

Student Achievement:
New York City and the Big Four

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Background

The New York City Department of Education frequently cites student improvement in relation to the other “Big Four” cities in New York State: Rochester, Buffalo, Syracuse and Yonkers, claiming that New York City has significantly outperformed these districts in both test scores and graduation rates. The Department of Education uses this information to suggest that mayoral control has brought unparalleled reform to the school system, and as a result should remain unchanged. With the laws governing the New York City school system set to expire on June 30, 2009, it is important to assess the validity of these claims.

Purpose of Report

This report evaluates these assertions made by the Department of Education by examining the factors that provide the context for this comparison. A consideration of demographic factors such as poverty rates and economic trends suggests that comparing the New York City School System to Rochester, Buffalo and Syracuse is misleading. These school districts differ significantly in poverty rates and are experiencing opposite economic trends. Taken together, these circumstances suggest that New York City and Rochester, Buffalo and Syracuse are in fact not comparable systems.

Yonkers, however, provides a much more suitable comparison. New York City and Yonkers are comparable in poverty rates and demographic composition of student populations. Correspondingly, students in New York City and Yonkers perform similarly on two important indicators of student achievement: test scores and graduation rates. New York City and Yonkers differ, however, in governing structure. Given the many similarities of these two districts, a comparison of this type provides insight into the extent to which governing structure may or may not effect student achievement as measured by test scores and graduation rates.

Demographic Factors

New York City differs drastically from Rochester, Buffalo and Syracuse in poverty rates among school age children. In 2000, 30.4% of children ages 6-17 were in poverty in New York City. Poverty rates in Rochester, Buffalo and Syracuse were significantly higher, with the number of children in poverty hitting levels of 36.9% in Rochester, 36.1% in Buffalo and 32.5% in Syracuse in 2000.

School-Age Children in Poverty (6-17 years)										
	New York		Yonkers		Rochester		Buffalo		Syracuse	
	Total	Percent	Total	Percent	Total	Percent	Total	Percent	Total	Percent
2007	329504	27.1	*	*	14502	43.0	17470	41.8	10,853	45.5
2000	383543	30.4	7555	24.6	14934	36.9	18382	36.1	7757	32.5
1990	316822	29.7	4734	19.1	12564	36.9	17548	36.3	6232	28.9

Source: 2007 American Community Survey, 2000 and 1990 Census of Population and Housing

* Discussions between my office and the Director of Empire Data Center indicate that a number of statisticians consider the 2007 Yonkers numbers to be flawed. For more information contact my office.

Further, these cities are experiencing opposite economic trends: while the economic status of students in New York City is improving, the status of their peers in Rochester, Buffalo and Syracuse continues to decline. As poverty rates in New York City decreased from the 2000 level of 30.4% to 27.1% in 2007, the percentage of children in poverty increased substantially in Rochester, Buffalo and Syracuse. From 2000 to 2007, the percentage of students in poverty in Rochester increased from 36.9% in 2000 to 43% in 2007. In Buffalo the percentage of students in poverty increased from 36.1% in 2000 to 41.8% in 2007. Similarly, in Syracuse, the percentage of students in poverty increased from 32.5% in 2000 to 45.5% in 2007.

Yonkers City School District, however, had poverty rates comparable to those in New York City in 2000. In that year, 30.4% of school-age children were in poverty in New York City, while 24.6% of children were in poverty in Yonkers.

