

# Research Brief

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Child **TRENDS**

## The Academic Achievement of English Language Learners:

DATA FOR THE U.S. AND EACH OF THE STATES

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### OVERVIEW

As the U.S. population has become increasingly diverse—a continuing trend led by children—there has been an accompanying rise in the number of children who grow up hearing and learning more than one language. Dual language learners<sup>a</sup> represent an important asset for our nation's future, since those who have fluency in more than one language have access to a broader, and generally higher-paid, set of job opportunities.<sup>1</sup> Moreover, children who are bilingual reap benefits in multiple developmental areas: cognitive, social, and emotional.<sup>2</sup> However, these opportunities can go unrealized when schools and other social institutions lack the understanding required to respond sensitively to the particular needs of dual language learners.

In this brief, we compare national trends over time in academic achievement for students who are English language learners (ELLs),<sup>b</sup> and their peers who are not English language learners. The measures we use are from the National Assessment of Educational Progress (NAEP): the percentage of fourth-graders scored as performing at a “basic or above” level in reading, and the percentage of eighth-graders scored as performing at a “basic or above” level in mathematics. (See “Achievement Levels . . .” for detailed definitions.) Reading ability by the end of third grade—when the need for “learning to read” is increasingly supplanted by “reading to learn”—is a widely recognized marker of early school success.<sup>3</sup> Similarly, math achievement in eighth grade often determines a student's ability to progress to the higher-level courses increasingly required for a post-secondary degree.<sup>4</sup>

By some estimates, children learning more than one language are currently about one in three U.S. children.<sup>5</sup> Their success in school will be critical for their well-being, and for the economic vitality of our nation's future workforce.

### KEY FINDINGS AND IMPLICATIONS

- Although ELL students are represented in the NAEP assessments, states vary in the extent to which they exclude ELLs from the assessment, and the extent to which they provide assessed ELL students with appropriate test-taking accommodations.

<sup>a</sup>For a discussion of terminology, see “About the Data . . .”.

<sup>b</sup>For a discussion of terminology, see “About the Data . . .”.



- The achievement gap between ELL and non-ELL students—about 40 percentage points in both fourth-grade reading and eighth-grade math—has been essentially unchanged from 2000 to 2013. However, the achievement of former ELL students<sup>c</sup> shows greater progress.
- There is considerable state-level variation in the percentage of ELL students achieving at the “basic or above” levels, suggesting that progress can be made in closing the achievement gap. For example, in two states (Louisiana and South Carolina), ELL students are statistically indistinguishable from non-ELL students on the fourth-grade reading measure.
- On the eighth-grade math measure, in every state but South Carolina, ELL students lag significantly behind non-ELL students.
- All those with a stake in the academic success of ELL students—parents, teachers and schools, communities, and the students themselves—should improve efforts to achieve greater equity of results for this group, which is likely to continue to grow in the near term.

### BACKGROUND

Although there is no single definition of English language learners, the U.S. Department of Education defines this group as students served in programs of language assistance, such as English as a second language, high-intensity language training, and bilingual education. As of the 2011-12 school year, there were 4.5 million ELL students in public elementary and secondary schools, or about nine percent of all public school students, according to the Department of Education.<sup>6</sup> ELL students are at risk of falling behind their English-literate peers unless they receive appropriate supports.<sup>7</sup> Thus, the Department of Education mandates separate reporting of achievement data for this group.

While no more detailed data on this group are available, ELL students are undoubtedly a diverse group. Many are, or have parents who are, recent immigrants. Their home language environment may include both English-speakers and those who maintain a heritage language long after the immigration experience. Some acquired two languages simultaneously as infants and toddlers; others are older children learning English after having gained facility in another language.<sup>8</sup> Their first language may be one of literally dozens represented by U.S. children; for example, the Minnesota Department of Education reports that ELL students in that state represent more than 200 languages.<sup>9</sup>

According to experts, ideally ELL students should be assessed using measures that are valid in terms of their sensitivity to culture, and to the amount of exposure to English these students have had. One recommended approach is “conceptual scoring,” in which comparable test items are developed in both English and the child’s home language, and the child is permitted to respond in either language.<sup>10</sup>

