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ADDING UP THE SPENDING

FISCAL DISPARITIES AND PHILANTHROPY AMONG NEW YORK CITY CHARTER SCHOOLS

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January 2011

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This is one of a series of briefs made possible in part by funding from The Great Lakes Center for Education Research and Practice.

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Publishing Director: **Alex Molnar**

Suggested Citation:
Baker, B.D. & Ferris, R. (2011). *Adding Up the Spending: Fiscal Disparities and Philanthropy among New York City Charter Schools*. Boulder, CO: National Education Policy Center. Retrieved [date] from http://nepc.colorado.edu/publication/NYC-charter-disparities.

Adding Up the Spending: Fiscal Disparities and Philanthropy among New York City Charter Schools

Bruce D. Baker and Richard Ferris, Rutgers University

Executive Summary

In prominent Hollywood movies and even in some research studies, New York City (NYC) charter schools have been held up as unusually successful. This research brief presents a new study that analyzes the resources available to those charter schools, and it also looks at their performance on state standardized tests. The study reaches some surprising conclusions:

- Spending by NYC charter schools varies widely, and these differences in spending per pupil appear to be driven primarily by differences in access to private donors. The most well-endowed charters receive additional private funds exceeding $10,000 per pupil more than traditional public schools receive. Other charters receive almost no private donations. (The study's analysis is based on data from 2006 to 2008 contained in audited annual financial reports, IRS tax filings of non-profit boards overseeing charter schools and charter management organizations.)
- Outcomes also vary widely. However, there is little or no relationship between spending and test score outcomes after including appropriate controls. Some high-spending and some low-spending charters perform well, while others perform quite poorly. The study also finds that charters are, on average, not outperforming non-charter publics in NYC.
- NYC charter schools serve, on average, far fewer students who are classified as English Learners or who are very poor. Both groups of students require more resources to teach than do other students, meaning that charters with lower enrollments of these more resource-intensive students can devote their funding to other purposes.
- In fact, based on the differences in student needs, NYC charter schools should receive approximately $2,500 less in per-pupil support than the average funding received by same-grade-level traditional public schools. The assumption that these charter schools should receive support equal traditional public schools is incorrect, because they do not serve similar populations.
- About half of the NYC's charters are given a public facility by the city Board of Education (BOE). This places half of the City's charters in a much better financial situation than the other half.
- After controlling for the populations served, the study finds that charter schools not housed in BOE facilities receive $517 less in public funding than do non-charters.

Charter schools housed in BOE facilities, however, receive substantially more resources ($2,200 on average more per pupil).

This finding is worth repeating: **Even before private donations are counted, the one-half of NYC charters with BOE facilities have substantially more money available compared with NYC's traditional public schools. Once the philanthropic dollars are added, one would expect these charters schools to be noticeably outperforming other publics, but they are not.**

The study offers several recommendations, including the following:

- Given the crucial role of private philanthropy, future research should pay close attention to overall resource differences as part of the charter experiment puzzle, rather than looking only at public subsidy rates of charters.
- Policies might be considered to (a) balance resources for schools, whether charter or traditional public, that have less private philanthropic support, and (b) provide support structures for gaining more equitable access to philanthropy for under-resourced charter schools and traditional public schools. Under option "a" above, a common resource pool for supporting less-well-endowed charters might be generated by "taxing" private contributions to other charter schools.
- Policies should be adopted to more tightly link the amount of public funding to the needs of students served at all schools, whether traditional public schools or charter schools. This means adding much greater precision to data collected, annual auditing, and perhaps fiscal sanctions when schools fail to serve students with greater needs over an extended period of time.

The findings with regard to New York City Charter Schools may or may not be transferable to other settings across the country. Certainly, the wealth and philanthropic culture of NYC is unique. Further, NYC is much larger than other cities and more racially and socioeconomically diverse as well, creating greater opportunities for cream-skimming, segregation, and neighborhood selection. But, many other cities—including Philadelphia, Houston and San Francisco—are struggling with similar issues and adopting comparable policies for mediating within-district funding equities, while simultaneously the number of charter schools is increasing. Leaders in these cities would do well to consider carefully the information and questions raised in this new study.

Adding Up the Spending: Fiscal Disparities and Philanthropy among New York City Charter Schools

Introduction

This brief explores the financial resources of New York City charter schools. It also addresses differences in student population characteristics and student outcomes across New York City (NYC) charter schools, and evaluates how financial resources translate to other schooling inputs, such as more or less experienced teachers and smaller or larger class sizes.

These schools are examined within the broader context of school funding equity and factors that other research has shown to have the potential to advance or disrupt educational equity. In American public education, funding equity involves multiple levels, linked to the multiple levels of our school systems. State systems govern local public school districts, with schools nested within districts. Public charter schools are either nested within districts or operate as independent entities.

NYC charter schools are of particular interest to national audiences mainly because they have been used to argue that charter schools outperform public schools and that New York's experience with charter schools suggests a transferable, nationally scalable policy option. Three studies concerning NYC charter schools in particular are frequently cited: Dobbie & Fryer, 2009; Hoxby, Murarka and Kang, 2009; and CREDO, 2009.[1]

It is important to note, however, that the NYC context may be unique in terms of the role played by philanthropy and so-called venture philanthropy.[2] Significant philanthropic attention has been focused on charter management organizations like the Knowledge is Power Program (KIPP) and Achievement First, which manage charter schools in NYC and elsewhere. NYC charter schools are both touted and blasted in the popular media as being the new favored charities of, for example, wealthy hedge fund managers.[3] The extent that NYC charters have become philanthropic favorites means that NYC charter schools may be quite different from those in places like Missouri or Arizona, distant from the NYC philanthropic culture. In fact, even charter schools in Albany and Buffalo or across the river in New Jersey may be insulated from this unique financial setting. Therefore, additional philanthropic resources may explain a great deal of the claimed success of NYC charter schools. If this is the case, attempts to replicate or scale up these supposed successes would be more difficult and costly than assumed.

This brief offers concrete information about NYC charters and their finances to help ground these important policy discussions.

