



# 2015 NAEP Analysis: National and State Results

November 2, 2015

# What is NAEP?

## Overview

The National Assessment of Educational Progress (NAEP) is the largest nationally representative student assessment. Released as “The Nation’s Report Card,” NAEP results are available for the nation, states, and participating urban districts. The assessment provides a common measure of achievement that allows us to compare national, state, and district results and to track changes in achievement of fourth, eighth, and twelfth-graders over time in mathematics, reading, writing, science, and other subjects. NAEP does not report results for individual students.

NAEP results are based on representative samples of students at grades four, eight, and twelfth, reflecting the geographical, racial/ethnic, and socioeconomic diversity of schools and students across the country. These grades and ages were chosen because they represent critical junctures in students’ academic progress.

**ConnCAN’s analysis includes data and information from the 2015 NAEP assessment of fourth and eighth grade reading and math.**

Source: Nat’l Center for Educ. Statistics, *National Assessment of Educational Progress (NAEP) Assessments*, U.S. Dept. of Educ. (2015), available at <http://nces.ed.gov/nationsreportcard>.

# About This Analysis

ConnCAN's analysis reports on overall student and group performance for the following student groups: low-income, African American, Hispanic/Latino, and English Language Learners (ELL). "Low-income" refers to students who qualify for Free or Reduced Price Lunch. ConnCAN uses the rule of thumb that 10 points on NAEP is equivalent to one year of learning, a commonly used measure in understanding scores. Changes in scale scores or achievement level percentages are not considered statistically significant by the National Center for Education Statistics (NCES) unless explicitly stated. Achievement gaps are calculated by finding the difference in scale scores between one student subgroup and another (e.g. African American and white, low-income and non-low-income).

NAEP Score Reporting: Scores are reported both as scale scores and achievement levels:

- **Scale Scores** summarize the overall level of performance attained by a student. NAEP releases summary scale scores for groups of students (not by individual student). The scale scores for math and reading range from 0 to 500.

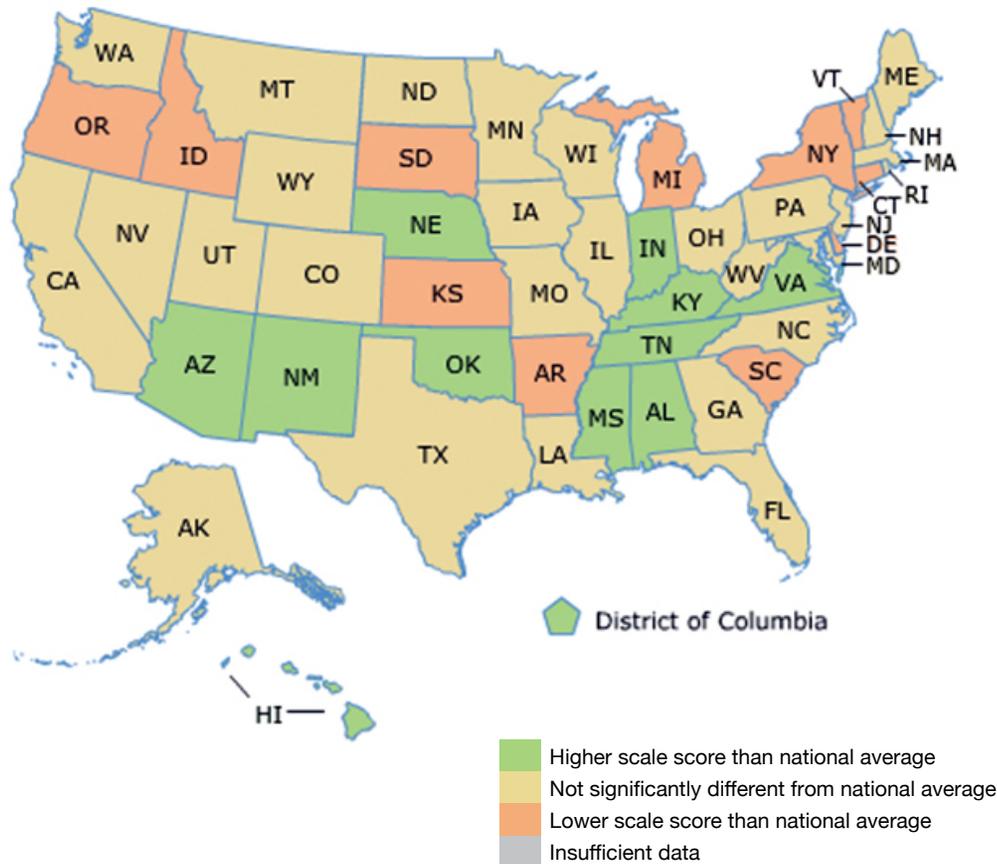
NAEP reports the percent of students that fall into the following **achievement levels** for each grade assessed:

- **Advanced:** Superior performance
- **Proficient:** Solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter
- **Basic:** Partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade
- **Below Basic:** Does not meet the minimum requirement of the basic level

Source: Nat'l Center for Educ. Statistics, *National Assessment of Educational Progress (NAEP) Assessments*, U.S. Dept. of Educ. (2015), available at <http://nces.ed.gov/nationsreportcard>. Thissen, David, *Validity Issues Involved in Cross-Grade Statements About NAEP Results*, University of North Carolina, Chapel Hill (2012), available at <http://files.eric.ed.gov/fulltext/ED528992.pdf>.