The National Assessment of Educational Progress (NAEP) provides the only representative estimates of students’ academic achievement that are comparable over time and across states. NAEP data include estimates of proficiency in reading and math, at fourth and eighth grades. These results are provided for a number of student groups, including English language learners. The U.S. Department of Education, which administers NAEP, encourages states to achieve a goal

<sup>c</sup>See “Background” for definition.



of at least 85 percent participation among those who are identified as ELL students in their test sample. Since 2000, the Department has allowed states to provide a number of “accommodations” to ELL students, which include extended testing time, small-group or one-on-one testing, and test directions (and, for math, test items) read aloud in Spanish. Note that, whereas the overall NAEP samples are representative of all students nationally, and by state, the sample of ELL students cannot be assumed to be generalizable to the whole population of such students.

This report focuses on the fourth-grade reading and the eighth-grade math assessments. It provides tabulations, for each assessment, of the percentage of ELL students and non-ELL students who performed at the “basic” level or above.<sup>4</sup> The Department of Education defines the basic level as “partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.”<sup>11</sup>

The most recent year available for these NAEP data is 2013. Comparable data extend back to 2000. NAEP also provides achievement data for “former ELL students.” This group is defined as those who are not currently ELL students, but who received ELL services within the past two years. Data for this group are available only since 2005.

## FINDINGS

For the 2013 *fourth-grade reading* assessment, eight states (CT, DE, GA, IN, KY, MD, RI, and UT) did not meet the national goal of including at least 85 percent of ELL students selected for the sample. Nationwide, 47 percent of ELL students received accommodations for this test. By state, the range was from a high of 100 percent (NY) to a low of 16 percent (CA) (AL and WV had insufficient data for this analysis).

For the 2013 *eighth-grade math* assessment, three states (MD, MA, and MI) and the District of Columbia did not meet the goal of including at least 85 percent of ELL students. Nationwide, 53 percent of ELL students received accommodations for this test. By state, the range was from a high of 92 percent (NY) to a low of 26 percent (CA) (AL, MS, and WV had insufficient data for this analysis).

At the national level, just under one-third of ELL students (31 percent) scored at the basic level or above in reading at fourth grade, compared with more than two-thirds (72 percent) of non-ELL students. In all but two states—LA and SC—the difference in performance between ELL students and non-ELL students was statistically significant. In just three states (SC, MD, and OH), a majority of ELL students reached the basic level in reading; in ten states (AK, AZ, HI, ID, IL, MT, NM, RI, TN, UT), fewer than 20 percent of ELL students met this criterion (AL, MS, VT, and WV did not meet NAEP reporting standards).

Nationally, just under one-third of ELL students (31 percent) scored at the basic level or above in math at eighth grade, compared with three-quarters (75 percent) of non-ELL students. In all states but SC, the difference in performance between ELL students and non-ELL students was statistically significant. In just three states (AR, KS, and SC), a majority of ELL students reached the basic level in math; in five states (CT, ID, NV, OR, UT), fewer than 20 percent of ELL students met this criterion (AL, AZ, DE, IN, LA, ME, MS, MO, MT, NH, NJ, NJ, ND, TN, VT, and WV did not meet NAEP reporting standards).

<sup>4</sup>Although achievement at a “basic” level of may provide a more realistic benchmark for ELL students, the analysis was also run using the proportion of students testing at the “proficient” level or above. Results were essentially the same (data available on request).



NAEP also provides achievement data for “former ELL students.” These are defined as those who are not currently ELL students, but who received ELL services within the past two years.<sup>e</sup> Available only for the most recent five years, these data show fourth-graders nationally in 2013 who were formerly ELL students achieved at a level comparable to non-ELL students in reading. On the 2013 eighth-grade math assessment, former ELL students’ achievement nationally was significantly lower than that of non-ELL students, but significantly higher than that of ELL students. At a state level, small sample sizes for former ELL students precluded analysis of their results.

