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Adequate State Financing of Urban Schools

An Analysis of State Funding of the New York City Public Schools

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I. INTRODUCTION

A. What Is the Issue?

The United States Congress made a profound decision in 1994 that went largely unnoticed by the American public. It codified a national goal to teach all children to the same high standards. In doing so, Congress reversed a longstanding practice of providing superior education for some children and accepting poor instruction for others. America had never set such an ambitious goal for its youth or challenged its schools to meet it.

The legislation, called *Goals 2000: Educate America Act,* applied only to federal education programs. Yet Congress built the engine for driving better schools. It called for high standards, universally applied, more regular testing of student performance, and the end of a two-tiered system of education that relegated poor children to an endless cycle of remedial instruction. Few laws were ever so noble.

The sea change did not originate on Capitol Hill, of course. It had its roots in the 1983 report, *A Nation at Risk,* and in the 1989 Charlottesville Education Summit. The Summit, specifically, established the footing for the National Education Goals and the educational standards. The process of elevating expectations for student performance continues to this day and was reaffirmed at the 1999 National Education Summit co-sponsored by the National Governors Association (Achieve, 1999).

Largely unspecified—but clearly implicit—was the target of the reforms: poor children of color attending urban and rural public schools. The arguments after Charlottesville were bloodless when they centered on the economics of a well-educated citizenry. But the struggle grew ever more passionate when questions of poverty and race emerged, and when it became clear that school reform for these children and the nation was the logical extension of *Brown v. Board of Education*.

The debate over how the Nation could expect all children to reach the same high academic standards when some were leaping from distinctly lower platforms than others has resurrected longstanding questions about resources. But the questions are no longer about inequities in funding. They are about whether resources are adequate for all children to meet the academic standards to which they are being held accountable.

Large urban school districts are inevitably at the heart of these questions. Most city schools serve high concentrations of students living at or near the poverty line and large numbers of students of color. These students are as capable as any, but they often lack the resources—at home and school—to help them achieve at high levels.

Society now faces the profound question of whether it is serious about teaching all children to high standards or whether the standards are a fraud. It confronts the challenge of whether its schools will remain instruments of inequality or will become levers of opportunity. America's urban public schools, then, have become the last frontier of the democratic ideal. That is the issue.

B. What Is the Purpose of This Report?

The purpose of this report is to answer questions at the heart of the debate about high standards and resources—and to do so for the nation's largest urban school system. This report examines the performance and spending of the New York City Public Schools, the distribution of State education aid to the City, and the revenues that the City schools might require in order to meet the standards. The report poses seven main questions:

1. **How do the student demographic characteristics of New York City compare with other major urban school districts across the country, with the City's suburban schools, and with other school districts in New York State?**

2. **How do the resources available to educate students in New York City compare with the City's suburbs and the others in the State?**

3. **How does student achievement in the New York City Public Schools compare with State and national averages?**

4. **How does the spending of the New York City Schools compare with other major cities, with State averages, and with national norms?**

5. **Does money matter to student academic achievement in New York State?**

6. **Is school aid distributed fairly in New York State?**

7. **How much funding for New York City might be considered adequate?**

The Council of the Great City Schools has prepared this report to help answers these questions. Some would claim that students in the New York City Public Schools cannot meet high academic standards without additional funding. Others would claim that the New York City Public Schools already receive a sufficient share of State funding and do not need more. The courts are now evaluating the two claims to determine which has more validity.

These are longstanding issues for the State but issues that need to be addressed as higher achievement standards are being implemented with tougher consequences for failure. This report will look at New York State's funding of the New York City Public Schools and will examine patterns in the distribution of that aid. The report will also examine whether the State provides adequate funding to enable New York City's school children to achieve at high academic levels and how much funding might be considered adequate.

This report concentrates on funding and achievement. It presents data on the New York City Public Schools, comparing it with other major city school systems across the country and with school systems in New York State. In addition, it examines how funding in the State relates to poverty, wealth, and race since these factors are at the heart of the debate on each side.

This study was conducted at the initiative of the Council of the Great City Schools to highlight the connection between high academic standards for urban students and the resources that students will need to meet those standards. The Council hopes that the approach used here to examine disparities in funding and to determine resource adequacy might help illuminate the continuing debate over how to educate students in the Nation's major cities to the highest academic standards and how to pay for it.

The findings from this report are intended to help answer the questions, "Does money matter in education?", "Is the money distributed fairly?", "How much is enough?" and "What is the price of excellence?" These are questions posed continuously in debates over school finance at the local, state, and federal levels—and over the resources needed to meet high standards. This report attempts to answer some of these questions regarding the State and City of New York.

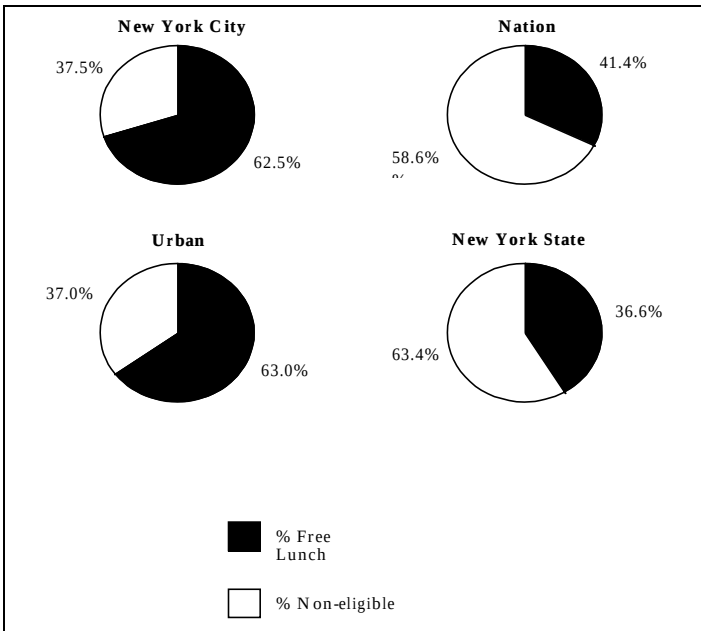
II. COMPARING THE NEW YORK CITY SCHOOLS

This chapter and the next two compare the New York City Schools with other school systems in New York State in terms of demographics, performance, and expenditures. The New York City Public Schools are compared with other major cities across the nation, with statewide averages, and with its suburbs. These comparisons are intended to help determine whether the New York City Schools face challenges like those of others in the State, or whether the city has unique circumstances warranting special attention by the State and the public.

A. How Do New York City Schools Compare with Other Major Cities?

In key respects, New York City's public schools are far more like other large city public school systems across the country than like other districts in New York State. Figure 1 contrasts the City's levels of free lunch eligibility, for instance, with the state of New York, with other major urban centers, and with national averages. Data for 1997-98 show that the poverty level among students in New York City (62.5%) was quite similar to that of other major urban school systems (63.0%) but was far higher than either New York State (36.6%) or the national average (41.4%)[1]. (Approximately 70.0%[2] of New York City's students are eligible for a free or reduced price lunch.)

Figure 1. Comparison of Poverty Levels (1997-98)



Source: Author's analysis of data from the U.S. Department of Education, National Center for Education Statistics, Common Core of Data.

1. Demographic Characteristics. Table 1 compares New York City's rates of poverty (as measured by free lunch eligibility only), limited English proficiency, special education, minority enrollment, and funding with those of other large urban public school systems elsewhere in the nation. In 1997-98, about 63.0% of students in urban public school systems across the country were from families with incomes low enough to be eligible for a federal free lunch subsidy—with rates ranging from 87.8% (counting reduced lunch eligible students) in Newark to about 30.8% in both Charlotte and Broward County. New York City ranks near the middle of this

range with approximately 62.5% of its students qualifying for free lunches (and about 70% counting reduced-price lunches). Few major urban school systems in the country, in fact, have poverty levels that are at or below the national average.[3]

Table 1. Comparison of New York City Schools with Other Major Cities (1997-98)

	Free Lunch Only Rate	LEP Rate	Disability Rate	Minority Rate	Targeting Index[4]
Atlanta	64.2	2.0	6.2	93.4	0.43
Baltimore City	63.7	0.3	17.6	87.2	0.56
Boston	73.1*	17.0	22.0	83.8	NA
Broward County	30.8	9.0	11.2	54.0	1.30
Buffalo	65.3	NA	18.4	67.9	0.90
Charlotte	30.8	2.0	10.7	49.0	0.97
Chicago	68.1*	16.0	11.5	89.7	0.51
Clark County	36.9	NA	10.3	43.7	NA
Cleveland	76.3	7.0	15.6	79.7	0.50
Columbus	50.4	1.0	12.8	58.8	0.43
Dallas	62.0	30.0	8.8	89.8	0.31
Denver	54.3	NA	10.9	74.7	0.31
Detroit	68.3	5.0	5.0	95.1	0.44
El Paso	60.0	33.0	9.3	82.5	0.82
Fort Worth	53.1	21.0	11.8	63.3	0.77
Fresno	70.3	34.0	11.9	77.7	0.82
Houston	60.9	28.0	10.4	89.3	0.40
Long Beach	64.6	37.0	7.9	80.6	0.74
Los Angeles	71.1	47.0	10.7	89.1	0.80
Louisville	40.2	1.0	12.7	36.4	0.79
Memphis	67.0*	1.0	11.0	85.4	NA
Miami-Dade County	52.9	58.0	10.2	86.9	0.84
Milwaukee	64.4	3.0	14.4	78.9	0.46
Minneapolis	59.0	15.0	12.9	67.7	0.43
Nashville	45.9*	3.0	13.1	48.0	NA
Newark	87.8*	9.0	7.0	91.1	0.76
New Orleans	74.4	NA	8.9	94.9	0.67
New York City	62.5	16.3	13.2	84.2	0.54
Oakland	66.3	32.0	9.5	93.9	0.83
Omaha	41.9	4.0	15.9	42.4	0.52
Philadelphia	82.9*	4.0	10.0	81.0	0.38
Portland	32.2	8.0	9.7	33.3	0.76
Sacramento	60.1	NA	11.6	73.7	0.84
Saint Louis	71.9	NA	14.3	82.2	0.65
Saint Paul	54.0	18.0	12.0	60.9	0.44
San Antonio	68.4	17.0	12.4	94.9	0.76
San Diego	59.2	28.0	9.3	71.4	0.63
San Francisco	62.1	32.0	10.9	87.5	0.50
Seattle	42.3*	7.0	10.0	59.4	NA
Tucson	55.2*	13.0	10.5	54.9	NA
Washington, D.C.	74.2*	11.0	10.0	96.0	1.00
Urban Average	63.0%	21.0%	11.4%	78.1%	0.62

Source: Author's analysis of data from the National Center for Education Statistics (1999), National Education Data Resource Center (1999), and Council of the Great City Schools. (The asterisks designate cities where the free lunch rate also includes reduced price lunches.)

In 1997-98, New York City was similar to other major city school districts in its enrollments of English Language Learners. Some 16.3% of New York City's students were learning English as their second language, a rate about three times the national average of approximately 5%[5], but similar to the 21% rate of other major cities across the nation. The percentage of English Language Learners in big city schools nationally ranged from 58% in Miami-Dade County to less than one percent in several cities.

New York City was also similar to other urban school systems—and to national averages—in its percentage of students with disabilities, 13.2%. The average urban public school system had an enrollment in 1997-98 of about 11.4% students with disabilities, ranging from about 22% in Boston to about 6.2% percent in Atlanta. The rates of students with disabilities in cities are often similar to those nationally. But urban schools tend to enroll students with more severe and costly disabilities, while suburbs often have greater percentages of students with lower-cost learning disabilities or attention deficit disorders.

With a minority student enrollment of 84.2%, the racial composition of the New York City Schools is about the same as most other major urban public school systems, which range from about 96% minority in Washington, D.C. to about 33.3% in Portland (OR). Only six major urban school systems of those listed in Table 1 are majority white (Charlotte, Clark County, Louisville, Nashville, Omaha, and Portland). On average, the Great City Schools enroll 78.1% African American, Hispanic, Asian American, and other students of color.

2. Resources. Table 1 also presents a "Targeting Index" for state funding of major city school districts across the country, using data from the 1995-96 school year. This index shows the degree to which each urban school district receives state funding commensurate with that city's share of the state's poor school children. An index of 1.00 indicates that the city school system garners the same share of the state's total spending on K-12 public education as that city's share of all poor public school children in the state. The higher the index over 1.00, the more the school system receives relative to its poverty. The lower the index under 1.00, the less the school system receives relative to its poverty.[6] Only one of the major city school systems listed has a "Targeting Index" greater than 1.00, Broward County.

New York City's Targeting Index was .54, similar to those in Baltimore, Chicago, and Cleveland. In other words, the New York City Public Schools received about 54% of the state funding they would otherwise acquire if the State distributed all of its K-12 education revenues on the basis of poverty alone.

Data from *Education Week* (1998) corroborate this finding in part by showing that together New York City, Buffalo, Rochester, and Syracuse enrolled 41% of the state's public school children (in 1995-96), 73% of the state's poor students, and 78% of the state's minority children yet received only about 34% of the state's FY94 K-12 expenditures (p. 211). Subsequent chapters of this report will expand on New York City's state funding relative to its poverty and other factors.

3. Size of Enrollment. Finally, New York City is far more like other major cities across the nation in terms of the number of students served, although the City is in a class by itself as the largest school system in the nation. The average large city school system enrolls approximately 120,000 students, compared to the average school system nationally, which serves about 3,000 students.

The New York City Public Schools are far quite similar to other major urban school systems across the nation in terms of its demographic characteristics, its resources, and its size.

B. How Do New York City Schools Compare with Others Statewide?

This section compares and contrasts the New York City Public Schools with other local educational agencies (LEAs) in New York State. All averages in this section are calculated based upon the total number of districts (681) [7] in the State weighted by enrollment. Table 2 presents data on New York City and the state

using many of the same variables shown in Table 1. The reader should note that data presented in Tables 1 and 2 are from different data sources, resulting in small discrepancies. Table 2 demonstrates clearly how different New York City is from the rest of New York State.

Table 2. Comparison of New York City with Others Statewide (1997-98)

	Free/Reduced Lunch Rate	LEP Rate	Disability Rate[8]	Minority Rate	Per Pupil Expenditure
New York State	46.1%	7.7%	13.5%	44.0%	$9,316
New York State w/o NYC	31.9%	2.5%	13.7%	20.0%	$10,032
New York City	70.0%	16.3%	13.2%	84.2%	$8,171[9]

Source: Author's analysis of data from the University of the State of New York and New York State Education Department (1999)

1. <u>Demographic Characteristics</u>. New York City's free and reduced price lunch eligibility rate of about 70% is more than twice the statewide rate of 31.9% (without New York City). Only 17 other LEAs in New York State have greater free and reduced price lunch eligibility rates than New York City: Westbury (99.8%), Rochester (89.2%), Wyandanch (87.8%), Buffalo (81.5%), Salmon River (79.6%), Syracuse (74.9%), Yonkers (74.7%), Utica (74.1%), Poughkeepsie (74.0%), Albany (73.8%), Scio (73.2%), Brentwood (72.8%), Friendship (72.2%), Roosevelt (70.5%), Troy (70.3%), Mount Morris (70.2%), and Cincinnatus (70.1%). Together these 17 districts enrolled about 187,170 students or about 6.6% of the State's student population. Only two other LEAs came close to New York City's rate, with poverty levels higher than 68%--Bolivar-Richburg (69.9%) and Schenectady (68.1%), with a combined enrollment of about 9,556 children or 0.3% of all students in the State.

The percentage of English Language Learners in New York City, 16.3%, is average by urban school standards but is over six times the New York State rate of 2.5% (without New York City). Only five of the state's reporting 681 districts—Port Chester-Rye (23.8%), Westbury (21.1%), Tarrytown (20.0%), Yonkers (16.4%), and Hempstead (16.4%)—had limited English proficiency rates at or above those of New York City.

New York City, moreover, has a special education enrollment of 13.2%, or about the same as the statewide average of 13.7% (without New York City).

In addition, the New York City Public Schools enrolled substantially higher percentages of African American, Hispanic, and other students of color than most any other school system in the State. Some 84.2% of New York City's students are minority in contrast to the statewide average of 20.0% (not counting New York City). New York City enrolls 71.6% of all minorities in the State.

