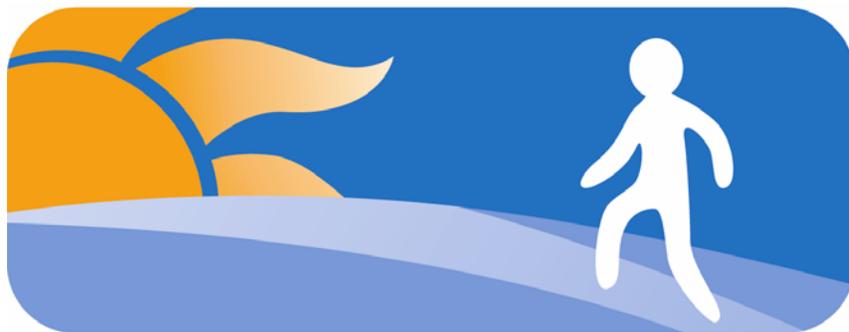


December 2003



## NATIONAL LONGITUDINAL TRANSITION STUDY 2

# GOING TO SCHOOL: INSTRUCTIONAL CONTEXTS, PROGRAMS, AND PARTICIPATION OF SECONDARY SCHOOL STUDENTS WITH DISABILITIES

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

### EXECUTIVE SUMMARY

Prepared for:

Office of Special Education Programs  
U.S. Department of Education

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**SRI International**  
333 Ravenswood Avenue Menlo Park, CA 94025



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Prepared by:

Mary Wagner, Lynn Newman, Renée Cameto, Phyllis Levine, and Camille Marder

### SRI Project P11182

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## EXECUTIVE SUMMARY

The Individuals with Disabilities Education Act Amendments of 1997, the No Child Left Behind Act of 2001, and scores of state and local initiatives culminate nearly two decades of concerted effort to improve American education. The success of these ambitious initiatives will depend on changes in many domains, including teacher preparation and training, assessment policies, standards and expectations, and funding. However, the classroom is where “the rubber meets the road.” What happens in classrooms every school day is what students experience directly and it is the mechanism through which educational interventions are most likely to produce the desired changes in student achievements.

Yet at the national level, information on the classroom experiences of students with disabilities has been limited to data on where students are educated—whether classes are taken in general education or special education settings. Little is known about the actual instructional experiences of students with disabilities nationally. The Office of Special Education Programs of the U.S. Department of Education is working to fill this information gap for secondary school students through the National Longitudinal Transition Study-2 (NLTS2). NLTS2 is a 10-year study that is documenting the characteristics, experiences, and outcomes of a nationally representative sample of more than 11,000 youth who were ages 13 through 16 and were receiving special education services in grade 7 or above when the study began in 2001. 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.

This report from NLTS2 considers the following questions for secondary school students with disabilities:

- What education-related histories do students with disabilities “bring to the table” in terms of their early experiences with services for their disabilities, school mobility, grade-level progression, and prior school disciplinary problems?
- What are the school and classroom contexts within which secondary school students with disabilities are educated? How do general, special, and vocational education classrooms differ?
- What is the pattern of course taking of students in secondary school, and in what settings are courses taken?
- What are the characteristics of classroom instruction provided to students with disabilities, and how do they differ in general, special, and vocational education classes?
- How do these factors differ for students with different disabilities and other characteristics?

These questions are addressed by using data collected during Wave 1 of NLTS2 from the following sources:

