9. EDUCATIONAL PROGRAMS TO MEET STUDENTS' NEEDS: A SUMMARY

By Mary Wagner

In *The Individual and Household Characteristics of Youth with Disabilities*, an earlier report from NLTS2, the diversity of secondary school students who receive special education services is documented. Not only do they have the wide range of demographic characteristics that are found in the general student population (e.g., differences in socioeconomic background, racial/ethnic and language diversity), but they also span the full spectrum of abilities on the many dimensions of functioning addressed in NLTS2 (e.g., mobility, communication, social skills). For example, although about 7 in 10 students with disabilities have no trouble carrying on a conversation, almost 1 in 10 are reported by parents to have "a lot of trouble" with such interactions. Similarly, most students with disabilities have normal use of their limbs, but 1 in 10 are reported to have "a lot of trouble" using their arms, hands, legs, or feet. Parents rate about one-fourth of students with disabilities as having high social skills but about one-fifth as having poor social skills (Wagner, Marder, Levine, et al., 2003).

Another look at the diversity of adolescents with disabilities is provided in *The Achievements of Youth with Disabilities*, an NLTS2 report that documents youth outcomes in multiple domains. It reports, for example, that about 30% of middle and high school students with disabilities read at the 4th grade level or below, whereas 6% read at the 11th grade level or above. Almost one-third of students with disabilities receive mostly As and Bs from their teachers, but 8% receive mostly Ds and Fs (Wagner, Marder, Blackorby, et al., 2003).

Chapter 2 of this report also points to the diversity of students' education-related experiences. For example, although almost one-fourth of students with disabilities are first identified as having a disability at school entry, about one in seven are first identified with a disability as infants or toddlers and about one-third at age nine or older. Almost one in five youth with disabilities have attended only one or two schools, the number expected if they change schools only for grade-level progressions, but a similar percentage experience the potentially negative effects of having gone to five or more schools. The school experiences of most students with disabilities do not include being retained at grade level, although one-third have experienced this event; one-third also have been suspended or expelled at some time in their school careers.

Clearly, if America's schools are to respond with the appropriate education for this diverse population of students with disabilities, as required by the Individuals with Disabilities Education Act Amendments of 1997 (IDEA '97), an array of educational program options must be available that provide the opportunity for individualization to meet student needs. At the same time, students with disabilities are to be held to high standards of academic performance and are to be given access to the general education curriculum to help them meet those standards. Striking the balance between appropriateness, individualization, high standards for all, and access to general education courses and curricula is a challenge to schools across the country. The NLTS2 findings in this report document the efforts being made to strike that balance in the school programs of students with disabilities and to match the diversity of their needs with a diversity of programs. Key observations about those efforts are highlighted below.

Students' Schools Have a Range of Resources

Students with disabilities attend schools that have a wide range of staff and programmatic resources available to help meet their needs. As would be expected, virtually all students with disabilities go to schools that have administrators, guidance counselors, librarians, and aides, and large majorities have access to speech pathologists or therapists, nursing staff, and school psychologists. Between about half and two-thirds also have access to social workers, reading or subject-area specialists, and a variety of related service personnel. 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.

Virtually all students with disabilities go to schools that support a band, chorus, or theater group or to play on a sports team, and large majorities have access to 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. Less common are programs to treat substance abuse, support teen parents, or provide school-based health services.

Although a minority of students with disabilities attend special schools that serve only that population, the large majority go to schools that include students with disabilities in general education classes and that have special education resource rooms. Self-contained special education classrooms are available in schools attended by about six of seven students with disabilities, and about 60% are in schools that have classes co-taught by general and special educators and that provide individual instruction for students with disabilities. This range of staff and program resources provides a variety of options to meet the needs of all students.