2. <u>Resources</u>. New York City's total funding per pupil of $8,171 is significantly less than the 1997-98 average of $10,032 for the rest of the state (without New York City). This amounts to a difference of $1,861 per pupil, without adjusting for differences in need.

3. <u>Size of Enrollment</u>. Size, of course, is the most obvious difference between New York City and other school districts. New York City had an enrollment of 1,057,608 students in 1997-98, almost three hundred times larger than the New York State average district enrollment of 4,124 public school students (which includes New York City). In 1997-98, New York City schools enrolled about 37.7% of all the K-12 public school students in the state. In addition, the New York City Public Schools employed over 65,000 teachers, operated some 1,100 schools, and administered a budget of over $9.0 billion.

New York City's public schools are different, then, from other school systems in the state in composition, resources, and size. The next section compares the New York City School District with its surrounding suburbs.

C. How Do New York City Schools Compare with Its Suburbs

New York City differs still more from its suburbs than it does from other local educational agencies in the State. This set of comparisons is particularly important because the city must compete with its suburbs for teachers, for public confidence, for businesses and residences, and for an adequate share of statewide resources. Table 3 presents the comparisons.

Table 3. Comparison of New York City with Its Suburbs (1997-98)

	Free/Reduced Lunch Rate	LEP Rate	Disability Rate	Minority Rate	Per Pupil Expenditure
Nassau	13.6%	4.5%	12.5%	29.2%	$12,467
Putnam	9.4%	0.9%	13.2%	6.5%	$11,310
Suffolk	24.5%	2.9%	15.1%	22.2%	$11,777
Westchester	30.5%	7.6%	12.9%	42.0%	$12,749
4 County Average	23.4%	4.4%	13.6%	28.9%	$12,222
New York State w/o NYC	31.9%	2.5%	13.7%	20.0%	$10,032
New York City	70.0%	16.3%	13.2%	84.2%	$8,171

Source: Author's analysis of data from the University of the State of New York and New York State Education Department (1999)

First, the data show substantial differences between New York City and its surrounding counties in its percentages of poor children. The average free and reduced price lunch eligibility for the school districts located in New York City's four neighboring counties was 23.4% in 1997-98, compared with the city's rate of about 70.0%. All of the suburban counties, in fact, had free and reduced price lunch eligibility rates that were lower than the statewide average of 31.9% (without New York City).

Second, New York City had substantially higher numbers and percentages of limited English proficient children (16.3%) than the four county average (4.4%). New York City's percentage of limited English proficient students is almost four times as high as the four county average and almost seven times as large as the statewide average of 2.5% (without New York City).

Third, the percentage of students with disabilities in the New York City Public Schools is similar to the rate in its neighboring counties (13.2% vs. 13.6%).

Fourth, New York City has significantly higher percentages of students of color than its suburbs. As indicated previously, some 84.2% of New York City's students are African American, Hispanic, Asian American, or other students of color, compared with an average 28.9% in the surrounding counties. None of the surrounding counties had minority student enrollments that exceeded New York City's.

Finally, the school expenditures per pupil in New York City differ considerably from those in the surrounding suburbs. The New York City Public Schools had enough resources to spend $8,171 per student in 1997-98, compared with the four-county suburban average of $12,222, a gap of $4,051 per student.

In summary, this comparison of New York City with its suburbs shows that school districts with lower numbers of special needs students surround the City. The data also show that the needs of students attending the New York City Public Schools are greater than the needs of students in the surrounding counties or in the State. And the data are equally clear that there are substantially different levels of resources available to the students in each setting to meet those needs. The children who need more typically have less to meet those needs.

Chapter II Notes

[1] **National rate excludes Arizona, D.C., Illinois, Massachusetts, New Mexico, Pennsylvania, and Tennessee on which the Common Core of Data had no figures.**

[2] **Figure taken from *A Report to the Governor and the Legislature on the Educational Status of the State's Schools: Submitted April 1998*. A comparable figure does not appear in the 1999 report.**

[3] **"Poverty level" in this section refers to students eligible only for a free federal school lunch unless otherwise specified.**

[4] **Targeting Index is based on 1995-96 data from the *Digest of Education Statistics* (1999) and from data runs prepared by the National Education Data Resource Center.**

[5] **National data based on 1992-93 estimates by the U.S. Department of Education.**

[6] **The index is calculated by dividing the city's share of the state's total K-12 education expenditures by the city's share of the state's total K-12 enrollment eligible for a free federal school lunch.**

[7] **The Kiryas Joel School District has been omitted from the analysis.**

[8] **Student disability rates were calculated using figures in the "Report to the Governor and the Legislature on the Educational Status of the State's Schools: Submitted April 1999."**

[9] **The average per pupil expenditure of $8,171 for New York City is taken from the 1998 "655 Report" and applies to the 1996-97 school year. There is no 1997-98 per pupil expenditure for New York City in the 1999 "655 Report". New York City reported its 1996-97 average per pupil expenditure as $7,622 in its "School Based Expenditure Reports: Systemwide Summary (January 1998)" and its 1997-98 average per pupil expenditure as $8,330 in its "School Based Expenditure Reports: Systemwide Summary (January 1999)". This report uses the $8,171 figure because it is the most recent number published by the State.**

III. STUDENT ACHIEVEMENT IN THE NEW YORK CITY SCHOOLS

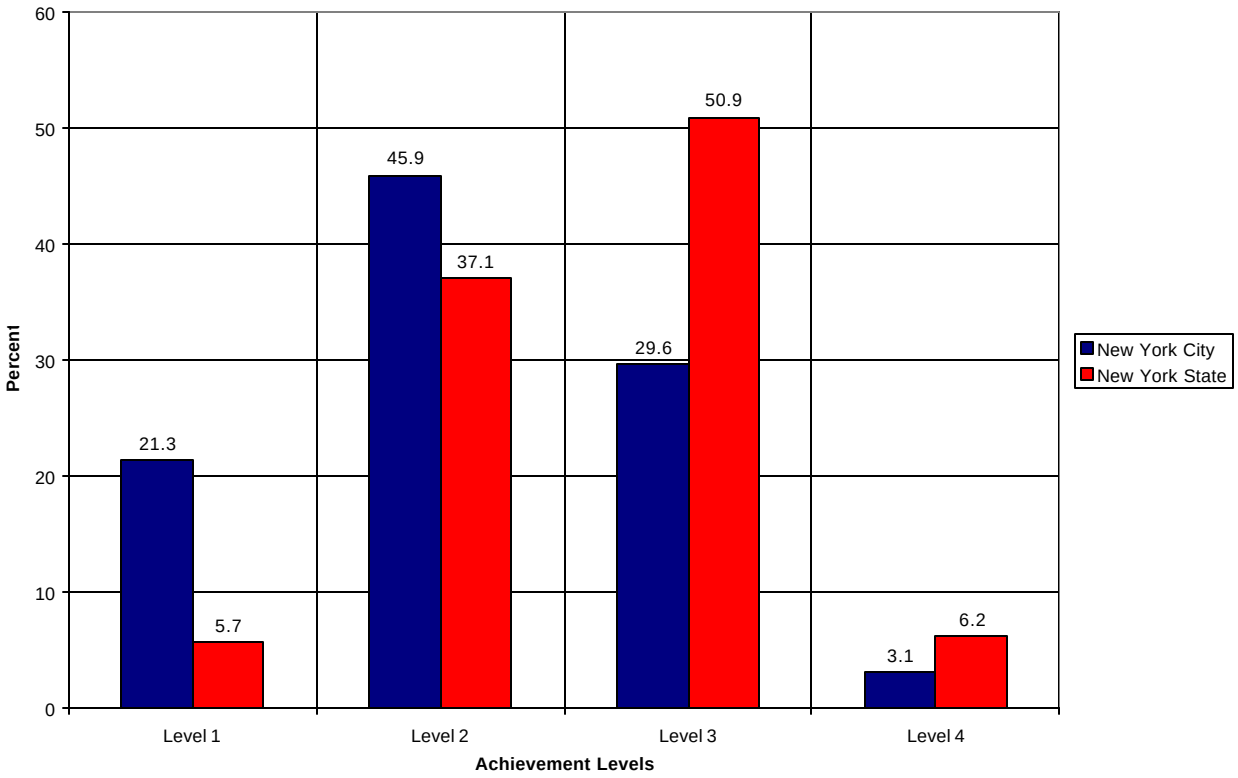
This chapter examines how well students in the New York City Public Schools are doing in their academic studies compared with students elsewhere in the State. Five indicators are used: (1) results on the 1999 statewide English language arts (ELA) test for 4th graders; (2) student attainment of high school Regents diplomas; (3) results on the Scholastic Assessment Tests (SAT) taken by students seeking college admission; (4) results on ACT examinations, also used for college admissions; and (5) results from the citywide reading and math tests. Findings from these five assessments give a good indication of how student achievement in the City compares with performance throughout the State and with national norms.

A. How Do New York City Students Perform on Statewide Tests?

Only recently have New York State and New York City instituted new higher academic standards in English language arts. The State and City were assessing student performance using the Degrees of Reading Power (DRP) examination on which many students statewide scored well. Assessing mastery on the new standards began statewide in January 1999 for 4th graders and in June for 8th graders.

The new 4th grade reading exam required students to (a) read five passages and answer 28 multiple choice questions; (b) listen to a passage and write two short and one long answer; (c) write an extended reaction to a picture; and (d) read a story and write three short answers and one essay. Results of the 4th grade language arts test are now available, but language arts scores for 8th graders and math scores for 4th and 8th graders had not been made public when this analysis was finalized. Figure 2 below shows how students in the New York City Public Schools performed on the 4th grade English Language Arts test compared with students statewide.[1]

Figure 2. Percent of 4th Graders in New York City and Statewide Scoring in Highest and Lowest Achievement Levels in English Language Arts[2]



Source: Author's analysis of data from the University of the State of New York and New York State Education Department (1999)

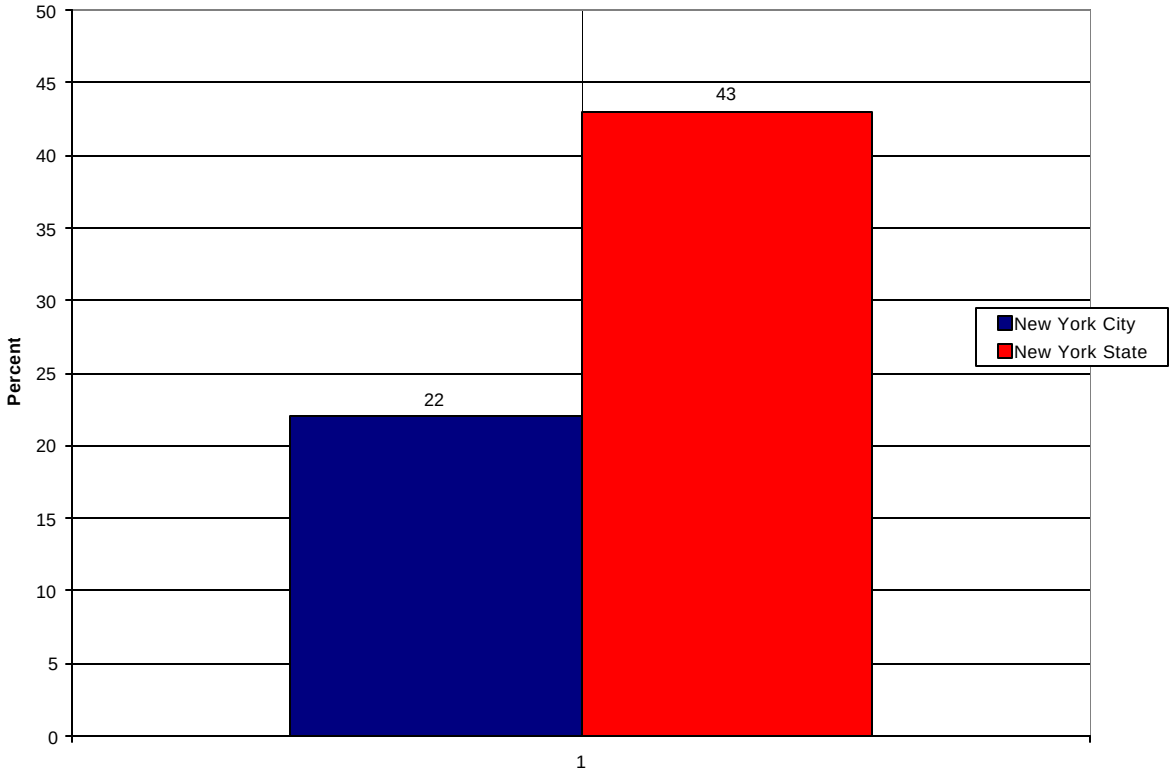
Results of the 4th grade ELA test show that 5.7% of students statewide (excluding the City) scored in the lowest performance category (i.e., Level 1), compared with 21.3% of students in the New York City Public Schools.[3] Likewise, 37.1% of students statewide scored at the "Basic" level of performance (i.e., Level 2), compared with 45.9% in New York City. By contrast 6.2% of students statewide scored at the highest or the "Advanced" level of academic attainment (i.e., Level 4), while 3.1% of students in the City attained the same proficiency.

Additional comparisons indicate that ELA performance of New York City Public School 4th graders was similar to that of students in other urban school districts in the State. Some 19% of 4th graders in Buffalo, Rochester, Syracuse, and Yonkers scored at Level 1, about 53% scored at Level 2, approximately 26% at Level 3, and some 2% scored at Level 4. The average scale score for New York City's 4th graders was 627.4, compared with an average of 627.9 for Buffalo, Rochester, Syracuse, and Yonkers combined and with a statewide average of 648.5—excluding City scores and 640.0 including them (New York City Board of Education, 1999).[4]

B. How Do New York City Students Do on Regents Diplomas?

Student attainment of New York State high school Regents diplomas was also examined. The State reports the percentages of students receiving Regents diplomas for general education and special education high school graduates. The results are particularly important because the State has indicated that the standards set by these diplomas eventually will become the bar over which all students in the State must jump. The proportion of students graduating from the New York City Public Schools with a Regents diploma, unfortunately, was well below statewide averages in 1997-98. Approximately 43% of the public school graduates in New York State received Regents diplomas in 1997-98, compared with 22% of the graduates in New York City that year. (See Figure 3.)

Figure 3. Percent of High School Graduates in New York City and Statewide Receiving Regents Diplomas (1997-98)[5]



Source: Author's analysis of data from the University of the State of New York and New York State Education Department (1999)

These results were similar to the findings on the statewide ELA in the sense that the percentage of New York City graduates receiving a Regents diploma in 1997-98 was more like the percentage of recipients in other major cities than like statewide averages. Approximately 26% of the public school graduates in Buffalo, Rochester, Syracuse, and Yonkers earned Regents diplomas in 1997-98. Some 47% of graduates from rural schools in the State were awarded Regents diplomas that year, as were 55% of graduates from suburban schools.

