



An Illustration of the State of  
Connecticut Public Education, September 2008

# Mapping the Gap

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# Preface

**THIS BOOK OF MAPS** is a visual accompaniment to ConnCAN's 3<sup>rd</sup> annual School and District Report Cards. It is designed to provide an easy-to-understand overview of the relative performance of Connecticut's 169 school districts across elementary, middle and high school.

The maps are an additional lens through which parents, school leaders, community members and policy makers can explore student achievement in Connecticut. Drawing on the categories in our report cards, the maps use results from the Connecticut Mastery Test and the Connecticut Academic Performance Test to illustrate overall student achievement, low-income and minority student achievement, and the change in performance over time.

The category of "performance gains" measures how much the same cohort of students learned over the course of one year. It examines whether this year's fourth graders, for example, performed better than they did in third grade last year. The improvement category measures the average change in the percent of students meeting state goals in one grade. This category compares, for example, 2008 fourth grade scores with 2007 fourth grade scores.

You will notice that some maps, particularly those illustrating low-income, African-American, and Hispanic student results, are missing data for many districts. The

Connecticut State Department of Education does not release data for groups with fewer than 20 test takers within a grade. As a result, the small size of many rural districts and the stark geographic segregation in our state preclude the release of data for many districts.

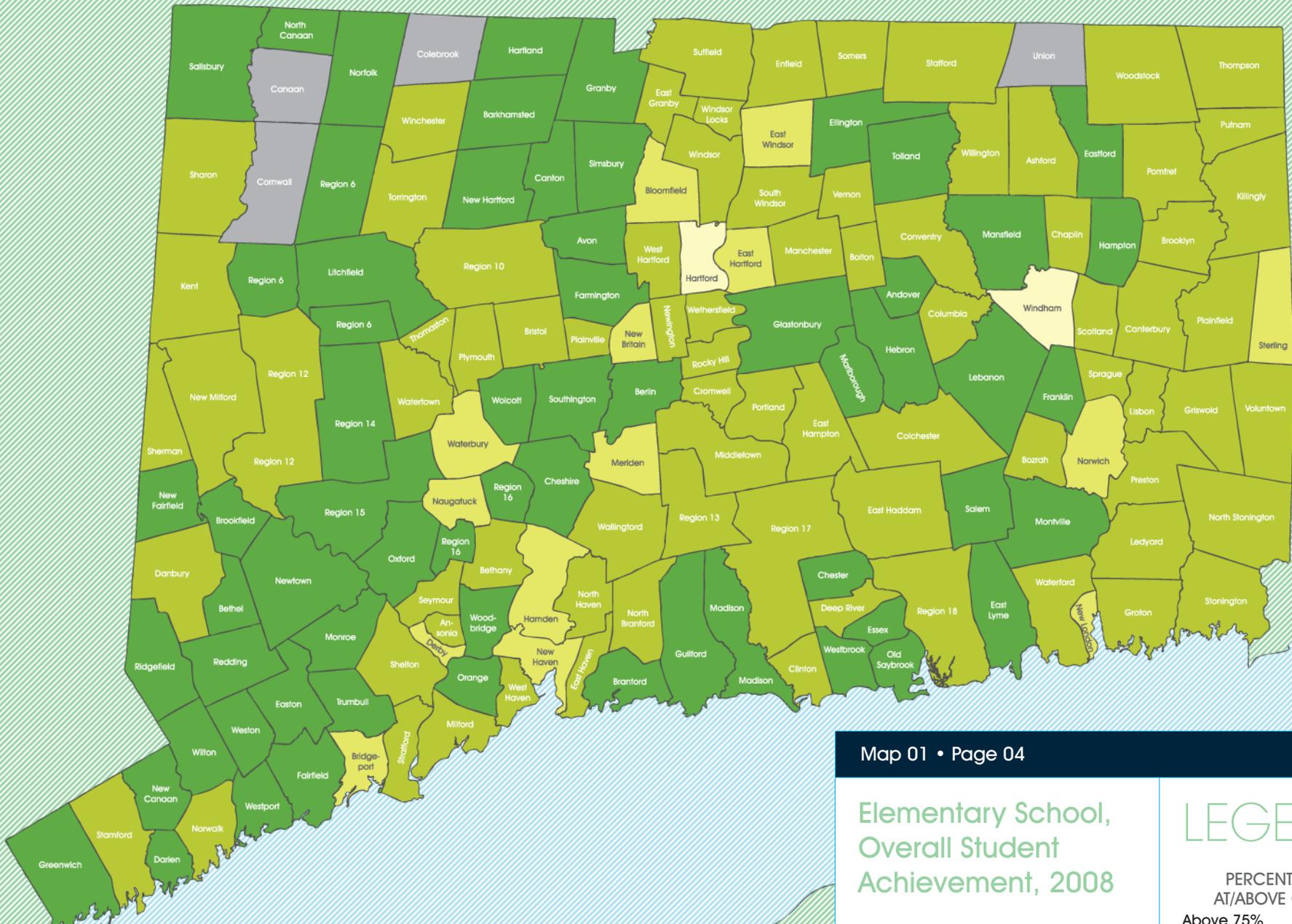
In addition to district-level maps of academic performance, we also offer a visual overview of the Top 10 schools in key categories for elementary, middle and high school.

ConnCAN's research and policy manager Tori Truscheit and research fellow Jesse Wanzer spearheaded this new project. I hope you find it informative and useful. I invite you to share feedback and comments about this new dimension of ConnCAN's research by emailing me at [alex.johnston@conncan.org](mailto:alex.johnston@conncan.org) or calling me at 203.772.4017 ext. 11.