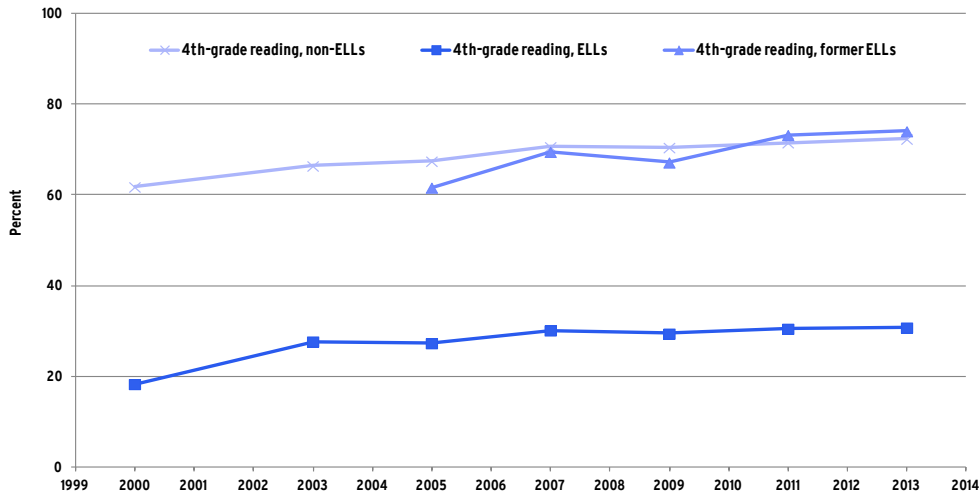
Other information on dual-language-learner children shows that they are disproportionately poor.<sup>12</sup> Those whose home language is Spanish comprise the largest single group, and are also the group with the highest poverty level. Poverty (as determined by students’ eligibility for the National School Lunch Program) is strongly associated with lower NAEP scores<sup>13</sup> (analysis not shown here).

The specific linguistic make-up of the ELL student population varies from state to state.<sup>14</sup> Nevertheless, the variability in state-level performance overall, and in the size of the gap between ELL and non-ELL students, suggests that there may be modifiable factors related to the academic achievement of ELL students. These could include the degree of stress associated with acculturation, as well as family income.<sup>15</sup> The state-level data might prompt further inquiry into the policies, classroom curricula, school and community supports, and other characteristics of states that have been relatively more successful in promoting the achievement of their English language learners.

<sup>e</sup>States’ policies for reclassifying ELL students vary enormously, and some states give additional discretion to local districts. There is evidence that mistimed (either too early or too late) reclassification of ELL students to “former ELL students” can be harmful to their development. Efforts are underway to improve and standardize these procedures. Williams, C. P. (2014). Chaos for dual language learners: An examination of state policies for exiting children from language services in the preK-3rd grades. New America. Retrieved from [http://www.newamerica.org/downloads/chaosfordlls-conorwilliams-20140925\\_v3.pdf](http://www.newamerica.org/downloads/chaosfordlls-conorwilliams-20140925_v3.pdf)

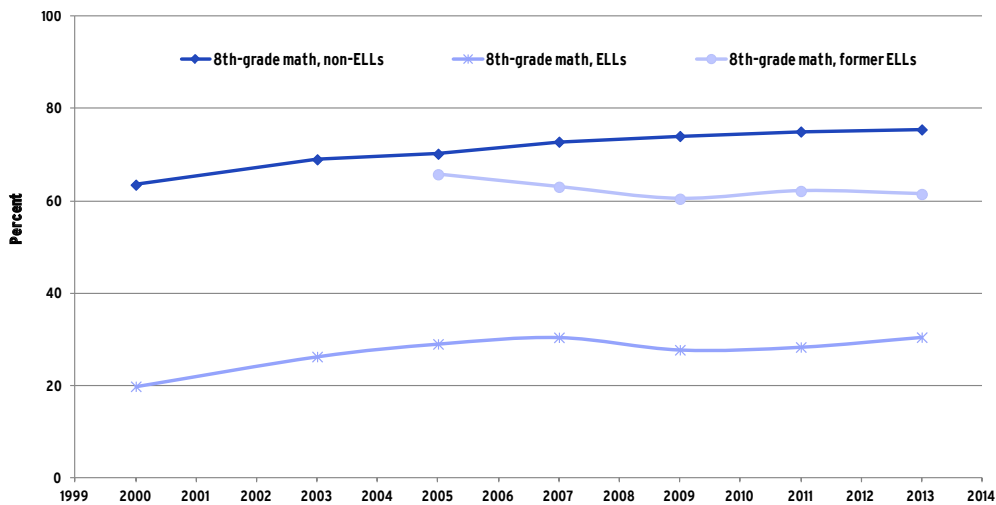


**Percent of U.S. public school students scoring at the basic level or above in 4th-grade reading, by English language learner status: selected years, 2000-2013**



Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. National Assessment of Educational Progress Mathematics Assessments (NAEP), 2000-2013 Reading Assessments. Accessed through the NAEP Data Explorer, at <http://nces.ed.gov/nationsreportcard/naepdata/>

**Percent of U.S. public school students scoring at the basic level or above in 8th-grade math, by English language learner status: selected years, 2000-2013**



Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. National Assessment of Educational Progress Mathematics Assessments (NAEP), 2000-2013 Mathematics Assessments. Accessed through the NAEP Data Explorer, at <http://nces.ed.gov/nationsreportcard/naepdata/>



### ABOUT THE DATA USED IN THIS BRIEF

There are multiple terms in use to refer to children learning more than one language, either concurrently or consecutively. The primary data in this brief are from the federal Department of Education, which defines “English language learners” as students served in programs of language assistance, such as English as a second language, high-intensity language training, and bilingual education. Under the federal Elementary and Secondary Education Act (“No Child Left Behind”), ELL students are among the subgroups for which school districts must provide disaggregated assessment data. The U.S. Census Bureau in its surveys asks about languages spoken at home and, for individuals five and older, their level of English-speaking ability. The term “dual language learners” is preferred by many researchers and practitioners (including those in Head Start and Early Head Start), and generally refers to young children learning English while they are continuing to develop skills in another language used at home.

### Achievement levels as used in the National Assessment of Educational Progress (NAEP)

#### For achievement in fourth-grade *reading*, NAEP offers the following description of the basic level:

Fourth-grade students performing at the Basic level should be able to locate relevant information, make simple inferences, and use their understanding of the text to identify details that support a given interpretation or conclusion. Students should be able to interpret the meaning of a word as it is used in the text.

When reading literary texts such as fiction, poetry, and literary nonfiction, fourth-grade students performing at the Basic level should be able to make simple inferences about characters, events, plot, and setting. They should be able to identify a problem in a story and relevant information that supports an interpretation of a text.

When reading informational texts such as articles and excerpts from books, fourth-grade students performing at the Basic level should be able to identify the main purpose and an explicitly stated main idea, as well as gather information from various parts of a text to provide supporting information.

#### For achievement in eighth-grade *math*, NAEP offers the following description of the basic level:

Eighth-grade students performing at the Basic level should exhibit evidence of conceptual and procedural understanding in the five NAEP content areas. This level of performance signifies an understanding of arithmetic operations—including estimation—on whole numbers, decimals, fractions, and percents.

Eighth-graders performing at the Basic level should complete problems correctly with the help of structural prompts such as diagrams, charts, and graphs. They should be able to solve problems in all NAEP content areas through the appropriate selection and use of strategies and technological tools—including calculators, computers, and geometric shapes. Students at this level also should be able to use fundamental algebraic and informal geometric concepts in problem solving.



### Number of English language learners (ELLs), U.S. and by state; percent of assessed students scoring at the basic level or above on 4th-grade reading, by ELL status; and percent of assessed ELLs provided with accommodations

	ELLs, 2011-12	Reading: Percentage of 4th-Graders Scoring at or Above Basic Level, 2013		Percentage assessed with accommodations
		ELL Students	Non-ELL Students	
UNITED STATES	4,472,563	31	72	47%
ALABAMA	17,895	‡	66	-
ALASKA	14,583	10	65	82%
ARIZONA	76,288	8	63	90%
ARKANSAS	32,744	47	68	69%
CALIFORNIA	1,434,202	26	69	16%
COLORADO	102,901	37	80	47%
CONNECTICUT	30,141	25	79	94%
DELAWARE	7,147	24	74	51%
DISTRICT OF COLUMBIA	4,760	23	51	87%
FLORIDA	234,451	41	79	98%
GEORGIA	83,966	29	68	73%
HAWAII	24,750	14	65	53%
IDAHO	15,215	17	70	59%
ILLINOIS	170,631	18	68	80%
INDIANA	51,264	48	75	83%
IOWA	22,503	41	73	82%
KANSAS	41,052	49	75	38%
KENTUCKY	16,879	41	72	80%
LOUISIANA	12,835	47	57*	78%
MAINE	5,131	35	72	77%
MARYLAND	51,574	51	78	68%
MASSACHUSETTS	65,230	40	83	23%
MICHIGAN	58,677	39	66	35%
MINNESOTA	60,851	33	78	38%
MISSISSIPPI	6,175	‡	54	56%
MISSOURI	24,939	37	70	86%

