

## Executive Summary

Since 1982, the U.S. Department of Education's National Center for Education Statistics (NCES) has periodically surveyed the status of curricula being implemented in America's high schools and the course-taking patterns of high school students, as identified from their transcripts. Data from the High School Transcript Study (HSTS), conducted in conjunction with the National Assessment of Educational Progress (NAEP), serve a valuable accountability function in that they can capture course-taking patterns at a time when major curriculum changes or educational policy initiatives are being implemented. Although for many years, this important data source did not provide information on students with disabilities, the most recent report from 2009 (Nord et al. 2011) takes a cursory look at this important population, providing information on credits earned overall and in core academic, other academic, or nonacademic courses; and average GPA. However, many questions remain unanswered about the school programs and performance of students with disabilities. For example, the extent to which students took their courses in general education or special education settings is unaddressed, as are the wide-ranging differences in the school programs of students who differ in the nature of the disability that qualifies them for special education services.

The National Longitudinal Transition Study-2 (NLTS2) provides a unique source of information on these and other important questions for students with disabilities. The study addresses questions about youth with disabilities by providing information over a 10-year period about a nationally representative sample of secondary school students with disabilities, including information that details for policymakers, educators, parents, and students a national picture of what courses students with disabilities took in high school, in what settings, and with what success in terms of credits and grades earned. This report describes course taking primarily through the lens of course credits earned. To progress toward graduation, students need not only to take a particular distribution of courses but also to meet the performance standards for those courses, resulting in earned credits. Specifically, this report addresses the following questions for students with disabilities who attended typical high schools:<sup>1</sup>

- How many credits did students with disabilities earn during high school and in what types of courses?
- What proportion of credits did students with disabilities earn in general and special education settings?
- What grades did they receive in their classes?
- How did the high school credit-earning and grade-performance experiences of students with disabilities compare with those of their peers in the general population?
- How did the high school credit-earning and grade-performance experiences differ for students who differed in disability category, demographic characteristics, grade levels, and school completion status?

This executive summary presents all findings related to these questions that are included in the full report for students with disabilities as a whole who had attended a typical high school at

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<sup>1</sup> Students who attended non-typical schools (e.g., schools serving only students with disabilities, hospital-based schools, home schools) are not included in these analyses.

some point from 2001 through 2009. The full report also presents findings for students who differed in their primary disability category, demographic characteristics, grade levels, and school completion status when those differences were statistically significant at at least the  $p < .01$  level.

## **Credits Earned by Secondary School Students with Disabilities**

Drawing on the high school transcript data compiled as part of NLTS2 for students with disabilities nationally illuminates the overall pattern of credits earned by these students across academic, vocational, and other types of courses and provides a basis of comparison with the general population of high school students.

- Students with disabilities earned, on average, 22.7 credits during their time in high school.<sup>2</sup> Academic courses<sup>3</sup> accounted for an average of 12.7 credits, vocational courses accounted for an average of 4.5 credits, and other courses that were neither academic nor vocational, such as physical education and life skills, accounted for an average of 5.7 credits.
- Students with disabilities averaged fewer credits than did their peers in the general population (22.7 vs. 24.2).<sup>4</sup> Whereas the coursework of students in the general population was focused more heavily on academic courses, compared with that of students with disabilities (16.1 academic credits vs. 12.7), students with disabilities earned more vocational and nonacademic, nonvocational credits than did students in the general population (4.5 vs. 3.1 and 5.7 vs. 4.9, respectively).
- Similar to their general population peers, academic courses were part of the school programs of virtually all students with disabilities (99 percent) attending typical high schools. Academic credits accounted for 57 percent of the total credits they earned.
- Students with disabilities earned significantly more credits in English courses (4.0 credits, on average,) than in any other subject. They averaged 3.0 social studies credits, 2.9 mathematics credits, 2.3 science credits, and half a foreign language credit. The number of English credits earned by students with disabilities was similar to that of the general population, whereas the numbers of credits earned in all the other academic subjects were lower than those of students in the general population.
- Among the various kinds of mathematics courses taken by students with disabilities, more credits were earned in basic mathematics<sup>5</sup> (1.6) than in either mid-level mathematics (1.3) or advanced mathematics courses (0.1).

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<sup>2</sup> The analyses of credits earned are based only on complete transcripts, with the exception of the by-grade-level analyses. Transcripts for students who had completed their high school programs typically included 4 or more years of coursework. Transcripts for students who had not completed high school were considered to be complete if transcript information was available for all of the grading periods the students had been in high school. Partial transcripts (e.g., only 9th-grade transcript information was collected for a student who had continued his or her education beyond the 9th grade) were only included in the by-grade-level analyses.

<sup>3</sup> Academic courses include English, mathematics, science, social studies, and foreign languages.

<sup>4</sup> General population estimates are based on calculations using the restricted use dataset from the U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), High School Transcript Study. All general population estimates include students who have completed high school, as well as those who have not (i.e., both graduates and dropouts have been included).