Sincerely,



**Alex Johnson**  
*Executive Director*



## Elementary School, Overall Student Achievement, 2008

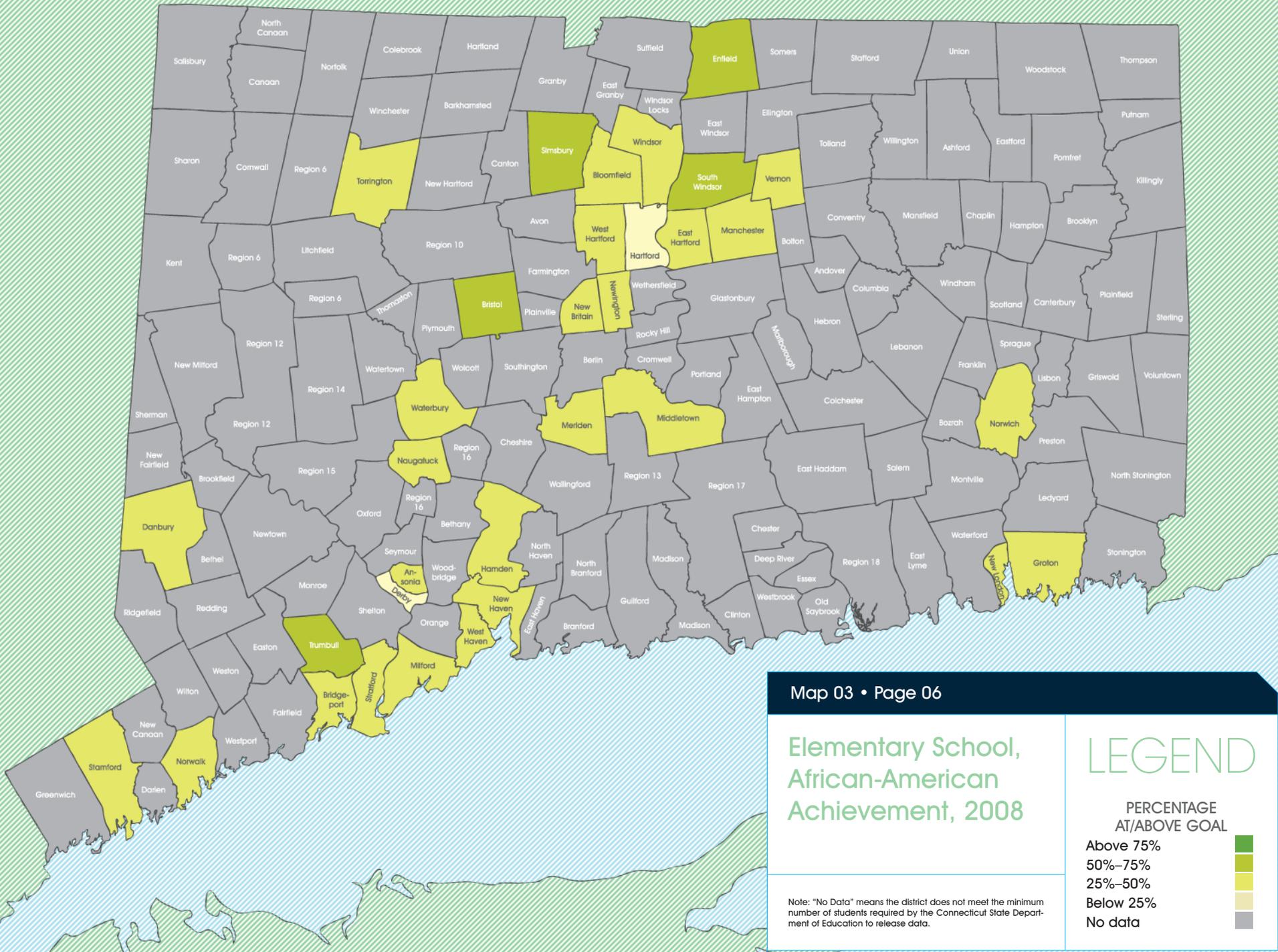
### LEGEND

PERCENTAGE AT/ABOVE GOAL

- Above 75%
- 50%–75%
- 25%–50%
- Below 25%
- No data

Note: "No Data" means the district does not meet the minimum number of students required by the Connecticut State Department of Education to release data.





## Elementary School, African-American Achievement, 2008

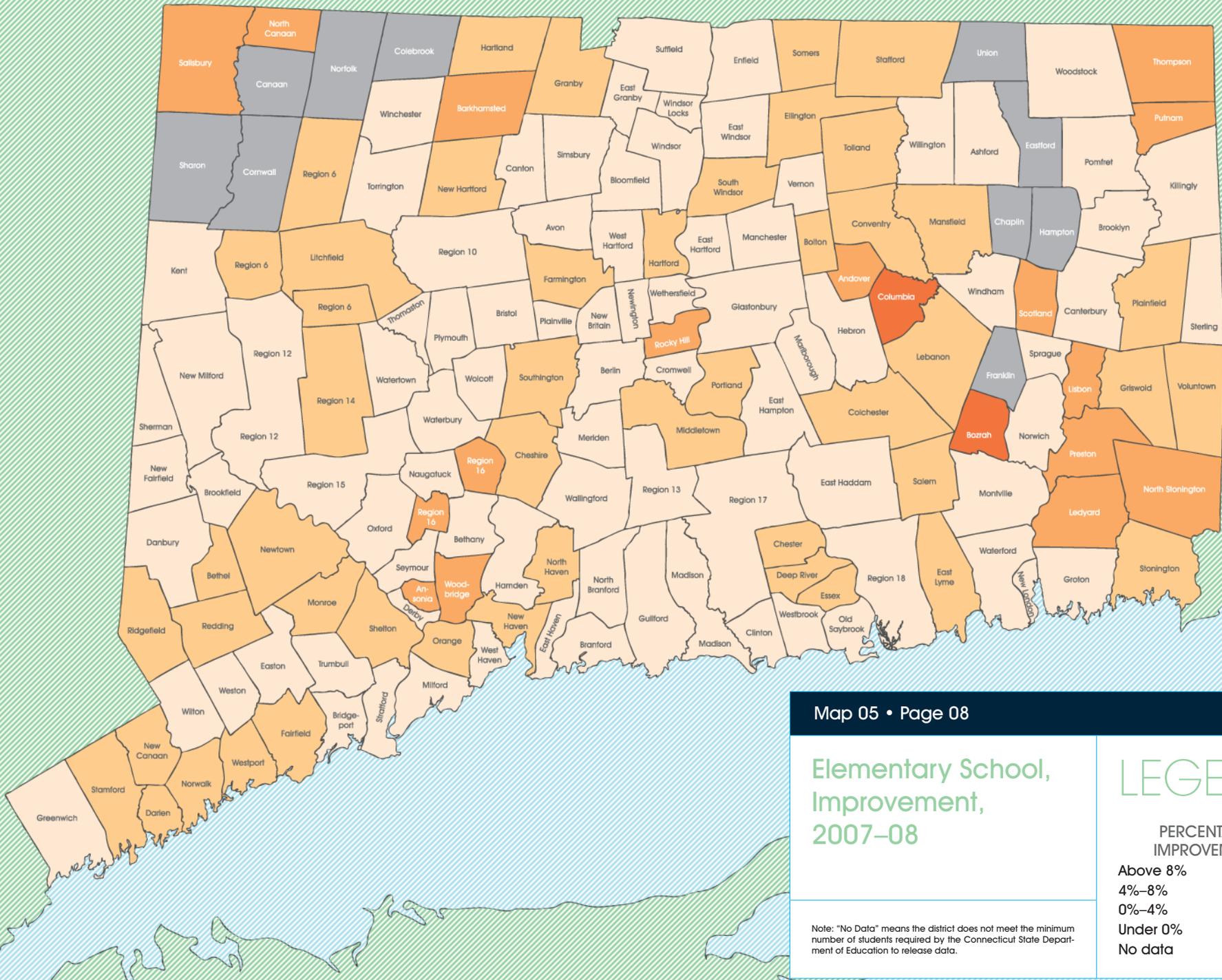
### LEGEND

PERCENTAGE AT/ABOVE GOAL

- Above 75%
- 50%–75%
- 25%–50%
- Below 25%
- No data

Note: "No Data" means the district does not meet the minimum number of students required by the Connecticut State Department of Education to release data.