- **Parents or guardians** of NLTS2 study members are a key source of information on the characteristics of students, their educational histories, and their lives outside of school. Telephone interviews conducted with parents in the spring and summer of 2001 addressed these important topics; mail questionnaires were administered to parents who could not be reached by phone.
- **School staff best able to describe students' overall school programs** were surveyed by mail in the spring of the 2001-02 school year regarding the range of courses taken at the time by each student and the setting for each kind of course. Information also was obtained about instructional practices in both special education and vocational education classes.
- **Teachers of general education academic classes.** For students who were taking at least one general education academic class, teachers of the first such class in each student's school week were surveyed by mail about participants in that class, the instructional practices used with specific individual students with disabilities in the class, and how they worked with the class as a whole. Teachers also reported on the supports they received because the students with disabilities were in their classes and on their perceptions of the appropriateness of those students' placements in their classes. Perceptions of the academic and behavioral performance of individual students with disabilities in the class also were reported.
- **School staff knowledgeable about the characteristics of the schools attended by students with disabilities.** For each school attended by an NLTS2 study member, a school staff person who could report on the characteristics and policies of the school (often the principal) was surveyed about the school, its student body, school policies that affect students with disabilities; and, for schools that serve 12th-grade students, information on rates of graduation, college entrance examination participation, and college enrollment was obtained.

Highlights of the information NLTS2 obtained from these sources are presented below:

### **Students' Education-Related Histories**

What students "bring to the table" in terms of prior experiences, interests, abilities, and limitations are key factors that help shape the nature of the educational process and how students progress through their school careers.

- Some youth with disabilities and their families have been dealing with disability-related service systems since before they entered school. About half of youth who had their disabilities identified at the ages to qualify for early intervention or preschool special education services participated in those programs.
- Yet many more youth first receive services for their disabilities at school entry or in the first elementary school years; the average age at which youth first receive special education services is just over 8.
- Almost one-fourth have attended five or more schools during their educational careers—several more than would be expected from normal grade-level progression.

- Youth with disabilities are much more likely than youth in the general population to repeat a grade in school—more than one-third are retained at grade level at least once, usually in elementary school.
- One-third of youth with disabilities are suspended or expelled during their school careers—a much higher rate than among students in the general population.

## **The Schools Attended by Students with Disabilities**

Not surprisingly, the schools attended by secondary school students with disabilities are similar to those of the general student population in many ways.

- The vast majority attend regular public schools, where they constitute 16% of the student population, on average. Their schools are as likely to be in their own neighborhoods as is true for students in the general population.
- The racial/ethnic distribution of the student bodies in schools attended by students with disabilities is virtually the same as for the general population, as are average absenteeism and mobility rates.
- Their schools have a wide range of staff resources, including teachers who average about the same level of qualifications and experience as teachers of students in the general population. On average, almost 90% of teachers in schools attended by students with disabilities are reported to be fully credentialed for their primary teaching assignment, and the large majority have more than 3 years of teaching experience.

Students with disabilities attend schools that have a wide range of technology and programmatic resources available to help meet their needs.

- Internet-accessible computers are available to students in virtually all schools.
- Schools attended by students with disabilities include a variety of placement options. Comparisons of NLTS2 findings with those of the original National Longitudinal Transition Study (NLTS)<sup>1</sup> demonstrate that self-contained classrooms have become more common over time, as students with disabilities decreasingly attend special schools that serve only that population.
- Virtually all students with disabilities attend schools that support a band, chorus, theater group, or sports team, and large majorities go to schools with tutoring programs, summer school, supplemental instruction in reading and math, and academic and other kinds of student counseling. Most students with disabilities also go to schools that provide a variety of adolescent services, including substance abuse and pregnancy prevention education and school-to-work and conflict management programs.

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<sup>1</sup> NLTS was designed and conducted for the Office of Special Education Programs between 1984 and 1993. It included a nationally representative sample of students who were ages 15 through 23 when the first data were collected in 1987. Many of its design features are mirrored in NLTS2 to permit comparisons between them. Comparisons between school data collected in NLTS and NLTS2 involve only the age group included in both studies.

- Virtually all students with disabilities go to schools that report arranging alternative placements and services for students with disabilities who have been suspended or expelled, and virtually all include students with disabilities in mandated standardized testing.

However, there also are some aspects of schools attended by students with disabilities that are potentially problematic.

