.8 (6.24)	32.7 (5.22)	30.6 (9.53)	30.7 (13.48)	36.9 (5.53)	23.0 (6.40)
Health insurance	29.8 (7.91)	36.2 (8.94)	19.9 (6.24)	25.9 (4.80)	33.7 (9.87)	29.1 (13.25)	31.6 (5.28)	21.5 (6.22)
Retirement benefits	23.6 (7.47)	29.2 (8.69)	28.1 (6.40)	27.5 (5.07)	27.6 (9.51)	17.8 (11.58)	27.3 (5.23)	21.8 (6.51)

<sup>1</sup> Rounded to nearest \$.10.

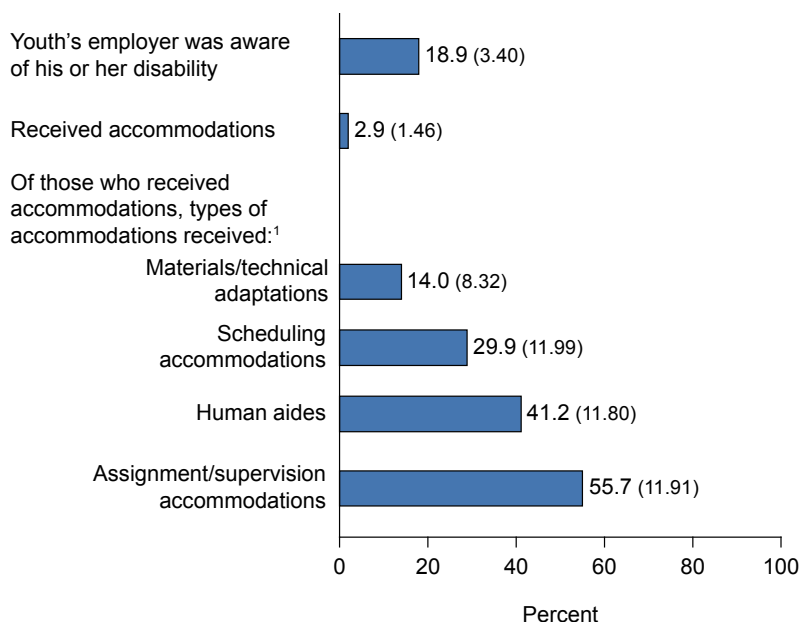
NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,140 youth.

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

## Job Accommodations

About 19 percent of out-of-high school youth with disabilities had employers who were reported to be aware of the youth's disabilities<sup>8</sup> (figure 23), and 3 percent received employment accommodations.<sup>9</sup> For these youth, job accommodations<sup>10</sup> included a range of individual adaptations involving materials or technology used on the job (e.g., large print or Braille, TTY or TTD, or modified work stations) (14 percent), scheduling accommodations (30 percent), human aides (e.g., interpreters or job coaches) (41 percent), and adaptations to assignments and/or supervision (e.g., modifications to training or instructions or different expectations for productivity) (56 percent). Youth who received employment accommodations may have received more than one accommodation. Youth were significantly more likely to receive assignment and supervision accommodations than they were accommodations involving materials and technology (56 percent vs. 14 percent,  $p < .01$ ).

Figure 23. Employers' awareness of youth's disabilities and receipt of accommodations for employed youth with disabilities out of high school 1 to 4 years



<sup>1</sup> Percentages do not sum to 100 because youth may have received more than one type of accommodation.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on samples of approximately 1,520 youth for employers' awareness of youth's disability, 1,490 youth for receiving accommodations, and 170 for type of accommodation received.

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

<sup>8</sup> Respondents were asked, "Do you think your (YOUTH's) employer is aware that you have (YOUTH has) a disability or special need?"

<sup>9</sup> Respondents were asked, "Have you (Has YOUTH) received any accommodations or other help from your (his/her) employer because you have (he/she has) any kind of learning problem, disability, or other special need?"

<sup>10</sup> Respondents were asked, "What accommodations or other help have you (has YOUTH) received?"



## Disability Differences in Job Accommodations

There were variations in the percentages of youth in different disability categories who reported that their employers were aware of their disability; they ranged from 15 percent to 65 percent (table 31). Youth with visual (65 percent) or hearing impairments (60 percent) were significantly more likely to report that their employers were aware of their disability than youth with learning disabilities (16 percent,  $p < .001$  for both comparisons), speech/language impairments (15 percent,  $p < .001$  for both comparisons), emotional disturbances (18 percent,  $p < .001$  for both comparisons), mental retardation (25 percent;  $p < .01$  for both comparisons), and other health impairments (29 percent;  $p < .01$  for both comparisons). Youth with multiple disabilities (54 percent) and orthopedic impairments (45 percent) were more likely to report that employers were aware of their disabilities than youth with speech/language impairments (15 percent), learning disabilities (16 percent), emotional disturbances (18 percent,  $p < .01$  for all comparisons except multiple disabilities vs. speech/language impairments,  $p < .001$ ). Youth with autism (51 percent) also were more likely to report having employers who were aware of their disability than youth with speech/language impairments, or learning disabilities ( $p < .01$  for all comparisons).

Table 31. Employers' awareness of youth's disabilities and receipt of accommodations for employed youth out of high school 1 to 4 years, by disability category

Awareness and accommodations	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 of employed youth reported to have had:												
Their employers aware of their disability	16.0 (4.46)	14.9 (4.66)	25.3 (6.92)	18.2 (5.10)	60.2 (8.48)	64.5 (10.53)	45.4 (9.01)	28.7 (5.73)	51.1 (12.16)	24.3 (12.50)	53.9 (10.86)	‡
Received accommodations	1.0 (1.21)	1.5 (1.58)	12.6 (5.52)	2.0 (1.82)	12.3 (6.38)	15.6 (8.17)	8.3 (5.05)	9.9 (3.78)	15.6 (9.21)	12.9 (9.70)	31.0 (10.36)	‡

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

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,610 youth. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005.

Although a majority of working youth in a number of disability categories had employers who were aware of their disabilities, a minority of working youth in each disability category received employment accommodations. Thirty-one percent of youth with multiple disabilities received employment accommodations, with the percentages of youth in other disability categories receiving accommodations ranging from 1 percent to 16 percent. Youth with multiple disabilities were significantly more likely to receive accommodations than youth with learning disabilities (1 percent) or speech/language impairments (2 percent) or emotional disturbances (2 percent,  $p < .01$  for all comparisons).

### Differences in Job Accommodations by High School-Leaving Characteristics

No significant differences in employers' awareness of youth's disabilities based on school leaving status or length of time out of high school were noted. Similarly, differences in the receipt of accommodations based on by youth with disabilities based on their high school-leaving status or the number of years out of high school were not noted (table 32).

Table 32. Employers' awareness of youth's disabilities and receipt of accommodations for employed youth with disabilities out of high school 1 to 4 years, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
Awareness and accommodations	Percent				
Percentage of employed youth reported to have had:					
Their employers aware of their disability	18.3 (3.73)	26.5 (10.51)	19.3 (6.01)	16.8 (5.62)	20.3 (5.91)
Received accommodations	3.3 (1.73)	1.2 (2.58)	3.9 (3.00)	1.8 (1.97)	3.0 (2.50)

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,610 youth.

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

### Demographic Differences in Job Accommodations

Although no significant differences in employers' awareness of youth's disabilities based on their household income or gender were apparent, differences were found between youth with different race/ethnicity backgrounds; 24 percent of White youth were reported to have had employers who were aware of the youth's disability compared with 6 percent of African American and 5 percent of Hispanic youth ( $p < .01$  for both comparisons, table 33). No significant differences in the receipt of accommodations based on youth's household income, race/ethnicity, or gender were apparent.

Table 33. Employers' awareness of youth's disabilities and receipt of accommodations for employed youth with disabilities out of high school 1 to 4 years, by household income, race/ethnicity, and gender

	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	White	African American	Hispanic	Male	Female
Awareness and accommodations	Percent							
Percentage of employed youth reported to have had:								
Their employers aware of their disability	13.3 (5.52)	20.5 (6.85)	21.8 (5.42)	24.2 (4.52)	6.2 (4.68)	4.7 (5.84)	18.7 (4.26)	19.3 (5.60)
Received accommodations	4.3 (3.24)	1.9 (2.39)	2.9 (2.23)	3.7 (2.02)	1.6 (2.40)	0.4 (1.72)	2.7 (1.77)	3.4 (2.58)

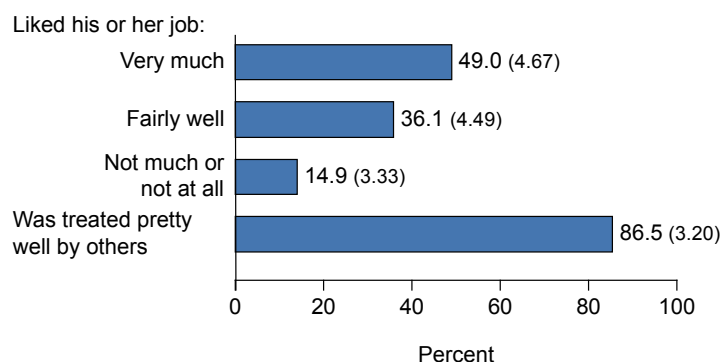
NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,610 youth.

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

## Perceptions of Working Conditions

The majority of out-of-high school youth with disabilities had positive perceptions about their jobs.<sup>11</sup> In response to being asked whether they “usually like [their] job...very much, like it fairly well, not like it much, or not like it at all,” 49 percent responded that they liked their job very much (figure 24), and an additional 36 percent responded that they liked their job fairly well. Fifteen percent responded that they did not like their job much or did not like it at all. Youth were significantly more likely to respond positively than negatively (49 percent and 36 percent vs. 15 percent,  $p < .001$  for both comparisons). Most youth (87 percent) also reported being “treated pretty well by others at [their] job.”<sup>12</sup>

Figure 24. Job satisfaction of youth with disabilities out of high school 1 to 4 years



NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,120 youth. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005.

Seventy-eight percent reported that their education and training was being “put to good use,” and 69 percent reported that they had “lots of chances to work [their] way up” (figure 25).<sup>13</sup> Sixty-seven percent stated they were “pretty well paid” for their work. Indeed, for youth who had been employed 6 months or more, 75 percent had “been promoted or taken on more responsibility” since they started the job, and 70 percent were “paid more than when [they] started the job.”<sup>14</sup>

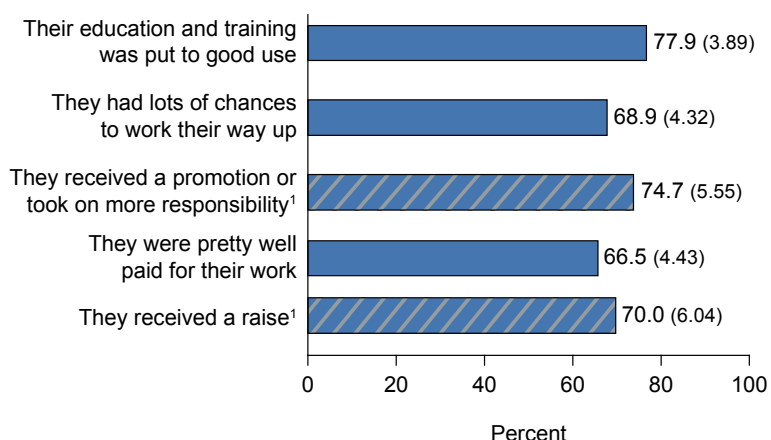
<sup>11</sup> Youth were asked, “Do you usually like your job?”

<sup>12</sup> Youth were asked, “Do you think you are treated pretty well by others at your job?”

<sup>13</sup> Youth were asked, “Do you think your education and training is put to good use?” and “Do you think in your job, you have lots of chances to work your way up?”

<sup>14</sup> Youth were asked, “Have you been promoted or taken on more responsibility since you started the job?” “Do you think you are pretty well paid for your work?” and “Are you paid more than when you started the job?”

Figure 25. Perceptions of their working conditions of youth with disabilities out of high school 1 to 4 years



<sup>1</sup> For youth employed 6 months or more at job at the time of the interview or most recent job.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on samples of approximately 1,190 youth for education and training put to good use, chances for advancement, and how well paid, and 760 youth for received promotion and/or raise.

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

### Disability Differences in Perceptions of Working Conditions

A majority of youth in all disability categories reported liking their jobs at least fairly well and feeling well treated by others at work (table 34). No significant differences were found among youth in different disability categories in their general job satisfaction or feelings of how well they were treated at their jobs with one exception. Youth with visual impairments (98 percent) were more likely than youth with learning disabilities (84 percent) to report being pretty well treated by others at work ( $p < .01$ ).

Table 34. Job satisfaction and perceptions of working conditions of youth out of high school 1 to 4 years, 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
Job satisfaction and perceptions	Percent											
Percentage who reported:												
Liked his/her job:												
Very much	50.0 (6.59)	37.4 (7.04)	50.8 (11.06)	39.7 (7.32)	52.9 (9.80)	42.3 (10.21)	40.8 (12.31)	60.5 (7.16)	38.4 (13.75)	52.9 (15.03)	58.6 (14.94)	‡
Fairly well	37.0 (6.36)	47.7 (7.27)	26.6 (9.78)	37.0 (7.22)	39.9 (9.61)	39.7 (10.11)	51.0 (12.52)	27.0 (6.50)	44.9 (14.06)	25.6 (13.14)	36.4 (14.60)	‡
Not much or not at all	13.0 (4.43)	14.9 (5.18)	22.6 (9.26)	23.4 (6.33)	7.2 (5.07)	18.0 (7.94)	8.2 (6.87)	12.5 (4.84)	16.7 (10.54)	21.6 (12.39)	5.0 (6.61)	‡
Had been treated pretty well by others at work	83.9 (4.82)	93.0 (3.74)	89.0 (6.92)	93.4 (3.70)	90.1 (5.86)	98.2 (2.74)	97.1 (4.53)	93.2 (3.69)	79.5 (11.41)	92.8 (7.80)	96.8 (5.34)	‡
Their education and training was put to good use	78.7 (5.39)	72.5 (6.51)	82.2 (8.57)	71.8 (6.76)	79.0 (7.99)	77.3 (8.64)	72.0 (11.95)	80.7 (5.82)	54.7 (14.20)	71.1 (13.65)	69.2 (14.01)	‡
Had lots of chances to work their way up	68.0 (6.12)	64.0 (6.99)	79.2 (8.98)	68.8 (6.96)	63.9 (9.54)	52.1 (10.38)	54.4 (13.30)	74.1 (6.46)	49.1 (14.19)	85.0 (10.96)	59.7 (15.03)	‡
Received a promotion or took on more responsibility <sup>1</sup>	81.7 (6.80)	60.7 (8.61)	57.4 (11.95)	55.8 (10.73)	47.8 (10.20)	46.3 (15.37)	51.7 (14.80)	61.0 (8.61)	76.3 (16.65)	‡	65.4 (17.19)	‡
Had been paid pretty well	64.6 (6.28)	68.2 (6.84)	60.7 (10.98)	75.4 (6.45)	77.9 (8.14)	83.9 (7.58)	83.0 (10.00)	70.6 (6.68)	78.8 (11.67)	85.1 (10.93)	78.9 (12.38)	‡
Received a raise <sup>1</sup>	73.6 (7.98)	72.4 (7.91)	59.8 (11.44)	52.1 (10.89)	53.3 (10.14)	66.0 (14.60)	48.6 (14.80)	70.0 (8.14)	75.5 (16.84)	‡	60.5 (17.66)	‡

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

<sup>1</sup> For youth employed 6 months or more at current or most recent job.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on samples ranging from approximately 1,250 to 800 youth.

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

A majority of youth in each disability category also reported positive perceptions of their working conditions. Differences between disability categories were not significant. For youth employed for 6 months or more, a majority of youth in each disability category also reported taking on increased job responsibilities or receiving a promotion or a raise in pay. With one exception, significant differences in job advancement were not found. Youth with learning disabilities were more likely than youth with hearing impairments to have been promoted or taken on more job responsibilities (82 percent vs. 48 percent,  $p < .01$ ).

## Differences in Perceptions of Working Conditions by High School-Leaving Characteristics

No significant differences in youth's job satisfaction or perceptions of their working conditions based on school leaving status or length of time out of high school were noted (table 35).

Table 35. Job satisfaction and perceptions of working conditions of youth with disabilities out of high school 1 to 4 years, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
Job satisfaction and perceptions			Percent		
Percentage who reported:					
Liked his/her job:					
Very much	46.5 (5.11)	61.6 (12.68)	46.3 (8.09)	44.6 (8.49)	55.1 (7.65)
Fairly well	37.4 (4.96)	27.2 (11.60)	36.3 (7.80)	40.5 (8.38)	32.4 (7.20)
Not much or not at all	16.1 (3.77)	11.2 (8.22)	17.4 (6.15)	15.0 (6.10)	12.5 (5.09)
Had been treated pretty well by others at work	86.9 (3.47)	80.8 (10.14)	82.5 (6.15)	94.9 (3.76)	83.8 (5.70)
Their education and training was put to good use	75.7 (4.42)	88.2 (8.36)	82.4 (6.14)	72.8 (7.66)	77.4 (6.50)
Had lots of chances to work their way up	68.0 (4.78)	66.9 (12.16)	77.0 (6.80)	64.5 (8.20)	64.6 (7.34)
Received a promotion or took on more responsibility <sup>1</sup>	79.2 (5.76)	51.5 (15.93)	81.1 (8.91)	59.6 (10.33)	79.0 (8.56)
Had been paid pretty well	64.0 (4.96)	77.2 (10.77)	64.1 (7.78)	72.1 (7.68)	64.4 (7.44)
Received a raise <sup>1</sup>	69.5 (6.76)	71.8 (14.34)	67.0 (10.88)	69.0 (9.74)	73.7 (9.98)

<sup>1</sup> For youth employed 6 months or more at current or most recent job.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on samples ranging from approximately 1,250 to 800 youth.

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

## Demographic Differences in Perceptions of Working Conditions

No significant differences in youth's job satisfaction or perceptions of their working conditions based on youth's household income, race/ethnicity, or gender were apparent (table 36).

Table 36. Job satisfaction and perceptions of working conditions of youth with disabilities out of high school 1 to 4 years, by household income, race/ethnicity, and gender

	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	White	African American	Hispanic	Male	Female
Job satisfaction and perceptions				Percent				
Percentage who reported:								
Liked his/her job:								
Very much	41.1 (8.98)	51.8 (9.16)	50.6 (6.76)	51.8 (5.66)	31.6 (9.61)	55.8 (15.24)	52.1 (5.83)	43.2 (7.74)
Fairly well	43.0 (9.03)	37.0 (8.85)	35.1 (6.46)	33.0 (5.32)	45.1 (10.28)	39.3 (14.99)	35.2 (5.57)	37.8 (7.57)
Not much or not at all	15.8 (6.66)	11.2 (5.78)	14.2 (4.72)	15.2 (4.06)	23.3 (8.74)	4.9 (6.62)	12.7 (3.88)	18.9 (6.11)
Had been treated pretty well by others at work	86.6 (6.18)	81.3 (7.30)	94.7 (3.03)	90.0 (3.39)	75.0 (9.29)	89.5 (9.31)	87.8 (3.83)	84.1 (5.70)
Their education and training was put to good use	72.9 (8.11)	85.8 (6.51)	73.7 (5.96)	74.8 (4.91)	81.1 (8.45)	87.2 (10.13)	74.2 (5.11)	84.9 (5.62)
Had lots of chances to work their way up	61.7 (8.87)	78.5 (7.51)	66.9 (6.37)	65.1 (5.39)	82.0 (7.94)	77.4 (12.68)	67.3 (5.46)	71.9 (7.02)
Received a promotion or took on more responsibility <sup>1</sup>	70.5 (11.55)	78.6 (9.72)	77.9 (8.28)	74.5 (6.70)	78.7 (11.23)	71.5 (20.35)	79.6 (6.49)	61.2 (8.88)
Had been paid pretty well	55.7 (9.01)	64.4 (8.99)	75.4 (5.85)	71.4 (5.12)	51.5 (10.73)	50.7 (15.32)	66.3 (5.54)	67.0 (7.36)
Received a raise <sup>1</sup>	60.0 (12.33)	72.5 (11.23)	73.4 (8.85)	69.4 (7.41)	70.8 (12.34)	74.8 (19.74)	72.4 (7.42)	63.1 (8.82)

<sup>1</sup> For youth employed 6 months or more at current or most recent job.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on samples ranging from approximately 1,250 to 800 youth.

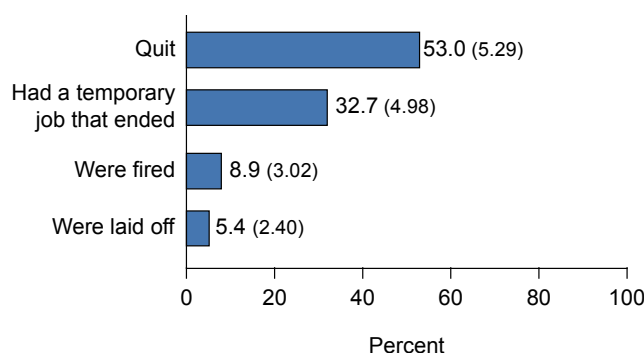
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005.

## Job Leaving and Job Search Activities

Despite positive feelings of many youth with disabilities about their jobs, 53 percent of youth who had been employed and left a job reported that they had quit<sup>15</sup> (figure 26). Thirty-three percent left because they had a temporary job that ended, 9 percent had been fired, and 5 percent had been laid off. They were more likely to have quit than to have left their job for any of the other reasons (53 percent vs. 33 percent,  $p < .01$ ; 9 percent,  $p < .001$ ; and 5 percent,  $p < .001$ ). Additionally, they were more likely to have had a temporary job that ended than to have been fired or laid off (33 percent vs. 9 percent and 5 percent, respectively;  $p < .001$  for both comparisons).

<sup>15</sup> Respondents were asked, "When you (YOUTH) left that job did you (he/she) quit, were you (was he/she) fired, were you (was he/she) laid off, or was it a temporary job that ended?"

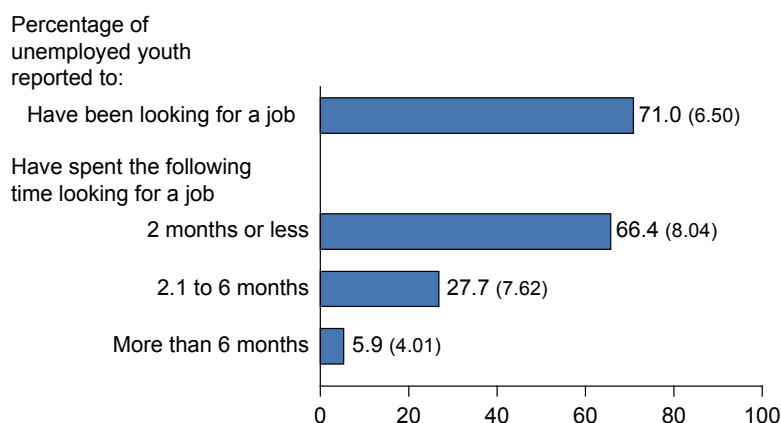
Figure 26. Reasons youth with disabilities out of high school 1 to 4 years had left their most recent job



NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,080 youth. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005.

At the time of the interview, 43 percent of out-of-high school youth with disabilities were unemployed, although 71 percent of unemployed youth were actively looking for work<sup>16</sup> (figure 27). The average length of the ongoing job search of unemployed youth was 2.8 months, not a significant difference from that of youth with disabilities who had found employment by the time of the interview (1.9 months).<sup>17</sup> Sixty-six percent of youth with disabilities who were looking for work had been doing so for 2 months or less, 28 percent had been looking for between 2 and 6 months, and 6 percent had been looking longer than 6 months.

Figure 27. Length of job search of unemployed youth with disabilities out of high school 1 to 4 years



NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on samples of approximately 580 youth for whether unemployed youth were looking for work and 360 youth for length of job search for unemployed youth.

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

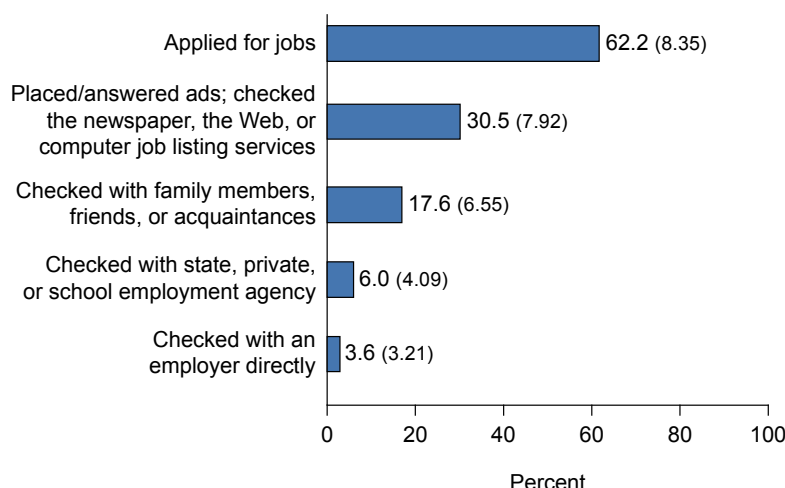
<sup>16</sup> Respondents were asked, "Are you (is YOUTH) looking for a paid job now?"

<sup>17</sup> Respondents were asked, "About how long have you (has YOUTH) been looking for work?"



Unemployed out-of-high school youth with disabilities engaged in a range of job search activities (figure 28). When asked, “What have you done in the past month to find a job?” 62 percent of those actively looking for work reported they had applied for jobs; 31 percent had checked newspaper, Internet, and other job listings; and 18 percent had checked with family members, friends, and/or acquaintances. Six percent had checked with state, private, or school employment agencies or with employers. Six percent had checked with state, private, or school employment agencies or with employers.