Percentage Distribution of Children Age 6-17 in Poverty by Race/Ethnicity and Population (2000)								
	White		Black		Asian		Hispanic	
	Total	Percent	Total	Percent	Total	Percent	Total	Percent
New York	46787	15.9	136480	33.2	27436	24.5	173231	40.3
Yonkers	1049	10.5	2459	34	151	10.4	3793	33.3
Rochester	1970	21.6	8690	40.6	167	25.5	3638	47.8
Buffalo	4238	22.8	10284	41.7	94	25.8	3099	52.9
Syracuse	2318	22.6	3957	41.4	67	14.4	1060	50.9

Source: 2000 Census Data, U.S. Census Bureau

Percentage Distribution of Children Age 6-17 in Poverty by Race/ Ethnicity and Population (2007)								
	White		Black		Asian		Hispanic	
	Total	Percent	Total	Percent	Total	Percent	Total	Percent
New York	53858	17.1	99990	27.8	28343	21.7	153381	31.8
Yonkers	*	*	*	*	*	*	*	*
Rochester	1639	28.9	7672	40.8	(na)	(na)	3880	57.4
Buffalo	2825	21.9	11077	52.5	(na)	(na)	2810	48.5
Syracuse	3540	37.6	4531	51.2	(na)	(na)	(na)	(na)

Source: 2007 American Community Survey

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It is also important to note that New York City and Yonkers are similar in racial/ethnic composition of student populations. In New York City in 2007, 32.3 % of students enrolled in K-12 were Black, 39.4% Hispanic, 14.1% White and 14.2% identify as another type of minority. Correspondingly, in Yonkers City school system, 27.9% were Black, 48.5% Hispanic, 17.3% White and 6.3% identify as another type of minority. In contrast, Rochester, Buffalo and Syracuse have significantly larger populations of African American students and significantly smaller populations of Hispanic students.

Percent Distribution by Racial/Ethnic Composition (2007)				
	Black	Hispanic	White	Other Minorities
New York	32.3	39.4	14.1	14.2
Yonkers	27.9	48.5	17.3	6.3
Rochester	65.4	20.7	11.9	2.0
Buffalo	57.4	14.3	25.2	3.1
Syracuse	54.0	10.5	31.2	4.3

Student Achievement

New York City has made notable gains in student achievement as measured by test scores and graduation rates. These gains represent significant improvement in relation to three of the four largest school districts in New York State. Students in New York City have substantially outperformed students in Rochester, Buffalo and Syracuse in grades 3-8 test scores in math and English Language Arts (ELA). While the average percent of students scoring at proficiency levels from grades 3-8 in ELA in New York City is 57.6%, students in Rochester, Buffalo and Syracuse are scoring more than ten points lower on these tests, with the percentage of students at levels 3 & 4 at 47% in Rochester, 42.9% in Buffalo and 42.1% in Syracuse.

Composite scores in math follow a similar trend. In 2008, students in Rochester, Buffalo and Syracuse scored over 20 percentage points lower than their peers in New York City. While the average percentage of students at levels 3 & 4 in math is 74.4% in New York City, it is 54.9% in Rochester, 50.3% in Buffalo and 49.6% in Syracuse.