- Their schools are significantly larger, on average, than schools attended by the general population of students, suggesting that school districts may be clustering students with disabilities where a larger student population may support a wider array of resources.
- Class sizes and caseloads of support personnel also are large, potentially hindering efforts to meet the individual learning needs of a diverse student population.
- Students with disabilities go to schools where disciplinary issues are apparent; their schools average 23 incidents of violence and 7 arrests at school or school events in a school year.
- Relatively few students with disabilities go to schools that have programs to treat substance abuse (18%), support teen parents (32%), or provide school-based health services (45%), programs that could be particularly important to students with disabilities.

## **Students' School Programs**

As a group, secondary school students with disabilities take the full range of courses offered in their schools.

- Virtually all students with disabilities take academic classes, which average 60% of their coursework. Classes typically include language arts, mathematics, social studies, and science; about one in five students with disabilities take a foreign language.
- Comparisons between NLTS2 and NLTS show a dramatic increase in students with disabilities taking challenging courses that often are associated with preparation for postsecondary education, including science and foreign language.
- A vocational education course, usually one that is occupationally specific, is on the course schedules of almost two-thirds of students with disabilities, with higher participation among high school juniors and seniors. However, vocational course taking has declined markedly since NLTS, corresponding to the increase in academic course taking.
- Nonacademic courses, such as fine arts or physical education, also are on the course schedules of most students with disabilities, constituting about two courses of a typical seven-course schedule. Courses such as study skills or life skills are taken by about one-third of students, increasingly in special education classes since NLTS.
- Almost 9 of 10 secondary school students with disabilities participate in at least one general education class, including 70% who take one or more academic courses there, a marked increase since NLTS in taking general education academic courses.

- More than one-fourth of students with disabilities take all their courses in general education classes. This group includes the 5% of students with disabilities who discontinued special education services during the preceding 16 months.
- One in 10 students with disabilities take all their courses in special education classrooms or in individual or community-based settings.
- Two-thirds of students with disabilities are instructed in both general and special education classes. On average, general education courses are 60% of the courses students with disabilities take in a given semester, about 35% of courses are taken in special education classrooms, and the remaining courses occur in other settings.

## **Classroom Contexts**

NLTS2 has collected information on the classroom experiences of secondary school students with disabilities that span a wide range of subject areas for both general education academic classes and special education classes, as well as for vocational education courses taught in both general and special education settings.

- More than 80% of students with disabilities who take general education academic classes are in classes where the majority of students perform at standard grade level; 16% are tracked into lower-performing classes.
- Virtually all students with disabilities in general education academic classes have teachers who are credentialed to teach the subject of the class, and these teachers average 14 years of experience, more than the average level of experience of teachers in their schools.
- General education academic classes tend to be relatively large, averaging 21 students per adult, including 5 students with disabilities. In contrast, special education classes average 6 students per adult, providing greater opportunity for individualization. A similar size difference is noted for vocational education courses; there are an average of 15 students per adult in general education vocational classes and one-third that many in vocational education courses in special education classrooms.

## **Instruction in General Education Academic Classes**

Many of the teacher-driven activities in general education academic classes are experienced equally often by students with disabilities and by the class as a whole.

- Instructional groupings, materials used, instructional experiences outside the classroom, and discipline practices are largely the same for students with disabilities and for the class as a whole. For example, regardless of whether students in general education academic classes have disabilities, textbooks, workbooks, and worksheets are used often in classes of about 85% of students; computers are not used frequently for any purpose; and instructional experiences outside the classroom are not common.

- Whole-class instruction dominates general education academic classes for all students in them; about two-thirds of students are reported to receive whole-class instruction often, regardless of disability. Frequent small-group or individual instruction is not common; from one-fifth to about one-fourth of students receive these forms of instruction often, regardless of disability.

Nonetheless, there are important differences between the experiences of students with disabilities in general education academic classes and those of students in the class as a whole that bear on the question of their access to the general education curriculum.