Figure 28. Job search activities in the past month of unemployed youth with disabilities out of high school 1 to 4 years



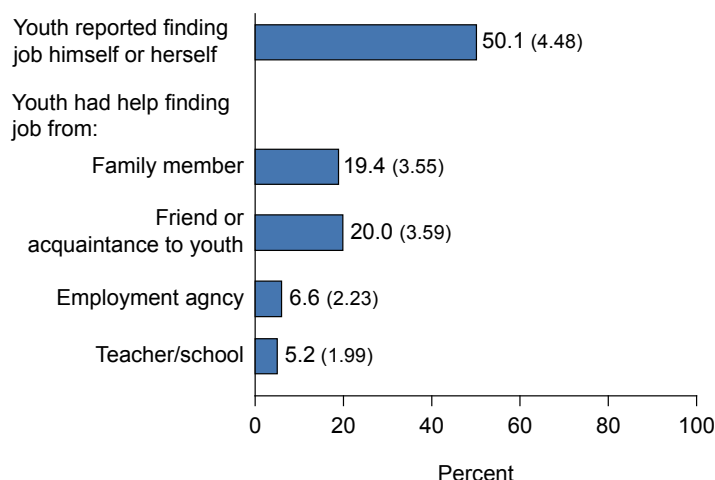
NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. Percentages add to more than 100 because more than one response was possible. NLTS2 percentages are weighted population estimates based on a sample of approximately 370 youth.

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

Among out-of-high school youth with disabilities who were employed, 50 percent reported finding work on their own (figure 29); the other half reported receiving help from a variety of sources.<sup>18</sup> Twenty percent of employed youth reported having help finding their job from friends or acquaintances, and 19 percent had help from family member. Seven percent received help from an employment agency, and 5 percent had help from a teacher or school. A successful job search was more likely to be attributed to the youth's finding the job by himself or herself than any other source of help (50 percent vs. 5 percent to 20 percent,  $p < .001$  for all comparisons).

<sup>18</sup> Respondents were asked, “Did you (YOUTH) find this job yourself, or did you have help – like from a temporary agency or someone you know?” “Who helped you? Was it someone in an employment agency or other program, a teacher or someone at school, a family member, a friend or someone else you know?”

Figure 29. Job search activities of employed youth with disabilities out of high school 1 to 4 years



NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,530 youth. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005.

### ***Disability Differences in Job Leaving and Job Search Activities***

No significant differences were found across disability categories in youth's reported reasons for leaving a previously held job with one exception. Youth with visual impairments were more likely than youth with traumatic brain injuries to have had a temporary job that ended (54 percent vs. 13 percent,  $p < .01$ ) (table 37). There were no significant differences in the percentages of youth in different disability categories who were unemployed and looking for work at the time of the interview or in the duration of their job search (table 38). Neither did job search activities of unemployed youth in different disability categories differ significantly (table 39).

Table 37. Reasons youth out of high school 1 to 4 years left previous or most recent job, by disability category

Reasons left job	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:												
Quit	55.2 (7.20)	57.7 (7.71)	39.8 (10.58)	46.5 (7.62)	50.2 (8.92)	31.7 (11.13)	47.2 (12.48)	58.1 (7.64)	28.3 (14.08)	64.1 (14.38)	22.7 (16.34)	‡
Had a temporary job that ended	33.8 (6.85)	24.1 (6.68)	27.0 (9.59)	31.5 (7.10)	39.8 (8.74)	53.5 (11.93)	45.7 (12.45)	25.9 (6.78)	41.0 (15.37)	12.5 (9.91)	54.1 (19.43)	‡
Been fired	7.2 (3.74)	12.6 (5.18)	19.4 (8.54)	15.5 (5.53)	4.7 (3.78)	4.4 (4.91)	#	3.8 (2.96)	27.5 (13.96)	19.6 (11.90)	6.7 (9.75)	‡
Been laid off	3.8 (2.77)	5.6 (3.59)	13.8 (7.45)	6.6 (3.79)	5.3 (4.00)	10.5 (7.33)	7.1 (6.42)	12.2 (5.07)	3.2 (5.50)	3.8 (5.73)	16.5 (14.48)	‡

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

# Rounds to zero.

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,080 youth.

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

Table 38. Length of job search of unemployed youth out of high school 1 to 4 years, by disability category

Unemployed youth's length of job search	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
Percentage of unemployed youth reported:												
Had been looking for a job	72.4 (9.49)	70.0 (10.30)	64.7 (12.81)	69.8 (9.84)	68.8 (12.13)	34.9 (15.21)	64.9 (14.12)	76.4 (11.14)	84.1 (12.14)	‡	‡	‡
Had spent the following time looking for a job												
2 months or less	72.6 (10.94)	73.2 (11.65)	‡	55.0 (13.46)	‡	‡	‡	80.3 (12.99)	‡	‡	‡	‡
2.1 to 6 months	24.1 (10.49)	20.9 (10.70)	‡	31.4 (12.56)	‡	‡	‡	15.9 (11.94)	‡	‡	‡	‡
More than 6 months	3.2 (4.32)	6.0 (6.25)	‡	13.6 (9.28)	‡	‡	‡	3.8 (6.24)	‡	‡	‡	‡
Average months spent looking for work	2.4 (1.19)	2.2 (0.64)	‡	3.4 (1.04)	‡	‡	‡	2.4 (1.45)	‡	‡	‡	‡

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

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on samples ranging from approximately 580 youth for whether youth is looking for work and 360 youth for length of job search.

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

Table 39. Job search activities in past month of unemployed youth out of high school 1 to 4 years, by disability category

Unemployed youth's job search 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											
Percentage of unemployed youth reported to have had:												
Applied for jobs	64.0 (11.68)	44.2 (13.40)	37.5 (15.51)	69.0 (11.56)	68.6 (14.16)	49.6 (14.11)	‡	75.7 (13.06)	‡	‡	‡	‡
Placed/answered ads; checked the newspaper, the Web, or computer job listing services	30.4 (11.19)	53.1 (13.46)	27.8 (14.35)	26.3 (11.00)	39.2 (14.90)	59.7 (13.85)	‡	41.1 (14.98)	‡	‡	‡	‡
Checked with family members, friends, or acquaintances	17.9 (9.33)	24.8 (11.65)	19.8 (12.77)	5.1 (5.50)	20.1 (12.23)	23.2 (11.92)	‡	33.4 (14.36)	‡	‡	‡	‡
Checked with state, private, or school employment agency	6.0 (5.78)	1.6 (3.39)	6.1 (7.67)	2.0 (3.50)	32.0 (14.23)	6.9 (7.15)	‡	13.0 (10.24)	‡	‡	‡	‡
Checked with an employer directly	0.7 (2.03)	4.4 (5.53)	19.3 (12.64)	6.7 (6.25)	2.5 (4.76)	1.0 (2.81)	‡	11.2 (9.60)	‡	‡	‡	‡

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

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. Percentages add to more than 100 because more than one response was possible. NLTS2 percentages are weighted population estimates based on a sample of approximately 370 youth.

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

The job search activities of youth in different disability categories who had successfully found employment differed significantly across categories in only two instances (table 40). Youth with orthopedic impairments were more likely than youth with learning disabilities or speech/language impairments to have had help from an employment agency to find a job (30 percent vs. 5 percent and 4 percent, respectively;  $p < .01$  for both comparisons).

Table 40. Job search activities of employed youth out of high school 1 to 4 years, by disability category

Employed youth job search 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											
Percentage reported to have:												
Found their job himself or herself	50.5 (6.25)	52.2 (6.69)	31.6 (8.05)	58.6 (6.53)	48.3 (8.92)	48.5 (11.17)	42.3 (9.66)	55.5 (6.35)	27.3 (11.54)	48.7 (16.05)	43.5 (13.64)	‡
Had help finding job from:												
Family member	19.3 (4.93)	24.3 (5.74)	23.5 (7.34)	17.1 (4.99)	17.1 (6.72)	23.7 (9.50)	13.2 (6.62)	17.7 (4.88)	28.7 (11.72)	17.6 (12.23)	17.8 (10.52)	‡
Friend or acquaintance	21.7 (5.15)	16.6 (4.98)	16.2 (6.38)	17.5 (5.04)	20.1 (7.16)	9.1 (6.43)	9.9 (5.84)	14.4 (4.49)	7.3 (6.74)	14.5 (11.31)	11.6 (8.81)	‡
Employment agency	5.0 (2.72)	3.9 (2.59)	18.1 (6.66)	6.3 (3.22)	7.7 (4.76)	7.0 (5.70)	30.1 (8.97)	8.6 (3.59)	26.5 (11.43)	5.3 (7.20)	12.1 (8.97)	‡
Teacher/school	5.0 (2.72)	3.2 (2.36)	10.7 (5.35)	1.9 (1.81)	8.9 (5.09)	11.7 (7.18)	5.2 (4.34)	4.8 (2.73)	11.2 (8.17)	16.4 (11.89)	15.9 (10.06)	‡

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

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,530 youth.

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

### ***Differences in Job Leaving and Job Search Activities by High School-Leaving Characteristics***

No significant differences in the reason why youth left their previous jobs based on school leaving status or length of time out of high school were apparent (table 41). Significant differences were not found for the percentage of unemployed youth actually looking for work at the time of the interview, the length of their job search, or the types of job search activities in which they engaged in based on school leaving status or the length of time they had been out of high school (table 41 through 43 respectively). Differences in how employed youth found their jobs also were not apparent for youth with disabilities based on school leaving status or length of time out of high school (table 44).

Table 41. Reasons youth with disabilities out of high school 1 to 4 years left previous or most recent job, by secondary-school-leaving status and years since leaving high school

Reasons left job	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
	Percent				
Percentage reported to have:					
Quit	51.3 (5.89)	63.5 (14.72)	64.2 (9.45)	41.5 (8.93)	50.9 (8.37)
Had a temporary job that ended	33.9 (5.57)	24.9 (13.22)	29.1 (8.96)	38.3 (8.81)	31.7 (7.79)
Been fired	9.9 (3.52)	4.1 (6.06)	3.9 (3.82)	12.6 (6.02)	11.2 (5.28)
Been laid off	5.0 (2.57)	7.5 (8.05)	2.8 (3.25)	7.6 (4.80)	6.3 (4.07)

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,080 youth.

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

Table 42. Length of job search of unemployed youth with disabilities out of high school 1 to 4 years, by secondary-school-leaving status and years since leaving high school

Unemployed youth's length of job search	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
Percentage of unemployed youth reported:					
Had been looking for a job	72.1 (7.11)	77.2 (15.83)	71.1 (11.26)	72.1 (12.37)	69.7 (9.94)
Had spent the following time looking for a job					
2 months or less	65.7 (8.95)	68.1 (20.74)	56.9 (13.96)	79.0 (14.59)	62.3 (10.93)
2.1 to 6 months	29.0 (8.55)	25.8 (19.47)	39.9 (13.80)	17.8 (13.70)	26.5 (9.95)
More than 6 months	5.3 (4.22)	6.1 (10.65)	3.2 (4.96)	3.1 (6.21)	11.3 (7.14)
Average months spent looking for work	2.8 (0.94)	2.4 (1.52)	2.7 (0.65)	1.8 (1.01)	3.8 (1.57)

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on samples ranging from approximately 580 youth for whether youth is looking for work and 360 youth for length of job search.

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

Table 43. Job search activities in past month of unemployed youth with disabilities out of high school 1 to 4 years, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
Unemployed youth's job search activities	Percent				
Percentage of unemployed youth reported to have had:					
Applied for jobs	56.7 (9.44)	80.1 (17.77)	64.0 (13.94)	69.0 (16.27)	53.3 (11.40)
Placed/answered ads; checked the newspaper, the Web, or computer job listing services	33.8 (9.01)	19.0 (17.46)	33.3 (13.68)	21.2 (14.35)	38.2 (11.11)
Checked with family members, friends, or acquaintances	12.3 (6.26)	38.0 (21.61)	6.3 (7.05)	21.4 (14.43)	23.3 (9.66)
Checked with state, private, or school employment agency	5.7 (4.42)	7.7 (11.87)	5.0 (6.33)	4.1 (6.97)	8.9 (6.51)
Checked with an employer directly	4.1 (3.78)	2.7 (7.21)	5.9 (6.84)	3.5 (6.46)	1.7 (2.96)

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. Percentages add to more than 100 because more than one response was possible. NLTS2 percentages are weighted population estimates based on a sample of approximately 370 youth.

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

Table 44. Job search activities of employed youth with disabilities out of high school 1 to 4 years, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
Employed youth's job search activities	Percent				
Percentage reported to have:					
Found their job himself or herself	49.9 (4.98)	49.4 (12.31)	48.3 (8.15)	52.5 (7.62)	49.9 (7.39)
Had help finding job from:					
Family member	18.5 (3.87)	21.5 (10.12)	22.3 (6.79)	20.6 (6.17)	15.8 (5.39)
Friend or acquaintance	19.7 (3.96)	24.3 (10.56)	18.4 (6.32)	16.7 (5.69)	24.0 (6.31)
Employment agency	7.2 (2.58)	4.1 (4.88)	5.7 (3.78)	7.0 (3.90)	7.1 (3.79)
Teacher/school	6.2 (2.40)	0.7 (2.05)	8.8 (4.62)	3.4 (2.77)	3.2 (2.60)

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. Percentages add to more than 100 because more than one response was possible. NLTS2 percentages are weighted population estimates based on a sample of approximately 370 youth.

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

### ***Demographic Differences in Job Leaving and Job Search Activities***

No significant differences in the reason why youth left their previous jobs based on household income, race/ethnicity, or gender were noted (table 45). Significant differences were not found for the percentage of unemployed youth actually looking for work at the time of the

interview and the length of their job search or the types of job search activities in which they engaged in based on household income, race/ethnicity, or gender (table 46 and 47, respectively). Differences in how employed youth found their jobs also were not apparent for youth with disabilities based on household income, race/ethnicity, or gender (table 48).

Table 45. Reasons youth with disabilities out of high school 1 to 4 years left previous or most recent job, by household income, race/ethnicity, and gender

	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	White	African American	Hispanic	Male	Female
Reasons left job	Percent							
Percentage reported to have:								
Quit	57.6 (9.71)	53.2 (10.33)	51.5 (8.19)	56.2 (6.35)	41.1 (11.67)	54.0 (17.44)	55.7 (6.53)	47.3 (8.92)
Had a temporary job that ended	33.4 (9.26)	24.5 (8.90)	34.2 (7.77)	30.8 (5.91)	27.8 (10.63)	43.8 (17.36)	29.3 (5.99)	39.9 (8.75)
Been fired	4.5 (4.07)	17.6 (7.88)	6.9 (4.15)	7.0 (3.27)	25.3 (10.31)	1.9 (4.78)	8.4 (3.65)	10.2 (5.40)
Been laid off	4.5 (4.07)	4.7 (4.38)	7.4 (4.29)	6.0 (3.04)	5.8 (5.54)	0.4 (2.21)	6.7 (3.29)	2.6 (2.84)

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on a sample of approximately 1,080 youth. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005.

Table 46. Length of job search of unemployed youth with disabilities out of high school 1 to 4 years, by household income, race/ethnicity, and gender

Unemployed youth's length of job search	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	White	African American	Hispanic	Male	Female
Percentage of unemployed youth reported:								
Had been looking for a job	80.0 (8.66)	62.0 (14.01)	69.8 (11.29)	63.5 (8.57)	91.3 (8.76)	67.8 (20.31)	76.6 (7.32)	63.8 (11.55)
Had spent the following time looking for a job								
2 months or less	64.0 (12.49)	75.4 (16.36)	64.7 (13.44)	64.5 (10.18)	58.0 (16.88)	90.1 (17.73)	66.0 (8.87)	67.1 (15.25)
2.1 to 6 months	28.2 (11.71)	19.9 (15.16)	30.3 (12.93)	29.3 (9.68)	34.3 (16.24)	8.6 (16.64)	29.1 (8.51)	25.4 (14.13)
More than 6 months	7.9 (7.02)	4.6 (7.96)	5.0 (6.13)	6.2 (5.13)	7.7 (9.12)	1.4 (6.97)	4.9 (4.04)	7.5 (8.55)
Average months spent looking for work	3.4 (1.18)	1.8 (1.06)	2.7 (1.53)	3.1 (1.21)	2.5 (0.99)	1.8 (1.00)	2.6 (0.71)	3.0 (1.85)

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. NLTS2 percentages are weighted population estimates based on samples ranging from approximately 580 youth for whether youth is looking for work and 360 youth for length of job search. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005.



Table 47. Job search activities in past month of unemployed youth with disabilities out of high school 1 to 4 years, by household income, race/ethnicity, and gender

Unemployed youth's job search activities	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	Race/Ethnicity			Gender	
				White	African American	Hispanic	Male	Female
Percent								
Percentage of unemployed youth reported to have had:								
Applied for jobs	71.0 (11.65)	21.2 (15.55)	77.2 (12.31)	62.8 (10.39)	64.2 (16.79)	50.5 (29.50)	55.9 (9.46)	7.14 (14.48)
Placed/answered ads; checked the newspaper, the Web, or computer job listing services	19.5 (10.17)	49.7 (19.02)	29.5 (13.38)	32.5 (10.06)	28.4 (15.79)	36.4 (28.39)	26.8 (8.44)	35.9 (15.37)
Checked with family members, friends, or acquaintances	12.2 (8.40)	20.3 (15.30)	21.6 (12.08)	21.7 (8.86)	2.3 (5.25)	30.0 (27.04)	13.2 (6.45)	24.1 (13.71)
Checked with state, private, or school employment agency	8.1 (7.01)	6.2 (9.17)	2.8 (4.84)	7.2 (5.55)	4.9 (7.56)	4.2 (11.83)	5.7 (4.42)	6.5 (7.90)
Checked with an employer directly	4.1 (5.09)	6.5 (9.38)	1.5 (3.57)	5.0 (4.68)	2.4 (5.36)	0.4 (3.72)	2.6 (3.03)	5.0 (6.99)

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. Percentages add to more than 100 because more than one response was possible. NLTS2 percentages are weighted population estimates based on a sample of approximately 370 youth.

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

Table 48. Job search activities of employed youth with disabilities out of high school 1 to 4 years, by household income, race/ethnicity, and gender

Employed youth's job search activities	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	Race/Ethnicity			Gender	
				White	African American	Hispanic	Male	Female
Percent								
Percentage reported to have:								
Found their job himself or herself	51.6 (8.33)	40.4 (8.85)	55.9 (6.69)	51.8 (5.39)	48.2 (10.36)	41.6 (14.11)	44.2 (5.57)	62.6 (7.15)
Had help finding job from:								
Family member	13.1 (5.62)	31.0 (8.34)	15.7 (4.90)	19.7 (4.29)	14.7 (7.34)	20.7 (11.60)	22.4 (4.67)	13.0 (4.97)
Friend or acquaintance	22.9 (7.00)	17.0 (6.77)	18.9 (5.27)	19.8 (4.30)	20.4 (8.36)	26.3 (12.61)	23.2 (4.73)	13.2 (5.00)
Employment agency	9.2 (4.82)	5.0 (3.93)	6.3 (3.27)	5.7 (2.50)	9.9 (6.19)	5.4 (6.47)	8.1 (3.06)	3.5 (2.72)
Teacher/school	6.9 (4.22)	6.7 (4.51)	3.6 (2.51)	4.9 (2.33)	6.9 (5.26)	6.0 (6.80)	3.8 (2.14)	8.2 (4.06)

NOTE: Standard errors are in parentheses. Job characteristics are reported for youth out of high school from 1 to 4 years for youth's current or most recent job. Percentages add to more than 100 because more than one response was possible. NLTS2 percentages are weighted population estimates based on a sample of approximately 370 youth.

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

## Summary

Working for pay outside the home was an aspect of the early post-high school experiences of a majority of youth with disabilities. Seventy-two percent of youth with disabilities out of high school up to 4 years had been employed at some time since leaving high school, holding an average of three jobs. More than half (57 percent) were employed at the time of the Wave 3 interview.

Among youth with disabilities who had been out of high school 1 to 4 years, 58 percent were reported to work full time (35 or more hours per week) at their current or most recent job, more likely in food service (17 percent) than in most other types of jobs (clerical, 7 percent; child care, 6 percent; retail sales, 6 percent; gardening and ground maintenance, 6 percent; cleaning, 5 percent; stocking, 5 percent; auto service, 4 percent, assembly, 4 percent; and unskilled labor or maintenance, 3 percent). Wages of working youth averaged \$8.20 per hour, and 44 percent received at least one of the benefits investigated in NLTS2 (paid vacation or sick leave, health insurance, or retirement benefits). Youth with disabilities working full-time were more likely than those working part-time to receive employment benefits (57 percent vs. 30 percent). About 19 percent of working youth reportedly had employers who were aware of their disability, and 3 percent reported receiving some kind of accommodation on the job, most often adaptations to assignments or supervisory arrangements.

Out-of-high school youth with disabilities reported holding positive perceptions of their jobs, with about 85 percent reporting that they liked their job at least fairly well and were treated pretty well by others at their job. The majority agreed that their job paid pretty well (67 percent), offered opportunities for advancement (69 percent), put their education and training to good use (78 percent), and had thus far involved a raise (70 percent) or promotion (75 percent). Despite these positive feeling about their jobs, out-of-high-school youth with disabilities were more likely to have quit their last job (53 percent) than to have left for other reasons (had a temporary job that ended, 33 percent; were fired, 9 percent; or were laid off, 5 percent). Half (50 percent) of employed youth with disabilities attributed their success in finding employment to their own efforts, with others reporting receiving help from family members or friends.

When data permitted comparisons with youth in the general population, some differences were noted. Out-of-high school youth in the general population were more likely than youth with disabilities to be working at the time data were collected (66 percent vs. 57 percent), and the jobs held by youth in the general population were of a longer duration, on average, than those of youth with disabilities (15 months vs. 10 months). No significant differences in wages earned or benefits received were found.

Differences in some aspects of youth's early post-high school employment experiences were noted among youth in different disability categories. Regarding whether youth were currently working or had worked since high school, youth with speech/language impairments (58 percent and 73 percent), hearing impairments (54 percent and 66 percent), other health impairments (68 percent and 80 percent) or learning disabilities (64 percent and 77 percent) were more likely to respond in the affirmative than youth with orthopedic impairments (27 percent and 40 percent), mental retardation (31 percent and 52 percent), or multiple disabilities (49 percent and 50 percent). Few disability differences in the types of jobs held by out-of-high school youth were noted, except that cleaning jobs were more likely to be held by youth with multiple disabilities (42 percent) relative to youth in several other disability categories (orthopedic

impairments, 1 percent; emotional disturbance, 3 percent; traumatic brain injury, 3 percent; other health impairment, 4 percent; visual impairment, 4 percent; learning disability, 4 percent; hearing impairment, 5 percent; speech/language impairment, 7 percent; mental retardation, 8 percent); and skilled labor jobs were more likely to be held by youth with learning disabilities than youth with mental retardation (13 percent vs. 1 percent).

The average number of hours worked per week was higher for youth with emotional disturbances, learning disabilities, or other health impairments (35, 34, and 33 hours, respectively) compared with youth with autism or visual impairments (23 hours for both categories). Youth with visual impairments (65 percent), hearing impairments (60 percent), multiple disabilities (54 percent), or orthopedic impairments (45 percent) were more likely to report that their employers were aware of their disabilities than youth with emotional disturbances (18 percent), learning disabilities (16 percent), or speech/language impairments (15 percent). Youth with multiple disabilities (31 percent) were more likely than youth with orthopedic impairments (8 percent), emotional disturbances (2 percent), speech/language impairments (2 percent), or learning disabilities (1 percent) to receive accommodations on the job. In contrast to these aspects of job experiences that differed across disability categories, with few exceptions, no differences were noted regarding wages earned, benefits received, youth's perceptions of their work experiences, mode of their job leaving, or job search activities.

Similarly, there were no significant differences in employment status or experiences between youth with disabilities who finished high school and those who left school without finishing, except for completers being more likely to hold retail jobs (7 percent vs. 0 percent). There were few differences among youth who varied in their demographic characteristics. Exceptions were noted between genders with regard to hours worked and jobs held, with males being more likely than females to work full time (68 percent vs. 35 percent) and to work in skilled labor (16 percent vs. less than 1 percent) or gardening/landscaping jobs (9 percent vs. less than 1 percent). Regarding differences in employment for youth with different levels of household income, those from households with incomes of more than \$50,000 were more likely than those from household incomes of \$25,000 or less to have been employed since leaving high school (81 percent vs. 61 percent). Finally, White youth with disabilities were more likely than their African American peers to have been employed since high school (80 percent vs. 47 percent) and to be employed at the time of the interview (63 percent vs. 35 percent), and to hold skilled labor jobs (12 percent vs. 1 percent). White youth (24 percent) were more likely than African American or Hispanic youth to report having employers who were aware of their disability (24 percent vs. 6 percent and 5 percent).



## 4. Productive Engagement in the Community

At the time they had been in high school, employment and postsecondary education were primary transition goals for the majority of students with disabilities included in this report (Cameto, Levine, and Wagner 2004). Research and policies related to transition from high school to early adulthood primarily have focused on employment and postsecondary school attendance (e.g., Benz, Doren, and Yovanoff 1998; Johnson et al. 2002; Rusch et al. 1992; Savage 2005; Sitlington, Clark, and Kolstoe 2000; Stodden 2001).

Chapters 2 and 3 of this report describe involvement in these two post-high school outcomes—employment and postsecondary education—separately. This chapter focuses on the overlap of these two types of productive engagement in the community—engagement in **either** employment or postsecondary education. Addressing this broader concept of engagement, rather than considering individual outcomes 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 youth 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”—i.e., “the percent of youth 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, youth with disabilities are considered productively engaged in the community if 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, including supported or sheltered employment.
- Education—attended a vocational, business, or technical school; a 2-year, junior, or community college; or a 4-year college or university.<sup>1</sup>

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<sup>1</sup> The focus of this chapter is 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. Current federal policy requires states to measure transition from high school to post-high school years in terms of competitive employment. The State Performance Plan (SPP) and Annual Performance Report (APR) to the Office of Special Education Programs (OSEP) for the reporting of Indicator 14 require the “Percent of youth 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)]. In NLTS2, *when restricting the definition of employment to competitive employment*, 88 percent of youth with disabilities reported having been competitively employed and/or enrolled in postsecondary school within up to 4 years after leaving high school and 85 percent reported having been competitively employed and/or enrolled in postsecondary education within the 1 year post-high school period specified in the regulations.

- 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.