Students Access a Diversity of Courses

As a group, secondary school students with disabilities take the full range of courses offered in their schools, consistent with the broad range of interests that would be expected in this diverse population. All but 1% take academic courses, which comprise four of their usual seven courses in a semester, typically including the same subjects that dominate the schedules of the general student population—language arts, mathematics, social studies, and science. In addition, about one in five students with disabilities also take a foreign language. Their participation in such courses has increased significantly in the last decade and a half (Wagner et al., forthcoming), since the original National Longitudinal Transition Study[1] examined the course taking patterns of secondary school students with disabilities for the first time. This increase suggests real progress in giving students with disabilities access to the kinds of courses that will prepare them for postsecondary education and other positive postschool outcomes.

In addition to their academic courses, about 6 in 10 students with disabilities take vocational education, usually a course with an occupationally specific focus (as opposed to a course devoted

[1] 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 for students of the same ages in both studies.

to increasing prevocational skills). Although vocational course-taking has become less common over time (Wagner et al., forthcoming), perhaps as a result of increased academic course-taking, the majority of students with disabilities still have some vocational training during their secondary school years. A concentration of such training has been shown to improve the employment prospects of youth with disabilities in their postschool years (Wagner et al., 1993).

Nonacademic subjects other than vocational education also are included in most students' schedules, typically two courses in a given semester. Some of these, such as physical education or fine arts, give students opportunities to explore a range of interests and hone a variety of skills, which may be particularly important for students who struggle to succeed academically. Others classes meet the needs of students who have weak study skills or who need to acquire life skills that will help support their future independence.

Students Typically Are Instructed in Multiple Settings

The vast majority of secondary school students with disabilities go to regular public schools, schools that are as likely to be in their neighborhoods as are the schools of students in the general population. About 3% attend special schools that serve only students with disabilities, and another 3% attend charter, magnet, or alternative schools.

Within their schools, the majority of students with disabilities experience both general and special education settings as part of their school programs. Overall, about one-fourth of students with disabilities take all their courses in general education classrooms. The majority of these students continue to receive related services as part of their individualized education program (IEP), although they also include the 5% of students with disabilities who discontinue special education services during about a 16-month period. Another 1 in 10 take all their courses in special education classrooms or individual or community-based settings. Thus, the instruction of two-thirds of students with disabilities is the "shared responsibility" (Will, 1986) of both the general and special education systems. On average, general education courses are 60% of the courses students with disabilities take in a given semester, whereas about 35% of courses are taken in special education classrooms and the remainder in other settings.

The likelihood that a student with disabilities will spend time in a general education or special education class varies markedly with the nature of his or her disability. Although the majority of students in all disability categories except deaf-blindness take at least one general education class, virtually all students with learning disabilities or speech or other health impairments have such classes on their course schedules, usually for academic subjects, as do 80% or more of students with orthopedic impairments or traumatic brain injuries. About three-fourths of students with emotional disturbances or hearing or visual impairments take general education courses in a given semester. From 40% to about 60% of students with autism, multiple disabilities, or deaf-blindness take general education classes; they typically are not academic classes.

Inside General Education Classrooms

NLTS2 provides a look at the degree of similarity between the instruction provided to students with disabilities and other students in both their general education academic and

vocational classes. In many respects, students with disabilities and their classmates have very similar instructional experiences, although some important differences also are apparent.

Delivery of Instruction to Students with Disabilities Typically Mirrors the Class as a Whole

In both general education academic and vocational courses, the teacher-driven instructional practices used for students with disabilities largely mirror those used for the class as a whole. Regarding instructional groupings used in academic classes, for example, there are no significant differences between the frequency that students with disabilities and the class as a whole experience whole-class or small-group instruction or individual instruction from the teacher. Likewise, in general education vocational classes, six out of seven students with disabilities are reported by teachers to experience the same instructional groupings as their classmates. Similarly, there are no differences reported in the kinds of materials used in general education academic or vocational classes for the majority of students with disabilities and their classmates.

The conclusion that students with disabilities are subject to instructional practices that are similar to those of their classmates in general education classes is an important part of the answer to the question "Do students with disabilities have access to the general education curriculum?" However, consistency in instructional practices for all students also could raise a question of whether the practices that are suitable for a general education class as a whole also are suitable for meeting the individual learning needs that distinguish students with disabilities from their nondisabled peers.