# Key Findings: Overall Performance

Change in Scale Scores, 4<sup>th</sup> Grade Math (2005-2015)



The average score for Connecticut students in fourth grade reading, eighth grade reading, and eighth grade math remained steady from 2013 to 2015.

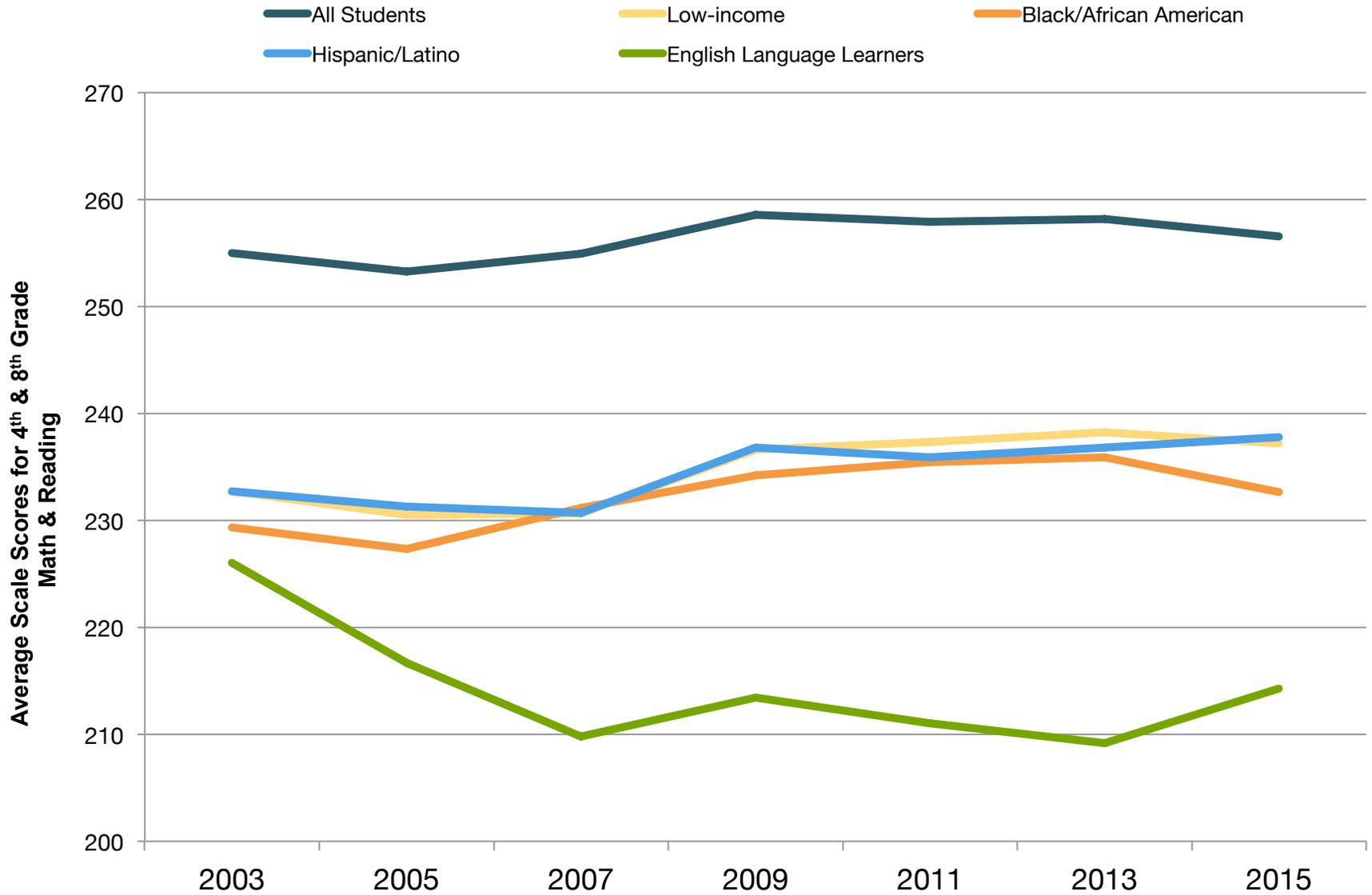
The average score for students in Connecticut on fourth grade math decreased by a statistically significant 3 points between 2013 and 2015.

Overall, although Connecticut has higher proficiency rates than national averages, **less than half of Connecticut students are scoring at/above proficient in math or reading at either tested grade level.**

Proficiency rates remain even lower for traditionally underserved student groups such as low-income students and students of color.

Map Source: Nat'l Center for Educ. Statistics, NAEP State Comparisons (2015), available at <http://nces.ed.gov/nationsreportcard/statecomparisons>.

