1. THE CHANGING WORLD OF YOUTH WITH DISABILITIES AFTER HIGH SCHOOL

By Mary Wagner

Since the early 1980s, when *A Nation at Risk* (National Commission on Excellence in Education, 1983) sounded a clear warning about the condition of American education, there have been extensive federal, state, and local efforts to improve schools for all students. At the federal level, these have most recently been codified in The No Child Left Behind Act (NCLB) of 2001, which emphasizes the need for accountability, flexibility, parent involvement, and evidence-based instruction in the education of all students in public schools, including those with disabilities. Efforts on behalf of all students have paralleled compatible initiatives focused explicitly on improving the education and outcomes of students who receive special education services, culminating in the Individuals with Disabilities Education Act (IDEA), as amended in 2004. These most recent amendments demonstrate legislative commitment to access to the general education curriculum, high academic performance standards, goal-oriented planning for the transition from secondary school to adult life, and accountability for results for students with disabilities.

In an effort to document changes in the secondary school experiences of students with disabilities since the mid-1980s, the Office of Special Education Programs (OSEP) of the U.S. Department of Education has sponsored two longitudinal research projects 15 years apart. The National Longitudinal Transition Study (NLTS) generated nationally representative information about secondary-school-age youth who were receiving special education services in 1985.[1] To assess the status of youth with disabilities[2] in the early 21st century, OSEP commissioned the National Longitudinal Transition Study-2 (NLTS2).[3] It addresses many of the same issues as NLTS but extends its scope. Key features of the two studies are summarized in Exhibit 1-1.

Previous comparisons of findings for youth who were represented in NLTS with those represented in NLTS2 illuminate the extent to which and ways in which youth with disabilities, special education, and student outcomes have changed in the years between the studies (Wagner, Cameto, & Newman, 2003; Wagner, Newman, & Cameto, 2004). For example, comparative analyses reveal an increased emphasis on students with disabilities taking academic courses, including mathematics, science, social studies, and a foreign language, as a foundation for pursuing postsecondary education. Moreover, increasingly, students with disabilities are receiving their instruction in regular schools, and those who take academic courses are more likely to do so in general education classrooms. Teachers of those general education classes also are more likely to receive a variety of supports to help them meet the needs of students with

[1] NLTS methods and postschool findings are summarized in Blackorby and Wagner (1996). A more complete summary and a list of reports available from NLTS are available at http://www.sri.com/policy/cehs/dispolicy/nlts.html.

[2] Although the populations represented in NLTS and NLTS2 are youth who were receiving special education services, for convenience, the broader phrase "youth with disabilities" is used to describe them in this report.

[3] Additional information on the NLTS2 design and on reports available from the study can be found at http://www.nlts2.org.

Exhibit 1-1
KEY FEATURES OF NLTS AND NLTS2

NLTS (referred to as cohort 1)	NLTS2 (referred to as cohort 2)
Study Duration	
• 1984 through 1993	• 2001 through 2010
Sample Members	
• Youth receiving special education, ages 15 through 23 in the 1985-86 school year. The oldest youth for whom data were collected were age 27 in Wave 2 (1990) and had been out of secondary school up to 5 years.	• Youth ages 13 through 16 and receiving special education in grade 7 or above in December 2000. The oldest youth will be 26 when the last data are collected.
Population to Which Findings Generalize	
• Youth with disabilities as a whole nationally and youth in each federal special education disability category individually.	• Youth with disabilities as a whole nationally and youth in each federal special education disability category individually.
Data Sources	
• Wave 1: Parents (telephone interviews); school record abstracts (information abstracted by school personnel from students' high school records); principals (school background survey). • Wave 2: Parents (telephone interviews); youth (telephone interviews); school staff best able to describe students' overall school program (school program survey); principals (school background survey); students' high school transcripts.	• Wave 1: Parents (telephone interviews, mail survey); youth (direct assessment of academic abilities, youth in-person interview on attitudes toward school); teachers (general education teacher survey); school staff best able to describe students' overall school program (student's school program survey); principals (school characteristics survey); students' high school transcripts. • Wave 2: Parents (telephone interviews); youth (telephone interviews, mail survey, direct assessment of academic abilities, youth in-person interview on attitudes toward school); teachers (general education teacher survey); school staff best able to describe students' overall school program (student's school program survey); students' high school transcripts. • Waves 3 and 4: Parents (telephone interviews); youth (telephone interviews, mail survey); students' high school transcripts. • Wave 5: Parents (telephone interviews); youth (telephone interviews, mail survey).
Years of Data Collection	
• Wave 1 parent interviews, 1987 • Wave 1 school data collection, 1985-86 or 1986-87 school year • Wave 2, all data, 1990	• Wave 1 parent interviews/mail survey, 2001 • Wave 1 school data collection and direct assessments of youth, 2001-02 school year • Wave 2 parent/youth interviews and mail survey, 2003 • Wave 2 school data collection and direct assessments of youth, 2003-04 school year • Wave 3, 2005 • Wave 4, 2007 • Wave 5, 2009

disabilities in their classes. Increased related and support services of various kinds also are provided directly to students, with particularly large increases noted for speech/language therapy and vocational and mental health services. Students' grades also have improved, a larger proportion are at the appropriate grade level for their age, and parents' expectations for students with disabilities pursuing postsecondary education after high school have increased.