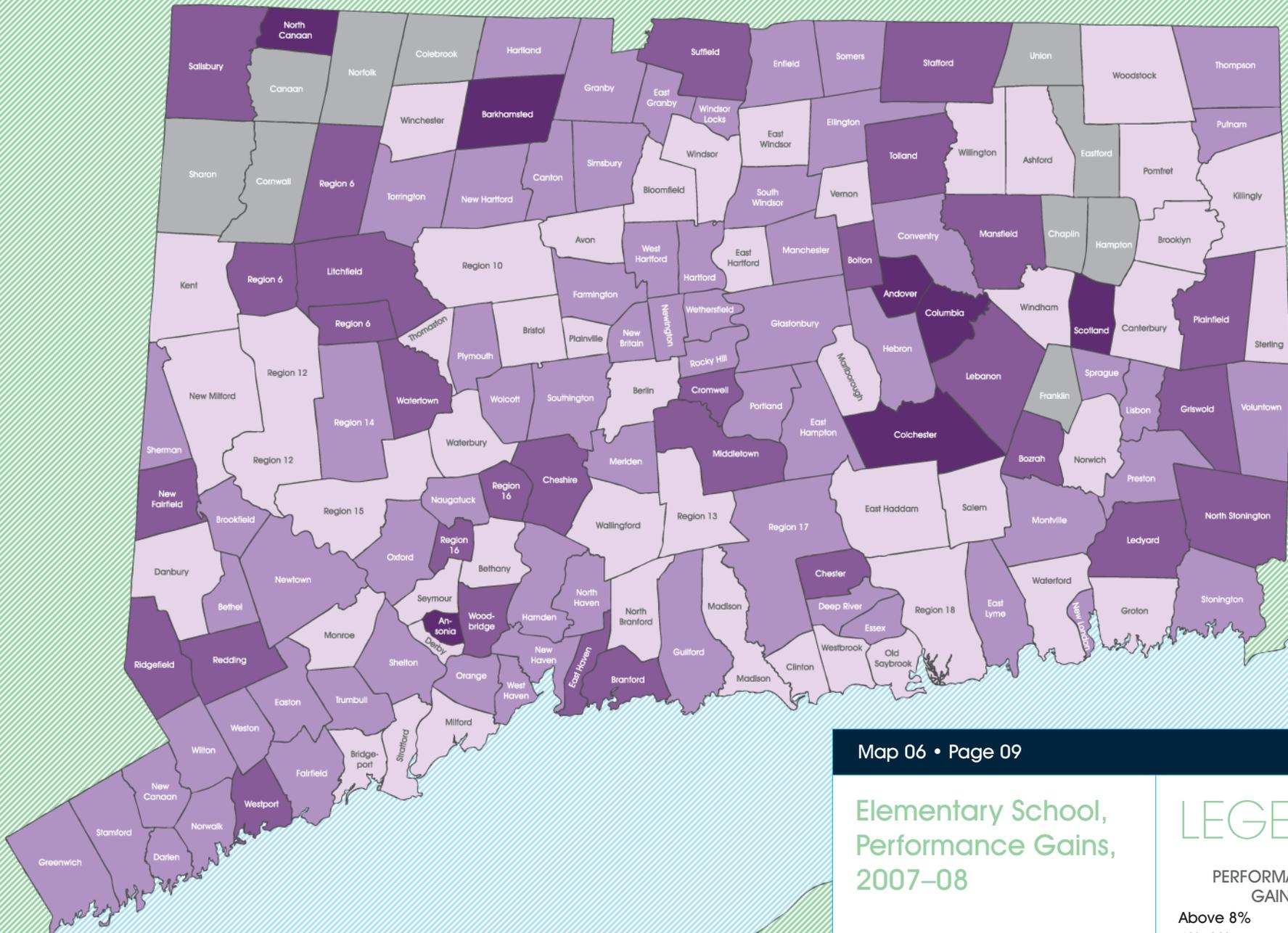
## Elementary School, Improvement, 2007-08

### LEGEND

PERCENTAGE IMPROVEMENT

- Above 8%
- 4%–8%
- 0%–4%
- Under 0%
- No data

Note: "No Data" means the district does not meet the minimum number of students required by the Connecticut State Department of Education to release data.



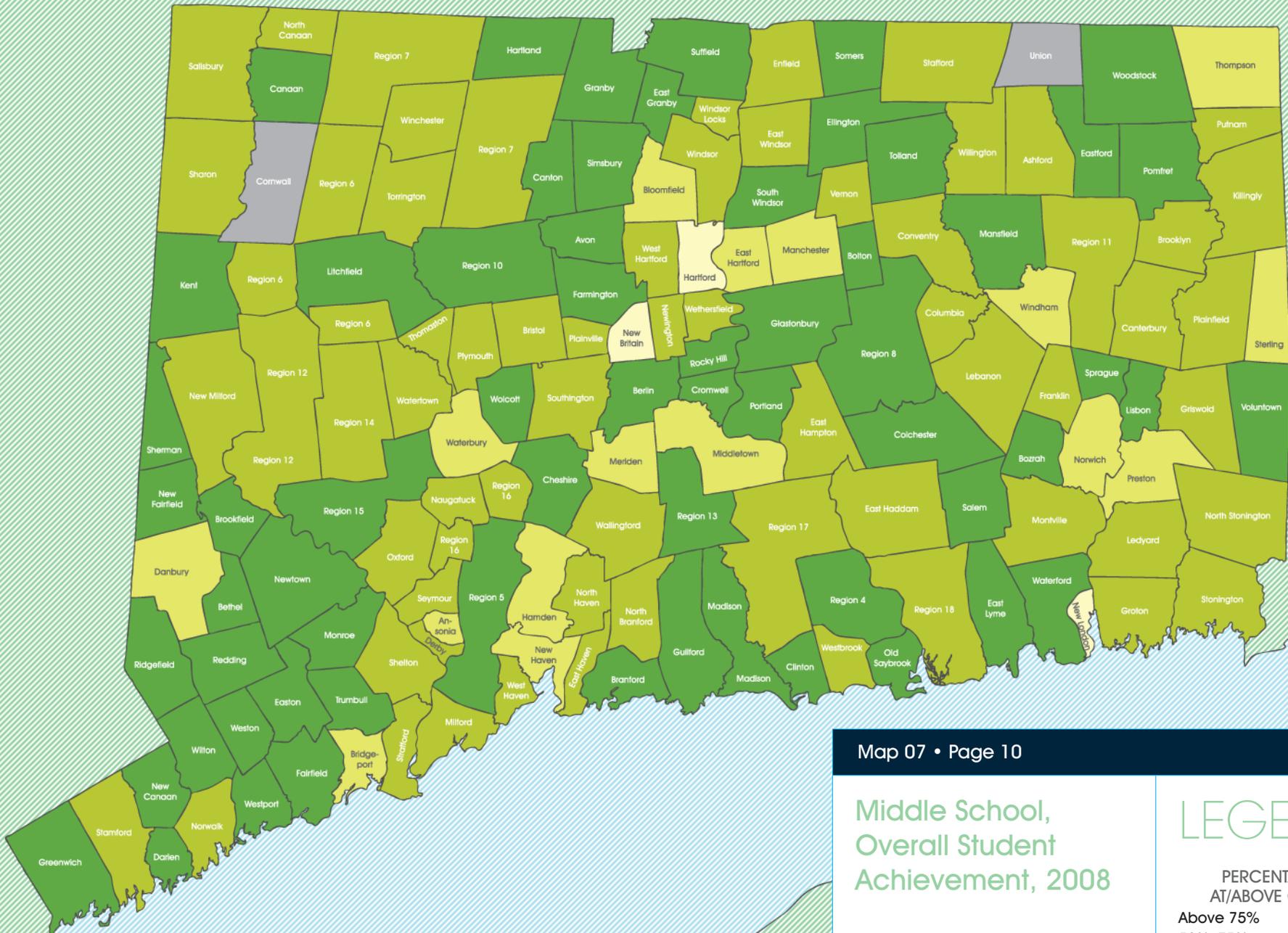
## Elementary School, Performance Gains, 2007-08

### LEGEND

PERFORMANCE GAIN

- Above 8%
- 4%–8%
- 0%–4%
- Under 0%
- No data

Note: "No Data" means the district does not meet the minimum number of students required by the Connecticut State Department of Education to release data.



