# Financing K-12 Education in the Bloomberg Years, 2002-2008<sup>1</sup>

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# INTRODUCTION

Under the leadership of Mayor Michael Bloomberg and Chancellor Joel Klein, the New York City (NYC) school system has undergone a change in curriculum, organization, and, reportedly, outcomes since 2002.<sup>2</sup> Improving schools and school districts is always difficult, however, and some argue that sizeable inflows of resources made the transformation in NYC possible. This chapter analyzes the sources, levels of, and growth in, resources for K-12 education during the first two terms of Bloomberg's mayoral leadership and Klein's leadership of the New York City Department of Education (DOE). More specifically, we examine the amount of resources available for Bloomberg's Children First Initiative, the funding sources, and, to some extent, how these resources were used.<sup>3</sup>

To preview the results, total revenues rose from \$14.2 billion to \$19.5 billion (adjusted for inflation) between 2002 and 2008, representing an increase of roughly \$5,800 per pupil. As detailed below, this translated into roughly \$5,000 more for each student enrolled in a DOE school. The composition of students shifted significantly, with the portion of special education students increasing over time. Teacher salaries increased about 25%, including fringe. In addition, the distribution of resources across elementary and middle schools became more closely aligned with school characteristics and needs. By 2008, a greater share of the variation in resources across elementary and middle schools was explained by characteristics used in the mayor's Fair Student Funding (FSF) allocation formula, although these characteristics explained little of the variation across high schools in any year.

The next section of the paper provides a national and historical context of school finance. We then turn to an analysis of the growth in overall resources from state, local, and federal sources, followed by an examination of how resources are distributed between general and special education programs; between elementary, middle, and high schools; and across schools. We also explore the private/philanthropic support garnered during the first two Bloomberg terms.

# U.S. AND HISTORICAL CONTEXT FOR SCHOOL FINANCING

Public K-12 education in the U.S. is decentralized in its organization and financing, with responsibilities lodged in 50 different state systems. While each state constitution contains an "education clause" broadly defining the state's education responsibilities, the U.S Constitution is silent on the provision of education services. New York's state constitution's education clause, for example, reads:

The legislature shall provide for the maintenance and support of a system of free common schools, wherein all the children of this state may be educated.<sup>6</sup>

Although there is significant variation in the legal provisions for education across states, all states (save Hawaii) provide education services through a system of sub-state school districts financed through a combination of federal, state, and local revenues. While locally raised revenues (and property taxes in particular) once provided the majority of support for public education across the country, there is now considerable regional variation in the share of revenues provided by federal, state, and local governments. The Northeast, for example, relies less on state and federal sources, but compensates with higher local shares.

In addition to government revenues, support for public schools is also provided through philanthropy—especially for charter schools. Although the revenue share of non-public funds is very small, as discussed more fully below, these funds may serve special purposes and thus be valuable in reform efforts.

Turning to New York State, while there has been some variation since the late 1980s, state support currently accounts for less than 45% of total per pupil revenues. Further, while total per pupil revenue has steadily increased, the growth in state revenues has been variable, with local (and to a lesser extent federal) revenues filling in. In 2008 New York State's elementary and secondary revenues totaled \$52.1 billion: \$2.6 billion from federal sources, \$23.6 billion from state sources, and \$26 billion from local and other sources (see Figure 1).

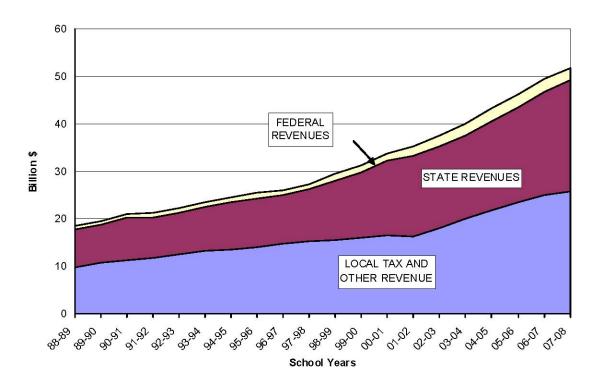


Figure 1: New York State Total Revenues by Source, Elementary and Secondary Education, 1989-2008

Although school finance policy and research has focused largely on school district resources, the allocation of resources from districts to their schools is critical in large districts with many schools and students. (New York City's more than one million students and 1,600 schools make it the largest U.S. school district.) Although the allocation process may be fairly straightforward and transparent in small districts, resource distribution in large districts is far from trivial, and understanding equity and efficiency in education requires examining the intradistrict distribution of resources as well as the overall level of federal, state, and local support.

# NEW YORK CITY EDUCATION REVENUE

How much money did the NYC school system have to finance Children First and other initiatives? To gain insight into the available educational resources, we use revenue data from the New York State Education Department (NYSED) to compare the experience of NYC to that of the other districts in New York State and data from the National Center for Education Statistics (NCES) to compare NYC to other large districts in the United States. Our purpose is to document and describe the changes in revenues; determining the causes of particular changes in financing NYC schools is beyond the scope of this paper.

The level and growth in NYC's resources in the 1996–2008 period could have been shaped by a variety of factors, including a strong economy during the late 1990s, a national recession in 2001–2002, the passage of No Child Left Behind (NCLB) in 2002, an increase in school accountability both from NCLB and the state, changes in the compositions or costs of students or compliance with federal or state laws, and a decision against New York State on state financing of NYC schools in 2001 (Campaign for Fiscal Equity (CFE) v. State of New York). This final factor deserves additional explanation, particularly given its long-awaited resolution. Under the ruling, the courts required New York State to provide the city with additional funds to fulfill its constitutional obligation of a "sound basic education" (defined as a "meaningful high school education") for all public school students. While the case represented a landmark victory for NYC, it was extremely contentious and, due to the recession's impact on state total revenues, the awarded funding has yet to be fully received. 12

In the Bloomberg years, NYC's total revenues increased \$5.3 billion in 2008 inflation-adjusted dollars, from \$14.2 billion in 2002 to \$19.5 billion in 2008. In the rest of the state, aggregate revenues increased by \$5.1 billion, from \$27.5 to \$32.6 billion. These aggregate numbers do not tell the whole story, however, since enrollments also changed. To address this, we analyze patterns of per pupil revenues available to NYC and the rest of New York State's districts since 1996. <sup>13,14,15</sup>

In per pupil terms, the Bloomberg years saw increases in total revenue of \$5,785 in NYC and \$3,205 in the rest of the state (see Figure 2). The growth in total revenue per pupil was faster for NYC than for the rest of the state both before and after Bloomberg assumed office, although the disparity was smaller after 2002. While the city began with lower total revenue per pupil than other New York State districts in 2002, three years later it matched the state and by 2008 received \$19,075 in total per pupil revenues compared to \$18,374 in other New York State districts.

25000 20000 15000 New York State (w/o NYC) 10000 New York City 2008 1997 2000 2001 2002 2003 2004 2005 2006 2007 \*CPIAdjusted with base year of 2008 year \*Total Revenue is the sum of State, Local and Federal Revenues \*Duplicated Combined Adjusted Average Daily Membership \*Source: New York State Education Department

Figure 2: New York State (w/o NYC) and New York City, Total Revenue Per Pupil,\* 1996-2008

To provide some context for NYC's large per pupil revenues, we compare per pupil expenditures across the 25 highest-spending large public school districts in 2007, the latest year available from the National Center for Education Statistics.<sup>18</sup> Only Boston spent more (\$21,801) than NYC's \$20,162 per pupil, and Washington, DC spent approximately the same (\$20,029). NYC's spending is high, but not uniquely so.<sup>19</sup>

What are the sources of funds in NYC and New York State? Unsurprisingly, there are different patterns in per pupil revenues across funding sources between the city and the rest of the state's districts. *Federal* revenue, although a small portion of total per pupil revenue, was always higher in NYC, although those revenues grew more slowly before 2002 and more rapidly after 2002, compared to the rest of the state. By 2008, NYC was receiving more than twice the per pupil amount received by the rest of the state in federal dollars (\$1,428 compared to \$630). New York City's revenue from *state* sources, on the other hand, was lower than the rest of the state and grew at about the same rate before 2002. From 2002 forward, NYC grew considerably faster, achieving parity in 2005 and receiving over \$600 more per pupil by 2008 (\$8,820 versus \$8,207). In contrast, NYC's per pupil *local* revenue remained below the rest of the state throughout this period. It grew more rapidly than the state's before 2002 and at the same rate afterward. The city ended the period in 2008 with \$8,827 per pupil compared to the rest of the state's \$9,537.

In summary, compared to the rest of the state, NYC's per pupil revenues increased more between 2002 and 2008. The rest of the state experienced an increase of just over \$3,000 per pupil: 2.1% of the increase from federal sources, 31.7% from state sources, and 66.3% from local sources. New York City, however, received nearly \$5,800 additional inflation-adjusted dollars per pupil (on a base of \$13,290 in 2002), with federal revenues accounting for 7.2%, state revenues 34.5%, and local revenues 58.2% of that growth. This is a striking increase in revenues available to finance new initiatives and improve the performance of the city's students.

At the same time, this increase could be matched (or even outpaced) by increases in the number or share of 'high cost' students or, more broadly, increases in the cost of education. The factors usually contributing to higher costs include an increased concentration of poor, special education, and English language learning students (ELLs); increased student mobility in and out of the school system or across schools; and increased costs of comparable quality school inputs such as teachers, equipment, or physical plants. In the next section, we present evidence speaking to some of these factors and explore how the expenditures were distributed across broad programs, levels of education, and schools.

# FUNDING ACROSS SCHOOLS WITHIN NEW YORK CITY

To date, there has been limited research on the distribution of funding across schools within districts, largely due to data constraints. The recent availability of detailed school-level data in NYC (as well as in Ohio, Florida, and Texas), however, has yielded several studies offering insight on disparities among schools. Perhaps most relevant, Rubenstein et al.<sup>21</sup> use school-level data from NYC, Cleveland, and Columbus to explore how per pupil funding and teacher qualifications vary across schools. They find that higher poverty schools receive more funding per student—usually due to smaller class sizes—but lag behind other schools in teacher qualifications. Research on the variation in resources across schools in other districts finds similar results.<sup>22</sup> More recently, Bruce Baker,<sup>23</sup> using school level data from Texas and Ohio, finds that resources vary in predictable ways within districts (often according to student need), but that even well-funded schools in poor districts are under-funded relative to neighboring schools in more advantaged districts.

