



New York City and School Districts Statewide: A Comparison of Test Score Improvement

Hon. James F. Brennan
New York State Assembly

Research Prepared by
Shawn Campbell
Legislative Aide

Room 842 Legislative Office Building, Albany, NY 12248, 518 455.5377
416 Seventh Avenue, Brooklyn, NY 11215, 718 788.7221
1414 Cortelyou Road, Brooklyn, NY 11226, 718 940.0641 brennanj@assembly.state.ny.us

Introduction

Test score improvement in the New York City school system under the administration of Mayor Bloomberg has been well-publicized. However, this information is rarely presented in the context of how New York City achievement compares to other districts in the State. While it is true that the percentage of students in New York City public schools who are proficient in English Language Arts (ELA) and math has increased since the Mayor implemented his *Children First* reforms in 2003, it is also true that the percentage of students throughout the State of New York who reached proficiency in these grades improved as well.

This report compares the increases in the percentage of New York City 4th and 8th grade students proficient in English Language Arts (ELA) and math to the statewide percentage gains from 2003 to 2009. This is followed by an in-depth examination comparing New York City test scores to all other school districts in the State in 2003 and 2008, which shows where New York City ranked in proficiency levels compared to all other districts in each of those two years.

The primary purpose of the in-depth review is to determine how New York City's gains in test scores compare to the improvement of other districts. Therefore, the report shows how many school districts showed greater improvement from 2003-2008 than New York City in both 4th and 8th grade ELA and math and, where New York City ranked against all other districts in improvement. Additional information is provided on how New York City's progress compared to large district and high-need urban and suburban districts.

When focused on test scores, New York City students were among the highest-improving in the State in 4th and 8th grade math. However, test score gains in 4th and 8th grade ELA were only moderately above average compared to other districts. In 2003 New York City started in the lowest tenth of all school districts in the State in proficiency levels in 4th and 8th grade ELA and math. In 2008 New York City remained in the bottom tenth in ELA and had moved only into the bottom fifth in math.

The report provides additional perspective on how much New York City is progressing. It shows that New York City's improvements, while positive, are not unique, are far from the best in the State, and that there is a long way to go in relation to reaching even the mid-levels of test performance of other districts in the State.

Grades 4 and 8 are the focus of the report. These are the two grades that have been tested since the implementation of statewide exams in 1998-99. In 2005-06 the State implemented a grade by grade testing program in grades 3-8. Prior to that New York City tested grades 3, 5, 6 and 7, but there were no comparable State tests for those grades at that time.

New York City and New York State Test Score Improvements 2003-2009

In the six school years since the Mayor's overhaul began in September 2003, the percentages of students proficient in 4th and 8th grade ELA in New York City rose 16 and 24 percentage points, respectively. But students statewide also improved, going up 12 percentage points for 4th grade and 23 percentage points for 8th grade ELA; quite comparable to New York City. For 4th and 8th

grade math, the percentage of the New York City students reaching proficiency went up 18 and 37 percentage points, respectively, while the average improvements for the State as a whole went up 9 and 29 points, correspondingly. New York City students were outpacing the rest of the State's students in math, but by 2003 the State average for 4th grade math had already reached 78%, meaning the remaining room for advancement was narrowing. The City's students were at 67% in 2003. By 2009, 87% of the students in the State were proficient in 4th grade math, while New York City students had reached 85%. There is broad improvement across the State, not just in New York City.

It is important to note that all statewide figures referenced in this report include the New York City figures. Since New York City's rate of improvement was greater than the State average in all tests except for the 8th grade ELA, the State figures are overstated for the purposes of a City-State comparison. In other words, the differences between New York City and State figures would actually be greater than reported, if we were able to separate the City scores out of the State's. For this reason, it is helpful to observe how New York City compares to all school districts in the State.

School Districts Test Score Improvements 2003-2008

Method

First, we began by listing each district in descending order according to the percentage of 4th and 8th grade students who were proficient on the statewide ELA in 2003. This step was repeated for 4th and 8th grade math and then again for 4th and 8th grade ELA and math for 2008. Thus we were able to determine the ranking for each district¹ for both tests, both grades and both years. Second, the districts were ranked, using the same process, by how much progress (or in the case of some districts, backsliding) each made from 2003 to 2008. Rankings are also expressed as a percentile for each measurement. Test score data for individual districts for 2009 was unavailable from the State Education Department at the time of the writing of this report.

