Latinos and Literacy:
Hispanic Students' Progress in Reading

Recent Gains at National, State, and School District Levels

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Child Trends hispanic Institute

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THE ANNIE E. CASEY FOUNDATION

This report, from the Child Trends Hispanic Institute, provides a detailed examination of the progress America's Latino students made in reading from 2005 to 2015. We use the terms Hispanic and Latino interchangeably.

Overview

Reading is essential to learning. Reading is a developmental process, in which children must navigate a sequence of increasingly difficult tasks.[1] As students move through school grades, they progress through changing environments of supports, task requirements, and knowledge demands. Reading is a skill that is built over time, and a tool for further learning. Reading achievement by the end of third grade is a critical checkpoint, for by this time reading to learn needs to take precedence over learning to read. Students who are still poor readers by the end of third grade are less likely to understand what is taught in later grades. In fact, the likelihood of high school graduation can be predicted with reasonable accuracy by fourth-grade reading scores.[2]

Most students in U.S. public schools perform below the "proficient" level in reading, according to national benchmark tests. In 2015, 35 percent of all fourth-graders scored at or above the proficient level on the National Assessment of Educational Progress (NAEP, also known as "The Nation's Report Card™"); at eighth grade, the proportion was 33 percent. Moreover, reading achievement varies substantially by race and ethnicity. Nearly half of white students (46 percent) scored at or above proficient in grade four, while less than a quarter (21 percent) of Hispanic students reached that level.[3]

This gap in fourth-grade reading achievement is pervasive, ranging from 10 scale points (approximately one grade level[4]) in Louisiana, to 33 points in Pennsylvania and Minnesota (the equivalent of more than three grade levels).[5] Such gaps are concerning, in part because Hispanic children make up 1 in 4 of all U.S. children today[6] and, by 2030, will be 1 in 3.

Here, we examine Hispanic students' NAEP reading scores over the past decade on the fourth- and eighth-grade reading assessments—nationally, by state, for large cities, and for selected urban school districts.

Key findings

- **National level** (all public schools). Across the nation, from 2005-2015, reading scores for Hispanic fourth- and eighth-graders increased by the equivalent of roughly half a grade level. We found score increases for all measured country-of-origin subgroups (i.e., Cuban Americans, Mexican Americans, Puerto Ricans, and other Hispanic/Latino).
- **State results.** Over the last decade, more than one third of states saw improvements in Hispanic students' reading scores at fourth or eighth grades. Data from the most recent four years suggest that progress has slowed. Significant fourth-grade gains were apparent in only seven states, and significant eighth-grade gains were apparent in only three. Average 2015 reading scores for Hispanic students varied substantially by state, depending on the grade assessed.
- **Selected urban school districts.** In large U.S. cities over the last 10 years, reading score increases for Hispanic fourth- and eighth-graders were similar to those at the national level. School districts in Boston, Chicago, Los Angeles, New York, San Diego, and Washington, DC (all of which serve a large percentage of low-income Hispanic students) were among the top performers over the decade.

About this report

We used NAEP data to examine Hispanic students' reading scores. NAEP is the largest continuing, nationally representative assessment of what U.S. students know and can do in various subject areas, including reading. NAEP provides our only common metric for academic achievement across time and across states. Testing in reading is conducted every other year, in the spring of the fourth- and eighth-grade years. States also have their own assessments, but those results are not comparable to each other.[7]

1 RAND Reading Study Group. (2002). Reading for understanding: Toward an R&D program in reading comprehension. Santa Monica, CA: RAND Corporation.
2 Slavin, R.E., N.L. Karweit, B.A. Wasik, N.A. Madden, and L.J. Dolan 1994 Success For All: A comprehensive approach to prevention and early intervention. Pp. 175-205 in Preventing Early School Failure, R.E. Slavin, N.L. Karweit, and B.A. Wasik, eds. Boston: Allyn and Bacon.
3 Grade 4 and Grade 8 2015 NAEP; scores reported here are based on NAEP's "National Public" estimates and include only public schools, which is why they differ slightly from "Nation" averages reported elsewhere.
4 A 10-point increase on the NAEP scale can be roughly compared to an advance of one grade level, though this equivalence is imperfect, and is not endorsed by the National Center for Education Statistics (NCES) or the National Assessment Governing Board (Governing Board). However, some commentators (see for example, Lubienski & Lubienski, 2006 and Sarah Spark's EdWeek piece on NAEP NIES July 3, 2012) have used it to provide a sense of the practical significance of a change of this magnitude.
5 Grade 4, 2015 NAEP Reading
6 http://www.childstats.gov/americaschildren/tables.asp, Table POP3
7 The Common Core assessments, if testing the same content in the same way across states, would provide comparable data.

This report differs from previous work[8] in that it

- focuses exclusively on scores of Hispanic students, including country-of-origin subgroups;
- does not primarily examine Hispanic/non-Hispanic achievement gaps;
- presents data for large cities, in addition to national and state data;
- examines long-term (10-year) and short-term (four-year) trends; and
- relies on data available to, and analyses that are replicable by, the general public.

We provide an overview of how Latino children are faring nationally in reading. Because school policies and instructional practices vary greatly among states and districts, we also examine state and available urban district scores.

The Hispanic population is diverse in so many ways, including national origin, family immigration context (reason for migration, time in this country), location in the United States, and linguistic characteristics. However, most studies of achievement patterns treat Hispanic students as a single, undifferentiated category. To better understand the diversity within the Hispanic student population, we break out findings by country of origin, and look at results on state and district levels.

At each geographic level, we present long-term and short-term trends, together with 2015 reading scores, and, where possible, an analysis by country-of-origin subgroups. The scores used in our analyses are cross-sectional trend data, which, while descriptive, cannot provide an explanation for progress, or lack of it. Nonetheless, we hope here to shine a light on the trends, to begin to ask "Why?" and "Why not?" This work also builds on our earlier report, "Math Scores Add Up for Hispanic Students."[9] Please read the "Limitations of the Data" section for more information.

8 An earlier Child Trends report took a similar approach in looking at the mathematics scores of Hispanic students. http://www.childtrends.org/wp-content/uploads/2014/11/2014-59MathScoresAddUpReport.pdf

9 The report may be found at http://www.childtrends.org/wp-content/uploads/2014/11/2014-59MathScoresAddUpReport.pdf

National-level findings

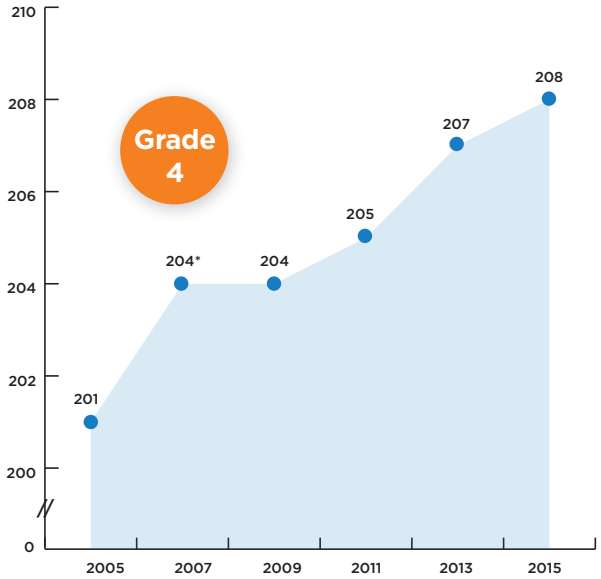
National finding 1. Over the last decade (2005-2015), Hispanic fourth- and eighth-graders gained the equivalent of half a grade level in reading.

Over the past 10 years, average reading scores for Hispanic students in U.S. public schools rose six points at grade four, and eight points at grade eight—gains roughly equal to half a grade level. Both increases are statistically significant.

For fourth-grade students, the increases have been small and relatively incremental. There was a statistically significant gain between 2005 and 2007. Although none of the year-to-year gains between 2007 and 2015 were significant, scores in 2015 were four points higher than in 2007 (overall, a statistically significant increase).

At eighth grade, scores showed fairly similar incremental gains up until 2015. Between 2005 and 2007, scores were static,[10] but between 2007 and 2013, successive assessments showed statistically significant gains. Between 2013 and 2015, scores fell by two points, a statistically significant decrease.