Although there is relatively little research examining the intradisrict distribution of financial resources across schools, the related literature examining the distribution of teachers finds (almost uniformly) that schools with lower shares of students who are poor, minority, or low performing have more experienced and more qualified teachers. <sup>24</sup> There are many possible reasons for this distribution of teachers. Although sorting through these is outside the scope of this paper, one explanation is that a uniform salary schedule—which prevents variation in salaries across schools—combined with teacher transfer privileges and position-based budgeting have disadvantaged high-poverty and high-minority schools. <sup>25</sup> Under this system, principals in high-need schools have little leverage to reallocate resources toward staffing to attract and retain teachers.

Much of the interest in within-district resource allocation has been driven by a well-publicized push (by the Fordham Institute, <sup>26</sup> among others) for large districts to allocate resources using "weighted student funding" (WSF), in which resources are allocated from districts to schools based on the number and characteristics of enrolled students, as well as features of the schools themselves, such as grades served or size. In general, WSF systems propose that schools receive a baseline per capita allocation that is adjusted ("weighted") for students who have specific educational needs or who are economically or academically disadvantaged.<sup>27</sup>

New York City's Allocation of Revenues across Schools: Historical and Fair Student Funding

Historically, NYC's budgeting process for its schools has been opaque, although it has yielded patterns similar to those found in other cities (in the studies reviewed above). Before Bloomberg/Klein and mayoral control, the city schools were administered through 32 community school districts (CSDs) responsible for elementary and middle schools, five high school divisions, one citywide special education division, and several other occasional *ad hoc* divisions, such as "the chancellor's district." In this system, funding flowed from the DOE through the CSDs and came with various program mandates or constraints. Funding teacher positions was the largest constraint on reallocating resources, although school funding did vary from what would have been predicted either on the sole basis of the teachers and administrators working in schools or the characteristics of students in the schools. Simply put, there was no single strict formula applied to all schools or even all schools within a CSD. Nevertheless, schools with higher concentrations of poor students received some categorical funds (e.g., Title I) and generally received slightly more money per pupil and more teachers (albeit with less experience).

In 2008, the DOE began implementing a version of WSF, titled Fair Student Funding (FSF), distributing funds according to a set of student weights (Table 1).<sup>30</sup> FSF was launched with the distribution of a small amount of "new" funds, with the intention of increasing the amount and coverage over time as hold-harmless provisions were phased out. Importantly, FSF was aimed at shifting the allocation of resources across schools, while giving principals autonomy over how funds were spent. For example, a school with higher shares of ELL students would receive additional funds, which the principal could choose to spend on programs or teachers only partly related to enhancing English proficiency.

Table 1: New York City Fair Student Funding Weights for the 2008-09 Academic Year

	K-5	grade 6-8	grade 9-12
Grade Weights		1.08	1.03
Need Weights			
Academic Intervention			
Poverty	0.24		
Achievement* - well below standards	0.40	0.50	0.40
Achievement* - below standards	0.25	0.35	0.25
ELL	0.40	0.50	0.50
Special Education			
Less than 20%	0.56	0.56	0.56
20-60%	0.68	0.68	0.68
Greater than 60% (self-contained)	1.23	1.23	0.73
Greater than 60% (integrated)	2.28	2.28	2.52
Portfolio Weights			
Specialized Audition Schools		n/a	0.35
Specialized Academic Schools		n/a	0.25
Career & Technical Educ. (CTE) Schools	n/a	n/a	0.05 - 0.26
Transfer Schools	n/a	n/a	0.40

<sup>\*</sup>Note: achievement weights are only given to fourth and fifth graders in elementary schools, although these may be eliminated in future years. Weights are identical to those for the 2009-10 and 2010-11 academic years.

We include these factors in our regression models: poverty=% free lunch; ELL=% LEP; special education =% res room and % FT sped; and achievement=% level 1 g4 ELA, % level 1 g8 ELA, and % passing the math Regents (high schools only).

Source: "See Your School's Budget" on the NYCDOE website.

To examine funding across schools within NYC during the Bloomberg years, we use data from the city's school-based expenditure reports (SBERs), 31 which break down school-level expenditures into detailed categories. <sup>32</sup> We briefly discuss changes in several of these expenditure categories, focusing on changes in four broad categories: Overall Total, Total, Direct, and Classroom dollars. (See Table 2 for definitions of each category of SBER expenditure and student type used in this paper.) Overall total dollars are the most comprehensive measure of resources and include "pass-throughs," the latter accounting for contracted services for special education students and charter school expenditures, plus a few other smaller categories. Total expenditures (without pass-throughs) are a subset of overall total expenditures, and include direct spending as well as various system-wide expenditures, such as debt service and central superintendent office expenditures. That said, we do not include pass-throughs in our analyses of allocations across schools because these expenditures are not allocated to individual schools. Direct spending, in turn, includes funds spent at the school level (classroom instruction, instructional support, leadership, and ancillary and building services). Finally, classroom spending is focused primarily on spending related to teachers, classroom staff, books, supplies, and libraries. In our analyses of allocations across schools in NYC, we use direct spending, because it focuses specifically on school-level resources.<sup>33</sup>

**Table 2: New York City Definitions\* of School-Based Expenditure Report Types** 

<b>Expenditure Type</b>	Description	Specific expenditures
Total	Sum of direct services to schools, district/superintendency costs, system-wide costs and system-wide obligations	
Direct	Services provided directly to public school students and staff, and which take place primarily in the school building during the school day during the school year	Classroom instruction, instructional support services, leadership/supervision support, ancillary support services, building services, district support
Classroom	School-based direct instructional services provided primarily in classrooms (including: professional development and contracted instructional services that impact directly on the quality of classroom instruction)	Teachers, education paraprofessionals, other classroom staff, text books, librarians and library books, instructional supplies and equipment, professional development, contracted instructional services, summer and evening school
Pass-throughs***	Costs in the DOE's budget that are earmarked for non-public and private educational institutions.	Non-public schools (general and special education), Fashion Institute of Technology, charter schools

School Level**	Description		
Flomonton	Schools whose grade spans fall between		
Elementary	kindergarten and sixth grade		
Middle	Schools covering grades six through nine		
High	Schools including grades nine through		
півіі	twelve		

Student Type	Description		
	Students on the general education register and special needs pupils (e.g. "at-risk"		
General Education	pupils requiring academic intervention		
	support, related service only, consultant		
	teacher program pupils, resource room)		
	Students who have been placed in a		
	Modified Instructional Service, Special		
Special Education	Instructional Environment or a Hospital		
(AII)	Setting. These students are on the special		
	education register but may be in general		
	education classes for part of the day		
Special Education			
(Citywide)	District 75		
Special Education			
(Full time, not			
citywide)	FTSPED – citywide (number in schools)		

<sup>\*</sup>These definitions are taken directly from the 2002-2003 SBER and may have changed since that date.

Source: 2002-2003 SBER

<sup>\*\*</sup>There is large variation in school grade spans in NYC, so these definitions are somewhat fluid. For example, elementary schools may include 8th graders, middle schools may begin earlier than 6th grade and/or end later than 9th grade, and high schools may begin in 7th or 8th grade and only extend through 10th grade.

<sup>\*\*\*</sup>Pass-throughs are yet another type of spending. They include funding for general and special education students in non-public schools, the Fashion Institute of Technology, and charter schools and are not reported on student type or instruction level reports.

# **Broad Trends in Enrollment and Student Characteristics**

To understand whether the cost of education overall has risen in NYC, we first examined changes in enrollment and student characteristics and then analyzed trends in aggregate and per pupil expenditures by the categories outlined in Table 2.

New York City enrollment has been over a million students since at least 1997, peaking at 1.105 million in 2001 and declining by 70,000 to 1.035 million in 2008. With the exception of growth in the share of special education students, the composition of students varied only modestly over the Bloomberg years. As seen in the top panel of Table 3, between 2002 and 2008, the total number of general education students declined 8%, from 1,016,766 to 936,974 (from 92.5% to 90.5% of total enrollment), while the number of full-time special education students increased 20%, from just over 82,000 to 98,000 (from 7.5% to 9.5% of total enrollment). Additionally, the proportion of full-time special education students educated in segregated settings (labeled "citywide" by the DOE) rose between 2002 and 2008, from around 1.9% to 2.2% of the total student population, outpaced by the growth in students educated in integrated settings, which rose from 5.6% to 7.3% of all students. Although the classification of students into special education is not entirely discretionary, most analysts argue that districts have some discretion. Put differently, some classification changes are controllable, and districts have some power to determine the exact nature of the integration of special education and general education students and the management of these systems. 34 Other characteristics of NYC students, such as percentages who are poor or ELL, changed only modestly over the Bloomberg years. Overall, the only dramatic change in composition was related to the faster growth of the more-costly-to-educate special education students.