4th grade ELA

From the 2003 to the 2008 school year, the percentage of 4th grade students in New York City who were proficient in ELA increased from 52.4% to 61.3%. Statewide, the proficiency rate increased from 64.3% to 71.1%. Thus, from 2003 to 2008 New York City moved from being 11.9 percentage points behind the State as a whole to being 9.8 points behind.

In 2003, New York City's 4th grade proficiency percentage of 52.4% ranked 629th of the 669 school districts in the State. That is to say, 629 school districts in New York State had the same or higher percentage of students proficient in ELA in 2003. This put New York City in the 6th percentile. By 2008, New York City moved up in its ranking to 619th of 669, which moved it modestly from the 6th to the 7th percentile.

We can also view New York City's progress by comparing the increase in the percentage of 4th grade students proficient in ELA to the gain made by other districts in the State. From 2003 to 2008 New York City's 4th grade ELA proficiency rate increased from 52.4% to 61.3% - or by 8.9

¹ The total number of districts varies slightly for each category, reflecting the consolidation of elementary schools into larger middle schools as well as changes in the number of school districts from 2003 to 2008.

percentage points, slightly higher than the statewide gain of 6.8 percentage points. During that same time period, 232 other school districts in the State gained the same or more percentage points as New York City's 8.9 point improvement, putting New York City in the 65th percentile in terms of improvement.

4th grade ELA - 669 districts tested	% Proficient	School District Ranking	Statewide Percentile
New York City 2003	52.4%	629th	6th
New York City 2008	61.3%	619th	7th
New York City Change 2003-2008	+ 9 percentage points	232nd	65th
New York State 2003	64.3%		
New York State 2008	71.1%		
New York State Change 2003-2008	+ 6.8 percentage points		

When considering the 58 largest school districts in the State (those that tested 450 or more students on the 4th grade ELA), 14 made same or better progress from 2003 to 2008. However, New York City still ranked 50th of these 58 in 2008 up just barely from 53rd of 58 in 2003.

4th grade math

From the 2003 to the 2008 school year, the percentage of New York City 4th grade students who were proficient in math increased from 66.7% to 79.7%. Statewide, the proficiency rate increased from 78.1% to 83.8%. Thus, from 2003 to 2008 New York City moved from being 11.4 percentage points behind the State to being 4.1 points behind.

In 2003, New York City's 4th grade math proficiency of 66.7% ranked 644th out of the 668 school districts in the State, putting New York City's 4th graders in the 4th percentile of all districts statewide. By 2008, New York City moved up to 545th. This moved New York City, with 79.7% proficient, up from the 4th to the 18th percentile.

New York City gained 13 percentage points from 2003 to 2008, moving from a proficiency rate of 66.7% to 79.7%. Statewide the gain was a more modest 5.7 percentage points. From 2003 to 2008, 50 other school districts in the State made the same or more progress than New York City. This put New York City in the 93rd percentile in terms of improvement.

4th grade Math - 668 districts tested	% Proficient	School District Ranking	Statewide Percentile
New York City 2003	66.7%	644th	4th
New York City 2008	79.7%	545th	18th
New York City Change 2003-2008	+ 13 percentage points	50th	93rd
New York State 2003	78.1%		
New York State 2008	83.8%		
New York State Change 2003-2008	+ 5.7 percentage points		

New York City made the greatest gains of all the 59 large districts that tested 450 or more 4th grade students. Still, in terms of the percentage of students proficient in 4th grade math New York City ranked 45th of these 59 of large districts in 2008, up from 53rd in 2003.

8th Grade ELA

From the 2003 to the 2008 school year, the percentage of New York City 8th grade students who were proficient in ELA increased from 32.5% to 43%. Statewide, the proficiency rate increased from 45.3% to 56.1%. Thus, from 2003-2008 the difference between the City’s and the State’s percentage actually increased from 12.8 to 13.1 percentage points.