<sup>5</sup> Basic mathematics courses include mathematics (undifferentiated); integrated, consumer, basic, general, remedial, fundamental, and “higher level” mathematics; and pre-algebra. Mid-level mathematics courses include

- Nearly all students with disabilities (96 percent) enrolled in some type of vocational course during high school, with those courses accounting for 20 percent of the total credits earned.
- The types of vocational courses taken by students with disabilities attending typical high schools and the average credits earned in them were: prevocational courses (e.g., career exploration), 0.5 credit; occupation-specific courses (e.g., agriculture, alternate business occupations), 3.4 credits; and work study or cooperative education (3.6 credits). The numbers of average vocational credits earned were similar for the general student population.
- Almost 100 percent of students with disabilities were enrolled in at least one nonacademic, nonvocational<sup>6</sup> course during high school, which accounted for 25 percent of the total number of credits earned. More credits were in fine and performing arts,<sup>7</sup> physical education and health, and learning support courses (1.5 to 1.7 credits) than in life skills<sup>8</sup> or other nonacademic, nonvocational courses (0.6 and 0.7, respectively).
- Students with disabilities earned more credits in learning support courses and other, uncategorized courses (1.5 and 0.7, respectively) than did students in the general population (0.3 and 0.2). In contrast, students in the general population earned more credits in fine and performing arts and life skills courses (1.8 and 1.0, respectively) than students with disabilities (1.5 and 0.6).

### **Credits Earned in General and Special Education Settings**

Efforts to improve student outcomes “have centered on increasing inclusion of students with disabilities in general education classrooms and, most recently, ensuring access to the general education curriculum” (McLaughlin and Tilstone 2000, p. 50). For most students with disabilities served under IDEA, both general education and special education settings are part of their instructional experience.

- On average, students with disabilities who attended typical high schools earned 16.7 credits in general education courses and 6.1 credits in special education courses (72 percent and 28 percent of their overall credits, respectively).
- More than one-quarter (27 percent) of secondary school students with disabilities spent all of their course time in general education courses and earned all their credits there, whereas 3 percent of students with disabilities earned all their credits in a special education setting.
- Overall, students with disabilities earned 66 percent of their academic credits, 84 percent of their vocational credits, and 81 percent of their nonacademic, nonvocational credits in general education settings, compared with 34 percent, 17 percent, and 19 percent, respectively, earned in special education settings.

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algebra (I, II, and undifferentiated) and geometry. Advanced mathematics courses include advanced math (undifferentiated), algebra/trigonometry, trigonometry, trigonometry/geometry, pre-calculus, statistics/probability, and calculus (all levels).

<sup>6</sup> Nonacademic, nonvocational courses include courses in the fine and performing arts, physical education and health, learning support courses, life skills, and other, uncategorized courses.

<sup>7</sup> Courses in fine and performing arts include drama, music, dance, art, and photography and film.

<sup>8</sup> Courses in life skills include living skills, resource management, health and safety education, driver’s education, community living, communication and social development instruction, and food and nutrition.

- On average, students earned 9.0 credits in general education academic courses and 3.9 credits in special education academic courses. They earned 3.7 credits in general education vocational courses, compared with 1.0 credit in special education vocational courses; and they earned 4.3 credits in general education nonacademic, nonvocational courses and 1.4 credits earned in such courses taken in special education settings.

## **Grade Performance**

Students' overall grade point average (GPA) and rate of course failure are used to describe the grade performance of students with disabilities attending typical high schools. In interpreting the results, it is important to note that differences in grade performance are confounded by several other variables, including instructional setting and course type, variables that are distributed differently across disability categories. For example, students in the four disability categories that averaged higher GPAs also had earned larger proportions of their overall credits in special education than general education courses.

Key findings regarding students' grade performance include the following:

- On average, students with disabilities who received grades earned a 2.3 GPA on a 4-point scale, a lower GPA than that of the general student population (2.7).
- Approximately 6 percent of students with disabilities had GPAs of 3.35 or higher (mostly As and Bs), compared with 20 percent of students in the general population; 11 percent of students with disabilities had GPAs lower than 1.25 (mostly Ds), compared with 1 percent of general population peers.
- Twenty-eight percent of students with disabilities had GPAs between 2.75 and 4.0, whereas 45 percent had GPAs that were less than 2.25.
- Approximately 66 percent of students with disabilities had failed at least one course during their years in secondary school, thereby losing course credits, a significantly higher course failure rate than for the general student population (47 percent). Students with disabilities who had failed a course had failed seven courses, on average, compared with six courses among students in the general population who had failed a course.
- Students with disabilities received lower grades in their academic courses (2.1 GPA, on average) than in their vocational (2.4) or nonacademic, nonvocational courses (2.6); the average GPA for vocational courses also was lower than the GPA for nonacademic, nonvocational courses.
- Consistent with this, students with disabilities were more likely to fail an academic course than a vocational course or a nonacademic, nonvocational course (58 percent vs. 31 percent and 37 percent, respectively).
- Average GPAs of students with disabilities were lower in their general education courses than those earned in their special education courses (2.2 vs. 2.5), a pattern that was consistent across types of courses. Students also were more likely to have failed at least one course in a general education setting than in a special education setting (65 percent vs. 30 percent), again, a consistent pattern across course types.