Table 3: Trends in New York City Enrollment and Expenditures, 2002 and 2008

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	2002	2008	change	% change
Enrollments				
Overall	1,098,832	1,035,406	-63,426	-5.8%
General education	1,016,766	936,974	-79,792	-7.8%
% of total	92.5%	90.5%		
Special education	82,066	98,432	16,366	19.9%
% of total	7.5%	9.5%		
Citywide special education	20,918	22,425	1,507	7.2%
% of total	1.9%	2.2%		
FT integrated*	61,148	76,007	14,859	24.3%
% of total	5.6%	7.3%		
Aggregate Expenditures (in \$000s)	<b>#44.000.007</b>	<b>#00.070.750</b>	ΦE 440.000	0.4.50/
Total: including pass throughs	\$14,928,867	\$20,078,756	\$5,149,889	34.5%
Total: excluding pass throughs	\$13,989,318	\$18,322,803	\$4,333,485	31.0%
Direct services to schools	\$12,749,665	\$16,047,236	\$3,297,571	25.9%
Classroom instruction	\$7,651,673	\$9,043,461	\$1,391,788	18.2%
Teachers	\$6,036,507	\$7,105,224	\$1,068,717	17.7%
Instructional support	\$1,546,289	\$2,492,917	\$946,628	61.2%
Related services	\$530,585	\$1,176,577	\$645,992	121.8%
Leadership/Supervision/Support	\$1,199,501	\$1,649,073	\$449,572	37.5%
Ancillary Support Services	\$1,403,095	\$1,618,672	\$215,577	15.4%
Building Services	\$916,831	\$1,156,769	\$239,938	26.2%
District/regional support	\$32,276	\$86,344	\$54,068	167.5%
Regional Costs	\$494,731	\$312,550	-\$182,181	-36.8%
System-wide costs	\$356,995	\$385,638	\$28,643	8.0%
System-wide obligations	\$387,926	\$1,577,379	\$1,189,453	306.6%
Pass-throughs	\$939,549	\$1,755,953	\$816,404	86.9%
Non-public general education	\$186,980	\$242,955	\$55,975	29.9%
Non-public special education	\$687,479	\$1,238,711	\$551,232	80.2%
FIT	\$27,020	\$43,943	\$16,923	62.6%
Charters	\$38,070	\$230,344	\$192,274	505.1%
Aggregate Expenditures (in \$000s) by student typ	е			
General education				
Total (excluding pass-throughs)	\$10,965,708	\$13,609,597	\$2,643,889	24.1%
Direct	\$9,887,268	\$11,569,620	\$1,682,352	17.0%
Classroom	\$6,222,848	\$6,763,155	\$540,307	8.7%
Special education				
Total (excluding pass-throughs)	\$2,976,306	\$4,669,839	\$1,693,533	56.9%
Direct	\$2,818,851	\$4,434,491	\$1,615,640	57.3%
Classroom	\$1,395,964	\$2,255,604	\$859,640	61.6%
Per Pupil Expenditures				
All NYCDOE public school students: Total	\$12,731	\$17.606	\$4,965	39.0%
Direct		\$17,696 \$15,498	\$3,896	33.6%
Classroom	\$11,602	\$15,498 \$9.734		33.6% 25.4%
General education: Total	\$6,963 \$10,785	\$8,734 \$14,525	\$1,771 \$3,740	25.4% 34.7%
Direct	\$9,724	\$14,525 \$12,348		34.7% 27.0%
Classroom			\$2,624	
	\$6,120 \$36,367	\$7,218 \$47,442	\$1,098 \$11,175	17.9%
All special education: Total	\$36,267	\$47,442 \$45,051	\$11,175	30.8%
Direct	\$34,349	\$45,051	\$10,702	31.2%
Classroom	\$17,011	\$22,915	\$5,904	34.7%
Citywide special education	\$52,598	\$65,681	\$13,083	24.9%
Direct	\$50,820	\$63,205	\$12,385	24.4%
Classroom	\$27,051	\$31,971	\$4,920	18.2%
Integrated special education	\$26,273	\$32,710	\$6,437	24.5%
Direct	\$25,385	\$31,477	\$6,092	24.0%
Classroom	\$13,512	\$15,922	\$2,410	17.8%

\*Notes: Dollars are 2008 CPI inflated. Values for FT integrated special education are obtained by subtracting the share of dollars spent on citywide programs from the overall special education dollars.

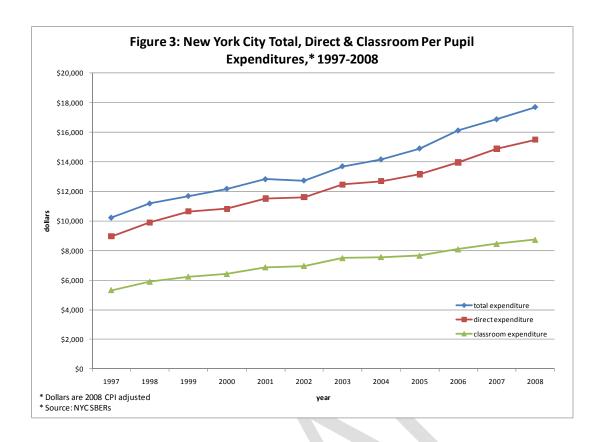
Source: NYC SBERs for 2002 and 2008.

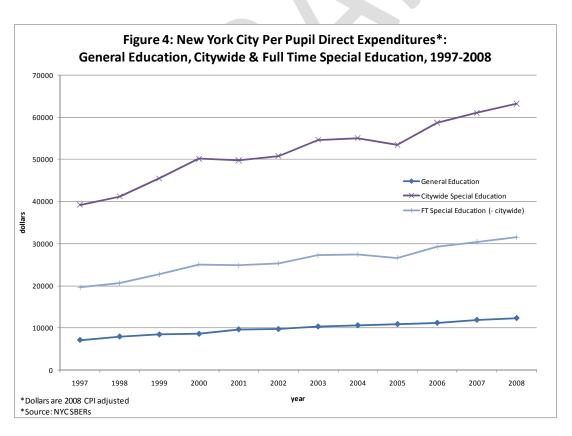
# Citywide Trends in Funding

To provide the most complete picture of the resources available during the Bloomberg years, we begin by looking at the overall total expenditures in NYC including pass-throughs. (See second panel of Table 3.) When pass-throughs are included, inflation-adjusted overall total spending increased by \$5.1 billion between 2002 and 2008, or 34.5% (from \$14.9 billion in 2002 to \$20.1 billion in 2008). Pass-throughs increased by 87% or \$816 million. This large growth in pass-throughs was due primarily to charter schools, few of which existed prior to 2002, and to contracted services for special education students in schools outside the NYC public schools: spending on charter schools increased 505% from \$38.1 million to \$230.3 million, and spending on contracted services for special education increased over 80% from \$687.5 million to \$1.2 billion between 2002 and 2008.

Since the SBERs do not break down pass-throughs by regional, system-wide, student type, or school level, we rely on the total spending (excluding pass-throughs) available from the SBER public school reports to analyze trends in more detail. Table 3, panels 2 and 3, shows that total spending (excluding pass-throughs) on all students increased by over \$4 billion from 2002 to 2008 (from \$14.0 billion to \$18.3 billion). Breaking down these total expenditures more finely, we note that direct expenditures increased \$3.3 billion or 26%, regional costs decreased \$182 million or 37%, system-wide costs increased \$29 million or 8%, and system-wide obligations increased \$1.2 billion or 307%. Classroom instruction spending, however, increased more slowly, by \$1.4 billion or 18.2%. Much of the difference between growth in direct versus classroom spending was accounted for by "related services," which help special education students in particular. Finally, total spending increased roughly 4% in elementary schools, 73% in middle schools, 61% in high schools, and 34% in citywide special education schools.

Figure 3 and Table 3, panel 4, show trends in per pupil total, direct, and classroom expenditures. As expected, during the Bloomberg years, total expenditures per pupil (not including pass-throughs) increased greatly, by \$4,965 (roughly 39%), direct expenditures per pupil increased by \$3,896 (34%) and classroom expenditures per pupil increased \$1,771 (over 25%). These aggregate per pupil expenditures, however, hide some important trends across programs and levels of education. (See Figure 4.) Comparing special and general education per pupil spending, citywide special education students (in segregated schools) cost the most to educate, with direct spending of \$63,205 per student and classroom spending of \$31,971 per pupil in 2008. In comparison, direct spending on integrated full-time special education students was \$31,477 per pupil (\$15,922 for classroom) and spending on general education students was \$12,348 (\$7,218 for classroom). These per pupil expenditures have all increased since 2002, with a 27% increase in direct expenditures and an 18% increase in classroom expenditures for general education and a 31% increase in direct expenditures and a 35% increase in classroom expenditures for those in special education.





As shown in Figure 5, expenditures per pupil by school level differ in an important way from most other districts: NYC spends less per pupil on high school students than on elementary or middle school students, with middle school spending falling slightly below elementary school spending. Although some attribute this to class size reduction mandates in the early grades, and to higher proportions of special education students in elementary and middle schools than in high schools, we note that lower spending per pupil in high schools is not new, dating back at least to the mid 1990s, suggesting that other forces may be relevant. Further, in addition to spending less per high school student, the rate of growth in spending per pupil over the Bloomberg years was lowest for high schools and highest for middle schools.

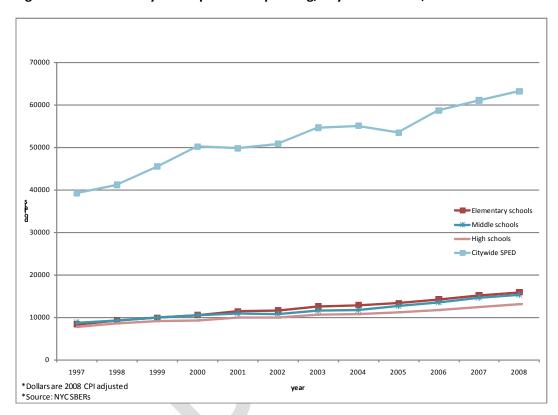


Figure 5: New York City Per Pupil Direct Spending,\* by School Level, 1997-2008

Spending is not the only measure of resources allocated to students—teacher salaries and pupil-teacher ratios are alternatives. As seen in Figure 6, inflation-adjusted teacher salaries (total salary plus fringe) increased nearly \$18,000 (roughly 25%) from 2002 to 2008. This was largely driven by a sizeable increase in fringe benefits (a 69% increase), as salary increases were significant but more modest (increases of over 11%). At the same time, pupil-teacher ratios remained slightly under 14:1, decreasing somewhat more recently.

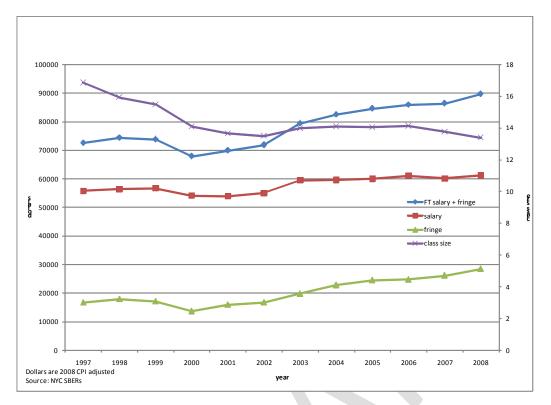


Figure 6: New York City Teacher Salary, Fringes, and Class Size, 1997 - 2008

Allocations across Schools: Have They Changed under Bloomberg?

One of the motivations for FSF in NYC was the observation that the variation in funding across schools did not align well with the varying needs and costs associated with student and school characteristics. Thus, we next turn to examining the variation in resources with an eye toward understanding the extent to which the distribution is more—or less—aligned with these needs. To do so, we rely upon the factors used in FSF, shown in Table 2, even though it was not introduced until 2008. We use regression analyses to examine whether the distribution of resources across schools changed between 2001 and 2008 (a year before Bloomberg and six years after) and complement this analysis by summarizing *changes* in various resources by school poverty quintiles. To be clear, FSF was only in place for a single year within our analysis period and, on the whole, funds were not actually allocated using these characteristics. Thus, these analyses might be viewed as summarizing a "de facto" distribution formula.

We regress measures of resources per pupil on the five school characteristics identified in FSF. We begin by analyzing 2001 and 2008 separately. We then pool the two years, estimating an interacted model to examine the extent to which the coefficients on the characteristics changed between 2001 and 2008. The regression coefficients provide a sense of the "ex post" weight given to each characteristic, and the R² provides a measure of how well these characteristics describe the distribution. A low R² indicates that other characteristics or, perhaps, random events determine much of the variation in school resources; a high R² indicates that variation in these characteristics explains much of the variation in resources. <sup>41</sup> We analyze each level of schooling (elementary, middle, and high) separately, since the characteristics were (or, at least, were proposed to be) weighted differently across levels. To summarize, in these regressions we examine the relationship between FSF characteristics and school level expenditures. These provide a descriptive framework of the effects of FSF characteristics even though they were in place for only one

year.