Competing or Complementary Agendas? Equity, Choice & Charters

The American public education system is under constant pressure from reformers focused on, among other goals, equity and choice. Equity reform advocates argue for adequate funding for all public schools as a means of producing greater funding equity and thereby ensuring that all children have the opportunity to attend high-quality, traditional, local public schools.[4] Choice advocates push for making available more choices for students to be schooled in alternative settings, including public charter schools and private schools. They assert that choice is the policy mechanism that holds the most promise for providing equity. In addition, a subset of choice advocates focuses on funding equity regarding alternative (choice) schools, contending that public subsidies for those providers are not equal to those provided to traditional public school districts.[5] From this perspective, the combination of more alternative providers of education services and greater publicly financed subsidies for those providers will lead to the most equitable possible system.

Two recent publications reveal that significant equity concerns persist about state school finance systems.[6] In particular, the concerns focus on the extent to which those systems are not equitable and fail to provide adequate financial resources for local public school districts. Those expressing this concern point to socio-economic segregation and the attendant variations in local wealth as the source of inter-district school funding disparities. Others argue that states have largely done their part to finance local public school districts equitably and adequately. They contend that the remaining funding problems lie within school districts (funding between schools). And they argue that the causes of these inequities are *ad hoc*, politically motivated local budgeting decisions and not related to state school-finance formulas.[7]

Charter school advocates argue that charter schools in particular have been excluded from the system of equitable and adequate public financing presumably available to all local public school districts.[8] That is, they contend that states have adopted equitable and adequate funding formulas to allocate aid to local districts, but that charter schools have often been relegated to alternative funding formulas that provide reduced levels of public financing. At the same time, public funding is not the only potential source of charter school funding disparities. Philanthropic contributions have emerged as a source of charter school funding inequalities.[9]

To address concerns over within-district and between-school funding inequities, several large urban districts including NYC have moved toward "student-centered" funding formulas that have been promoted as more fair.[10] These weighted student funding formulas, such as NYC's Fair Student Funding, are specifically intended to close funding gaps between schools throughout the district and to ensure that funding differences across schools reflect differences in student needs rather than differences in local neighborhoods' political influence on the City budget. NYC charter school funding, however, remains distinct from this formula, and is governed separately under state statutes.[11]

Some charter school advocates endorse a unified school-funding solution that would use the state school-finance formula to distribute weighted funding directly to schools, ensuring equal funding based on need for students in both local public school districts and charter schools and enabling resources to follow the child to either.[12] A new state school-finance formula adopted in

Rhode Island in June 2010 (to go into effect in July 2011) attempts to advance this goal, but the formula remains too new for an empirical evaluation. It is perhaps premature to assume that a "child-centered" approach to funding would be a panacea. Recent analysis shows that districts adopting weighted-funding formulas in Texas and Ohio have achieved no more systematic targeting of resources to high-need schools than districts using other allocation methods.[13]

Goals of this Study

This brief explores the income and spending (technically, the revenue sources and expenditures) of NYC charter schools. It evaluates audited annual financial reports and IRS non-profit tax filings and aggregates levels of revenues and expenditures in approximately 60 NYC charter schools operating during the period 2006 to 2008.[14]

The brief uses these data to evaluate not only the average levels of available resources across NYC charter schools, but more importantly the variations in those levels and the extent to which they relate to differences in student needs. It also explores factors associated with the variation in resources, including (a) access to NYC Board of Education facilities (versus having to fund one's own school building), and (b) access to additional funding through charter management organizations (CMOs) and the major contributors to those CMOs, such as the New Schools Venture Fund, the Bill and Melinda Gates Foundation, and the Walton Family Foundation. Next, the brief examines the relationship between variations in financial resources and student outcomes.

The final analysis presented in this brief offers illustrative comparisons between, on the one hand, the finances of Harlem charter schools and, on the other hand, the site-based budgets and student population characteristics of nearby traditional public schools in Harlem serving similar grade ranges.

Research and Policy Context

Are Charter Schools Under-funded?

In recent years, a handful of reports have examined the revenues and expenditures within traditional public school districts compared with those of charter schools. A significant body of research explores differences in resources across local public school districts, and a smaller but growing body of research explores variations in resources across schools within districts and across schools and districts simultaneously.[15] But there is little information available on the variation in resources across charter schools within a given district or on the sources of that variation. Studies that compare only average charter school revenues or expenditures to public school district averages mask large variations in both charter school and public school resources. Further, those studies that compare charter and traditional public schools only on the basis of the level of tax revenue (from federal, state and local sources)—or public financing alone—overlook significant non-public financial resources.

Several recent reports, largely conducted by charter school advocacy organizations, have measured average differences between charter school public financing and traditional public school financing. Invariably, these studies find charters to be under-subsidized, compared (on average) with their public school counterparts. For example, The Center for Education Reform Annual Survey of America's Charter Schools, 2010, noted:

> Nationally, charters are funded at only 68 percent of their district counterparts, averaging $7,286 per pupil compared to $10,754 per pupil at conventional public schools, according to the National Center of Education Statistics for FY 2007.[16]

In a more comprehensive analysis, Batdorf and her colleagues from Ball State University in collaboration with Public Impact (referred to hereafter as Ball State/Public Impact) find that "Charter schools overall were significantly underfunded relative to school districts," with an average state funding disparity of 19.2%, or $2,247.[17] The authors argue that "Differences in student need, including students with disabilities, free or reduced price lunch students, and the grade levels taught, do not justify the disparity."[18] Further, they assert that, "The chief culprit was charter schools' lack of access to local and capital funding."[19]

The Ball State/Public Impact team classifies states by the level of disparity in funding between traditional public schools and charter schools, labeling the disparity in New York State, for example as "Severe," with charters receiving 34.7% less than the comparison publics. As discussed later in this brief, these comparisons are *entirely invalid*, since they compare district aggregate total resources for public school districts with school-level resources for charter schools. Accordingly, the figures for traditional public school revenue as calculated include items that are provided district-wide, to charters as well as other public schools.