# Change in Connecticut's Overall Scores since 2003



# Where Do Connecticut's Scores Rank Nationally?

	4 <sup>th</sup> Grade Math	4 <sup>th</sup> Grade Reading	8 <sup>th</sup> Grade Math	8 <sup>th</sup> Grade Reading
Overall	26 of 50	6 <sup>th</sup> best	20 of 50	4 <sup>th</sup> best
Low-income	4 <sup>th</sup> worst	31 of 50	3 <sup>rd</sup> worst	17 of 50
Black/African American	10 <sup>th</sup> worst	21 of 41	27 of 39	11 of 42
Hispanic/Latino	6 <sup>th</sup> worst	18 of 47	2 <sup>nd</sup> worst	23 of 46
English Language Learners	22 of 41	19 of 42	2 <sup>nd</sup> worst	10 <sup>th</sup> worst

Note: Ranks are calculated using a total number of states with data reported for each measure. In some cases and groups, this is less than 50.

# Regional Results

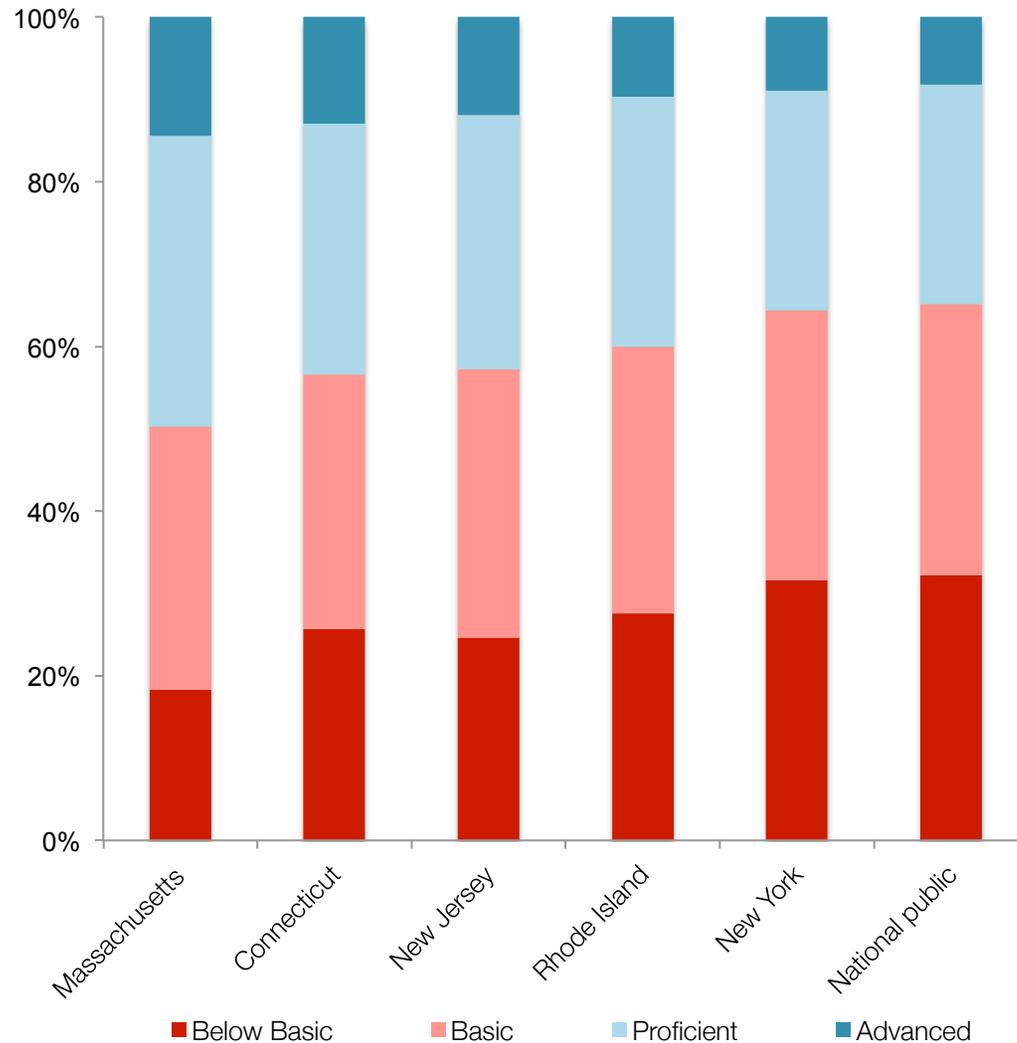
## Reading

Connecticut ranks **second** among neighboring states, with 43% of students scoring at/above proficient for reading in fourth and eighth grades.

Nationally, Connecticut's percent of students at/above proficient for fourth grade and eighth grade reading is in the top 8%.

Massachusetts has the **highest** percent at/above proficient nationally, with about half of students scoring at/above proficient in both grades.