Yet a closer look at exceptions to the similarities in teacher-driven practices that are in use for all students in general education classrooms suggests that some attention to individual needs is part of the classroom experience. For example, although 85% of general education vocational teachers report that their students with disabilities experience the same instructional groupings as other students in their classes, and more than 90% report that the materials and equipment used are the same, the remaining students with disabilities experience a different mix of instructional groupings and materials, presumably reflecting their individual needs. Further, in general education academic classes, students with disabilities are significantly more likely to receive individual instruction from an adult other than the general education teacher. This increased individual instruction for students with disabilities is facilitated by the fact that 19% of them are in classes in which a special education teacher also is present, and 12% of them have teacher aides or assistants in their classrooms to augment the instruction given by teachers.

Curricular Content for Many Students with Disabilities Differs from the Class

Although instructional practices in use in general education academic and vocational classes may be largely the same for all students, the majority of students with disabilities in academic classes receive a modified curriculum. About half of students with disabilities in general education academic classes reportedly receive a curriculum that teachers describe as having "some modifications," and about 1 in 10 students receive a substantially modified a curriculum. A specialized or individualized curriculum is very rare but occurs for 2% of students with disabilities in general education academic classes. Thus, about one-third of students with disabilities in general education academic classes have access to the same curriculum as the rest of their classmates. Less curricular modification is apparent in general education vocational

classes, in which six out of seven students with disabilities are reported to use the same curriculum as the class as a whole.

Supports Provided to Teachers Leave Some Uninformed

The vast majority of general education academic classroom teachers receive some support for having students with disabilities in their classes. However, substantially fewer receive any particular kind of support. In fact, only about 60% of students with disabilities have general education academic 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. This means that 40% of students with disabilities in general education academic classes have teachers who are uninformed about their needs, and half have teachers who have no collegial support to draw on in meeting them.

Teachers of general education vocational classes more frequently report receiving information about individual students with disabilities in their classes and receiving consultation from a special educator or other staff than teachers of students with disabilities in general education academic classes. 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. Yet even at these rates, there are students with disabilities in general education academic and vocational classes who do not receive the benefits that could accrue from having teachers who are well informed about the educational implications of their disabilities and who receive support from professional staff who are well versed in meeting the needs of students with disabilities.

Most Accommodations and Supports for Students Do Not Require Modifications to Instructional Practices

Teachers of general education academic classes report that virtually all students with disabilities in their classes receive some kind of accommodation, modification, or other support to help them succeed. Increased time to take tests and complete assignments is by far the most common accommodation; three-fourths of students with disabilities receive more time to take tests, and two-thirds receive more time to complete other assignments. Accommodations or modifications that require changes to general education teachers' practices are much less common. For example, about one-fourth or fewer students with disabilities have slower-paced instruction, different assignments, or modified tests. Special educators monitor the progress of 60% of students with disabilities who take general education academic classes.

Most Factors Used in Evaluating Student Performance Are the Same for All Students in Class; Not All Students with Disabilities Keep Up

For the most part, students with disabilities in general education classes, both academic and vocational, have teachers who use similar factors in evaluating their performance and the performance of their classmates. In vocational education classes, about three-fourths of students with disabilities are reported to be subject to the same grading criteria as the class as a whole. In academic classes, teachers place the same importance for all students on such factors as completing routine assignments, student behavior, and classroom participation. Only in the case of test results and performance relative to a set standard do criteria vary. Teachers are less likely

to rely heavily on these measures in grading students with disabilities than in grading other students in class.

Consistent with the prevalence of similar grading criteria, virtually all students with disabilities in general education academic and vocational classes are expected to keep up with others in the class. However, only about three-fourths of students with disabilities reportedly do so in general education academic classes; about six of seven students do so in general education vocational classes.

How Is Special Education Special?

The preceding section compared the classroom experiences of students with disabilities in general education classrooms with those of their classmates as a whole to assess the extent to which they not only are present in such classes but truly have access to the general education curriculum. The focus of this section shifts to students' experiences in special education classrooms—specifically, those in which academic subjects are taught—and compares them with the experiences of peers in general education academic classes to identify the differences between general and special education that could be considered the special features of special education.