- To help address the individual learning needs of students with disabilities, they are somewhat more likely than their general education academic classes as a whole to receive individual instruction from an adult other than the teacher. This increased individual instruction is facilitated by the fact that almost one in five are in classes in which a special education teacher also is present, and 12% have a classroom aide.
- The curriculum used to instruct almost two-thirds of students with disabilities who are in general education academic classes is modified to some degree, including 52% of students with disabilities whose teachers report making “some modifications” to the general education curriculum, 11% for whom substantial modifications are made, and 2% who receive an individualized curriculum.
- Students with disabilities consistently participate less actively than their classmates in their general education academic classes. The largest differences concern responding orally to questions and making presentations to the class. Whereas almost all the students in the class as a whole respond to teachers’ questions at least sometimes, one in five students with disabilities rarely or never respond orally to questions. Although about two-thirds of their classmates make presentations to the class sometimes or often, half of students with disabilities rarely or never make them. Students with disabilities also are less likely than their classmates to work independently or with a partner or group, perhaps in part because of the increased frequency with which they receive instruction from an adult other than the teacher.

Despite these differences in classroom participation, most students with disabilities have teachers who report that their placement in the class is “very appropriate.” Further, almost all students with disabilities are expected to keep up with the rest of the class, and three in four actually do. However, almost one-fourth of students with disabilities in general education academic classes are not meeting the performance expectations of their teachers.

To help them keep up in general education academic classes, virtually all students with disabilities are reported to receive some type of accommodation, support, or learning aid.

- Three-fourths of students with disabilities receive more time to take tests, and two-thirds receive more time to complete other assignments. Sixty percent have their progress monitored by a special education teacher.
- Accommodations or modifications that require changes to general education teachers’ practices are much less common. For example, about one-fourth or fewer of students with disabilities have slower-paced instruction, different assignments, or modified tests.

Teachers report using modified grading standards for approximately one-third of students with disabilities.

- Daily classwork is cited as “very important” by 70% of teachers in grading students with disabilities, followed by homework, test results, attendance, and special projects or activities (52% to 62%). Fewer teachers consider students’ class participation, attitude, and performance relative to a set standard very important.
- The importance teachers place on most grading factors does not differ for students with disabilities and their classmates, although they give somewhat less importance to test scores and performance relative to a set standard for students with disabilities.

The experiences of students with disabilities in general education classes differ somewhat, depending on the subject area of the classes. Mathematics classes stand out from classes in other subject areas in several ways that may make them particularly challenging for students with disabilities. It is in general education mathematics classes that students with disabilities are the least likely to have a modified curriculum and the most likely to receive whole-class instruction often, which may leave little room for individualization of instruction. Their mathematics teachers also are less likely than teachers of other academic classes to modify tests or grading standards and yet are the most likely to weigh test results heavily in determining grades.

In contrast, it is in their language arts classes that students with disabilities are the most likely to have slower-paced instruction, be tutored by an adult other than the teacher, use computers as an accommodation and for word processing, and use books on tape. Students in social studies classes are the most likely to have modified grading standards and modified tests.

## **Vocational Education Classes and Services**

Participation in vocational education is the norm for the majority of students with disabilities, and the general education classroom is the most typical setting for vocational education; students with disabilities are more than twice as likely to take vocational education in general education classes as in special education settings, particularly occupationally specific vocational education.

- The majority of students with disabilities have access to the general education curriculum in their general education vocational classes. There is little modification to the teacher-driven aspects of the course—the curriculum, materials used, or classroom activities or instructional groupings—when students with disabilities are in general education vocational classes.
- Somewhat more modification is reported for aspects of the classroom experience in which student behavior or performance figures more prominently—grading criteria and discipline practices. The greatest amount of modification is reported for testing practices.

Not only are most aspects of the classroom experience the same for students with disabilities and their classmates in general education vocational classes, the vast majority of students with disabilities are expected to keep up with their classmates. Six of seven students with disabilities actually do, which may be related to the fact that in the placement of the large majority of students with disabilities in the general education vocational classroom is considered “very appropriate.” In fact, students with disabilities are more likely to keep up with their classmates in general education vocational classes than in academic classes.

School-sponsored work experience is part of the school program for about one-fourth of students with disabilities in a given semester. Other vocational services are accessed by many students with disabilities, although only career assessment is provided to at least half of students with disabilities who are currently in high school. Other vocational services, from Tech Prep programs to job coaching, are provided to much smaller percentages of students.