Achievement Levels for Neighboring States  
4th Grade Reading (2015 NAEP)



# Regional Results

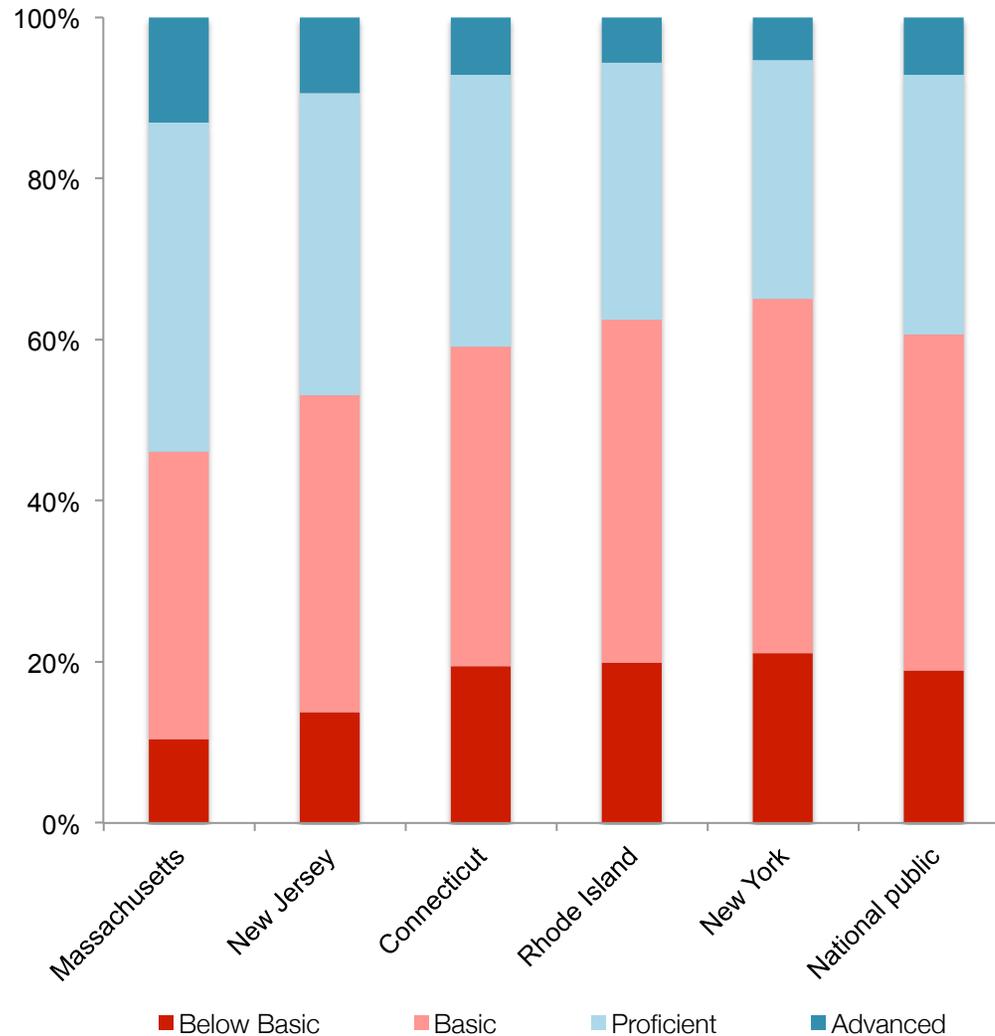
## Math

Connecticut ranks **third** among neighboring states in fourth and eighth grade math with 41% and 36% of students scoring at/above proficient respectively.

In fourth grade math, Connecticut's score decrease is lower than the national average with nearly 5 percentage points fewer students scoring at/above proficient from 2013.

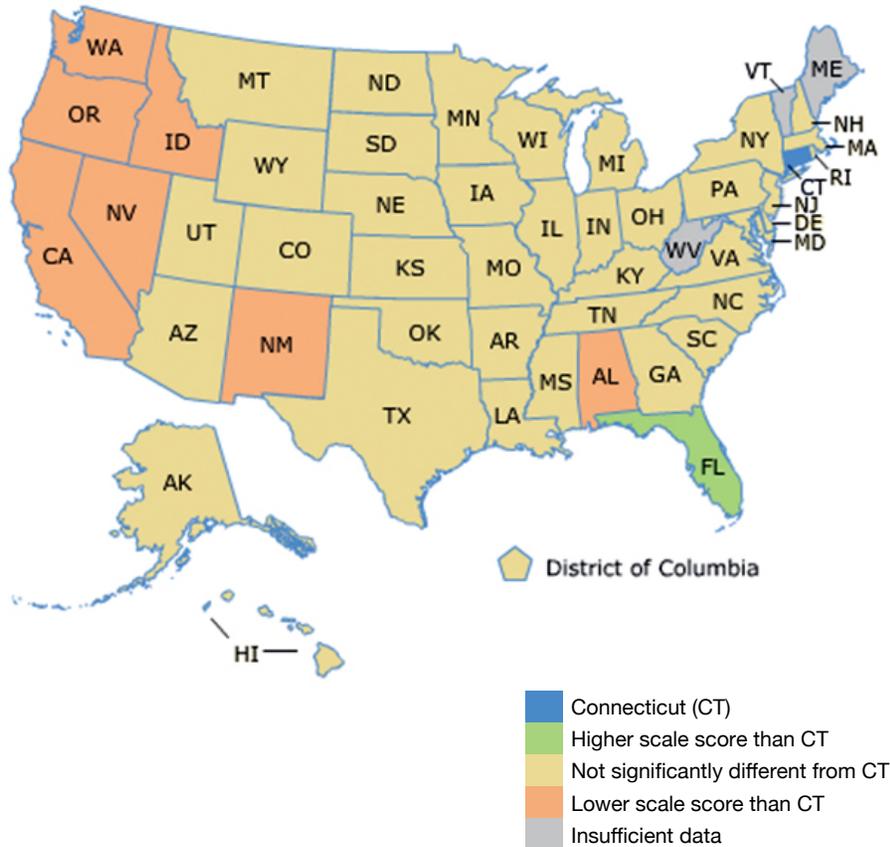
Massachusetts has the **highest** proficiency rate in the nation for both tested grades, and is the only nearby state where more than half of students score at/above proficient.