## Engagement in Education, Employment, or Training for Employment

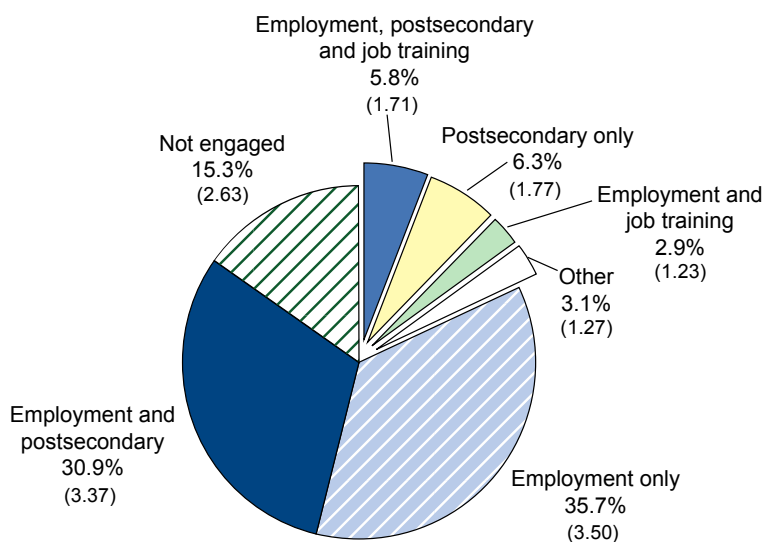
Almost one in five (18 percent) of post-high school youth with disabilities reported being involved in both employment and education concurrently at the time of the interview<sup>2</sup>—juggling the demands of going to school while working.

Eighty-five percent reported having been productively engaged in postsecondary education, employment, and/or job training since leaving high school. The combinations of ways youth had been engaged (i.e., modes of engagement) differed. Some primarily had been employed, with 36 percent reported having paid employment as their only mode of engagement (figure 30). Others had been employed since leaving high school and also had been involved in other activities, including

- postsecondary education (31 percent);
- postsecondary education and job training (6 percent); or
- job training (3 percent).

Postsecondary education was the only mode of engagement since high school for 6 percent of those with disabilities. Three percent of youth had been involved in other activity combinations, such as postsecondary education and job training only.

Figure 30. Modes of engagement within 4 years of leaving high school



NOTE: Standard errors are in parentheses. NLTS2 percentages are weighted population estimates based on a sample of approximately 2,280 youth.

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

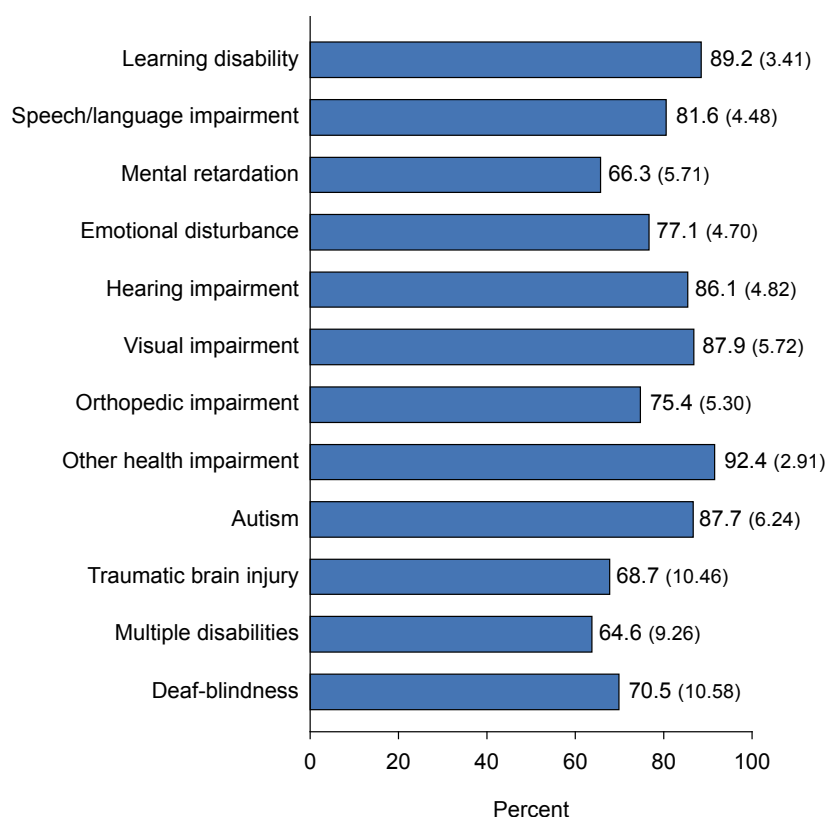
<sup>2</sup> The time frame for the postsecondary and employment items in the 2005 NLTS2 parent and youth interview/survey required that analyses of concurrent employment and school enrollment focus on the experiences of out-of-high school youth who were participating in either activity “currently” (at the time of the interview).

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

Engagement in work, school, or training since leaving high school varied by disability category, ranging from 66 percent to 92 percent (figure 31). Youth in several disability categories were more likely to report ever having been engaged than were those with mental retardation. Sixty-six percent of youth with mental retardation had ever been engaged, compared with 92 percent of those with other health impairments ( $p < .001$ ), 89 percent of those with learning disabilities ( $p < .001$ ), 88 percent of those with visual impairments ( $p < .01$ ), and 86 percent of those with hearing impairments ( $p < .01$ ).

Youth with other health impairments also were more likely to ever have been engaged in productive activities than were those with multiple disabilities (92 percent vs. 65 percent,  $p < .01$ ), orthopedic impairments (75 percent,  $p < .01$ ), or emotional disturbances (77 percent,  $p < .01$ ).

Figure 31. Engagement in education, employment, or training for employment since leaving high school, by disability category



NOTE: Standard errors are in parentheses. NLTS2 percentages are weighted population estimates based on a sample of approximately 2,380 youth.

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

Mode of engagement also varied by disability category (table 49). Youth with learning disabilities or emotional disturbances were more likely than those in several other categories to have paid employment as their only mode of engagement—40 percent of youth with learning disabilities and 35 percent of those with emotional disturbances, compared with 9 percent of those with orthopedic impairments ( $p < .001$  for both comparisons); 10 percent of those with visual impairments ( $p < .001$  for both comparisons); 11 percent of those with traumatic brain injuries ( $p < .001$  for comparison with learning disabilities and  $p < .01$  for emotional disturbances comparison); 13 percent of those with hearing impairments ( $p < .01$  for comparison with learning disabilities and  $p < .01$  for emotional disturbances comparison); 14 percent for deaf-blindness ( $p < .01$  for comparison with learning disabilities only); and 15 percent of youth with autism ( $p < .01$  for comparison with learning disabilities only).

Youth with other health impairments were more likely to have employment as their only mode of engagement (30 percent) than were those with orthopedic (9 percent,  $p < .001$ ) or visual impairments (10 percent,  $p < .01$ ).

Table 49. Modes of engagement within 4 years of leaving high school, 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	40.3 (5.38)	21.8 (4.78)	25.9 (5.30)	34.8 (5.33)	13.1 (4.70)	9.6 (5.17)	9.0 (3.52)	29.7 (5.03)	15.4 (6.86)	11.0 (7.06)	25.2 (8.40)	14.1 (8.07)
Postsecondary education only	5.3 (2.46)	5.8 (2.70)	6.6 (3.00)	6.9 (2.84)	13.1 (4.70)	12.4 (5.78)	25.4 (5.36)	8.2 (3.02)	15.5 (6.88)	8.9 (6.42)	7.1 (4.97)	15.5 (8.39)
Employment and postsecondary education	34.2 (5.21)	40.7 (5.68)	10.6 (3.72)	25.7 (4.89)	36.2 (6.69)	33.1 (8.25)	23.3 (5.20)	42.1 (5.43)	21.5 (7.81)	32.6 (10.57)	15.8 (7.06)	29.3 (10.56)
Employment, postsecondary education, and job training	5.6 (2.52)	7.6 (3.07)	6.4 (2.96)	4.4 (2.30)	17.4 (5.28)	18.0 (6.74)	3.5 (2.26)	5.0 (2.40)	14.6 (6.71)	10.0 (6.77)	4.0 (3.79)	6.4 (5.68)
Employment and job training	2.2 (1.61)	3.2 (2.04)	7.7 (3.22)	1.5 (1.36)	1.3 (1.58)	0.8 (1.56)	4.1 (2.44)	3.5 (2.02)	13.8 (6.56)	5.3 (5.05)	5.5 (4.41)	2.6 (3.69)
Other combination of activities	1.6 (1.38)	2.5 (1.81)	9.1 (3.48)	3.7 (2.11)	5.0 (3.03)	14.0 (6.08)	10.2 (3.72)	3.8 (2.10)	7.0 (4.85)	0.9 (2.13)	7.0 (4.94)	2.6 (3.69)
No engagement	10.8 (3.41)	18.4 (4.48)	33.7 (5.71)	22.9 (4.70)	13.9 (4.82)	12.1 (5.72)	24.6 (5.30)	7.6 (2.91)	12.3 (6.24)	31.3 (10.46)	35.4 (9.26)	29.5 (10.58)

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 2,280 youth.

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

Postsecondary enrollment as the only form of engagement was more likely for youth with orthopedic impairments (25 percent) than for those in five of the other disability categories: youth with learning disabilities (5 percent,  $p < .001$ ), speech/language impairments (6 percent,  $p < .01$ ), emotional disturbances (7 percent,  $p < .01$ ), mental retardation (7 percent,  $p < .01$ ), or other health impairments (8 percent,  $p < .01$ ).



Youth with speech/language (41 percent) or other health impairments (42 percent) were more likely to report having been employed and to have enrolled in postsecondary education at some point since high school than were those with mental retardation (11 percent,  $p < .001$  for both comparisons), or multiple disabilities (16 percent,  $p < .01$  for both comparisons). Youth with hearing impairments (36 percent) or learning disabilities (34 percent) were more likely than those with mental retardation (11 percent,  $p < .001$  for both comparisons) or multiple disabilities (16 percent,  $p < .01$  for both comparisons) to have been employed and to have attended postsecondary school since leaving high school.

Engagement since high school in employment, postsecondary education, and job training did not differ significantly by disability category.

Engagement since high school in employment and training in job skills and other combinations of modes of engagement did not differ significantly by disability category.

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

Eighty-seven percent of high school completers and 75 percent of noncompleters report ever having been engaged in employment, job training, or postsecondary education since leaving high school (table 50; not significant differences). Engagement rates ranged from 75 percent of youth who were out of high school between 1 and 2 years, to 82 percent of those who had left within the year, to 95 percent of youth who were out between 2 and 4 years (not significant differences). Mode of engagement did not vary significantly by high school-leaving characteristics.

Table 50. Modes of engagement within 4 years of leaving high school, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
	Percent				
Employment only	34.4 (3.95)	42.8 (8.74)	46.0 (5.97)	28.4 (5.81)	29.7 (5.95)
Postsecondary education only	6.8 (2.09)	3.5 (3.24)	6.0 (2.84)	9.6 (3.79)	3.9 (2.52)
Employment and postsecondary education	33.2 (3.92)	22.4 (7.36)	21.5 (4.92)	29.1 (5.85)	43.2 (6.45)
Employment, postsecondary education, and job training	7.2 (2.15)	0.4 (1.11)	1.5 (1.45)	2.8 (2.12)	13.2 (4.41)
Employment and job training	3.0 (1.42)	3.6 (3.29)	3.0 (2.04)	2.2 (1.89)	3.5 (2.39)
Other combination of activities	2.1 (1.19)	2.3 (2.65)	4.3 (2.43)	3.1 (2.23)	1.8 (1.73)
No engagement	13.5 (2.84)	25.0 (7.65)	17.7 (4.57)	24.9 (5.57)	4.8 (2.78)

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 2,280 youth.

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

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

Youth with disabilities from households with higher incomes (more than \$50,000) were more likely to report ever having been productively engaged in education, employment, or job training than were those from households with incomes of \$25,000 or less (93 percent vs. 75 percent,  $p < .01$ ; table 51). White youth were more likely to report higher rates of engagement than African American youth (89 percent vs. 67 percent,  $p < .001$ ). The percentage of having been productively engaged did not differ significantly by gender.

Mode of engagement varied by some demographic and high school-leaving characteristics. Youth from families with incomes of more than \$50,000 were almost twice as likely as those from families with incomes of \$25,000 or less (43 percent vs. 21 percent,  $p < .01$ ) to have been employed and to have attended postsecondary school. Paid employment as the only mode of engagement was more frequent for White youth than for African American youth (40 percent vs. 16 percent,  $p < .001$ ).

Table 51. Modes of engagement within 4 years of leaving high school, by household income, 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	36.6 (5.97)	41.8 (7.44)	29.8 (5.33)	39.9 (4.46)	16.4 (5.58)	41.5 (11.23)	40.2 (4.53)	26.6 (5.18)
Postsecondary education only	8.6 (3.48)	4.0 (2.96)	6.6 (2.89)	4.2 (1.83)	11.3 (4.77)	9.5 (6.68)	5.3 (2.07)	8.3 (3.24)
Employment and postsecondary education	20.7 (5.02)	27.0 (6.70)	42.5 (5.76)	34.4 (4.32)	24.7 (6.49)	21.0 (9.28)	30.1 (4.24)	32.6 (5.50)
Employment, postsecondary education, and job training	2.3 (1.86)	6.0 (3.58)	8.3 (3.21)	5.5 (2.07)	6.6 (3.74)	7.7 (6.08)	5.9 (2.18)	5.5 (2.67)
Employment and job training	3.8 (2.37)	2.7 (2.44)	2.7 (1.89)	3.0 (1.55)	2.0 (2.11)	4.5 (4.73)	2.8 (1.53)	3.2 (2.06)
Other combination of activities	3.2 (2.18)	1.7 (1.95)	3.5 (2.14)	2.1 (1.30)	5.9 (3.55)	4.8 (4.87)	2.0 (1.29)	5.2 (2.60)
No engagement	24.7 (5.35)	16.8 (5.64)	6.7 (2.91)	10.8 (2.82)	33.0 (7.08)	11.0 (7.13)	13.7 (3.18)	18.5 (4.56)

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 2,880 youth.

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

## Summary

This chapter describes engagement in employment, postsecondary education, and job training since leaving high school, for youth with disabilities. The majority of youth with disabilities (85 percent) reported involvement in at least one of these activities post-high school. Approximately one-third (36 percent) had paid employment as their only mode of engagement. Three in 10 (31 percent) had been employed since leaving high school and also had been enrolled in postsecondary education. Others had been involved in other combinations of activities.

Engagement in work, school, or training since leaving high school varied by disability category. Youth with other health impairments (92 percent), learning disabilities (89 percent), visual (88 percent) or hearing impairments (86 percent) were more likely to report ever having been engaged than were those with mental retardation (66 percent). In addition, youth with other health impairments were more likely to ever have been engaged in productive activities than were those with multiple disabilities (65 percent), orthopedic impairments (75 percent), or emotional disturbances (77 percent).

Mode of engagement also varied by disability category. For example, paid employment as the only mode of engagement was more likely for youth with learning disabilities (40 percent) or emotional disturbances (35 percent) than for those in several other categories, including: orthopedic impairments (9 percent), visual impairments (10 percent), traumatic brain injuries (11 percent), hearing impairments (13 percent), deaf-blindness (14 percent), and autism (15 percent). Postsecondary enrollment as the only form of engagement was more likely for youth with orthopedic impairments (25 percent) than for those in five of the other categories, including: youth with learning disabilities (5 percent), speech/language impairments (6 percent), emotional disturbances (7 percent), mental retardation (7 percent), or other health impairments (8 percent).

Youth from households with higher incomes were more likely to have been productively engaged in education, employment, or job training than were their peers from lower-income families (93 percent vs. 75 percent). White youth were more likely to report higher rates of engagement than African American youth (89 percent vs. 67 percent).

The beginning chapters of this report have focused on the postsecondary education and employment experiences of youth with disabilities. The following chapters shift the focus from these two post-high school outcomes to household circumstances and social and community involvement.



## 5. Household Circumstances of Out-of-High School Youth With Disabilities

Markers on the path to adult life typically have included financial and residential independence and self-sufficiency, marriage, relationships, and parenting (Hogan and Astone 1986; Modell 1989; Rindfuss 1991). However, youth in the general population are taking longer to attain these traditional markers as they transition from high school to adulthood than in the past (Furstenberg et al. 2004; Mortimer and Larson 2002; Shanahan 2000). NLTS2 provides the opportunity to examine such trends among youth with disabilities.

This chapter examines these key aspects of independence for youth with disabilities in their first 4 years out of high school. Specifically, it explores youth's experiences with regard to

- residential independence;
- dimensions of independent lifestyle activities and family formation, including youth's sexual activities, living with a spouse or partner, and marital and parenting status; and
- indicators of financial independence, such as the use of personal financial management tools, reliance on government benefit programs, and youth household income.

Descriptive findings are reported for youth with disabilities as a whole and for those who differ in their primary disability classification while in secondary school, secondary school-leaving status, length of time out of secondary school, and selected demographic characteristics.

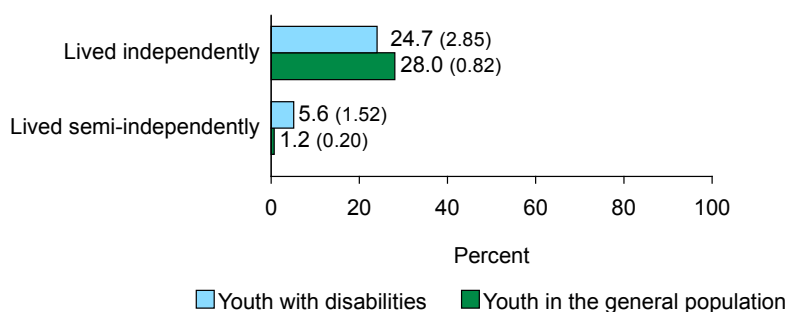
### Residential Independence

Within the first few years after leaving high school, 28 percent of youth in the general population leave their parents' homes, moving either to a postsecondary education setting or to a living arrangement on their own or shared with roommates or a partner (Arnett 1998, 2000). This pattern of residential movement after high school also was apparent among youth with disabilities (figure 32). When youth with disabilities were in high school, less than 1 percent had lived independently (i.e., on their own or with a spouse, partner, or roommate) (Wagner et al. 2003). Within 4 years of leaving high school, this percentage had increased to 25 percent having lived independently at some time since high school<sup>1</sup> ( $p < .001$ ). A significantly smaller percentage (6 percent,  $p < .001$ ) had lived semi-independently—a transitional living arrangement between “leaving the parental home and establishing an independent residence” (Goldscheider and Davanzo 1986, p. 187), including in a college dormitory, military housing, or group home.

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<sup>1</sup> 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 youth had lived independently or semi-independently in the past 2 years, were currently living independently or semi-independently, and when he or she had left school. Out-of-school youth who were living independently or semi-independently at the time of the Wave 3 interview were considered to have lived independently or semi-independently since high school. For youth who were not currently living independently or semi-independently but had been recently or in a prior wave of data collection, knowing the length of time since leaving high school was used to avoid including youth whose residential independence had occurred during high school. For youth who had been out of high school in Wave 2 and had not lived independently or semi-independently in Wave 3 or were missing the relevant Wave 3 data, the Wave 2 response for the youth's current residential status was used. If youth were in school in Wave 2 and had been out of high school for 2 or more years in Wave 3, the Wave 3 response regarding residential status in the past 2 years was used. If youth had been out of high school for less than 2 years in Wave 3, residential status since high school was based solely on youth's current residential status.

Figure 32. Residential independence of out-of-high school youth with disabilities and youth in the general population since leaving high school



NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 2,670 youth. Youth are considered to be living independently if they were living alone or with a spouse, partner, or roommate. Youth are considered to be living semi-independently if they were living in a college dormitory, military housing, or a group home.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Waves 2 and 3 parent interview and youth interview/survey, 2003 and 2005; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97), 2001; responses calculated for 17- to 21-year-olds.

Of the 25 percent of youth who had lived independently at some time since high school, 63 percent had lived alone, and 38 percent had lived with a spouse, partner, or roommate. Of those who had lived semi-independently, 65 percent had lived in a college dormitory and 35 percent in military housing.

When youth were asked about their satisfaction with their living arrangement at the time of the interview, 58 percent reported being satisfied with their residential arrangement, 17 percent said they would prefer living elsewhere, and 25 percent were ambivalent<sup>2</sup> (figure 33). Youth who lived with their parents or a guardian<sup>3</sup> were more than twice as likely as those living independently or semi-independently to state that they would prefer living somewhere other than their current living arrangement (45 percent vs. 17 percent,  $p < .01$ ).

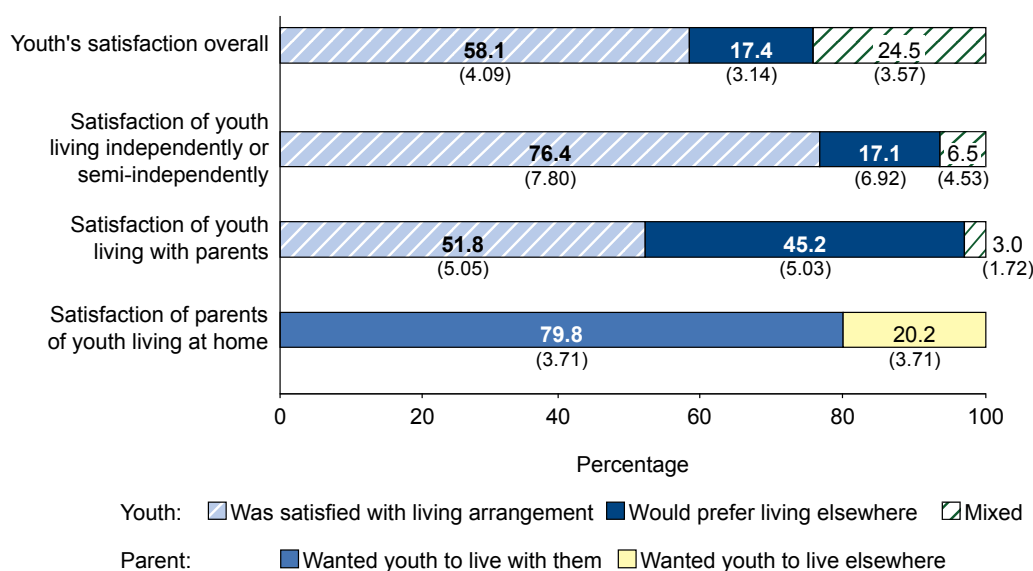
Parents of youth who lived at home were more likely to report being satisfied with the living arrangement than the youth. When parents responded to questions about the living arrangement,<sup>4</sup> 80 percent reported that they wanted their son or daughter to be living with them. In contrast, approximately half of youth living with their parents reported wanting to live with their parents (52 percent,  $p < .001$ ).

<sup>2</sup> Youth who were age 18 years or older, no longer in high school, and living with their parents were asked, “Do you want to be living with your parent or guardian, or would you rather be living somewhere else?” Youth who were age 18 years or older, no longer in high school, and not living with their parents were asked, “Are you happy with this living arrangement, or would you like to change where you live or who you live with?” Responses to these two items were combined to create the overall living arrangement satisfaction item.

<sup>3</sup> Sixty-nine percent of youth with disabilities currently lived with their parent(s) or another family-member guardian, and 4 percent lived with a non-family-member legal guardian. For simplicity, parents and guardians are referred to as parents in the rest of this section.

<sup>4</sup> Parents of youth who were living at home and were 18 years or older were asked, “Do you want [YOUTH NAME] to be living there now, or do you wish [he/she] could live somewhere else?”

Figure 33. Satisfaction with current living arrangement of youth with disabilities



NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 360 to 1,570 youth 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 3 parent interview and youth interview/survey, 2005.

### ***Disability Differences in Residential Independence***

Rates of living independently ranged from 5 percent to 29 percent of youth across disability categories (table 52). Youth with learning disabilities (29 percent), emotional disturbances (22 percent), or speech/language impairments (24 percent) were more likely to have lived independently at some time since high school than were those with multiple disabilities (5 percent,  $p < .001$  compared with youth with learning disabilities or speech/language impairments;  $p < .01$  compared with youth with emotional disturbances). In addition, youth with learning disabilities were more likely to have lived independently than were those with other health impairments (14 percent,  $p < .01$ ).

Youth with hearing or visual impairments (13 percent and 18 percent) were more likely to have lived semi-independently than were those with mental retardation (less than 1 percent,  $p < .01$  for both comparisons). In addition, youth with speech/language impairments (8 percent) were more likely to live semi-independently than those with mental retardation ( $p < .01$ ). Reported satisfaction with living arrangements did not differ significantly by disability category.

Table 52. Residential independence and satisfaction since leaving high school, 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	28.8 (4.49)	23.9 (4.44)	14.1 (3.93)	21.5 (4.16)	18.5 (4.82)	19.1 (6.64)	15.2 (4.23)	13.9 (3.48)	11.1 (5.68)	17.8 (28.0)	5.0 (3.18)	22.6 (9.11)
Lived semi-independently	6.5 (2.43)	8.4 (2.89)	0.2 (0.50)	4.5 (2.10)	12.9 (4.16)	18.4 (6.54)	6.2 (2.84)	4.3 (2.04)	11.1 (5.68)	10.0 (6.49)	2.5 (2.71)	5.7 (5.05)
Satisfaction of youth living independently or semi-independently	73.5 (10.92)	86.7 (9.04)	74.4 (22.57)	91.2 (8.06)	79.4 (11.51)	81.7 (12.70)	94.1 (7.56)	78.3 (12.63)	73.3 (25.38)	29.2 (27.53)	94.0 (13.57)	100.0

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 2,670 youth for residential independence and approximately 360 youth for satisfaction of living arrangement.

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

### ***Differences in Residential Arrangements by High School-Leaving Characteristics***

Youth who completed high school did not differ significantly from noncompleters in their rate of having lived independently since high school. Completers were more likely than noncompleters to have lived semi-independently (which includes living in a college dormitory; 6 percent vs. 0 percent,  $p < .001$ ; table 53).

Table 53. Residential independence and satisfaction, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
	Percent				
Lived independently	23.1 (3.19)	32.6 (7.20)	17.0 (4.01)	24.8 (5.33)	33.0 (5.36)
Lived semi-independently	5.9 (1.78)	#	3.0 (1.82)	3.7 (2.33)	9.6 (3.36)
Satisfaction of youth living independently or semi-independently	78.6 (8.47)	44.8 (23.22)	74.9 (23.41)	73.3 (13.42)	78.9 (8.79)

# Rounds to zero.

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 2,670 youth for residential independence and approximately 360 youth for satisfaction of living arrangement.

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



## Demographic Differences in Residential Independence

Rates of living independently or semi-independently did not differ significantly by gender, household income, or race/ethnicity, with the exception that White youth were more likely than Hispanic youth to have lived independently (29 percent vs. 10 percent,  $p < .01$ ; table 54).