We also explore the extent to which resources for poor students changed from 2001 to 2008 by analyzing changes in resources between the two years by quintile of school poverty in 2001.<sup>42</sup> Note that some schools changed poverty quintiles between 2001 and 2008, but an analysis of these changes showed that the majority did not, and those that did generally only moved one quintile up or down.

# Direct Expenditures per Pupil

The results of our regression analyses of direct expenditures per pupil and analysis of changes in direct expenditures per pupil by poverty quintile for NYC elementary schools are presented in Table 4. Recall that direct expenditures do not include money spent on regional costs or system-wide costs or obligations, but are intended to measure resources going directly to the schools.<sup>43</sup> While the cross section regressions for 2001 and 2008 show that many of the regression coefficients (hereafter called weights) changed between years, the fully interacted model in column 3 indicates that only three of those changes were statistically significant at the 10% level or below (percent resource room, percent full-time special education, and percent at level 1 on the reading test). Consistent with the aggregate trends shown earlier, the special education weights increased, both for resource room (part-time special education) and full-time special education. The weight also increased for low-performing students, but did not increase significantly for poor students and ELLs. These results demonstrate that on some measures, but not others, spending on students with greater needs increased over time, aligned with the intentions of FSF. In addition, the R<sup>2</sup> increased 10 percentage points from 53% in 2001 to 63% in 2008, indicating that over these years, school expenditures were better described by the FSF characteristics. Nonetheless, more than a third of the variation across schools remains unexplained by the regression.

Table 4: Regressions (columns 1-3) and Poverty Quintiles (column 4), Direct Expenditures per Pupil, NYC Elementary Schools

	2001 cross-section	2008 cross-section	Interacted model	Changes by poverty quintile
	(1)	(2)	(3)	(4)
0/ f l l.	44 727***	45 602***	44 727***	
% free lunch	11.727***	15.603***	11.727***	
0/	(3.392)	(3.268)	(3.574)	
% res room	192.824***	265.059***	192.824***	
0/ <b>FT</b> and	(31.696) 292.088***	(16.091) 399.440***	(33.400) 292.088***	
% FT sped	(15.065)	(18.020)	(15.875)	
% LEP	-3.225	1.641	-3.225	
70 LEP	(6.413)	(5.763)	-3.223 (6.757)	
% level 1 g4 ELA	-0.193	28.922**	-0.193	
O IEVEL I 84 ELA	(8.205)	(13.197)	(8.646)	
2008 * % fr. lunch	(0.203)	(13.137)	3.876	
2000 /0 II. IUIICII			(4.753)	
2008 * % res room			72.235**	
2000 /0103100111			(36.789)	
2008 * % FT sped			107.352***	
2000 7011 Spea			(23.461)	
2008 * % LEP			4.865	
70 221			(8.728)	
2008 * % level 1			29.116*	
70164611			(15.323)	
2008			953.805**	
2000			(427.973)	
1 <sup>st</sup> pov quintile			(1271373)	3,962.376***
pov quintile				(204.271)
2 <sup>nd</sup> pov quintile				4,451.185***
- por quintino				(190.024)
3 <sup>rd</sup> pov quintile				4,706.828***
				(186.822)
4 <sup>th</sup> pov quintile				5,237.026***
				(189.700)
5 <sup>th</sup> pov quintile				5,272.945***
1 1				(198.001)
Constant	7,970.507***	8,924.311***	7,970.507***	
	(300.490)	(300.343)	(316.646)	
Observations	617	695	1,312	612
R-squared	0.531	0.628	0.771	

Standard errors in parentheses (\*\*\* p<0.01, \*\* p<0.05, \* p<0.1)

Note: Regressions are weighted by school enrollment. The model including poverty quintiles (col. 4) is weighted by 2001 enrollment. There is a statistical difference for schools in the third, fourth, or fifth quintiles in 2001 (F = 2.80, p>F = 0.062), but not between schools in the fourth and fifth quintiles (F = 0.02, p>F = 0.896). Elementary schools are schools reporting scores on the fourth grade ELA test. Dollars are in 2008 CPI inflated dollars. Variables are as defined in the note to Table 2.

The change in expenditures by 2001 poverty quintile (column 4) shows an increasing amount of

resources devoted to higher poverty elementary schools, although the differences between the third, fourth, and fifth quintiles are only marginally statistically significant.<sup>44</sup>

Results for middle schools are similar. <sup>45</sup> Two weights increased at a statistically significant level between 2001 and 2008—those for full-time special education and for the percentage of students scoring at the lowest reading level. The explanatory power of the five FSF characteristics increased more than for elementary schools, with the R<sup>2</sup> increasing from 48% to 64%, although 35% is still unexplained. More resources went to schools in higher poverty quintiles over these years, although the differences among the top three quintiles cannot be distinguished statistically.

Turning to high schools, the changes in our estimated weights for school characteristics are largely insignificant, except for the achievement weight, which moved in the same direction as elsewhere. Here, the explanatory power of the FSF characteristics (18% to 28%) is very low, and only changed 10 percentage points between the two years—spending differences do not seem to be driven by FSF factors. The analysis of poverty quintiles shows that higher poverty schools did, however, receive more money, although there is no statistical difference among the top three quintiles.

In summary, over the Bloomberg years, the characteristics in FSF formulas explained an increasing share of the variation in expenditures per pupil across elementary and middle schools, and higher poverty elementary and middle schools received more funding compared to lower poverty schools over time. At these school levels, the weight given to special education students and students with low reading levels increased from 2001 to 2008, but the weight of other characteristics (e.g., ELL students) did not change significantly. At the high school level, expenditure distributions are still largely unexplained by the FSF characteristics, although spending per pupil increased more for higher poverty high schools from 2001 to 2008. In addition, student performance played a larger role in spending distributions for high schools in 2008 than in 2001.

# Distributions of Other Resources per Pupil

To supplement our analysis, we examine three other resources (classroom expenditures per pupil, teacher salaries, and pupil-teacher ratios) by school level. Classroom expenditures are generally considered to be "closer" to the student and, thus, are another means of exploring how funds are spent; teacher salaries are important as they make up a large component of district and school budgets; and pupil-teacher ratios are a proxy for class size, which is often considered a valuable non-financial resource. For each, we discuss the regression estimates of the changes in the implicit weights on FSF characteristics and we show the changes in resources per pupil by poverty quintile.<sup>47</sup>

Beginning with elementary schools, weights on school characteristics differed more for classroom expenditures per pupil than they did for direct expenditures per pupil. In fact, all but the weight on resource room students are statistically significantly higher in 2008 than in 2001. The R² increased 21 percentage points to 56%, indicating resources directly reaching students in classrooms were better distributed according to FSF after the Bloomberg/Klein administration began. Additionally, higher poverty schools in 2001 (Table 5, top panel, column 1) received more classroom expenditures per pupil over this time period compared to lower poverty schools, with a statistically significant difference among the top three quintiles, but not between the top two.

Table 5: Resources by Poverty Quintile, NYC Public Schools by Level

	Classroom Exp. (1)	Teacher Salary (2)	Pupil-teacher ratio (3)
	(±)	(2)	(3)
Elementary Schools			
1 <sup>st</sup> pov quintile	1,750.61***	22,190.94***	-0.27
	(110.65)	(749.42)	(0.17)
2 <sup>nd</sup> pov quintile	2,226.81***	24,528.35***	-0.49***
	(102.92)	(697.15)	(0.15)
3 <sup>rd</sup> pov quintile	2,340.80***	23,473.79***	-0.58***
	(101.19)	(685.40)	(0.15)
4 <sup>th</sup> pov quintile	2,774.38***	22,825.21***	-0.82***
	(102.75)	(695.96)	(0.15)
5 <sup>th</sup> pov quintile	2,834.53***	22,076.55***	-0.72***
	(107.25)	(726.42)	(0.16)
Observations	612	612	612
NA: dalla Caba a la			
Middle Schools	1 472 10***	19,012.20***	0.11
1 <sup>st</sup> pov quintile	1,473.19***		-0.11
2 <sup>nd</sup> intile	(329.58)	(1,149.37)	(0.28)
2 <sup>nd</sup> pov quintile	1,945.05***	20,035.99***	-0.19 (0.26)
ardintil	(310.39)	(1,080.04)	(0.26)
3 <sup>rd</sup> pov quintile	3,380.42***	21,178.33***	-0.92***
,th	(351.87)	(1,224.36)	(0.30)
4 <sup>th</sup> pov quintile	3,270.01***	20,225.5***	-1.00***
_th	(334.21)	(1,162.90)	(0.29)
5 <sup>th</sup> pov quintile	2,986.93***	19,109.62***	-0.96**
a	(449.32)	(1,563.44)	(0.38)
Observations	194	193	193
High Schools			
1 <sup>st</sup> pov quintile	718.50***	23,199.50***	0.71**
	(200.85)	(1,469.17)	(0.27)
2 <sup>nd</sup> pov quintile	1,409.69***	23,404.59***	-0.50*
•	(218.66)	(1,599.40)	(0.30)
3 <sup>rd</sup> pov quintile	2,562.66***	25,690.27***	-1.22***
·	(294.02)	(2,150.59)	(0.40)
4 <sup>th</sup> pov quintile	2,102.32***	22,298.35***	-1.31***
-	(320.33)	(2,343.09)	(0.44)
5 <sup>th</sup> pov quintile	2,035.63***	24,290.51***	-0.84
·	(373.58)	(2,732.58)	(0.51)
Observations	153	153	153

Standard errors in parentheses (\*\*\* p<0.01, \*\* p<0.05, \* p<0.1)

Note: These quintiles are derived from regressions that are weighted by school enrollment in 2001. Elementary schools are schools reporting scores on the fourth grade ELA test. Middle schools are schools reporting scores on the eighth grade ELA test. Dollars are in 2008 CPI inflated dollars. There is a statistically significant difference for classroom expenditures per pupil for elementary schools in the third, fourth, and fifth quintiles (F = 6.87).

A related question is whether this change is associated with teacher salaries or pupil-teacher ratios. While higher poverty elementary schools and elementary schools with larger shares of full-time special education students had higher teacher salary weights in 2008 than in 2001, schools with higher percentages of resource room students and students scoring at the lowest level of the reading tests had lower weights. Teacher salaries in elementary schools, thus, do not follow the pattern seen for classroom expenditures per pupil. These equations do not explain much of the variation in teacher salaries across schools either—the explanatory power declined from 16% to 13%. Interestingly, the second lowest quintile witnessed the largest increase in average teacher salaries compared to the lowest and higher quintiles (Table 5, column 2).