Looking specifically at NYC, an opinion piece in the *New York Daily News* summarizes the findings of a NYC Independent Budget Office (IBO)[20] report on differences in traditional public school and charter school resources. The commentator contends that charter schools draw less public subsidy and spend less:

> According to the budget office, charter schools receive fewer public dollars, directly or indirectly, than do public schools. The funding difference is negligible for charters that receive public space, about $305 a pupil. Charters that pay for their own facilities, however, receive about $3,017 less per student than traditional public schools.[21]

This opinion piece also asserts that accounts of the influence of philanthropic giving to charter schools are exaggerated, pointing out that "A recent analysis of publicly reported documents by Kim Gittleson[22] found that the average charter school in the city received about $1,656 per pupil in philanthropic funds in 2009." This average alone is not trivial, in that it significantly closes an apparent funding deficit of charters not housed in facilities owned by the NYC Board of Education (BOE) and yields excess resources for those housed in BOE facilities. (The fiscal impact of charters using BOE facilities vs. those not using BOE facilities is discussed later in this report.) But more interestingly, this average hides substantial variation, and it is that variation which Gittleson actually reveals in her report but is not mentioned in the selective quoting of her findings. In fact, she found that philanthropy per pupil ranged from $0 to nearly $8,300 (Harlem Day Charter), with several "0" values significantly lowering the average.

An analysis by Miron and Urschel (2010) used national data sources to evaluate the finances of charter schools compared with their host districts.[23] Miron and Urschel's analysis also looked at the demographics of the different schools, and they found:

> On first appearance, charter schools receive less revenue per pupil ($9,883) than traditional public schools ($12,863). However, this direct comparison may be misleading because of the different ways states channel monies to charters and because charters may not be reimbursed for services they do not provide. Largely because of their unique funding formulas, states differ dramatically in the amount, sources, and patterns of revenues that both charter schools and traditional public schools receive. Moreover, charter schools receive private revenue that is largely absent from the national data. (p. 3)

They conclude:

> ...as long as traditional public schools are delivering more programs, serving wider ranges of grades, and enrolling a higher proportion of students with special needs, they will require relatively higher levels of financial support. Under these circumstances, differences or inequality in funding can be seen as reasonable and fair. (p. 4)

Miron and Urschel thus find evidence that while charter schools may be spending less per pupil in many cases, they are also (on average) serving lower-need populations and not incurring other important costs. This makes it difficult to discern whether or not the spending differential for charters is equitable. Miron and Urschel also identify a significant degree of variation in charter school resources, and they note that differences in private contributions may add to that variation.

Do Charters with More Resources Get Better Outcomes?

Most studies of the effects of charter schools have identified the act of attending a charter school, in-and-of-itself, as the treatment. These studies compare the differences in learning gains between students in charter schools and those who entered the lottery for charter schools but were not selected. These studies have looked at individual charter schools or groups of charter schools, but they still have typically aggregated findings to a single treatment effect—are charters better or worse on average than non-charter public schools? Among those studies that find differences in performance between charter school students and "lotteried out" students attending local public schools, a handful of studies explore the differences in student populations between the charter schools and traditional public schools.

One such study conducted by Caroline Hoxby (2009), reported dramatic gains in achievement for students attending NYC charter schools.[24] Although Hoxby's research methods and analyses have been criticized as exaggerating benefits (Reardon, 2009), it is worth noting that Hoxby and her co-authors pointed to a longer school year as one of the key factors associated with those NYC charters deemed highly successful.[25] This finding suggests that the schools she found successful had access to additional resources and suggests further that schools with greater access to such resources might be able to outperform those without.

Similarly, Dobbie and Fryer, in their 2009 account of the successes achieved in the Harlem Children's Zone (HCZ) schools in New York, stress that extensive community services coupled with rich educational opportunities led to the achievement results they reported.[26] They explain:

> We conclude by presenting four pieces of evidence that high-quality schools or high-quality schools coupled with community investments generate the achievement gains. Community investments alone cannot explain the results.[27]

To date, these authors have not detailed the cost of providing either the extra educational services or the community investments of HCZ. If wrap-around community services are important to student achievement and should be scaled up, then broader access to the resources necessary to support them becomes a significant equity concern. The HCZ charter schools, which are called "promise schools," have access to resources provided by major private funders, but many other charters and traditional public schools in Manhattan do not.

A 2010 national study of charter middle schools by Mathematica Policy Institute (Gleason et al., 2010) considered resource-related differences between more and less successful charter schools, including "longer- versus shorter- hours of operations or higher versus lower revenue per student."[28] In a preliminary correlation, with performance, the authors found both of these resource measures to be positively associated with performance. In a subsequent analysis the authors used a more complex multivariate model to assess the relationship between funding and performance and found no positive relationship. This analysis, however, is problematic. The multivariate models used to test for resource effects on performance levels[29] included both total school revenues and other highly related measures of schooling resources that would be purchased with those revenues, such as pupil-to-teacher ratios and total classroom time. Would one expect independent effects on outcomes of a) total financial resources and b) major schooling inputs purchased with those resources? Not likely. Moreover, if resource differences can or do lead to substantive quality differences among charter schools, our concerns over these differences should be heightened.

Do charters serve the same students as traditional public schools?

From the existing research, it is not clear whether the students attending NYC charter schools reflect the overall demographics of the City's public schools. Those who argue that the demographics are similar sometimes point to the study by Hoxby and her colleagues mentioned above, which compared students who attended NYC charter schools with students attending NYC traditional public schools but who had also applied to charters—that is, those lotteried-in and those lotteried-out of attendance at a charter school. As one would expect, Hoxby found no differences between those who were randomly selected and those who entered the lottery but were not selected. This is not the same, however, as saying that the overall population in the charter schools is demographically similar to comparison groups or non-charter public school students. While they do compare the demographics of the charter "applicant pool" to those of the city schools as a whole (see Hoxby's Table IIA, page II-2),[30] they never compare charter enrollment demographics with those the *nearest* similar schools or even schools citywide serving the same grade ranges. Similarly, a 2010 study by the Stanford Center for Research on

Education Outcomes (CREDO) reports the demographics of NYC charter schools in their sample alongside those of selected "matched" schools but does not compare them with the geographically nearest schools or the same grade level citywide.[31]

Those who argue that charter demographics are not comparable to traditional public schools can point to an analysis of the demographics of NYC charter schools by Buckley and Sattin-Bajaj (2010), who find:

> Using three recent years of data from the New York State School Report Cards and analyzing the charter population at the school level, we find that English language learners are consistently under-represented in charter school populations across three academic years. Conversely, students who qualify for reduced price lunch are overrepresented and students eligible for free lunch are approximately proportionally represented. This gap in enrollments of English language learners is confirmed by comparing to a population estimate drawn from data from the 2006-2008 American Community Survey.[32]

This study also did not look at the nearest schools for comparison, nor did it provide grade-level-specific comparisons.