## Middle School, Overall Student Achievement, 2008

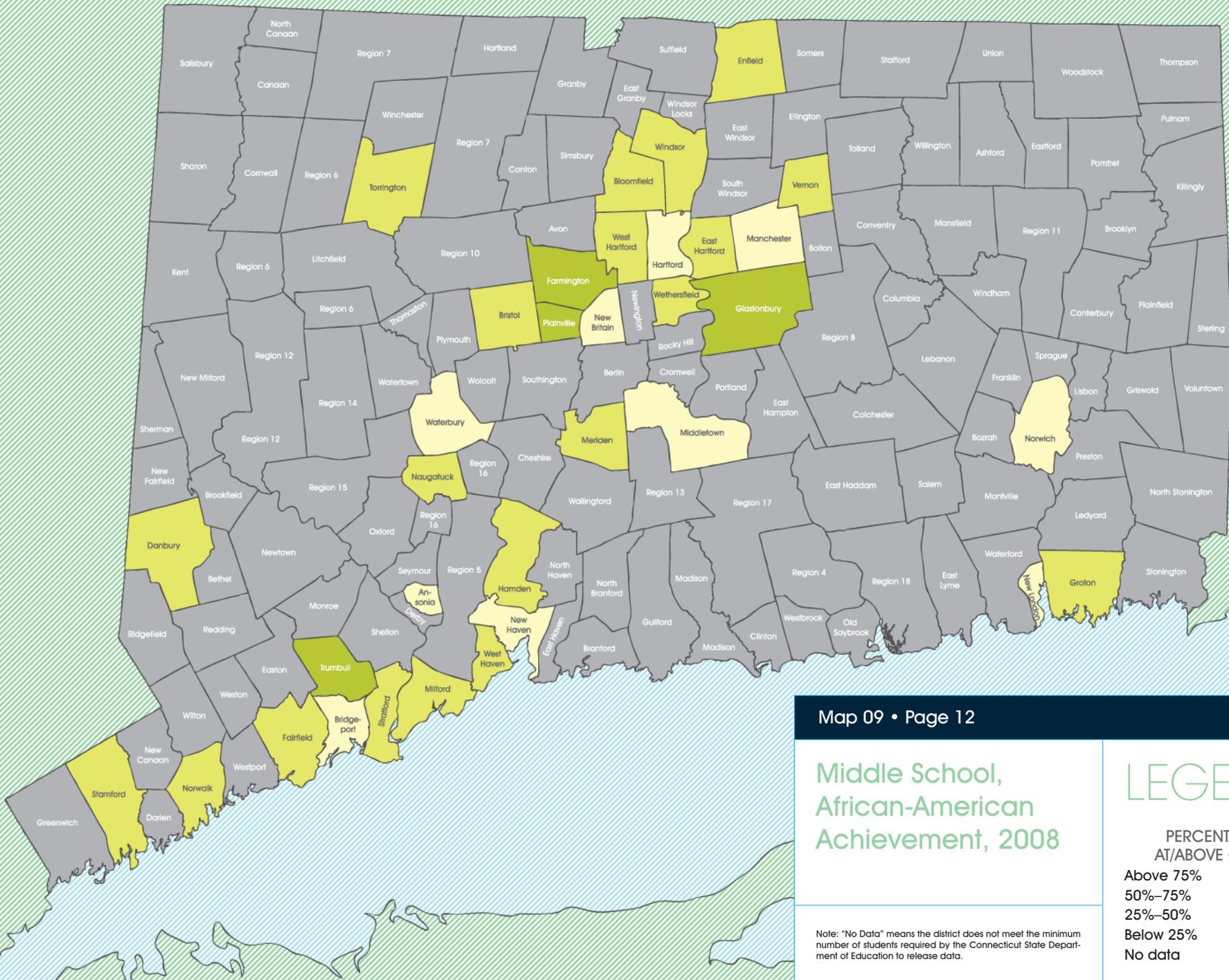
### LEGEND

PERCENTAGE AT/ABOVE GOAL

- Above 75% ■
- 50%–75% ■
- 25%–50% ■
- Below 25% ■
- No data ■

Note: "No Data" means the district does not meet the minimum number of students required by the Connecticut State Department of Education to release data.





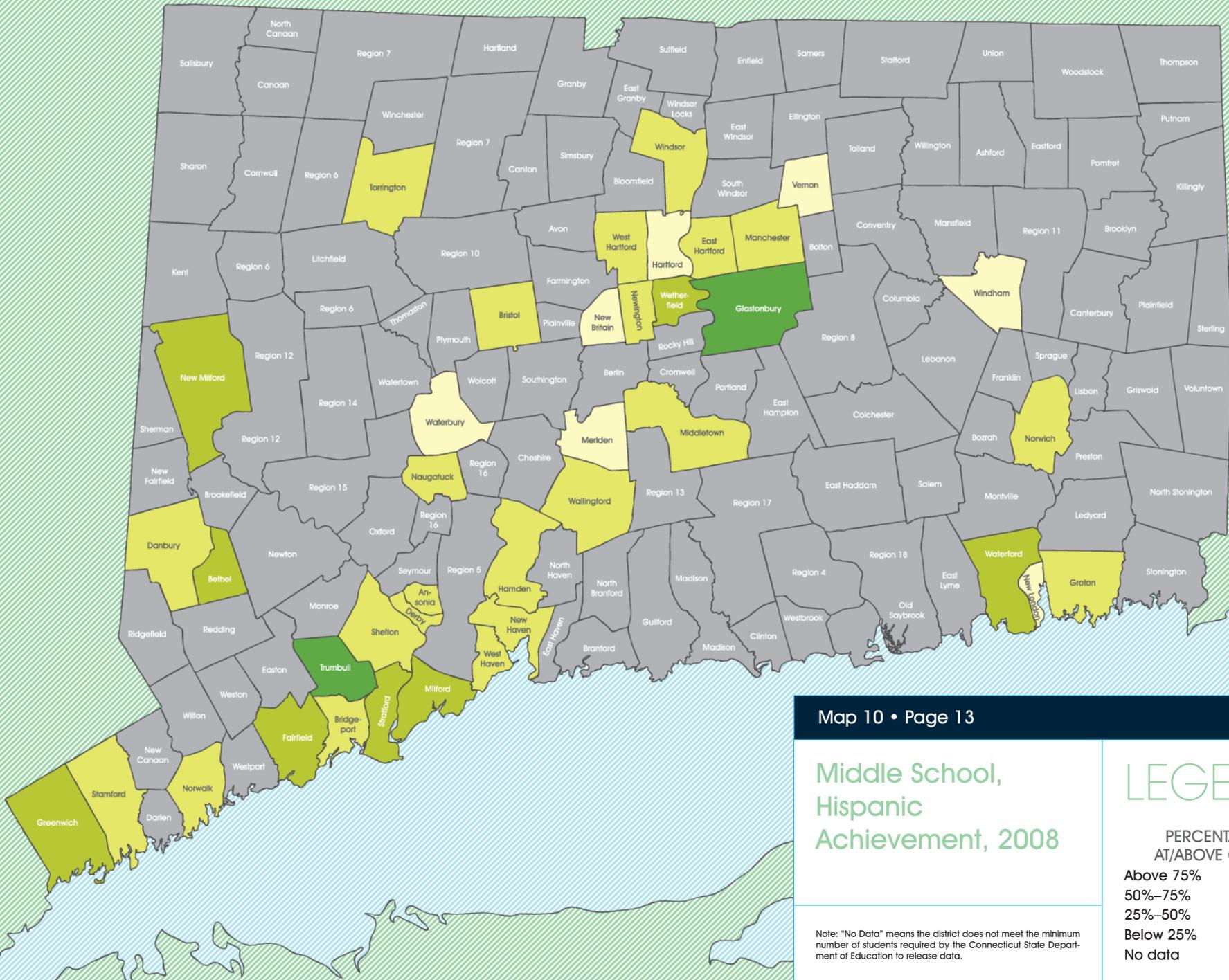
## Middle School, African-American Achievement, 2008

