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Timing and Duration of Student Participation in Special Education in the Primary Grades

More than 250,000 U.S. students (7 percent) receive special education services under the Individuals with Disabilities Education Act (IDEA) at age 5, the kindergarten year for most students (Office of Special Education and Rehabilitative Services [OSERS] 2003).¹ By age 9, when most U.S. students are completing third grade, more than 500,000 students (12 percent) are receiving special education. However, relatively little is known about how these changes in the characteristics of the special education population occur over the first years of school. For example, it has been shown that 17 percent of special education students across the later elementary grades receive special education services for only 2 years (Walker et al. 1988), but these figures are not available specifically for the primary grades.

A first step in understanding more about students receiving special education in the primary grades (kindergarten through third grade) is a basic description of the timing and duration of special education services provided over these grades, including when students first receive special education, for how long, and how the timing and duration of special education may differ by the demographics of students and the school settings in which students are served: In what grades or combinations of grades do students receive special education in the primary grades? Are there differences in the timing and duration of special education for girls and boys? Students of different racial/ethnic backgrounds? Poor and nonpoor students? Students in public and private schools? Students in different regions of the country or in urban and rural schools? Students in schools that serve higher and lower percentages of poor students?

Recent data released by the National Center for Education Statistics (NCES) Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K) allow a study of the provision of special education services in U.S. public and private schools over the years between kindergarten and third grade. Through the ECLS-K, NCES has followed a nationally representative sample of school children who were in kindergarten in the 1998–99 school year through 2003–04, when most children in the sample were in fifth grade. This Issue Brief focuses on the primary grades and uses special education data collected in spring 1999 (kindergarten), 2000 (first grade), and 2002 (third grade).²

Data for the Issue Brief were drawn from surveys of the children's parents and school administrators. At each time

point, a school administrator provided information on whether a student received special education services. The school administrator also reported information on characteristics of the school, such as school sector, the proportion of students in the school eligible for free or reduced-price lunch through the National School Lunch Program, and the setting of the school neighborhood. Parents were asked about the student's sex and race/ethnicity, as well as questions about household size and income that could then be used to determine the student's poverty status.³

The Issue Brief presents the percentage of students receiving special education in at least one of the three grades (kindergarten, first grade, and third grade). Then, among students who received special education in at least one of the grades, the Issue Brief presents information on which of the three grades students first received services and the combinations of grades in which students received them. Results are reported separately by sex, race/ethnicity, student's poverty status, school sector (public or private), the urbanicity and region of the school, and the poverty concentration of the school (schools were coded "high poverty" if at least 50 percent of students were eligible for free or reduced-price lunch through the National School Lunch Program).

Findings

Overall, 12 percent of students received special education services in kindergarten, first, or third grade (table 1).⁴ Males were more likely than females to receive special education in at least one grade (16 vs. 8 percent). Poor students were more likely than nonpoor students to receive services (18 vs. 10 percent). Also, higher percentages of public school rather than private school students (14 vs. 3 percent), students in small town/rural rather than central city schools (15 vs. 10 percent), and students in the South or Northeast rather than the West (15 and 13 percent vs. 9 percent) received special education in at least one grade.

In the primary grades, the most common entry to special education occurred after first grade (that is, students received services in third grade but not in kindergarten or first grade). Among students who received special education in at least one grade, 43 percent received special education in third grade but not in kindergarten or first grade, 34 percent began receiving services in kindergarten, and 23 percent began in first grade. This later entry was more prevalent among males (46 percent received in third grade but not kindergarten or

Table 1. Percentage of the kindergarten class of 1998–99 receiving special education in kindergarten, first, and third grade, by student and school characteristics: 1998–99, 1999–2000, and 2001–02