	ELLs, 2011-12	Reading: Percentage of 4th-Graders Scoring at or Above Basic Level, 2013		Percentage assessed with accommodations
		ELL Students	Non-ELL Students	
MONTANA	3,319	16	72	30%
NEBRASKA	17,546	34	74	77%
NEVADA	84,126	30	71	76%
NEW HAMPSHIRE	3,892	34	81	69%
NEW JERSEY	53,715	33	76	94%
NEW MEXICO	53,801	16	60	47%
NEW YORK	205,397	25	74	100%
NORTH CAROLINA	99,150	23	72	54%
NORTH DAKOTA	2,589	‡	74	68%
OHIO	38,250	51	71	87%
OKLAHOMA	45,100	30	68	64%
OREGON	64,045	29	71	38%
PENNSYLVANIA	47,218	27	74	87%
RHODE ISLAND	8,325	17	73	56%
SOUTH CAROLINA	39,027	54	61*	23%
SOUTH DAKOTA	4,739	20	67	64%
TENNESSEE	30,997	19	69	94%
TEXAS	746,466	36	70	44%
UTAH	33,766	9	74	73%
VERMONT	1,447	‡	76	74%
VIRGINIA	91,738	28	77	61%
WASHINGTON	82,070	20	77	60%
WEST VIRGINIA	1,914	‡	62	-
WISCONSIN	44,436	34	70	87%
WYOMING	2,706	37	76	74%

‡ Reporting standards not met  
- Rounds to zero



### Number of English language learners (ELLs), U.S. and by state; percent of assessed students scoring at the basic level or above on 8th-grade math, by ELL status; and percent of assessed ELLs provided with accommodations

	Math: Percentage of 8th-Graders Scoring Above Basic Level, 2013		Percentage assessed with accommodations
	ELL Students	Non-ELL Students	
UNITED STATES	31	75	53%
ALABAMA	‡	60	-
ALASKA	22	78	80%
ARIZONA	‡	70	80%
ARKANSAS	58	70	62%
CALIFORNIA	20	71	26%
COLORADO	31	81	49%
CONNECTICUT	7	76	83%
DELAWARE	‡	72	75%
DISTRICT OF COLUMBIA	23	55	75%
FLORIDA	28	72	87%
GEORGIA	22	69	80%
HAWAII	38	75	47%
IDAHO	17	80	63%
ILLINOIS	26	76	71%
INDIANA	‡	78	80%
IOWA	35	77	79%
KANSAS	52	82	30%
KENTUCKY	30	72	74%
LOUISIANA	‡	64	69%
MAINE	‡	79	68%
MARYLAND	33	75	71%
MASSACHUSETTS	34	88	34%
MICHIGAN	26	72	53%

	Math: Percentage of 8th-Graders Scoring Above Basic Level, 2013		Percentage assessed with accommodations
	ELL Students	Non-ELL Students	
MINNESOTA	47	85	36%
MISSISSIPPI	‡	61	-
MISSOURI	‡	74	64%
MONTANA	‡	81	45%
NEBRASKA	30	77	69%
NEVADA	16	72	71%
NEW HAMPSHIRE	‡	85	78%
NEW JERSEY	‡	83	71%
NEW MEXICO	26	68	45%
NEW YORK	25	75	92%
NORTH CAROLINA	41	77	61%
NORTH DAKOTA	‡	83	61%
OHIO	38	80	80%
OKLAHOMA	30	69	49%
RHODE ISLAND	20	77	76%
SOUTH CAROLINA	59	69*	39%
SOUTH DAKOTA	28	80	53%
TENNESSEE	‡	70	85%
TEXAS	46	82	56%
UTAH	15	77	65%
VERMONT	‡	84	62%
VIRGINIA	48	79	67%
WASHINGTON	37	81	59%
WEST VIRGINIA	‡	66	-
WISCONSIN	50	79	80%
WYOMING	‡	82	78%

‡ Reporting standards not met  
- Rounds to zero





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