Achievement Levels for Neighboring States  
4th Grade Math (2015 NAEP)



# Key Findings: Achievement Gaps

Latino/Hispanic Student Scores, 4<sup>th</sup> Grade Reading (2015)



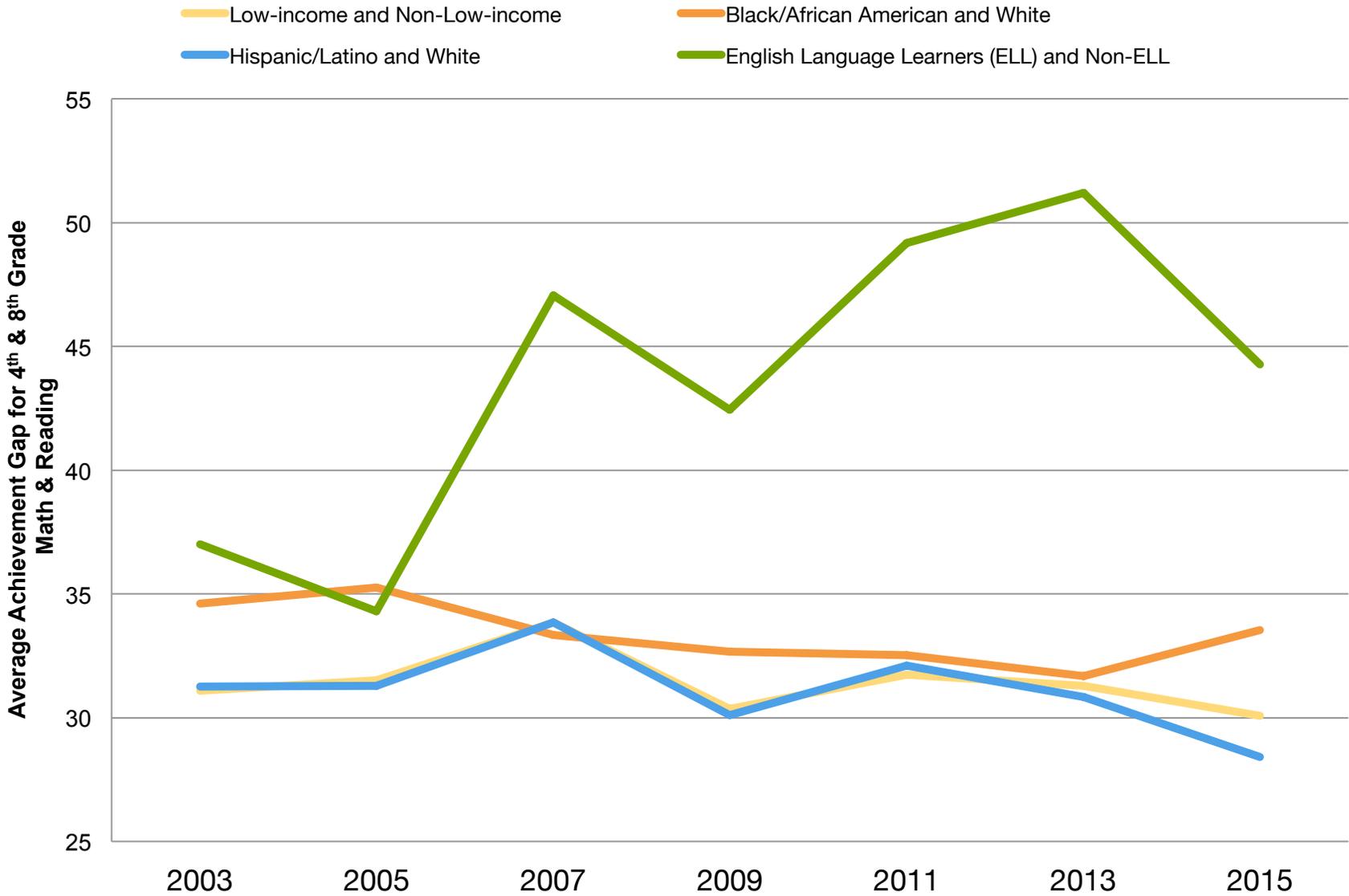
Connecticut's achievement gaps persist with some bright spots:

- All student subgroups are between two and six grade levels behind their peers in fourth and eighth grade reading and math
- Though the gap for African American fourth grade reading narrowed nationally, in Connecticut it widened
- English Language Learner achievement gaps remain the largest in Connecticut but improved dramatically when compared to other states in 3 out of 4 measures
- The Hispanic/white achievement gap has narrowed by a statistically significant 12 points since 1998 in fourth grade reading

Note: "Student subgroups" refers to low-income, African American, Hispanic/Latino, and ELL students.