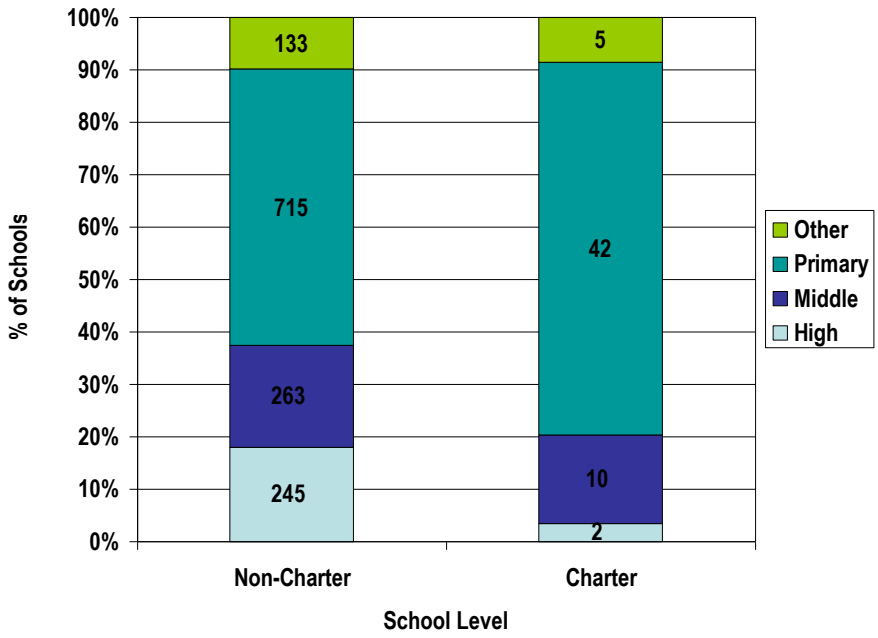
Unfortunately, at this point there is little if any systematically reported, publicly available information on concentrations of children with disabilities, set forth by disability type, across NYC charter schools and the nearest traditional public schools serving the same grade level. The CREDO report authors (2010) claim, without citing evidence, that "In NYC, the overall proportion of charter school students who are Special Education is 14 percent, as compared to 16 percent citywide."[33] Of course, these figures are broad averages. One NYC charter school serves exclusively autistic children (Charter School for Autistic Children), and another (Opportunity Charter) serves large numbers of children with emotional and behavioral disability classifications, likely skewing any such comparison. The most useful analyses would control for these differences at the school level as part of comprehensive comparisons, so that a charter school serving many students with special needs would effectively be compared to a similar traditional public school, as would a charter serving few such students.

A recent (spring 2010, based on 2008-2010 data) data compilation and blog posting by Kim Gittleson of Gotham Schools suggests that charter schools serve only marginally lower rates of children who have Individualized Education Plans (IEPs) than children in similar grade level NYC public schools (13.4% compared with 15.2%).[34] This differential is comparable to that mentioned in the CREDO study above. However, there is substantial variation in Gittleson's reported data, with a few charters serving very high rates (as noted above) and many charters serving substantially fewer children with disabilities than traditional public schools serving the same grade level.

In the analyses presented below, the missing explanatory factor may very well be the enrollment of these students with special needs—particularly high-needs students. Certainly the extreme cases in some of the below analyses—charter schools like Bronx Excellence and Harlem Day—have very different records of enrolling students with special needs. While this study can do little more than flag this as an issue, it does appear to be worthy of further examination.

Characteristics of NYC Charter Schools

This section provides a brief statistical overview of the characteristics of NYC charter and non-charter public schools. A higher percentage of charter schools than traditional public schools in NYC are primary or elementary schools. (See Figure 1, which shows the number of schools by grade level.) Note that assigning school-level categories to charter schools oversimplifies things to some extent. Most serve uncommon grade ranges, in part due to start-up enrollment patterns, which often involve building on one grade with each new school year.



Data source: National Center for Education Statistics, Common Core of Data 2007-08, Public School Universe Survey

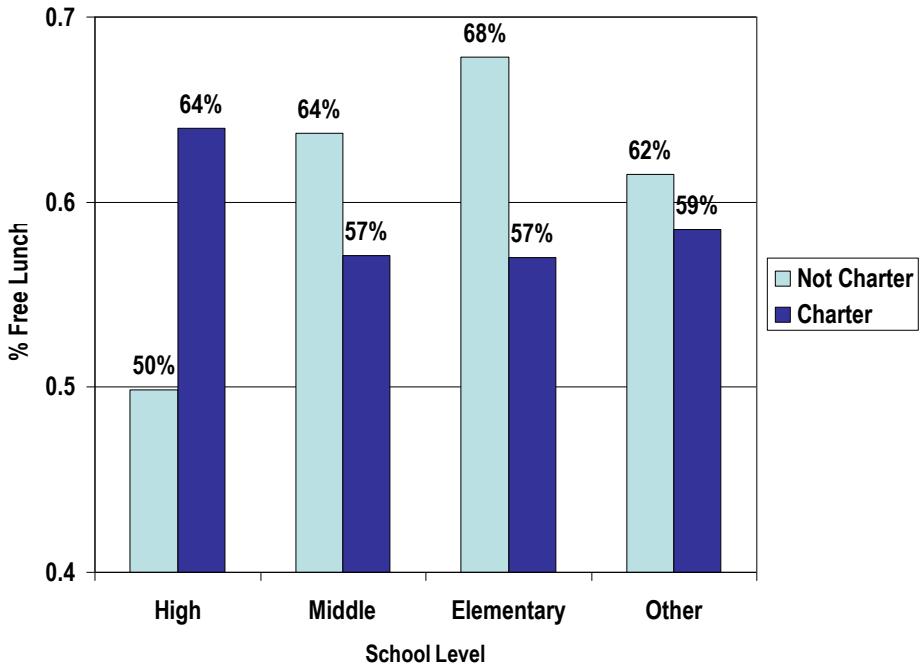
Figure 1. Distribution of Charter and Traditional Public Schools by Grade Level in NYC 2007-08

Nevertheless, the information presented in Figure 1 is relevant for a variety of reasons. When comparing rates of low-income children across schools, it is most relevant to compare by grade level. In general, lower grade levels have higher rates of children qualifying for free or reduced-priced lunch.[35] Figure 1 shows that charter schools in NYC are very unlikely to be high schools and much more likely to serve lower grades.