Student or school characteristic	Special education in at least one grade	Among special education students								
		Grade student first received special education				First received special education in kindergarten			Special education in first grade	
		Kindergarten	1st grade	3rd grade	All three grades	Kindergarten and 1st grade but not 3rd grade	Kindergarten and 3rd grade but not 1st grade	Kindergarten but not 1st grade or 3rd grade	1st and 3rd grade	1st but not 3rd grade
All students	12.3	33.9	22.8	43.3	35.1	16.0	15.8	33.1	56.2	43.8
Student characteristics										
Sex										
Male	16.0	32.1	21.5	46.4	34.1	16.9	17.0	32.0	64.2	35.8
Female	8.4	37.6	25.3	37.1	36.9	14.5	13.7	35.0	42.4	57.6
Race/ethnicity										
White	12.2	34.8	23.0	42.2	37.3	16.4	14.1	32.2	57.2	42.8
Black	14.2	35.4	28.0	36.6	32.2	23.5	19.3	25.0	43.8	56.2
Hispanic	11.5	34.3	15.2	50.5	29.4	7.7	15.4	47.6	68.3	31.7
Other/More than once race, non-Hispanic	10.7	22.8	24.6	52.7	42.5	11.8	24.8	20.9	67.4	32.6
Poverty Status										
Poor	17.7	32.3	26.8	40.9	26.9	18.0	35.7	19.4	66.2	33.8
Nonpoor	10.0	32.6	22.0	45.4	36.2	14.6	13.9	35.3	48.7	51.3
Changed poverty status	16.2	36.3	22.6	41.1	34.3	12.1	13.2	40.4	59.0	41.0
School characteristics										
School type										
Public	13.7	34.4	22.8	42.7	36.3	15.4	16.5	31.8	56.7	43.3
Private	3.1	38.7	17.0	44.3	29.8	14.7	11.9	43.7	32.1	67.9
Changed school type	7.7	22.9	24.5	52.6	4.3	34.9	#	60.8	54.6	45.4
Urbanicity										
Central city	9.9	26.9	17.9	55.3	40.5	16.3	16.6	26.6	62.5	37.5
Urban fringe/large town	12.4	37.0	19.0	44.0	36.9	19.0	17.4	26.7	60.4	39.6
Small town/rural	15.3	35.9	34.8	29.3	35.4	10.7	13.7	40.2	56.7	43.3
Changed urbanicity	14.5	36.3	19.7	43.9	14.7	16.9	#	55.3	19.6	80.4
Region ¹										
Northeast	13.4	36.1	22.7	41.2	36.1	12.7	17.1	34.1	67.1	32.9
Midwest	10.5	24.5	25.3	50.2	47.5	12.4	20.1	20.0	52.3	47.7
South	14.9	37.1	26.3	36.6	35.5	20.2	15.3	29.0	50.8	49.2
West	9.0	30.0	10.8	59.2	26.8	6.1	9.0	58.2	79.1	20.9
National School Lunch Program (NSL) eligibility										
50 percent or more	13.4	34.2	24.5	41.3	34.2	18.1	24.1	23.5	58.1	41.9
Less than 50 percent	11.0	29.3	25.2	45.5	31.4	14.7	17.6	36.3	52.5	47.5
Changed NSL	14.1	41.5	18.9	39.6	39.5	15.6	6.5	38.4	59.8	40.2

Rounds to zero.

! Interpret data with caution. Standard error is more than one-third as large as the estimate.

¹ A "Changed region" row has not been included because there were too few cases in the sample for reliable estimates.

NOTE: Race categories exclude Hispanic origin unless specified. Detail may not sum to totals because of rounding. Not all apparent differences in this table are statistically significant. Standard errors are available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2007043>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), "Special Education Teacher/Service Provider Questionnaire," spring 1999, spring 2000, and spring 2002.

first grade) than females (37 percent). Also special education students included in the Other/more than one race, non-Hispanic racial/ethnic category were more likely than Black special education students to receive services in third grade but not the two earlier grades (53 vs. 36 percent). Higher percentages of special education students in central cities (55 percent) and urban fringes/large towns (44 percent) than small towns/rural areas (29 percent) received special education in third grade but not the earlier grades. And, a higher percentage of special education students in the West (59 percent) than in the South (37 percent) received special education in third grade but not the earlier grades.