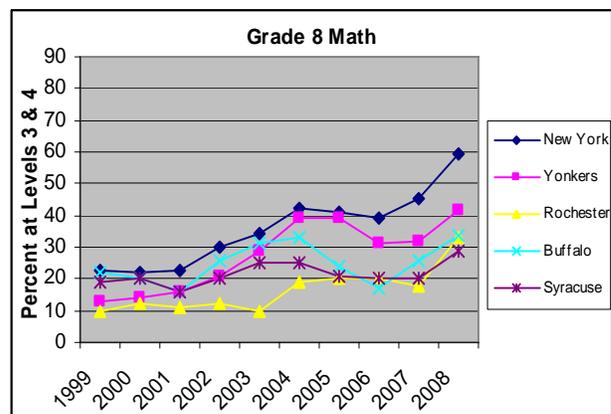
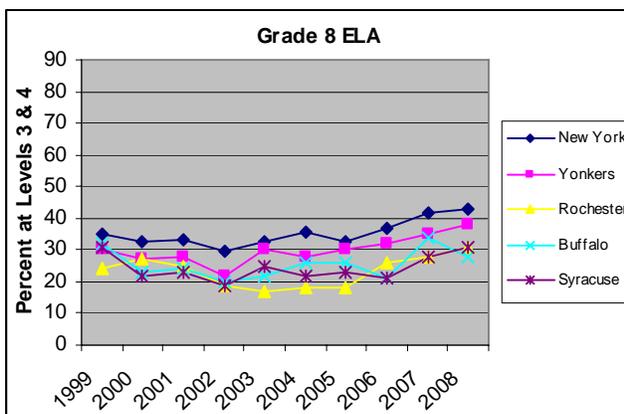
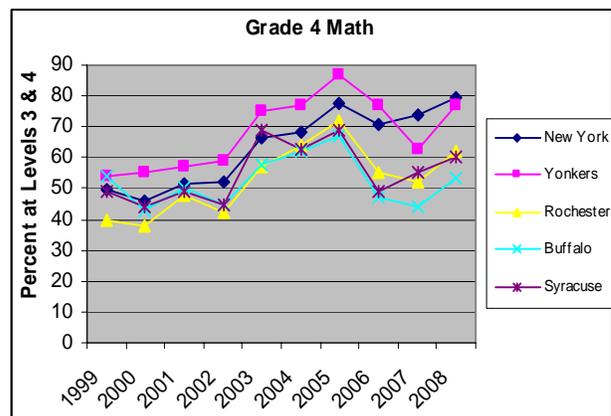
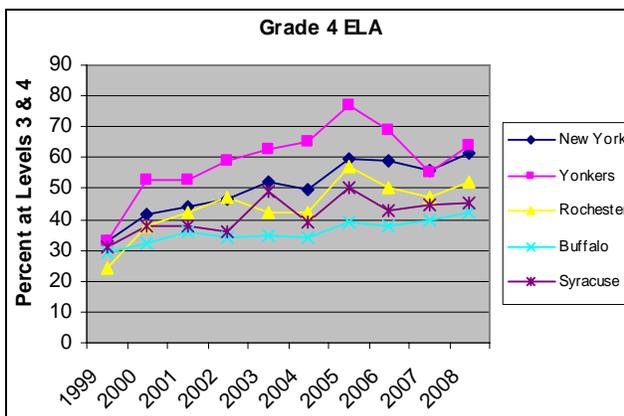
Yonkers is an exception to this pattern. Yonkers students have almost identical composite scores to their peers in New York City in ELA. In New York City, 57.6% of students in grades 3-8 scored at levels 3 & 4 and 55.7% of students scored at these levels in Yonkers. Yonkers is slightly weaker in math, although still much closer to New York City levels than Rochester, Buffalo and Syracuse. In New York City, 74.4% of students in grades 3-8 scored at levels 3 & 4, while 65.1% of students scored at these levels in Yonkers.

Percent of Students at Levels 3 & 4 in ELA (2008)							
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Avg 3-8
New York City	59.9	61.3	69.2	52.7	59.5	43	57.6
Yonkers	59.3	64.2	67	52.7	53	38	55.7
Rochester	44.1	52.2	58.3	56.3	39.9	31.1	47.0
Buffalo	46.9	42.3	53	43.7	43.7	27.9	42.9
Syracuse	43.4	45.2	52.4	40.8	40.1	30.8	42.1

Percent of Students at Levels 3 & 4 in Math (2008)							
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Avg 3-8
New York City	87.2	79.7	79.2	71.7	69	59.6	74.4
Yonkers	82.2	76.7	67.7	63.1	59.3	41.8	65.1
Rochester	70.5	62.1	59.3	56.3	48.3	32.9	54.9
Buffalo	66.4	53.2	50.2	48.9	49.5	33.8	50.3
Syracuse	65.9	60.4	53	48.9	40.6	28.9	49.6

While the percentage of students who scored at levels 3 & 4 is higher in New York City, these percentages do not take into account rates of improvement over time. In this measure, Yonkers and NYC are similar. From 1999 to 2008, New York City and Yonkers have experienced similar rates of improvement as indicated by 4th and 8th grade ELA and math scores. In New York City in 1999, 32.7 % of fourth grade students scored at levels 3 & 4 in ELA and 49.6% scored at levels 3 & 4 in math. In 2007-8, 61.3% of fourth grade students scored at levels 3&4 in ELA and 79.7% in math, an increase of 28.6 and 30.1 respectively. In Yonkers, 33% of students scored at levels 3 & 4 in ELA in 1999, while 54% scored at levels 3 & 4 in math. In the 2007-08 school year, 4th grade students testing at levels 3 & 4 increased to 64.2% in ELA and 76.7% in math, an increase of 31.2 and 22.7 respectively.