C. How Do New York City Students Perform on SAT Tests?

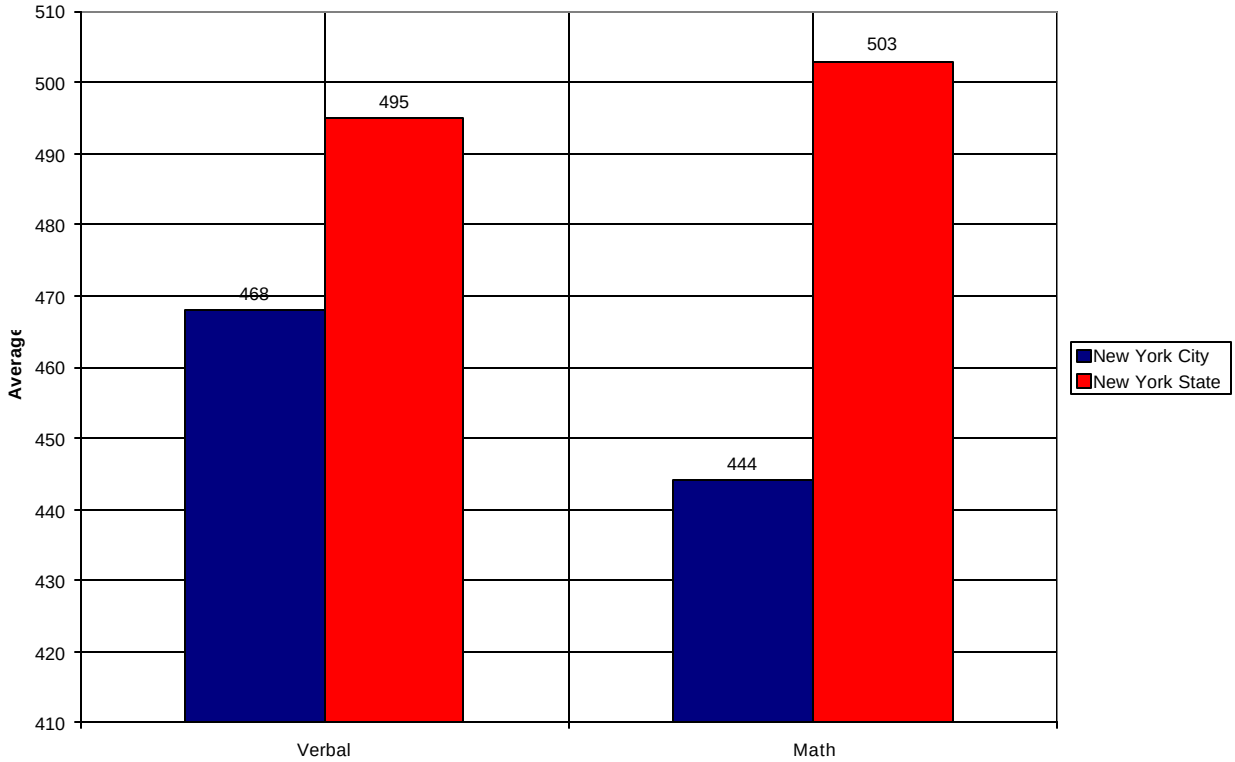
The SAT or Scholastic Assessment Tests administered by the College Board are the most widely given examinations nationally for students aspiring to attend college or a university. They are also the most widely administered college entrance examinations in New York State and New York City.[6]

Nationwide, students—public and private school combined—averaged 505 on the verbal portion of the SAT in 1998 and 512 on the math portion. (The maximum score on each is 800). The College Board reports that the average large city in the nation—again, public and private school combined—had an average SAT verbal score of 492 in 1998 (or 13 points below the national average) and an average math score of 501 (or 11 points below the national average). The average rural score was 9 points below the national average on the verbal section and 17 points below on the math. By contrast, the average suburban district had verbal and math scores that were 17 and 20 points respectively above 1998 national averages.

Figure 4 compares State and City SAT results for 1998. New York State averaged 495 on the verbal section and 503 on the math. The average SAT verbal and math scores that year for students in New York City, however, were 444 and 468 respectively.

Results on the SAT, unfortunately, are not readily accessible for other major cities across the nation, because not all cities report their results or separate their public and private school scores. The Houston Independent School District, however, had an average verbal score of 463 in 1998 and an average math score of 467. The District of Columbia Public Schools had an average verbal score of 410 and math score of 400.

Figure 4. Average SAT Verbal and Math Scores in New York City and Statewide (1998)



Source: Author's analysis of data from the College Board (1999) and New York City Board of Education

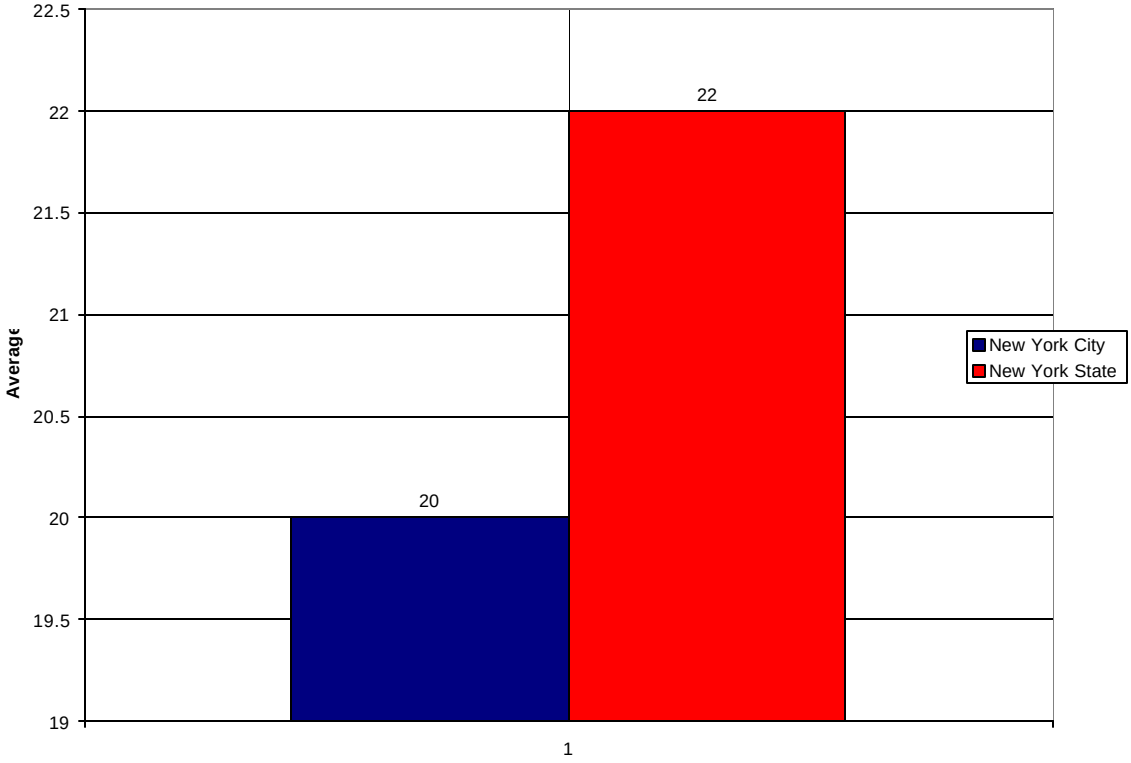
D. How Do New York City Students Perform on ACT Tests?

Next, ACT scores were analyzed for New York City and State. ACT tests are nationally standardized college entrance examinations, like the SAT examinations. Colleges and universities throughout the nation use the results of both the ACT and the SAT to make applicant selections and to predict academic success in college. The ACT is generally thought to be more sensitive to changes in school curricula than is the SAT, but is the less frequently administered examination. SAT results, however, are not as readily available by school district, public or private, as ACT scores.[7] ACT scores were used here because of their general accessibility.

Results indicated that the average ACT composite score for students in New York State was 22.0 in 1998, compared with an average composite score of 20.0 in New York City. (The composite score is a combination of scores in the areas of English, mathematics, reading, and science reasoning.) The national average composite score in 1998 was 21.0. (Scores range from 1 to 36.) (See Figure 5.)

Once again, test results for New York City were more similar to those in other major cities in the State than to statewide averages. The 1998 ACT composite score for Buffalo was 17.6 and for Rochester was 19.1.[8] (Scores for Syracuse and Yonkers were not available.) The average ACT composite score for the major cities across the country was 18.8 in 1998 (ACT and the Council of the Great City Schools, 1999). An examination of scores by subject area (i.e., English, mathematics, reading, and science reasoning) showed patterns similar to those seen on the SAT.

Figure 5. Average ACT Composite Scores in New York City and Statewide (1998)



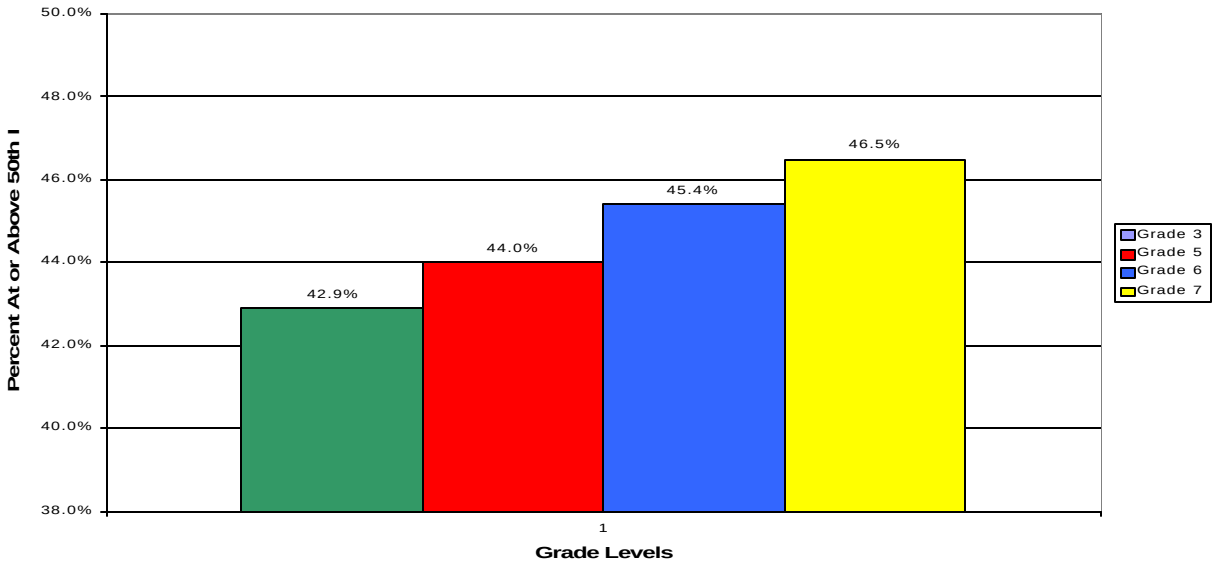
Source: Author's analysis of data from the ACT, Inc. and Council of the Great City Schools (1999)

Data also indicate that the proportion of ACT test-takers scoring below 16 (i.e., the point at which most competitive colleges and universities will not accept a student) was much different in the City than in the State. Some 31% of all ACT test-takers in New York City scored below 16 in English compared with 17% statewide; 13% of all ACT test-takers in the city scored below 16 in mathematics compared with 7% statewide; and 18% of all ACT test-takers in the city scored below 16 in science compared with 6% statewide. In other words, about three of 10 ACT test-takers in New York City had scores too low to permit their entrance into college, even though they aspired to attend.

E. How Do New York City Students Perform on Citywide Tests?

Finally, New York City administers a modified version of the Comprehensive Tests of Basic Skills (CTBS) in reading and mathematics to students in grades 3, 5, 6, and 7.[9] The one-hour test was administered to students in the City in April 1999 using new norms. The new reading test had longer reading passages, required more inferential reasoning, and used a wider variety of poetry than the previously used test. Comparisons are not yet possible for students statewide, but test results show how students in New York City performed in comparison to national norms (i.e., the 50th percentile). Reading results are shown in Figure 6.

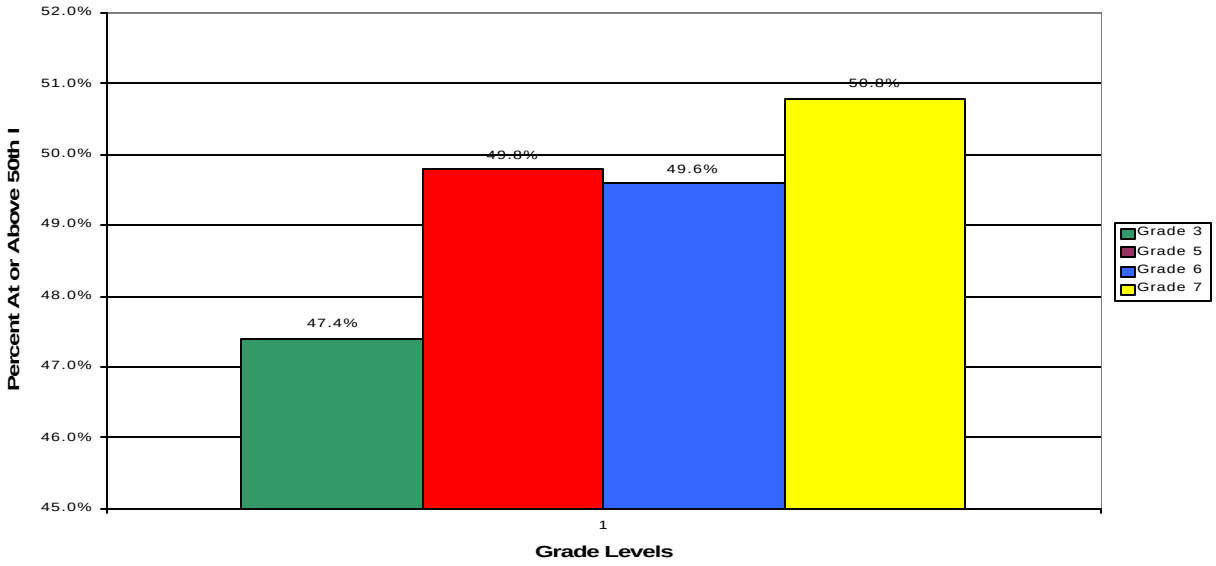
Figure 6. New York Citywide Reading Test Scores (1999)



Source: New York City Board of Education (1999)

New math tests were given as well.[10] They included more multi-step problems, more questions that required students to use logical reasoning, and used more recent norms. Figure 7 shows the results.

Figure 7. New York Citywide Math Test Scores (1999)



Source: New York City Board of Education (1999)

Scores indicate that 42.9% of 3rd graders in the New York City Public Schools scored at or above the 50th percentile (i.e., the national norm) in reading, as did 47.4% in math. Some 44.0% of 5th graders scored at or above the norm in reading, as did 49.8% in math. Approximately 45.4% of 6th graders in the City scored at or above the 50th percentile in reading, as did 49.6% in math. And some 46.5% of 7th graders scored at or above the 50th percentile in reading, as did 50.8% in math.

The results of these five different assessments suggest three basic conclusions: (a) the average performance of students in the New York City Public Schools is lower than that of students statewide; (b) the average performance of students in New York City is similar to that of students in other major cities in the State; and (c) the average achievement of students in the City is below national averages or norms. All five assessments showed this same pattern of results.

The achievement scores on the ELA were examined further using a multiple regression procedure to determine whether poverty would "explain" some of the student performance. ELA results were used because the test was the most universally administered examination in the State.

The analysis indicated that the level of student poverty in the New York City Public Schools accounted for or explained a statistically significant portion (39.9%) of the variation in the percent of 4th graders scoring in the bottom two achievement levels (i.e., Levels 1 and 2) on the ELA.[11]

The findings from this chapter are important because they demonstrate that students in New York City are not performing at levels reached by others throughout the State or nation. Generally, the city's students perform at levels that are somewhat below State and national norms at the elementary school level, but score well below others in the State and nationwide at the secondary level. It is also apparent that far fewer of the city's high school graduates leave with a State Regents diploma than the average graduate statewide. Finally, many New York City high school graduates who aspire to attend college do not have scores high enough to gain admission to a competitive postsecondary institution.

Chapter III Notes

[1] Some 65,556 general education students and 9,870 special education students were tested in New York City. (Some 5,658 English language learners were included; while 5,944 English language learners were exempt and 1,204 were absent.)

[2] Statewide data in Figure 2 excludes New York City. Including New York City in the statewide averages would have changed the State Level 1 rates from 5.7% to 11.3%, Level 2 from 37.1% to 40.3%, Level 3 from 50.9% to 43.3%, and Level 4 from 6.2% to 5.1%.

[3] Category 1 performance ("not proficient") includes students who show minimal understanding of texts, locate and recall some information, and attempt to construct extended responses. The writing consists of brief, general, or repetitive statements and reveals difficulty organizing thoughts. (Scale scores range from 455 to 602.)

Category 2 performance ("basic") includes students who show partial understanding of texts, recognize basic story elements, make some inferences and some connections between two related texts, and provide limited supporting information. The writing shows some focus and
basic organization. (Scale scores range from 603 to 644.)

Category 3 performance ("proficient") includes students who can understand a variety of texts, gather information, make inferences, identify
theme or main idea, understand character actions, make connections between two related texts, and provide some supporting information. The
writing is generally focused and organized. (Scale scores range from 645 to 691.)