Students who received special education services in kindergarten did not necessarily continue with special education in later grades. Thirty-three percent did not receive special education in first or third grades and another 16 percent received special education in first but not in third grade. This means that about half (49 percent) of students who received special education in kindergarten had stopped receiving special education by third grade. Among Hispanic students who received special education in kindergarten, 48 percent received services only in kindergarten, a higher percentage than the other racial/ethnic groups. Also, in the West, 58 percent of kindergartners receiving special education received services in kindergarten only, a higher percentage than in the other regions. In contrast, in the Midwest, 20 percent of kindergartners receiving special education received it in kindergarten only and 48 percent received special education in all three grades (these percentages differ measurably only from the West; apparent differences with other regions cannot be confirmed because of large standard errors).

Students who were new to special education in first grade were more likely than not to be receiving special education in third grade as well (56 percent of students first receiving special education in first grade). The relatively small number of students in the analytic sample who first received special education in first grade makes it difficult to draw inferences about differences among the subgroups of students—some large apparent differences are not statistically significant. However, some notable differences did emerge. For example, a higher percentage of male students than female students new to special education in first grade continued to receive services in third grade (64 vs. 42 percent). A higher percentage of Hispanic students than Black students new to special education in first grade continued to receive services in third grade (68 vs. 44 percent). And a higher percentage of students in the West than those in the South or Midwest new to special education in first grade continued to receive services in third grade (79 percent vs. 51 and 52 percent, respectively).

Conclusion

This analysis of the timing and duration of special education in the primary grades illustrates the complexity of the growth of the special education population between kindergarten and third grade. Overall in the U.S. kindergarten class of 1998–99, higher percentages of students began receiving special education after first grade than in kindergarten or first grade. Of those who entered special education in kindergarten, about one half were no longer receiving special education in third grade. Conversely, those who entered special education in first grade were more likely than not to be receiving special education again in third grade. Patterns in the timing and duration of special education in these grades differed by sex, racial/ethnic background, poverty status, and the sector and geographic setting of their schools.

Whether or not the third grade special education students continue to receive services will not be clear until future years of ECLS-K data are analyzed. The ECLS-K is scheduled to follow children through the cohort's eighth grade year.

References

- Office of Special Education and Rehabilitative Services. (2003). *Twenty-fifth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*. U.S. Department of Education. Washington, DC: Author.
- Walker, D., Singer, J., Palfrey, J., Orza, M., Wenger, M., and Butler, J. (1988). Who Leaves and Who Stays in Special Education: A 2-year Follow-up Study. *Exceptional Children*, 54, 393-402.

Endnotes

- ¹ Percentage of children receiving special education calculated from OSERS (2003) report of children receiving special education by age and U.S. Census Bureau (Summary File 1 of the 2000 Census, retrieved August 15, 2006 from http://factfinder.census.gov/servlet/DatasetMainPageServlet?_ds_name=DEC_2000_SF1_U&_program=DEC&_lang=en) table QT-P2 of population by age.
- ² These grades refer to data collection waves; not all children in the third grade wave were third graders. Data on special education were not collected in the second grade year. The sample includes 13,694 children who were in the ECLS-K study sample in the spring kindergarten, first grade, and third grade administrations, including 1,184 students who were identified as requiring special education services in either the kindergarten, first, or third grade administrations. The analysis weighted cases using the C245CW0 weighting variable.
- ³ Household poverty status was determined using U.S. Census Bureau weighted average poverty thresholds.
- ⁴ This Issue Brief refers to children by the grade of the overall ECLS-K cohort at the time, although not all children in the analytic sample were enrolled in the grade. In the spring of 2000, 96 percent of children in the analytic sample were in first grade; in the spring of 2002, 91 percent of the sample were in third grade.

The Issue Brief series presents information on education topics of current interest. All estimates shown are based on samples and are subject to sampling variability. All differences discussed are statistically significant at the .05 level as measured by two-tailed Student's *t* tests; this means a difference is discussed only if the probability that it is due to chance (i.e., sampling variability) is less than 1 in 20. No adjustments were made for multiple comparisons. In the design, conduct, and data processing of National Center for Education Statistics (NCES) surveys, efforts are made to minimize the effects of nonsampling errors, such as item nonresponse, measurement error, data processing error, or other systematic error.

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