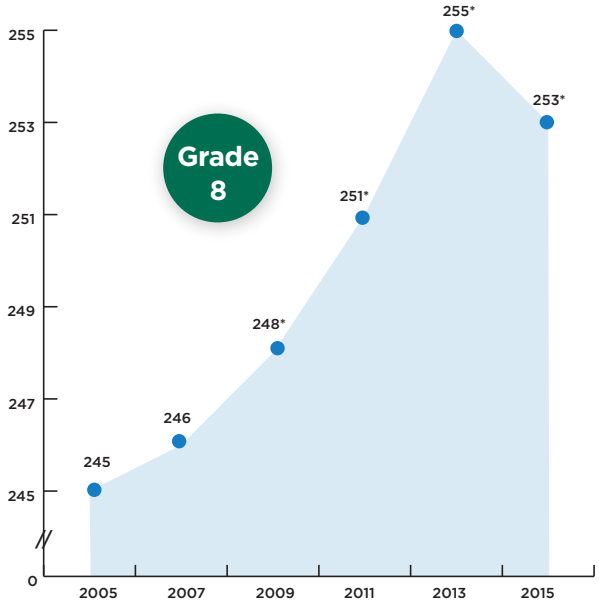
Figure 1: NAEP grade 4 national public school reading scores for Hispanic students, 2005-2015



*Score is significantly different from the previous year's.

10 Although the score increased one point from 245 to 246, it was not a statistically significant difference.

Figure 2: NAEP grade 8 national public school reading scores for Hispanic students, 2005-2015



* Score is significantly different from the previous year's.

Concurrent with the gains over this period, Hispanics comprised an increasing percentage of students taking the NAEP assessments. In the fourth-grade assessment, Hispanic students were 19 percent of the 2005 national public school sample, but, by 2015, they were 26 percent. Among eighth-graders, Hispanic students were 17 percent of the sample in 2005, but by 2015 they comprised 25 percent (Table 1).

Table 1. Hispanics as a percentage of all students participating in NAEP grade 4 and grade 8 reading tests: 2005-2015

	2005	2007	2009	2011	2013	2015
Grade 4	19	20	21	23	25	26
Grade 8	17	18	20	22	23	25

National finding 2. All measured Hispanic country-of-origin groups had significant long-term score increases and closely matched performance.

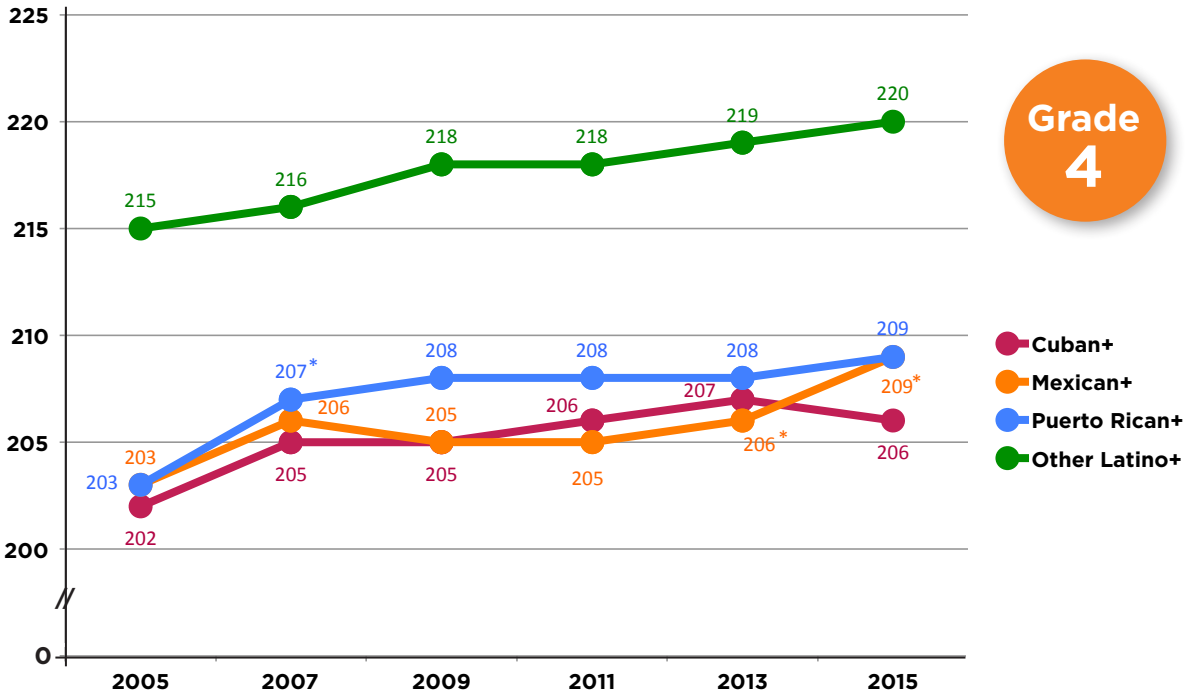
In addition to school reports of students' race and ethnicity, NAEP also tracks country of origin (non-exclusive categories, as reported by students). Since 2005, all measured Hispanic country-of-origin groups included in NAEP (Cuban Americans, Puerto Ricans, Mexican Americans and Chicanos, and other Hispanics or Latinos[11]) have shown statistically significant increases in reading scores at both grades four and eight (Figures 3 and 4).

At grade four, there were similar increases (4 to 6 points) over time for all measured subgroups (see graph). In general, scores for these subgroups clustered together, with the exception of those for "other Hispanic or Latino," which started more than 10 points higher than those for the other groups.

At eighth grade, there were similar increases (5 to 7 points) over time for all measured subgroups, except Cuban students, whose scores increased 11 points—about one grade level. Between 2013 and 2015, scores for Cubans and other Hispanic or Latino remained about the same. However, scores for Mexican and Puerto Rican students decreased significantly (-2 and -6 points, respectively).

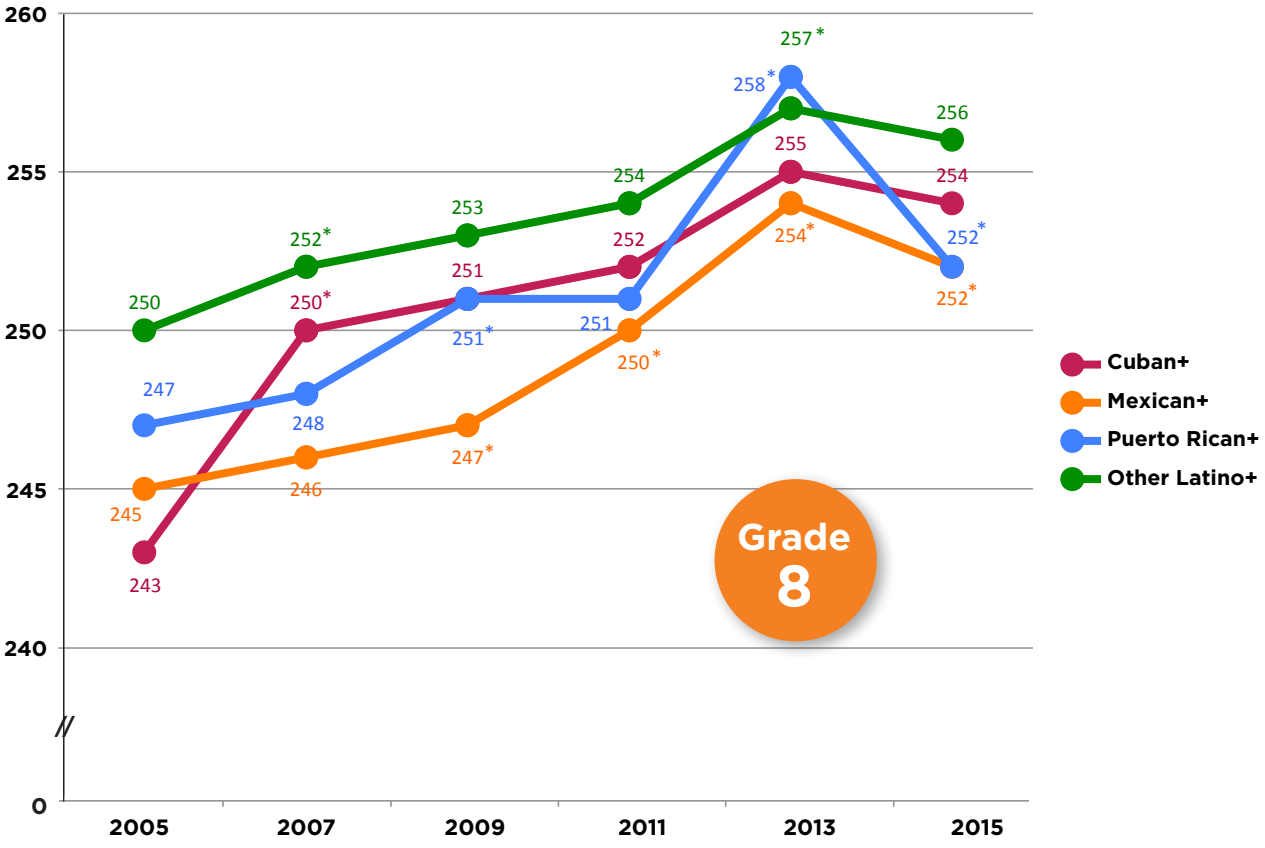
11 The four subgroups tracked in NAEP are 1) Mexican, Mexican American, or Chicano; 2) Cuban or Cuban American; 3) Puerto Rican or Puerto Rican American; and 4) Other Hispanic or Latino. Students classify themselves and may select more than one subgroup. These designations refer to student-reported "background" and do not necessarily indicate recent immigration; as of 2013, 93 percent of Hispanic children were born in the U.S.