### LEGEND

PERCENTAGE AT/ABOVE GOAL

- Above 75%
- 50%–75%
- 25%–50%
- Below 25%
- No data

Note: "No Data" means the district does not meet the minimum number of students required by the Connecticut State Department of Education to release data.



## Middle School, Hispanic Achievement, 2008

### LEGEND

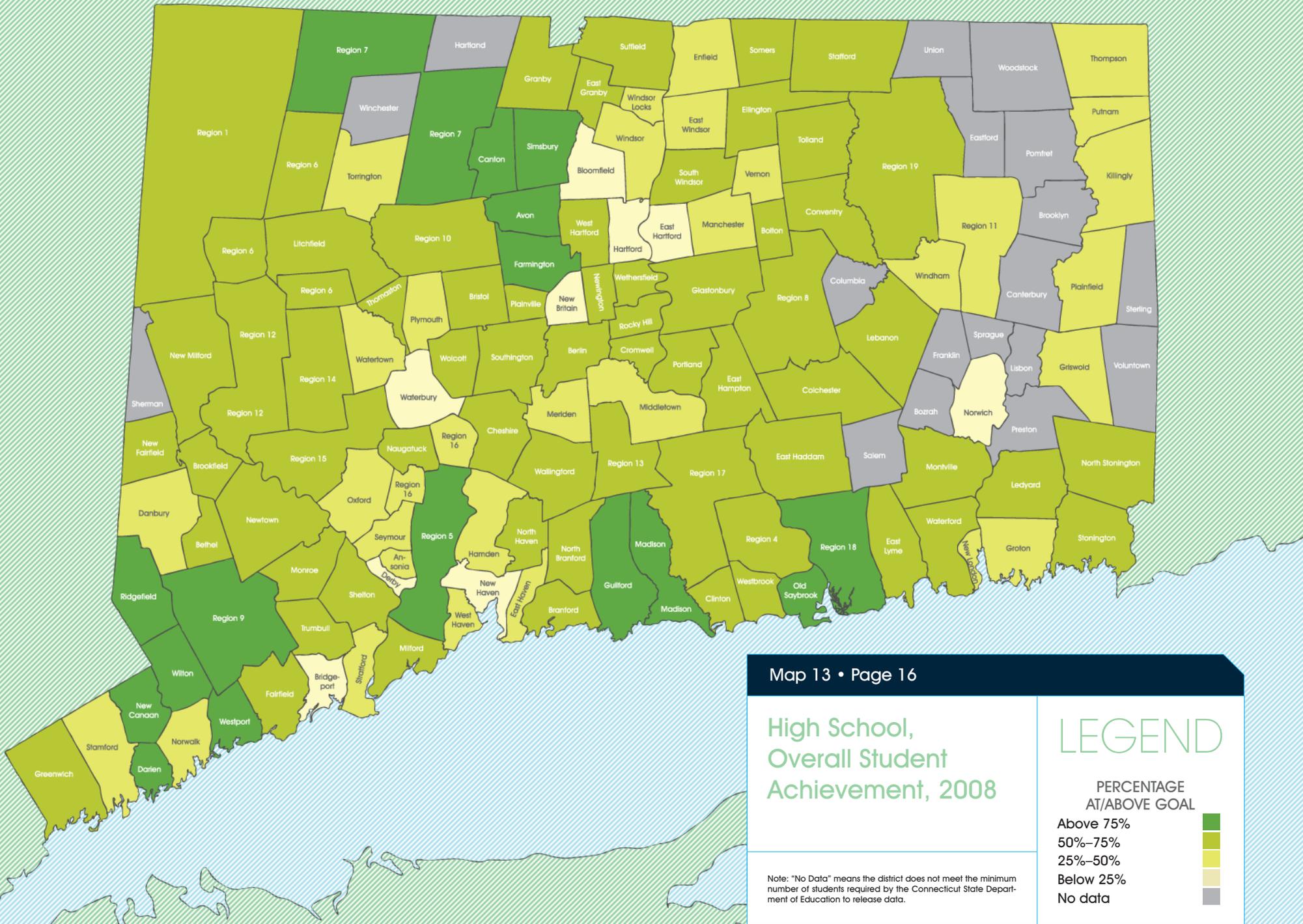
PERCENTAGE AT/ABOVE GOAL

- Above 75% ■
- 50%–75% ■
- 25%–50% ■
- Below 25% ■
- No data ■

Note: "No Data" means the district does not meet the minimum number of students required by the Connecticut State Department of Education to release data.