Finally, for the pupil-teacher ratio, there are almost no changes between 2001 and 2008 (except for a lower weight for resource room students), although combined the factors explain a higher percentage of the variation (the R<sup>2</sup> increased significantly). Thus while individual factors did not change significantly, as a group they worked to better explain the distribution. By poverty quintile, the two highest poverty levels had the largest decrease in pupil-teacher ratios compared to the lower poverty quintiles over the time period (Table 5, column 3). One explanation is that pupil-teacher ratios improved for high-poverty schools due to the influx of teachers at the beginning levels, perhaps from Teach for America (TFA) and the NYC Teaching Fellows program, since average salaries did not change across the quintiles.

Turning to middle schools, classroom expenditures per pupil are qualitatively the same as direct expenditures per pupil in their coefficient weights and distributions by quintile (middle panel, Table 5, column 1). In contrast, average teacher salaries show higher (significant) coefficients on poverty and lower (significant) coefficients on resource room, with a lower R<sup>2</sup> in 2008 than in 2001. Pupil-teacher ratios, while higher in high-poverty schools and lower in schools with larger percentages of poorly performing students, decreased more in higher poverty quintile schools than in lower poverty quintile schools between 2001 and 2008 (Table 5, column 3).<sup>48</sup> Thus, as in elementary schools, it appears that more teachers were placed in higher poverty schools, although not more highly paid ones.

Finally, for high schools, classroom expenditures per pupil show an increased weight on poverty, low achievement, and the share of ELL students, with a meaningful seven percentage point change in the R². As before, classroom expenditures per pupil also show a pro-poverty change (bottom panel of Table 5, column 1). With respect to average teacher salaries, two weights differ in 2008 compared to 2001, although only in a positive direction for schools with higher percentages of full-time special education students. The R² increased 24 percentage points to 42%. Salaries changed across poverty quintiles, although the difference between the top three quintiles cannot be distinguished statistically (Table 5, column 2). Finally for the pupil-teacher ratio, weights on three factors changed significantly between 2001 and 2008 (schools with larger percentages of full-time special education students had slightly higher pupil-teacher ratios and those with higher shares failing the math Regents exam and higher shares of ELL students had lower pupil-teacher ratios) with a 4.5 percentage point change in the explanatory power and some reduction in the pupil-teacher ratio in the higher poverty schools (Table 5, column 3).

In summary, while there was some change in the weights on student factors identified in the FSF allocation formula for these alternative resources, there was variation in the significance across school levels. In elementary schools, for example, the changes in weights of FSF characteristics were more significant in explaining classroom instruction expenditures and teacher salaries than in middle or high schools. Further, schools in higher poverty quintiles appeared to have larger changes over time in classroom instruction spending and larger decreases over time in pupil-teacher ratios compared to

lower poverty quintile schools. Teacher salaries did not follow this trend, suggesting that perhaps poorer schools received more teachers, but they were not more highly paid.

#### PRIVATE-PHILANTHROPIC FUNDING FOR NEW YORK CITY PUBLIC SCHOOLS

Although the vast majority of the financial support for public education is provided by federal, state, and local sources, philanthropic support and voluntary contributions are also noteworthy and a potentially important part of the school finance picture in New York. In this section, we provide a brief overview of that support, without assessing its success or impact, which is outside the scope of this paper.

# The Fund for Public Schools

In 1982, the NYC Board of Education created The Fund for Public Schools (FPS), a 501(c)(3) nonprofit organization, as a fiscal agent responsible for accepting donations on behalf of the school system. After Bloomberg and Klein took office, The Fund was re-launched and its objectives repositioned to facilitate and strengthen public-private partnerships and to solicit funding from foundations and individuals for system-wide reforms. According to the 2005 FPS annual report, this restructuring was predicated on a need for "greater leadership and accountability...to create meaningful partnerships with the private sector". <sup>50</sup>

The Fund concentrates its efforts on two broad initiatives: securing private funding for education reform and raising awareness about the needs of public schools. Private funding can serve as a catalyst for publicly sustainable work and could allow the DOE to invest in and explore innovative strategies, in spite of budget constraints and without public funding. <sup>51</sup> According to The Fund, the relatively small dollar amounts they raise compared to the entire DOE budget are particularly valuable due to their flexibility, allowing the DOE to implement new or innovative ideas that might not be funded through the public budget. Further, the public-private partnership sees itself as a vehicle to align specific DOE needs with donors. The Fund measures its success by its "ability to leverage public investment for projects with demonstrated success," and its materials stress the importance of collecting and measuring results in numbers (for example, dollars, numbers of schools and students impacted, or benchmarks reached). <sup>52</sup>

The Fund raised nearly \$245 million between fiscal years 2003 and 2009, much of which has been invested in research, development, and capacity building across the following categories: teaching, learning and school based-gifts, accountability, empowerment, human capital, internal capacity building, and outreach and communication. For example, by the close of fiscal year 2007 The Fund had raised over \$80 million for the NYC Leadership Academy, whose mission is to train principals skilled in leading NYC's schools. During the Academy's early years, all program expenses were supported through private funding, largely from FPS; however, once the program proved successful, the DOE made a commitment to support it, awarding the Leadership Academy a five-year, competitively bid public contract. <sup>53</sup>

The second half of The Fund's mission—to raise awareness of the city's schools and encourage New Yorkers to get involved—began early in its re-launch, when Caroline Kennedy joined efforts with the DOE and The Fund. Over the years, corporate partners have sponsored citywide events and campaigns, increasing awareness and donations to initiatives including school libraries and arts education. While the total funds raised amount to a small share of the overall budget (for example, in 2007 FPS funds accounted for 0.18% of the total DOE budget), the administration and DOE leadership frame the FPS contribution as indispensible in supplementing limited discretionary spending and supporting innovations across the system. For example, Bloomberg states: "We could not have achieved all of our education reforms without the Fund's help."

#### More Details on Select Private Funding

The FPS efforts make up only a small portion of the larger philanthropic community's contributions aimed at NYC public schools and school-aged children. There are many intermediary organizations (for example, Urban Assembly) and service providers (for example, The After School Corporation), whose programs support school-age children, and in some cases schools, across the city. Further, alumni and parent organizations often contribute directly to school resources. To begin to appreciate the scope of the private/nonprofit sector involvement in public education, we examined the public support and program expenses of select organizations between 2005 and 2007, in addition to several school-centered fundraising groups. This work is *not* intended to be comprehensive; rather it begins to shed light on the private investments in NYC schools and school-aged children unaccounted for in a discussion of FPS fundraising.

Using copies of IRS 990 forms, we probed the contribution by NYC service providers and intermediary organizations to the public school system. The 990 form is submitted by tax-exempt and nonprofit organizations to the Internal Revenue Service each year and contains annual financial information broadly broken down by type of revenue and type of expense. Some of the largest revenue categories include direct public support (contributions received directly from individuals and foundations), government contributions, program service revenue, interest and dividends, and net gains or losses on investments and securities. The program expenses are broken into three categories: program services, management and general, and fundraising. For our purposes we analyze direct public support (to avoid duplicating any government contributions) and program expenses (to approximate the value of services provided), although we also present total numbers. Note that for the organizations we study, program expenses are between 79% and 89% of total expenses, while direct public support varies more widely and is between 23% and 96% of total revenue.

Using our knowledge of NYC and recommendations by the FPS, we examined the following organizations: Achievement First, Good Shepherd, the Harlem Children's Zone, New Visions for Public Schools, Outward Bound, The After School Corporation, and Urban Assembly. All of these organizations are dedicated to providing education-related services, operating charter schools, or, in the case of the Harlem Children's Zone, maintaining a comprehensive network of related services for families and children. Between 2005 and 2007 these seven organizations received over \$300 million dollars in direct public support. In those same years, their program service expenses totaled over \$405 million dollars (see Table 6). Program expenses for these organizations often include services that do not directly impact public schools; for example, according to form 990, in 2008 Good Shepherd dedicated over \$28 million dollars to foster care and residential services. While these dollars are not targeted at schools, they do affect school-age children in NYC. And, to reiterate, these revenues and expenses are in addition to those of the FPS.

**Table 6:** Total Revenue (direct public support) and Total Expenses (program service expenses): Select New York City service providers or intermediary organizations, 2005-2008 (\$000's)

		2005	2006	2007	Total	% of rev from direct support
Revenue*						
Achievement First	total direct	\$7,177 (\$5,099)	\$10,096 (\$6,168)	\$10,955 (\$8,660)	\$28,227 (\$19,926)	71%
Good Shepherd	total direct	\$46,832 (\$12,502)	\$59,612 (\$15,398)	\$63,439 (\$10,812)	\$169,884 (\$38,711)	23%
Harlem Children's Zone	total direct	\$41,288 (\$29,940)	\$69,422 (\$60,557)	\$61,690 (\$52,767)	\$172,400 (\$143,264)	83%
New Visions for Public Schools	total direct	\$26,970 (\$25,282)	\$15,169 (\$11,395)	\$30,297 (\$23,827)	\$72,435 (\$60,505)	84%
Outward Bound NYC	total direct	\$4,967 (\$2,739)	\$6,187 (\$2,768)	\$5,609 (\$2,874)	\$16,763 (\$8,381)	50%
The After School Corporation	total direct	\$30,058 (\$6,333)	\$29,530 (\$4,979)	\$21,525 (\$3,686)	\$81,113 (\$14,999)	18%
Urban Assembly	total direct	\$4,574 (\$4,496)	\$7,082 (\$6,852)	\$3,865 (\$3,616)	\$15,522 (\$14,964)	96%
Total	total direct	\$161,865 (\$86,391)	\$197,097 (\$108,117)	\$197,381 (\$106,242)	\$556,344 (\$300,750)	54%
% of rev from direct support		53%	55%	54%	54%	
		2005	2006	2007	Total	% of exp for program services
Expenses*						
Achievement First	total program	\$4,963 (\$4,274)	\$8,483 (\$7,052)	\$10,303 (\$9,099)	\$23,750 (\$20,424)	86%
Good Shepherd	total program	\$42,288 (\$36,198)	\$52,581 (\$44,672)	\$61,706 (\$53,292)	\$156,575 (\$134,162)	86%
Harlem Children's Zone	total program	\$33,324 (\$26,410)	\$39,153 (\$30,506)	\$51,058 (\$41,064)	\$123,535 (\$97,980)	79%
New Visions for Public Schools	total program	\$15,957 (\$14,363)	\$15,625 (\$13,710)	\$20,332 (\$18,255)	\$51,915 (\$46,328)	89%
Outward Bound NYC	total program	\$4,562 (\$3,720)	\$4,727 (\$3,847)	\$5,223 (\$4,286)	\$14,512 (\$11,853)	82%
The After School Corporation	total program	\$32,066 (\$28,587)	\$34,734 (\$30,561)	\$29,734 (\$25,623)	\$96,534 (\$84,772)	88%
Urban Assembly	total program	\$2,876 (\$2,412)	\$3,984 (\$3,258)	\$5,307 (\$4,523)	\$12,167 (\$10,192)	84%
Total	total program	\$136,038 (\$115,963)	\$159,288 (\$133,607)	\$183,664 (\$156,142)	\$478,989 (\$405,711)	85%
	F 9. w	(ψ110,303)	(ψ100,001)	(ψ100, 172)	(ψ-100,1 11)	

 $<sup>{}^{\</sup>star}\text{Note: Revenue including direct public support, gov't contributions, program service,}$ 

interest on savings investments, dividends and interests from securities, etc. Direct public support only

 $in\ parantheses. Expenses\ including\ program\ service\ expenses,\ management\ and\ general,\ and\ fundraising.$ 

Program service expenses only in parentheses.