Table 54. Residential independence and satisfaction since leaving high school, by household income, 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	21.8 (4.77)	29.7 (6.19)	24.2 (4.44)	28.9 (3.67)	19.5 (5.50)	9.5 (6.24)	22.1 (3.39)	30.7 (5.09)
Lived semi-independently	2.7 (1.87)	6.8 (3.41)	7.3 (2.70)	5.3 (1.82)	4.8 (2.97)	9.4 (6.21)	7.2 (2.11)	1.9 (1.51)
Satisfaction of youth living independently or semi-independently	65.2 (16.06)	77.3 (14.07)	81.8 (11.37)	81.1 (8.50)	75.1 (17.53)	‡	79.9 (9.69)	71.2 (12.83)

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

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 2,670 youth for residential independence and approximately 360 youth for satisfaction of living arrangement.

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

## Sexual Behavior, Parenting, and Marriage

This section focuses on several dimensions of independent lifestyle activities and family formation, including youth's sexual activities, and parenting and marital status.

### Sexual Activity

Very little is known about the sexual activities and safe sexual practices of youth with disabilities in their formative years. NLTS2 provides descriptive information about these issues for young adults with disabilities.

By the time youth with disabilities age 18 or older had left high school, 73 percent reported they had had sexual intercourse,<sup>5</sup> compared with 83 percent of their peers in the general population<sup>6</sup> ( $p < .01$ ; figure 34). Approximately half (55 percent)<sup>7</sup> of youth with disabilities reported having had sexual intercourse within the past 3 months.<sup>7</sup> Of those who reported ever having had sexual intercourse, 87 percent reported using contraception the last time they had intercourse,<sup>8</sup> and 70 percent reported that they or their partner had used a condom. Youth with

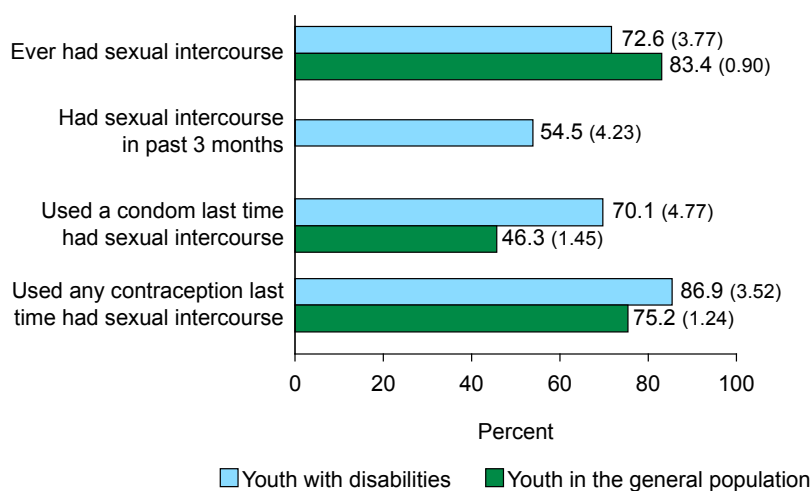
<sup>5</sup> Youth age 18 or older were asked, "Have you ever had sexual intercourse?"

<sup>6</sup> Calculated from the National Longitudinal Study of Adolescent Health (Add Health), Wave 3, 2001–02, for out-of-high school 18- to 21-year-olds. Add Health was conducted several years earlier than NLTS2 and differed from NLTS2 in its data collection methods. Any interpretations of general population comparisons should be considered with these limitations in mind.

<sup>7</sup> Youth age 18 or older were asked, "Have you had sexual intercourse in the past 3 months?"

<sup>8</sup> Youth age 18 or older were asked, "The last time you had sexual intercourse, did [you/your partner] use a condom?" and "The last time, did you or your partner use or do anything else to keep from getting pregnant?"

Figure 34. Sexual activity of youth with disabilities and youth in the general population, 18 or older



NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 850 to 1,630 youth across variables. General population comparison data not available for sexual activity in past 3 months.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 3 youth survey, 2005; 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 18- to 21-year-olds.

disabilities were more likely than those in the general population to report having used condoms (70 percent vs. 46 percent;  $p < .001$ ), or any contraception (87 percent vs. 75 percent;  $p < .01$ ).

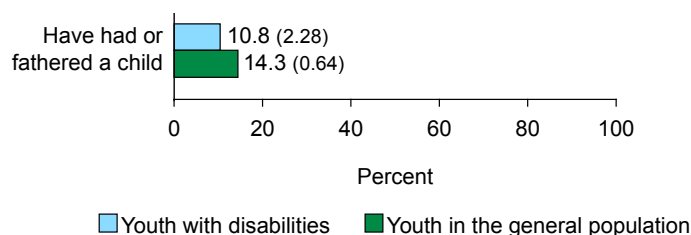
### Parenting Status

Eleven percent of youth with disabilities reported that they had had or had fathered a child<sup>9</sup> by the time they had been out of high school up to 4 years (figure 35). This proportion did not differ significantly from the 14 percent of similar-age youth in the general population<sup>10</sup> who were parents. Of youth with disabilities who had had or fathered children, 72 percent had had one child, 21 percent had had two, and 7 percent had had three or more children.

<sup>9</sup> Respondents were asked, “Have you [Has youth] ever had or fathered any children?”

<sup>10</sup> Calculated from the National Longitudinal Survey of Youth (NLSY), 2001, for out-of-high school 17- to 21-year-olds.

Figure 35. Parenting status of youth with disabilities since leaving high school and youth in the general population



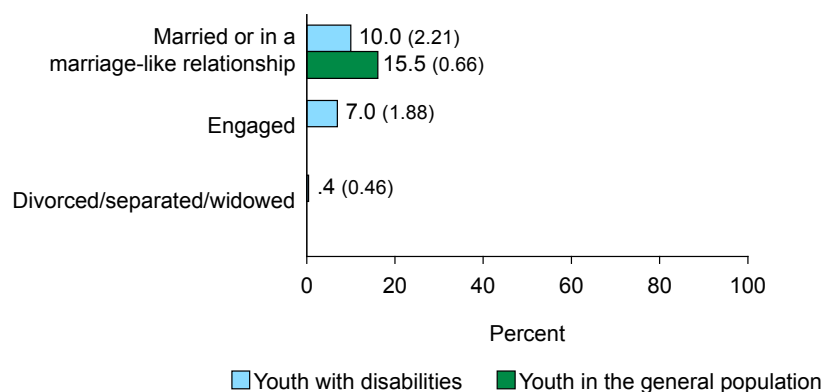
NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 2,220 youth.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 3 parent interview and youth interview/survey, 2005; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97) 2001 youth survey, responses calculated for 17- to 21-year-olds.

### Marital Status

Within 4 years of leaving high school, 10 percent of youth with disabilities reported being married or living in a marriage-like relationship<sup>11</sup> (figure 36). An additional 7 percent reported being engaged to be married, and less than 1 percent were divorced, separated, or widowed. The marriage rate for youth with disabilities did not differ significantly from that of their peers in the general population.<sup>12</sup>

Figure 36. Marital status of youth with disabilities and youth in the general population at the time of the interview



NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on a sample of approximately 2,280 youth. General population comparison data not available for engagement or divorce, separated or widowed.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTS2), Wave 3 parent interview and youth interview/survey, 2005; U.S. Department of Labor, Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97) 2001 youth survey, responses calculated for 17- to 21-year-olds.

<sup>11</sup> Respondents were asked, “Are you [Is youth] engaged, single, never married, married, in a marriage-like relationship, divorced, separated, or widowed?”

<sup>12</sup> Calculated from the National Longitudinal Survey of Youth (NLSY), 2001, for out-of-high school 17- to 21-year-olds.

## Disability Differences in Sexual Behavior, Parenting, and Marriage

Involvement in sexual activity varied across disability categories, with 21 percent to 78 percent reporting ever having had sexual intercourse (table 55). Approximately four in five out-of-high school youth with learning disabilities or emotional disturbances (78 percent) reported ever having had sexual intercourse. Youth in these two disability categories were more likely to report ever having had intercourse than were those with speech/language impairments (56 percent,  $p < .01$  for both comparisons), hearing impairments (45 percent,  $p < .001$  for both comparisons), visual impairments (41 percent,  $p < .001$  for both comparisons), orthopedic impairments (26 percent,  $p < .001$  for both comparisons), autism (21 percent,  $p < .001$  for both comparisons), or multiple disabilities (39 percent,  $p < .01$  for both comparisons).

Youth with speech/language impairments (56 percent), mental retardation (58 percent), or other health impairments (61 percent) were more likely to report ever having had sexual intercourse than were those with orthopedic impairments ( $p < .01$  compared with youth with speech/language impairments or mental retardation;  $p < .001$  compared with youth with other health impairments) or autism ( $p < .01$  for comparisons with youth with speech/language impairments or mental retardation;  $p < .001$  compared with youth with other health impairments).

Table 55. Sexual activity of youth 18 or older, 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
Sexual activity	Percent											
Ever had sexual intercourse	78.0 (5.04)	55.6 (6.43)	57.9 (9.34)	78.3 (5.64)	45.0 (7.99)	40.5 (8.70)	25.7 (6.95)	61.2 (6.41)	21.4 (9.52)	54.2 (12.85)	39.1 (13.07)	‡
Used a condom the last time he or she had sex	71.4 (6.35)	78.7 (7.26)	75.4 (10.51)	56.1 (7.90)	58.0 (11.61)	78.4 (10.52)	76.7 (12.11)	79.1 (7.06)	‡	85.4 (12.54)	‡	‡
Used any type of contraception the last time he or she had sex	87.6 (4.63)	91.3 (5.00)	86.1 (8.44)	83.9 (5.83)	65.5 (11.18)	96.5 (4.70)	80.1 (11.36)	87.5 (5.71)	‡	87.4 (11.79)	‡	‡

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

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 850 to 1,630 youth 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 3 youth survey, 2005

Of those who had had sexual intercourse, from 66 percent to 97 percent of youth across disability categories reported having used contraception the last time they had intercourse, and more than half of youth in all disability categories reported having used a condom. Neither contraception use nor condom use differed significantly by disability category.

Similarly, marital status did not differ significantly across disability categories (table 56). The marriage rate ranged from nearly 0 to 13 percent across disability categories. Youth's reports of ever having had or fathered any children ranged from less than 1 percent to 17 percent. Youth with emotional disturbances (14 percent), mental retardation (15 percent), or learning disabilities (10 percent) were more likely to have had or fathered children than were those with

Table 56. Parenting and marital status of out-of-high school youth, 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	10.4 (3.34)	9.7 (3.45)	14.9 (4.35)	13.9 (3.84)	6.6 (3.69)	4.5 (3.62)	5.5 (2.89)	5.9 (2.59)	0.4 (1.32)	17.0 (8.31)	3.2 (3.44)	‡
Married or living in a marriage-like relationship	10.0 (3.36)	6.8 (2.91)	8.3 (3.36)	12.6 (3.70)	8.1 (3.77)	5.0 (3.84)	5.7 (2.87)	9.3 (3.19)	2.9 (3.19)	5.6 (5.24)	3.1 (3.31)	#

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

# Rounds to zero.

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples of approximately 2,210 youth for having or fathering a child to 2,280 youth 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 3 parent interview and youth interview/survey, 2005.

autism (less than 1 percent,  $p < .001$  compared with youth with emotional disturbances;  $p < .01$  compared with youth with mental retardation or learning disabilities).

### ***Differences in Sexual Behavior, Parenting, and Marriage by High School-Leaving Characteristics***

Reported sexual activity and use of contraception did not differ significantly by school completion status or length of time out of high school (table 57). In addition, parenting and marital status did not differ significantly by high school-leaving characteristics.

Table 57. Sexual activity of youth 18 or older, parenting, and marital status of out-of-high school youth, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
	Percent				
Sexual activity					
Ever had sexual intercourse	70.5 (4.32)	88.1 (7.08)	64.5 (6.25)	78.9 (6.16)	76.5 (6.70)
Used a condom the last time he or she had sex	73.6 (5.27)	56.7 (12.09)	80.8 (7.00)	70.2 (8.47)	60.3 (8.75)
Used any type of contraception the last time he or she had sex	89.2 (3.71)	80.1 (9.74)	92.1 (4.79)	90.1 (5.53)	79.4 (7.23)
Parenting and marital status					
Ever had or fathered a child	8.4 (2.32)	23.2 (7.54)	5.5 (2.77)	14.2 (4.51)	13.8 (4.48)
Married or living in a marriage-like relationship	8.9 (2.38)	13.6 (6.05)	11.0 (3.74)	7.5 (3.44)	11.0 (4.11)

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 850 to 1,630 youth across variables for sexual activity and approximately 2,210 youth for having or fathering a child to 2,280 youth 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 3 youth survey, 2005.

## Demographic Differences in Sexual Behavior, Parenting, and Marriage

Differences in rates of sexual activity, parenting, and marital status by gender, race/ethnicity, or household income did not attain statistical significance at the  $p < .01$  level (table 58).

Table 58. Sexual activity of youth 18 or older, parenting, and marital status of out-of-high school youth, by household income, race/ethnicity, and gender

	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	White	African American	Hispanic	Male	Female
				Percent				
Sexual activity								
Ever had sexual intercourse	69.5 (7.25)	68.6 (7.73)	76.6 (5.54)	67.6 (4.76)	80.7 (7.28)	84.1 (10.20)	72.4 (4.85)	73.1 (5.97)
Used a condom the last time he or she had sex	67.9 (8.65)	80.4 (8.34)	63.7 (7.85)	61.5 (6.11)	83.6 (8.18)	79.1 (13.31)	74.1 (5.86)	63.4 (8.02)
Used any type of contraception the last time he or she had sex	84.0 (6.79)	92.3 (5.60)	85.2 (5.79)	84.8 (4.51)	93.1 (5.60)	84.7 (11.79)	88.4 (4.28)	84.3 (6.05)
Parenting and marital status								
Ever had or fathered a child	17.2 (4.71)	11.3 (4.77)	5.7 (2.73)	10.2 (2.77)	15.7 (5.49)	9.2 (6.60)	7.3 (2.41)	17.8 (4.52)
Married or living in a marriage-like relationship	14.3 (4.39)	7.0 (3.86)	8.9 (3.32)	10.5 (2.81)	5.1 (3.34)	16.2 (8.44)	8.6 (2.60)	13.1 (4.02)

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 850 to 1,630 youth across variables for sexual activity and approximately 2,210 youth for having or fathering a child to 2,280 youth 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 3 parent interview and youth interview/survey, 2005.

## Financial Independence

Being able to manage one's bank accounts and credit cards are stepping-stones for youth to achieve financial security and responsibility (Bell et al. 2006). This section focuses on youth's ability to exercise financial independence and responsibility by obtaining bank accounts, credit cards, and needed government benefits.

By the time they had been out of high school up to 4 years, more than half of youth with disabilities were reported to have a savings account<sup>13</sup> (56 percent; figure 37), and 46 percent had a checking account,<sup>14</sup> whereas a significantly smaller percentage had a credit card in their own name<sup>15</sup> (28 percent,  $p < .001$  for both comparisons). The rates at which they had a savings account did not differ significantly for youth with disabilities and those in the general population. In contrast, youth in the general population<sup>16</sup> were more likely than youth with disabilities to have a checking account (68 percent,  $p < .001$ ) and were almost twice as likely to have a credit card (50 percent,  $p < .001$ ).

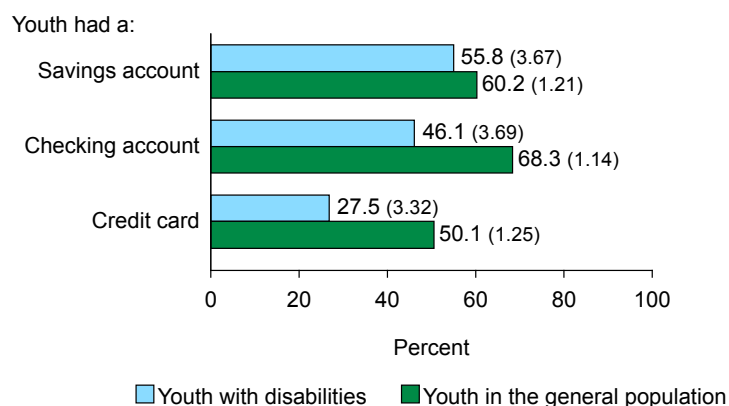
<sup>13</sup> Respondents were asked, "Do you [Does youth] have a savings account?"

<sup>14</sup> Respondents were asked, "Do you [Does youth] have a checking account where you write checks?"

<sup>15</sup> Respondents were asked, "Do you [Does youth] have a credit card or charge account in your own name?"

<sup>16</sup> Calculated from the National Longitudinal Study of Adolescent Health (Add Health), Wave 3, 2001–02, for out-of-high school 18- to 21-year-olds.

Figure 37. Financial management tools used by youth with disabilities and youth in the general population at the time of the interview



NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTSS2 percentages are weighted population estimates based on a sample of approximately 2,240 youth.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study-2 (NLTSS2), Wave 3 parent interview and youth interview/survey, 2005; 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 18- to 21-year-olds.

Although youth were accessing these financial management tools, 89 percent of youth with disabilities were reported to have annual incomes of \$25,000 or less.<sup>17</sup> More than half of youth (54 percent) earned less than \$5,000 in a year. Eight percent had annual incomes between \$25,001 and \$50,000, and 3 percent had incomes of more than \$50,000.

In addition to these indicators, NLTSS2 tracked participation in the Temporary Assistance for Needy Families (TANF) and Food Stamps programs by youth with disabilities. Fourteen percent of youth who were living independently or semi-independently had received Food Stamps at some time since leaving high school. Thirty-two percent of youth with disabilities who were living independently or semi-independently and had had or fathered a child reported that they had received money from TANF or the state welfare program at some time since high school.<sup>18</sup>

<sup>17</sup> Respondents were asked, “Studies like these often group people according to income. Please tell me which group best describes your [youth’s] total income [if spouse included] in the last tax year, including salaries or other earnings, money from public assistance, retirement, and so on, before taxes. Was your income in the past year \$25,000 or less, or more than \$25,000?” Questions with more detailed income categories followed.

<sup>18</sup> Regarding youth who were living independently or semi-independently, respondents were asked if the youth had “received Food Stamps” at any time in the past 2 years, and youth who reported having had or had fathered a child were asked if they had received money from “TANF (Temporary Assistance for Needy Families)” and, if so, whether the youth currently was receiving Food Stamps or TANF. Variables indicating receipt of Food Stamps or TANF since high school were derived from three sets of items: if the youth had received Food Stamps or TANF in the past 2 years, was currently receiving Food Stamps or TANF, and when he or she had left school. Out-of-school youth who received Food Stamps or TANF at the time of the Wave 3 interview were considered to have received Food Stamps or TANF since high school. For youth who were not currently receiving Food Stamps or TANF but had received them recently or in a prior wave, knowing the length of time since leaving high school was used to avoid including youth whose receipt of Food Stamps or TANF had occurred during high school. For youth who had been out of high school in Wave 2 and had not received Food Stamps or TANF in Wave 3 or were missing the Wave 3 Food Stamps or TANF items, the Wave 2 responses for the youth currently receiving Food Stamps or TANF in Wave 2 were used. If a youth was in school in Wave 2 and was out of high school for 2 or more years in Wave 3, the Wave 3 response regarding receipt of Food Stamps or TANF in the past 2 years was

## Disability Differences in Financial Independence

Rates of having of a savings account, checking account, or credit card varied by disability category. Across categories, from 41 percent to 66 percent of youth were reported to have a savings account, from 26 percent to 71 percent had a checking account, and from 9 percent to 51 percent had a personal credit card (table 59).

Table 59. Financial independence of out-of-high school youth 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
Financial independence	Percent											
Youth had a:												
Savings account	58.1 (5.47)	61.5 (5.61)	40.5 (5.97)	49.0 (5.72)	64.7 (6.72)	60.7 (8.63)	60.0 (6.19)	65.7 (5.29)	61.4 (9.30)	46.7 (11.25)	63.2 (9.53)	63.1 (11.38)
Checking account	49.3 (5.54)	57.3 (5.69)	26.3 (5.34)	35.1 (5.47)	62.9 (6.69)	71.4 (7.97)	56.6 (6.21)	58.3 (5.50)	50.3 (9.13)	37.4 (9.79)	31.7 (9.24)	48.8 (11.59)
Credit card	30.5 (5.12)	34.2 (5.49)	8.9 (3.44)	21.9 (4.74)	36.8 (6.74)	50.7 (8.88)	21.7 (5.16)	36.0 (5.33)	13.7 (6.54)	21.4 (8.35)	20.8 (7.96)	25.7 (10.13)
Youth's annual income:												
\$25,000 or less	87.9 (3.74)	91.6 (3.45)	92.4 (3.68)	91.5 (3.40)	93.8 (3.75)	96.6 (3.38)	96.0 (2.34)	90.9 (3.52)	94.2 (4.71)	96.0 (4.86)	87.4 (7.24)	‡
\$25,001 to \$50,000	8.9 (3.26)	7.0 (3.17)	4.7 (2.94)	6.9 (3.09)	3.2 (2.74)	1.9 (2.55)	4.0 (2.34)	7.6 (3.24)	2.4 (3.08)	2.5 (3.87)	12.3 (7.16)	‡
More than \$50,000	3.2 (2.02)	1.4 (1.46)	2.8 (2.29)	1.6 (1.53)	3.0 (2.65)	1.5 (2.27)	#	1.4 (1.44)	3.5 (3.70)	1.5 (3.01)	0.3 (1.19)	‡

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

# Rounds to zero.

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples of approximately 2,240 youth for financial management tools and 1,900 youth 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 3 parent interview and youth interview/survey, 2005.

Youth in most disability categories were more likely to have used several types of financial tools than were youth with mental retardation. Compared with youth with mental retardation, youth with hearing or other health impairments were more likely to have a savings account (65 percent and 66 percent vs. 41 percent;  $p < .01$  for both comparisons). In addition, youth with hearing or other health impairments were more likely to have a checking account (63 percent and 58 percent, respectively) or credit card (37 percent and 36 percent) than were those with mental retardation (26 percent for checking account and 9 percent for credit card,  $p < .001$  for all comparisons). Similarly, those with visual or speech/language impairments or learning disabilities were more likely to have a checking account (71 percent, 57 percent, and 49 percent, respectively) or credit card (51 percent, 34 percent, and 31 percent) than youth with mental retardation ( $p < .01$  compared with youth with learning disabilities;  $p < .001$  compared with

used. If a youth had been out of high school for less than 2 years in Wave 3, receipt of Food Stamps or TANF since high school was based solely on youth currently receiving Food Stamps or TANF.



youth with visual or speech/language impairments). Youth with orthopedic impairment also were more likely to have a checking account than those with mental retardation (57 percent vs. 26 percent;  $p < .001$ ).

Approximately one-third of youth with emotional disturbances (35 percent) had a checking account, whereas larger proportions of youth with speech/language (57 percent), hearing (63 percent), visual (71 percent), orthopedic (57 percent), or other health impairments (58 percent) had checking accounts ( $p < .001$  compared with youth with visual impairments;  $p < .01$  for all other comparisons). Youth with visual impairments also were more likely to have a credit card than youth with emotional disturbances (51 percent vs. 22 percent,  $p < .01$ ).

Youth with hearing or visual impairments were more likely to have a checking account than were those with multiple disabilities (63 percent and 71 percent, respectively, vs. 32 percent,  $p < .01$  for both comparisons). In addition, those with visual (51 percent) or other health impairments (36 percent) were more likely to have a credit card than were those with autism (14 percent,  $p < .01$  compared with those with other health impairments;  $p < .001$  compared with youth with visual impairments).

Annual income did not differ significantly by disability category. Too few youth received TANF or Food Stamps to analyze differences by disability category or demographic characteristics.

### ***Differences in Financial Independence by High School-Leaving Characteristics***

Youth who had completed high school were consistently more likely to have savings or checking accounts or credit cards than were noncompleters (table 60). Youth who had completed high school were approximately three times as likely to have a checking account or credit card (53 percent vs. 13 percent and 32 percent vs. 8 percent, respectively,  $p < .001$  for both comparisons). A similar pattern was noted for youth with a savings account, but the difference was smaller. Sixty percent of youth who had completed high school had a savings account, compared with 35 percent of youth who had not completed school ( $p < .01$ ).

The annual incomes of youth with disabilities did not differ significantly by school completion status, and none of the financial independence measures differed significantly by length of time out of high school.

Table 60. Financial independence of out-of-high school youth at the time of the interview, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
Financial independence			Percent		
Youth had a:					
Savings account	60.4 (4.12)	34.6 (8.46)	62.2 (5.76)	50.1 (6.46)	53.0 (6.78)
Checking account	52.8 (4.21)	13.0 (5.97)	45.0 (5.91)	45.1 (6.42)	48.2 (6.82)
Credit card	32.0 (3.96)	7.9 (4.80)	26.6 (5.26)	23.5 (5.56)	32.1 (6.35)
Youth's reported annual income:					
\$25,000 or less	91.7 (2.38)	85.5 (7.19)	91.4 (3.54)	95.4 (2.96)	80.8 (5.27)
\$25,001 to \$50,000	6.3 (2.10)	13.1 (6.89)	4.6 (2.64)	3.7 (2.66)	16.3 (4.95)
More than \$50,000	2.0 (1.21)	1.4 (2.40)	4.0 (2.47)	.9 (1.33)	2.9 (2.25)

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples of approximately 2,240 youth for financial management tools and 1,900 youth 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 3 parent interview and youth interview/survey, 2005.

### ***Demographic Differences in Financial Independence***

Youth from households with higher incomes were more likely to have savings and checking accounts and credit cards (table 61). Compared with youth from households in the lowest income bracket (\$25,000 or less), those in the highest income bracket (more than \$50,000) were more likely to have a savings (69 percent vs. 40 percent), checking account (60 percent vs. 29 percent) or a credit card (44 percent vs. 11 percent,  $p < .001$  for all comparisons). The frequency of having a checking account also differed by racial/ethnic background. White youth were more than twice as likely to have a checking account than African American youth (55 percent vs. 24 percent,  $p < .001$ ).

Youth's annual income did not differ significantly by race/ethnicity or family household income levels. Males and females did not differ significantly in their use of financial management tools or annual income.