This plays out as expected when one looks at poverty data (see Figure 2). The proportions of children qualifying for *free lunch* (i.e., families below the 130% poverty level) in both traditional public and charter schools by grade level in NYC are high—more than half of the entire student population. We focus on the free lunch share because most of the charter schools and the traditional public schools surrounding them are in higher-poverty neighborhoods, where the vast

majority of children fall below 185% of the poverty=line threshold for qualifying for *reduced-price lunch*. Thus, while free and reduced-price lunch shares appear similar across many charter schools and nearby traditional public schools, there are variations in poverty and significant underlying differences in concentrations of poverty at different levels.[36] (See appendix B for histograms of school-level free, and free or reduced-price lunch rates for Bronx schools.)

When compared on the combined percentage of students eligible for free and reduced-price lunch, charters are often found to be similar to the traditional public schools.

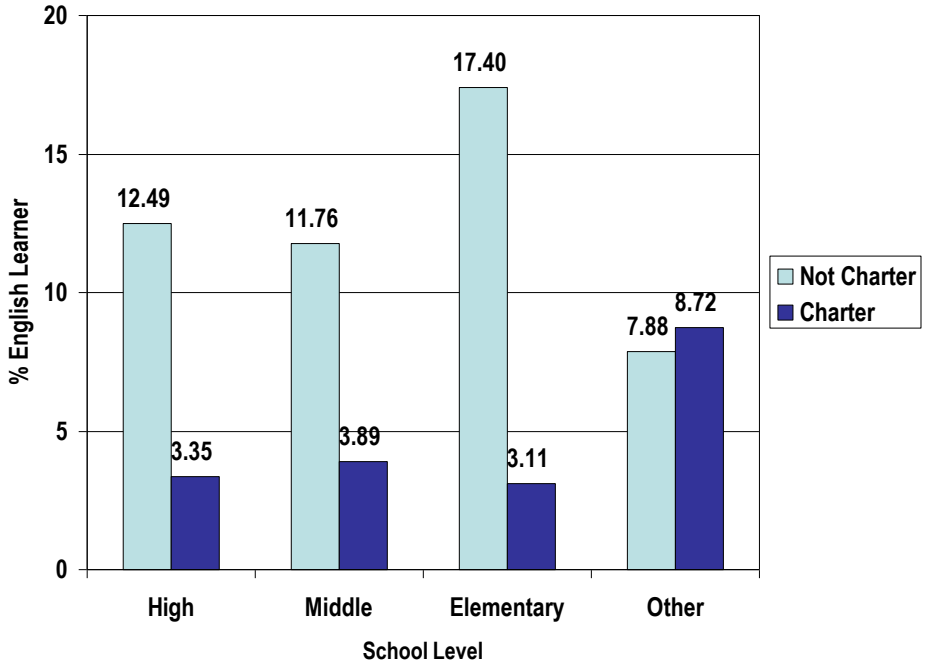


Data source: National Center for Education Statistics, Common Core of Data 2007-08, Public School Universe Survey. Reconciled with New York State Education Department, School Report Cards.

Figure 2. Shares of children in traditional public and public charter schools in NYC qualifying for Free Lunch under the National School Lunch Program.

Within a given neighborhood, however, charters typically serve proportionately far fewer of the poorest students—those eligible for free lunch (see Figure 2).[37] The percentage of children eligible for free lunch attending NYC charter elementary schools—which include most of the charter schools, is 11 percentage points less than the percentage of free-lunch-eligible children attending non-charter public elementary schools. In other words, charter schools tend to serve a smaller portion of the "desperate poor" than do traditional public schools.

Figure 3 confirms the findings of Buckley and Sattin-Bajaj (2010) that NYC charter schools serve very few children who are limited in their English language proficiency, especially at the elementary level.[38] Differences in English Learner (EL) populations at the elementary level are very large.



Data source: New York State Education Department, School Report Cards.

Figure 3. Shares of children in traditional public and public charter schools in NYC who are limited in their English language proficiency

What are the "cost" implications of these population differences?

As discussed by Miron and Urschel (2010),[39] these types of population differences significantly affect the cost of providing adequate educational programs and services and, more importantly, the costs of achieving desired educational outcomes. In fact, the average *additional* cost of each child qualifying for free or reduced-price lunch and each EL child likely exceeds 100% of the (average) cost of achieving the same outcomes for the non-EL or non-low-income child.[40] That is, the cost per pupil more than doubles.

Table 1 applies these "cost" weights (100% for each free-lunch child and 100% for each EL child) to a typical traditional public elementary school in New York and a typical charter elementary school. It provides estimates of the funding these schools should receive and the size of the difference in funding associated with difference in need.[41]

For simplicity, and because the numbers closely mimic school-site spending in NYC, we set the underlying foundation level for our comparison at $10,000 per pupil. If we were to adopt a Fair Student Funding model for NYC schools based on these assumptions and include charter elementary schools and regular elementary schools in the model, regular elementary schools would receive more than $2,529 more per pupil because of their needs. Note that this comparison sets aside ongoing disputes over the extent to which NYC charter schools fail to

serve comparable shares of children with disabilities, especially those with severe disabilities—potentially a significant omission.

Table 1. Estimation of Fair Funding for the Typical Charter and Typical Public Elementary School in NYC

	Typical Charter in NYC	Typical Public Elementary	Calculated Need Difference
Enrollment	300	300	
%Free Lunch	57%	68%	
%EL	3%	17%	
#Free Lunch	171.0	204.0	
#EL	9.3	52.2	
WPU [1]	480.3	556.2	
Foundation	$10,000	$10,000	
Estimated Need per Pupil	$16,011	$18,540	**$2,529**

[1] Weighted Pupil Units applies a 100% additional weight for each EL or Free Lunch child, similar to but slightly lower than weights estimated to NY State data by Duncombe and Yinger (2005)42

NYC Charter School Spending

This section presents the findings of analyses of audited annual financial reports and IRS filings of NYC charter schools.[43] Figure 4 summarizes the per-pupil total expenditures of NYC charter schools based on the reported total expenditures from audited financial reports and from the primary non-profit foundation only. In most cases, audited financial report expenditures mirror almost exactly the IRS 990 reported expenditures for the school-site.[44]

One difficulty in conducting these analyses is differentiating the financial relationships between school-site non-profit foundations (i.e. the foundations operating under the direction of school-site boards of directors and serving single school sites/non-profit entities) and regional- and national-level foundations, usually Charter Management Organizations (CMOs), such as KIPP. Unfortunately, IRS forms do not list revenues by source at any level. They may, however, list major expenditures by the organization to which they were allocated/expended.