Source: IRS 990 tax forms for each organization, w w w .guidestar.com, May 2010.

Looking more specifically at one large donor, between 2000 and 2009, the Bill and Melinda Gates Foundation gave over \$112 million in grants to organizations in NYC providing education or education-related services, not including grants made to The Fund. In the two years immediately following Bloomberg's inauguration, Gates' grants to NYC-based organizations increased dramatically: from more than \$1.8 million in 2002 to more than \$38 million in 2003. Over the next five years, the Gates Foundation gave over \$35 million in support of small high school initiatives separate from monies given directly to The Fund in support of the same initiative. Note that many of these donations likely flowed through the organizations listed in Table 6, so these are not necessarily additional funds.

The donations and expenses reported in Table 6 represent only a fraction of the philanthropic support for school-age children in NYC. Accessible public information on the fundraising and spending behavior of other organizations, however, is not always available or comprehensive. For example, as found on the Robin Hood Foundation website, in 2006 Robin Hood reported contributions of \$133 million and program expenses of \$94 million. <sup>59</sup> While education is one of their core programs, their website does not report what portion of the program expenses go to education-related grants. We do know that in 2002, the foundation announced their Library Initiative partnership with the NYC Board of Education; their initial statement reported a contribution from Robin Hood of \$6.94 million, in addition to securing \$15 million in in-kind donations and \$16 million from the board of education. Since that date, it appears that over 55 school libraries have opened through the initiative, though the total program cost and the locations of the libraries are not readily accessible.

In addition to the activities of philanthropies and nonprofits, there is frequent media attention given to the role of direct contributions to schools by alumni or parent organizations, particularly schools in wealthy neighborhoods or with successful or famous former students, like the Brooklyn Technical High School. We looked at several NYC elementary and high schools likely to have highly effective alumni or parent associations and found anecdotal evidence suggesting that while individual schools may be able to supplement their funding through private donations, alumni and parent associations, and other fundraising efforts, the magnitude of these resources is dwarfed by the public resources.<sup>60</sup>

Importantly, the DOE views these additional funds—provided through The Fund, private foundations, or school fundraising—as indispensable to efforts to reform the DOE management (e.g., the NYC Leadership Academy, Project Home Run, ARIS) and change system-wide programming (e.g., career and technical education, Multiple Pathways to Graduation). By strategically aligning fundraising efforts with specific projects, the DOE has tried to increase accountability to donors and, in doing so, encourage more to give. Once innovations have proven successful, fiscal responsibility has shifted away from the Fund, as illustrated by the experience of the Leadership Academy. Will this approach work in other large urban cities? Those without large pockets of local philanthropic support may be unable to leverage the necessary capital. Furthermore, system-wide reform may not be possible in districts whose revenues are not as high as, or have not, increased at the same rate as, NYC's.

#### SUMMARY AND CONCLUSIONS

# **Summary**

Resources available to the Bloomberg administration increased significantly between 2002 and 2008. Per pupil revenues grew almost \$5,800 and per pupil expenditures, excluding "pass-throughs" (mostly charter schools and contracted special education services), grew almost \$5,000. This was a larger increase than that experienced by other districts in New York State, and NYC was one of the top three

spending districts in the country, at approximately \$20,000 per student. At the same time, the composition of the city's students changed, with much faster growth in costly-to-educate full-time special education pupils compared to general education pupils. Moreover, teachers received large increases in compensation (including both salaries and fringe benefits). Finally, NYC's practice of spending less on high schools than elementary or middle schools continues and differs from that of other districts.

Several of the factors included in the FSF formula received more weight between 2001 and 2008, as the Bloomberg reforms were implemented. For example, elementary and middle school expenditures were more closely aligned with FSF principles in 2008, although this was not seen for high schools. It does appear that more resources have been channeled to schools in the highest poverty quintiles, particularly with lower pupil-teacher ratios in high-poverty elementary and middle schools.

Finally, private philanthropy, although not a large amount or percentage of the DOE budget, may have played a role in allowing the administration to reform both management and programming. Additionally, many nonprofit organizations, which fund education and education-related services, received significant amounts of philanthropic support during these years.

# **Conclusions**

What, then, can we conclude about the role of resources in the Bloomberg education initiative, what we can expect in the future, and what lessons are there for other districts? First, large amounts of additional public money were available to Bloomberg that are unlikely to continue post-recession or be available in other districts. For many years, New York State operated with a structural deficit, where recurring expenditures exceeded recurring revenues. This situation may continue —financed by borrowing from off-line agencies, one-time sales of assets, or some other way—however, increased public awareness may force state-level action to prevent growing deficits. If so, budget cuts are probable, as it is unlikely that New York State's citizens will support large tax increases, particularly given the already high state tax rates. Which services will slow in growth? Health? Education? Education spending is already very high (first or second in the nation) and may be the most likely candidate for cuts or slowdown. Moreover, Campaign for Fiscal Equity money is unlikely to be fully implemented (restored) at inflation-adjusted dollars, and this will not fill gaps opened by slower growth in education spending. As for federal revenues, the federal government will also need to cut deficits; however, education initiatives may remain high priorities. Even if spending stays where it is, federal dollars do not make up a large percentage of NYC revenues. Finally, NYC's local revenue share is below the state average and could increase. However, NYC's financial sector is not where it was pre-recession, and local tax revenues are unlikely to grow rapidly for many years. Additionally, there are many other demands for local resources. All of this indicates that public resources will not grow as quickly in the coming years as they did in the past. 61

Growth in the special education population is troubling financially, although the shift to integrated rather than segregated classrooms has the potential to reduce the growth in per pupil expenditures for this group of students. This growth, along with large increases in teacher salaries, accounted for much of the spending by the administration since 2002. The DOE contends that the size of and amount of spending on the special education population (especially for contracted services) is not controllable, but many analysts think it is, at least to some extent. 62 Additionally, it is an open question whether the teachers' union would be as cooperative with new initiatives without significant salary increases. Finally, the continuing shift to FSF and the concomitant authority and accountability given to principals could potentially result in fairer and even more effective use of public dollars, but without increases in public

dollars, it is unclear whether the initiative can be sustained.

Philanthropic money, even if it does continue, cannot substitute for public dollars, although it could be helpful to the education-related nonprofits and for more innovations in programming. There are questions, however, about whether reliance on private money has led to lack of transparency or mission drift. Although assessing the success and consequences of private resources is outside the scope of this paper, future research in this area seems well warranted.

The changes and innovations already made with public resources will probably have to fuel future improvements for NYC's students. If an adequate base of new management systems and programming has already been incorporated into public spending, then the initiatives could continue to have an effect. If more resources are needed, however, they are unlikely to be forthcoming to the degree they have been since 2002.

Finally, what can we learn from NYC about resources that could be useful to other U.S. districts? Answering this question conclusively would require establishing a causal link between the additional funding available to Bloomberg and important educational outcomes. Our aim in this chapter has not been to establish causality, but instead to provide a clear, descriptive portrait of the changes in available resources and how these funds were distributed. As a result, our conclusions are qualified and focused on the role of resources in enabling the observed reforms.

To begin, the New York City experience suggests that private money (non-governmental revenues) directly coordinated with the district's mission may have provided resources and flexibility key for innovation. These dollars, however, amounted to less than 0.5% of the DOE's annual budget. Further, it is unclear whether (or to what extent) the effectiveness of private resources depends upon corresponding substantial increases in public dollars that can be used to implement reforms systemwide. That said, relatively small amounts of unrestricted resources may be particularly important in using public funds effectively and efficiently, and other districts might follow NYC's example by establishing similar unrestricted funding pools—perhaps allocating a percentage of resources to a small innovation fund. At the same time, this might be viewed as an argument for federal or state provision of unrestricted grants that school districts can use according to their own discretion.

Second, to the extent that garnering support from teachers and unions was important for implementing reform, NYC benefited by being able to renegotiate teacher contracts and award raises. While raises may not have been necessary in implementing reform and are likely to be infeasible in districts that have not received large increases in public revenues, the importance of teacher and union support should not be underestimated.

Finally, much of the growth in NYC's revenues was directed toward the full-time special education population. Clearly, decisions about the appropriate level of spending on special education are key to understanding the financial resources puzzle and, to the extent possible, other districts will want to ensure they are providing these services as effectively as possible, particularly if they have not received large increases in public dollars.

New York City was blessed with a large amount of additional public and private money. Bloomberg and Klein may have been instrumental in encouraging growth in these sources by clearly defining their mission for reform and revitalizing an organization (the FPS) to attract private resources. These actions could be applied more broadly by policymakers and education leaders in other districts to influence and stimulate increased revenues aimed at educational reform.