Category 4 performance ("advanced") includes students who can analyze and interpret a variety of texts, identify significant story elements,
compare and synthesize information, and form insightful opinions using supporting details. The writing is well organized and thoroughly developed and uses sophisticated and effective language. (Scale scores range from 692 to 800.)

[4] Data include test scores for all general education, special education, and English language learners.

[5] Data in this figure include all eligible and reporting school districts in the State.

[6] Approximately 27,000 students took the SAT in New York City in 1998.

[7] Approximately 14% of eligible students statewide took the ACT in 1998, compared with about 4% in New York City.

[8] Caution should be used in the interpretation of these scores because only 58 graduates in Buffalo took the ACT in 1998, as did only 96 graduates in Rochester.

[9] Some 250,689 general education students were tested in grades 3, 5, 6, and 7, as were an additional 17,869 resource room students, and 22,724 self-contained special education students. (Some 14,107 of the total 291,282 students tested were English language learners.) Another 23,323 English language learners were exempt from the test, as were 541 special education students, and 4,645 were absent.

[10] Some 247,797 general education students were tested in grades 3, 5, 6 and 7, as were 17,792 resource room students, and 22,004 self-contained special education students. (Some 11,955 of the total 287,593 students tested were English language learners.) Another 14,042 English language learners were exempt from the test, as were 502 special education students, and 6,397 were absent.

[11] Regression on percentage of 4th grade students in New York City scoring at Levels 1 and 2 on English Language Arts examination (ELA) by poverty.

Multiple R=0.632
R Square=0.400
Adjusted R Square=0.399
Standard Error of Estimate=10.527
Standardized Coefficients (Beta's) for Poverty=+0.632
Significance=.001

IV. SPENDING BY THE NEW YORK CITY SCHOOLS

The spending patterns of many public school systems are of intense interest. The New York City Public Schools are no different. The school system has been a symbol of inefficiency among critics for years. Even the Board of Education's street address at 110 Livingston became synonymous with bloated bureaucracies. But this dubious distinction begs the question, is the public perception accurate? Does the New York City Public School system spend its money any differently from other school systems? Does the way the school system spends its money explain how well students achieve? This chapter is meant to answer some of those questions.

Unfortunately, there are limited sources of data available to provide as comprehensive a set of comparisons as many would like. The Council used three sets of data in this chapter to answer the broad questions about how the New York City Public Schools spends its money and how those expenditures compare with others. Sources included the Educational Research Service, the New York State Department of Education, and the U.S. Department of Education. Each group uses somewhat differing definitions of terms and reports varying levels of detail.

The Educational Research Service (ERS) provides some of the most detailed spending data on school systems of any organization in the country. It collects and reports annual data on budgeted spending in approximately 28 categories from a national sample of districts. Data provided to the Council by the New York City Public Schools and analyzed using ERS categories allow one to compare the district's spending with a sample of other major cities and school districts nationally.[1]

Table 4 shows 1998-99 spending by category.[2] It presents both current and noncurrent expenditures, including debt service and capital expenditures. (Current expenditures are those associated with student services; noncurrent expenditures are those <u>not</u> directly associated with student services.)

The spending patterns in Table 4 generally show that educational expenditures in New York City are similar both to other major urban public school systems across the country and to national averages. Ballou (1998) noted this similarity in how urban schools spend their resources compared with the average school system nationally when he analyzed school expenditure data from the National Center for Education Statistics.

Total unadjusted per pupil expenditures (current and noncurrent) for the New York City Public Schools equaled $8,997.00 in 1998-99, compared with $7,196.79 for the average large city school system. The national average for all types of schools was $7,726.67. The larger expenditure figure for New York City likely reflects the higher cost of living in New York State compared with other regions and states.

A number of patterns in Table 4 are worth noting. First, New York City devoted a larger share of its total funding ($8,358.00 or 92.9%) to total current expenditures (i.e., expenditures directly allocable to student activities) than did either the average large city school system ($6,211.94 or 86.3%) or the national sample ($6,821.07 or 88.3%).

In addition, New York City spent about the same percent of its total current expenditures for instructional purposes (69.2%) as did the average major city (69.0%) or the average school system nationally (69.1%). New York City was more likely, however, to devote a somewhat higher proportion of its current expenditures to auxiliary instructional services (i.e., teaching support staff) than other urban school systems or national averages. The City also appeared to spend a somewhat higher dollar level but an approximately equivalent share of its total current expenditures on special education and on direct classroom instruction for children not in special education. In addition, the New York City Public Schools devoted a higher portion of its current expenditures to total student services (12.8%) compared with other school systems, urban (6.8%) or national (7.8%). The proportion of current expenditures devoted to transportation was similar in New York City to that of other cities and to national averages but was somewhat higher for health services and student activities. This is consistent with the higher needs of City students and the larger schools that require extra student supervision.

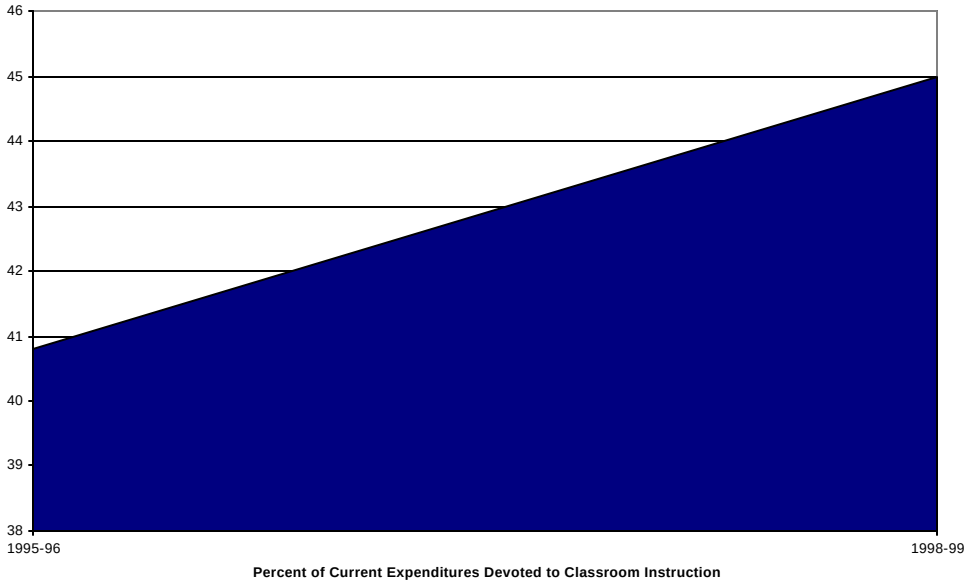
Finally, the New York City Schools increased the percentage of resources devoted to direct classroom instruction from 40.8% in 1995-96 to 45.0% in 1998-99, a major shift (see Figure 8).

Table 4. Comparison of New York City's Per Pupil Spending Using ERS Data (1998-99)

Budget Category	New York City Average	Percent	Urban Average	Percent	National Average	Percent
Total Current Expenditures	$8,358.00	100.0%	$6,211.94	100.0%	$6,821.07	100.0%
Instructional Expenditures						
• Classroom Instruction	3,758.60	45.0	2,918.59	47.0	3,332.13	48.9
• Books & Materials	310.38	3.7	194.26	3.1	187.99	2.8
• Auxiliary Instructional Services	647.02[3]	7.7	243.25	3.9	288.86	4.2
• Curriculum & Staff Development	198.23	2.4	150.31	2.4	126.28	1.9
• Special Education	800.92[4]	9.6	724.99	11.7	698.73	10.2
• Other Instructional Expenditures	70.22	0.8	54.57	0.9	75.79	1.1
Subtotal	$5,785.38	69.2	$4,285.97	69.0	$4,709.78	69.1
Student Services						
• Health & Attendance	398.65	4.8	119.15	1.9	124.01	1.8
• Transportation	381.31	4.6	262.00	4.2	302.75	4.4
• Food Services (net costs)	93.12	1.1	0.65	0.0	18.67	0.3
• Student Activities (net costs)	103.13[5]	1.2	22.89	0.4	71.95	1.1
• Other Student Services	91.49[6]	1.1	16.80	0.3	12.85	0.2
Subtotal	$1,067.71	12.8	$421.49	6.8	$530.23	7.8
School-Site Leadership	$304.30	3.6	$358.00	5.8	$358.42	5.3
Centralized & Community Leadership						
• Board of Education	20.00	0.2	18.97	0.3	39.27	0.6
• Executive Administration	152.00	1.8	72.14	1.2	105.96	1.6
• Central & Business Services	220.00[7]	2.6	234.66	3.8	193.37	2.8
Subtotal	$392.00	4.7	$325.77	5.2	338.60	5.0
Operations & Other Current Expend.						
• Maintenance & Operations	672.05	8.0	525.61	8.5	532.21	7.8
• Environmental Conditioning	118.22	1.4	131.63	2.1	152.62	2.2
• Other Current Expenditures	18.34	0.2	163.47	2.6	199.21	2.9
Subtotal	$808.61	9.7	$820.71	13.2	$884.04	12.9
NonCurrent Expenditures						
• Capital Outlay	0.00[8]		661.37		482.35	
• Debt Retirement	NA		184.21		241.13	
• Interest on Debt	NA		139.27		182.12	
Subtotal	$639.00		$984.85		$905.60	
Total Current & NonCurrent Expenditure	$8,997.00		$7,196.79		$7,726.67	

Source: Author's analysis of data from the Educational Research Service (1999) and New York City Board of Education[9]

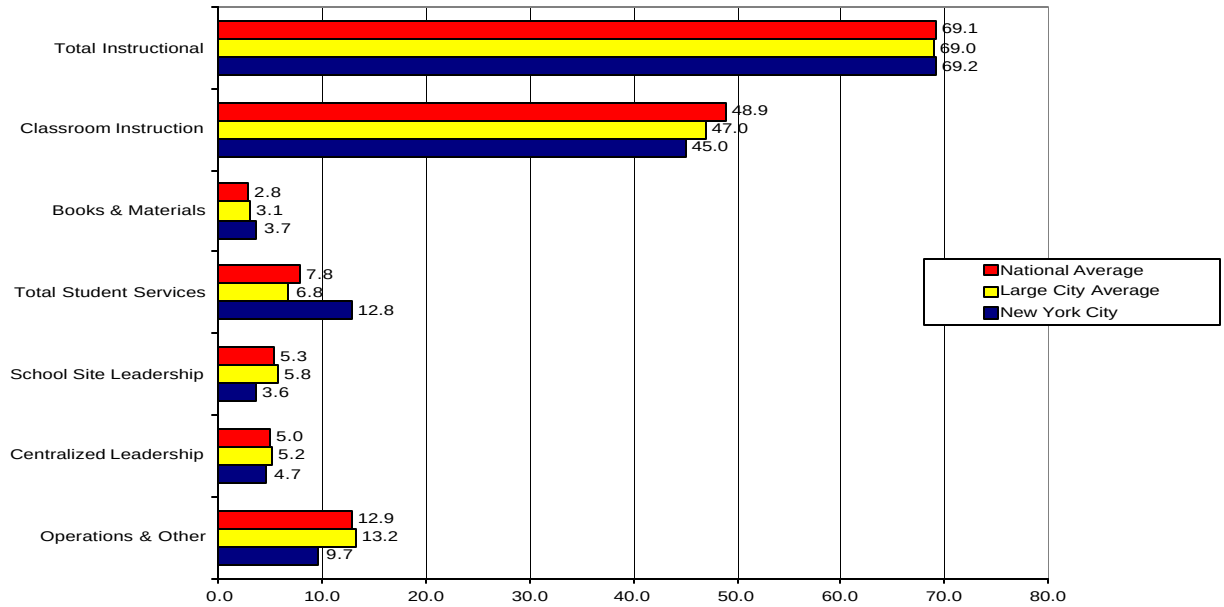
Figure 8. Change in Percent of New York City Current Expenditures Devoted to Classroom Instruction (1995-96 to 1998-99)



Source: Author's analysis of data from the Educational Research Service (1999)

Finally, New York City's expenditures per pupil for the Board of Education and Executive Administration combined (2.0%) were similar to both urban and national averages, (1.5%) and (2.2%) respectively. New York City's school expenditures on central and business services (2.6%) were below urban (3.8%) and national averages (2.8%), contrary to public perceptions that the school district spends a higher share of its resources on overhead and bureaucracy.

Figure 9. Comparison of New York City, Large City and National Spending (1998-99)



Source: Author's analysis of data from the Educational Research Service (1999) and New York City Board of Education.

In addition to the ERS data, published budget data from the New York State Department of Education were examined to determine whether they show the same general patterns of spending. The figures will not be the same as those reported by ERS because of differing definitions, different years, and different methods of aggregating results. The New York State Department of Education, moreover, does not publish budget data for all school systems in the State with the same level of detail as shown by ERS. Table 5 compares New York City and New York State spending in the 1996-97 school year, the most recently published.

Table 5. Comparison of New York City's Spending Using State Data (1996-97)

Budget Category	New York City Average	Percent	New York State Average	Percent
Total Instruction w/o Fringe Benefits		62.3%		62.0%
Fringe Benefits		15.4		14.1
Subtotal		77.8%		76.1%
Central Administration		1.8%		1.9%
Transportation		5.4		5.2
Debt Service		4.6		4.7
Miscellaneous		10.4		12.1
Subtotal		22.2%		23.9%
Expenditure Per Pupil Unit	$8,171[10]		$9,321	
Instructional Expenditures Per Pupil (regular education only)	$4,328		$ 5,335	
Instructional Expenditures Per Pupil (special education only)	$13,184		$12,063	

Source: University of the State of New York and New York State Education Department (1999)

Table 5 shows that the New York City Public Schools devoted approximately 62% of its expenditures per pupil in 1996-97 to instruction (excluding fringe benefits), the same percentage as the average school system throughout New York State. The total amount (including fringe benefits) devoted to instruction was somewhat higher in the City (78%) than the statewide average (76%), leading the State to indicate that the City "spent the largest percentage on instruction" of any LEA (p. 79).

In addition, the State report indicates that the New York City Schools devoted approximately 2% of its expenditures per pupil to central administration (the same as the statewide average); 5% to transportation (the same as the statewide average); 5% to debt service (the same as the statewide average); and about 10% to other functions (compared with 12% statewide). The data also indicate that the New York City Schools spent a somewhat higher dollar amount per pupil on its students with disabilities than the average system statewide.

Finally, two federal data sources were used to determine how spending in New York City compared with other school systems, one from the National Center for Education Statistics (U.S. Department of Education) and the other from the Bureau of the Census (U.S. Department of Commerce).

The first set of data, from NCES, was collected using the "National Public Education Financial Survey," which forms the Common Core of Data. The latest year for which school district-by-district data are available from this source, unfortunately, is 1994-95. These data are available in somewhat greater detail than those published by the New York State Department of Education, however, and are submitted by the State to the U.S. Department of Education as official figures.

Table 6 shows the 1994-95 expenditures by the New York City Public Schools using the "Common Core" data, spending per pupil, and the corresponding share of total current expenditure. Results indicate that New York City devoted approximately 71.2% of their current expenditures to direct instructional

purposes. Approximately 10.0% of current expenditures per pupil was devoted to maintenance and operations; 5.6% was spent on student transportation; 3.4% on pupil support services; 3.2% on school administration; and 0.5% on central office.

The Common Core data also show that large school systems nationwide with enrollments of at least 15,000 students devoted an average of 61.5% of their total current expenditures to instruction, compared with the New York City average of 71.2%. Findings from the Common Core generally conform to those from ERS and the State, despite differing definitions, suggesting a consistent picture of how the City school district spends its money.