Assume hypothetically that the Bill and Melinda Gates Foundation gives $100 million to KIPP New York. We can find that contribution on the Gates Foundation IRS 990. We should see on

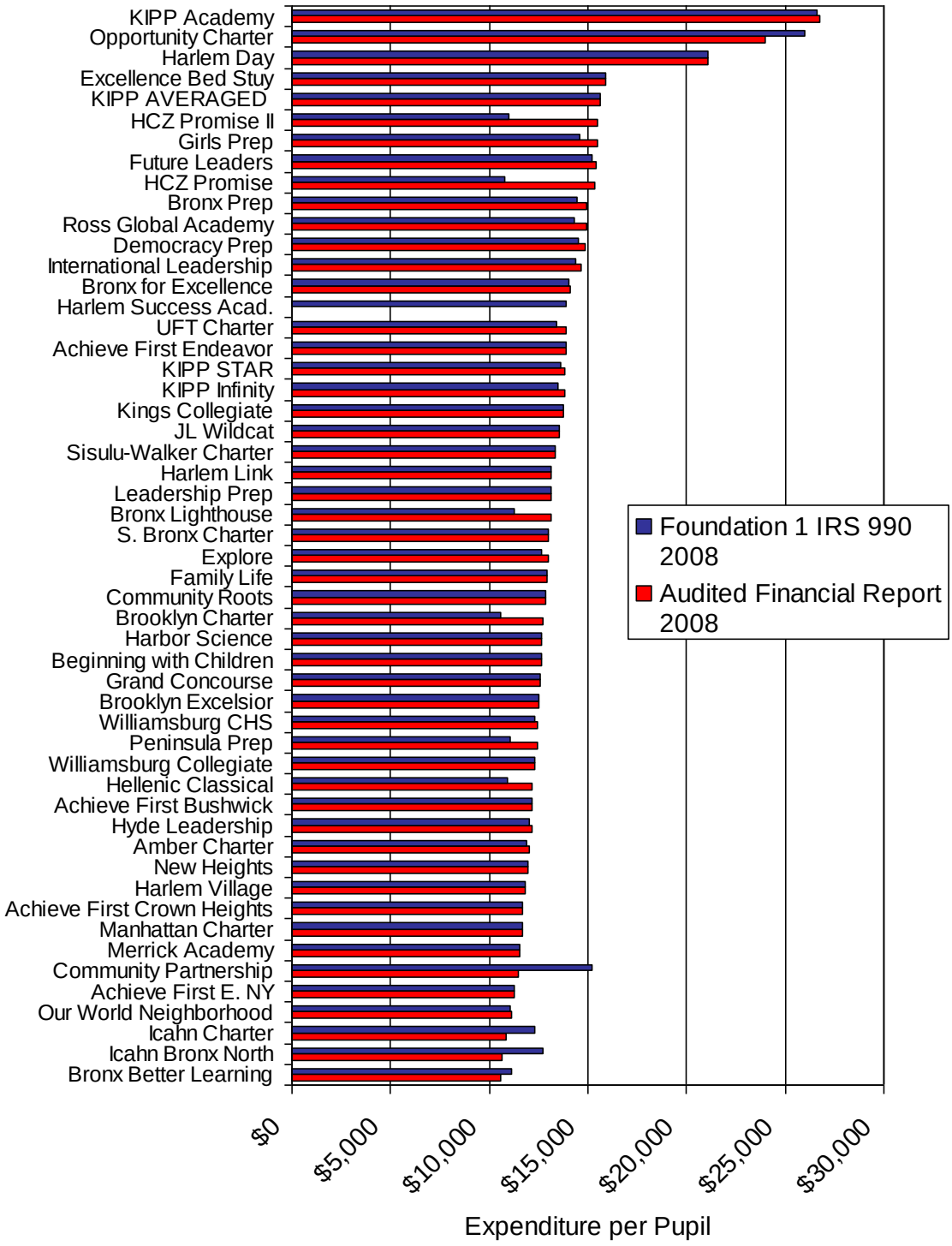


Figure 4. Per Pupil Expenditures of NYC Charter Schools

KIPP New York's IRS 990 that total revenue for that same year was greater than $100 million, but we don't know the sources of the funds in excess of $100 million and have no easy way to

trace them. Then we might or might not see that KIPP New York allocated $5 million to KIPP STAR Academy. KIPP STAR Academy's revenues in that same year would be larger than $10 million, but we would not necessarily know the sources of other private revenue. In this case, it would not be correct to count the $5 million twice, once at the (school) and again at the (organization) level. However, it might be the case that KIPP NY instead paid the salaries of the administrators at KIPP STAR Academy, paid for staff development, materials, supplies and equipment and even building operating costs at a total value of $5 million. But, those expenditures from the KIPP organization would not show up on the STAR Academy financial reports, AFR or IRS 990. In this case, the expenditures should properly be counted as additional school site expenditures.

NYC school expenditures range from $10,000 to over $25,000 per pupil, suggesting that the cumulative private contributions spent (reported) at the school site ranged roughly from $0 to $15,000 per pupil (this range excludes the special school for autistic children, which spends more than $80,000 per pupil). The mean expenditure, weighted for student enrollment, is $11,867 (excluding the school for autism).[45] The expenditures of most NYC schools fall between $10,000 and $15,000 per pupil, a 50% variation, which would be considered quite large when evaluating state school-finance systems.[46]

Support provided by site-based foundations is supplemented in many cases by regional or national foundations. These regional- and national- level non-profit expenditures per pupil ranged from $0 in many cases to more than $12,000 (see Figure 5). Foundations do not report their expenditures in a uniform fashion. An expenditure might be reported as being at either the school level or the national level; for example, some national charter foundations pay principals' salaries directly. The calculations presented in Figure 5 are based in part on enrollment figures, drawn from the NCES Common Core of Data,[47] of all schools under the same Charter Management Organization (CMO). In addition, to identify all schools nationally or regionally that would be part of the network that might, therefore, have access to the national- or regional-level foundation resources, data was used from organization web sites for Achievement First, Lighthouse, and KIPP. Those resources are divided equally, for purposes of these calculations, across all children enrolled in 2007-08 in schools under a given network.For Harlem Children's Zone (HCZ), the calculation involves an additional difficulty: how much of the foundation support to allocate to the schools, as opposed to the support activities that affect children in the neighborhoods but do not attend the Promise Academy charter schools.