Special Education Classes Provide Opportunities for Tailoring Instruction to Individual Student Needs

Several aspects of special education classrooms where academic subjects are taught suggest that, relative to general education academic classes, they provide considerably greater individualization of instruction. For example, special education academic classes average 11 students and 2 adults, compared with an average of 25 students and 1 adult in general education academic classes, giving greater opportunity for individual adult attention to students. In fact, small-group and individual instruction are reportedly used substantially more often in special than in general education academic classes. Almost half of students in special education academic classes receive instruction in small groups often, compared with about one in five students with disabilities in general education classes. Individual instruction from the teacher and from another adult also are more common in special than in general education academic classrooms.

NLTS2 findings also suggest that the curriculum used in special education classes often is tailored to individual students' needs; 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 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 academic classes. Students in special education classes are reported by their teachers to be significantly 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 to work independently often.

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.

Some Aspects of Instruction Are Similar in Special and General Education Academic Classes

Although the number and kind of participants in special and general education academic classes differ markedly, as do many of the instructional practices used in them, other aspects of instruction in the two settings are similar. The use of many kinds of instructional materials is quite consistent across settings. For example, 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 special than general education academic classes, as is true for the use of print materials other than textbooks. The frequency of some classroom activities also are the same. 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. Further, general and special education academic class teachers place equal importance on those 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 to their work on special projects or activities when evaluating students' performance.

Some Criteria for Assessing Students' Performance Differ Markedly Between Special and General Education Academic Classes

Although students with disabilities in general education academic classes are subject largely to the same grading criteria as the rest of the students in those classes. the criteria used for their peers in special education classes differ markedly in several respects. Students in special education 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.

Factors other than students' work also are considered differently by special and general education academic teachers when assessing the overall performance of their students with disabilities. 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.

Special Education Is Not a Uniform Experience

The preceding section compared the instruction of students with disabilities in academic subjects in special education and general education classes and highlighted both similarities and differences in students' experiences. However, the special education classroom experiences of about 40% of students with disabilities represented in NLTS2 were not reported for academic subject classes, such as math or language arts, but for classes that focus on study skills, basic academics, or life skills that support students' independence. Providing these kinds of classes is another reflection of the efforts of schools to meet the learning needs of individual students.

Study skills classes and those that focus on life skills differ from each other and from special education academic classes in important ways. For example, although all kinds of special education classes are smaller and have lower student-adult ratios than general education classes, nonacademic special education classes have lower student-adult ratios, on average, than academic special education classes, with life skills classes having the lowest ratio, largely because they average three adults in the classroom. Classes focused on life skills also are more likely than other special education classes to have both manual and oral communication in use.

As would be expected, what goes on in special education classes with different foci differs significantly. For example, study skills classes tend not to have a curriculum or to use whole-class instruction because classroom activities emphasize helping students with their homework or working on individual skill improvement needs. Consistent with those purposes, students are more likely to receive individual attention from the teacher and to work independently often and are less likely to take tests than their peers in special education academic classes. Frequent use of computers for Internet access and for such applications as word processing or working with spreadsheets also is more common in study skills classes than in special education classes with a different focus.

In contrast, students in classes that emphasize life skills are most likely to have an individualized curriculum. Students in these classes are less likely than those in other kinds of special education classes to work independently and more likely than their peers in academic classes to have individual instruction. Not surprisingly, it is more common for students in life skills classes to make frequent use of manipulable materials that enable them to practice independence skills. They also are the most likely to make frequent excursions outside the classroom for instructional purposes, including activities in both school- and community-based settings and field trips. Again, this range of classroom contexts and practices increases the potential for schools to meet the individual learning needs of students with disabilities.