Map Source: Nat'l Center for Educ. Statistics, NAEP State Comparisons (2015), available at <http://nces.ed.gov/nationsreportcard/statecomparisons>.

# Change in Connecticut's Achievement Gaps since 2003



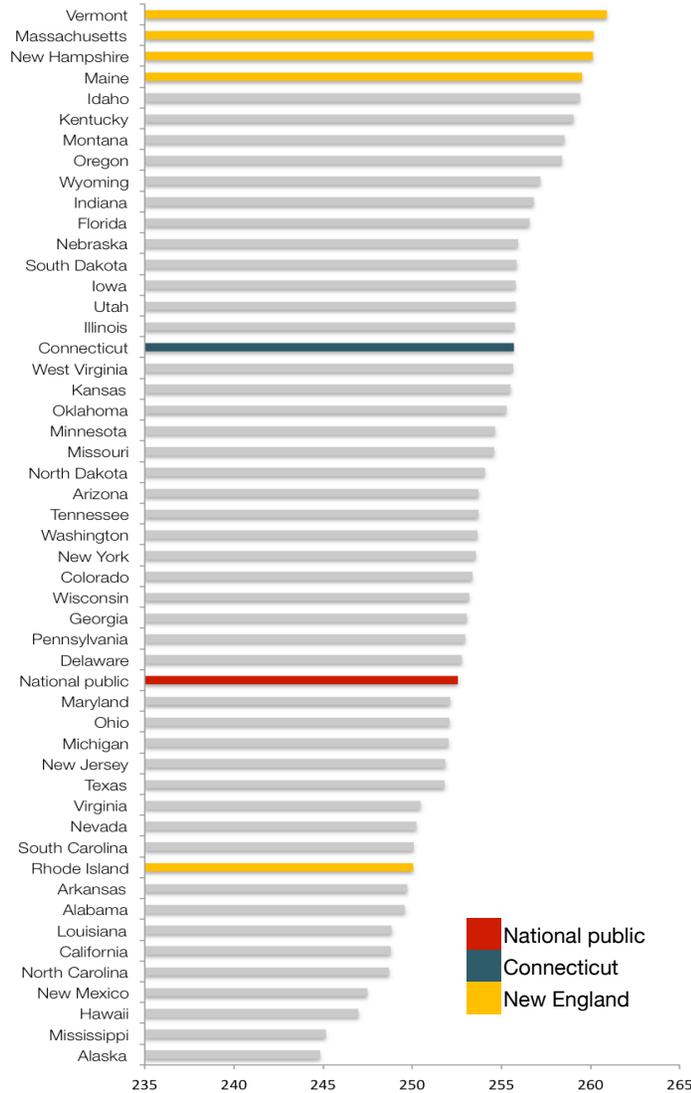
# Where Do Connecticut's Achievement Gaps Rank Nationally?

Gap Between	4 <sup>th</sup> Grade Math	4 <sup>th</sup> Grade Reading	8 <sup>th</sup> Grade Math	8 <sup>th</sup> Grade Reading
Low-income and Non-Low-income	3 <sup>rd</sup> worst	7 <sup>th</sup> worst	Worst	10 <sup>th</sup> worst
Black/African American and White	6 <sup>th</sup> worst	3 <sup>rd</sup> worst	5 <sup>th</sup> worst	3 <sup>rd</sup> worst
Hispanic/Latino and White	2 <sup>nd</sup> worst	6 <sup>th</sup> worst	Worst	4 <sup>th</sup> worst
English Language Learners (ELL) and Non-ELL	20 of 41	23 of 42	2 <sup>nd</sup> worst	5 <sup>th</sup> worst

Note: Ranks are calculated using a total number of states with data reported for each measure. In some cases and groups, this is less than 50.

# Low-income Performance

Average Scale Scores, 8<sup>th</sup> Grade Reading



Percent at/above Proficient:

4 <sup>th</sup> Math:	17%
4 <sup>th</sup> Reading:	20%
8 <sup>th</sup> Math:	13%
8 <sup>th</sup> Reading:	23%