#### APPENDIX 1: SUMMARY OF SPECIAL EDUCATION REFORMS UNDER BLOOMBERG

In 2000, the New York City Board of Education approved a series of special education reform initiatives called the "New Continuum." The Continuum provided a "menu" of special education services stressing that all children should be educated in the least restrictive environment possible and emphasizing Collaborative Team Teaching (CTT), which allows up to 40% of students in a classroom to be special needs. <sup>63</sup> The Continuum has been updated several times over the years. In April of 2003, Mayor Bloomberg announced a series of comprehensive reforms to the special education system in New York City. Crucial to his reform strategy was improving the capacity of general education classrooms and teachers to better serve and include students with disabilities, through the appointment of instructional specialists, professional development, services and incentives, and accountability. A 2005 evaluation for the New York City Department of Education's Special Education Program found that compared with other large cities (Los Angeles and Chicago), New York City devoted a higher level of resources to their special education program, particularly in related services. This report also suggested that while the DOE was clearly committed to inclusion, special education students were still overly segregated in classes and programs. <sup>64</sup>

Once eligibility for special services has been established, the IEP (Individualized Education Plan) team meets to determine placement in one of seven possible classroom environments: general education, <sup>65</sup> general education with related services, general education with special education teacher support (SETS), CTT/integrated co-teaching, special class services, day and residential placement, or home/hospital instruction. All special education placements must adhere to the least restrictive environment rule as closely as possible. Students receiving CTT, SETS, or related services remain in general education classrooms with a mix of special needs and non-special needs students. Special class services, day and residential placement, and home/hospital instruction serve students whose needs cannot be met in a general education classroom on a part-time or full-time basis. In addition, there are "specialized public schools for students with significant disabilities" or District 75 schools. District 75 students may receive services in a general education classroom, in special classes in community school buildings or in specialized schools, in agencies, or in hospitals. <sup>66</sup>

#### **ENDNOTES**

1

<sup>&</sup>lt;sup>1</sup> We thank Elizabeth Debraggio and Lila Nazar de Jaucourt for their excellent assistance on all parts of this paper, Margaret Goertz and James Wyckoff for helpful comments, William Duncombe for his generous assistance with the state data, and Meryle Weinstein for her extraordinary help with the city data. We appreciate the help and feedback from the New York City Department of Education, Jennifer O'Day, Catherine Bitter, and participants in the Spring Workshop. We alone, however, are responsible for the content of this chapter.

<sup>&</sup>lt;sup>2</sup> Throughout this paper, we refer to 2002–2008 as the "Bloomberg years" and compare these against an earlier time period from 1996 (or 1997) to 2001. While data are available over a longer period for district revenues, they are not for intradistrict (NYC school level) expenditures, and the years were chosen to include both data sets.

<sup>&</sup>lt;sup>3</sup> Our intention is to provide an overview of the primary resources available during Bloomberg's first two terms and the primary drivers of spending as we see them. Thus, we note trends for significant categories of overall resources, but do not focus on smaller categories. We add endnotes when we are aware of a different perspective by the DOE.

<sup>&</sup>lt;sup>4</sup> Unless otherwise indicated, we report dollar figures adjusted for inflation to 2008 dollars.

<sup>&</sup>lt;sup>5</sup> DOE schools do not include charter or non-public providers of special education services.

<sup>&</sup>lt;sup>6</sup> New York State Constitution, Article XI, Section 1.

<sup>&</sup>lt;sup>7</sup> Hawaii is the only "unitary school district in the nation." All funds flow from the state department of education to schools. (http://www.k12research.com/HawaiiSchoolDistrictContacts.html)

<sup>&</sup>lt;sup>8</sup> The federal share has grown over time in all regions, but is lowest in the Northeast, due, in part, to the federal reliance on poverty-based funding formulae and the relative wealth of the region.

<sup>&</sup>lt;sup>9</sup> We weight all of the district numbers in New York State by the proportion of the state's students in each district to reflect the disparity in the size of districts.

<sup>&</sup>lt;sup>10</sup> Some of these factors would yield ongoing inflows of funds, and some would be received for a finite period of time

<sup>&</sup>lt;sup>11</sup> Campaign for Fiscal Equity, "CFE v. State of New York: A Chronology," http://www.cfequity.org/static.php?page=chronologyoflawsuit&category=resources.

<sup>&</sup>lt;sup>12</sup> The CFE v. State of New York ruling was overturned by the Appellate Court in 2002 before the Court of Appeals reversed the Appellate Court's decision in 2003.

<sup>&</sup>lt;sup>13</sup> Adjusted to 2008 using the Consumer Price Index (CPI).

<sup>&</sup>lt;sup>14</sup> We define pupil numbers using the Duplicated Combined Adjusted Average Daily Membership (DCAADM) used by the New York State Department of Education, which states that this pupil count is the best count of the number of students receiving their educational program at district expense. DCAADM includes the average daily membership (ADM) of students enrolled in district programs (including half-day kindergarten pupils weighted at 0.5); plus equivalent secondary attendance of students under 21 years of age who are not on a regular day school register; plus pupils with disabilities attending Boards of Cooperative Educational Services (BOCES) full time; plus pupils with disabilities in approved private school programs including state schools at Rome and Batavia; plus resident students for whom the district pays tuition to another school district; plus incarcerated youth. Beginning with the 1999–2000 school year, pupils resident to the district but attending a charter school are included. Beginning with the 2007–08 school year, students attending full-day pre-K are weighted at 1.0, half-day pre-K

weighted at 0.5. Since residents attending other districts were also included in the CAADM count of the receiving district, this pupil count is a duplicated count.

<sup>&</sup>lt;sup>15</sup> The other districts include the other "big four" (Yonkers, Rochester, Buffalo and Syracuse), all of which are fiscally stressed, along with rural districts with their own issues, and relatively wealthy suburban districts. These are averaged out in the rest of New York State numbers. Although NYC is only one of approximately 700 school districts in New York State, the city educates about one-third of the state's students.

<sup>&</sup>lt;sup>16</sup> Total revenue includes all monies available to a district for the General Fund, Special Aid Fund, and Debt Service Fund.

<sup>&</sup>lt;sup>17</sup> Regression models estimating growth rates for NYC and the rest of the state are not shown, but are available upon request from the authors. These show that the differences are statistically significant.

<sup>&</sup>lt;sup>18</sup> Chris Plotts and Jennifer Sable, "Characteristics of the 100 Largest Public Elementary and Secondary School Districts in the United States: 2007–08" (NCES document no. 2010-349, Washington, DC: U.S. Government Printing Office, 2010).

<sup>&</sup>lt;sup>19</sup> These per pupil expenditures differ slightly from the state number reported above due to different sources and definitions of expenditures and revenues. Each source is consistent across districts within the source.

<sup>&</sup>lt;sup>20</sup> In part, this low share may be related to the concept of "municipal overburden," whereby local tax bases may be insufficient to cover the high costs of providing public services in urban areas with large shares of high-need populations. See, for example, Jay M. Stein, "Distributing 'Municipal Overburden' Aid to School Districts," *Urban Education* 14, no. 2 (1979): 205–220; Harvey Brazer and Therese McCarty, "Municipal Overburden: An Empirical Analysis," *Economics of Education Review* 5, no. 4 (1986): 353–361; Harvey Brazer and Therese McCarty, "Municipal Overburden: A Fact in School Finance Litigation?" *Journal of Law and Education* 18, no. 4 (1989): 547–566; and James Knickman and Andrew Reschovsky, "Municipal Overburden: Its Measurement and Role in School Finance Reform" (working paper, National Institute of Education, Washington, DC, 1981). As in many municipalities, the NYC school district is fiscally dependent on the city for local funds and must compete for tax revenues with other needs for public services. Previously the city followed the Stavinsky-Goodman statue (which was intended to protect against disproportionate cuts in school funding). As of 2002 the city was required to meet "maintenance of effort" provisions outlined in Section 2576 of the New York State Education Law, which the city has done successfully. Thus, the city is in compliance with state laws in terms of the local share of revenues.

<sup>&</sup>lt;sup>21</sup> Ross Rubenstein et al., "From Districts to Schools: The Distribution of Resources across Schools in Big City School Districts," *Economics of Education Review* 26, no. 5 (2007): 532–545.

<sup>&</sup>lt;sup>22</sup> See, for example, Margaret Goertz and Leanna Stiefel, "Introduction to School-Level Resource Allocation in Urban Public Schools," *Journal of Education Finance* 23, no. 4 (1998): 435–446; and Leanna Stiefel, Ross Rubenstein, and Robert Berne, "Intra-District Equity in Four Large Cities: Methods, Data, and Results," *Journal of Education Finance* 23, no. 4 (1998): 447–467 for evidence from Chicago and Rochester.

<sup>&</sup>lt;sup>23</sup> Bruce D. Baker, "Within District Resource Allocation and the Marginal Costs of Providing Equal Educational Opportunity: Evidence from Texas and Ohio," *Education Policy Analysis Archives* 17, no. 3 (2009):1–31.

<sup>&</sup>lt;sup>24</sup> See, for example, Marigee Bacolod, "Who Teaches and Where They Choose to Teach: College Graduates of the 1990s," *Educational Evaluation and Policy Analysis* 29, no. 3 (2007): 155–168; Charles Clotfelter, Helen F. Ladd, and Jacob Vigdor, "Who Teaches Whom? Race and the Distribution of Novice Teachers," *Economics of Education Review* 24, no. 4 (2005): 377–392; Eric A. Hanushek, John F. Kain, and Steven G. Rivkin, "Why Public Schools Lose Teachers," *Journal of Human Resources* 9, no. 2 (2004): 326–354; Kirabo C. Jackson, "Student Demographics, Teacher Sorting, and Teacher Quality: Evidence from the End of School Desegregation," *Journal of Labor Economics* 

27, no. 2 (2009): 213–256; and Ross Rubenstein et al., "From Districts to Schools: The Distribution of Resources across Schools in Big City School Districts," *Economics of Education Review* 26, no. 5 (2007): 532–545.

<sup>&</sup>lt;sup>25</sup> Marguerite Roza and Paul T. Hill, "How Within-District Spending Inequities Help Some Schools to Fail," in *Brookings Papers on Education Policy*, ed. Diane Ravitch (Washington, DC: Brookings Institution Press, 2004).

<sup>&</sup>lt;sup>26</sup> Thomas B. Fordham Institute, "Fund the Child: Tackling Inequity and Antiquity in School Finance" (Washington DC: Thomas B. Fordham Institute, 2006).

<sup>&</sup>lt;sup>27</sup> Jay G. Chambers, Jesse D. Levin, and Larisa Shambaugh, "Exploring Weighted Student Formulas as a Policy for Improving Equity for Distributing Resources to Schools: A Case Study of Two California School Districts," *Economics of Education Review* 29, (2010): 283–300; and Marguerite Roza and Paul T. Hill, "How Within-District Spending Inequities Help Some Schools to Fail," in *Brookings Papers on Education Policy*, ed. Diane Ravitch (Washington, DC: Brookings Institution Press, 2004).

<sup>&</sup>lt;sup>28</sup> This district was formed by New York City Schools Chancellor Rudy Crew to focus on improving the performance of the lowest-performing public schools, which were geographically dispersed across the city.

<sup>&</sup>lt;sup>29</sup> Program mandates include, for example, the requirement that federal Title 1 money serves poor students. An oft-cited budget constraint in schools is the need to fund teacher positions already in existence.