Figure 3: NAEP grade 4 national public school reading scores for Hispanic students, by measured subgroups, 2005-2015



* Score is significantly different from the previous year's.
+ There was an overall change in this category between 2005 and 2015.

Figure 4: NAEP grade 8 national public school reading scores for Hispanic students, by measured subgroups, 2005-2015



* Score is significantly different from the previous year's.
+ There was an overall change in this category between 2005 and 2015.

Table 2. Of national public school students participating in NAEP reading, percentage Hispanic, by country of origin: 2005 and 2015

	% National public school sample			
	Fourth grade		Eighth grade	
	2005	2015	2005	2015
Cuban or Cuban American	2	2	1	1
Mexican, Mexican American, or Chicano	16	19	14	18
Puerto Rican	4	4	3	3
Other Hispanic or Latino	9	9	8	9
Total Hispanic (see note)	**19**	**26**	**17**	**25**

NOTE: Percentages of subgroups sum to more than the total Hispanic percentage because students were permitted to choose multiple responses.

State-level findings[12]

State finding 1. In 2015, there was a gap of more than two grade levels between Hispanic students' reading scores in the highest- and lowest-performing states.

Average 2015 reading scores for Hispanic students varied significantly by state—the equivalent of more than two grade levels, depending on the grade assessed. At grade four, the difference between the top state (Florida) and the bottom (Alabama) was 25 points, or about two-and-a-half grade levels. At grade eight, the difference between the top (Kentucky) and bottom (Rhode Island) states was 21 points, or about two grade levels.

To describe the variation among states, we identified those with scores not significantly different from the median state (these we labeled "mid-tier"); those with scores significantly higher than the median state ("top-tier"); and those significantly lower than the median state ("bottom-tier").

No states scored significantly below the median state at fourth grade. At eighth grade, Rhode Island was alone in the bottom tier.[13]

States are listed below. Those shaded in green are in the high tier, yellow = mid, red = low. The ‡ means they are missing data (too few Hispanic children in the sample for analysis).

Table 3: Grade 4 state comparisons in NAEP reading scores

Order	Jurisdiction	Significant difference from median state (Maryland)	Hispanic average scale score, 2015
1	Florida	>	224
2	Montana	x	219
3	Virginia	x	217
4	New Hampshire	x	217
5	Louisiana	x	217
6	Kentucky	x	216
7	New Jersey	x	216
8	Indiana	x	216
9	Wyoming	x	216
10	Alaska	x	215
11	Massachusetts	x	215
12	Tennessee	x	214
13	Oklahoma	x	213
14	Hawaii	x	212
15	North Carolina	x	212
16	Georgia	x	211
17	Illinois	x	211
18	Connecticut	x	210
19	Arkansas	x	210
20	Ohio	x	210
21	Delaware	x	210
22	Texas	x	210

12 The NAEP Data Explorer includes the District of Columbia as both a state and a school district; the state data include charter schools, whereas the district data do not. Here, we exclude D.C. from our state-level analyses, but include it in the section analyzing results for urban districts.
13 Three states—West Virginia, Vermont, and Maine—did not have enough Hispanic students to meet the NAEP reporting requirement in either fourth or eighth grade. Additionally, Mississippi did not meet the requirement in eighth grade.

Order	Jurisdiction	Significant difference from median state (Maryland)	Hispanic average scale score, 2015
23	Mississippi	x	210
24	Maryland		210
25	Iowa	x	209
26	New York	x	209
27	Missouri	x	209
28	Wisconsin	x	209
29	Kansas	x	208
30	Nebraska	x	208
31	Rhode Island	x	207
32	Colorado	x	206
33	Michigan	x	206
34	North Dakota	x	205
35	Utah	x	204
36	Nevada	x	204
37	Arizona	x	204
38	South Carolina	x	203
39	Washington	x	203
40	New Mexico	x	202
41	Oregon	x	202
42	South Dakota	x	202
43	Pennsylvania	x	201
44	California	x	201
45	Idaho	x	200
46	Minnesota	x	199
47	Alabama	x	199
N/A	West Virginia		‡
N/A	Vermont		‡
N/A	Maine		‡

‡ Reporting standards not met.
NOTE: Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. Prior to 2011, students in the "two or more races" category were categorized as "unclassified."
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2015 Reading Assessments.

Table 4: Grade 8 state comparisons in NAEP reading scores

Order	Jurisdiction	Significant difference from median state (Connecticut)	Hispanic average scale score, 2015
1	Kentucky	x	266
2	Alaska	x	263
3	Michigan	x	263
4	New Hampshire	x	262
5	North Dakota	x	261
6	South Dakota	x	260
7	Minnesota	x	260
8	Florida	x	260
9	Missouri	x	258
10	Maryland	x	258
11	Wyoming	x	258
12	Hawaii	x	258
13	Louisiana	x	258
14	Virginia	x	257
15	Indiana	x	257
16	Montana	x	257
17	Oklahoma	x	257
18	Nebraska	x	257
19	Tennessee	x	257
20	Illinois	x	257
21	Georgia	x	257
22	Iowa	x	256
23	Connecticut		256
24	Ohio	x	255
25	Arkansas	x	255
26	Wisconsin	x	255
27	New Jersey	x	254
28	Kansas	x	254
29	Arizona	x	254
30	New York	x	254
31	Colorado	x	253
32	Idaho	x	253
33	Delaware	x	253
34	Texas	x	252
35	Alabama	x	252
36	Oregon	x	252
37	North Carolina	x	252
38	Utah	x	252
39	Washington	x	250
40	Nevada	x	250

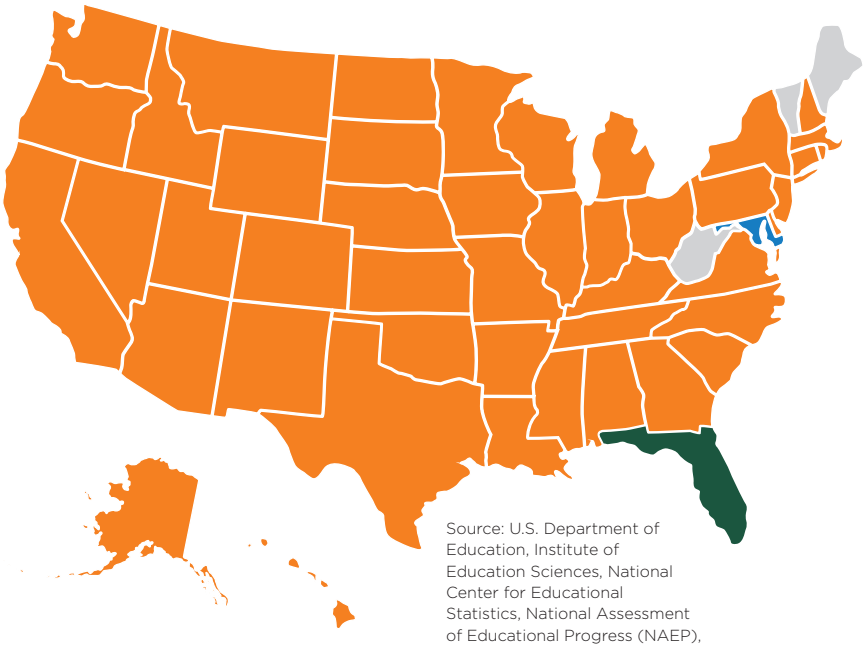
Order	Jurisdiction	Significant difference from median state (Connecticut)	Hispanic average scale score, 2015
41	Pennsylvania	x	250
42	South Carolina	x	249
43	New Mexico	x	249
44	Massachusetts	x	249
45	California	x	249
46	Rhode Island	<	245
N/A	West Virginia		‡
N/A	Vermont		‡
N/A	Mississippi		‡
N/A	Maine		‡

‡ Reporting standards not met.
NOTE: Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. Prior to 2011, students in the "two or more races" category were categorized as "unclassified."
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2015 Reading Assessments.