## **Supports Provided to General Education Teachers of Students with Disabilities**

The vast majority of general education teachers receive some form of support for having students with disabilities in their classes. However, substantially fewer receive any particular kind of support.

- For example, only about 60% of students with disabilities in general education academic classes have teachers who receive any information about the needs of those students, and only about half have teachers who receive any input or consultation from a special educator or other staff about how to meet those needs.
- Compared with teachers of general education academic classes, vocational teachers more frequently report receiving information about individual students with disabilities in their classes and receiving consultation from a special educator or other staff. About six of seven students with disabilities in general education vocational classes have teachers who have been informed about their individual learning needs, and three-fourths have teachers who receive consultation on meeting those needs.
- Providing inservice training, a reduced student load, an aide or assistant, or special materials is less common than providing information or consultation. For example, 11% of students with disabilities in general education academic classes and 18% of such students in general education vocational classes have teachers who receive inservice training on meeting the needs of students with disabilities.

## **Special Education Classroom Experiences**

To compare special education and general education classroom experiences, NLTS2 collected similar information about both settings.

### **Academic Subject Special Education Classes**

Several aspects of special education academic classrooms suggest that they provide considerably greater individualization of instruction than those in general education.

- Almost half of students in special education academic classes often receive instruction in small groups, compared with about one in five students with disabilities in general education classes. Individual instruction both from the teacher and from another adult, also is more common in special than in general education academic classrooms.
- About one-third of students in special education academic classes have a specialized or individualized curriculum, which is a very rare occurrence in general education academic classes. About one-fourth of students in special education academic classes have a

substantially modified general education curriculum compared with about 1 in 10 students in general education academic classes.

- The environment in special education academic classes appears to be structured to encourage students' direct participation more than is true in general education classes. Students in special education classes are more likely to respond orally to questions and present to the class often than peers with disabilities in general education academic classes. Greater participation by students with hearing impairments may result from the much greater likelihood that students in special education classes have teachers who use manual as well as oral communication. Students in special education academic classes also are more likely often to work independently.
- The frequency of instructional activities that go on outside the classroom for students who take special education academic classes suggests that their teachers are able to provide wider opportunities for learning and applying academic subject matter in real-world settings; school- and community-based out-of-classroom instructional experiences and field trips all are more common for students in special than in general education academic classes.

Special and general education academic classes also differ in the factors teachers consider important in evaluating the performance of their students with disabilities.

- Students in special education academic classes are much more likely than their peers in general education classes to have their teachers consider their daily class work and the compilation of that work in a portfolio as very important. However, their homework is less likely to be considered very important.
- Attendance, class participation, and students' attitudes and behavior all are more likely to be considered very important for students in special education than in general education academic classes.

Although the special and general education academic classes differ markedly in several ways, other aspects of instruction in the two settings are similar.

- The use of computers for skills practice, Internet access, or applications such as word processing and working with spreadsheets is no more or less common in general than special education settings, as is true for the use of print materials other than textbooks.
- Students in the two settings are equally likely often to work with a peer partner or in a group and to be subject to tests or quizzes to assess their learning.
- General and special education academic teachers place equal importance on test results in assessing students' performance. They also weigh similarly the importance of students' performance relative to a set standard and to the performance of the rest of the class, and the importance of their work on special projects or activities when evaluating students' performance.

## **Special Education Study Skills Classes**

Special education classes that focus on study skills have a different purpose than academic-content classes; hence, classroom practices also are significantly different in many respects.

- Students with disabilities in study skills classes have teachers who use individualized instruction more than whole-group or small-group instruction. Most of these classes are taught without a specific curriculum, so that classroom activities can be adapted to individual students' needs.
- Yet half of the students in these classes have teachers who use textbooks, worksheets, and workbooks often, and about one-third are frequently taught using other print materials. More students in study skills classes than in other types of classes use computers for word processing or creating spreadsheets as part of their independent work.
- Reflecting the individualized emphasis, the majority of students work independently more often than they do any other classroom activity.
- Although one of five students in study skills classes experience school-based instruction outside of their classrooms, they rarely experience community-based activities or field trips.