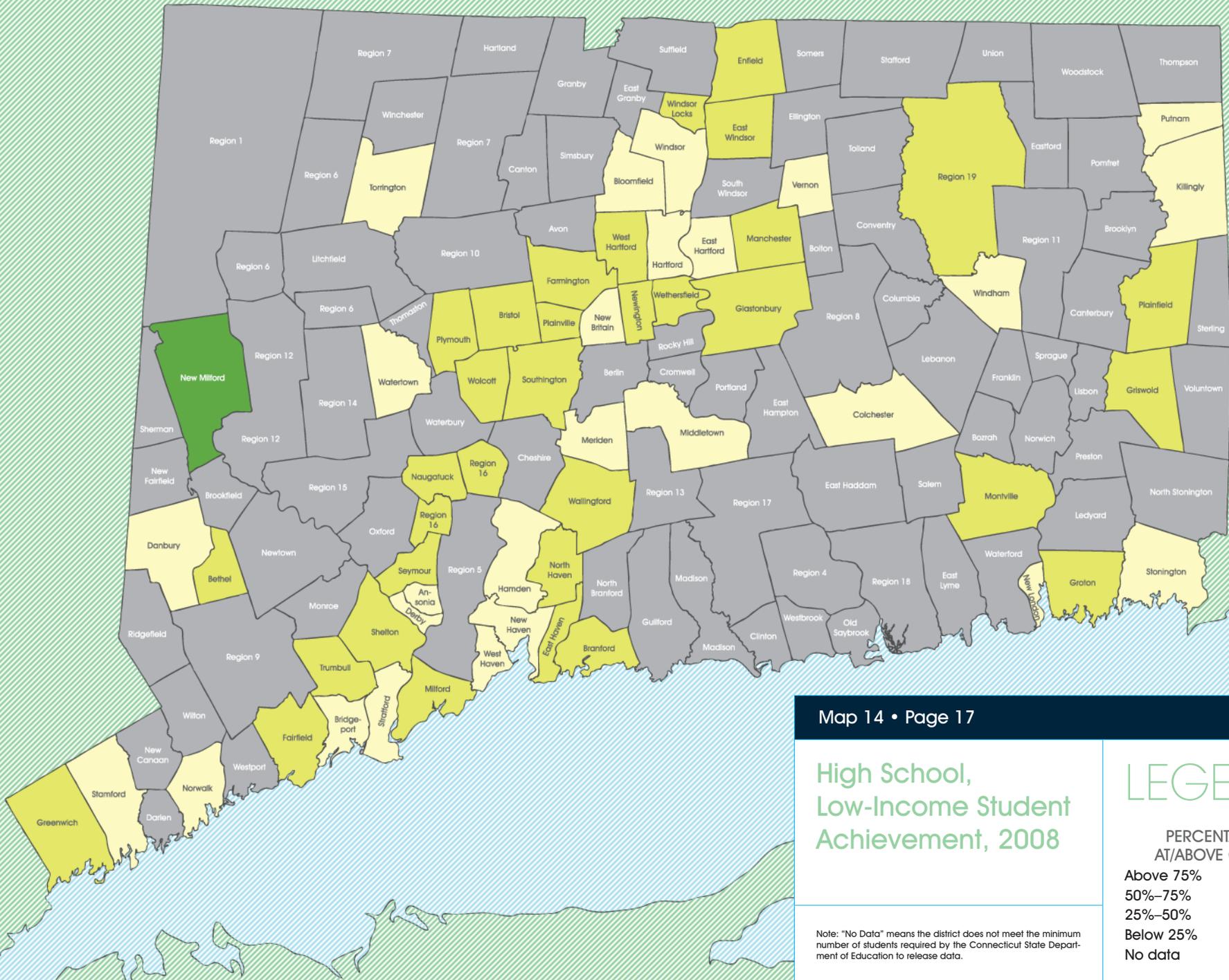


### High School, Overall Student Achievement, 2008

## LEGEND

- PERCENTAGE  
AT/ABOVE GOAL
- Above 75% ■
  - 50%–75% ■
  - 25%–50% ■
  - Below 25% ■
  - No data ■

Note: "No Data" means the district does not meet the minimum number of students required by the Connecticut State Department of Education to release data.



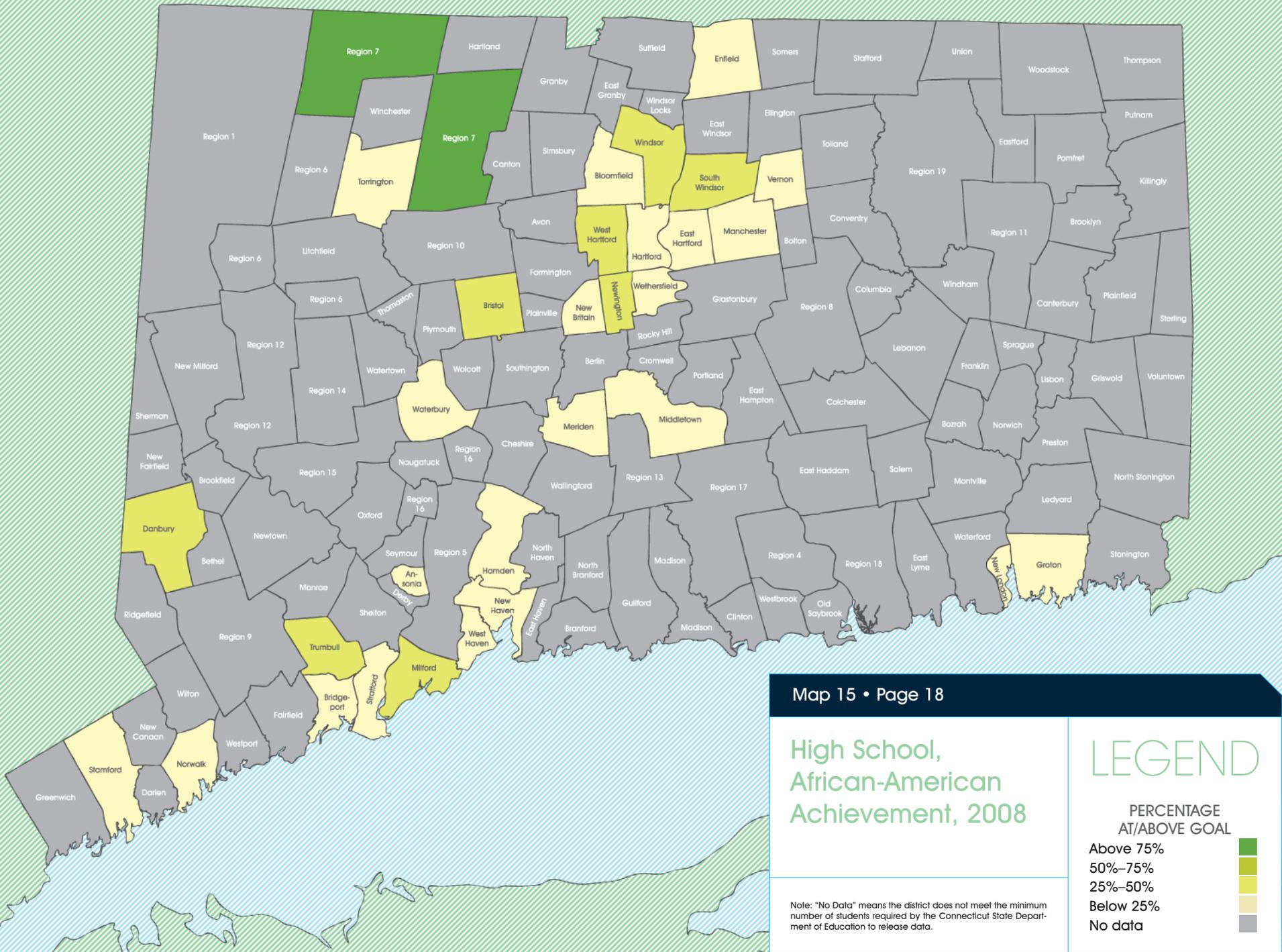
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## High School, Low-Income Student Achievement, 2008

### LEGEND

- PERCENTAGE AT/ABOVE GOAL
- Above 75%
  - 50%–75%
  - 25%–50%
  - Below 25%
  - No data

Note: "No Data" means the district does not meet the minimum number of students required by the Connecticut State Department of Education to release data.