The Role of Vocational Education Courses and Services

Students with disabilities are less likely to take vocational education now than previously, a trend that is offset by an increase in academic course taking (Wagner et al., forthcoming). Nonetheless, the school programs of a majority of students with disabilities in a given semester still include vocational courses, most of which are taken in general education classrooms. The prevalence of vocational course taking may reflect in part the fact that the primary transition goal of more than half of students with disabilities is to gain competitive employment, and 40% have a goal of postsecondary vocational training. Vocational courses are more likely to be occupationally specific than to focus on prevocational skills.

In a given semester, vocational course taking is augmented by participation in school-sponsored work experience programs for about one-fourth of students with disabilities. During their high school careers, students also receive a variety of other vocational services, particularly vocational skills assessments and career counseling. Participation in more specialized or intense programs or services, such as Tech Prep or entrepreneurship programs, internships, or job placement or job coaching services, is still relatively rare. However, vocational course taking and participation in work experience programs and all kinds of other vocational services are more common among juniors and seniors who are preparing to transition out of high school than among younger students.

Most students with disabilities in general education vocational courses are succeeding in class; as noted previously, six of seven students with disabilities are reported to keep up with their general education vocational classes, compared with three-fourths of their peers in general education academic classes. Thus, vocational education courses may provide an important opportunity for students with disabilities to experience rewards for learning and good classroom behavior, as well as helping them to meet transition goals.

Disability Variations in Instructional Programs and 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.

Disability Distinguishes Patterns of Courses and Settings

Not surprisingly, students with different primary disabilities have quite different patterns of course taking, and those courses involve different mixes of settings. For example, virtually all students with learning disabilities or speech or other health impairments 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 hearing, visual, or orthopedic impairments have a very similar pattern of course taking, but they are less likely to have general education classes on their course schedules (although the majority still do).

In contrast to these groups, 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. Instead, 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.

Disability Variations in Instructional Practices within Settings Are Less Pronounced, but Important

Although disability differences are important in distinguishing patterns of course taking and placements, they less markedly distinguish the experiences of students within them. For example, for the large majority of students with disabilities who take general education academic classes, those classes function at grade level and contain an average of 18 to 23 students. For the most part, students with different disabilities use the same kinds of instructional materials with similar frequency as each other 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.

There are important differences, however, in some classroom experiences across disability categories. Curriculum is an area in which such differences occur. For example, within general education academic classes, students with speech impairments are the most likely to have access to the general education curriculum; half have an unmodified general education curriculum, including the 22% of students with that disability who are declassified from special education in about a 16-month period. In contrast, about one-fourth of those with traumatic brain injuries and one in seven students with multiple disabilities have an unmodified curriculum. They also are three or four times more likely to receive frequent individual instruction than their peers with speech impairments. In general education vocational classes, these students also are among the least likely to have experiences that are similar to the class as a whole. In special education classes, more than 60% of students with mental retardation, autism, or multiple disabilities have individualized curricula, compared with about one-fourth of students with learning disabilities or speech or other health impairments.

Teacher and student supports also differ across disability categories. For example, students with visual impairments are more likely than other categories of students to have general education teachers in both academic and vocational classes who receive special materials to use with them. They and their peers with hearing impairments also are the most likely to have physical adaptations to their general education academic classrooms. However, they are among the least likely to receive additional time to take tests or complete assignments or to have slower-paced instruction, consistent with the fact that their disabilities often do not have inherent cognitive implications.

In addition, students with different disabilities participate in class in different ways and at different levels. In general education academic classes, for example, students with mental retardation are the least likely to respond orally to questions, present in front of a group or the class, or work independently. In contrast, in special education classes, it is students with multiple disabilities who are least likely to participate.

Finally, teachers' expectations for their students and what they consider important in evaluating students' performance differ across categories. In general education academic classes, students with mental retardation are the least likely to have teachers who consider their placement in those classes to be "very appropriate" and are the least likely to be keeping up with other students in their classes. Although several grading criteria are applied uniformly to students with different disabilities, those with mental retardation are the least likely to have test results figure prominently in their grades. Similar differences are noted in general education vocational classes for both students with mental retardation and those with multiple disabilities.