In 2003, the percent of New York City’s 8th graders proficient in ELA ranked 606th of the 660 school districts in the State, which put it at the 8th percentile. By 2008, New York City made modest gains, moving to 594th, up to the 10th percentile.

New York City gained 10.5 percentage points from 2003 to 2008, moving from a proficiency rate of 32.5% to 43%. Statewide, 8th graders moved up from 45.3% to 56.1% - a slightly higher 10.8 point gain. From 2003 to 2008, 336 other districts in the State showed the same or better increase in the percent of 8th graders proficient in ELA as New York City. This put New York City in the 49th percentile in terms of improvement.

<i>8th grade ELA - 660 districts tested</i>	<i>% Proficient</i>	<i>School District Ranking</i>	<i>Statewide Percentile</i>
<i>New York City 2003</i>	32.5%	606th	8th
<i>New York City 2008</i>	43%	594th	10th
<i>New York City Change 2003-2008</i>	+10.5 percentage points	336th	49th
<i>New York State 2003</i>	45.3%		
<i>New York State 2008</i>	56.1%		
<i>New York State Change 2003-2008</i>	+10.8 percentage points		

When considering the 67 larger districts that tested 450 or more students, New York City ranked 53rd in 2008, up slightly from 58th in 2003. In terms of rate of improvement from 2003 to 2008, 32 of these 67 larger districts improved as much as or more than New York City.

8th Grade math

From 2003 to 2008 the percentage of 8th graders who were proficient in math increased from 34.4% to 59.6%. Statewide, the proficiency percentage increased from 51% to 69.8%. Thus, from 2003 to 2008 New York City moved from being 16.6 percentage points behind the State to being 10.2 percentage points behind.

In 2003 New York City ranked 621st of 664 school districts statewide in terms of percentage of 8th grade students proficient in math, which put New York City in the 7th percentile. By 2008, New York City ranked 569th, up to the 14th percentile.

New York City gained 25.2 percentage points from 2003 to 2008, moving from a proficiency rate of 34.4% to 59.6%. Statewide the gain was 18.8 points. In that same period of time 123

other districts in the State also made 25 or more percentage points gains. This put New York City in the 81st percentile for 8th grade math in terms of improvement.

8th grade Math - 665 districts tested	% Proficient	School District Ranking	Statewide Percentile
New York City 2003	34.4%	621st	7th
New York City 2008	59.6%	569th	14th
New York City Change 2003-2008	+ 25 percentage points	123rd	81st
New York State 2003	51%		
New York State 2008	69.8%		
New York State Change 2003-2008	+ 18.8 percentage points		

Compared with the 70 large districts that tested 450 or more students, New York City made significant gains – only 8 districts in this group did better. However, in 2003 New York City ranked 63rd and by 2008 had made only a modest gain to 58th.

Overall Gains

In addition to looking at 4th and 8th grade ELA and math tests separately, we also added the gains in both grades and both tests look at how New York City compared in improvement overall to all other districts in the State. From 2003 to 2008, the sum of New York City’s progress when adding these gains together was 59 percentage points. Out of the 645 districts in the State that had results for all tests in both grades, New York City scored in the top 92 districts. Eighty-six districts fared better and New York City and five other districts had the same gain. This put New York City in the 86th percentile. In the top quartile of improvement were 161 districts ranging from being high needs, small, rural districts (51 of them) to average needs districts (91). There were nine low needs (wealthy) districts and ten high-needs urban and suburban districts.

New York City can reasonably be compared to the high needs urban/suburban districts. There are 49 such districts in the State. Ten of them were in the top quartile in terms of improvement made in all tests combined from 2003 to 2008. Of these ten districts, four fared better than New York City: Rensselaer City School District, which gained 91, Roosevelt School District with 80, Freeport School District with 74, and Amityville with a 69 percentage point gain. Five others were close behind New York City: Wyandanch at 56, Cohoes City School District at 52, Peekskill City School District gained 51 and, Cortland City School District gained 49. The one other high needs urban district in this group, Rochester City School District, gained 50 percentage points total.

Most of these high-improving districts were scoring in the lower-half of the State in 2003 and had substantial room for improvement. In 4th grade ELA only two districts started in the top quartile; for 4th grade math it was seven; for 8th grade ELA there were four districts in the top 25% and for 8th grade math there were only three in that top quartile.