Region 7

Region 7

Region 6

Region 1

Region 6

Region 10

Region 6

Region 12

Region 12

Region 15

Region 16

Region 5

Region 9

Region 16

Region 16

Region 5

Enfield

Windsor

Bloomfield

West Hartford

New Britain

Meriden

Middletown

Wallingford

New Haven

West Haven

Millford

Bridgeport

Norwalk

Darien

Stamford

Greenwich

Bristol

Waterbury

Danbury

Trumbull

Ansonia

Shelton

Shelton

Shelton

Windsor

South Windsor

East Hartford

Manchester

Westfield

Meriden

Middletown

Wallingford

New Haven

West Haven

Millford

Bridgeport

Norwalk

Darien

Stamford

Greenwich

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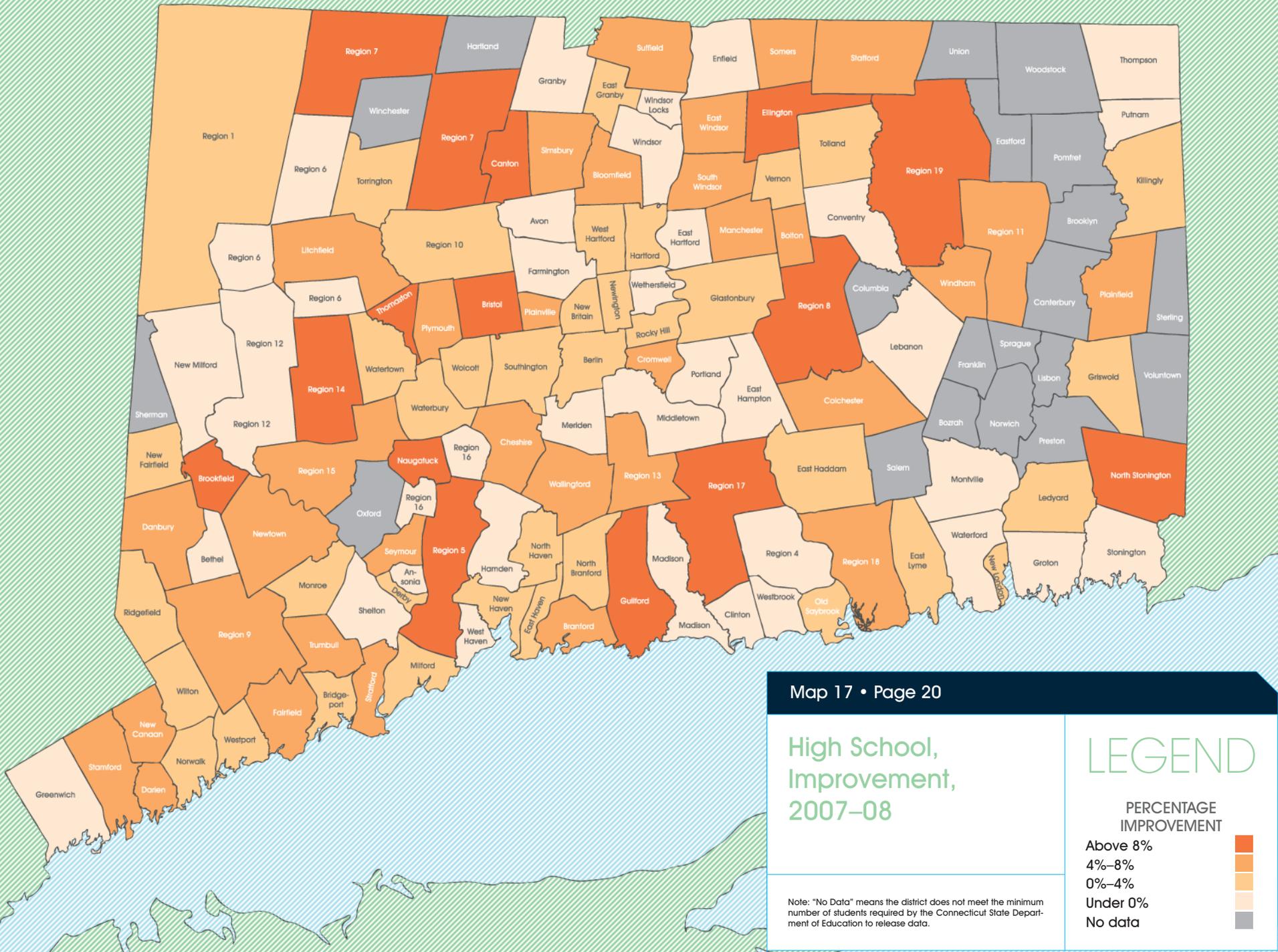
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Greenwich