Table 61. Financial independence of out-of-high school youth at the time of the interview, by household income, race/ethnicity, and gender

	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	White	African American	Hispanic	Male	Female
Financial independence				Percent				
Youth had a:								
Savings account	40.0 (6.17)	55.7 (7.65)	68.7 (5.43)	61.0 (4.50)	47.2 (7.57)	34.3 (11.00)	55.4 (4.65)	56.7 (5.87)
Checking account	28.3 (5.67)	52.5 (7.71)	59.8 (5.74)	55.4 (4.59)	24.3 (6.50)	29.6 (10.62)	47.1 (4.67)	43.9 (5.91)
Credit card	11.2 (4.01)	24.1 (6.64)	44.0 (5.81)	31.1 (4.30)	20.8 (6.14)	17.9 (8.98)	28.4 (4.24)	25.8 (5.23)
Youth's annual income:								
\$25,000 or less	94.0 (3.18)	88.2 (4.78)	85.3 (4.35)	91.2 (2.68)	87.2 (5.67)	79.0 (9.70)	90.0 (2.85)	88.2 (4.25)
\$25,001 to \$50,000	5.7 (3.11)	11.0 (4.63)	8.7 (3.46)	5.3 (2.12)	10.7 (5.24)	20.9 (9.68)	8.8 (2.69)	6.4 (3.22)
More than \$50,000	0.4 (0.85)	0.9 (1.40)	6.0 (2.91)	3.5 (1.74)	2.1 (2.43)	0.1 (0.75)	1.2 (1.03)	5.4 (2.98)

NOTE: Standard errors are in parentheses. Findings are reported for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples of approximately 2,240 youth for financial management tools and 1,900 youth 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 3 parent interview and youth interview/survey, 2005.

## Summary

This chapter has described key aspects of independence for youth with disabilities in their first 4 years out of high school. For many, this is a time of growing independence, moving away from home, forming relationships with others, and managing financial responsibilities.

At some time within the first few years of leaving high school, 25 percent of youth with disabilities had lived independently (on their own or with a spouse, partner, or roommate), a rate similar to the 28 percent of youth in the general population who had done so. An additional 6 percent of youth with disabilities had lived semi-independently (primarily in a college dormitory or military housing).

When youth with disabilities were asked about their satisfaction with their current living arrangement, 58 percent reported being satisfied. Those who lived with their parents were more than twice as likely to express a preference for a different residential arrangement than were those who lived independently or semi-independently (45 percent vs. 17 percent).

Examining independent lifestyle activities and family formation, almost three-quarters, (73 percent) of youth with disabilities who were age 18 or older reported ever having had sexual intercourse, and more than half (55 percent) reported having had sexual intercourse within the past 3 months. Of those who had ever been sexually active, 87 percent reported using contraception the last time they had intercourse, and 70 percent reported that they or their partner had used a condom. Youth with disabilities were significantly less likely than their peers in the general population to have been sexually active (73 percent vs. 83 percent) at some time and

were more likely than those in the general population both to report having used a condom (70 percent vs. 46 percent) or any contraception (87 percent vs. 75 percent) the last time they had intercourse.

Ten percent of youth with disabilities were married or living in a marriage-like relationship at the time of the interview, and 11 percent were reported to have had or fathered a child by the time they had been out of high school for up to 4 years. Neither the marriage nor the parenting rate of youth with disabilities differed significantly from rates among youth in the general population.

Financial management tools were being used by some youth with disabilities; 56 percent had a savings account, 46 percent had a checking account, and 28 percent had a credit card in their own name. Rates of having a checking account or a credit card were lower among youth with disabilities than youth in the general population (68 percent for checking account and 50 percent for credit card). Overall, 54 percent of youth with disabilities reported having annual incomes of less than \$5,000.

Each of these aspects of independence differed significantly across disability categories. For example for residential independence, youth with learning disabilities, emotional disturbances, or speech/language impairments (29 percent, 22 percent, and 24 percent respectively) were more likely to have lived independently at some time since high school than were those with multiple disabilities (5 percent). Youth with learning disabilities or emotional disturbances were significantly more likely to report ever having had intercourse (78 percent for both categories) than were youth in six other disability categories, specifically: youth with autism (21 percent), orthopedic impairment (26 percent), multiple disabilities (39 percent), visual impairment (41 percent), hearing impairment (45 percent), and speech impairment (56 percent).

Youth in several disability categories were more likely to have used several types of financial tools than were youth with mental retardation. Compared with youth with mental retardation, youth with hearing or other health impairments were more likely to have a savings account (41 percent vs. 65 percent and 66 percent). In addition, youth with hearing or other health impairments were more likely to have a checking account (63 percent and 58 percent, respectively) or credit card (37 percent and 36 percent) than were those with mental retardation (26 percent and 9 percent). Similarly, those with visual or speech/language impairments or learning disabilities were more likely to have a checking account (71 percent, 57 percent, and 49 percent, respectively) or credit card (51 percent, 34 percent, and 31 percent) than youth with mental retardation. Youth with orthopedic impairment also were more likely to have a checking account than those with mental retardation (57 percent vs. 26 percent).

There were several differences by high school-leaving and demographic characteristics as well. High school completers were more likely than those who had not completed to have lived semi-independently since leaving high school (6 percent vs. 0 percent). They also were more likely to have a savings (32 percent vs. 8 percent) or checking account (53 percent vs. 13 percent) or a credit card (60 percent vs. 35 percent). Youth from family households with higher incomes were more likely than were those from families with lower incomes to have a savings (69 percent vs. 40 percent) or checking account (60 percent vs. 29 percent) or a credit card (44 percent vs. 11 percent). White youth were more likely than Hispanic youth to have lived independently at some time since leaving high school (29 percent vs. 10 percent). In addition,

White youth were more likely than African American peers to have a checking account (55 percent vs. 24 percent). There were no significant differences in any of these aspects of the independent living by gender or length of time since leaving high school.

For some youth with disabilities, early adulthood provides challenges and opportunities for independence in living arrangements, relationships, and financial management. Subsequent reports will examine the trajectory of youth's independence as they age and are out of high school longer.



## **6. Social and Community Involvement of Out-of-High School Youth With Disabilities**

Clearly, participating in postsecondary education and competitive employment are critical post-high school outcomes for youth, whether or not they have identified disabilities. However, the field of research related to youth with disabilities has embraced a broader perspective on desired post-high school outcomes that includes the holistic concept of “quality of life.” One definition of quality of life illustrates this comprehensive view: “Quality of life is the combination of objectively and subjectively indicated well-being in multiple domains of life considered salient in one’s culture and time...” (Wallender, Schmitt, and Koot 2001, p. 574). The relevant domains considered central for youth with disabilities have long included youth’s living successfully in their communities (Halpern 1985). An important aspect of whether a youth 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. 480).

This chapter addresses three dimensions of the social and community involvement of out-of-high school youth with disabilities:

- friendship interactions;
- participation in community/civic activities; and
- negative community involvement (i.e., involvement in violence-related activities and with the criminal justice system).

Findings for each of these dimensions of involvement are presented first for youth with disabilities as a whole, followed by discussions of significant differences in these factors for youth who differ in their primary disability category, secondary school-leaving characteristics, and selected demographic characteristics.

### **Friendship Interactions**

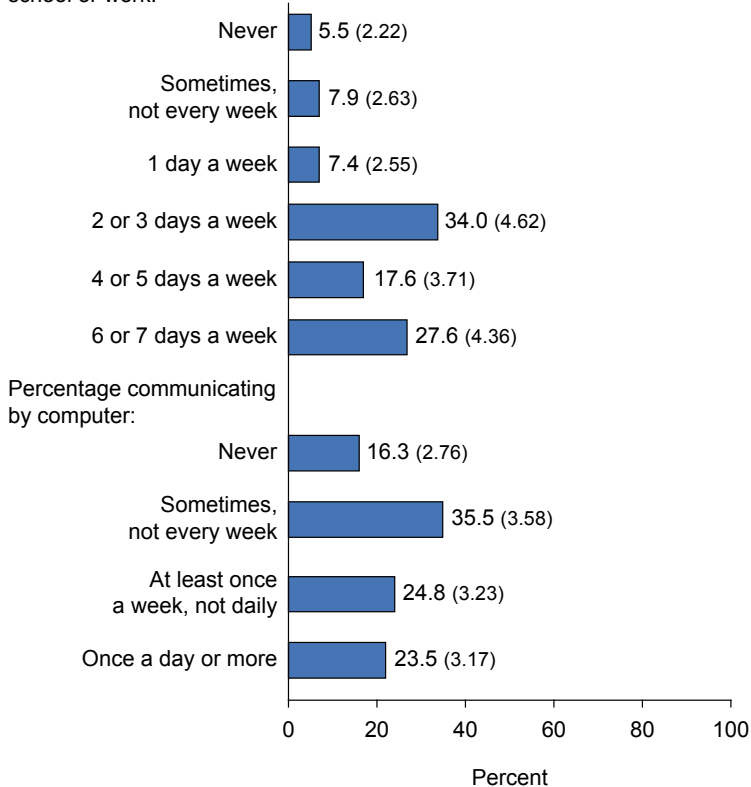
Unlike adolescence, which is a time for discovering who one is and what one’s role in the world is, the primary developmental task for the young adult is the development of intimate relationships (Erikson 1974). Considerable research has documented the importance of personal relationships as “protective factors”<sup>1</sup> 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), the largest, most comprehensive survey of adolescents to date, 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 the friendships (e.g., Bearman and Moody 2004; Crosnoe and Needham 2004; Fraser 1997; Rodgers and Rose 2002; Smith et al. 1995).

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<sup>1</sup> 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, para.1).

Figure 38. Friendship interactions of out-of-high school youth with disabilities

In the past year, percentage who saw friends outside of school or work:



NOTE: Standard errors are in parentheses. Findings regarding friendships are reported for youth out of high school from 1 to 4 years so as not to include high school experiences; findings regarding electronic communication are for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples of approximately 1,160 youth for friendships and 2,200 youth for electronic communication.

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

A majority of youth with disabilities who had been out of high school from 1 to 4 years were reported to have active friendships<sup>2</sup> (figure 38); 87 percent saw friends outside of school or organized activities at least weekly, although 6 percent never saw friends informally ( $p < .001$ ). Electronic means of communication<sup>3</sup> (i.e., e-mail, chat rooms, instant messaging) were reported to be used by 24 percent of out-of-high school youth with disabilities at least daily, whereas 16 percent never communicated in these ways.

### Disability Differences in Friendship Interactions

More than 90 percent of youth with learning disabilities or visual impairments who had been out of secondary school from 1 to 4 years were reported to see friends informally at least weekly (92 percent for both groups, table 62). For both groups, this was significantly higher than the rate for youth with multiple disabilities (33 percent,  $p < .001$ ), and youth with learning disabilities also were significantly more likely to see friends frequently than youth

with orthopedic impairments (65 percent,  $p < .01$ ). Youth in the categories of emotional disturbance or speech/language, hearing, or other health impairment also were reported to be significantly higher on this measure of social involvement than youth with multiple disabilities (84 percent, 88 percent, 82 percent, and 79 percent, respectively, vs. 33 percent;  $p < .01$  compared with youth with emotional disturbances and other health impairments,  $p < .001$  for other comparisons).

<sup>2</sup> 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?"

<sup>3</sup> Respondents were asked, "How frequently do you [does youth] use e-mail, instant messaging, or take part in chat rooms? Would you say several times a day, once a day, several times a week, once a week, or less often than that?"



Table 62. Friendship interactions of out-of-high school youth, 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	92.4 (3.99)	87.8 (5.41)	69.0 (8.70)	84.1 (5.34)	81.9 (7.42)	91.6 (7.20)	64.9 (8.74)	78.5 (6.03)	59.2 (13.77)	72.6 (13.00)	33.2 (15.21)	‡
Percentage communicating by computer at least daily	24.5 (4.83)	33.4 (5.51)	11.6 (3.96)	18.6 (4.56)	39.4 (6.85)	44.6 (8.80)	46.4 (6.09)	29.0 (5.12)	32.0 (8.79)	21.3 (9.71)	19.6 (7.87)	‡

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

NOTE: Standard errors are in parentheses. Findings regarding friendships are reported for youth out of high school from 1 to 4 years so as not to include high school experiences; findings regarding electronic communication are for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples of approximately 1,160 youth for friendships and 2,200 for electronic communication.

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

Reported rates of communicating by computer at least daily ranged from 12 percent to 46 percent ( $p < .001$ ). Youth with speech/language, hearing, visual, orthopedic, or other health impairments were more likely to have at least daily electronic communication (29 percent to 46 percent did so) than were youth with mental retardation (12 percent;  $p < .001$  compared with youth with hearing, visual, and orthopedic impairments;  $p < .01$  for other relationships). Youth with orthopedic impairments also were reported to be more likely than those with learning disabilities, emotional disturbances, or multiple disabilities to communicate by computer at least daily (46 percent vs. 25 percent, 19 percent, and 20 percent, respectively;  $p < .001$  compared with youth with emotional disturbances,  $p < .01$  for other comparisons), and youth with visual impairments were more likely to do so than youth with emotional disturbances (45 percent vs. 19 percent,  $p < .01$ ).

### ***Differences in Friendship Interactions by High School-Leaving Characteristics***

Youth with disabilities who had completed high school did not differ significantly from those who had not in the frequency with which they saw friends outside of organized activities (table 63); 88 percent and 80 percent of the two groups, respectively, reportedly saw friends informally at least weekly. Neither were there differences between the two groups in the frequency of communicating by computer. Twenty-five percent of youth with disabilities who had completed high school communicated by e-mail or instant messaging or participated in chat rooms at least once a day, compared with 12 percent of those who had not completed high school. There also were no differences in the frequency of either form of friendship interaction

Table 63. Friendship interactions of out-of-high school youth with disabilities, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
			Percent		
In the past year, percentage who saw friends outside of school or work at least weekly	88.3 (3.67)	79.8 (8.71)	†	83.9 (4.78)	88.8 (4.49)
Percentage communicating by computer at least daily	24.5 (3.66)	12.1 (5.90)	22.6 (5.05)	24.1 (5.57)	23.9 (5.87)

† Not applicable; only youth out of high school 1 to 4 years included in this analysis.

NOTE: Standard errors are in parentheses. Findings regarding friendships are reported for youth out of high school from 1 to 4 years so as not to include high school experiences; findings regarding electronic communication are for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples of approximately 1,160 youth for friendships and 2,200 for electronic communication.

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

across the number of years since youth had left high school. The percentages of out-of-high school youth with disabilities who were reported to see friends at least weekly ranged were 84 percent and 89 percent for youth out of high school 1 up to 2 years and 2 up to 4 years, respectively; the percentages communicating by computer at least daily ranged from 23 percent to 24 percent.

### ***Demographic Differences in Friendship Interactions***

The percentage of out-of-high school youth with disabilities who were reported to see friends at least weekly did not differ by youth's household income or racial/ethnic background (table 64). One difference was apparent, however, regarding the frequency with which youth communicated by computer. Thirty-three percent of youth with disabilities from households with incomes of more than \$50,000 were reported to have electronic communication at least daily, compared with 13 percent of youth from households with incomes of \$25,000 or less ( $p < .01$ ). There were no significant differences in the rates of seeing friends outside of organized activities at least weekly or of communicating by computer at least daily between young men and women with disabilities.

Table 64. Friendship interactions of out-of-high school youth with disabilities, by household income, 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	85.8 (5.05)	86.9 (7.37)	87.4 (4.03)	88.4 (3.89)	83.5 (7.94)	84.3 (10.25)	89.2 (3.83)	81.1 (6.08)
Percentage communicating by computer at least daily	12.7 (4.28)	19.0 (6.08)	32.5 (5.52)	27.4 (4.16)	14.3 (5.39)	17.2 (8.89)	23.5 (4.03)	23.5 (5.05)

NOTE: Standard errors are in parentheses. Findings regarding friendships are reported for youth out of high school from 1 to 4 years so as not to include high school experiences; findings regarding electronic communication are for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples of approximately 1,160 youth for friendships and 2,200 for electronic communication.

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

## Community Participation

Engaging in activities in the community can provide opportunities for youth 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 3 interview/survey by out-of-high school youth with disabilities:

- taking lessons or classes outside of formal school enrollment;<sup>4</sup>
- participating in a volunteer or community service activity;<sup>5</sup> and
- belonging to an organized community or extracurricular group.<sup>6</sup>

Because these items refer to activities in the preceding 12 months and because the focus of this report is activities of youth with disabilities after high school, findings for these aspects of community participation are reported only for youth who had been out of secondary school at least a year so as to avoid including secondary school experiences. The full sample of out-of-high school youth with disabilities is included in findings regarding whether age-eligible youth had driving privileges<sup>7</sup> and were registered to vote.<sup>8</sup>

<sup>4</sup> 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?”

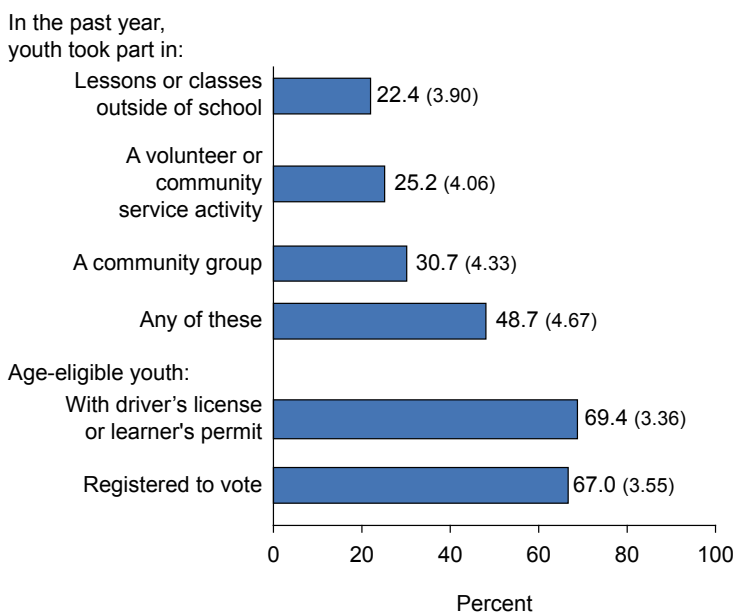
<sup>5</sup> Respondents were asked, “During the past 12 months [have you/has *name of youth*] done any volunteer or community service activities? This could include community service that is part of a school class or other group activity.”

<sup>6</sup> 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?”

<sup>7</sup> Respondents were asked for youth at least 15 years old, “[Do you/does *name of youth*] have a driver’s license or learner’s permit?”

<sup>8</sup> Respondents were asked for youth at least 18 years old, “[Are you/is *name of youth*] registered to vote?”

**Figure 39. Community participation of out-of-high school youth with disabilities**



NOTE: Standard errors are in parentheses. Findings regarding participation in the past year are reported for youth out of high school from 1 to 4 years so as not to include high school experiences; other findings are for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 1,320 to 2,300 youth 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 3 parent interview and youth interview/survey, 2005.

Overall, 49 percent of youth with disabilities who had been out of secondary school from 1 to 4 years were said to have engaged in some kind of extracurricular activity in the preceding year (figure 39), with the rates of participation in extracurricular lessons or classes, volunteer or community service activities, and extracurricular groups ranging from 22 percent to 31 percent. A driver's license or learner's permit had been earned by 69 percent of out-of-high school youth with disabilities. Among age-eligible youth, 67 percent who had been out of secondary school up to 4 years were reported to be registered to vote. This compares with 58 percent of 18- to 24-year-olds in the general population who were registered to vote in 2004 (U.S. Census Bureau 2006).

### ***Disability Differences in Community Participation***

The proportions of out-of-high school youth with disabilities who were reported to have taken part in at least one of the social activities investigated in NLTS2 ranged from 28 percent of youth with mental retardation to 82 percent of youth with visual impairments ( $p < .001$ ; table 65). Youth with visual impairments also were significantly more likely than those with learning disabilities or emotional disturbances to participate in their community (82 percent vs. 51 percent and 46 percent, respectively;  $p < .01$ ), and youth with hearing or other health impairments were more likely than youth with mental retardation to do so (59 percent and 58 percent, respectively, vs. 28 percent;  $p < .01$ ).

Youth with mental retardation and those with visual impairments also demarcated the low and high rates of participation in lessons or classes outside of formal school enrollment (9 percent and 52 percent,  $p < .001$ ). Youth with speech/language or other health impairments also were significantly more likely to experience this form of community participation than youth with mental retardation (37 percent and 32 percent, respectively vs. 9 percent;  $p < .01$  for both comparisons), and youth with visual impairments had a significantly higher rate of

Table 65. Community participation of out-of-high school youth, 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	22.9 (6.02)	36.7 (7.59)	8.6 (4.95)	19.0 (5.43)	32.5 (8.34)	52.4 (11.28)	29.5 (7.75)	31.6 (6.48)	32.1 (12.29)	20.7 (10.68)	32.2 (14.72)	‡
A volunteer or community service activity	25.3 (6.23)	35.2 (7.57)	19.6 (7.02)	24.3 (5.94)	26.3 (7.91)	67.4 (10.73)	28.1 (7.62)	23.9 (5.97)	16.2 (9.70)	28.8 (13.25)	34.4 (14.97)	‡
A community group (e.g., sports team, hobby club, religious group)	35.2 (6.88)	34.5 (7.48)	11.8 (5.70)	23.4 (5.90)	26.4 (7.94)	45.8 (11.33)	25.2 (7.36)	32.8 (6.53)	25.4 (11.46)	20.1 (11.73)	19.4 (12.46)	‡
Any of these	50.5 (7.17)	55.3 (7.83)	28.3 (7.96)	45.8 (6.90)	58.8 (8.73)	82.1 (8.66)	51.5 (8.47)	57.5 (6.88)	50.8 (13.16)	49.8 (14.63)	65.6 (14.97)	‡
Percentage who had a driver's license or learner's permit	76.4 (4.66)	80.2 (4.58)	34.8 (5.78)	64.3 (5.36)	78.5 (5.64)	17.4 (6.68)	47.1 (6.17)	74.9 (4.78)	51.8 (9.53)	82.0 (8.62)	36.3 (9.24)	24.5 (9.98)
Percentage of age-eligible youth registered to vote	66.2 (5.31)	77.8 (4.93)	58.7 (6.22)	69.1 (5.51)	76.5 (6.11)	80.6 (7.16)	75.4 (5.40)	75.3 (4.88)	66.4 (9.12)	78.1 (9.73)	66.3 (9.50)	‡

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

NOTE: Standard errors are in parentheses. Findings regarding participation in the past year are reported for youth out of high school from 1 to 4 years so as not to include high school experiences; other findings are for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 1,320 to 2,300 youth 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 3 parent interview and youth interview/survey, 2005.

participation than those with emotional disturbances (52 percent vs. 19 percent,  $p < .01$ ). Youth with visual impairments also had a significantly higher rate of participation in volunteer or community service activities (67 percent) than did youth in seven disability categories: learning disability (25 percent), mental retardation (20 percent), emotional disturbance (24 percent), hearing impairment (26 percent), orthopedic impairment (28 percent), other health impairment (24 percent), and autism (16 percent) ( $p < .001$  compared with youth with learning disabilities, mental retardation, emotional disturbances, other health impairments, or autism,  $p < .01$  for other comparisons). Overall, the rate of participation in community group activities ranged from 12 percent of youth with mental retardation to 46 percent of youth with visual impairments ( $p < .001$ ); youth with learning disabilities also had a significantly higher rate of such participation than youth with mental retardation (35 percent vs. 12 percent,  $p < .01$ ).

Approximately three-fourths or more of youth with learning disabilities (76 percent); speech/language, hearing, or other health impairments (80 percent, 79 percent, and 75 percent); or traumatic brain injuries (82 percent) were reported to have driving privileges, as were 64 percent of youth with emotional disturbances. In contrast, 36 percent and 35 percent of youth with multiple disabilities or mental retardation, respectively, had a driver's license or learner's permit, as did 25 percent of youth with deaf-blindness and 17 percent of youth with visual impairments ( $p < .001$  for all comparisons except  $p < .01$  comparing youth with emotional

disturbances and those with multiple disabilities). The rates of having a driver's license or learner's permit among youth with learning disabilities; speech/language, hearing, or other health impairments; or traumatic brain injuries (76 percent to 82 percent) also exceeded those with orthopedic impairments (47 percent,  $p < .001$  for all comparisons). Nonetheless, youth with orthopedic impairments or autism (47 percent and 52 percent) were still more likely than those with visual impairments to have a driver's license (17 percent,  $p < .01$  for both comparisons), and youth with traumatic brain injuries were more likely to have one than youth with multiple disabilities or deaf-blindness.

Voter registration rates for age-eligible youth with disabilities ranged from 59 percent to 81 percent across disability categories, a difference that was not statistically significant.

### ***Differences in Community Participation by High School-Leaving Characteristics***

Youth with disabilities who completed high school and those who did not were not significantly different with regard to participation in volunteer or community service activities or organized community groups (table 66). However, other measures of community participation showed higher rates of participation by school completers relative to noncompleters.

High school completers were almost three times as likely as noncompleters to have had some form of community participation (55 percent vs. 20 percent,  $p < .01$ ), and they were more than six times as likely as noncompleters to take extracurricular lessons or classes (26 percent, vs. 4 percent,  $p < .001$ ). Seventy-five percent of high school completers had earned driving privileges, and 72 percent were reported to be registered to vote; 38 percent of noncompleters had each of these forms of community participation ( $p < .001$  for both comparisons).

There were no significant differences in any form of community participation associated with the length of time since youth had left high school. The rates at which youth with disabilities who had been out of high school 1 to 4 years were reported to have taken part in extracurricular lessons or classes in the past year were 25 percent and 20 percent for youth out of high school 1 up to 2 years and 2 up to 4 years, respectively; rates of participation in volunteer or community service activities were 24 percent and 27 percent; and rates of participation in organized community groups were 25 percent and 35 percent. Overall, 46 percent and 51 percent of youth with disabilities in the two age groups reportedly had participated in at least one of these activities in the past year. From 65 percent to 77 percent of youth across years were reported to have a driver's license or learner's permit, and from 60 percent to 73 percent of age-eligible out-of-high school youth were reported to be registered to vote.

Table 66. Community participation of out-of-high school youth with disabilities, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
			Percent		
In the past year, percentage who took part in:					
Lessons or classes outside of school	25.9 (4.73)	3.5 (4.25)	†	25.1 (5.57)	20.1 (5.39)
A volunteer or community service activity	29.2 (4.92)	8.6 (6.48)	†	23.5 (5.45)	26.7 (5.95)
A community group (e.g., sports team, hobby club, religious group)	35.0 (5.16)	11.6 (7.52)	†	25.4 (5.59)	35.4 (6.48)
Any of these	55.0 (5.37)	20.3 (9.29)	†	45.8 (6.40)	51.3 (6.71)
Percentage who had a driver's license or learner's permit	75.4 (3.58)	38.4 (8.52)	64.6 (5.67)	67.7 (6.01)	76.5 (5.59)
Percentage of age-eligible youth registered to vote	72.1 (3.83)	38.4 (9.20)	59.9 (5.98)	72.8 (5.87)	69.9 (6.34)

† Not applicable; only youth out of high school 1 to 4 years included in these analyses.