Map 1. Fourth-grade Hispanic student reading scores: comparisons by state (relative to median state: Maryland)

Difference in average scale scores between jurisdictions, for race/ethnicity used to report trends, school-reported ([SDRACE] = Hispanic)

2015

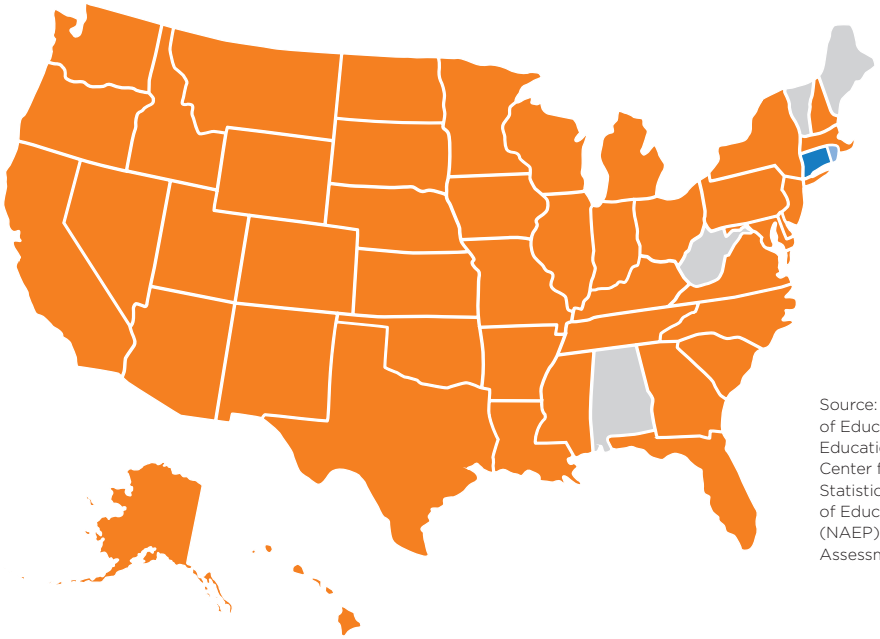


Source: U.S. Department of Education, Institute of Education Sciences, National Center for Educational Statistics, National Assessment of Educational Progress (NAEP), 2015 Reading Assessment.

Map 2. Eighth-grade Hispanic student reading scores: comparisons by state (relative to median state: Connecticut)

Difference in average scale scores between jurisdictions, for race/ethnicity used to report trends, school-reported ([SDRACE] = Hispanic)

2015



Source: U.S. Department of Education, Institute of Education Sciences, National Center for Educational Statistics, National Assessment of Educational Progress (NAEP), 2015 Reading Assessment.

- Has a higher average scale score than the focal jurisdiction
- Is not significantly different from the focal jurisdiction
- Has a lower average scale score than the focal jurisdiction
- Focal jurisdiction
- Sample size was insuffficient to provide a reliable estimate

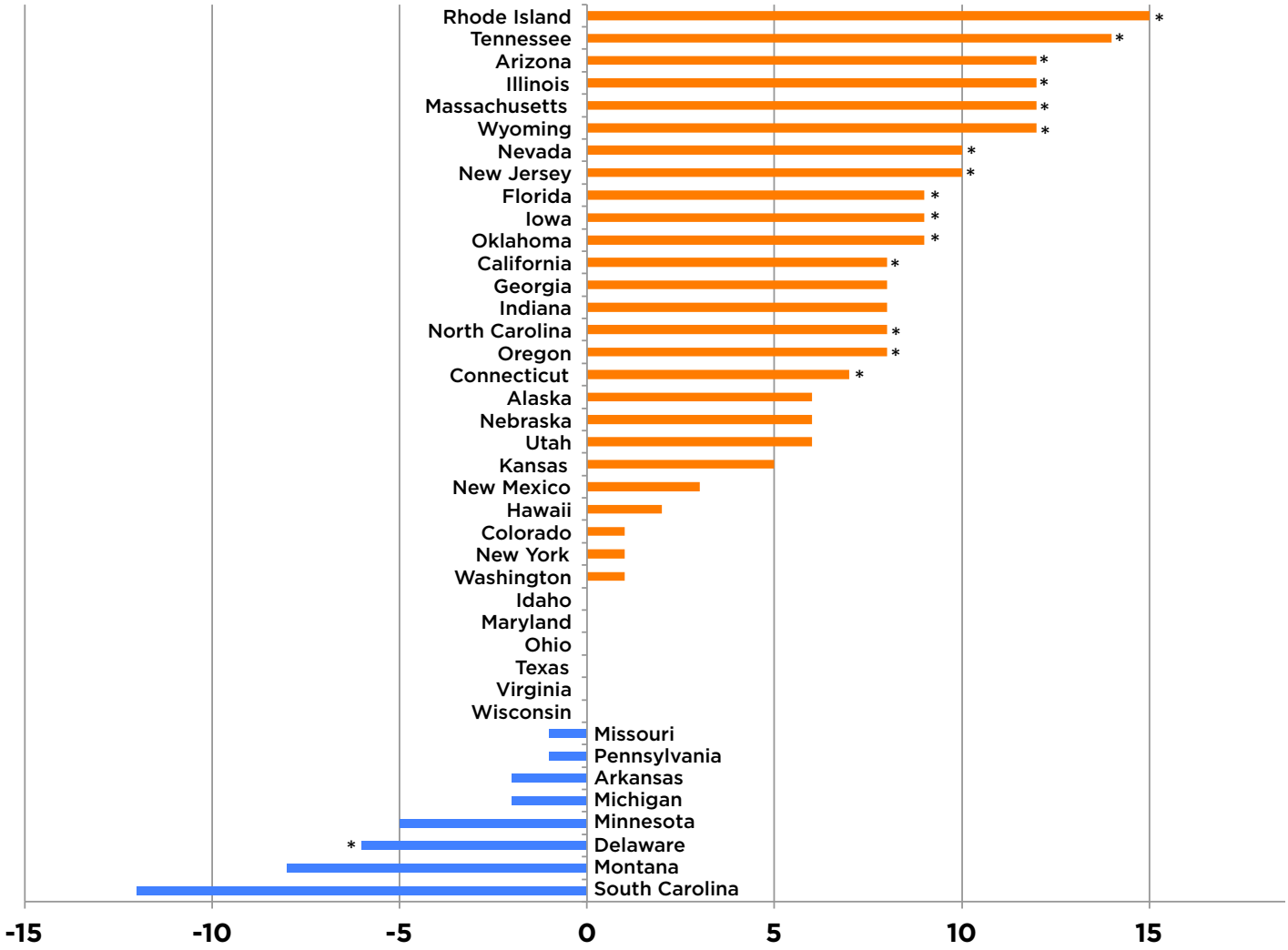
State finding 2. Over the last decade, Hispanic students in about one third of states saw improvements at fourth and eighth grades.

Over the last 10 years, 15 states saw statistically significant increases in Hispanic reading scores at fourth grade, 24 had no significant change, and 10 had too few students to meet the reporting requirements. Delaware was the only state to have a significant decline in scores (-6 points).

At eighth grade, 18 states showed statistically significant 10-year gains in scores, 19 showed no significant change, and 13 did not meet minimum reporting requirements. No state saw a significant decrease over the past decade in eighth-grade scores.

At fourth grade, Hispanic students in Rhode Island gained about a grade-and-a-half (15 points) from 2005 to 2015. The state with the next biggest gain (14 points) was Tennessee. At eighth grade, among the states where Hispanic students showed significant gains over the 10 years, Hawaii and Minnesota topped the list, with an increase of 16 points each—more than one-and-a-half grade levels.[14] Hispanic students in Florida, Oregon, California, Arizona, Connecticut, Nevada, Oklahoma, and Rhode Island made long-term improvements at both fourth and eighth grades.