<sup>&</sup>lt;sup>30</sup> New York City Department of Education. "Fair Student Funding: Fair Funding for All," January 2007, <a href="http://www.edpriorities.org/Info/CityBudget/Fair Funding-WEB.pdf">http://www.edpriorities.org/Info/CityBudget/Fair Funding-WEB.pdf</a>

<sup>&</sup>lt;sup>31</sup> New York City Department of Education. "School Based Expenditure Reports" Accessible at: https://www.nycenet.edu/offices/d chanc oper/budget/exp01/OLD YEARS.asp

<sup>&</sup>lt;sup>32</sup> These reports are nearly unique among large districts, most of which are located in states that do not produce such reports. Some states, such as Texas, Ohio, and Florida, have such reports for all districts in their states—including, of course, the large ones.

<sup>&</sup>lt;sup>33</sup> Central administration expenditures are not part of direct expenditures. They account for a very small share of total expenditures (2.2% in 2002 and 1.6% in 2008). School administration costs, defined broadly to include not only principals and assistant principals, but also secretaries and support staff, are part of direct costs and are higher (8.2% of total expenditures in 2008), but have remained fairly constant over time—increasing only 0.2% from 2002.

<sup>&</sup>lt;sup>34</sup> See, for example, Julie Cullen, "The Impact of Fiscal Incentives on Student Disability Rates," *Journal of Public Economics* 87, no.7 (2003): 1557–59. See also Appendix 1 for a description in broad terms of changes in the provision of special education under Bloomberg.

<sup>&</sup>lt;sup>35</sup> In conversations and related correspondence with the DOE they made clear that these funds (pass-throughs) absorbed some of the growth in available revenues and, thus, that the "significant increase in revenues to the NYC school *system* was [not] fully bestowed upon DOE public school students." (Photeine Anagnostopoulos, Chief Operating Officer; Stephanie Lawkins, Executive Director, Office of Data & Reporting; Susan Olds, Executive Director, Financial Strategies Group; and Dominique West, Director of Operations, conference call and related email correspondence with authors. July 29, 2010.) We present per pupil expenditures excluding pass-throughs for total, direct services to schools and classroom instruction, which provide a more accurate portrait of the dollars going to DOE public school students.

- <sup>38</sup> Correctly, the DOE states that a significant share of the increase in direct expenditures was not spent inside the classroom (42% of the increase in direct services to schools is captured by the increase in classroom instruction) and over three-quarters of the money that did go into classrooms went to teachers (\$1.1 of the \$1.4 billion increase or 77%). (Anagnostopoulos, Lawkins, Olds, and West, July 29, 2010.) Renegotiating teacher contracts, however, was a policy decision and our purpose is to descriptively detail the entirety of Bloomberg and Klein's policies.
- <sup>39</sup> An additional 20% of the increase in direct expenditures is explained by the \$646 million (or 122%) increase in related services.
- <sup>40</sup> This increase is an average over all levels of teacher experience and education. Note that average salaries reflect both increases in the salary scale and changes in the composition of the teaching staff. See Margaret Goertz, Susanna Loeb, and James Wyckoff, this volume for more information on salary trends before and during Children First.
- <sup>41</sup> In some sense, these regressions may be best viewed as capturing the *ex post* distribution—in the sense that they measure the association of each characteristic, holding the others constant, with resource distributions. The regressions do not reveal *ex ante* intentions or causality, of course, and there are many other factors that might (and undoubtedly do) influence resource distributions across schools. If our interest were in estimating the *causal impact* of these factors on resources then we might be concerned that their exclusion might lead to bias in the estimates. In this context, however, our interest is to provide *descriptive analyses* and, specifically, to analyze how and in what way resources vary with the FSF characteristics identified as appropriate factors for resource distribution.

<sup>&</sup>lt;sup>36</sup> Regional costs include instructional support and administration, sabbaticals, leaves, and additions to regular salary; system-wide costs include central instructional support and central administration; and system-wide obligations include debt service and retiree benefits.

<sup>&</sup>lt;sup>37</sup> The DOE notes that during the Bloomberg years the "financial growth rate of the schools actually lagged the growth rate in the overall financial condition of the department." (Anagnostopoulos, Lawkins, Olds, and West, July 29, 2010.) Our intention is not to examine the validity of these claims.

<sup>&</sup>lt;sup>42</sup> The fifth quintile is the highest poverty quintile.

<sup>&</sup>lt;sup>43</sup> Sensitivity analyses show that regression results do not differ when using total versus direct per pupil expenditure (results available from authors).

<sup>&</sup>lt;sup>44</sup> Specifically, we see that direct expenditures per pupil increased \$3,962 between 2001 and 2008 for schools in the lowest poverty quintile in 2001. Direct expenditures for schools in the highest poverty quintile in 2001, however, increased nearly \$5,273. The differences in growth between schools in the fourth and fifth poverty quintiles are not statistically different from each other. That is, it is likely that the difference in the magnitude of the increase between schools in the top two poverty quintiles in 2001 is due to sampling or other statistical error.

<sup>&</sup>lt;sup>45</sup> These results are not shown, but are available from the authors.

<sup>&</sup>lt;sup>46</sup> Performance in high school is measured by the percent failing the math Regents (typically taken in 9<sup>th</sup> or 10<sup>th</sup> grade). While FSF uses a student's eighth grade test scores to determine whether he/she qualifies for the achievement need weight, we note that these test scores (eighth grade and early Regents) are correlated.

<sup>&</sup>lt;sup>47</sup> Results for the interacted coefficients are discussed, but not shown. These are available from the authors.

<sup>&</sup>lt;sup>48</sup> In other words, while schools with larger shares of poor students had higher pupil-teacher ratios in 2008 (controlling for other school-level FSF factors), higher poverty quintile schools in 2001 experienced a larger decrease in pupil-teacher ratios than those in lower quintiles. This occurs because the regressions control for

characteristics other than poverty that are correlated with poverty, while the quintile analyses do not control for these factors.

<sup>&</sup>lt;sup>49</sup> The poverty weight is negative.

<sup>&</sup>lt;sup>50</sup> The Fund for Public Schools 2005 Annual Report, "Private Investment in Public Education: Supporting Change in NYC," http://schools.nyc.gov/fundforpublicschools/.

<sup>&</sup>lt;sup>51</sup> Ibid.

<sup>&</sup>lt;sup>52</sup> Jennifer Bell-Ellwanger (New York City DOE); Liz Larson (The Fund for Public Schools); and Susan Olds (Executive Director, Financial Strategies Group), email correspondence with authors, October 7, 2010.

<sup>&</sup>lt;sup>53</sup> The Fund also raised initial support to test or launch other initiatives that have been subsequently scaled up, including the Quality Review pilot program, the ARIS information system, and the Children First Networks. Additionally, the Fund raised money to support projects designed to revamp dated or inefficient DOE infrastructure, such as an overhaul of the Division of Human Resources, "Project Home Run," with close to \$7 million in support from The Broad Foundation, the Michael and Susan Dell Foundation, the Bill & Melinda Gates Foundation, and the Robertson Foundation.

<sup>&</sup>lt;sup>54</sup> For example, in 2004, the Fund partnered with *Real Simple* magazine for "Get Organized New York," a citywide tag sale raising over \$500,000. Other public awareness efforts have included the Shop for Public Schools initiative and the 2007–2009 "Keep it Going NYC" campaign. See The Fund for Public Schools 2008 Annual Report, "A Shared Investment. Unlimited Returns," http://schools.nyc.gov/fundforpublicschools/.

<sup>&</sup>lt;sup>55</sup> The Fund for Public Schools 2008 Annual Report, "A Shared Investment. Unlimited Returns," http://schools.nyc.gov/fundforpublicschools/.

<sup>&</sup>lt;sup>56</sup> These categories are listed in the following places on the 990 forms. Part I: Revenues, Expenses and Changes in Net Assets or Fund Balances and Part II: Statement of Functional Expenses.

<sup>&</sup>lt;sup>57</sup> To be clear, we relied only on publically available information, such as printed documents and web resources. Future work might profitably explore this topic more fully by engaging more directly with funders and support organizations.

<sup>&</sup>lt;sup>58</sup> The Bill & Melinda Gates Foundation, "The Bill & Melinda Gates Foundation," http://www.gatesfoundation.org.

<sup>&</sup>lt;sup>59</sup> Robin Hood Foundation, "Robin Hood: Targeting poverty in New York City," Robin Hood Foundation, http://www.robinhood.org/home.aspx.

bake sale—and the amounts are non-trivial. As an example, *The New York Times* reports that for years, public school parents across the city raised hundreds of thousands of dollars to independently hire teaching assistants and aides, although in 2009 Bloomberg put restrictions on this practice, requiring that such hires be done only with school principal input. In another example, P.S. 6, the Lillie Devereaux Blake School on the Upper East Side, raised funds for a new library by hosting an alumni benefit with tickets priced up to \$300, and supplemented city funding for a green roof with a \$200,000 fundraising drive. In 2007, the P.S. 6 Parent Teacher Association filed a 990 form reporting over \$500,000 in contributions. As a final example, in 2008 the Alumni Foundation of Brooklyn Tech received over \$1.5 million dollars in contributions in addition to announcing a campaign to raise \$21 million from alumni by 2013. While overall this money represents a tiny fraction when compared to the total DOE, it is nevertheless illustrative of the often unaccounted for additional funding available to select schools across the city. Other efforts aim to enhance receipt of public funds. At Stuyvesant High School, when faced with budget cuts,

parents successfully organized a "full force campaign" encouraging eligible students to enroll and participate in the free and reduced price lunch program. The school expects to receive an additional \$1.5 million in Title 1 funds for the 2010–11 school year.

<sup>&</sup>lt;sup>61</sup> In fact, budgets have already begun to shrink by 2010.

<sup>&</sup>lt;sup>62</sup> See Appendix 1 for more information.

<sup>&</sup>lt;sup>63</sup> Advocates for Children, "Special education resources," Advocates for Children, <a href="http://www.advocatesforchildren.org/resource/specialnyc.php3">http://www.advocatesforchildren.org/resource/specialnyc.php3</a>.

<sup>&</sup>lt;sup>64</sup> Thomas Hehir et al., "Comprehensive Management Review and Evaluation of Special Education" (submitted to the New York City Department of Education, 2005).

<sup>&</sup>lt;sup>65</sup> The term general education refers to the curriculum, not the classroom placement.

<sup>&</sup>lt;sup>66</sup> New York City Department of Education, "A Guide to Special Education Services for School-Age Children," http://schools.nyc.gov/Academics/SpecialEducation/KeyDocuments/default.htm.