About half of the 49 high-need urban/suburban districts were already testing above average proficiency levels in 2003, and nearly three-quarters were testing above New York City’s proficiency levels. In 2003 in 4th grade math, New York City was ranked 40th of the 49 high

needs urban-suburban districts, and in 2008 New York City was 22nd among these districts. In 8th grade math in 2003 New York City was ranked 33rd and in 2008 New York City ranked 21st. New York City advanced significantly relative to these other high needs urban/suburban districts in the five-year period.

In 2003 in 4th grade ELA, New York City was ranked 35th among the 50 districts. In 2008 New York City was ranked 29th. In 8th grade ELA New York City was 31st in 2003, and 24th in 2008. In both 4th and 8th grade ELA New York City advanced only modestly relative to the other high needs urban and suburban districts.

Benchmarking

As with other reports issued from this office, we begin with the 2002-2003 school year as the starting point by which to measure the relationship between student improvement and Mayor Bloomberg's reforms. This is because substantive curricular, administrative, and instructional approaches to education were implemented by the Bloomberg administration in September 2003. The closure of the community school districts and their consolidation into ten regions did not occur until June 30, 2003, after that school year had been completed. The timeline of these reforms has been well documented in previous reports and show that 2002-2003 is the appropriate benchmark.

New York City in 2008

By 2008 New York City had made significant progress in 4th and 8th grade ELA and 4th and 8th grade math, but so had the rest of the State. In 4th grade ELA, of 668 districts, New York City still ranked at 441st in terms of its average scale score; 551st in terms of students testing at level 1; and 362nd in terms of students testing at level 4. In 4th grade math, of the 661 districts, New York City ranked at 582 in terms of average score; 592 in terms of students at level 1; and 440 in terms of students at level 4. Of 661 districts in the State, New York City's 8th grade students ranked 588 in terms of average score on the ELA, it ranked 56th in terms of students at level 1; and 143rd in terms of students at level 4. Of 664 districts testing in 8th grade math in 2008, New York City ranked 513 in terms of average score; 592nd in terms of students testing at level 1; and 369th in terms of students testing at level 4.

Statewide Improvement in Test Scores

Statewide reforms are a better explanation for progress made throughout New York State. In its 2009 press releases on ELA and math test score results, the New York State Education Department identified increased resources and universal pre-Kindergarten expansion as major contributions to the statewide improvement in test scores. A previous report issued by Assemblymember Brennan showed that the New York City school budget nearly doubled from 1999-2008, and the number of children enrolled in pre-Kindergarten quadrupled.

Between 1999 and 2002 the number of children enrolled in pre-Kindergarten tripled, increasing from 18% to 55% of children entering the school system. In the first year of the Mayor's reforms in September 2003, the first cohort of children benefiting from the pre-K expansion took the 4th grade State tests.

A comparison of New York City's progress to all other districts in the State provides a perspective that has not been considered in previous reports or in the media. Only in this context

do we see that New York City's progress is not unique and, in fact, we still have a long way to go.

Appendix I

More about proficiency rankings and percentiles:

Page 1 of 2

4th grade ELA –

4th grade ELA - 669 districts tested	% Proficient	School District Ranking	Statewide Percentile
New York City 2003	52.4%	629th	6th
New York City 2008	61.3%	619th	7th

2003

Bottom quarter of all districts' proficiency percentages range: 0% to 62%
 Top quartile proficiency percentages range: 80% to 100%.
So, in 2003 New York City's 52.4% proficiency was nearly ten percentage points off of being at the top of the bottom quartile and nearly 28 percentage points away from making it into the top quartile.

2008

Bottom quarter of all districts' proficiency percentages range 0% to 69%
 Top quarter of all districts' proficiency percentages range: 84% to 100%.
Therefore, New York City's 61.3% put it still nearly 9 percentage points away from making it out of the bottom quartile and 23 percentage points away from making it into the top quartile of school districts.

4th grade math

4th grade Math - 668 districts tested	% Proficient	School District Ranking	Statewide Percentile
New York City 2003	66.7%	644th	4th
New York City 2008	79.7%	545th	18th

2003,

Bottom quarter of all districts' proficiency percentages range 6%-81%
 Top quarter of all districts' proficiency percentages range 92-100%
This put New York City nearly 14 points away from making it out of the bottom quarter and more than 25 points away from the top quartile.