One might choose to divide the HCZ organization expenditures by just those approximately 800 children enrolled in HCZ charter schools, which amounts to *more than $60,000 per pupil*. Instead, Figure 5 calculations divide by the total number of eligible children estimated to live in the zone, or 8,058.[48] This reduces the HCZ expenditures per child to just over an additional $6,000. The correct allocation likely lies somewhere in between, with children enrolled in the two HCZ charters receiving a disproportionate share, though not all, of the additional resources.

Figure 5 includes only 22 of the 59 schools in our analysis. Among the remaining 37 schools, most do not have regional or national support. A few others are connected with higher-level

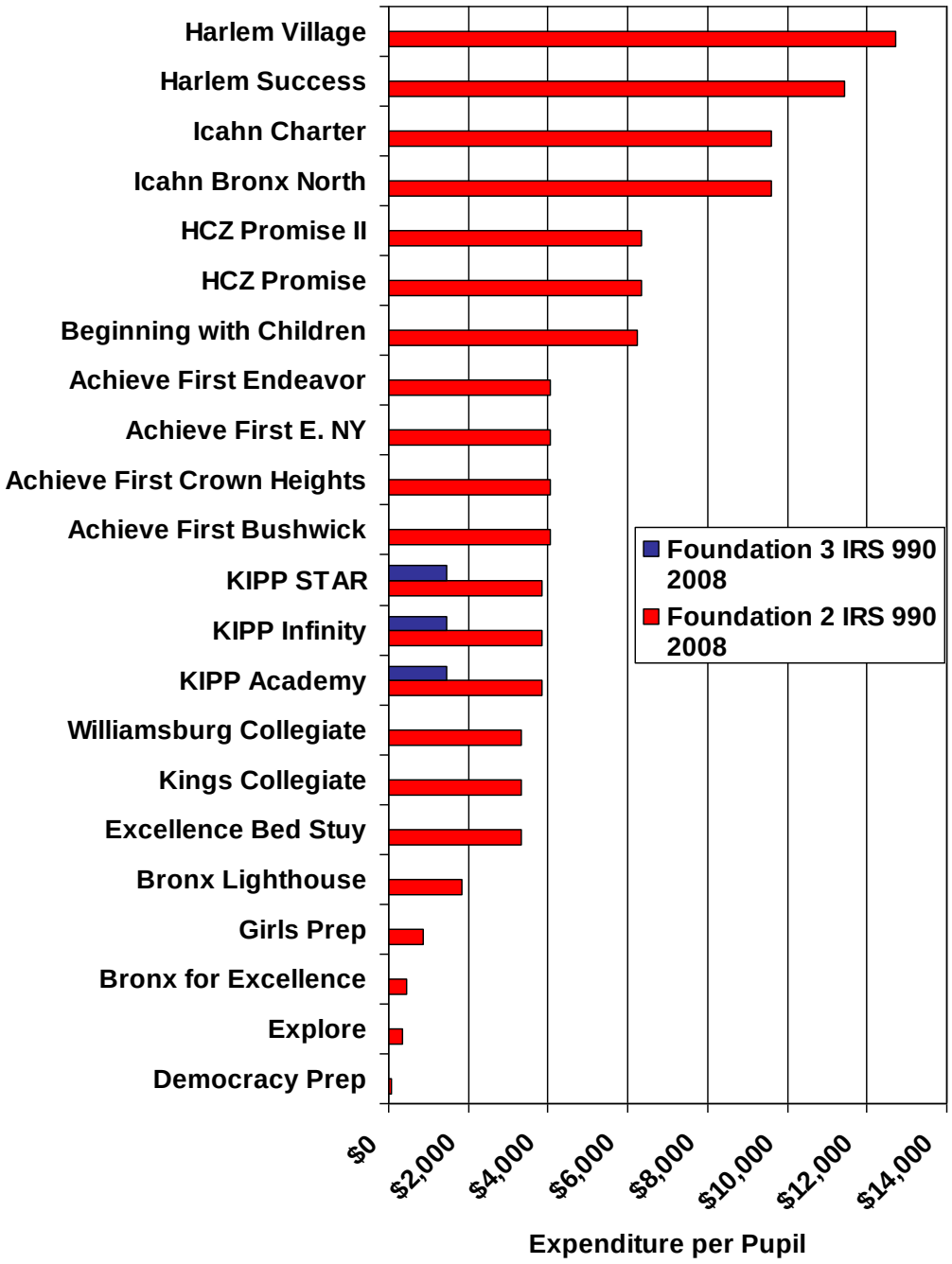


Figure 5. Organization Level Non-Profit Expenditures per Pupil (estimated)

organizations, but estimating the value of per-pupil support provided by those organizations was not feasible. For example, Hyde Leadership academy is linked to charter schools in Connecticut, under the organizational umbrella of a private boarding school (Hyde School) based in Bath, Maine.[49] In situations such as this it is difficult to determine how to allocate resources from the organization.[50] Others charter schools, such as South Bronx Charter School

for International Cultures and Arts, are operated by for-profit Education Management Organizations (EMOs), which are not compelled to report financial data beyond that reported on their school site annual financial statements.