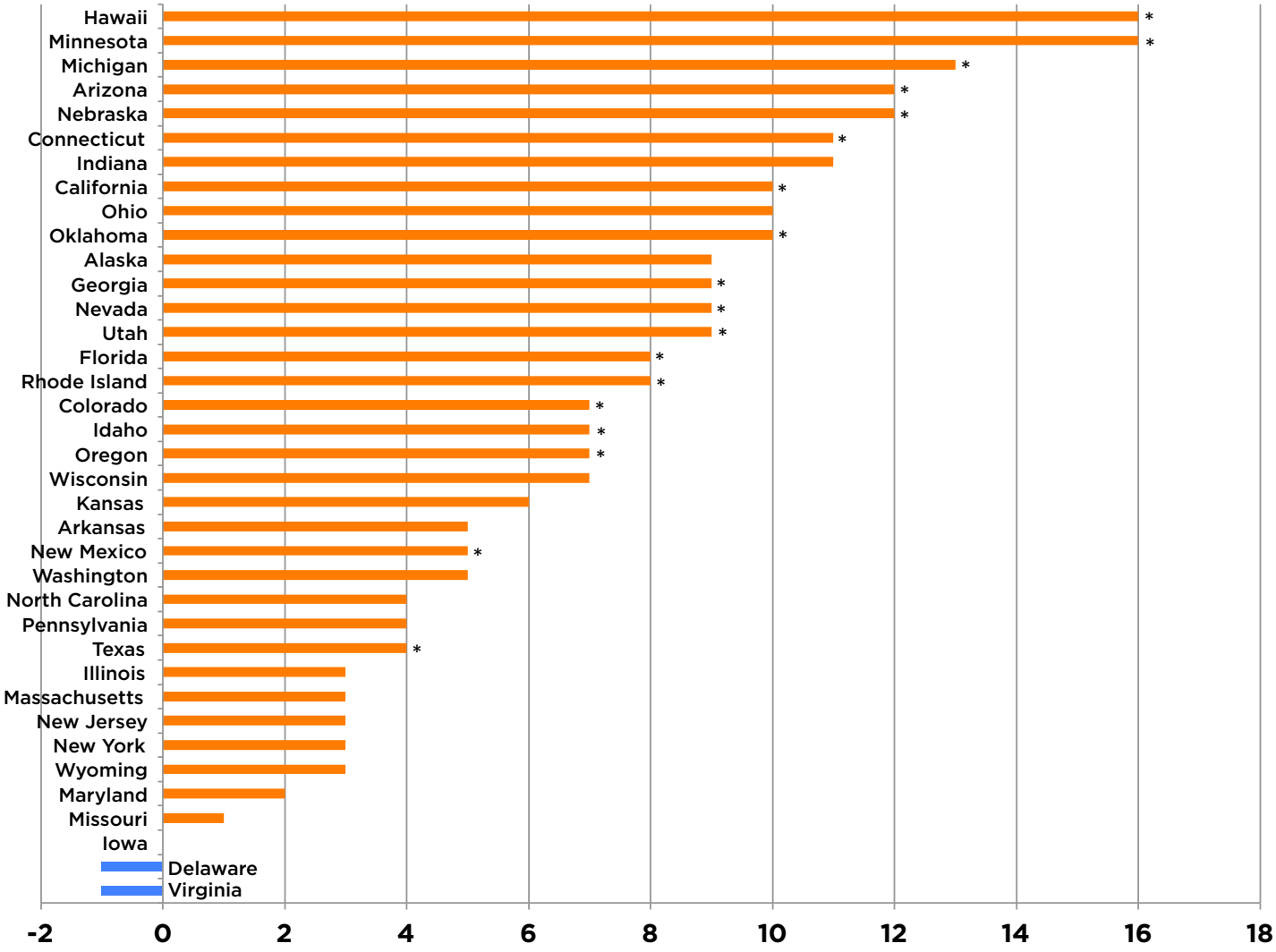
Figure 5: Change in grade 4 average NAEP reading scores for Hispanic students, by state, 2005-2015



*Change was statistically significant.

14 Note that, for some states, the absence of statistically significant gains over the decade likely reflects small sample sizes and/or high variability in scores. Ten states had too few Hispanic students to meet NAEP reporting standards at fourth and eighth grades: Alabama, Kentucky, Louisiana, Maine, Mississippi, New Hampshire, North Dakota, South Dakota, Vermont, and West Virginia. Additionally, Montana, South Carolina, and Tennessee had too few eighth-grade Hispanic students to meet NAEP reporting standards.

Figure 6: Change in grade 8 average NAEP reading scores for Hispanic students, by state, 2005-2015

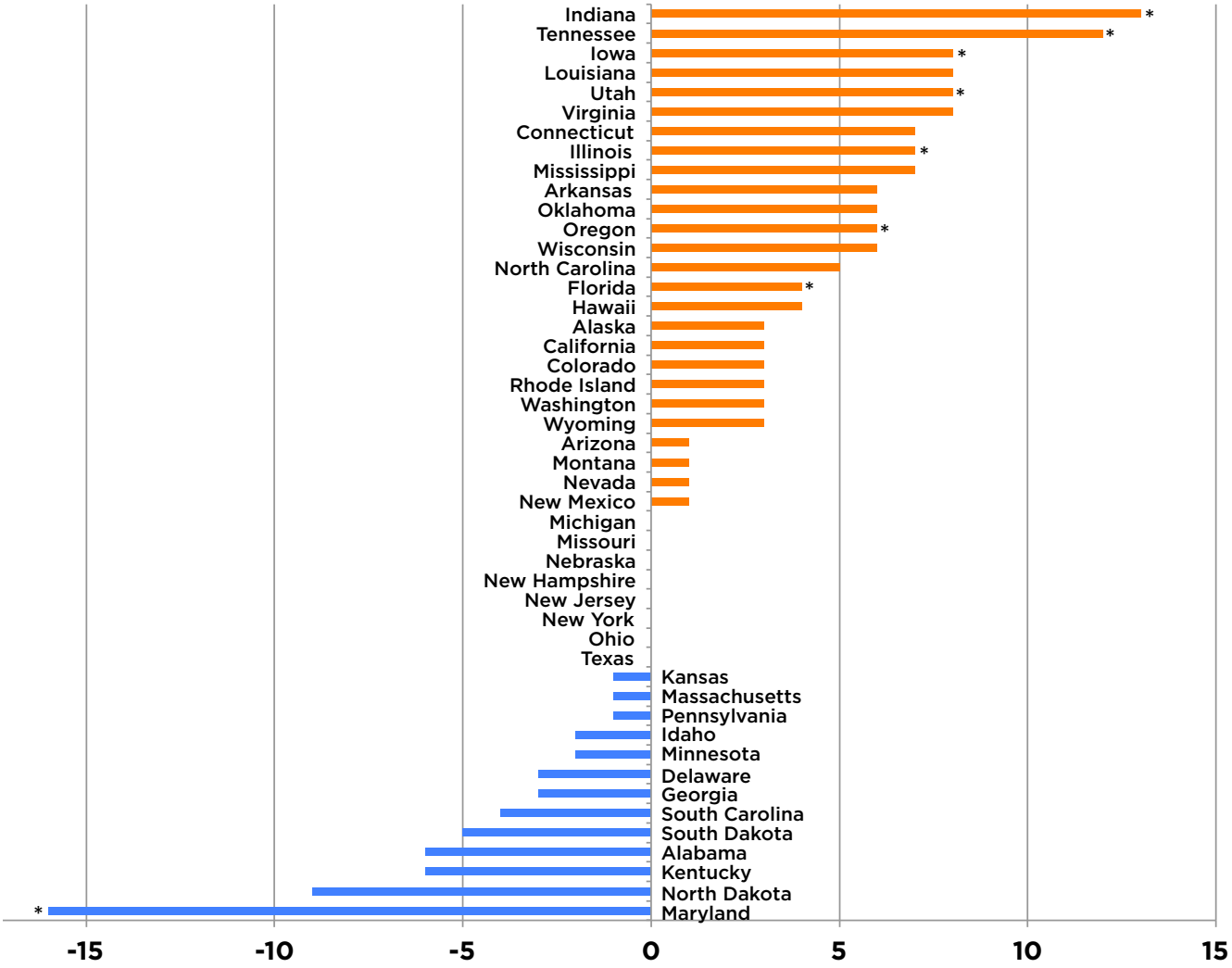


*Change was statistically significant.