Stamford





## High School, Improvement, 2007-08

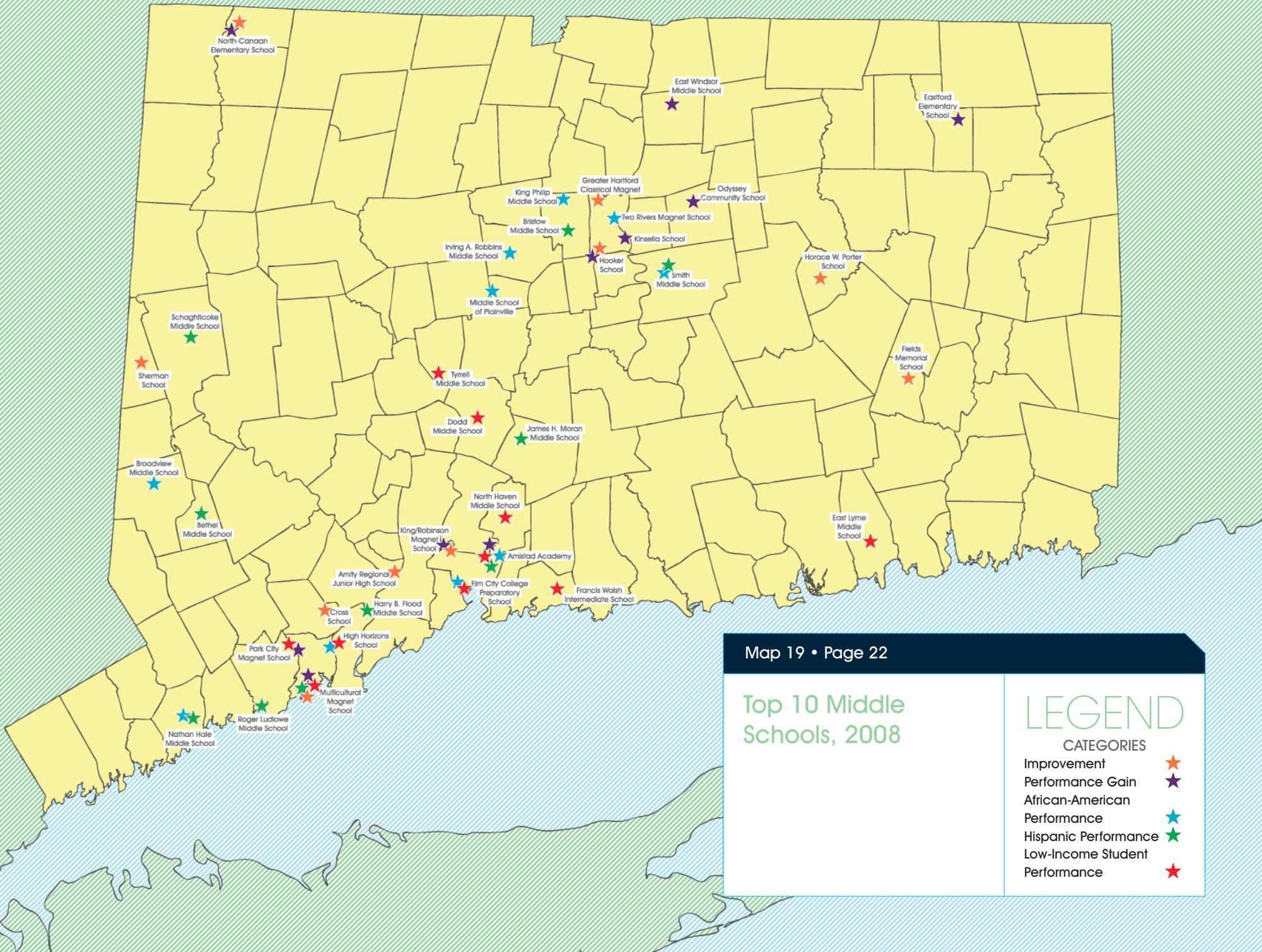
### LEGEND

PERCENTAGE IMPROVEMENT

- Above 8%
- 4%–8%
- 0%–4%
- Under 0%
- No data

Note: "No Data" means the district does not meet the minimum number of students required by the Connecticut State Department of Education to release data.





## Top 10 Middle Schools, 2008

### LEGEND

CATEGORIES

- Improvement ★
- Performance Gain ★
- African-American ★
- Performance ★
- Hispanic Performance ★
- Low-Income Student ★
- Performance ★



# Appendix

## DATA SOURCES

**STUDENT PERFORMANCE DATA IS** based on the 2008 Connecticut Mastery Test for grades three through eight and the 2008 Connecticut Academic Performance Test for grade ten. Each student's achievement is compared to a set of established standards for their grade in each subject area.

The CMT is a statewide exam designed by the State Department of Education. It is administered each spring to all public school students in grades three through eight. The CMT measures student achievement in mathematics, reading and writing compared to the expectations for their grade level. The test takes approximately seven hours over a one- to four-week period. In 2008, for the first time, fifth and eighth grade students took a science test as part of the CMT.

The CMT reading section is based on the *Degrees of Reading Power* test and the *Reading Comprehension* test. It assesses students' understanding of what they have read through multiple-choice questions and open-ended questions that require written responses. The writing section tests students through multiple-choice questions on composition, revision, and editing of passages as well as a writing sample in response to a specific topic. The mathematics section uses multiple-choice and open-ended questions to assess students' mastery of basic skills, understanding of key concepts, and ability to solve problems. The science section tests factual knowledge, conceptual understanding, and skill application. It uses multiple choice and short answer questions on either scientific content, in the case of grade five, or the scientific inquiry process, in the case of grade eight.

The CAPT assesses competency in mathematics, reading, writing and science in grade ten. The mathematics test assesses algebraic reasoning, numerical and proportional reasoning, geometry and measurement, and statistics. It uses both multiple choice and open-ended questions. The *Reading Across the Disciplines* section is split into a *Response to Literature* section and a *Reading for Information* section, which use open-ended written responses and multiple choice questions to assess reading comprehension. The *Writing Across the Disciplines* section includes an *Interdisciplinary Writing* section, in which students are asked to write a persuasive essay, and an *Editing and Revising* section, which includes mul-

iple-choice questions about editing, composing, and revising skills. The science test assesses both content knowledge of science and scientific inquiry, literacy and numeracy, along with five scientific performance tasks.

While there is no passing grade on the CMT or the CAPT, the State Department of Education does set state goals for each subject area in each grade tested. The department defines state goals as the knowledge, skills and critical thinking abilities that are "reasonable to expect of students" within their grade level.

On both the CMT and the CAPT, students' raw scores (the total number of correct responses) are translated into scale scores from 100 to 400 points. Cut-off points are assigned to each test for the state goal. The department reports the percentage of students scoring above "goal," using the term "advanced." The department also reports the percentage of students scoring below goal using the terms "proficient," "basic," and "below basic." ConnCAN, however, uses the goal standard to rate schools at the level of performance "reasonable to expect of students" within their grade level.

## DATA ANALYSIS

**THE PERFORMANCE DATA PROVIDED** in this report is based on the percentage of students within each school or district who scored at or above goal on the CMT and CAPT. The State Department of Education makes this percentage score publicly available for schools or districts with at least 20 students in a given grade who completed the CMT or CAPT. The percentage scores are reported for each content area: math, reading, writing, and science.

To compare schools and districts, ConnCAN calculated a single student achievement score for each school. The score takes the average percentage of students scoring at or above goal across the four tests on the CMT and CAPT. Elementary schools are assessed using the results from the fifth-grade test. Fourth-grade results are used when an elementary school does not have a fifth grade. ConnCAN assessed middle schools and districts using the results from the eighth-grade test (with the seventh-grade results used when a middle school does not have an eighth grade). We assessed high schools using the results from the CAPT, which tests only tenth-grade students. This score provides a straightforward, easy-to-use yardstick to measure how

well the school, on average, is meeting the needs of its students in these key subject areas.

To better understand how well a school is meeting the needs of those students traditionally underserved in Connecticut, a student achievement score is also calculated for African-Americans, Hispanics and low-income students.

To measure the overall change in student performance within a school or district, the change in the average percentage of students scoring at or above goal in all subjects between 2007 and 2008 is calculated. For example, the change in the average percentage of 3<sup>rd</sup> graders scoring at or above goal in 2006 is compared to the average percentage of 3<sup>rd</sup> graders scoring at or above goal in 2007. Improvement is measured as the average change in all grade levels.

Finally, to determine the relative effectiveness of schools in increasing the percentage of students scoring at or above goal, the change in the average percentage of a student cohort scoring at or above goal is calculated for elementary and middle schools. Because the CAPT tests students in only one grade, performance gains cannot be calculated in high school.

For elementary schools, the performance gains score is the average change between the 2007 third grade and the 2008 fourth grade, and the 2007 fourth grade and the 2008 fifth grade. For middle schools, the performance gains score is the average change between the 2007 fifth grade and the 2008 sixth grade, the 2007 sixth grade and the 2008 seventh grade, and the 2007 seventh grade and the 2008 eighth grade. A positive score means that the average percentage of students scoring at or above goal increased during their year in school. A negative score means the average percentage of students scoring at or above goal decreased. Performance gains were calculated for more than 95 percent of schools and districts.

It is important to note that this indicator's ability to represent a school or district's impact on student achievement is determined in part by the stability of the student body. Changes in the composition of the student body within a school lessens its efficacy. Similarly, while the goal standard is designed to measure the level of performance "reasonable to expect of students" within their grade level, small differences in the way the cut-off score is determined between years may affect increases and decreases in the percentage of students that cross the threshold.



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