

1. INTRODUCTION

The No Child Left Behind Act of 2001 (NCLB) and scores of state and local initiatives culminate nearly two decades of increasing emphasis on the improvement of American education. Those efforts have had significant impacts on the school experiences of America's high school students. For example, since the mid-1980s, many states have increased the course requirements for students to earn a high school diploma, and the proportion of the high school student population that earned at least four credits in language arts, three in social studies, and two each in math and science has more than doubled in response (National Center for Education Statistics, 2001).

In addition to efforts to improve the education system and academic performance of students as a whole, changes in policies and practices related to special education are intended to benefit students who receive special education services as well. The Individuals with Disabilities Education Act Amendments of 1997 (IDEA '97) embody many of those changes. For example, the act requires that a statement of a student's transition service needs be included in his or her individualized education program (IEP) each year and that the IEP include the course of study the student should pursue to achieve his or her postschool goals.

How have the school experiences of students who receive special education services in middle and high school evolved in response to these changes in policy and practice?

Two research projects sponsored by the Office of Special Education Programs (OSEP) of the U.S. Department of Education help address that question by documenting changes in several important aspects of the secondary school experiences of students with disabilities over the period of about a decade and a half since the mid-1980s. 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 disabilities² 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 in important ways. Key features of the two studies are summarized in Exhibit 1-1.

Comparisons of findings for youth who were represented in NLTS with those for youth represented in NLTS2 illuminate the extent to which and ways in which special education and the youth it serves have changed in the years between the studies. Those comparisons are the focus of this report, whose purpose is descriptive.

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 phrases "students with disabilities" and "youth with disabilities" are 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	NLTS2
Study Duration	
<ul style="list-style-type: none"> • 1984 through 1993 	<ul style="list-style-type: none"> • 2001 through 2010
Sample Members	
<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • Youth with disabilities as a whole nationally and youth in each federal special education disability category individually. 	<ul style="list-style-type: none"> • Youth with disabilities as a whole nationally and youth in each federal special education disability category individually.
Data Sources	
<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Wave 1: Parents (telephone interviews); 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, 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); students' high school transcripts. • Wave 5: Parents (telephone interviews); youth (telephone interviews).
Years of Data Collection	
<ul style="list-style-type: none"> • Wave 1 parent interviews, 1987 • Wave 1 school data collection, 1985-86 or 1986-87 school year • Wave 2, all data, 1990 	<ul style="list-style-type: none"> • Wave 1 parent interviews, 2001 • Wave 1 school data collection and direct assessments of youth, 2001-02 school year • Wave 2 parent/youth interviews, 2003 • Wave 2 school data collection and direct assessments of youth, 2003-04 school year • Wave 3, 2005 • Wave 4, 2007 • Wave 5, 2009

Findings presented here were generated by comparing information from the first wave of school surveys and school record abstracts conducted for NLTS students (cohort 1) for the 1985-86 or 1986-87 school year,⁴ with data from school surveys conducted for NLTS2 students (cohort 2) in the 2001-02 school year. Analyses include the age group of students for which school data were collected in Wave 1 of both studies: 14- through 18-year-olds.⁵

Comparisons of school data from NLTS and NLTS2 document changes in the following aspects of the school experiences of secondary school students with disabilities:

- Characteristics of their schools, including the types of schools attended, characteristics of their student bodies, selected school programs, the kinds of communities in which the schools were located, and the resources in them (Chapter 2).
- Characteristics of their school programs, including courses taken, instructional settings, and related services provided to students with disabilities (Chapter 3).
- School participation, including school attendance, academic performance (grades), and suspensions from school (Chapter 4).

Data on these aspects of students' secondary school experiences were collected for cohort 1 students through a mail survey of principals of the schools they attended most recently (i.e., the school background survey). This survey asked principals to report on the characteristics of their school (e.g., the type of school, enrollment), their student bodies (e.g., racial/ethnic distribution), aggregate statistics of several kinds (e.g., average absenteeism, the percentage of students who graduated), policies relevant to students with disabilities, staff and programmatic resources available in the school, and other resources available in the community surrounding the school. In addition, a school staff member was recruited to abstract information from students' school records (i.e., the school record abstract form) on courses taken in the school year and, for each course, the setting (general or special education) and the grade received. Data on related services provided and the student's absenteeism, suspensions, and school-leaving status (for those no longer in school) also were collected from students' school records.

For NLTS2 students, data for this report are drawn from two mail surveys, conducted with school staff in the spring of the 2001-02 school year. First, a school staff person who could report on the characteristics and policies of each school attended by an NLTS2 study member (often the principal) was asked to complete the school characteristics survey to provide information similar to that collected for NLTS. School-level information for each cohort was linked to each study member enrolled at a given school. In addition, school staff were asked to identify the staff person most knowledgeable about the overall school programs of specific individual students; these persons often were special educators. A multipurpose survey then was conducted with those school staff (i.e., the student's school program survey), which identified the courses taken at the time and the setting for each of those courses. Information also was obtained on related and support services and programs provided to students, their transition

⁴ Data were collected in 1987 for each student's most recent school year—either the 1985-86 or 1986-87 school year.

⁵ The samples are weighted to have the same distribution of these age groups: 21% are 14, 22% are 15, 23% are 16, 32% are 17, and 2% are 18.

planning experiences, and some aspects of their school performance (e.g., absenteeism, disciplinary actions, overall grades).

This report highlights the extent and direction of change for the population of 14- through 18-year-old 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. To document the ways in which the populations of youth with different disabilities experienced change over time, findings are presented for youth in the nine disability categories that were in use in both 1987 and 2001. 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 be if they were subjected to uniform diagnostic processes are unknown. In addition to disability category differences, changes also are described for youth with disabilities who differ in their gender, the income of their households, and their racial/ethnic background, where significant.⁶

NLTS and NLTS2 have many design features that facilitate 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. 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. In Wave 1 of NLTS, youth were 14 through 22 years old in their most recent school year, whereas the first wave of NLTS2 school surveys were about youth who were 14 through 18. 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, 14 through 18, 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 are counted in a separate category, in 1987 they generally were included in the category of other health impairment; thus, for comparability, NLTS2 youth with autism also must be 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 students receiving special education in the studies' age ranges at the time of the studies, as well as of each disability category individually. Each response for each sample member is weighted to represent the number of youth nationally that are in his or her disability category in the kind of school district (defined

⁶ The intercorrelation between income and racial/ethnic background is acknowledged. This initial comparison of the NLTS/NLTS2 cohorts does not attempt the multivariate analyses needed to disentangle that interrelationship.

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 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, only differences among groups that reach a level of statistical significance of at least .05 are mentioned in the text; significance levels generally are noted in the text.

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 from which weighted means and percentages were calculated.