State finding 3. Looking at recent years, a select few states made significant gains at fourth or eighth grades.

At fourth grade, recent-year gains (2011 to 2015) were seen in seven states: Indiana (+13), Tennessee (+12 points), Iowa (+8), Utah (+ 8), Illinois (+7), Oregon (+6), and Florida (+4). Only Maryland showed a statistically significant decline (-16). Three states (Maine, Vermont, and West Virginia) did not meet NAEP reporting requirements.

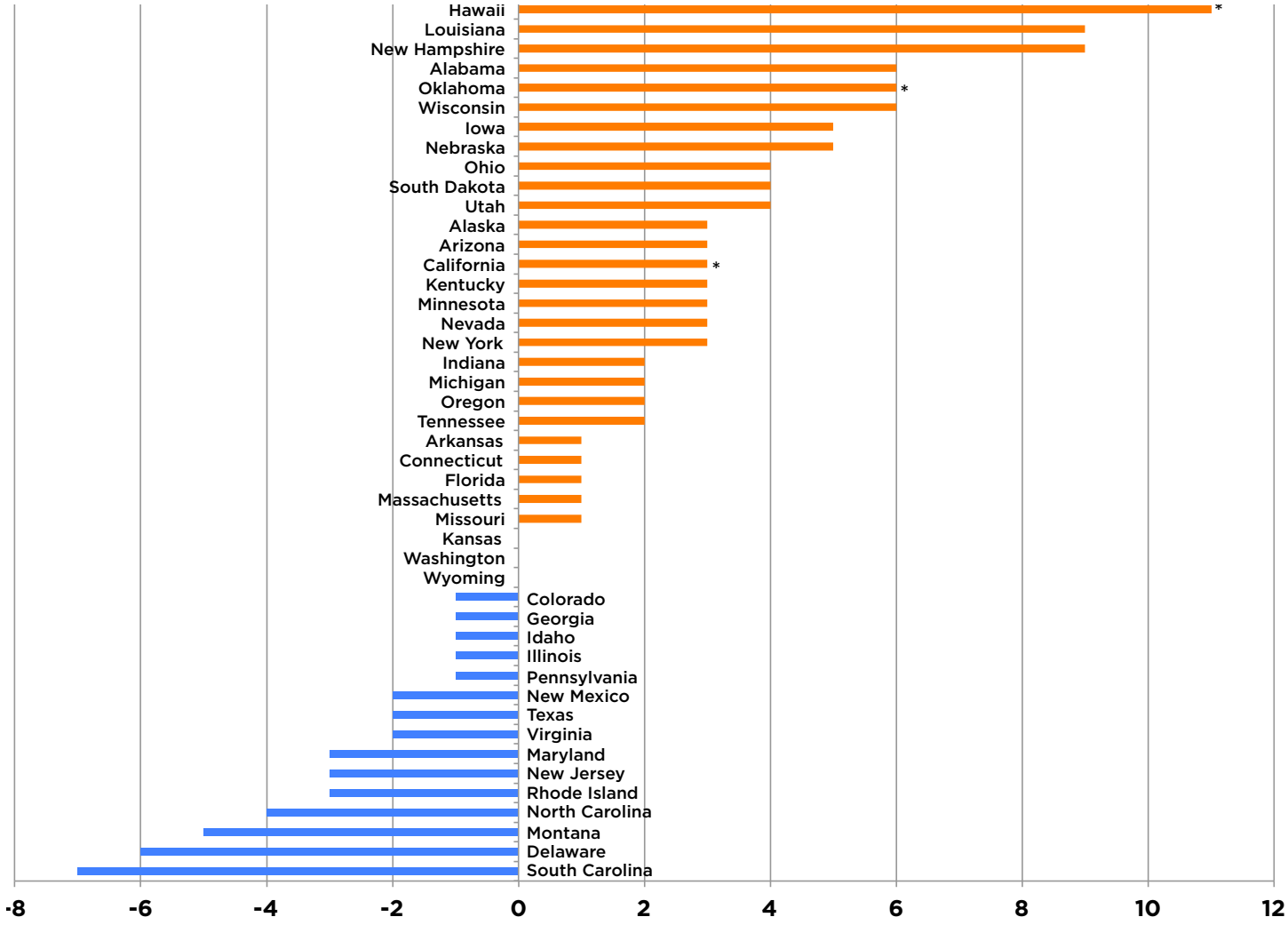
Figure 7: Change in grade 4 average NAEP reading scores for Hispanic students, by state, 2011-2015



*Change was statistically significant.

At eighth grade, three states saw recent-year, statistically significant gains: Hawaii (+11 points), Oklahoma (+6), and California (+3). Five states (Maine, Mississippi, North Dakota, Vermont, and West Virginia) did not meet reporting requirements.

Figure 8: Change in grade 8 average NAEP reading scores for Hispanic students, by state, 2011-2015



*Change was statistically significant.

Hispanic students score highest at Department of Defense Schools

The Department of Defense Education Activity (DoDEA) maintains a federally operated system responsible for planning, directing, coordinating, and managing educational programs, from pre-kindergarten through twelfth grade, on behalf of the Department. The DoDEA operates globally, overseeing 172 accredited schools in 14 districts located in 11 foreign countries, seven states, Guam, and Puerto Rico.[a] DoDEA serves more than 74,000 children of active-duty military and DoD civilian families. In 2015, Hispanic students accounted for about 20 percent of all DoDEA students in the NAEP database in grades four and eight.

Over the last 10 years, Hispanic students in DoDEA schools had statistically significant increases in reading scores at fourth and eighth grades (+10 and +6, respectively). In recent years (2011-2015), Hispanic students in DoDEA schools had scores that held steady at fourth grade and improved at eighth grade (+5).

In 2015, DoDEA Hispanic students at fourth grade scored 5 points higher than the highest-scoring state (Florida), and 7 points higher than the highest-scoring state at eighth grade (Kentucky).

a http://www.dodea.edu/aboutDoDEA/index.cfm

Large-city and school district findings

In the first part of this section, we present trends for the NAEP sample of our nation's largest cities. In the second part, we present trends for select urban school districts. Specifically, these are up to 21 districts (depending on the year) that participated in NAEP's Trial Urban District Assessment (TUDA)—all with populations of at least 250,000 with majorities of students eligible for the National School Lunch Program.[15,16] These districts included 26,600 and 24,900 students, total,[17] in fourth and eighth grades, respectively, or about 8 percent of national totals for each of these grades, as of 2013.

The TUDA is our only means of comparing urban district performance on a common yardstick. Because TUDA participation is voluntary, districts named in this brief should be commended for their commitment to transparency and use of data to improve their schools.

Large-city finding 1. Over the last 10 years, Hispanic fourth- and eighth-graders in large U.S. cities made significant gains in reading—more than half a grade level.

Across U.S. large cities, gains in reading scores for Hispanic students were at par with those previously noted. In the 10-year analysis (2005 to 2015), average scores rose 8 points at grade four, and 7 points at grade eight, or more than half a grade level in each case. Both increases are statistically significant. These gains were accompanied by a large rise in the percentage of students taking the reading assessment tests who were Hispanic. In large cities, Hispanic students were more than one third of the fourth- and eighth-grade samples in 2005 (38 and 36 percent, respectively), and increased to 45 and 44 percent, respectively, by 2015. (Table 5).

Table 5: Hispanic students as a percentage of all students participating in NAEP grade 4 and grade 8 reading in large cities: 2005-2015

	2005	2007	2009	2011	2013	2015
Grade 4	38	38	42	42	43	45
Grade 8	36	37	41	43	42	44

15 With respect to the years covered in this report, Baltimore City, and Duval County (Florida) had sufficient number of Hispanic students to be part of our analysis only for 2015; thus trends could not be analyzed. Milwaukee participated in TUDA for 2009-2013, but was excluded for the purpose of this report.
16 http://www.nationsreportcard.gov/reading_math_tuda_2013/#/tuda-the-same
17 https://nces.ed.gov/nationsreportcard/about/district.aspx

Large-city finding 2. Significant increases (2005-2015) were posted for all measured subgroups of Hispanic students, especially those of Cuban origin.