The Emphasis on Vocational Services Differs across Categories

As mentioned above, vocational course taking is more common for students in some disability categories than others. Other vocational programs and services also differ across categories. For example, differences in participation in school-sponsored work experience programs mirror different course taking, in that students with mental retardation, autism, or multiple disabilities are much more likely to participate than students with learning disabilities or speech impairments, for example. They also are more likely to receive job readiness training. On the other hand, students with learning disabilities or speech impairments are more likely than those with autism or multiple disabilities to receive career skills assessments.

Demographic Variations in Instructional Programs and Experiences

It is not only students' primary disabilities that differentiate their school programs and classroom experiences; demographic factors, too, distinguish the experiences of some students with disabilities from those of others, but only on some dimensions. 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 of special education classes 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.

Gender. Boys with disabilities 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." In addition, boys with disabilities who take general education vocational courses are more likely than girls to be subject to the same discipline practices as other students in the class. Again, this difference may relate to the fact that boys are much more likely than girls to have been suspended or expelled at some time in their school careers.

Household income. Youth from less affluent households (i.e., with incomes of $25,000 or less) have a pattern of experiences with school and professional services that differs from that of more affluent peers (with incomes of more than $50,000) from an early age. Students from lower-income households first receive professional services for a disability later and first receive special education services at school later than youth from more affluent households. During their school careers, they are less likely to progress untroubled; they are much more likely than higher-income youth to be retained at grade level and to be suspended or expelled during their school careers. In secondary school, their school programs tend to be less challenging. For example, less affluent students with disabilities are less likely than students from wealthier households to take a foreign language course, and general education courses are a smaller proportion of the courses they take. In addition, students from lower-income households are more likely to receive slower-paced instruction in general education academic classes, to be granted more time to take tests, and to have tests read to them. However, they are less likely than peers from higher-income households to use classroom computers for word processing tasks and to work independently often. In general education vocational classes, exposure to an unmodified general education curriculum is less likely among students with disabilities from lower-income households than among upper-income peers. However, some forms of teacher support are more common for general education vocational teachers with students with disabilities from lower-income households.

Race/ethnicity. Many of the differences between students with disabilities with different racial/ethnic backgrounds are consistent with differences found for household income, because students of color are more likely to grow up in lower-income households. African-American youth begin to receive professional services for their disabilities and special education services later, on average, than white youth. In addition, African-American youth with disabilities are much more likely than either white or Hispanic students to be suspended or expelled during their

school careers. General education courses are a smaller proportion and special education courses a larger portion of the course schedules of African-American students with disabilities than those of white students.

In general education academic classes, African-American and Hispanic students with disabilities are less likely than white students to have white teachers and more likely to have teachers who have less experience working with students with disabilities, although their teachers still average 8 years of such experience. 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, but 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.

In general education vocational classes, white students with disabilities are more likely than African-American students to have an unmodified general education curriculum and to be subject to the same testing methods as other students in their general education vocational classes. Finally, white students are more likely than Hispanic students to be in classes with teachers who indicate they have smaller student loads or class sizes because there are students with disabilities in their classes.

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. Yet this multifaceted view of school programs and classroom experiences still focuses largely on a single semester in the entire secondary school careers of students with disabilities.

Future waves of data collection for NLTS2 will enable the value of its longitudinal design to be realized. For example, collection of transcripts as students with disabilities leave high school will enable a look at the full range of courses and credits earned by students with disabilities, to address such questions as, Are students with disabilities who intend to pursue postsecondary education taking courses that will prepare them for that future? Are students whose primary transition goal is employment taking courses consistent with that vision? Further, longitudinal data will enable NLTS2 to address the critical linkages between secondary school programs and later outcomes. For example, how does a school program that emphasizes general education academic course taking relate to the academic performance and school completion of students with those programs? Do various related and support services provided to students with disabilities with similar academic or social challenges help those students to succeed? What are the postschool experiences of students with disabilities whose school programs differed in content, setting, or supports? Findings related to these kinds of questions will be documented in future NLTS2 reports.