In New York City in 1999, 35.2% of 8th grade students scored at levels 3 & 4 in ELA and 22.8% of students scored at levels 3 & 4 in math. In 2007-8, 43% of 8th grade students scored at levels 3 & 4 in ELA and 59.6% of students scored at levels 3 & 4 in math, an increase of 7.8 and 36.8 respectively. In 1999 in Yonkers, 30% of 8th grade students scored at levels 3 & 4 in ELA and 13% of students scored at levels 3 & 4 in math. In 2007-8, 37.8% of 8th grade students scored at levels 3 & 4 in ELA and 41.8% of 8th grade students scored at levels 3 & 4 in math, an increase of 7.8 and 28.8 respectively.



Another important measure of student achievement is graduation rates. The percent of students graduating in four years has increased in New York City and Yonkers from the 2001 cohort to the 2003 cohort, however Yonkers school system graduates a higher percentage of students. Graduation rates in New York City increased from 46.5% of students in the 2001 cohort, to 49.8% of the 2002 cohort and 52.2% of the 2003 cohort. Similarly, Yonkers graduation rates increased from 53% among the 2001 cohort to 55% in the 2002 cohort and 58% in the 2003 cohort.

Percent of Students Graduating in 4 Years (Regents or Local Diploma)					
	New York City	Yonkers	Rochester	Buffalo	Syracuse
2001 Cohort	46.5	53.0	39.0	52.0	50.0
2002 Cohort	49.8	55.0	37.0	49.0	47.0
2003 Cohort	52.2	58.0	45.0	45.0	48.0

Governance

New York City public schools and Yonkers public schools differ in their systems of governance. In June 2002 the Legislature approved mayoral control of New York City Schools. Through the capacity to appoint the Chancellor and a majority of the members of the Panel for Education Policy (also known as the City Board of Education), Mayor Bloomberg is able to control almost all aspects of education policy in New York City. Since the members of the Panel for Education Policy serve at the pleasure of the appointing official, Mayor Bloomberg is further able to ensure compliance with his particular point of view.

In contrast, the Mayor of Yonkers has considerable input in the public school system but does not have the same level of control as the Mayor of New York. In Yonkers, the Mayor is able to appoint the members of the Board of Education. The members of the Board of Education serve five year terms, and do not serve at the pleasure of their appointing official. In Yonkers, it is the Board of Education that appoints the Superintendent of schools. The Board of Education and the Superintendent in Yonkers City school system thus maintain a certain amount of independence that is not present in the New York City system.

Conclusion

While it is true that New York City has outperformed Rochester, Buffalo and Syracuse, the significant difference in poverty rates, demographic composition and economic trends suggest that such a comparison is flawed. The New York City school system is not comparable to Rochester, Buffalo or Syracuse. Yonkers, however, is a comparable system. Not surprisingly, Yonkers students have achieved similar levels of performance in 3-8 test scores in math and ELA, and have actually outperformed their peers in New York City with regard to four year graduation rates.

A consideration of New York City Schools alongside Yonkers, Rochester, Buffalo and Syracuse suggest that systems that operate within similar contexts are likely to produce similar results. Since New York City and Yonkers differ in governing structure, one could further argue that administrative organization is not necessarily a determinant factor with regard to student achievement. There are several factors that seem to be more influential in determining school improvement, chief among them the demographic factors that shape the context in which school systems operate.