In addition, other changes in the years between NLTS and NLTS2 have affected not only students but the nation as a whole. For example, the 1990s saw dramatic economic growth and prosperity, ushered in by the "information age," an economic climate that changed precipitously with the "dotcom bust" in the early years of the new millennium. The accelerated, dynamic state of technology innovation has changed the nature of communication, work, education, and leisure. The Internet has increased tremendously the speed and range of access to information, along with the ability to communicate 24-7 worldwide.

It is timely now to ask whether these changes in the school experiences of students with disabilities and their environment are accompanied by changes in their early postschool outcomes. To address this question, this report focuses on the subset of youth represented in NLTS and NLTS2 who had been out of high school up to 2 years. Information reported here is drawn from the first wave of parent interviews conducted for NLTS youth in 1987 (referred to as cohort 1) and the second wave of parent/youth interviews conducted for NLTS2 youth in 2003 (referred to as cohort 2). Analyses include the age group of out-of-school youth that was common to the studies at those time points: youth ages 15 through 19. The two samples are weighted to have the same distribution of these age groups: 19% were 15 through 17, 31% were 18, and half were 19.

Comparisons of interview data from NLTS and NLTS2 document changes in the following aspects of the early postschool experiences of youth with disabilities who had been out of secondary school up to 2 years:

- Secondary school completion status and timing (Chapter 2).
- Living arrangements and social involvement (i.e., participating in organized groups outside of work or school, taking part in volunteer or community service activities, experiencing negative consequences for behavior) (Chapter 3).
- Education after high school, including enrollment in high school degree-completion programs by dropouts and participation in 2-year or 4-year colleges or postsecondary vocational, business, or technical schools (Chapter 4).
- Employment rates and job characteristics (Chapter 5).
- Engagement in the community through participation in school, work, or preparation for work (Chapter 6).

The seventh chapter highlights the themes that have emerged from the study comparisons.

This report documents the extent and direction of change for out-of-school youth with disabilities as a whole and for key subgroups. Perhaps the most important subgroups are youth who differed with regard to the primary disability that made them eligible for special education services when they were in school. To document the ways in which youth with different disabilities experienced change over time, findings are presented for youth in the nine federal special education disability categories that were in use in both 1987 and 2001, when NLTS and

NLTS2 samples were selected. Readers should note that youth are included in the disability categories assigned to them by the schools or school districts from which they were selected for the studies. Variations in eligibility determination processes among school districts and over time underscore the importance of interpreting findings as describing youth who were categorized as having a particular primary disability by their school or district; what students' actual disability diagnoses would have been if they had been subjected to uniform diagnostic processes are unknown. In addition to disability category differences, changes also are described for youth with disabilities who differed in their school-exit status, age, gender, the income of their households, and their racial/ethnic background, when significant.[4]

NLTS and NLTS2 have many design features that enable valid comparisons between them, and detailed studies of both school district and student nonresponse indicate that NLTS and NLTS2 accurately represent the populations of youth with disabilities at their respective points in time.[5] However, important differences exist between them that have required analytic adjustments for comparisons to be valid. One important difference is the age ranges for youth included in the two studies. At the time of the Wave 1 parent interviews for NLTS, youth were 15 through 23 years old, whereas the Wave 2 NLTS2 parent/youth interviews were about youth who were 15 through 19. Because age is a powerful determinant of experience, straightforward comparisons between the full sample of youth in NLTS and NLTS2 are not valid. To improve the comparability of the studies, youth of similar ages, 15 through 19, were selected from each sample. Differences in the membership of particular disability categories in use at the two points in time also have required analytic adjustments to improve comparability. For example, although youth with autism as their primary disability now comprise a separate category, in 1987 they generally were included in the category of other health impairment; thus, for comparability, NLTS2 youth with autism also are analyzed as part of the other health impairment category.

In addition, readers should remember the following issues when interpreting the findings in this report:

- **Findings are weighted.** NLTS and NLTS2 were designed to provide a national picture of the characteristics, experiences, and achievements of youth with disabilities in their respective age ranges. Therefore, all the statistics from the studies are weighted estimates of the national population of youth receiving special education in the studies' age ranges at the time the studies began, as well as of each disability category individually. Each response for each sample member is weighted to represent the number of youth nationally that were in his or her disability category in the kind of school district (defined by region, student enrollment, and proportion of students in poverty) or special school from which he or she was selected.
- **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% and a standard error of 2 means that the value for the total population, if it had been measured, would, with 95% confidence, lie between

[4] The intercorrelation between income and racial/ethnic background is acknowledged. This comparison of the NLTS/NLTS2 cohorts does not attempt the multivariate analyses needed to disentangle that interrelationship.

[5] Please see Appendix A for more information on the study samples and other methodological issues, including results of extensive efforts to document the representativeness of the student sample and the school districts from which students were drawn.

48% and 52% (i.e., within plus or minus 2 percentage points of 50%). Thus, smaller standard errors allow for greater confidence to be placed in the estimate, whereas larger ones require caution.

- **Small samples.** Although NLTS and 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). Groups with very small samples have comparatively large standard errors (in fact, findings are not reported separately for groups that do not include at least 35 sample members); readers should be cautious in interpreting results for groups with small sample sizes and large standard errors.
- **Significant differences.** In discussions of the descriptive statistics, generally only differences between groups that reach a level of statistical significance of at least .05 are mentioned in the text; significance levels are noted in the text and/or exhibits.

Appendix A provides further information on specific methods used in the two studies, adjustments made to enhance their comparability, weighting of the samples, and interpretation of the population estimates that result. Appendix B contains the unweighted sample sizes for which weighted means and percentages were calculated.