Table 6. Comparison of New York City's Spending Using Federal Data (1994-95)

Budget Category	Total Expenditure	Per Pupil	Percent
Total Instruction	$5,545,766,912	$5,423.55	71.2%
Support Services			
• Pupil	260,848,000	255.10	3.4
• Instructional Staff	37,561,000	36.73	0.5
• General Administration	129,897,000	127.03	1.7
• School Administration	246,910,000	241.47	3.2
• Business	41,400,000	40.49	0.5
• Maintenance & Operations	778,520,000	761.36	10.0
• Student Transportation	432,320,000	422.79	5.6
• Central	36,416,000	35.61	0.5
• Other Support Services	0	0.00	0.0
Subtotal	$1,963,872,000	$1,920.59	25.2%
Food Services	$278,896,992	$272.75	3.6%
Total Current Expenditures	$7,788,535,904	$7,616.90	100.0%

Source: National Center for Education Statistics (1999)

The second federal data source was the Census Bureau. Results from its "Survey of Local Government Finances (F-33)" are used by NCES to compile annual statistics on the 100 largest public school systems in the nation (National Center for Education Statistics, 1999).[11] The data indicate that the 100 largest school districts in the nation, enrolling 23% of the nation's children, spent approximately $58 billion (or 23%) of the $257 billion in current expenditures spent by the nation as a whole. An average of 62.3% of the total current expenditures of the 100 largest school districts in the nation was devoted to instruction.[12] New York City, however, devoted 71.8% of its current expenditures to instruction, the highest of all 100 districts. According to the NCES (p. 5):

> ***New York City Public Schools spent the greatest proportion, 72 percent, on instruction among the 100 largest school districts.***

Table 7 compares the eight largest urban school systems in the nation on the amount of total current expenditures that each devoted to instruction.

Table 7. Comparison of Instructional Spending in the Nation's Eight Largest Urban School Systems (1995-96)

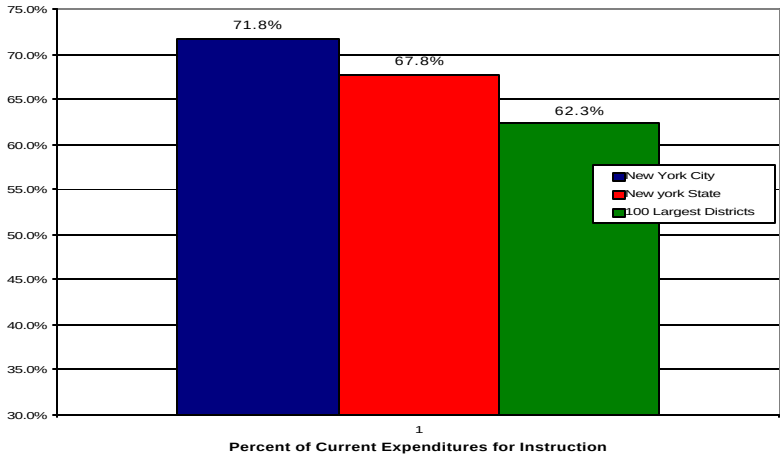
City School System	Total Current Expenditure (in 000's)	Instructional Expenditure (in 000's)	Instructional % of Total
New York City	$7,792,762	$5,598,618	71.8%
Los Angeles	3,492,813	2,173,537	62.2
Chicago	2,494,249	1,516,574	60.8
Miami-Dade County	1,917,671	1,129,205	58.9
Philadelphia	1,173,575	716,376	61.0
Broward County	1,078,861	597,547	55.4

Houston	1,030,919	604,612	58.7
Detroit	1,289,956	786,115	60.9
100 Largest School Districts	57,584,355	35,895,931	62.3

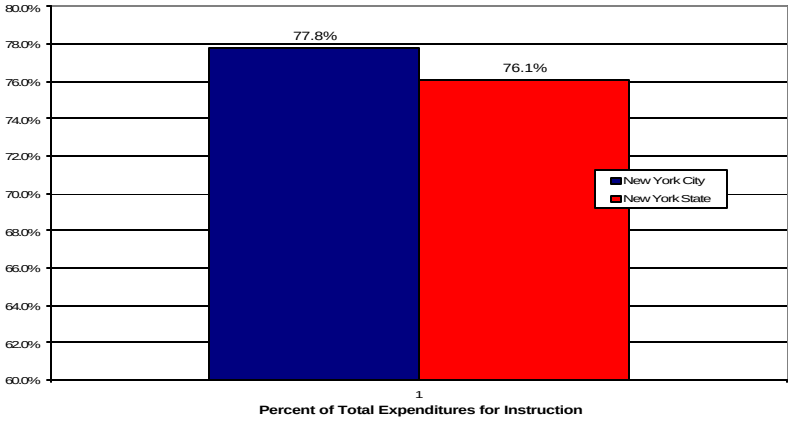
Source: National Center for Educational Statistics (1999)

The data from these three independent sources point to the same basic conclusions: the City schools (a) spend about 70% of their resources for direct instructional purposes; (b) devote between 8 and 10% of its funding to maintenance and operations; (c) spend approximately 5% on student transportation; (d) devote less than 4% to school-site leadership or administration; and (e) spend around 2% on central or general administration—all consistent with how other school systems spend their dollars. (See Figure 10.)

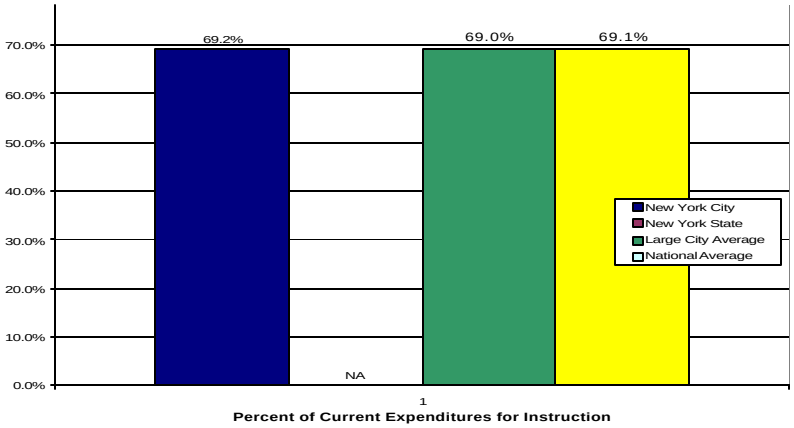
Figure 10. Comparison of Instructional Expenditures as Percent of Total Expenditures by Data Source



Source: National Center for Education Statistics (1999)



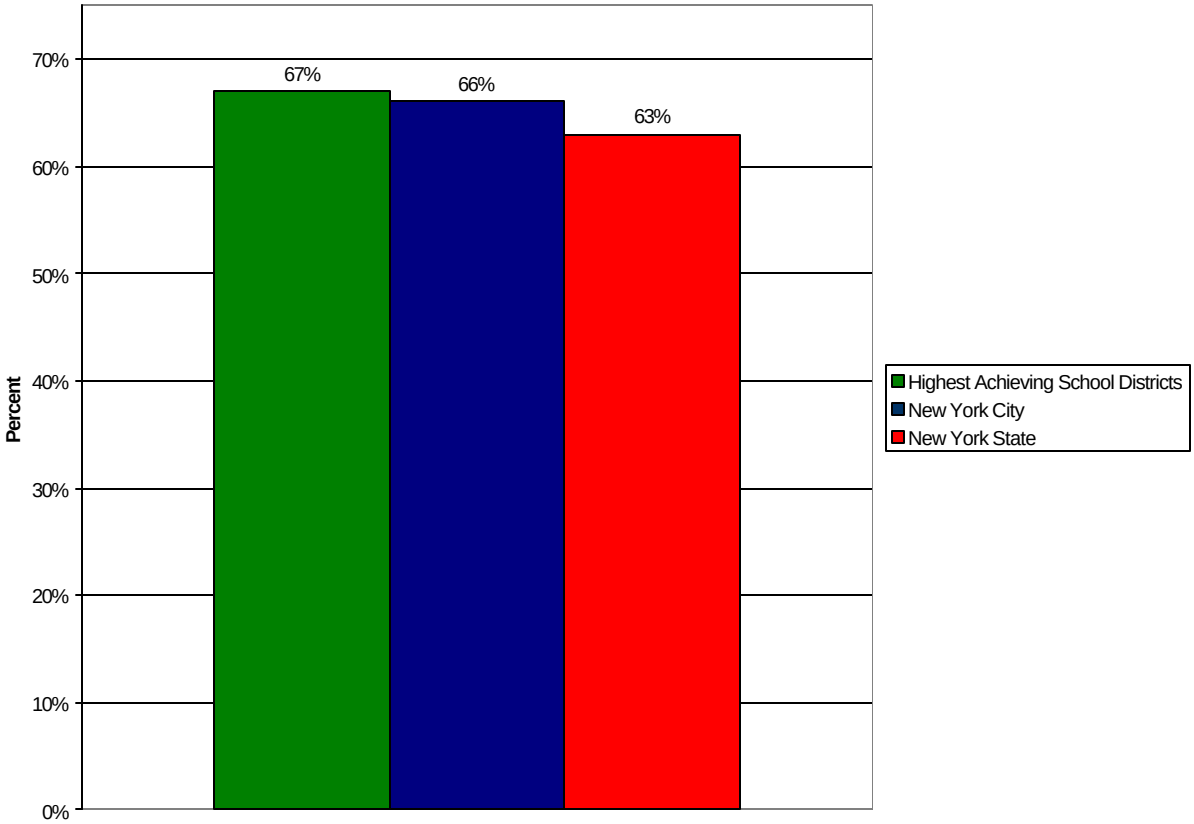
Source: University of the State of New York and New York State Education Department (1999)



Source: Educational Research Service (1999) and New York City Board of Education

Finally, one additional analysis was undertaken to determine whether the City schools spent their resources differently from high achieving school systems statewide. To do this, all school systems in the state were ranked by their performance on the 4th grade English Language Arts test described in Chapter III. [13] The 1997-98 instructional expenditures per pupil for the highest performing 10% of school systems in the State were then compared with those statewide and with those of New York City. Results are shown in Figure 11. The data indicate that the highest performing 10% of school districts in the State spend 67% of their total expenditures per pupil on instructional functions. New York City spends 66% of its total expenditures on instruction, not substantially different from the highest achieving districts. And the average school district in the State spends 63%. In other words, there is no appreciable difference between New York City and the highest achieving school districts in the State in the portion of total expenditures devoted to instruction. The key difference—as will be seen later in this report—is in the total amount of resources available to each.

Figure 11. Comparison of Instructional Expenditures as Percent of Total Expenditures for Highest Achieving Districts (1997-98)



Source: Author's analysis of data from the University of the State of New York and New York State Education Department (1999)

The data presented in this chapter form outside independent data sources indicate that the New York City Public Schools spend their resources in strikingly similar ways to the average school system in the State. This spending pattern also mirrors how the average city school system and the average school system nationally allocate their resources. There may be a serious debate nationwide about how public school systems, in general, spend their resources, but there is nothing in the data presented in this chapter to suggest that the New York City should be singled out for special criticism. If anything, the data suggest that the City has devoted a greater share of its scarce resources to instruction than most public school systems anywhere. Moreover, there is nothing in the gross expenditure pattern of the district—in comparison with the highest achieving school districts—that would explain the lower test scores shown in Chapter III.

Chapter IV Notes

[1] **ERS collects budget data annually on a sample of school systems throughout the nation.**

[2] ***Current Expenditures*: expenditures for all current funds (e.g., operating, special education, federal projects, transportation, etc.) but excluding funds that are intended to be self-supporting such as food service.**

***Classroom Instruction*: expenditures that include K-12 teachers, paraprofessionals, and clerical personnel working with teachers in the classroom.**

***Books and Materials*: expenditures that include textbooks, library books, audiovisuals, and instructional materials.**

***Auxiliary Instructional Services*: expenditures that include counselors, librarians, and other support staff, and testing services.**

***Improvement and Development*: expenditures that include curriculum development, instructional supervision, inservice, and professional development of staff.**

***Special Education*: expenditures that include teachers, paraprofessional and clerical personnel providing services to handicapped students, including services contracted to outside agencies or private schools to which the district sends special education students.**

***Other Instructional Expenditures*: expenditures that include services (excluding those for special education) contracted to outside agencies such as regional service agencies.**

***School Site Leadership* : expenditures that include offices of principals and assistant principals.**

***Health and Attendance*: expenditures that include physical and mental health staff and services such as nurses, psychologists, social workers, related paraprofessional and clerical staff, and materials.**

***Transportation*: expenditures that include staff, maintenance and operation of equipment, fuel, and contracts for transporting public school students even if a separate transportation fund is maintained; and that exclude expenditures related to the transportation of nonpublic school pupils.**

***Food Services*: expenditures that include the net cost to the district of operating food services programs (which may be $0 if self-supporting); and that exclude expenditures offset by income from cash sales and state and/or federal subsidies.**

***Student Activities*: expenditures that include the net cost to the district (may be $0 if self-supporting); and that exclude expenditures offset by gate receipts, activity fees, etc.**

***Other Student Service Expenditures*: expenditures that include other student services (only net cost to the district).**

***Board of Education*: expenditures that include school board members' salaries and expenses, election services, legal services, census, tax assessment/collection services, and similar Board services.**

***Executive Administration*: expenditures that include offices of the superintendent, deputy, assistant, and area superintendents, including employee relations and negotiation services, state and federal relations services, and related services not listed elsewhere; but that exclude services for planning, research and evaluation, maintenance and operations, instruction, staff personnel, pupil personnel, statistics, data processing, business and school site leadership.**

***Central and Business Services*: expenditures that include fiscal services (e.g., payroll, budgeting, accounting, internal auditing, etc.); facilities acquisition and construction services; central office support services (e.g., staff personnel, public information, planning, research, evaluation, statistics, data processing); and similar services not included elsewhere.**

***Maintenance and Operations*: expenditures that include staff, equipment, and supplies for the care, upkeep, and operation of buildings, grounds, security, and other services; but that exclude expenditures for major equipment purchased from a special capital purchases fund, utilities, heating/cooling fuel.**

***Environmental Conditioning*: expenditures that include fuel for heating and cooling plus all utilities except telephone.**

***Other Current Expenditures*: expenditures that include all other current expenditures not reported elsewhere (e.g., telephone charges, fire insurance, professional liability insurance, short-term interest); but that exclude expenditures for community services, recreation services, and junior colleges.**

***Capital Outlay*: expenditures that include any special capital outlay accounts for new and replacement buildings, vehicles, and other major equipment items; but exclude expenditures for capital outlay purchases otherwise reported.**

***Debt Retirement*: expenditures that include payment on principle and payments to school housing authorities.**

***Interest Paid on Debt*: expenditures that include payments on interest on long-term debts only.**

[3] Figure includes class monitors, school aides, and support staff.

[4] Figure may exclude certain children served in private schools.

[5] Includes before and after school and extracurricular activities.

[6] Figure includes other miscellaneous expenditures but may not include expenditures of private contributions made at school site.

[7] Includes administrative expenses of individual community district operations.

[8] May exclude expenditures by the city in catch-up capital outlay.

[9] Data for New York City Public Schools are based on ERS (1999) *Local School Budget Profiles* survey categories and were provided by the Office of the Chief Financial Officer.

[10] The average per pupil expenditure of $8,171 for New York City is taken from the 1998 "655 Report" and applies to the 1996-97 school year. There is no 1997-98 per pupil expenditure for New York City in the 1999 "655 Report". New York City reported its 1996-97 average per pupil expenditure as $7,622 in its "School Based Expenditure Reports: Systemwide Summary (January 1998)" and its 1997-98 average per pupil expenditure as $8,330 in its "School Based Expenditure Reports: Systemwide Summary (January 1999)". This report uses the $8,171 figure because it is the most recent number published by the State.

[11] Expenditure data were calculated from the state-level "National Public Education Finance Survey" (NPEFS) and can be found in *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 1995-96*. Percents were based on school district level data found on the F-33 survey.

[12] Instructional expenditures are current expenditures for activities directly associated with the interaction between teachers and students. These include teacher salaries and benefits, supplies (such as textbooks), and purchased instructional services.

[13] High performing districts were those with the highest percentage of students scoring at Levels 3 and 4 on the statewide 4th grade English Language Arts test.

V. COMPARING NEW YORK STATE

The previous chapters of this report established that the New York City Public School District is different from the average school system in the State and substantially different from its surrounding suburbs. We have also seen that the City is more like other big city school systems across the country. And we have examined both the performance and the spending of the City schools in comparison with state and national averages. This chapter looks at the State and how it compares with others nationwide. We will focus this examination on State spending and performance, using several nationally available studies.