NOTE: Standard errors are in parentheses. Findings regarding participation in the past year are reported for youth out of high school from 1 to 4 years so as not to include high school experiences; other findings are for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 1,320 to 2,300 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 3 youth interview/survey, 2005.

### ***Demographic Differences in Community Participation***

Only with regard to having driving privileges were there significant differences associated with household income or youth's racial/ethnic background (table 67). Youth with disabilities from the middle or the upper income group were significantly more likely to have driving privileges than youth from households with incomes of \$25,000 or less (75 percent and 83 percent, respectively, vs. 51 percent;  $p < .01$  and  $p < .001$ ). Additionally, White youth were significantly more likely than African American youth to have a driver's license or learner's permit (79 percent vs. 49 percent,  $p < .001$ ). The difference between White and Hispanic youth (79 percent vs. 57 percent) was not significant.

There were no statistically significant differences in any form of community participation between male and female youth with disabilities who had been out of high school from 1 to 4 years. Twenty-two percent of both groups were reported to have taken lessons or classes outside of school; 27 percent and 21 percent of males and females, respectively had taken part in a volunteer or community service activity; 34 percent of males and 23 percent of females were reported to have belonged to an organized community group; and 51 percent and 43 percent, respectively, were reported to have had at least one of these forms of community participation. A driver's license or learner's permit reportedly had been earned by 72 percent of out-of-high school males with disabilities and 64 percent of their female counterparts. Rates of voter registration were reported to be 67 percent for both groups.

Table 67. Community participation of out-of-high school youth with disabilities, by household income, 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	14.1 (5.10)	16.5 (7.58)	35.0 (7.19)	20.9 (4.78)	22.8 (8.43)	32.0 (12.51)	22.4 (4.86)	22.4 (4.69)
A volunteer or community service activity	17.2 (5.53)	28.6 (9.21)	31.8 (7.03)	24.6 (5.07)	25.6 (8.77)	30.8 (12.38)	27.2 (5.19)	21.3 (6.38)
A community group (e.g., sports team, hobby club, religious group)	23.6 (6.22)	23.1 (8.73)	39.7 (7.37)	33.3 (5.58)	25.4 (8.75)	30.1 (12.30)	34.3 (5.54)	23.2 (6.62)
Any of these	41.8 (7.23)	40.2 (9.99)	60.8 (7.35)	48.1 (5.87)	49.7 (10.05)	56.6 (13.29)	51.4 (5.72)	43.2 (7.71)
Percentage who had a driver's license or learner's permit	50.8 (6.22)	75.1 (6.51)	82.8 (4.39)	78.8 (3.72)	49.1 (7.53)	56.5 (11.38)	71.9 (4.16)	64.4 (5.60)
Percentage of age-eligible youth registered to vote	62.3 (6.44)	65.5 (7.25)	70.5 (5.42)	67.4 (4.40)	74.2 (6.88)	61.8 (11.45)	67.0 (4.51)	66.8 (5.68)

NOTE: Standard errors are in parentheses. Findings regarding participation in the past year are reported for youth out of high school from 1 to 4 years so as not to include high school experiences; other findings are for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 1,320 to 2,300 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 3 youth interview/survey, 2005.

## Negative Community Involvement

The preceding section described generally positive modes of community participation involving out-of-high school youth with disabilities. However, the community participation of some youth can have negative repercussions, both for them and for their communities. NLTS2 has investigated two forms of negative community involvement: participating in violence-related activities and involvement with the criminal justice system.

### *Involvement in Violence-Related Activities*

NLTS2 has investigated the reported involvement of youth with disabilities who were at least 18 years old in three forms of violence-related activities: physical fights,<sup>9</sup> carrying a weapon,<sup>10</sup> and belonging to a gang.<sup>11</sup> Because the question about physical fights referred to involvement in the past 12 months and because the focus of this report is on experiences of youth with disabilities after high school, those findings are reported only for youth who had been out of high school at least 1 year, so as to avoid including secondary school experiences. Findings for weapons carrying and gang membership address activities in the preceding 30 days and currently, respectively; thus, they include the full sample of youth with disabilities 18 or older who had been out of high school up to 4 years.

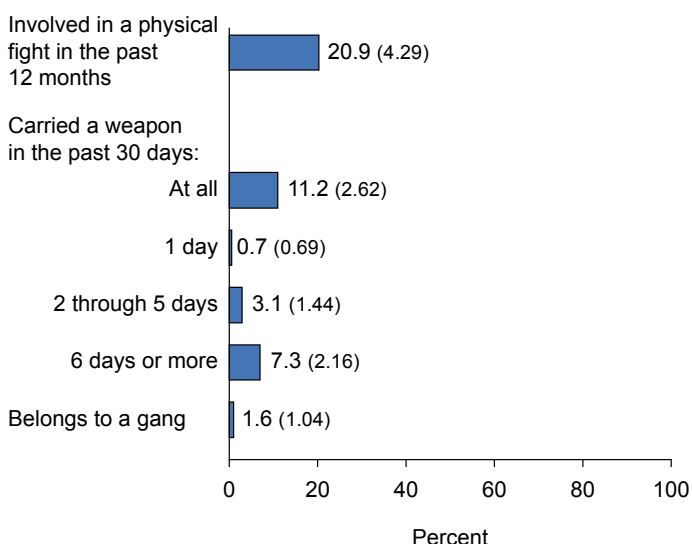
<sup>9</sup> Youth were asked, "In the past 12 months, have you gotten in a physical fight?"

<sup>10</sup> Youth age 18 or older were asked, "During the past 30 days, on how many days did you carry a weapon, such as a gun, knife, or club?"

<sup>11</sup> Youth age 18 or older were asked, "Do you belong to a gang?"



**Figure 40. Participation in violence-related activities of out-of-high school youth with disabilities age 18 or older**



NOTE: Standard errors are in parentheses. Findings regarding participation in the past year are reported for youth out of high school from 1 to 4 years so as not to include high school experiences; other findings are for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 1,030 to 1,700 youth 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 3 youth interview/survey, 2005.

Twenty-one percent of youth with disabilities who had been out of high school 1 to 4 years reported being in a physical fight in the preceding 12 months (figure 40). Additionally, 11 percent of youth who had been out of high school up to 4 years reported carrying a weapon in the past 30 days; 7 percent had carried a weapon 6 or more days in that time period. Two percent of young adults with disabilities out of high school reported belonging to a gang.

### ***Disability Differences in Involvement in Violence-Related Activities***

Across disability categories, from 3 percent of youth with orthopedic impairments to 31 percent of youth with emotional disturbances who had been out of high school 1 to 4 years and were age 18 or older reported being involved in a physical fight in the preceding year ( $p < .001$ ; table 68). In addition to youth with

orthopedic impairments, youth with emotional disturbances also reported significantly higher rates of involvement in physical fights than youth in the categories of speech/language impairment, mental retardation, or autism (31 percent vs. 8 percent, 4 percent, and 5 percent, respectively;  $p < .001$  for all comparisons). Youth with learning disabilities also had a higher rate of participating in fights than youth with orthopedic impairments, mental retardation, or autism (21 percent vs. 3 percent, 4 percent, and 5 percent respectively;  $p < .001$  and  $p < .01$ ).

Table 68. Participation in violence-related activities by out-of-high school youth age 18 or older, by disability category

Violence-related activities	Learning disability	Speech/ language impairment	Mental retardation	Emotional disturbance	Visual impairment	Hearing impairment	Orthopedic impairment	Other health impairment	Autism	Traumatic brain injury	Multiple disabilities	Deaf-blindness
	Percent											
Percentage reporting involvement in a physical fight in the past 12 months	20.6 (4.78)	7.5 (3.33)	3.9 (3.23)	31.0 (5.94)	11.2 (4.92)	12.8 (5.65)	2.5 (2.45)	12.3 (4.18)	5.1 (4.59)	17.4 (9.00)	11.7 (7.56)	‡
Percentage age 18 or older reporting carrying a weapon in the past 30 days	9.9 (3.57)	7.1 (3.29)	9.6 (5.43)	19.8 (5.46)	9.6 (4.67)	14.1 (5.97)	3.2 (2.76)	17.3 (4.89)	1.8 (3.03)	23.3 (10.66)	7.3 (6.82)	‡
Percentage age 18 or older reporting membership in a gang	1.9 (1.63)	#	2.0 (2.56)	0.8 (1.22)	0.5 (1.12)	1.3 (1.94)	0.4 (0.99)	1.9 (1.76)	#	#	0.4 (1.66)	‡

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

NOTE. Standard errors are in parentheses. Findings regarding participation in the past year are reported for youth out of high school from 1 to 4 years so as not to include high school experiences; other findings are for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 1,030 to 1,700 youth.

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

Rates at which out-of-high school youth with disabilities age 18 or older reported carrying a weapon in the preceding 30 days ranged from 2 percent and 3 percent of youth with autism and orthopedic impairments to 20 percent and 23 percent of youth with emotional disturbances or traumatic brain injuries; in the case of youth with emotional disturbances, this was a significantly higher percentage than among youth with orthopedic impairments (20 percent vs. 3 percent;  $p < .01$ ). Youth with emotional disturbances or other health impairments also were significantly more likely to report having carried a weapon in the preceding 30 days than youth with autism (20 percent and 17 percent, respectively, vs. 2 percent;  $p < .01$ ). Rates of reported gang membership among out-of-high school youth ranged from no youth in the categories of speech/language impairment, autism, and traumatic brain injury to 2 percent of youth with learning disabilities or mental retardation, not statistically significant differences.

### ***Differences in Involvement in Violence-Related Activities by High School-Leaving Characteristics***

There were no significant differences in involvement in any of these forms of violence-related activities between high school completers and noncompleters (table 69). Neither were there significant differences in violence-related activities for youth with disabilities who differed in their length of time out of secondary school.

Table 69. Involvement in violence-related activities by out-of-high school youth with disabilities age 18 or older, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
	Percent				
Percentage reporting involvement in a physical fight in the past 12 months	20.3 (4.82)	28.0 (11.45)	†	21.7 (6.06)	20.3 (6.04)
Percentage age 18 or older reporting carrying a weapon in the past 30 days	10.9 (2.95)	11.5 (6.71)	7.9 (3.45)	12.9 (5.07)	13.2 (5.21)
Percentage age 18 or older reporting membership in a gang	1.9 (1.26)	0.8 (1.95)	0.9 (1.21)	0.3 (0.82)	3.5 (2.83)

† Not applicable; only youth out of high school 1 up to 4 years included in this analysis.

NOTE: Standard errors are in parentheses. Findings regarding participation in the past year are reported for youth out of high school from 1 to 4 years so as not to include high school experiences; other findings are for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 1,320 to 2,300 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 3 youth interview/survey, 2005.

### ***Demographic Differences in Involvement in Violence-Related Activities***

There were no significant differences in reported involvement in violence-related activities between youth of different racial/ethnic backgrounds or those who came from households with different income levels (table 70). Young men and women with disabilities also did not differ in their reported participation in physical fights, contrary to the higher prevalence of fighting among males in the general population (Centers for Disease Control 2002). However, they did differ in the proportion who reported carrying a weapon, a gender difference that also was apparent in the general population (Centers for Disease Control 2002). Among youth with disabilities who had been out of high school up to 4 years, 17 percent of males reported carrying a weapon in the past 30 days, compared with 1 percent of females ( $p < .001$ ).

Table 70. Involvement in violence-related activities by out-of-high school youth with disabilities, by household income, race/ethnicity, and gender

	\$25,000 or less	\$25,001 to \$50,000	More than \$50,000	White	African American	Hispanic	Male	Female
	Percent							
Percentage reporting involvement in a physical fight in the past 12 months	27.7 (8.00)	30.2 (9.64)	10.6 (5.30)	16.9 (4.91)	32.2 (9.70)	14.7 (12.41)	24.5 (5.87)	14.5 (5.78)
Percentage age 18 or older reporting carrying a weapon in the past 30 days	12.5 (5.03)	14.4 (5.70)	9.1 (3.72)	10.7 (3.14)	13.3 (5.03)	4.7 (5.03)	17.1 (4.03)	1.0 (1.31)
Percentage age 18 or older reporting membership in a gang	0.7 (1.26)	5.1 (3.57)	0.5 (0.91)	0.5 (0.71)	5.8 (4.07)	0.9 (2.58)	2.6 (1.70)	#

# Rounds to zero.

NOTE: Standard errors are in parentheses. Findings regarding participation in the past year are reported for youth out of high school from 1 to 4 years so as not to include high school experiences; other findings are for youth out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 1,030 to 1,700 youth.

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

## ***Criminal Justice System Involvement***

Becoming involved with the criminal justice system is a negative aspect of community involvement that is more prevalent among youth with disabilities than among youth in the general population. A recent compendium of statistics on the prevalence of juvenile crime among youth 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<sup>12</sup> in the general population (Rutherford et al. 2002); an 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 out-of-high school youth with disabilities who were reported to have

- been stopped by police for other than a traffic violation;<sup>13</sup>
- been arrested;<sup>14</sup>
- spent a night in jail,<sup>15</sup> or
- been on probation or parole.<sup>16</sup>

Findings are reported for the full sample of out-of-high school youth regarding whether they had ever had each of these experiences.<sup>17</sup> 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 3 data collection.

At some time in their lives, 53 percent of out-of-high school youth with disabilities were reported to have been stopped by police for other than a traffic violation (figure 41); 26 percent of youth out of high school 2 to 4 years were reported to have been stopped by police in the

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<sup>12</sup> Youth are those less than 18 years old.

<sup>13</sup> 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?"

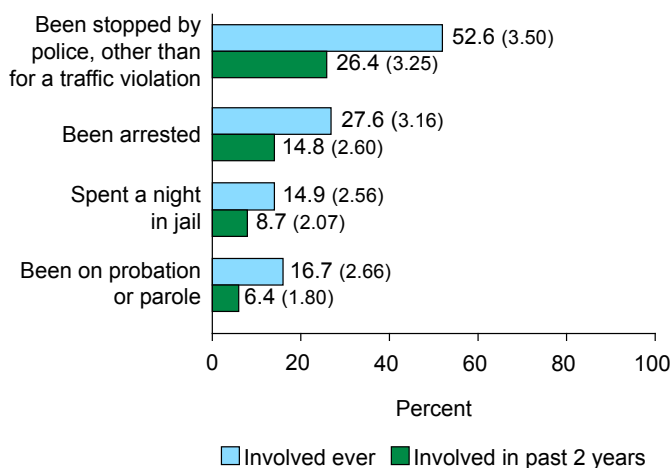
<sup>14</sup> Respondents were asked, "[Have you/has *name of youth*] been arrested at any time in the past 2 years?"

<sup>15</sup> Respondents were asked, "In the past 2 years, [have you/has *name of youth*] been in jail overnight?"

<sup>16</sup> Respondents were asked, "In the past 2 years, [have you/has *name of youth*] been on probation or parole?"

<sup>17</sup> Data on criminal justice system involvement in the preceding 2 years that were collected in Wave 3 were combined with reports of involvement in Waves 1 and 2 to construct variables measuring whether youth had ever experienced each form of involvement.

Figure 41. Criminal justice system involvement by out-of-high school youth with disabilities



NOTE: Standard errors are in parentheses. Findings are reported for youth who had been out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,290 to 2,420 youth 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 3 youth interview/survey, 2005.

preceding 2 years. Twenty-eight percent of youth with disabilities reportedly had been arrested at some time, more than twice the rate for youth in the general population (12 percent,  $p < .001$ ).<sup>18</sup> The rate of arrest in the preceding 2 years for youth with disabilities who had been out of high school during that time was 15 percent. Overall, 15 percent of youth with disabilities had spent a night in jail, and 17 percent had been on probation or parole. Among youth out of high school 2 to 4 years, 9 percent and 6 percent, respectively, had had those experiences in the preceding 2 years.

### ***Disability Differences in Criminal Justice System Involvement***

There were many significant differences across disability categories in the various aspects of involvement with the criminal justice system, particularly involving youth with emotional disturbances (table 71). For all forms of involvement, youth with emotional disturbances were significantly more likely than those in most other categories to have been involved with the criminal justice system. For example, the rates of reported police stops for other than a traffic violation were significantly higher for youth with emotional disturbances (82 percent) than the rates for youth in all disability categories except traumatic brain injury (17 percent to 54 percent,  $p < .001$  for all comparisons except  $p < .01$  compared with youth with other health impairments). Youth with emotional disturbances also had significantly higher rates of being stopped by police in the past 2 years than youth in all other categories (56 percent vs. 7 percent to 28 percent,  $p < .001$  for all comparisons). Sixty percent of youth with emotional disturbances had been arrested at some time, 37 percent within the preceding 2 years. These compare with rates of between 3 percent and 27 percent for youth in all other categories having been arrested and between 1 percent and 16 percent having been arrested in the preceding 2 years ( $p < .001$  for all comparisons except  $p < .01$  for any arrest and for a nonsignificant difference in arrests in the past 2 years compared with youth with traumatic brain injuries).

<sup>18</sup> Calculated from the National Longitudinal Study of Adolescent Health, (Add Health), Wave 3, 2001–02, for out-of-high school 18- to 21-year-olds.

Table 71. Criminal justice system involvement of out-of-high school youth, by disability category

Criminal justice system involvement	Learning disability	Speech/language impairment	Mental retardation	Emotional disturbance	Visual impairment	Hearing 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	52.0 (5.28)	42.0 (5.56)	33.7 (5.66)	81.8 (4.05)	36.9 (6.55)	31.2 (7.99)	17.3 (4.65)	54.4 (5.18)	28.6 (8.34)	63.3 (10.91)	31.1 (8.60)	29.5 (10.58)
In past 2 years	23.3 (4.69)	23.7 (4.94)	17.8 (4.65)	56.3 (5.62)	22.0 (5.79)	21.1 (7.20)	7.3 (3.24)	28.0 (4.95)	10.2 (5.70)	25.1 (9.83)	16.8 (7.18)	10.2 (7.02)
Arrested												
Ever	24.7 (4.61)	20.4 (4.61)	16.9 (4.48)	60.1 (5.18)	11.6 (4.38)	6.9 (4.40)	3.1 (2.12)	26.6 (4.67)	8.8 (5.17)	27.2 (9.88)	10.7 (5.72)	14.9 (8.13)
In past 2 years	12.8 (3.68)	10.4 (3.52)	9.3 (3.50)	36.7 (5.34)	7.5 (3.64)	5.7 (4.04)	1.5 (1.50)	12.4 (3.60)	0.9 (1.74)	16.3 (8.26)	3.0 (3.25)	3.7 (4.31)
Spent a night in jail												
Ever	11.2 (3.47)	7.8 (3.08)	14.3 (4.19)	39.4 (5.30)	5.9 (3.25)	5.7 (4.04)	1.5 (1.50)	18.1 (4.12)	2.1 (2.64)	11.8 (7.16)	3.9 (3.65)	3.7 (4.31)
In past 2 years	7.6 (2.92)	3.9 (2.23)	6.4 (2.95)	21.5 (4.63)	5.3 (3.10)	4.8 (3.72)	0.9 (1.17)	6.9 (2.78)	0.9 (1.74)	8.7 (6.30)	2.0 (2.67)	3.7 (4.31)
Been on probation or parole												
Ever	14.7 (3.83)	8.8 (3.25)	10.4 (3.67)	39.1 (5.26)	6.1 (3.30)	2.0 (2.44)	1.0 (1.23)	15.8 (3.89)	1.2 (2.01)	19.8 (8.86)	6.8 (4.71)	#
In past 2 years	6.4 (2.69)	3.1 (2.00)	3.3 (2.15)	13.6 (3.88)	2.7 (2.24)	2.0 (2.44)	0.3 (0.68)	4.8 (2.35)	0.9 (1.74)	3.8 (4.32)	2.4 (2.92)	#

# Rounds to zero.

NOTE: Standard errors are in parentheses. Findings are reported for youth who had been out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,290 to 2,420 youth 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 3 youth interview/survey, 2005.

Rates of overnight incarceration and being on probation or parole were both 39 percent for youth with emotional disturbances. Rates for youth in categories other than emotional disturbance ranged from 2 percent to 18 percent for overnight incarceration and from 1 percent to 20 percent for being on probation or parole ( $p < .001$  for all comparisons except  $p < .01$  for any arrest compared with youth with other health impairments or traumatic brain injuries and a nonsignificant relationship with ever being on probation or parole for youth with traumatic brain injuries). The rate of reported overnight incarceration in the past 2 years was 22 percent among youth with emotional disturbances, whereas rates ranged from 1 percent to 9 percent among youth in all other categories; only in the cases of youth with learning disabilities or traumatic brain injuries did these differences fail to reach statistical significance ( $p < .01$  compared with youth with mental retardation; hearing, visual, or other health impairments; or deaf-blindness;  $p < .001$  for other comparisons). Fourteen percent of youth with emotional disturbances were reported to have been on probation or parole in the past 2 years, compared with between less than 1 percent and 6 percent of youth in other categories ( $p < .01$  compared with youth with autism;  $p < .001$  compared with youth with orthopedic impairments; other relationships were not statistically significant).

Youth with other health impairments, the disability category that includes youth whose primary disability category is attention deficit or attention-deficit/hyperactivity disorder (ADHD), were significantly more likely than youth in several disability categories to have been involved with the criminal justice system. They were reported to have higher rates of ever experiencing each form of criminal justice system involvement (54 percent, 27 percent, 18 percent and 16 percent for ever being stopped by police, arrested, jailed over night, and on probation or parole, respectively) than youth with orthopedic impairments (17 percent, 3 percent, 2 percent, and 1 percent, respectively;  $p < .001$  for all comparisons). Youth with other health impairments also had significantly higher rates of police stops, overnight incarcerations, and probation or parole than youth with autism (29 percent, 9 percent, and 1 percent, respectively;  $p < .001$  for probation or parole,  $p < .01$  for other comparisons). Youth with other health impairments had a higher rate of arrest and probation or parole than youth with visual impairments (27 percent and 16 percent, respectively, vs. 12 percent and 6 percent;  $p < .01$  for both comparisons), a higher rate of ever having been involved in police stops than youth with mental retardation (54 percent vs. 34 percent,  $p < .01$ ), and a higher rate of overnight incarceration than youth with multiple disabilities (18 percent vs. 4 percent,  $p < .01$ ). Regarding involvement with the criminal justice system in the preceding 2 years, the only differences between youth with other health impairments and youth in other categories that attained statistical significance involved police stops for youth with orthopedic impairments (28 percent vs. 7 percent,  $p < .001$ ) and arrests for both youth with orthopedic impairments and those with autism (12 percent vs. 2 percent and 1 percent,  $p < .01$  for both comparisons).

Youth with learning disabilities were significantly more likely than youth with orthopedic impairments ever to have experienced police stops, arrest, or probation or parole (52 percent, 25 percent, and 15 percent, respectively, vs. 17 percent, 3 percent, and 1 percent;  $p < .001$  for all comparisons). The rates of police stops and arrests in the preceding 2 years also were significantly higher for youth with learning disabilities than for youth with orthopedic impairments (23 percent and 13 percent, respectively, vs. 7 percent and 2 percent;  $p < .01$  for both comparisons). Youth with learning disabilities also were reported to be more likely than youth with autism ever to have been on probation or parole or to have been arrested in the preceding 2 years (15 percent and 13 percent vs. 1 percent for each experience,  $p < .01$  for both comparisons). Additionally, youth with learning disabilities were more likely than youth with visual impairments ever to have been arrested or on probation or parole (25 percent and 15 percent, respectively, vs. 12 percent and 6 percent;  $p < .01$  for both comparisons). Finally, youth with speech/language impairments were more likely than those with orthopedic impairments both ever to have been stopped by police or to have been arrested (42 percent and 20 percent, respectively vs. 17 percent and 3 percent;  $p < .001$  for both comparisons).

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

On three of the indicators of criminal justice system involvement, youth who had not finished high school were significantly more likely than those who had to have violated the law sufficiently to have required police response (table 72). Seventy-three percent of noncompleters were reported to have been stopped by police other than for a traffic violation at some point, compared with 48 percent of completers ( $p < .01$ ), and 49 percent of noncompleters reportedly had been arrested at some time, compared with 22 percent of completers ( $p < .01$ ). Similarly, 33 percent of high school noncompleters had spent a night in jail, three times as many as the

Table 72. Criminal justice system involvement by out-of-high school youth with disabilities, by secondary-school-leaving status and years since leaving high school

	Completers	Non-completers	Less than 1 year	1 up to 2 years	2 up to 4 years
	Percent				
Stopped by police for other than a traffic violation					
Ever	48.4 (4.05)	73.2 (7.09)	52.0 (5.70)	54.3 (6.25)	52.0 (6.20)
In the past 2 years	23.4 (3.55)	46.2 (8.85)	25.0 (5.15)	26.3 (5.67)	28.2 (6.08)
Arrested					
Ever	22.2 (3.39)	48.7 (8.21)	22.3 (4.82)	27.0 (5.63)	33.5 (5.87)
In the past 2 years	13.3 (2.82)	23.6 (7.52)	12.8 (3.96)	16.3 (4.75)	15.8 (4.83)
Spent a night in jail					
Ever	11.0 (2.58)	32.6 (7.89)	9.3 (3.40)	13.8 (4.40)	22.4 (5.38)
In the past 2 years	7.0 (2.13)	18.3 (6.85)	5.9 (2.80)	10.0 (3.86)	10.9 (4.17)
On probation or parole					
Ever	13.4 (2.80)	30.5 (7.68)	11.9 (3.78)	14.0 (4.43)	23.9 (5.39)
In the past 2 years	5.2 (1.86)	12.9 (5.89)	4.8 (2.54)	8.2 (3.53)	6.9 (3.37)

NOTE: Standard errors are in parentheses. Findings are reported for youth who had been out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,290 to 2,420 youth 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 3 youth interview/survey, 2005.

11 percent of school completers who had done so ( $p < .01$ ). However, reported rates of ever having been on probation or parole and rates of all forms of criminal justice system involvement in the preceding 2 years were not significantly different for the two groups. Neither was any measure of criminal justice system involvement, either ever or in the preceding 2 years, significantly different by length of time since leaving high school.