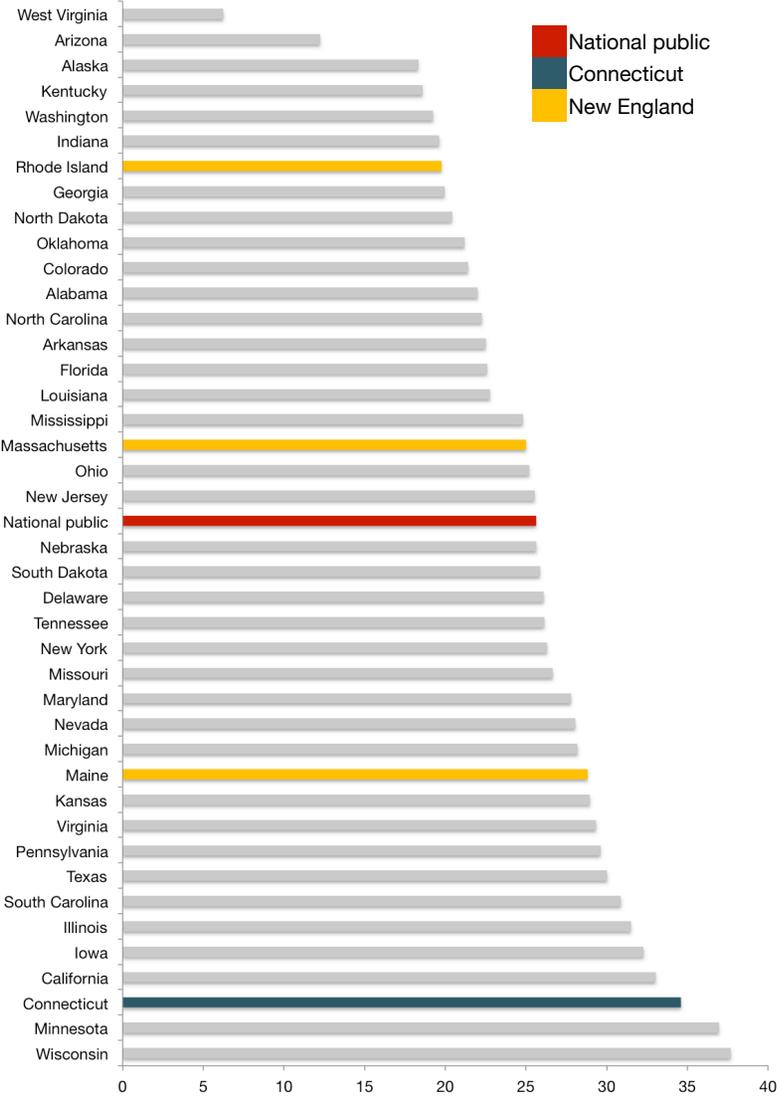
## Key Findings:

- *Overall:* Connecticut’s low-income students are about three grade levels behind their non-low-income peers for all considered measures
- *Eighth grade reading:* Connecticut’s low-income student performance lags behind other New England states
- *Eighth grade math:* Low-income students in Massachusetts are nearly two grade levels ahead of low-income students in Connecticut
- *Fourth grade math:* The gap for low-income students narrowed by three points between 2013 and 2015

Note: This graph includes all states with data reported for this measure and may contain than less than 50 states for this reason.

# African American Performance

Achievement Gap Size, 4<sup>th</sup> Grade Reading



Percent at/above Proficient:

4<sup>th</sup> Math: 13%

4<sup>th</sup> Reading: 15%

8<sup>th</sup> Math: 12%

8<sup>th</sup> Reading: 20%

## Key Findings:

- *Overall:* Connecticut’s African American students are at least three grade levels behind their white peers on all considered measures
- *Eighth grade reading:* Connecticut’s gap grew by about five points between 2013 and 2015; there were only three other states nationally whose gaps were higher than Connecticut’s gap
- *Fourth grade math:* **Texas** has a similar percent of African American students as Connecticut (based on NCES data) and Texas African American students perform highest nationally; Connecticut African American students are more than a grade level behind Texas African American students on this measure

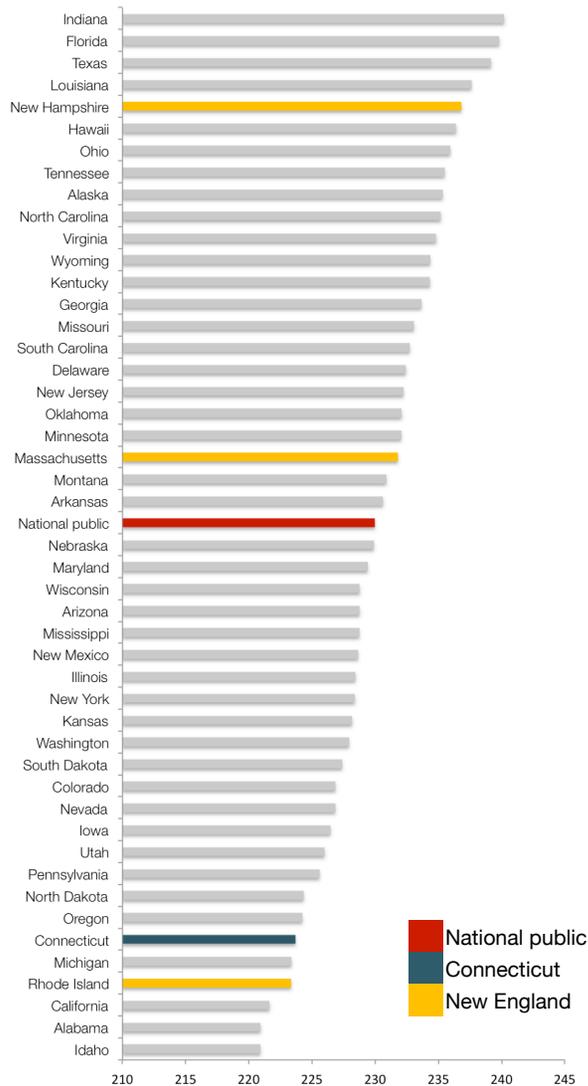
Note: This graph includes all states with data reported for this measure and may contain than less than 50 states for this reason.