A. How Does New York State's Funding Compare with Other States?

Data from national sources on New York State's total funding effort for K-12 public education can be found in studies by the U.S. General Accounting Office (GAO, 1997 and GAO, 1998) and by The Finance Project (Orland and Cohen, 1995). These two independent analyses studied school financing in all 50 states. The GAO looked at state efforts to reduce funding gaps between poor and wealthy school districts nationwide. The Orland and Cohen report examined school spending patterns and state effort in school funding. (The numbers used in these studies are not necessarily comparable to each other or to those presented elsewhere in this report.)

1. U.S. General Accounting Office Studies. The GAO reports are two of the most comprehensive analyses ever done on state financing of schools across the country.

The 1998 GAO report examined local, state, and federal funding in states across the nation. Generally, the report showed that New York State:

- **(a) Targeted no additional funding per poor student for every $1 provided to each student (state funding weight or targeting to poor students=$0.00) (p.183).**
- **(b) Derived 54.3% of its total revenues from local sources, 40.3% from state sources, and 5.3% from federal sources (p.183).**

The 1997 GAO report shows that states can generally narrow gaps in school financing attributable to local property taxes by pursuing one or more of three strategies: targeting state funds on poor districts; boosting the state's share of overall education funding; or requiring that poor districts raise their tax effort. GAO data on New York's efforts to narrow disparities showed that the State:

- **(a) Ranked 6th among states in average income per weighted student ($114,397)—a measure of state ability to fund education (p. 51).**
- **(b) Ranked 5th among states in the extent to which total school funding increased as the wealth of the district increased—in other words, total school funding in the state reflected wealth (fiscal neutrality score=0.400) (p. 8).**
- **(c) Ranked 5th among states in the degree to which it provides extra school funding to districts with the lowest tax bases (targeting score=-0.578) (p. 76).**
- **(d) Provided about 42.6% of total school funding (p. 232).**
- **(e) Ranked 21st among states in the degree to which its school finance policies produced an adequate level of funding to ensure at least a minimum quality of education for every student, using GAO's assumptions about adequacy (equalization effort=67.3) (pp.16-17, 232).**

2. The Finance Project Studies. The Orland and Cohen study examined somewhat different variables than the GAO reports. But both sets of reports found that schools in New York State spend a relatively high amount on public education: $8,527 per child in 1992, an amount equivalent to $7,251 once dollars were

adjusted for cost differences across states and to $7,999 in 1996 dollars. This placed New York State 2nd in the nation in overall spending at $6,228 per child (1996), compared with the geographically adjusted national average of $5,421 per child.

The Orland and Cohen study examined other variables that GAO did not. First, it showed that, as in most states, the share of New York State's population actually attending public school has declined as the citizenry has aged, an indicator that can signal the degree of popular and political support for public education funding. In 1992, there were approximately 6.83 New York State citizens for every public school student in the State, up from 5.26 in 1970. This compared with national averages of 6.00 citizens in 1992 and 4.42 in 1970. The higher ratios are a two-edged sword: they mean that there are fewer people in the population with a child in school and a direct stake in supporting public education politically. But they also mean that there are more taxpayers to support public schooling in New York State than there are nationwide. New York State has the 3rd highest ratio of adults to children in the nation.

Second, the report indicated that real (inflation adjusted) per capita income in New York State was higher than the national average. In 1991, New York State's per capita income ranked 2nd in the nation. In addition, the average per capita income in New York State increased from $15,225 in 1969 to $22,925 in 1991, a jump of 50.6%, compared with the national increase of 51.9%. This suggests that the state has a high capacity to fund public education adequately.

B. How Do New York State Students Achieve Compared with Others?

New York State's academic performance in meeting the National Education Goals approved by the U.S. Congress can also be compared with other states using data from a number of national reports, including those by the National Education Goals Panel, Kids Count, the National Assessment of Educational Progress (NAEP), and *Education Week*.

1. **<u>National Education Goals Panel</u>. Data from two of the most recent National Education Goals Panel Reports show trends in the State's school performance. The 1999 report on state trends toward the National Education Goals showed that New York State:**

   (a) Worsened between 1990 and 1997 in high school graduation rates, which dropped from 88% to 85% (p. 148).

   (b) Improved slightly between 1993 and 1997 (the years reported) in annual dropout rates, which declined from 4% to 3% (p. 148).

   (c) Showed little progress between 1992 and 1998 (the years reported) in the percentage of 4th grade students (27% and 29% respectively) who met the Goals Panel's reading standard (p. 148).

   (d) Showed no significant progress between 1992 and 1996 (the years reported) in the percentage of 4th grade students (17% and 20% respectively) who met the Goals Panel math standard (p. 149).

   (e) Improved somewhat between 1990 and 1996 (the years reported) in the percentages of 8th grade students (15% and 22% respectively) who met the Goals Panel math standard (p. 149).

   (f) Improved between 1991 and 1999 in the number of Advanced Placement examinations receiving a grade of 3 or higher (p. 149).

   (g) Showed no change between 1991 and 1994 (the years reported) in the percentage of high school teachers who held a degree in the main field they were teaching (p. 149).

   (h) Showed no change between 1991 and 1994 (the years reported) in the percentage of high school teachers who held a teaching certificate in the main field they were teaching (p. 149).

(i) Improved between 1991 and 1994 in the percentage of first year teachers participating in a formal teacher induction program (p. 149).

(j) Worsened between 1991 and 1994 (the years reported) in the percentage of student disruptions (p.151).

(k) Improved somewhat between 1991 and 1994 (the years reported) in teachers' and principals' perceptions of parental involvement (p.151).

The second Goals Panel Report during 1999 presented data solely on NAEP reading achievement in the 4th and 8th grades by state. This publication showed that New York State:

(a) Showed no significant progress between 1992 and 1998 in the percentage of 4th graders who scored at either the proficient or advanced level on the NAEP reading assessment (p. 78).

(b) Had 34% of 8th graders scoring at either the proficient or advanced level in 1998 on the NAEP reading assessment (p. 79).

(c) Had only six other states scoring significantly higher in 1998 on statewide 4th grade NAEP reading and 12 other states scoring significantly lower, and had 17 other states scoring significantly lower on 8th grade reading (pp. 78-79).

(d) Had only six other states with lower 4th grade and 8th grade NAEP reading scores for their central city school districts in 1998 (pp. 78-79).

2. Kids Count Data Book. Data from the most recent *Kids Count* study conducted by the Annie E. Casey Foundation (1999) showed that New York State:

(a) Had a teenage dropout rate of 9% in 1996, compared with the national average of 10%.

(b) Had a child poverty rate of 25% in 1996, compared with the national average of 20%.

(c) Had an extreme child poverty rate (i.e., income below 50% of the poverty level) of 12% in 1996, compared with a national rate of 9%.

(d) Had 38% of 4th grade students in 1998 scoring below the basic reading level, compared with the national average of 39%.

(e) Had 22% of 8th grade students in 1998 scoring below the basic reading level, compared with the national average of 28%.

(f) Had a composite "Family Risk Index" in 1996 of 20%, compared with the national average of 14%.

3. National Assessment of Educational Progress—Math (1996). This publication provides some of the most comprehensive and comparable data on student math performance by state. The 1996 NAEP math data indicate that New York State:

(a) Had a 4th grade average scale score of 223 in 1996, compared with the national average of 222, placing the State in a tie for 23rd place among 43 participating states (p. 28).

(b) Increased 4th grade results by 4 average scale score points between 1992 and 1996, equal to the national average increase of 4 points over the same period (p. 28).

(c) Had an 8th grade average scale score of 270 in 1996, compared with the national average of 271, placing them in a tie for 22nd place among 43 participating states (p.30).

(d) Increased 8th grade results by 4 average scale score points between 1992 and 1996, compared with the national average increase of 5 points over the same period (p. 30).

(e) Increased the percentage of 4th grade students who scored at or above the basic level from 57% in 1992 (compared with a national average of 57%) to 64% in 1996 (compared with a national average of 62%) (p. 49).

(f) Increased the percentage of 8th grade students who scored at or above the basic level from 57% in 1992 (compared with national average of 56%) to 61% in 1996 (compared with national average of 61%) (p. 51).

(g) Placed 12th among the states in its average 4th grade scale scores for African American students (204), compared with a national average of 200, and placed 30th among the states in its average 4th grade scale scores for Hispanic students (205), compared with a national average of 205 (p. 113).

(h) Had 37% of 4th grade African American students and 40% of Hispanic students scoring at or above basic levels, compared with the national averages of 32% and 40% respectively (p. 114).

(i) Placed 12th among the states in its average 8th grade scale scores for African American students (246), compared with a national average of 242, and 27th among the states in its average 4th grade scale scores for Hispanic students (245), compared with a national average of 250 (p. 117).

(j) Had 32% of 8th grade African American students and 30% of Hispanic students scoring at or above basic levels, compared with the national averages of 27% and 37% respectively (p. 118).

(k) Had an average scale score of 206 for 4th graders who were eligible for a free or reduced price lunch, compared with the national average of 207, and an average scale score of 252 for 8th graders who were eligible for a free or reduced price lunch, compared with a national average of 252 (pp. 132, 134).

4. <u>National Assessment of Educational Progress—Reading (1998)</u>. This report provides some of the most comprehensive and comparable data on student reading performance by state. The 1998 NAEP reading data indicate that New York State:

(a) Had a 4th grade average scale score of 216 in 1998, compared with the national average of 215, placing them in a tie for 20th place among 39 participating states (p. 113).

(b) Increased 4th grade results by 1 average scale point between 1992 and 1998, compared with no change nationally (p. 113).

(c) Had an 8th grade average scale score of 266 in 1998, compared with the national average of 261, placing them in a tie for 7th place among 36 participating states (p. 117).

(d) Increased the percentage of 4th grade students who scored at or above the *proficient* level from 27% in 1992 (compared with the national average of 27%) to 29% in 1998 (compared with the national average of 29%) (p. 122).

(e) Had 34% of 8th grade students who scored at or above the proficient level in 1998, compared with a national average of 31% (p. 125).

(f) Placed 16th among states in its average 4th grade scale scores for African American students (193), equal to the national average, and placed 24th among states in its average 4th grade reading scale scores for Hispanic students (194), compared with the national average of 195 (p. 136).

(g) Had 9% of 4th grade African American and 11% of Hispanic students scoring at or above proficient levels in 1998, compared with the national averages of 9% and 12% respectively (p. 136).

(h) Placed 7th among states in its average 8th grade scale scores for African American students (248), compared with the national average of 241, and 6th among states in its average 8th grade reading scale scores for Hispanic students (249), compared with the national average of 243 (p. 137).

(i) Had 12% of 8th grade African American and 13% of Hispanic students scoring at or above proficient levels in 1998, compared with the national averages of 11% and 14% respectively (p. 137).

(j) Had an average scale score of 197 for 4th graders who were eligible for a free or reduced price lunch, compared with the national average of 198, and an average scale score of 252 for 8th graders who were eligible for a free or reduced price lunch, compared with a national average of 246 (pp. 139, 140).

5. Education Week. The periodical *Education Week* (1998), which published a national overview of urban schools and states comparing performance and funding, found that New York State:

(a) Ranked 6th highest among states in its discrepancy between urban and nonurban school districts in 4th grade NAEP reading achievement and fourth highest among the states in this discrepancy on 8th grade NAEP math achievement scores (p.11).

(b) Had 35% of its urban elementary school teachers teaching in classes with fewer than 25 students and 77% of its nonurban elementary school teachers in classes with less than 25 students (p.60).

(c) Ranked first among states in its tax effort devoted to public elementary and secondary education (p.86).

The nationally-available reports summarized in this chapter indicate that New York State compares favorably with other states on some variables but less well on others. The data indicated that the State funds its schools at a higher level than most states but that there are substantial gaps. The GAO reports, in particular, suggest that total school revenues often reflect the wealth of the community and that state aid does not provide much supplemental aid to poor students.

In addition, these sources indicated that there were substantial gaps statewide in the academic performance of students, particularly in urban areas. NAEP results were the most telling. These nationwide assessments showed that New York State had the 6th highest discrepancy between urban and nonurban schools of any state in 4th grade reading and fourth highest in 8th grade math. One might have also expected scores for students of color and poor students to be substantially higher in the State compared with national averages since total school expenditures statewide are some of the highest in the country.

VI. RESOURCE DISTRIBUTION AND ITS RELATIONSHIP TO ACHIEVEMENT IN NEW YORK

This chapter presents findings from an analysis conducted by the Council of the Great City Schools of data compiled by the New York State Department of Education. This analysis looks at whether money matters in determining the quality of public education in the State. Finally, the Council's analysis examines State funding of schools and how poverty, wealth, and race shape the distribution of state resources.

A. Does Money Matter in New York State?

There is a common perception that there is not a strong connection between money and results in education. The Council of the Great City Schools tested some different ways in this analysis of looking at the relationship between school funding and student achievement, including:

- **Spending by the family on education and education-related activities in addition to spending by the school system.**

- **Spending by schools and families as a cumulative investment rather than as a point-in-time expenditure.**

Historically, school finance research has examined the relationship between per pupil school expenditures and test scores for individual students, schools, districts, or other units (Burtless, 1996). Much of that work adjusts the correlations by indices of poverty, showing a strong negative correspondence between those measures and student performance, just as this report did in Chapter III. Poverty, however, may be a better measure of what a family lacks than what it has, a better measure of deficits than assets.

This study, instead, looked at funding from the standpoint of the student, asking, "How much can I expect to be spent on my education?" Investments in a child's education typically come from two main sources: family and school. Many middle-class students, for instance, have their educational needs met in part by their families and in part by their school. Many poorer students, on the other hand, must rely more on the efforts of their schools. Combining those two sources of effort—and looking at them over time—gives a much clearer picture of what each child can expect to have contributed to his or her education.

Data on family spending on children is compiled annually by the U.S. Department of Agriculture (1998). It contains estimates of the amounts of money that families of varying incomes spend on education and child care, health care, clothing, transportation, food, and housing. The estimates include spending from the time the child is born through age 17.

A family in the Northeast with an average annual income of $90,100 in 1998 spent an average of $231,420 on each of their children between birth and age 17. Some $20,850 of this amount went toward education and day care. A family with an average annual income of $22,300, on the other hand, spent an average of $122,280 on each of their children aged 0-17. About $6,960 of this went toward education and day care. The figures also indicate that while families with higher income can devote larger dollar amounts to their children, families with lower incomes actually devote a larger share of their total earnings to their children.

The higher-income family, therefore, spent about twice as much in total dollars on each of their children between birth and age 17 for housing, food, transportation, clothing, health and medical, and education and child care. The non-education portion of this spending is important because of the research that indicates that these factors also contribute to neurological growth and learning capacity in children (Shore, 1997).

Moreover, the higher-income family was able to spend about three times as much as the lower-income family on such enriching activities and items as children's books, learning aids, instructional toys,

museum visits and family vacations, home computers and software, developmental day care, and other things that help increase children's letter and number recognition, vocabulary, and abilities to categorize, name, and sort.

Common sense suggests that the child in the more affluent family has better educational opportunities than the child in the lower-income family. This is not the kind of statistically unambiguous relationship prized by researchers, but it is one known by parents. Many middle and upper middle class parents understand the relationship when they spend $12,000 to $15,000 on private school tuition. Families who want the best opportunities for their children and have the wherewithal to provide it know that money often matters. They exercise that knowledge in their willingness to spend more on private schools.

Table 8 shows how the combined family and school expenditures on education accumulate for the average child in New York City and the average child in New York State from birth to age 17 child (using assumptions developed by the U.S. Department of Agriculture).