## **Life Skills Special Education Classes**

It is in special education classes that teach life skills that the greatest specialization in instruction is found.

- Students in these classes frequently are taught in small groups or receive individualized instruction, and three-quarters of students are in classes that use a specialized curriculum.
- Although fewer students in these than in other kinds of classes frequently respond orally to questions, work independently, or use textbooks, their teachers still use these instructional activities and materials more often than other teaching methods. On the other hand, teachers of students in life skills classes use life skills materials far more than do teachers of other classes, as would be expected.
- Students in life skills classes also are more likely than their peers to have frequent instructional experiences outside the classroom.

Teachers in academic, study skills, and life skills special education classes base their student evaluations on daily class work, attitudes and behavior, class participation, attendance, and special projects. However, test results and homework play a greater role in evaluating students in subject-specific academic and study skills classes than students in life skills classes.

## Disability Variations in School Programs and Classroom Experiences

As with most aspects of the lives of students with disabilities that are addressed in NLTS2, school programs and classroom experiences differ in many ways for students with different primary disabilities.

- Students with different primary disabilities have quite different patterns of course taking, and those courses involve different mixes of settings. For example, students with learning disabilities or speech or other health impairments virtually all take academic classes, and they are more likely than many groups to have those classes involve college prep subjects, including science and foreign language. Two-thirds or more of the courses they take are in general education classrooms.
- Students with emotional disturbances or hearing, visual, or orthopedic impairments have a very similar pattern of course taking, but they are less likely to receive instruction in general education classes (although the majority still do).
- Academic courses and general education settings are much less likely to figure prominently in the course schedules of students with mental retardation, autism, multiple disabilities, or deaf-blindness, although from 40% to 70% of these students take at least one general education class, usually a nonacademic class. However, they are more likely than many other groups to take vocational education courses, particularly those focused on prevocational skills, and the majority of their classes are in special education or community or other settings. They also are the most likely to have their special education experiences be reported for life skills rather than academic classes.

Although disability differences appear to be related to the types of settings in which students receive instruction, they seem to have only a small differential impact on the experiences of students with different primary disabilities in a given setting.

- For the most part, there are no disability differences in the frequency with which students use instructional materials in general education academic classes, nor does this use differ between students with disabilities and their classes as a whole. Whole-class instruction is the dominant mode for students in all categories, and instructional activities outside the classroom are relatively rare for all groups.
- Teachers of general education academic classes place the same importance on homework, daily class work, and students' behavior, attitudes, attendance, and class participation in grading students in all disability categories. Similarly, within a given kind of special education class (i.e., academic, study skills, or life skills), disability differences are few.<sup>2</sup>

There are important differences, however, in some classroom experiences across disability categories.

- Students with speech, hearing, or visual impairments tend to have experiences that are most like those of their classmates in general education academic classes. They are the

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<sup>2</sup> Analyses of disability differences within each kind of special education class were conducted but are not reported in this document because small sample sizes in some kinds of classes for many disability categories result in very few significant differences between them.

most likely to have an unmodified curriculum and the least likely to receive individual instruction and several kinds of accommodations and learning supports. Their levels of participation in general education classes do not differ from those of the class as a whole on most of the dimensions investigated in NLTS2. In addition, students with hearing or visual impairments are among the least likely to have grading standards modified for them and to be granted additional time to complete assignments. Nonetheless, they are the most likely of all students with disabilities to be reported by teachers as keeping up with their classmates.