### ***Demographic Differences in Criminal Justice System Involvement***

There were no statistically significant differences in reported criminal justice system involvement between out-of-high school youth with disabilities from households with different income levels or those who differed in their racial/ethnic backgrounds (table 73). However, on two measures of criminal justice system involvement, significant gender differences were apparent. Males were more likely than females ever to have been stopped by police other than for a traffic violation (59 percent vs. 38 percent,  $p < .01$ ) and to have been arrested (33 percent vs. 17 percent,  $p < .01$ ). Reported rates also were more than twice for males than for females regarding having spent a night in jail (19 percent vs. 8 percent) and having been on probation or parole (20 percent vs. 9 percent); however, these differences were not statistically significant. No differences between genders in their rates of involvement in the criminal justice system in the preceding 2 years were significant.



Table 73. Criminal justice system involvement by out-of-high school youth with disabilities, by household income, 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	54.7 (6.01)	58.4 (7.07)	48.0 (5.57)	50.4 (4.35)	56.6 (7.22)	51.6 (11.26)	59.4 (4.30)	38.4 (5.64)
In the past 2 years	26.9 (5.58)	29.5 (7.02)	23.6 (4.97)	21.8 (3.81)	37.2 (7.26)	19.1 (9.15)	31.2 (4.32)	16.4 (4.39)
Arrested								
Ever	27.4 (5.40)	35.3 (6.95)	23.4 (4.76)	26.1 (3.87)	34.5 (6.79)	20.1 (9.07)	32.8 (4.16)	16.5 (4.29)
In the past 2 years	15.0 (4.45)	16.2 (5.55)	14.7 (4.14)	12.1 (2.98)	23.4 (6.27)	8.5 (6.41)	17.6 (3.54)	9.1 (3.36)
Spent a night in jail								
Ever	16.9 (4.54)	15.3 (5.36)	14.1 (4.02)	12.5 (2.99)	24.1 (6.13)	12.5 (7.55)	18.6 (3.53)	7.6 (3.09)
In the past 2 years	6.1 (3.00)	10.6 (4.66)	9.9 (3.49)	7.0 (2.33)	15.8 (5.47)	5.0 (5.01)	10.8 (2.90)	4.5 (2.43)
On probation or parole								
Ever	13.6 (4.16)	23.8 (6.27)	15.6 (4.13)	17.2 (3.36)	21.6 (5.96)	6.6 (5.63)	20.2 (3.61)	9.3 (3.37)
In the past 2 years	3.4 (2.28)	8.1 (4.11)	8.6 (3.28)	5.3 (2.05)	13.4 (5.11)	3.7 (4.36)	7.5 (2.46)	4.4 (2.40)

NOTE. Standard errors are in parentheses. Findings are reported for youth who had been out of high school up to 4 years. NLTS2 percentages are weighted population estimates based on samples that range from approximately 2,290 to 2,420 youth.

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

## Summary

This chapter has examined the friendship interactions, community participation, and negative forms of community involvement of youth with disabilities who had been out of high school up to 4 years. NLTS2 findings suggest that these youth had active friendships—87 percent were reported to see friends outside of organized activities at least weekly. Some also used electronic forms of communication (e-mail, instant messaging, or chat room)—48 percent communicated by computer at least once a week, and 24 percent did so once a day or more. In addition to these informal friendship interactions, reported participation rates in three types of extracurricular activities—lessons or classes outside of school, volunteer or community service activities, and organized school or community groups—ranged from 22 percent to 31 percent of youth, with 49 percent participating in at least one of them. Two-thirds of youth had driving privileges, and 69 percent of age-eligible youth were reported to be registered to vote. However, some youth with disabilities did not take part in relationships or activities in these ways. For example, 6 percent of youth were reported never to see friends outside of organized activities, and 51 percent did not take part in any of the three extracurricular activities mentioned above.

In contrast to these generally positive forms of social and community involvement, several negative forms of participation or involvement also characterized the out-of-high school experiences of some youth with disabilities. For example, 21 percent reported having been in a

physical fight in the past year, 11 percent reported carrying a weapon in the past 30 days, and 2 percent reported being gang members. Fifty-three percent of out-of-high school youth with disabilities reported they had at some time been stopped and questioned by police for reasons other than a traffic violation, and 28 percent had been arrested. Spending a night in jail and being on probation or parole had been experienced by 15 percent and 17 percent of youth with disabilities, respectively.

Many significant differences were apparent across disability categories in youth's social and community involvement in the early years after high school. For example, the rate at which youth saw friends weekly ranged from 33 percent of youth with multiple disabilities to 92 percent of youth with learning disabilities; the likelihood of having earned driving privileges ranged from 17 percent among youth with visual impairments to 82 percent for those with traumatic brain injuries. Youth in some categories participated at higher rates in some forms of social and community activities but participated at lower rates in others. For example, youth with learning disabilities were significantly more likely than those with orthopedic impairments to see friends at least weekly (92 percent vs. 65 percent), whereas those with orthopedic impairments were much more likely than their peers with learning disabilities to communicate at least daily by computer (46 percent vs. 25 percent).

Youth in some categories demonstrated a consistent pattern of participation across measures. For example, those with visual impairments demarcated the high point in the disability category distribution of each of the three forms of extracurricular activities investigated in NLTS2: 52 percent had taken lessons or classes in the past year, compared with 9 percent to 37 percent of youth in other categories; 67 percent had participated in volunteer or community service activities, compared with 16 percent to 35 percent of youth in other categories; and 46 percent had been members of a community group, compared with 12 percent to 35 percent of others. In contrast, youth with emotional disturbances consistently reported higher rates of involvement in violence-related activities and with the criminal justice system than youth in most other categories. For example, youth with emotional disturbances had significantly higher rates of been stopped by police in the past 2 years (56 percent), ever arrested (60 percent), and arrested in the past 2 years (37 percent) than youth in all other categories (7 percent to 28 percent, 3 percent to 27 percent, and 1 percent to 16 percent, respectively).

High school completers and noncompleters differed significantly from each other in some forms of social and community involvement, but not all. For example, they did not differ in their likelihood of seeing friends frequently, participating in volunteer or community service activities, or being involved in violence-related activities. However, school completers were significantly more likely than noncompleters to take part in other kinds of community activities. For example, 26 percent of completers took lessons or classes outside of school, compared with 4 percent of noncompleters. Those who finished high school also were more likely to have driving privileges (75 percent vs. 38 percent) and to be registered to vote (72 percent vs. 38 percent). In contrast, noncompleters were significantly more likely than completers to have been involved with the criminal justice system in each of the four ways investigated in NLTS2; for example, 49 percent of noncompleters had been arrested, and 31 percent had been on probation or parole, compared with 22 percent and 13 percent of completers, respectively. None of the forms of social and community involvement addressed in this chapter differed significantly with the length of time youth with disabilities had been out of high school.

Demographic factors generally did not distinguish youth with disabilities in their post-high school social and community participation. Exceptions were that youth from the highest income group were significantly more likely to communicate frequently by computer than those in the lowest income group (33 percent vs. 13 percent) and youth in both the highest and middle income groups were more likely to have earned driving privileges than youth in lowest group (83 percent and 75 percent vs. 51 percent). White youth with disabilities also were more likely than African American youth to have a driver's license or learner's permit (79 percent vs. 49 percent). A gender difference was apparent with regard to the proportion of youth who reported having carried a weapon in the past 30 days, with higher rates reported for males (17 percent vs. 1 percent). Males also were more likely than females to have been stopped by police other than for a traffic violation (59 percent vs. 38 percent) and to have been arrested (33 percent vs. 17 percent).



## **7. A National Picture of the Post-High School Experiences of Youth With Disabilities out of High School up to 4 Years**

NLTS2 provides a unique source of information to help in developing an understanding of the experiences of secondary school students with disabilities nationally in their early adult years. This report documents the postsecondary education, employment, independence, and social experiences of youth with disabilities who had been out of secondary school up to 4 years. The major findings that have emerged from these analyses are highlighted below.

### **Engagement in School, Work, and Preparation for Work**

By the time youth with disabilities had been out of high school up to 4 years, almost 9 in 10 (85 percent) were reported to have been productively engaged in postsecondary education, employment, or job training activities. Employment was the most common of these activities among out-of-high school youth with disabilities; close to three-quarters (72 percent) had been employed at some time since leaving high school. For more than one-third of youth (36 percent), employment was their only mode of engagement.

Youth in the general population were more likely to be employed at the time they were interviewed than were similar-age youth with disabilities (66 percent vs. 57 percent). On average, youth with disabilities who had been out of high school from 1 to 4 years had held two to three jobs during that time, and they had stayed at a job for a shorter period, on average, than those in the general population (10 months vs. 15 months). More than half (58 percent) of youth with disabilities worked full time, earning an hourly wage of \$8.20, on average. Thirty-three percent received paid vacation or sick leave benefits, 28 percent received health insurance, and 26 percent received retirement benefits from their employer. Wages and receipt of benefits did not differ significantly between youth with disabilities and their general population peers.

Almost one in five youth with disabilities (18 percent) were reported to be involved in both employment and postsecondary education concurrently—juggling the demands of going to school while working. Approximately two in five youth with disabilities (45 percent) had continued on to postsecondary education within 4 years of leaving high school, a rate exceeded by the 53 percent of their peers in the general population who had done so. Of those with disabilities who continued their education, 7 in 10 attended postsecondary school full time.

Postsecondary students with disabilities were more likely to enroll in 2-year or community colleges (32 percent) than in vocational, business, or technical schools (23 percent) or 4-year colleges (14 percent). Youth with disabilities were about as likely as those in the general population to be going to a 2-year or community college. However, youth in the general population were almost four times as likely as youth with disabilities to be enrolled in a 4-year college or university (29 percent vs. 8 percent). Students with disabilities who attended the various types of postsecondary institutions focused on a broad range of majors, with those at 2-year colleges being more likely to concentrate on an academic than a vocational course of study (57 percent vs. 29 percent).

Most students (89 percent) who were enrolled in postsecondary school at the time of the interview reported that they were working toward a diploma or certificate. Fewer students with

disabilities who left postsecondary school had graduated than initially anticipated doing so when they were in high school; 29 percent of postsecondary school leavers had graduated or completed their program.

## **Accommodations and Supports From Postsecondary Schools and Employers**

When students with disabilities leave high school and enter postsecondary schools, the responsibility for arranging for accommodations and supports shifts from a school to the student. To receive accommodations or supports for a disability from postsecondary schools, students first must disclose a disability to the schools. However, disclosure of a disability is voluntary. More than half (55 percent) of postsecondary students who were identified by their secondary schools as having a disability did not consider themselves to have a disability by the time they had transitioned to postsecondary schools. An additional 8 percent considered themselves to have a disability but chose not to disclose it to their postsecondary schools. Thirty-seven percent of postsecondary students with disabilities identified themselves as having a disability and had informed their postsecondary schools of their disability.

Less than one-quarter (24 percent) of postsecondary students who were identified as having a disability by their secondary schools were reported to receive any accommodations or supports from their postsecondary schools because of their disability. In contrast, when these postsecondary students were in high school, more than three times as many (84 percent) received some type of accommodation or support because of their disability.

Postsecondary students who were given assistance because of their disability received a range of accommodations and supports from their schools. Additional time to complete tests was the most frequently received type of assistance, received by 68 percent of those who received accommodations or supports.

Postsecondary students were reported to receive help with their schoolwork other than support received from their schools because of their disability. Approximately two in five (45 percent) received some type of help, including tutoring or help from a study center, irrespective of their disability. Forty-four percent sought help on their own outside of what their postsecondary schools provided. Forty-nine percent of students who received help with their schoolwork from these various sources reported that these supports were very useful, and 42 percent reported that they definitely were getting enough assistance.

For youth who were employed, 19 percent had employers who were reported to be aware of the youth's disability. Three percent of employed youth received accommodations from their employers because of a disability. For these youth, job accommodations included a variety of individual adaptations, ranging from specialized materials or technology, such as large-print materials or use of a TTY, to supports, such as interpreters and job coaches, to modifications to assignments and scheduling and supervision accommodations.

## **The Period of Early Adulthood**

Some youth with disabilities who had been out of high school up to 4 years had begun to pass several markers on the path to adulthood. However, others had yet to make these transitions in terms of residential independence, sexual relationships, formation of partnerships, parenthood, and financial independence.

With approximately one-quarter having lived independently at some point since leaving high school, youth with disabilities were about as likely as youth in the general population to have lived away from their parents' home. Those who lived at home tended to be less satisfied with their residential arrangement and were more than twice as likely as those who lived independently or semi-independently<sup>1</sup> to report that they would prefer living somewhere other than their current living arrangement (45 percent vs. 17 percent).

Many youth with disabilities were sexually active. By the time youth with disabilities had left high school and were 18 or older, 73 percent reported having had sexual intercourse. Eighty-seven percent of sexually active youth reported having used contraception the last time they had intercourse. Eleven percent of youth with disabilities had had or had fathered a child by the time they had been out of high school up to 4 years, and a similar percentage were married or living in a marriage-like relationship. An additional 7 percent were engaged to be married. Although 56 percent had savings accounts and 28 percent had a credit card in their own name, few had the resources to live independently or provide for a family. Eighty-nine percent had annual incomes of \$25,000 or less, and more than half (54 percent) earned less than \$5,000 per year.

### **Social and Interpersonal Networks**

Many youth with disabilities reported active friendships. Eighty-seven percent saw friends outside of school or organized activities at least weekly, and about one-quarter (28 percent) were reported to interact with friends almost daily. More than one in five (24 percent) used electronic means of communication (i.e., e-mail, chat rooms, instant messaging) once a day or more, and almost half (48 percent) did so at least weekly. Almost half (49 percent) of youth with disabilities who had been out of secondary school from 1 to 4 years had engaged in some kind of extracurricular activity in the preceding year, including taking lessons or classes outside of formal school enrollment, participating in a volunteer or community service activity, or belonging to an organized community or extracurricular group.

### **Negative Community Involvement**

Involvement in violence-related activities and with the criminal justice system are two negative aspects of community involvement. Approximately one-fifth (21 percent) of youth with disabilities who had been out of secondary school 1 to 4 years reported having been in a physical fight in the preceding 12 months. Additionally, 11 percent of youth 18 years or older reported having carried a weapon in the past 30 days. Two percent of young adults with disabilities reported belonging to a gang.

Criminal justice system involvement was more prevalent among youth with disabilities than among youth in the general population. Almost 3 in 10 out-of-high school youth with disabilities (28 percent) reportedly had been arrested at some point, more than twice the rate for youth in the general population (12 percent). Fifteen percent of youth with disabilities had spent a night in jail, and 17 percent had been on probation or parole. More than half (53 percent) had been stopped by police for other than a traffic violation.

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<sup>1</sup> Youth were considered to live independently if they lived alone, with a spouse, or with a roommate. Youth were considered to live semi-independently if they were living in a college dormitory, military housing, or group home.

## Variations by Disability Category

Youth varied widely by disability category in their post-high school experiences, as noted below.

**Youth with visual or hearing impairments.** Youth in these disability categories experienced patterns of post-high school outcomes quite different from those experienced by youth in many other categories. For example, youth with visual or hearing impairments were more likely to attend postsecondary school (78 percent and 72 percent, respectively) than were those with speech/language or other health impairments (55 percent), orthopedic impairments (54 percent), learning disabilities (47 percent), multiple disabilities (35 percent), emotional disturbances (34 percent), or mental retardation (27 percent).

Youth with visual or hearing impairments also were more likely to consider themselves to have a disability (83 percent and 71 percent, respectively) than were youth in the categories of orthopedic, other health, or speech/language impairment (69 percent, 43 percent, and 27 percent, respectively); mental retardation (60 percent); traumatic brain injury (57 percent); learning disability (43 percent); or emotional disturbance (37 percent). Postsecondary students with visual or hearing impairments were more likely to have disclosed that disability to their postsecondary schools (79 percent and 65 percent, respectively) than were youth with orthopedic, other health, or speech/language impairments (63 percent, 38 percent, and 18 percent, respectively); mental retardation (56 percent); traumatic brain injuries (52 percent); learning disabilities (36 percent); or emotional disturbances (21 percent). Youth with visual or hearing impairments also were more likely to have received accommodations and supports from their schools (58 percent and 56 percent, respectively) than were youth in the categories of traumatic brain injury; orthopedic impairment, other health, or speech/language impairment; mental retardation; learning disability; and emotional disturbance (ranging from 13 percent to 46 percent). Employed youth with visual or hearing impairments also were more likely to have disclosed a disability to employers (65 percent and 60 percent, respectively) compared with youth with other health impairments (29 percent), mental retardation (25 percent), emotional disturbances (18 percent), learning disabilities (16 percent), and speech/language impairments (15 percent).

More postsecondary students with visual or hearing impairments attended school full time (84 percent and 79 percent) than youth in the categories of autism (60 percent), multiple disabilities (51 percent), or traumatic brain injury (49 percent), leaving less time to work full time. Consistent with their higher postsecondary school attendance rate, youth with visual or hearing impairments were more likely to have lived in a semi-independent setting (e.g., a college dormitory; 18 percent and 13 percent, respectively) than were youth with emotional disturbances (5 percent), other health impairments (4 percent), multiple disabilities (3 percent), or mental retardation (less than 1 percent).

Youth with visual or hearing impairments also were more likely to use computers at least daily to e-mail, instant message, or participate in chat rooms (39 percent and 45 percent, respectively) compared with youth with emotional disturbances (19 percent) or mental retardation (12 percent). Youth with visual impairments also were more likely than these two categories of youth to have taken lessons or classes outside of formal school enrollment (52 percent vs. 19 percent and 9 percent, respectively). Youth with visual impairments also had a significantly higher rate of participation in volunteer or community service activities (67 percent) than did youth in seven disability categories: learning disability (25 percent); mental retardation



(20 percent); emotional disturbance (24 percent); hearing, orthopedic, and other health impairment (26 percent, 28 percent, and 24 percent, respectively); and autism (16 percent). Youth with visual impairments also were more likely to have belonged to an organized community or extracurricular group than youth with mental retardation (46 percent vs. 12 percent).

**Youth with emotional disturbances.** In contrast to the experiences of youth with sensory impairments, youth in several categories were more likely than those with emotional disturbances to have enrolled in postsecondary programs, including youth with visual or hearing impairments, autism, and other health, speech/language, or orthopedic impairments (34 percent vs. 78 percent, 72 percent, 58 percent, 55 percent, 54 percent, respectively). Youth with emotional disturbances who were enrolled in postsecondary programs were more likely than youth in several other disability categories to report that they did not consider themselves to have a disability; 63 percent of youth with emotional disturbances reported having that perception, compared with 31 percent of youth with autism; 29 percent and 17 percent, respectively, of youth with hearing or visual impairments; and 19 percent of youth with multiple disabilities. Thus, youth in several other categories were more likely than those with emotional disturbances to have informed their schools of a disability, including youth with visual, hearing, or orthopedic impairments; multiple disabilities, mental retardation, or autism (21 percent vs. 79 percent, 65 percent, 63 percent, 79 percent, 56 percent, and 55 percent, respectively). Youth with multiple disabilities or visual, hearing, or orthopedic impairments also were more likely than those with emotional disturbances to have received accommodations or supports because of disability (67 percent, 58 percent, 56 percent, and 40 percent, respectively vs. 13 percent).

Employment was more likely to have been their only mode of productive engagement in the community (35 percent) than was the case for youth with autism (15 percent); deaf/blindness (14 percent); hearing, visual, or orthopedic impairments (13 percent, 10 percent, and 9 percent, respectively); or traumatic brain injuries (11 percent). Youth with emotional disturbances who were employed were more likely to work full time (56 percent) than youth with orthopedic impairments (38 percent), autism (22 percent), or visual impairments (23 percent).

Youth with emotional disturbances also were more likely to report ever having had sexual intercourse (78 percent) compared with youth in the categories of autism (21 percent); orthopedic, visual, hearing, orthopedic, or other health impairments (26 percent, 41 percent, 45 percent, 56 percent, and 61 percent, respectively); multiple disabilities (39 percent); or mental retardation (58 percent). They also had a pattern of greater involvement in violence-related activities. They were more likely to report having been involved in physical fights (31 percent) than youth with speech/language impairments (8 percent), mental retardation (4 percent), or autism (5 percent) and to report having carried a weapon than youth with orthopedic impairments or autism (20 percent vs. 3 percent and 2 percent, respectively).

Involvement with the criminal justice system also was more common for youth with emotional disturbances than those in many other categories. They were more likely to have been stopped by police other than for a traffic violation (82 percent) than youth in all other categories except traumatic brain injury (17 percent to 54 percent) and to have spent a night in jail (39 percent) than youth in all other categories (2 percent to 18 percent). Youth with emotional disturbances were more likely to have been arrested (60 percent) than youth in all of the other categories, whose arrest rates ranged from 3 percent to 27 percent. They also were more likely to

have been on probation or parole (39 percent) than youth in all other categories (1 percent to 20 percent).

**Youth with mental retardation or multiple disabilities.** These youth experienced yet another pattern of post-high school outcomes. For example, youth with other health impairments were more likely than either youth with mental retardation or multiple disabilities to report ever having been engaged in school, work, or preparation for work since leaving high school (92 percent vs. 66 percent and 65 percent). Youth with learning disabilities or visual or hearing impairments also significantly exceeded youth with mental retardation in their rates of engagement (89 percent, 88 percent, and 86 percent, respectively). Additionally, youth with multiple disabilities who were employed were more likely than youth with speech/language impairments, learning disabilities, or emotional disturbances to report that employers were aware of their disabilities (54 percent vs. 15 percent, 16 percent, and 18 percent, respectively), and their employers were more likely to have provided them with disability-related accommodations (31 percent) than youth with learning disabilities (1 percent) or speech/language impairments or emotional disturbances (2 percent).

Similarly, in the postsecondary education domain, students with multiple disabilities were more likely to have reported considering themselves as having a disability than those with speech/language impairments or emotional disturbances (81 percent vs. 27 percent and 37 percent, respectively). Students with multiple disabilities also were more likely to receive accommodations or supports because of a disability than were those with speech/language impairments, emotional disturbances, or other health impairments (67 percent vs. 10 percent, 13 percent, and 19 percent, respectively).

In the social domain, 33 percent of youth with multiple disabilities reported seeing friends informally at least weekly. This rate was exceeded by youth in the categories of learning disability and visual impairment (92 percent), emotional disturbance (84 percent), and speech/language, hearing, and other health impairment (88 percent, 82 percent, and 79 percent, respectively). At least daily electronic communication was more commonly reported for youth with speech/language, hearing, visual, orthopedic, or other health impairments (33 percent, 39 percent, 45 percent, 46 percent, 29 percent, respectively) than for youth with mental retardation (12 percent). Youth with visual, hearing, or other health impairments also were more likely than youth with mental retardation to have belonged to an organized community group, taken extracurricular lessons or classes, or taken part in volunteer service activities (82 percent, 59 percent, and 58 percent, respectively, vs. 28 percent). Approximately three-fourths or more of youth with learning disabilities (76 percent); speech/language, hearing, or other health impairments (80 percent, 79 percent, and 75 percent, respectively); or traumatic brain injury (82 percent) were reported to have driving privileges, as were 64 percent of youth with emotional disturbances, significantly higher rates than the 36 percent and 35 percent of youth with multiple disabilities or mental retardation, respectively, who had a driver's license or learner's permit.

Regarding financial independence, youth in most disability categories were more likely to have used several types of financial tools than were youth with mental retardation. Compared with youth with mental retardation, youth with hearing or other health impairments were more likely to have a savings account (65 percent and 66 percent, respectively, vs. 41 percent), a checking account (63 percent and 58 percent, respectively, vs. 26 percent), or credit card (37 percent and 36 percent, respectively, vs. 9 percent), and those with visual or speech/language

impairments or learning disabilities (71 percent, 57 percent, and 49 percent, respectively) were more likely to have a checking account (71 percent, 57 percent, and 49 percent, respectively) or credit card (51 percent, 34 percent, and 31 percent). Youth with orthopedic impairments also were more likely to have a checking account than those with mental retardation (57 percent vs. 26 percent). Also, youth in several categories were more likely than those with multiple disabilities to have lived independently; 29 percent of youth with learning disabilities, 22 percent of youth with emotional disturbances, and 24 percent of youth with speech/language impairments had done so, compared with 5 percent of those with multiple disabilities.

Despite these disability category differences, there were youth within each disability category who experienced positive transition outcomes. From 65 percent to 92 percent of those in every disability category had engaged in school, work, or training for work since leaving high school. With the exception of youth with multiple disabilities, more than half of youth in each category (59 percent to 92 percent) saw friends at least weekly, and from 59 percent to 81 percent were registered to vote.

In addition, there were some dimensions on which significant disability category differences were not apparent. For example, there were no significant differences across categories in the percentages of youth enrolled in vocational, business, or technical schools, and the average hourly wage did not differ by disability category.

### **Differences in Experiences by High School Completion Status**

High school completers (those who graduated, received a certificate of attendance or completion, or who passed a high school exit exam or completed a GED program) were more likely to experience several positive post-high school outcomes than were the approximately 20 percent of youth with disabilities who left high school without finishing. High school completers were three times as likely as noncompleters to have enrolled in a postsecondary school (51 percent vs. 17 percent). Although completers did not differ significantly from noncompleters in their rate of living independently, they were more likely to have lived in a semi-independent setting (e.g., a college dormitory, 6 percent vs. 0 percent), which is consistent with their having been more likely to continue their education at the postsecondary level. School completion status was not significantly related to rates of employment; however, school completers were more likely than those who had not finished high school to use financial tools, such as savings or checking accounts or credit cards. Youth who had completed high school were approximately three times as likely to have a checking account or credit card (53 percent vs. 13 percent and 32 percent vs. 8 percent), and 60 percent of youth who had completed high school had a savings account, compared with 35 percent of youth who had not completed school.

High school completers and noncompleters differed significantly from each other in some forms of social and community involvement, but not all. For example, they did not differ in their likelihood of seeing friends frequently, participating in volunteer or community service activities, or being involved in violence-related activities. However, high school completers were almost three times as likely as noncompleters to have had some form of community participation (55 percent vs. 20 percent), and they were more than six times as likely as noncompleters to take extracurricular lessons or classes (26 percent, vs. 4 percent). Seventy-five percent of high school completers had earned driving privileges, and 72 percent were reported to be registered to vote; 38 percent of noncompleters had each of these forms of community participation. Youth who left

school without finishing were more likely to have been involved with the criminal justice system, including being stopped by police other than for a traffic violation (73 percent vs. 48 percent), arrested (49 percent vs. 22 percent), and put in jail overnight (33 percent vs. 11 percent).