# Hispanic/Latino Performance

Percent at/above Proficient:

4 <sup>th</sup> Math:	19%
4 <sup>th</sup> Reading:	22%
8 <sup>th</sup> Math:	14%
8 <sup>th</sup> Reading:	23%

Average Scale Scores, 4<sup>th</sup> Grade Math



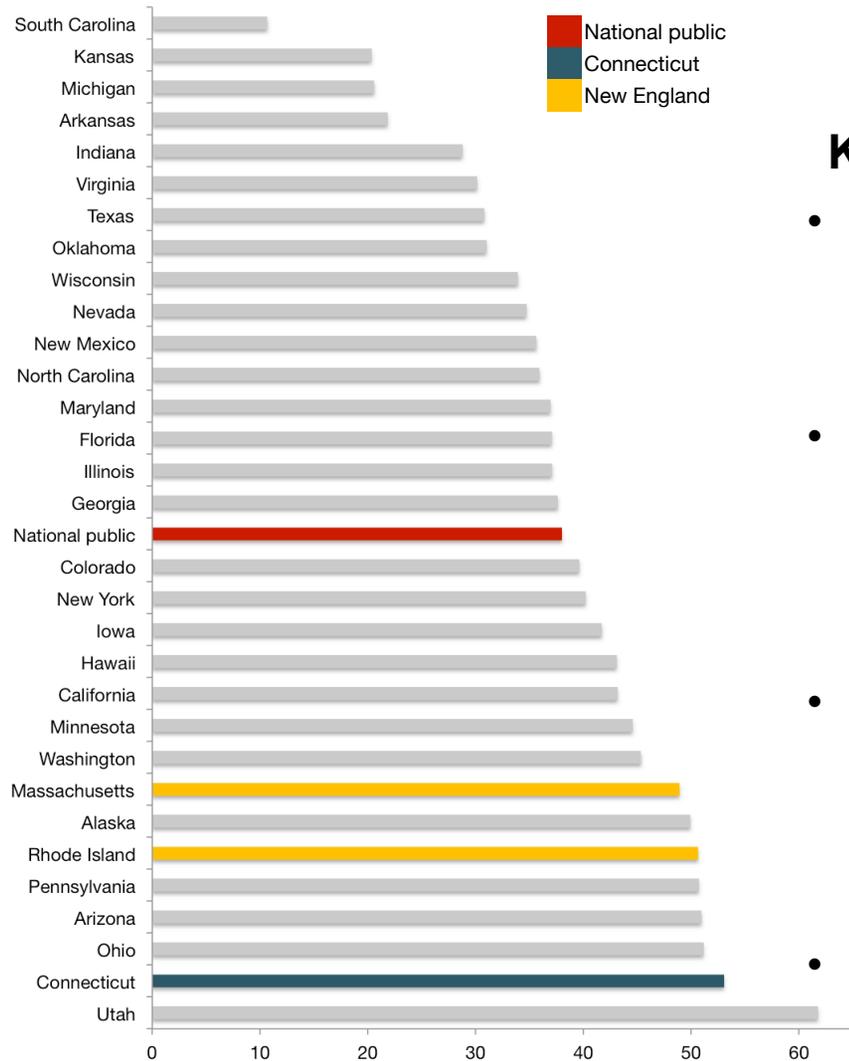
## Key Findings:

- *Overall:* Connecticut’s Hispanic students are about three grade levels behind their white peers
- *Overall:* Florida is among the states with the highest percentage of Hispanic students (based on NCES data) and has some of the smallest achievement gaps nationally in math and reading
- *Fourth grade math:* Hispanic/Latino students in Connecticut score about two grade levels behind their Hispanic/Latino peers in Indiana, the top-performing state in the country
- *Overall:* Connecticut and Massachusetts have a similar percentage of Hispanic students (based on NCES data) and have some of the largest gaps nationally on all considered measures

Note: This graph includes all states with data reported for this measure and may contain than less than 50 states for this reason.

# ELL Performance

## Achievement Gap Size, 8<sup>th</sup> Grade Math



Percent at/above Proficient:

4<sup>th</sup> Math: 12%  
 4<sup>th</sup> Reading: 7%

8<sup>th</sup> Math: 1%  
 8<sup>th</sup> Reading: 2%

### Key Findings:

- *Eighth grade:* Connecticut English Language Learner (ELL) students are more than five grade levels behind their non-ELL peers across all measures
- *Overall:* The achievement gap between ELLs and non-ELLs narrowed by about one grade level between 2013 and 2015 on 3 out of 4 measures: fourth grade reading and math and eighth grade math
- *Eighth grade math:* The achievement gap narrowed by about one grade level between 2013 and 2015 with an ELL score increase of 9.5 points; only Michigan narrowed the ELL gap by more points
- *Eighth grade:* 76% of ELL students are below basic in reading and 86% of ELL students are below basic in math

Note: This graph includes all states with data reported for this measure and may contain than less than 50 states for this reason.



The **Connecticut Coalition for Achievement Now** (ConnCAN) believes that all of Connecticut's children deserve a high-quality education and works to change state and local policy to make that *vision* a reality. We conduct research and work with communities to inform and advocate for policies that will lead to excellent schools for all students. We are committed to promoting student-focused policies that ensure all students have equal opportunity and access to an excellent education.

**CONTACT US**

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