- In contrast, students with mental retardation, traumatic brain injuries, or multiple disabilities tend to differ the most from their classmates in general education academic classes. They are the most likely to receive slower-paced instruction, be granted additional time to take tests, and be given modified tests. They also are the most likely to receive individualized instruction and to have their progress monitored by a special education teacher. Students with mental retardation or multiple disabilities are the most likely of all students with disabilities in general education academic classes to be graded with modified criteria and among the most likely to be treated differently when it comes to classroom discipline. Students with mental retardation are the only group to experience differences from their classmates in how often they receive whole-class instruction, and they are the least likely of all students with disabilities to participate in classroom activities. They also are the most likely of all students with disabilities to have community-based experiences, such as field trips, and to receive peer tutoring. Reflecting these differences, more general education academic teachers of students with mental retardation, traumatic brain injuries, or multiple disabilities report that these students' placement in their classroom is not appropriate than do teachers of students in most other categories.
- Students with emotional disturbances present a somewhat different picture. Like students with mental retardation, traumatic brain injuries, or multiple disabilities, approximately one in seven have teachers who feel their placement in the class is not appropriate, yet 98% are expected to keep up with the rest of their class. They are not particularly likely to be provided accommodations or supports to help them meet those expectations, except behavior management programs and modified discipline standards, and they are the least likely of all youth with disabilities to succeed in keeping up with the class; only two-thirds do so.

## **Demographic Variations in School Programs and Classroom Experiences**

Several aspects of the school programs and classroom experiences of students with disabilities do not differ between boys and girls or between students of different income or racial/ethnic backgrounds. For example, general education academic teachers place similar importance on the factors they use to evaluate students' performance in their classes, and vocational education teachers have similar perceptions of students' placement and performance, regardless of demographic differences between students. Teachers in special education classrooms are particularly likely to overlook demographic differences; no aspects of special education classrooms or instructional experiences differ significantly for students with different demographic characteristics. However, some differences are noted in the report, such as:

ES-12

This is an executive summary of Wagner, M., Newman, L., Cameto, R., Levine, P., & Marder, C. (2003). *Going to school: Instructional contexts, programs, and participation of secondary school students with disabilities. A report from the National Longitudinal Transition Study-2 (NLTS2)*. Menlo Park, CA: SRI International.

## Gender

- **General education academic classroom experiences.** Boys are more likely than girls to be in classes that function at grade level, whereas girls are more likely to be in classes that perform below grade level. Perhaps this difference is related to the fact that girls with disabilities are more likely than boys to have teachers who report that their placement in general education academic classes is “very appropriate.”
- **General education vocational classroom experiences.** Boys with disabilities who take general education vocational courses are more likely than girls to be subject to the same discipline practices as the class as a whole. This difference may relate to the fact that boys with disabilities are much more likely than girls to have been suspended or expelled at some time in their school careers.

## Household Income

- **Education-related histories.** In general, youth from less affluent households (with incomes of \$25,000 or less) first receive professional services for a disability later and first receive special education services at school later than youth from more affluent households (with incomes of more than \$50,000). Youth from lower-income households are much more likely than higher-income youth to be retained at grade level and to be suspended or expelled during their school careers.
- **General education academic classroom experiences.** Students from lower-income households are more likely to receive slower-paced instruction, be granted more time to take tests, and have tests read to them. They are less likely than peers from higher-income households to use classroom computers for word processing tasks and to work independently often.

## Race/Ethnicity

- **Instructional settings.** General education courses are a smaller proportion and special education courses a larger proportion of the course schedules of African-American students with disabilities than of those of white students.
- **General education academic classroom experiences.** Across racial/ethnic groups, students are about equally likely to receive an unmodified curriculum and to experience various instructional groupings, and the materials they use in the classroom and the activities in which they participate outside of class also differ little. However, African-American students with disabilities are less likely than their white or Hispanic peers to use textbooks frequently, and minority students are more likely than white students to be given additional time to complete assignments.

## Looking Ahead

These findings from NLTS2 provide a comprehensive view of the secondary school programs of students with disabilities and of their experiences in general education, special education, and vocational education classes. In doing so, NLTS2 helps inform important issues in special education policy and practice, such as the degree to which students with disabilities have access to the general education curriculum. Future waves of data collection for NLTS2 will realize the value of its longitudinal design by focusing analyses on the full range of courses and credits earned by students with disabilities through the lens of their postsecondary experiences.