2008

Bottom quarter of all districts' proficiency percentages range 82%-78%
 Top quarter of all districts' proficiency percentages range: 93-100%.
Therefore, New York City was just above this bottom group and 13 percentage points away from making it into the top quartile.

Appendix I

More about rankings and percentiles:

Page 2 of 2

8th grade ELA

8th grade ELA - 660 districts tested	% Proficient	School District Ranking	Statewide Percentile
New York City 2003	32.5%	606th	8th
New York City 2008	43%	594th	10th

2003

Bottom quarter of all districts' proficiency percentages range: 0 to 40
 Top quarter of all districts proficiency percentages range: 62% to 89%
So, in 2003 New York City was nearly 8 percentage points away from making it out of the bottom quartile and 30 percentage points away from making it into the top quartile.

2008

Bottom quarter of all districts' proficiency percentages range: 0% to 53%
 Top quarter of all districts proficiency percentages range: 72% to 100%
Therefore, in 2008 New York City was 10 points away from climbing out of the bottom quartile and 29 points away from making it into the top quartile.

8th grade math

8th grade Math - 665 districts tested	% Proficient	School District Ranking	Statewide Percentile
New York City 2003	34.4%	621st	7th
New York City 2008	59.6%	569th	14th

2003

Bottom quarter of all districts' proficiency percentages range: 0-50%
 Top quarter of all districts proficiency percentages range: 74-100%. *Therefore, in 2003 New York City, with 34.4 percent proficient was 16 percentage points away from making it out of the bottom quartile and nearly 40 points away from making it into the top quartile of school districts.*

2008,

Bottom quarter of all districts' proficiency percentages range: 0%-67%
 Top quarter of all districts proficiency percentages range: 87-100%
Therefore, in 2008, New York City was 7 percentage points away from the top of the bottom quartile and 27 points away from the top quartile.

Appendix II

More about progress rankings and percentiles:

4th grade ELA

<i>4th grade ELA - 669 districts tested</i>	<i>% Proficient</i>	<i>School District Ranking</i>	<i>Statewide Percentile</i>
<i>New York City Change 2003-2008</i>	+ 9 percentage points	232nd	65th
<i>New York State Change 2003-2008</i>	+ 6.8 percentage points		

The range of improvement in the top quartile was 11-42 percentage points and the bottom quartile ranged from gain of zero to a 30 percentage point loss. The State's median gain was 5 percentage points.

4th grade math

<i>4th grade Math - 668 districts tested</i>	<i>% Proficient</i>	<i>School District Ranking</i>	<i>Statewide Percentile</i>
<i>New York City Change 2003-2008</i>	+ 13 percentage points	50th	93rd
<i>New York State Change 2003-2008</i>	+ 5.7 percentage points		

The range of improvement in the top quartile was 5-56 percentage points and the districts in the bottom quartile all lost ground ranging from a loss of 4 to a loss of 31 percentage points.

8th grade ELA

<i>8th grade ELA - 660 districts tested</i>	<i>% Proficient</i>	<i>School District Ranking</i>	<i>Statewide Percentile</i>
<i>New York City Change 2003-2008</i>	+10.5 percentage points	336th	49th
<i>New York State Change 2003-2008</i>	+10.8 percentage points		

The range of improvement in the top quartile was 18-51 percentage points and the bottom quartile ranged from a gain of 4 to a loss of 23 percentage points. New York City was even with the median gain in the percentage of students reaching proficiency from 2003 to 2008.

8th grade math

<i>8th grade Math - 665 districts tested</i>	<i>% Proficient</i>	<i>School District Ranking</i>	<i>Statewide Percentile</i>
<i>New York City Change 2003-2008</i>	+ 26 percentage points	110th	83rd
<i>New York State Change 2003-2008</i>	+ 18.8 percentage points		

The range in the top quartile was 22-75 percentage points and the bottom quartile ranged from a gain of three percentage points to a loss of 31 percentage points. Therefore, New York City was in the top quartile and over 22 percentage points ahead of the bottom quartile.