As we found in the national-level analysis, Cubans, Puerto Ricans, Mexicans and Chicanos, and other Hispanics or Latinos, all had statistically significant increases at fourth grade in large cities. With the exception of Puerto Rican students, all other subgroups also had significant increases at eighth grade.

Cuban or Cuban-American students saw particularly large gains. Although in 2005 this group had the lowest average scores at both fourth and eighth grades, in 10 years they gained 17 and 29 points, respectively—the equivalent of almost two and three grade levels. In comparison, fourth-grade scores for this group at a national level rose only about half a grade level; at eighth grade, scores for Cuban or Cuban-American students in large cities increased by nearly three grade levels (29 points) over the 10 years, but by only a single grade level nationwide (11 points)[18] (Table 7). These results are obscured by the overall averages, because this subgroup comprises only 2 to 3 percent of the national sample. (Table 6)

Table 6: Hispanics as a percentage of all students participating in NAEP reading in large cities, grades 4 and 8: 2005-2015

	% Large city schools sample			
	Fourth grade		Eighth grade	
	2005	2015	2005	2015
Cuban or Cuban American	2	3	1	2
Mexican, Mexican American, or Chicano	25	27	25	29
Puerto Rican	6	6	5	5
Other Hispanic or Latino	12	13	13	15
Total Hispanic (see note)	**38**	**45**	**36**	**44**

NOTE: Percentages of subgroups sum to more than the total Hispanic percentage because students were permitted to choose multiple responses.

Table 7. Point change in NAEP scores, 2005-2015, by Hispanic subgroup, grades 4 and 8, national (public schools) and large city

	National public schools		Large city	
	Fourth grade	Eighth grade	Fourth grade	Eighth grade
Cuban or Cuban American	4*	11*	17*‡	29*‡
Mexican, Mexican American, or Chicano	6*	7*	8*	6*
Puerto Rican	6*	4*	9*	2
Other Hispanic or Latino	5*	6*	7*	7*

‡ Significant difference between the national public and large city samples.

* Change between 2005 and 2015 is statistically significant.

School district finding 1. 2015 scores in top-performing school districts—Miami-Dade, Duval County (Fla.), Hillsborough County (Fla.), Jefferson (Ky.), Boston, and Chicago—are the equivalent of two to four grade levels higher than they are in districts with the lowest scores, such as Philadelphia and Fresno County (Calif.).

While reading scores for Hispanic students overall have increased substantially, there is wide variation among average scores within the TUDA sample. On the 2015 grade-four assessment, the difference between the top-performing district for Hispanic students (Miami-Dade), and the lowest-performing district (Philadelphia), is 41 points, more than four grade levels. At grade eight, the difference between the top (Miami-Dade) and bottom districts (Cleveland, Fresno) is 27 points, or almost three grade levels.

The top-tier districts in 2015 for fourth-grade Hispanic students were Miami-Dade (229), Duval County (225), Hillsborough County (221), Jefferson County (217), and Boston (214). In grade eight, the top-tiered districts were Miami-Dade (266), Duval County (262), and Chicago (257).

18 The NAEP Data Explorer does not permit statistical testing of comparisons among subgroups in the large-city sample.

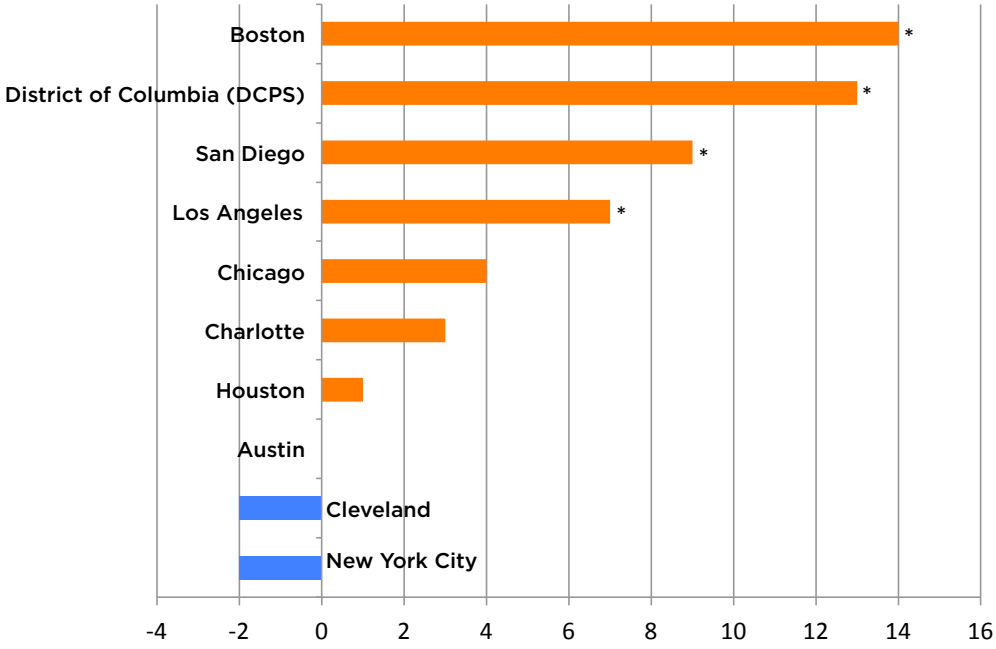
The lowest-scoring districts in 2015 include, at grade four, Philadelphia, Fresno, and Los Angeles. Cleveland and Fresno are the lowest-scoring at grade eight.

School district finding 2. Over 10 years (2005-2015), Hispanic fourth grade students in the school districts of Boston, the District of Columbia, and San Diego have made especially large reading gains.

At fourth grade, Boston, with an increase amounting to about one-and-a-half grade levels (14 points), tops the list of participating school districts. Other districts that saw statistically significant score increases include the District of Columbia[19] (13), San Diego (9), and Los Angeles (7). Miami-Dade made significant recent-year (2011-2015) gains (7 points, not shown).

For eighth-grade students, Los Angeles (+11 points) tops the list. In both Chicago and New York City, students' scores increased by 7 points.

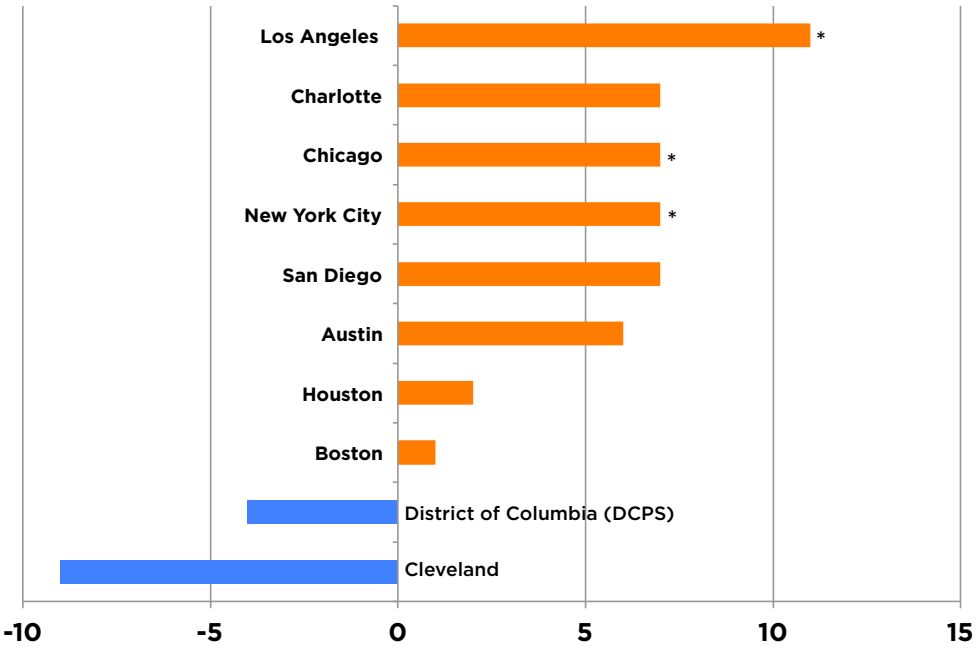
Figure 9: Change in grade 4 average NAEP reading scores for Hispanic students, by district, 2005-2015



*Change was statistically significant.

19 In TUDA, the District of Columbia's scores do not include charter schools. At the state level, the District of Columbia scores include charter schools.

Figure 10: Change in grade 8 average NAEP reading scores for Hispanic students, by district, 2005-2015



*Change was statistically significant.