## **Demographic Differences in Post-High School Experiences**

Youth with disabilities differed in many respects other than the nature of their disability or their school completion status, including differences in gender, race/ethnicity, and household income. Differences were apparent across youth demographic characteristics for some post-high school outcomes but not for others.

Postsecondary school enrollment; engagement in school, work, or training for work; and most aspects of independence, including residential arrangements, marital status, having driving privileges, and using personal financial management tools, were similar for young men and women with disabilities. However, some gender differences were apparent. Males were more likely than females to work full time (68 percent vs. 35 percent) and to work in skilled labor positions (16 percent vs. 0 percent) and gardening and grounds maintenance jobs (9 percent vs. 0 percent). Involvement in violence-related activities and with the criminal justice system also was more prevalent for males than females. Males were more likely than females to report carrying a weapon in the preceding 30 days (17 percent vs. 1 percent), to have been stopped by police other than for a traffic violation (59 percent vs. 38 percent), and to have been arrested (33 percent vs. 17 percent).

Youth with disabilities who came from households with different income levels were similar in several aspects of their post-high school experiences. For example, social and community involvement, residential independence, parenting status, and involvement in violence-related activities or with the criminal justice system did not differ significantly by household income. However, youth from wealthier families were more likely than their peers to experience several positive outcomes. Those from households with incomes of more than \$50,000 were almost twice as likely than their peers from the lowest income households (\$25,000 or less) to have enrolled in postsecondary school (57 percent vs. 30 percent), to have been employed since leaving high school (81 percent vs. 61 percent), and to have been productively engaged in education, employment, or job training since leaving high school (93 percent vs. 75 percent). They also were more likely to have a savings account (69 percent vs. 40 percent), a checking account (60 percent vs. 29 percent), or a credit card (44 percent vs. 11 percent). Additionally, youth with disabilities in the highest income group were more likely to be reported to have electronic communication at least daily than youth from households in the lowest income group (33 percent vs. 13 percent), and youth with disabilities from the middle and the upper income groups were significantly more likely to have driving privileges than youth from households with incomes of \$25,000 or less (75 percent and 83 percent, respectively, vs. 51 percent).

Similarities and differences also were apparent for youth with different racial/ethnic backgrounds. There were no significant differences across racial/ethnic groups in the likelihood of having been enrolled in postsecondary school, in social or community involvement, in parenting status, and in involvement in violence-related activities or with the criminal justice system. However, White youth were more likely to have been employed since high school and at

the time of the interview than their African American peers (80 percent and 63 percent vs. 47 percent and 35 percent) and to have a checking account and driver's license (55 percent and 79 percent vs. 24 percent and 49 percent). Employers of White youth were more likely to be reported to be aware of the youth's disability than were employers of African American or Hispanic youth (24 percent vs. 6 percent and 5 percent), and White youth were more likely than Hispanic youth to live independently (29 percent vs. 10 percent).

### **Cautions in Interpreting Findings**

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

- The analyses are descriptive; none of the findings should be interpreted as implying causal relationships. Nor should differences between disability categories be interpreted as reflecting disability differences alone because of the confounding of disability and other demographic factors.
- Although discussions in the report emphasize only differences that reach a level of statistical significance of at least  $p < .01$ , the large number of comparisons made in this report will result in some apparently significant differences, even at this level, being “false positives”—that is, type I errors. Readers also are cautioned that the meaningfulness of differences reported here cannot be derived from their statistical significance.

This report provides a national picture of the post-high school experiences of youth with disabilities who had been out of high school up to 4 years, how these experiences differed across disability categories and demographic groups, and, when data are available, how they compared with those of youth in the general population.



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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<sup>1</sup> 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.

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<sup>1</sup> 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.

## 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 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<sup>2</sup> 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).

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<sup>2</sup> 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.



**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);
- 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.

## **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. Assuming a 50 percent sampling efficiency (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 were 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.<sup>3</sup> 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. 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 2,670) who were out of high school at the time of Wave 3 data collection and who have data from the Wave 3 youth telephone interview or mail survey or the Wave 3 parent telephone interview (2005). In addition to Wave 3 data, nine variables<sup>4</sup> that were created for this report indicate whether a youth had had a particular experience "since high school." Fifty-one percent

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<sup>3</sup> Students who were designated as being in ungraded programs also were sampled if they met the age criteria.

<sup>4</sup> The nine variables that focused on youth's experiences "since high school" included employment status, wages, number of hours worked at current or most recent job, number of hours worked at all jobs, number of paid jobs, receipt of TANF, receipt of Food Stamps, classes taken to earn a high school diploma or certificate, and living arrangements.

of out-of-school respondents had left high school since the Wave 2 data collection; thus, Wave 3 data are all that are required to generate values for these variables for them. However, the remainder of the out-of-school respondents were already out of school in Wave 2. Thus, data from both Waves 2 and 3 needed to be taken into account to generate values for variables measuring experiences “since high school.” Wave 2 data also were used to determine whether youth had completed high school or left without completing and the year in which they left. Wave 2 data collection mirrored procedures followed for Wave 3. The Wave 2 youth telephone interview produced data for approximately 800 youth included in the sample that forms the basis of this report, the mail questionnaire generated data for approximately 70 youth, and parent interviews provided data for approximately 270 youth, for a total of approximately 1,140 sample members.

Because of the relatively small percentage of youth enrolled in postsecondary schools, Wave 2 data also were used to augment data for variables related to the postsecondary education experiences of students who had been enrolled in these types of schools. Variables included those related to timing and intensity of enrollment, course of study, receipt of accommodations and supports, and postsecondary school completion. Including Wave 2 data increased the sample size, enabling broader analyses of these variables, particularly analyses by disability category. For these variables, those youth who did not have Wave 3 data but who were out of high school in Wave 2 and had Wave 2 data, these data were combined with the responses of postsecondary attendees in Wave 3. Wave 3 data account for 86 percent to 97 percent of the variables related to postsecondary experiences, with a mean of 89 percent variables.

Wave 1 parent telephone interview or mail survey data are the source for data about youth’s gender, race/ethnicity, and household income. The NLTS2 Student’s School Program Survey (Wave 1 for youth who were out of school in Wave 2 and Wave 2 for youth who were still in school at that time) was the source for one item reported in chapter 5 regarding whether youth had received reproductive-health/pregnancy-prevention education during high school. Finally, 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. Each source is described below. Although Wave 3 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 3.

### ***Wave 1 Parent Interview/Survey<sup>5</sup>***

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.

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<sup>5</sup> All NLTS2 instruments are available on the NLTS2 website, [www.nlts2.org](http://www.nlts2.org).

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.

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.

Table A-1 reports the sample members for whom there are data from the Wave 1 Parent telephone/mail survey and from Waves 2 and 3 Parent Part 1 and Parent Part 2 telephone interviews and Youth Part 2 telephone/mail surveys.

Table A-1. Response rates for NLTS2 Waves 1 through 3 parent/youth data collection

Respondents	Number	Percent
<b>Wave 1</b>		
Total eligible sample	11,276	100.0
Respondents		
Completed telephone interview	8,672	76.9
Completed partial telephone interview	300	2.7
Completed mail questionnaire	258	2.3
Total respondents	9,230	81.9
Total nonrespondents	2,046	18.1
<b>Wave 2</b>		
Total eligible sample	8,210	100.0
Respondents		
Completed Parent Part 1 telephone interview	6,859	83.5
Completed Parent Part 2 telephone interview	2,962	36.1
Completed Youth Part 2 telephone interview or mail questionnaire	3,360	41.9
Total respondents with Part 1 and either Parent or Youth Part 2	6,322	77.0
Total nonrespondents (no parent or youth data)	1,352	16.5
<b>Wave 3</b>		
Total eligible sample	7,988	100.0
Respondents		
Completed Parent Part 1 telephone interview	5,188	65.0
Completed Parent Part 2 telephone interview	1,576	19.7
Completed Youth Part 2 telephone interview or mail questionnaire	3,287	41.1
Total respondents with Part 1 and either Parent or Youth Part 2	4,664	58.4
Total respondents with Parent Part 1 or Parent Part 2, or Youth Part 2	5,368	67.2
Total nonrespondents (no parent or youth data)	2,620	32.8

## Combining Parent and Youth Data

As noted above, for youth who had a Wave 2 parent interview through which they were determined to be eligible for a youth interview/survey, interviews with both parents and youth were pursued simultaneously. Anticipating that for some youth, only one of the two interviews would be completed, items related to key post-high school outcomes were included in both interviews. If a youth interview/survey was completed, youth's responses to these items 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, and worked for pay in the past 2 years, and whether currently employed youth earned less than \$5.15 per hour, \$5.15 to \$6.00 per hour, \$6.01 to \$7.00 per hour, or more than \$7.00 per hour, their responses agreed from 69 percent to 80 percent of the time. The greatest congruence (80 percent) is noted regarding youth's current employment status. There was 78 percent congruence evident regarding employment in the preceding 2 years and 74 percent agreement regarding whether youth belonged to an organized group in the community. Congruence on wages earned by youth at the current job had the lowest level of congruence (69 percent). Among incongruent cases, youth were about twice as likely as parents were to report the higher wage (21 percent vs. 10 percent).

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)
Youth currently working for pay	79.5	8.9	11.6
Current hourly wage	68.9	10.2	20.9
Youth worked for pay in past 2 years	78.0	7.9	14.1
Youth belongs to an organized group in the community	74.4	7.0	22.4

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 3 Parent/Youth Data

The percentages and means reported in the data tables throughout this report are estimates of the true values for the population of youth with disabilities in the NLTS2 age range. The response for each sample member is weighted to represent the number of youth 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 youth 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 youth with disabilities as a group. In this example, 10 youth 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 youth 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 youth with disabilities because many more youth 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 youth in the population who are from each disability category (actual NLTS2 weights account for disability category and several aspects of the districts from which youth 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
<b>Total</b>	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 youth 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 process:

- For each of the 64 LEA sampling cells, an LEA student sampling weight was computed. This weight is the ratio of the number of students in participating LEAs in that cell divided by the number of students in all LEAs in that cell in the universe of LEAs. The weight represents the number of students in the universe who are represented by each student in the participating LEAs. For example, if participating LEAs in a particular cell served 4,000 students and the universe of LEAs in the cell served 400,000 students, then the LEA student sampling weight would be 100.
- For each of the 64 LEA cells, the number of students in a disability category was estimated by multiplying the number of students with that disability on the rosters of participating LEAs in a cell by the adjusted LEA student sampling weight for that cell. For example, if 350 students with learning disabilities were served by LEAs in a cell and the LEA student sampling weight for that cell was 100 (that is, each student in the sample of participating LEAs in that cell represented 100 students in the universe), there would be an estimated 35,000 students with learning disabilities in that cell in the universe.
- For the state schools, the number of students in each disability category was estimated by multiplying the number of students with that disability on the rosters by the inverse of the proportion of state schools that submitted rosters.
- Initial student weights were calculated for each cell by disability as the estimated number of students in that cell divided by the number of respondents in that cell.
- Weights were adjusted by disability category by using a raking algorithm so that the sum of the weights by geographic region, wealth, LEA size, and ethnicity was equal to the estimated national distribution for that disability. The adjustments were typically small and essentially served as a nonresponse adjustment. However, the adjustments could become substantial when there were relatively few interviewees (as occurred in the small and medium strata for the lowest-incidence disabilities) because in these cases, there might not be any interviewees in some cells, and it was necessary to adjust the weights of other interviewees to compensate. Two constraints were imposed on the adjustments: (1) within each size stratum, the cells' weights could not vary from the average weight by more than a factor of 2, and (2) the average weight within each size stratum could not be larger than 4 times the overall average weight. These constraints substantially increased the efficiency of the sample at the cost of introducing a small amount of weighting bias.
- In a final step, the weights were adjusted so that they summed to the number of students in each disability category, as reported to OSEP by the states for the 2000–01 school year (Office of Special Education Programs 2001).

## 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 youth's current postsecondary enrollment is 23.5 percent, with a standard error of 2.67 (as reported in chapter 2, figure 2), 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 not easily implemented in the Statistical Analysis System (SAS), 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

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

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 pseudoreplication 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 tends 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.

## 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 youth the pattern of response to the two items. Responses to items (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) 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  $F(1, \text{infinity})$  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

Table A-4. Definitions of disabilities

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**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.**<sup>1</sup> 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.

See notes at end of table.

Table A-4. Definitions of disabilities—Concluded

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<p><b>Orthopedic impairment.</b> 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.</p>
<p><b>Other health impairment.</b> 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.<sup>2</sup></p>
<p><b>Specific learning disability.</b> 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.</p>
<p><b>Speech or language impairment.</b> A communication disorder such as stuttering, impaired articulation, language impairment, or a voice impairment that adversely affects a child's educational performance.</p>
<p><b>Traumatic brain injury.</b> 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.</p>
<p><b>Visual impairment, including blindness.</b> An impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness.</p>

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<sup>1</sup> 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."

<sup>2</sup> 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).

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.

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 youth with deaf-blindness more precisely, students who were reported by parents or by schools or school districts<sup>6</sup> 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 youth are publicly available (e.g., the National Longitudinal Survey of Youth), comparisons have been calculated from those databases for youth 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 youth) 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.

A number of interview items related to post-high school experiences were presented to respondents as open-ended questions, with no predefined response categories. For example:

- “What kind of work do you do for this job?” (asked of employed youth).
- “What services, accommodations, or other help have you received?” (asked of postsecondary school students who reported seeking help at school).
- “What was the main reason you quit?” (asked of youth who quit their previous or most recent job).

For each such question, interviewers had a set of response categories into which they coded responses when the match of the response to the categories was straightforward. For example, a response from a youth who reported he quit his most recent job because “it was September and I was going back to school” could readily be assigned to the precoded category of “went back to school.” When responses did not readily match precoded categories, interviewers were trained to record the verbatim response and leave the item uncoded. Approximately the first 100 verbatim responses for each question were then reviewed by the survey data team to identify responses that were frequent enough to develop additional precoded categories and responses that could be included in existing precoded categories by expanding the response category description (e.g., “went back to school” could be expanded to include “started school” without changing the intent of the category to identify youth who left employment to pursue their education). New categories or expanded category definitions were then incorporated.

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<sup>6</sup> 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 Youth 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 the subset (67 percent) of youth no longer in secondary school in 2005. Understanding the characteristics of out-of-high school youth with disabilities is important for interpreting their after-high school experiences. Tables B-1 through B-3 describe this subsample—youth with disabilities who were out of high school and for whom data were reported, either by youth themselves or by their parents, as part of the NLTS2 Wave 3 parent and youth telephone interviews and youth mail survey. They report data for youth as a group and for

those for whom parents and youth themselves, respectively, were respondents.

The out-of-high school youth subsample, like the universe of secondary-school-age youth with disabilities, is heavily dominated by youth with learning disabilities; 64 percent of youth represented by the out-of-high school subsample were classified for special education services in the learning disability category when they were in high school. At 13 percent and 10 percent, respectively, the categories of emotional disturbance and mental retardation are the second and third largest categories. All other categories comprise 13 percent of the weighted sample. The disability category distributions of the groups of youth for whom parents were respondents and those who responded for themselves do not differ significantly.

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

Primary disability category	All out-of-high school youth	Parent respondents	Youth respondents
	Percent		
Learning disability	64.3 (2.98)	58.8 (7.17)	65.9 (3.62)
Speech/language impairment	3.2 (1.10)	2.4 (2.23)	3.4 (1.39)
Mental retardation	10.2 (1.88)	12.5 (4.82)	9.8 (2.27)
Emotional disturbance	13.0 (2.09)	16.5 (5.4)	11.5 (2.44)
Hearing impairment	1.2 (0.68)	1.3 (1.67)	1.2 (0.83)
Visual impairment	0.5 (0.42)	0.4 (0.93)	0.5 (0.55)
Orthopedic impairment	0.9 (0.60)	0.8 (1.27)	1.1 (0.81)
Other health impairment	5.0 (1.36)	3.8 (2.77)	5.3 (1.71)
Autism	0.4 (0.37)	0.7 (1.17)	0.3 (0.42)
Traumatic brain injury	0.3 (0.33)	0.4 (0.92)	0.2 (0.36)
Multiple disabilities	1.0 (0.62)	2.4 (2.22)	0.6 (0.60)
Deaf-blindness	0.1 (0.19)	0.1 (0.55)	0.1 (0.22)

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 1 parent interviews, 2001, Wave 3 parent and youth telephone interview/mail survey, 2005.

The majority of out-of-high school youth (79 percent) were reported by parents to have high functional cognitive skills,<sup>1</sup> from 8 percent to 26 percent had at least some limitation in the functional domains reported in table B-2, and almost one-third (31 percent) had excellent health. There were no significant differences between respondent groups on these measures.

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

	All out-of-high school youth	Parent respondents	Youth respondents
Functional characteristics	Percent		
Functional cognitive skills scale score:			
High (13-16)	78.9 (2.67)	78.4 (7.74)	79.2 (3.25)
Medium (8-12)	17.5 (2.53)	12.1 (5.89)	19.2 (3.15)
Low (4-7)	2.7 (1.07)	9.5 (5.29)	1.6 (1.00)
Youth had at least "some trouble":			
Seeing	12.8 (2.21)	9.2 (5.23)	14.0 (2.77)
Speaking	23.6 (2.84)	33.2 (8.59)	23.9 (3.44)
Understanding speech	25.8 (2.90)	38.5 (2.99)	24.7 (3.44)
Conversing with others	24.9 (2.90)	39.5 (8.92)	22.9 (3.40)
Using one or more appendages	8.2 (1.82)	9.3 (5.27)	7.6 (13.9)
Youth's general health was excellent	30.7 (2.97)	40.9 (8.88)	24.4 (3.28)

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 1 parent interviews, 2001, Wave 3 parent and youth telephone interview/mail survey, 2005.

The majority of out-of-high school youth were identified as having a disability at school entry or in their early years in school (table B-3); 43 percent were reported by parents to have had their disability first identified at ages of 5 to 7, although more than one-fourth (26 percent) had had their disabilities first identified in their infant, toddler, or preschool years. The majority of out-of-high school youth first began receiving special education services in elementary school, with 43 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 age disability was first identified or services were first received were apparent between the two respondent groups.

<sup>1</sup> 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 youth respondents and those for whom parents responded

Youth's age	All out-of-high school youth	Parent respondents	Youth respondents
	Percent		
Disability first identified at age:			
Birth-1	11.0 (2.14)	14.4 (5.76)	9.5 (2.41)
2-4	15.4 (2.46)	22.3 (6.83)	14.5 (2.90)
5-7	42.6 (3.37)	33.2 (7.72)	45.3 (4.10)
8-10	22.7 (2.85)	26.6 (7.24)	20.4 (3.32)
11 or older	8.3 (1.88)	3.5 (3.02)	10.4 (2.51)
Special education services in school first received at age:			
5-7	43.3 (3.43)	49.1 (8.59)	42.9 (4.09)
8-10	32.3 (3.24)	33.3 (8.10)	32.2 (3.86)
11-13	19.7 (2.75)	14.8 (6.10)	21.0 (3.37)
14 or older	4.7 (1.47)	2.80 (2.85)	3.90 (1.61)

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 1 parent interviews, 2001, Wave 3 parent and youth telephone interview/mail survey, 2005.

## Distribution of Demographic Characteristics Across Disability Categories

Findings in this report are presented for youth with disabilities as a group and then are reported separately for youth in each federal special education disability category. When differences are significant, findings also are reported for youth 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 youth with disabilities, as well as being distributed differently across disability categories.

Table B-4 presents demographic characteristics of out-of-high school youth with disabilities overall and within each disability category.<sup>2</sup>

This report represents youth who were in the 18- to 21-year-old age range. Fewer youth were at the older and younger ends of the age range than in the middle. Sixteen percent of youth were 18-year-olds and 20 percent were 21-year-olds, compared with 28 percent who were 19-year-olds ( $p < .001$  for comparison with 18-year-olds) and 37 percent who were 20-year-olds ( $p < .001$  for both comparisons). Fewer youth with speech/language impairments (9 percent) than youth with disabilities as a group (20 percent) were in the oldest age category (21 years old,  $p < .01$ ).

<sup>2</sup> See Wagner et al. (2003) for relationships of demographic factors and disability categories for the full NLTS2 sample.

Twenty percent of out-of-high school youth with disabilities left high school without a diploma or a certificate of completion.<sup>3</sup> More youth with emotional disturbances (36 percent) than those with disabilities overall (20 percent) did not complete high school ( $p < .01$ ).

Table B-4. Demographic characteristics of out-of-high school youth 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													
18	15.7 (2.26)	14.5 (3.27)	18.2 (3.93)	16.9 (3.99)	22.0 (3.81)	11.3 (3.74)	8.7 (4.53)	11.8 (3.74)	15.3 (3.51)	10.8 (5.43)	4.8 (4.45)	11.6 (4.99)	13.5 (6.79)
19	27.7 (2.78)	29.7 (4.25)	31.9 (4.74)	21.2 (4.36)	22.1 (3.82)	22.5 (4.95)	28.2 (7.23)	25.7 (5.06)	28.8 (4.42)	17.1 (6.59)	26.7 (9.20)	26.8 (6.91)	13.5 (6.79)
20	36.6 (2.99)	35.1 (4.44)	40.7 (5.00)	38.8 (5.19)	38.0 (4.46)	43.6 (5.87)	40.9 (7.90)	43.1 (5.73)	39.6 (4.77)	43.4 (8.67)	60.6 (10.17)	38.0 (7.57)	47.4 (9.91)
21	20.0 (2.48)	20.6 (3.76)	9.2 (2.94)	23.1 (4.49)	17.8 (3.52)	22.6 (4.95)	22.2 (6.67)	19.4 (4.57)	16.3 (3.61)	28.7 (7.92)	7.9 (5.62)	23.7 (6.63)	25.5 (8.65)
High school-leaving status													
Completed high school	80.0 (2.57)	82.4 (3.66)	82.3 (3.96)	79.4 (4.45)	64.3 (4.52)	88.6 (3.81)	91.3 (4.62)	88.1 (3.80)	81.8 (3.84)	89.0 (5.39)	87.2 (7.11)	88.5 (5.30)	92.4 (5.60)
Did not complete high school	20.0 (2.57)	17.6 (3.66)	17.7 (3.96)	20.6 (4.45)	35.7 (4.52)	11.4 (3.81)	8.7 (4.62)	11.9 (3.80)	18.2 (3.84)	11.0 (5.39)	12.8 (7.11)	11.6 (5.30)	7.6 (5.60)
Gender													
Male	68.2 (2.89)	68.7 (4.31)	56.7 (5.04)	57.9 (5.26)	77.6 (3.84)	51.3 (5.92)	47.8 (8.02)	57.1 (5.73)	74.2 (4.27)	84.0 (6.42)	72.6 (9.28)	67.8 (7.29)	60.1 (9.72)
Female	31.8 (2.89)	31.4 (4.31)	43.3 (5.04)	42.2 (5.26)	22.4 (3.84)	48.7 (5.92)	52.3 (8.02)	42.9 (5.73)	25.8 (4.27)	16.0 (6.42)	27.4 (9.28)	32.2 (7.29)	40.0 (9.72)
Race/ethnicity													
White	63.2 (3.00)	63.2 (4.48)	70.8 (4.63)	51.7 (5.32)	64.4 (4.40)	64.1 (5.68)	65.8 (7.63)	64.9 (5.53)	75.1 (4.22)	75.3 (7.55)	69.6 (9.57)	67.9 (7.29)	59.9 (9.73)
African American	20.1 (2.49)	17.4 (3.52)	14.1 (3.54)	39.0 (5.20)	23.8 (3.91)	16.0 (4.34)	15.4 (5.80)	17.0 (4.35)	13.1 (3.29)	17.6 (6.67)	17.7 (7.94)	15.9 (5.71)	10.6 (6.11)
Hispanic	12.7 (2.07)	14.7 (3.29)	11.3 (3.23)	7.6 (2.82)	9.1 (2.65)	14.3 (4.14)	13.0 (5.40)	13.9 (4.01)	7.9 (2.62)	3.3 (3.13)	10.7 (6.42)	11.9 (5.05)	29.5 (9.06)
Household income													
\$25,000 or less	34.7 (3.05)	31.6 (4.44)	24.9 (4.66)	61.5 (5.46)	39.0 (4.60)	21.4 (5.10)	28.0 (7.49)	33.6 (5.36)	23.9 (4.26)	20.6 (7.37)	29.0 (9.85)	26.8 (7.12)	35.9 (10.45)
\$25,001 - \$50,000	28.0 (2.88)	29.9 (4.37)	25.3 (4.68)	19.0 (4.40)	28.2 (4.24)	28.2 (5.60)	28.8 (7.56)	22.2 (4.71)	24.2 (4.28)	25.0 (7.89)	35.3 (10.38)	26.5 (7.10)	28.0 (9.78)
More than \$50,000	37.3 (3.10)	38.5 (4.64)	49.8 (5.38)	19.5 (4.44)	32.9 (4.43)	50.4 (6.22)	43.2 (8.26)	44.3 (5.63)	51.9 (4.99)	54.4 (9.08)	35.7 (10.40)	46.7 (8.02)	36.1 (10.46)

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 3 parent and youth telephone interview/mail survey, 2005.

<sup>3</sup> This includes 19 percent of youth who were reported to have dropped out and 1 percent who reportedly left high school without finishing for other reasons (e.g., permanent expulsion).

Whereas about half of youth in the general population (51 percent) were male,<sup>4</sup> more than two-thirds of out-of-high school youth with disabilities (68 percent) were male ( $p < .001$ ). Youth with different disability classifications did not differ significantly in their gender balance when compared with youth with disabilities overall.

Youth 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 youth in the general population<sup>5</sup> but 20 percent of youth with disabilities ( $p < .01$ ). Youth with mental retardation were more likely to be African American than were youth with disabilities as a group (39 percent vs. 20 percent,  $p < .01$ ).

Youth with disabilities who were out of high school were more likely than those in the general population to have parents' households with lower income levels. Approximately one-third of those with disabilities (35 percent) included in this report had families with incomes of \$25,000 or less; in comparison, 29 percent<sup>6</sup> of their peers in the general population lived in low-income-level households ( $p < .01$ ). There were few significant differences by disability category in comparison with household incomes of youth with disabilities overall, with the exception that youth with mental retardation (62 percent) were more likely to come from families with incomes of \$25,000 or less than were youth with disabilities as a group (35 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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<sup>4</sup> General population data computed for 16- to 20-year-olds, using United States Census Bureau 2000 data.

<sup>5</sup> See footnote 4.

<sup>6</sup> See footnote 4.