Table 8. Combined School and Family Educational Spending on the Average Child in New York City and in the State (1997-98)

	Average New York City Child			Average New York State Child w/o NYC			Cumulative Difference
Child Age	Family	School	Total	Family	School	Total	
Birth	$776	$0	$776	$920	$0	$920	$144
Age 1	776	0	776	920	0	920	288
Age2	776	0	776	920	0	920	432
Age 3	868	0	868	1,028	0	1,028	592
Age 4	868	0	868	1,028	0	1,028	752
Age 5	868	8,171[1]	9,039	1,028	10,032	11,060	2,773
Age 6	540	8,171	8,711	640	10,032	10,672	4,734
Age 7	540	8,171	8,711	640	10,032	10,672	6,695
Age 8	540	8,171	8,711	640	10,032	10,672	8,656
Age 9	342	8,171	8,513	406	10,032	10,438	10,581
Age 10	342	8,171	8,513	406	10,032	10,438	12,506
Age 11	342	8,171	8,513	406	10,032	10,438	14,431
Age 12	251	8,171	8,422	298	10,032	10,330	16,339
Age 13	251	8,171	8,422	298	10,032	10,330	18,247
Age 14	251	8,171	8,422	298	10,032	10,330	20,155
Age 15	426	8,171	8,597	505	10,032	10,537	22,095
Age 16	426	8,171	8,597	505	10,032	10,537	24,035
Age 17	426	8,171	8,597	505	10,032	10,537	25,975
Totals	$9,609	$106,223	$115,832	$11,391	$130,416	$141,807	$25,975

Source: Author's analysis of data from the U.S. Department of Agriculture (1999) and University of the State of New York and New York State Education Department (1999)

Much of the formal school finance literature examines per pupil expenditures as a "point-in-time" variable, relating those expenditures with 4th grade reading scores, for example. But the reading achievement of the student is not solely the product of reading instruction in the 4th grade. Rather, it is the result of accumulating reading skills built from the time the child is born up to the point when he or she took the reading test. Expenditures, likewise, can be viewed in the same cumulative fashion.

The data indicate that the average child in New York State can expect to have some $25,975 more spent on his or her education between birth and high school graduation than the average child in New York City.

(If the comparison had been made between total spending on nutrition, medical care, housing, clothing, and education for the average child in the State and the average child in the City, then the gap would be approximately $47,200.) The education spending gap between New York City and the State is equivalent to over a year's per pupil expenditure by the time the child is in 4th grade (age 9); almost two years by eighth grade (age 13); and nearly three years by high school graduation—without adjusting for poverty or other indices of need.[2]

The investment gap is far more pronounced when one compares funding for the average child in New York City and the average child in the City's suburbs. The disparity in education spending between City and suburbs is $58,318 by the time the child graduates from high school and the difference in total spending is $97,888—both in favor of the suburban child.

The disparities in school funding existing on top of disparities in family expenditures make it clear how and why there can be such profound gaps in achievement between students from poorer backgrounds and those from wealthier circumstances, and between racial groups when one is poorer than the other.

Student achievement scores in 4th grade reading, school system by school system, were correlated with total spending (i.e., spending on education only by family and school combined) up to age 9 (or 4th grade). The correlations were statistically significant at the .01 level of probability, i.e., the chances of this strong of a relationship occurring were less than 1 in a 100, all things being equal. Our analysis indicated that the higher the cumulative family and school spending was in a school district, the lower the percentage of children scoring in the two bottom performance categories ($r = -.300$, $p<.01$); and the higher the percentage of children scoring in the best category of performance ($r = +.187$, $p<.01$).

In other words, there is a strong and statistically significant relationship in New York State between what is spent on the education of children and their academic performance in reading, at least by 4th grade. In addition, the average child in New York State had the equivalent of a year more invested in his or her learning by the 4th grade than the average child in New York City. Both common sense and these statistical results suggest that the differences in investment matter in the performance of children.

B. Is Money Distributed Fairly in New York State?

This section analyzes disparities in per pupil expenditures among public school districts in the State of New York. It examines the range of expenditures, and looks at how well the State targets its school spending on poverty. Finally, it scrutinizes whether or not the funding of schools is affected by the racial composition of the school districts.

1. Disparities in Per Pupil Spending in New York State. Chapter II of this report showed that the average per pupil expenditure in New York State was $10,032 outside of New York City and $9,316 including New York City. The range in per pupil funding across the State, however, was quite wide. The highest per pupil expenditure in New York State in 1997-98 was in the Bridgehampton School District in Suffolk County at $33,408, and the lowest was in the Portville School District in Cattaraugus County at $6,229 per student—a difference of over 5:1 or $27,179. Some 318 (46.7%) of the 681 LEAs in the State had per pupil expenditures above the $9,316 statewide average in 1997-98, and 363 LEAs (53.3%) were below.

2. Minority Student Enrollment in Low Spending Districts. The Council also examined disparities in total per pupil funding across the State by race since it is an issue of contention before the courts. Table 9 presents data on district enrollments by race and average per pupil expenditures (APPE) statewide. Results show that 87.3% of all African American, Hispanic, and Asian American students in New York State are enrolled in districts that are "majority minority." In addition, 78.7% of all students of color in New York State attend school in districts with an average per pupil expenditure below the statewide average of $9,316. Finally, 75.0% of all students of color in the state attend school in districts that are both majority minority and below the statewide average per pupil expenditure.

Only 21.3% of New York State's minority students attend schools where the expenditure per pupil was above the statewide average. And over half of those students are enrolled in school districts with enrollments that are majority white.

Table 9. Percent of Minority Students in New York State Enrolled in High and Low Spending School Districts (1997-98)

	Percent of Minority Students in State Enrolled in LEAs with APPE above Statewide Average	Percent of Minority Students in State Enrolled in LEAs with APPE below Statewide Average
Percent of Minority Students in State Enrolled in Majority Minority LEAs	12.3% 27= LEAs	75.0% 4= LEAs
Percent of Minority Students in State Enrolled in LEAs between 50%-25% Minority	4.1% 37= LEAs	0.6% 5= LEAs
Percent of Minority Students in State Enrolled in LEAs under 25% Minority	4.9% 254= LEAs	3.2% 354= LEAs
Totals	21.3% 318= LEAs	78.7% 363= LEAs

Source: Author's analysis of data from the University of the State of New York and New York State Education Department (1999)

3. <u>Combined Effects of Poverty and Race on State Aid</u>. The resources available to students of various racial groups in New York State were further examined to determine how much of the funding disparities were predicted by poverty and wealth and how much by race. Poverty and wealth were examined because they appear to be the State's main considerations in distributing aid to its school systems.

First, each school district in the State was examined to determine: (a) its actual allocation from the state and (b) its predicted allocation based on poverty and wealth. This analysis involved a simple statistical regression test using state funding (excluding local and federal aid) to each LEA as the dependent variable, and using district poverty (based on free and reduced price lunch eligibility) and wealth (based on the State's CWR) as the predictors or independent variables. A state aid allocation for each LEA was then predicted on the basis of that LEA's rate of free and reduced price lunch eligibility and wealth. (The relationship is both positive and moderate in strength.)

The second step involved counting the numbers of LEAs whose actual state allocation rose above what was predicted on the basis of their poverty and wealth (CWR), and the numbers of LEAs whose actual state allocation fell below what was predicted. According to our analysis, 286 LEAs in the State received state allocations above what was predicted on the basis of free and reduced price lunch eligibility rates and CWR, and 395 LEAs received less than what was predicted.

The final step looked at the racial composition of the LEAs that fell above and below their predicted state allocations. In other words, was a school district with high percentages of minority children likely to have an allocation above or below what was predicted after the poverty level and wealth of the school district was taken into account? Table 10 shows the results.

Twenty-seven of the 31 LEAs in the State with majority minority enrollments (i.e., above 50% minority) had actual state allocations below what was predicted on the basis of their student poverty and community wealth. Thirty-six of the 42 LEAs with enrollments between 25 and 50% minority had actual state allocations below their predicted levels. Similarly, about half (332) of the 608 LEAs with enrollments less than 25% minority received state allocations that were below predicted levels.

An LEA's chances, then, of having a state allocation that was based equitably on student poverty and community wealth was related in part on the racial composition of that district. The more heavily minority a school district's enrollment, the more likely that it received an allocation lower than would be expected based on its poverty and wealth.

Table 10. Number of School Districts in New York State above and below Predicted Poverty and Wealth Allocations by Race (1997-98)

	Above Predicted State Allocation	Below Predicted State Allocation	Total LEAs
Number of LEAs with Enrollment above 50% Minority	4 LEAs 12.9%	27 LEAs 87.1%	31 LEAs
Number of LEAs with Enrollment between 25% And 50% Minority	6 LEAs 14.3%	36 LEAs 85.7%	42 LEAs
Number of LEAs with Enrollment below 25% Minority	276 LEAs 45.5%	332 LEAs 54.6%	608 LEAs
Total LEAs	286 LEAs 42.1 %	395 LEAs 58.0%	681 LEAs

Source: Author's analysis of data from the University of the State of New York and New York State Education Department (1999)

To test further the effect of race on state aid, a second multiple regression procedure was conducted, using the actual state allocation to each district as the dependent variable and districtwide poverty and wealth as the independent variables, as before. A third independent variable consisting of the minority enrollment of each LEA was then added. The difference between the values predicted by the first regression and by the second regression is the effect of race on the state's allocations. Table 11 summarizes the results.

Table 11. Effects of Race on State Per Pupil Allocations (1997-98)

Racial Composition of LEAs	Actual State Revenue	Predicted State Revenue (Poverty & Wealth)[3]	Predicted State Revenue (Poverty, Wealth & Race)[4]	Effect of Race[5]
LEAs with Enrollment above 50% Minority (with NYC)	$3,419	$6,471	$4,193	-$2,278
LEAs with Enrollment above 50% Minority (without NYC)	$4,463	$6,413	$4,471	-$1,942
LEAs with Enrollment between 25% And 50% Minority	$3,410	$4,664	$3,836	-$828
LEAs with Enrollment below 25% Minority	$3,562	$3,749	$3,792	+$43
New York City	$3,153	$6,489	$4,122	-$2,363

Source: Author's analysis of data from the University of the State of New York and New York State Education Department (1999)

Districts other than New York City whose enrollments were majority minority and whose levels of student poverty and community wealth would predict their receiving an allocation per pupil from the State of $6,413 were more likely to receive an allocation of $4,471—a difference of $1,942 per child. (These districts had an actual allocation of $4,463 per pupil).

Districts whose enrollments were between 50% and 25% minority and whose poverty and wealth levels would predict their receiving a per pupil allocation from the State of $4,664 were more likely to receive an allocation of $3,836—a difference of $828 per child. (These districts had an actual allocation of $3,410 per pupil).

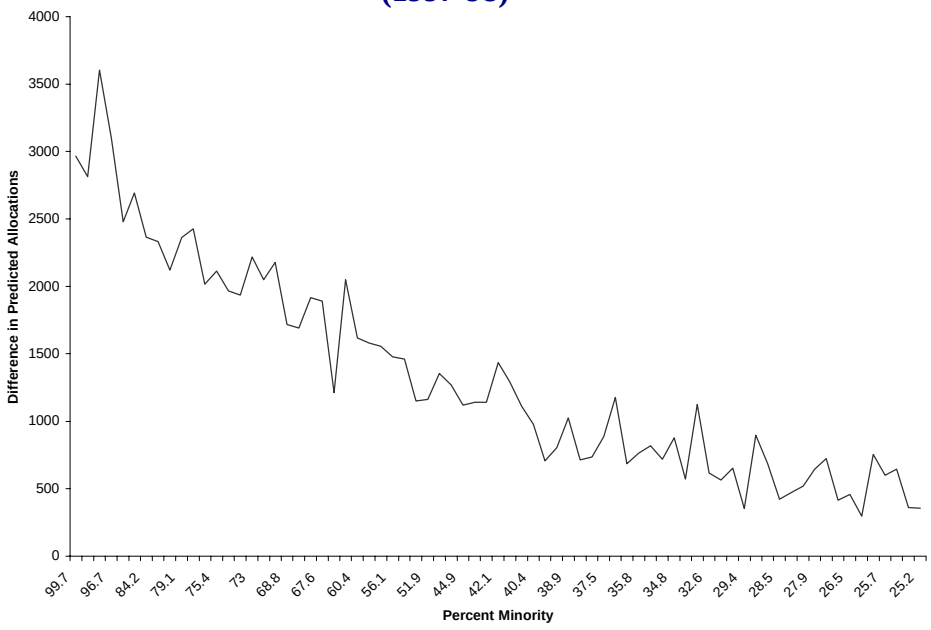
And districts whose enrollments were less than 25% minority and whose poverty and wealth levels would predict their receiving a per pupil allocation from the State of $3,749 were more likely to receive an allocation of $3,792—a difference of $43 per child in the opposite direction, or a minor overadjustment. (These districts have an actual allocation of $3,562 per pupil).

New York City whose poverty and wealth level would predict its receiving an allocation from the State of $6,489 per pupil would more likely see an allocation of $4,122—a difference of $2,363. (The actual state allocation to the City was $3,153 per pupil).

In other words, the State's funding formula partly compensates LEAs for the effects of poverty and wealth unless the district has a high percentage of minority students (over 50% minority). When school district does have a high percentage of minority students, then the LEA can expect a lower state allocation. When a district has a low proportion of minority students, then it can expect an allocation from the state that more accurately adjusts for poverty and wealth, or even over-adjusts slightly.

Figure 12 shows the relationship graphically. The graph plots the difference between the two predicted lines, i.e., the effect of race on the actual state per pupil allocations for each LEA over and above the effects of poverty and wealth (F=3.876, p<.05). The x-axis reflects the racial composition of the state's LEAs from highest to lowest percentages of students of color.

Figure 12. Relationship between Race and State Per Pupil Allocations (1997-98)



Source: Author's analysis of data from the University of the State of New York and New York State Education Department (1999)

Districts at the far left hand side of the graph—where the line is highest and the discrepancies are greatest—are LEAs whose enrollments are more heavily minority; those to the right are LEAs with smaller percentages of minority students, where the line and the discrepancies are the lowest.

In other words, the state's formula for distributing school aid over-adjusts slightly for poverty in school districts with few students of color and under-adjusts in school districts with many. This means that poverty among white children in the State is being more adequately compensated through the school aid formula than poverty among children of color. Conversely, the lack of resources among students of color in New York State is being under-compensated in the school aid formula.

The relationship between these funding disparities and student performance is imprecise but it is hard to imagine that the disparities do not weaken academic achievement, particularly in school systems where the gap is unusually large like it is in New York City. [6]

Chapter VI Notes

[1] **The average per pupil expenditure of $8,171 for New York City is taken from the 1998 "655 Report" and applies to the 1996-97 school year. There is no 1997-98 per pupil expenditure for New York City in the 1999 "655 Report". New York City reported its 1996-97 average per pupil expenditure as $7,622 in its "School Based Expenditure Reports: Systemwide Summary (January 1998)" and its 1997-98 average per pupil expenditure as $8,330 in its "School Based Expenditure Reports: Systemwide Summary (January 1999)". This report uses the $8,171 figure because it is the most recent number published by the State.**

[2] **The estimates of disparities in investment between the average child in New York City, its suburbs, and the State are biased downward because of the inability to estimate the average incomes of families whose children attend private schools versus public schools in each setting.**

[3] **Multiple R=..339**
R Square=.115
Adjusted R Square=.112
Standard Error of Estimate=3682.3112
F = 44.015, p<.000

Standardized Coefficients (Beta's)	**Wealth**	**-.109**	**p<.005**
	Poverty	**+.283**	**p<.000**

[4] **Multiple R=.372**
R Square=.138
Adjusted R Square=.134
Standard Error of Estimate=3636.6818
F = 36.116, p<.000

Standardized Coefficients (Beta's)	**Wealth**	**-.076**	**p<.054**
	Poverty	**+.330**	**p<.000**
	Race	**-.159**	**p<.000**

[5] **Multiple R = .075**
R Square =.006
Adjusted R Square = .004
Standard Error of Estimate=3900.3831
F = 3.876, p<.05

Standardized Coefficients (Beta)	**Gap**	**-.203**	**p<.05**

[8] **The relationship between the racially identifiable funding gap described in this chapter and the academic achievement of students in each school district in the State was further examined to determine their relationship. Correlations between funding disparity and student achievement (measured by the average scale score of each LEA in the state) were negative and statistically significant, i.e., the lower the resource gap, the higher the average district score on the state's 4th grade ELA (r =-.317, p < .01). The relationship was tested further by conducting a regression analysis predicting each school district's average ELA scale score solely by its funding gap. This regression, using only the funding gap as a predictor, was statistically significant:**

Multiple R =.317

R Square .100
Adjusted R Square = .099
Standard Error of Estimate = 8.8305
F = 74.148, p<.000
Standardized Coefficients (Beta) Gap .317 p<.000

It should be noted, however, that the funding gap explains only 10% of the total variation in student achievement even when the gaps are the sole independent variable. Other variables, such as poverty, parental education, and total cumulative investments have greater power to explain student achievement.