Limitations of the data

We know from our analyses that scores are increasing, but we cannot tell why. In this report, we do not address causality. Although we identify states and districts that show long- and short-term progress in reading achievement, we cannot conclude that they are doing a better job of educating Hispanic students. It is worth taking a closer look at the trends reported in this report; however, more rigorous longitudinal and multivariate research is needed to identify the "why" behind these trends.

The NAEP data are not longitudinal—that is, they do not track the same students over time. So, while we found that fourth-graders who took the assessment in 2015 performed significantly better, on average, compared to fourth-graders who took the assessment in 2005, we cannot account for all the ways in which these cohorts may be different. Academic achievement is a product of factors that extend beyond how well schools are educating students. For example, demographic changes (e.g., immigration or influx of highly educated families) over time in a state or district may significantly affect NAEP scores.

One factor we know is important, but is not addressed in these analyses, is poverty. States, cities, and school districts all vary in their rates of poverty, as indicated by the percentage of students eligible for the National School Lunch Program. In particular, concentration of poverty at a district level may serve as a proxy for lack of access to a variety of financial and structural resources,[20] which could, in turn, lead to inequities in school resources—such as class size and instructional materials—which may influence reading achievement. Latino students, in particular, tend to be highly concentrated in urban schools that have large numbers of students from low-income backgrounds, and substantially fewer resources than their suburban counterparts.[21]

In this report, we also did not address English language proficiency. NAEP defines English Language Learners (ELL) as students who are in the process of acquiring English language skills, and knowledge.[22] Students who are in the process of acquiring the English language score lower, on average, on NAEP reading than their peers. Hispanic students make up the largest proportion of English language learners, although the percentage of Hispanic students who are ELLs has declined by three to four percentage points nationwide between 2005 and 2015 (see table 6 below), and has changed by substantially more points in many states and cities.[23] This change in the proportion of ELL students in a jurisdiction may have a significant impact on a location's average Hispanic scores. For example, we would have expected the average Hispanic scores in Maryland, one of few states that saw an

20 Condron, D. J., & Roscigno, V. J. (2003). Disparities within: Unequal spending and achievement in an urban school district. *Sociology of Education, 76*, 18–36.
21 Gándara, P., Rumberger, R., Maxwell-Jolly, J., & Callahan, R. (2003). English learners in California schools: Unequal resources, unequal outcomes. *Education Policy Analysis Archives, 11*(36).
22 https://nces.ed.gov/nationsreportcard/glossary.aspx?nav=y#english_language_learners
23 Data not shown here. For example, for the Grade 8 assessment, the change in the percent of Hispanic students who were ELL ranged from an increase of 39 percentage points in Arkansas to a decrease of 33 percentage points in Oregon.

increase in the percentage of ELL Hispanic fourth-graders over the last decade, to decline by 10 points, due to the rise in the proportion of ELL students, all else being equal. There are so many issues to consider (e.g., the change in the proportion of ELLs by jurisdiction, use of testing accommodations such as extended time, differing rates of excluding students who are ELL from taking the assessment), that this merits a separate report that delves more deeply into the Hispanic ELL trends.

Table 8. Within race/ethnicity groups, percentage of students who are ELL, grades 4 and 8: 2005 and 2015

	% race/ethnicity who are ELL			
	Fourth grade		Eighth grade	
	2005	2015	2005	2015
White	1	1	1	1
African American/Black	1	2	1	2
Hispanic	37	34	24	20
Asian/Pacific Islander	20	20	13	11
American Indian/Alaskan	12	8	11	5
Two or more races	6	1	4	-

Conclusion

When it comes to Hispanic students (our single largest "minority" group), there have been considerable, if uneven, gains in their reading achievement—a critical skill for school success. An earlier Child Trends report on Hispanics' NAEP math scores examined a similar (though not identical) time period. That report found that math scores for Hispanic students increased at a faster pace than they have in reading, based on our newest analysis.[24]

In this report we demonstrate that, while Hispanic students are making progress on reading scores, it is uneven across states and school districts, as well as within the Hispanic population (by country of origin). By providing a more detailed picture, we can begin to describe trends that may merit further exploration. We recognize that the data raise many more questions than can be addressed here, particularly with respect to the widely varied state and local contexts in which Hispanic students reside.

It will be important for further research to include an examination of these trend data, at multiple geographic levels, in conjunction with associated demographic trends in income and poverty, and English-language proficiency.

24 Pane, N. E. (2014). Math scores add up for Hispanic students: States and school districts notable for recent gains by Hispanic students in mathematics. http://www.childtrends.org/?publications=math-scores-add-up-for-hispanic-students-states-and-school-districts-notable-for-recent-gains-by-hispanic-students-in-mathematics

Source of the data: All data presented are from the U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics (NCES), National Assessment of Educational Progress (NAEP) Reading Assessments from 2005 through 2015, and are available on the NAEP Data Explorer website: http://nces.ed.gov/nationsreportcard/naepdata/. Users can replicate the analyses presented here on that site. NCES presents NAEP results in two ways: as average scale scores, and as the percentage of students attaining various achievement levels (basic, proficient, and advanced). NCES notes that achievement levels "are to be used on a trial basis and should be interpreted and used with caution."[a] Thus, we use for our analyses reading scale scores. The NAEP Reading Assessment scale ranges from zero to 500, and is a composite of measures for three reading skills (locate/recall, integrate/interpret, and critique/evaluate) assessed on two types of reading texts (literary and informational) specified by NAEP's reading framework. When the reading framework was changed in 2009, there was a shift toward a greater emphasis on literary and informational texts, a redefinition of the reading cognitive processes, a new systematic assessment of vocabulary knowledge, and the addition of poetry to the fourth-grade assessment; however, special analyses determined that the 2009 and subsequent results could be compared with those from previous years.[b]

Please note that in this report, data for subgroups may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant. Statistically significant changes are noted as such. Tests of significant differences among states were conducted by selecting only students listed as Hispanic. For all analyses, the terms Hispanic and Latino are used interchangeably.

a https://nces.ed.gov/nationsreportcard/achievement.aspx
b See American Institutes for Research. (2008). Reading Framework for the 2009 National Assessment of Educational Progress. National Assessment Governing Board U.S. Department of Education: contract number ED-02-R-0007.

About Child Trends

Child Trends is the nation's leading research organization focused exclusively on improving the lives and prospects of children, youth, and their families. For 37 years, decision-makers have relied on our rigorous research, unbiased analyses, and clear communications to improve public policies and interventions that serve children and families. We have more than 120 staff in three offices and multiple locations around the country, including our headquarters in Bethesda, Md. childtrends.org

The Child Trends Hispanic Institute provides timely and insightful research-based information and guidance to policymakers, practitioners, the media, corporate leaders, and private philanthropy who work to improve outcomes for Latino children and youth in the United States. Read more at http://www.childtrends.org/hispanic-institute.

About NAEP

Adapted from the NAEP website: http://nationsreportcard.gov/about.aspx

National Assessment of Educational Progress (NAEP), also known as The Nation's Report Card™, is a continuing and nationally representative measure of achievement in various subjects over time. Since 1969, NAEP assessments have been conducted periodically in reading, mathematics, science, writing, U.S. history, civics, geography, and other subjects. NAEP collects and reports information on student performance at the national, state, and local levels, making the assessment an integral part of our nation's evaluation of the condition and progress of education. Only academic achievement data and related background information are collected. The privacy of individual students and their families is protected. NAEP is a congressionally authorized project of the National Center for Education Statistics (NCES) within the Institute of Education Sciences of the U.S. Department of Education. The Commissioner of Education Statistics is responsible for carrying out the NAEP project. The National Assessment Governing Board oversees and sets policy for NAEP.

NAEP state assessments began in 1990. In 2001, with the reauthorization of the Elementary and Secondary Education Act, states that receive Title I funding were required to participate in state NAEP in reading and mathematics at grades four and eight every two years.

The Trial Urban District Assessments (TUDA) were begun in 2003 by NCES and the National Assessment Governing Board, with Michael Casserly of the Council of Great City Schools providing much support and leadership in the recruitment of districts. Districts volunteer to participate in NAEP TUDA, which is why all of these districts should be lauded for their participation. If you do not see your district among those listed, contact your superintendent and add your voice to a request for participation.

We'd love to hear your thoughts on this publication. Has it helped you or your organization? Email us at feedback@childtrends.org