The reader should be reminded that this analysis examined only the disparity in state funding, which comprises less than half of all school revenues. One might expect the explanatory power of the funding gap alone to be relatively small, however statistically significant. In addition, the funding gap has been treated in this analysis as a "point in time" variable rather than as a cumulative one. Deficits could be expected to have a cumulative impact, however, in the same way that investments do, if they are not corrected. Common sense suggests that the relationship described here might grow stronger the longer it is left in place. The precise value of that effect will have to await a subsequent analysis.

VII. ADEQUATE FUNDING FOR NEW YORK CITY

One of the central questions posed by this report is whether the New York City Public Schools are adequately funded and, if not, what level of funding would be considered adequate. There are few school finance models available, however, to answer this kind of question, a problem the General Accounting Office acknowledged in its own work. Instead, most existing statistical models are devoted to estimating funding equity and do not attempt to calculate how much funding would be necessary for children to achieve at some specified level or standard. The GAO's work, for instance, relies on the ratio of school taxing capacity to school revenues, which measures "effort" but leaves the question of "results" untouched.

A recent story in *Education Week* (1999) summarized four basic approaches that researchers are beginning to use in answering the question about how much is enough. They include:

(1) A "professional judgment" approach, using panels of experts to estimate the costs of what an adequate education might look like and cost.

(2) An approach that attempts to assess needed funding on the basis of typical high-performing districts.

(3) Sophisticated statistical analyses to correlate acceptable levels of pupil performance with the dollars needed to meet a set of targets.

(4) Attempts to figure out what schools need based on the costs of implementing school improvement models, such as "Success for All."

The most common of these approaches is the "professional judgement" model, which assesses adequacy using an inventory, market basket or "input" approach to funding. It counts the cost of items needed to teach each child under ideal circumstances. This approach is sometimes also referred to as "opportunity to learn" standards. Such inventories include the costs of professional development, books, facilities, materials, technology, teachers and the like. Unfortunately, there is often little agreement on either the menu of items needed for an adequate education or their costs.

The Council of the Great City Schools has developed a model similar to the second approach described above that assesses adequate school funding, one that the Council recommends as the framework for overhauling New York State's school funding formula. The approach uses a standards-based or "output" orientation rather than an inventory of inputs. In brief, the model measures financial adequacy based on the resources of the highest performing—not the highest spending—school districts in the State after adjusting for the needs of the students.

It is appealing because it is simple and is grounded on academic performance, not poverty or wealth. It is a more intuitive approach to answering the question, "What resources does it require for the highest performing school districts to get the results that they do?" And it uses commonly accepted adjustments for the higher costs of educating children who are poor, limited English proficient, or disabled.

The definition of "adequacy" used here is straightforward: the amount of funding provided to students and schools in the highest performing public school systems in the State. And the model for calculating adequacy uses two overarching variables: the needs of the children and the resources of the highest achieving school systems in the State.

A. What Is the Cost of Meeting High Needs?

The first step in determining adequacy using this model involves calculating the "virtual enrollment" of a school system based on its number of children with special needs. This report uses a series of weights described by Alexander (1991) and implied by the U.S. General Accounting Office (GAO, 1998) to estimate student needs: regular student (1.0), poor student (1.2), and student with physical or mental disability (2.3). One additional weight is also used: limited English proficient student (1.1). This report included this latter category because of the significant numbers of English Language Learners in the State, but gave it the smallest conceivable weight because

of the lack of research establishing a precise number. Counts of students from each category were multiplied by these weights and then summed to arrive at a "virtual enrollment" for each school district in the State. The actual enrollment of New York City would change, for example, from 1,057,608 students to an adjusted or "virtual" enrollment of 1,401,024 (+32.5%). The enrollments of other school systems in the State would be adjusted upwards in the same fashion. No one would be adjusted downward, although some might be frozen if there were no children with these characteristics enrolled in the school system.

B. What Is the Cost of High Student Achievement?

The second part of the model establishes a basic foundation of funding for all LEAs. It is based on the total per pupil expenditures of the highest achieving school systems in New York State. The assumption behind this approach is that each LEA in the State ought to have the same basic resources as the highest achieving school systems if high achievement is indeed the goal of the State.

The first step in calculating the foundation involved ranking all local educational agencies in the State by their achievement scores. This report uses the percent of 4th grade students scoring at Level 3 or Level 4 on the State's English Language Assessment. High achievement is defined in this report as the top 10% of LEAs in the State using this ranking. Some 68 districts in the state met this definition.

The second step entailed calculating the average per pupil expenditure of these high performing school districts. The result for the 10% highest performing LEAs in the state was a per pupil expenditure of $12,537 (compared to the statewide average of $9,316, including New York City and $10,032 excluding the City). Thus, the foundation for this analysis becomes $12,537 per child.

To validate this approach, the per pupil expenditure of the lowest achieving 10% of school districts was determined to be $8,526, including New York City.

Step three in the model required multiplying the new foundation amount ($12,537) by the readjusted or "virtual" student enrollment of each LEA and dividing the product by the actual enrollment.[1] Table 12 shows the effect of the model on New York City.

Table 12. Estimated Cost of High Achievement in New York City

	Enrollment	Weighted Enrollment	Actual Per Pupil Expenditure	Adequate Per Pupil Expenditure
New York City (unadjusted)	1,057,608	1,057,608	$8,171[2]	$12,537
New York City (adjusted)	1,057,608	1,401,024	$8,171	$16,608

Source: Author's analysis of data from the University of the State of New York and New York State Education Department (1999)

Results of the analysis suggest that the New York City Public Schools would need $12,537 per pupil to have the resources equivalent to the highest achieving school districts in the state—without adjusting for any differences in need. (The $16,608 figure represents the amount per pupil that New York City would need after adjusting for student needs.

C. How Should Adequate Resources Be Used?

The model for financial adequacy has not been fully developed to determine precisely how additional resources should be used. A reasonable starting point would be the spending patterns of the highest achieving school systems, except that we have seen from the analysis in Chapter IV that New York City devotes about the same proportion of its total expenditures to instruction as the highest achieving school districts in the State. Perhaps urban

school spending should not reflect national averages, but rather should devote a higher than average level of resources to direct classroom instruction given the differing levels of poverty. There is no consensus on this point.

The research is getting much clearer, however, that additional monies in New York City might be used to best effect for:

- Hiring additional teachers to reduce class size well below statewide averages to help teachers handle the effects of poverty.

- Raising average teacher salaries to allow the city to compete more successfully for new teachers to reduce class size—in exchange for stiffer accountability for performance (see next section).

- Expanding mandatory summer school or extended-day programs for students who do not meet academic standards in the requisite time.

- Providing full-service pre-school programs throughout the city to mitigate the effects of poverty on brain development and early learning.

- Providing extensive professional development to teachers and staff on implementing high-standards curriculum, assessments, classroom management, technology, and other areas.

- Purchasing instructional technology and computers for every classroom in the city's schools and providing teachers with professional development in their use.

- Establishing additional small schools or house schools to provide more individualized student attention.

- Developing stronger grade-by-grade standards, curriculum, and assessments.

These instructional strategies are consistent with the recommendations emerging from the 1999 National Education Summit conference.

D. How Is Accountability for Results Determined?

The public would have a right to know what they could expect for the money; when results could be anticipated, and what sanctions would be levied if the expected results were not forthcoming. The adequacy model presented in this chapter requires additional work on this point, but its focus on high achievement and results, and on the resources needed to produce them, offers a way of thinking about accountability. It is reasonable for both the state and the taxpaying public to know how fast and to what extent improvements could be expected with any increase in investment.

The model suggests it would take several years of adequate funding before student performance in all grades would approach the achievement levels of the State's highest performing school districts. One year's adequate funding for next year's 12th graders, for instance, could not be expected to produce achievement levels comparable to those of 12th graders in high performing districts. On the other hand, 12 years of adequate investment in next Fall's incoming 1st graders could. All other considerations aside, one would expect that New York City School students would need 12 to 13 years of adequate funding before achievement gaps with high performing districts in all grades would close.

This staggered effect suggests that new investments could be phased in. One way of doing this would be to phase in funding by grade level, with the lower grades receiving the highest proportions of new monies. This approach would allow the state to stage its increases gradually and to spread the effects of the increasing amounts over time. Staggered increases might also allow the development and measurement of new systems to assess progress and to hold the system accountable for expected improvements in performance. And it might allow a more thoughtful and effective phase-in of such efforts as class-size reductions, additional preschool efforts, summer schools, and extended day and year instruction that have strong research demonstrating their effectiveness.

Accountability for results from managers and teachers alike could be designed based on this model as resources became available grade-by-grade. Statistical and political expectations for results could be determined based on the speed or nature of the phase-in.

Chapter VII Notes

[1] {ADM – [a + b + c + d]}+{(a)(w1) +(b)(w2) + (c)(w3)} x ax(1)x(i)/ i = f

where:

ADM=Average Daily Member of the New York City Schools
a=Number of Free and Reduced Price Lunch Children in the New York City Schools
b=Number of Limited English Proficient Children in the New York City Schools
c=Number of Special Education Children in the New York City Schools
w1=Weight for the Number of Free and Reduced Price Children
w2=Weight for the Number of Limited English Proficient Children in the New York City Schools
w3=Weight for the Number of Special Education Children in the New York City Schools
x1xi=Average Per Pupil Expenditure of the Highest Achieving School Districts in New York State where (i) is the number of such districts
f=adequacy

[2] The average per pupil expenditure of $8,171 for New York City is taken from the 1998 “655 Report” and applies to the 1996-97 school year. There is no 1997-98 per pupil expenditure for New York City in the 1999 “655 Report”. New York City reported its 1996-97 average per pupil expenditure as $7,622 in its “School Based Expenditure Reports: Systemwide Summary (January 1998)” and its 1997-98 average per pupil expenditure as $8,330 in its “School Based Expenditure Reports: Systemwide Summary (January 1999)”. This report uses the $8,171 figure because it is the most recent number published by the State.

VIII. SUMMARY AND CONCLUSIONS

This report attempts to answer seven questions: (1) how the demographic characteristics of the New York City Public Schools compare with other major cities across the country, with other LEAs in the State, and with the suburbs; (2) how the resources available to educate the City's children compare with other children statewide; (3) how the academic achievement of students in the City compares with State and national averages; (4) how spending by the City compares with State and national patterns; (5) whether money matters in the academic attainment of students in the State; (6) whether New York's State aid is allocated fairly; and (7) how much money might be adequate for the City schools to perform at the same levels as the highest achieving districts in the State.

These are the main findings of our analysis:

- **New York City is demographically much more like other large cities across the country than like any other school system in New York State, except for some similarities with Buffalo, Rochester, Syracuse, and Yonkers. The City's percentages of students who are eligible for a free lunch, who are learning English, and who are disabled are very similar to rates in other major cities across the country and are about three times higher than the rest of the State. And, the racial complexion of the student body in New York City mirrors that of other major urban public school systems more so than it resembles State averages.**

- **New York City schools receive State aid that is not commensurate with its enrollment, and like other city school systems nationally, is not commensurate with its degree of student poverty. The average student in the State can expect about 20% more spent on his or her education annually by the schools than the average City student—despite the differences in need. Demographic and resource differences were particularly noticeable when comparing the City with its suburbs. New York City is at a distinct disadvantage in competing with its suburbs for critically scarce teachers and other staff because the suburbs have fewer needs but vastly greater resources. The resources available to the New York City Schools to compete with its suburbs or most anyone else statewide and to meet its unusual challenges are simply insufficient.**

- **The academic performance of New York City students was below statewide averages and national norms. This conclusion was reached after examining performance on statewide exams, on SAT and ACT college entrance tests, and on citywide assessments. Students in the City did not perform above state or national norms on any of these measures.**

- **New York City schools spend their resources in about the same ways as the average school system statewide, and much as other cities spend theirs. The public tends to have the misconception that New York City and other large urban school systems devote unusually high portions of their dollars to central office administrative functions. This is not the case for New York City nor for most city school systems. The data quite clearly show that the New York City school system spent a greater share of its money on instruction than any of the 100 largest school systems in the nation and spent about the same share on instruction as the highest achieving districts in New York State. Nothing in these data suggested that relatively low student achievement in the City was attributable to inappropriate or unusual patterns in how the district allocates its resources.**

- **Money does matter in New York State if one considers the total amount of educational investment in children's education over time. Rather than examining just the annual expenditure per pupil and its relationship to student achievement, as most studies do, this study looked at cumulative spending per pupil and its relationship to performance, up to the point when students statewide took the 4th grade English Language Arts test (about age 9.) The assumption behind this approach is that school spending is additive in the same way that learning is cumulative. Looked at in this way, the amount of money invested over time in the education of children in the State is significantly related to how well they achieved. By age 9, the funding disparity between City and State students amounted to about a year's worth of school spending. That disparity grew over time to almost three year's worth of school spending**

by age 17 and may explain why students do worse the longer they are in the public schools. The reason may lie in the escalating disparity in investments.

- **New York State's distribution of education aid under-compensates for the poverty of minority children and undermines student achievement. This study looked at the two main considerations used by the State to apportion school aid: student poverty and community wealth. The State targets its assistance on the poorest school districts, but adjusts that aid according to a community's ability to pay for its own needs. This appears reasonable on its face, except that most places where high poverty and high wealth coexist are in major urban areas where the vast majority of students of color are educated. The wealth variable in the State aid formula has the effect of diminishing aid that would otherwise be better targeted on poverty, and therefore on students of color, since there is a high relationship in the State between poverty and race. The result is State aid that under-adjusts for poverty mainly in places with high percentages of minority students and somewhat over-adjusts in places with few minority students. The flaw in the State's desire to encourage greater local spending by using a wealth factor is that most school systems—including New York City's—do not have direct access to that wealth on behalf of their students.**

- **The New York City Public Schools are seriously underfunded to prepare students to meet high standards. To answer the question of how much money might be enough for New York City, another one was asked: How much money is available to the school systems in the State getting the best results? The answer to that question is $12,537 per student, or 53.4% higher than that spent each year on students in New York City—*without* adjusting for differences in needs. If adjustments were made for student needs, the City would have to spend $16,608 per pupil—about double the current level—to have the same equivalent resources as the highest achieving school districts in the State.**

The larger question raised by this study is why New York City and other similar systems should not have the same resources—adjusted or unadjusted—as the highest achieving school systems in the State if the goal is for all students to attain high standards.

The mechanism the State uses to fund its schools reduces some of the resource disparities, but it leaves major gaps in place. The highest spending school district in the State had about five times more resources than the lowest spending district. And the lowest achieving districts in the State (with an average poverty rate of 65.5%) spend 27% less annually than the highest achieving districts (with an average poverty rate of 13.8%.)

This breach in opportunity undermines one of the central purposes of public education: providing children with an equal chance to compete in the world of work when they leave school. The disparities hamstring the schools' capacity to overcome the effects of poverty and teach all children to the same high standard. Unfortunately, some children are provided more tools to attain the standards than others. And too many of the children without tools are students of color. It should surprise no one that there are substantial differences in achievement levels across the State, especially when the resources available to schools have become an instrument of inequality rather than a solution to it.

Some have suggested, however, that solving these discrepancies is the responsibility of local communities. There are two critical flaws in this argument. First, the argument fails to recognize the State's responsibility for providing a public education system. The State has the principle obligation for schools, even though it is largely the duty of local districts to operate them. Who other than the State could logically be held responsible for ensuring students compete on a level playing field? Local jurisdictions have neither the authority nor the jurisdiction to level educational opportunities from community to community within the State. And the federal government does not provide enough school funding to suggest that it has the ultimate obligation. Second, the argument implicitly blames families and children for not being wealthy enough to have good schools.

It is only the State that has the ultimate responsibility to ensure that its public education system—including the funding of that system at both local and state levels—meets the test of fairness and adequacy for all children.

It is the conclusion of this report that the current funding system of the State of New York is inadequate to overcome the effects of student poverty; has a disparate impact; and is undermining the State's goal of teaching all children to high standards. Moreover, it is the opinion of this report that the State has the primary responsibility for correcting these inequities. The future of a great many children depend on the State's leadership in meeting that responsibility.

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