Some NYC charter schools clearly had strong relationships with major donors and charter networks. Being part of a charter school network, a Charter Management Organization or Education Management Organization, and being visible nationally are factors that seem to help charter schools gain access to resources. For example, in 2008 the New Schools Venture Fund provided $1.3 million to the Achievement First network and $650,000 to the parent organization of Excellence of Bedford Stuyvesant, Kings Collegiate and Williamsburg Collegiate. The Walton Family Foundation provided an additional $460,000 to Achievement First. Walton provided $5.2 million to the national KIPP organization, and the Gates Foundation provided $2 million. In addition, Walton provided smaller grants directly to schools such as Harlem Link Academy ($50,000) and Girls Preparatory ($50,000). The success academies (Harlem Success Academy) received $510,000 from Walton and $250,000 from New Schools Venture Fund to support three new schools.[51]

The value of access to facilities

Much has been made of the disparities in resources that result from access by some charter schools to publicly financed facilities.[52] The Independent Budget Office (IBO) of New York City notes: "IBO estimates that the value of the savings for these charter schools on facility, utility, and school safety costs is $2,712 per student."[53]

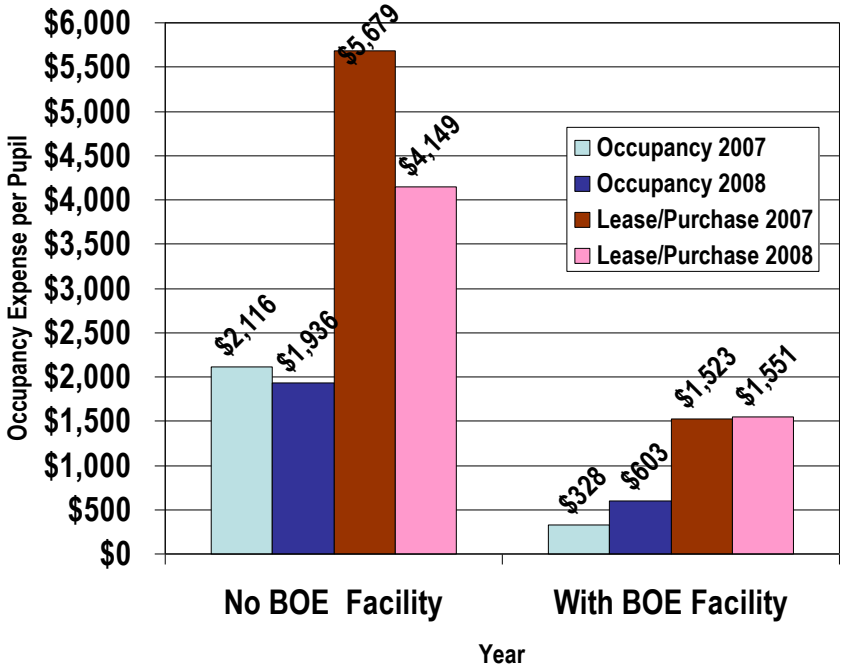


Figure 6. Average occupancy expenses per pupil

Figure 6 summarizes the reported occupancy-related expenses for charter schools in 2007 and 2008, and reported lease/purchase expenses from annual financial statements. However, many schools reported $0 values for occupancy expenses, including some not housed in New York Board of Education (BOE) facilities. As noted previously, it is possible that some occupancy expenses were covered by management organizations. In Figure 6, we compute the averages of occupancy expenses of only those schools that reported occupancy expenses. Most schools housed in New York BOE facilities reported either $0 or very little expenditure on occupancy.

Among those charter schools housed in BOE facilities that did spend on occupancy, expenditures were about $328 per pupil in 2007 and $600 per pupil in 2008. For schools not housed in BOE facilities, occupancy expenses on average were about $2,000 per pupil in 2007 and somewhat lower in 2008, less than the IBO estimate.

Lease/purchase expenses are much higher, but (a) may include large, short-term expenses associated with facilities that will maintain usefulness after the facility is purchased, and (b) may include lease/purchase expenses on non-facilities capital items. More detailed information would be required to estimate an annualized "cost" of facilities-related expenses across current attending students.

Among those schools not housed in Board of Education facilities, reported occupancy expenses vary substantially, from only a few hundred dollars to several thousand per pupil. These expenses may vary for a variety of reasons. Schools may, for example, be using donated space, or may have covered the costs of occupancy in large lump sums raised through philanthropy rather than paying those costs evenly over time. The lack of uniformity means that the value of these data is limited at best. Nonetheless, access to space is clearly an issue in NYC and has serious cost implications for charter schools. Our ability to identify precisely or accurately those cost implications is hampered by lack of precision in available data.

Do differences in spending reflect differences in costs and need?

One important question is whether the differences in expenditures per pupil across NYC charter schools reflect differences in the needs of the student population. The expansion of charter schooling is occurring in a context in which local public school districts, especially large urban ones, are being pressured to substantiate that resources are distributed across schools in accordance with student needs due to factors such as higher rates of poverty or higher rates of Limited English Proficiency students. One external source of such pressure is proposed changes to "comparability" regulations for districts receiving Federal Title I funding.[54]

In recent years, NYC has attempted make intra-district funding more equitable. Its Fair Student Funding initiative is intended to supplant a funding system that was widely criticized as being based on illogical, ad-hoc, political preferences rather than differential student need-driven funding differences.[55]

One way to evaluate whether resource allocation reflects differences in needs and costs is to estimate a regression model that helps determine the extent to which various factors known to influence costs and needs are associated with differences in per pupil spending. Appendix C to this

report includes and describes two approaches for such a model. With either model, spending variations across these charter schools are not related to differences in student needs. In fact, whether or not a school has a BOE facility is also not a significant predictor of spending variation, and student needs have no relation to spending differences across NYC charter schools.[56] Indeed, very low enrollment is the factor most associated with increased per-pupil spending.

Are expenditure differences associated with student test score differences?

It is possible that charter school expenditure differences, while not associated with student needs, may be associated with differences in student test scores results. This would be a reasonable expectation, since additional funding can pay for crucial learning resources (see Appendix E for one issue—director and officer compensation). We found, however, that for NYC charter schools, the level of funding appears to have no relationship to student test score results.

We examined average performance levels, corrected for several key factors that vary significantly across these schools.[57] Each grade level—fourth through seventh—was examined separately, using data from 2007-08.

After controlling for a school's EL enrollment, its free-lunch enrollment, its location and its enrollment stability, NYC's charters did not do better, and arguably did worse, in terms of their student's test score outcomes. Contrary to press accounts of NYC charter school success at raising student achievement, our analysis found no statistically significant differences in charter versus non-charter school performance (level, not gain) for grades 4, 6 and 7, and charter school test performance *lower* than that of non-charter schools in grade 5.

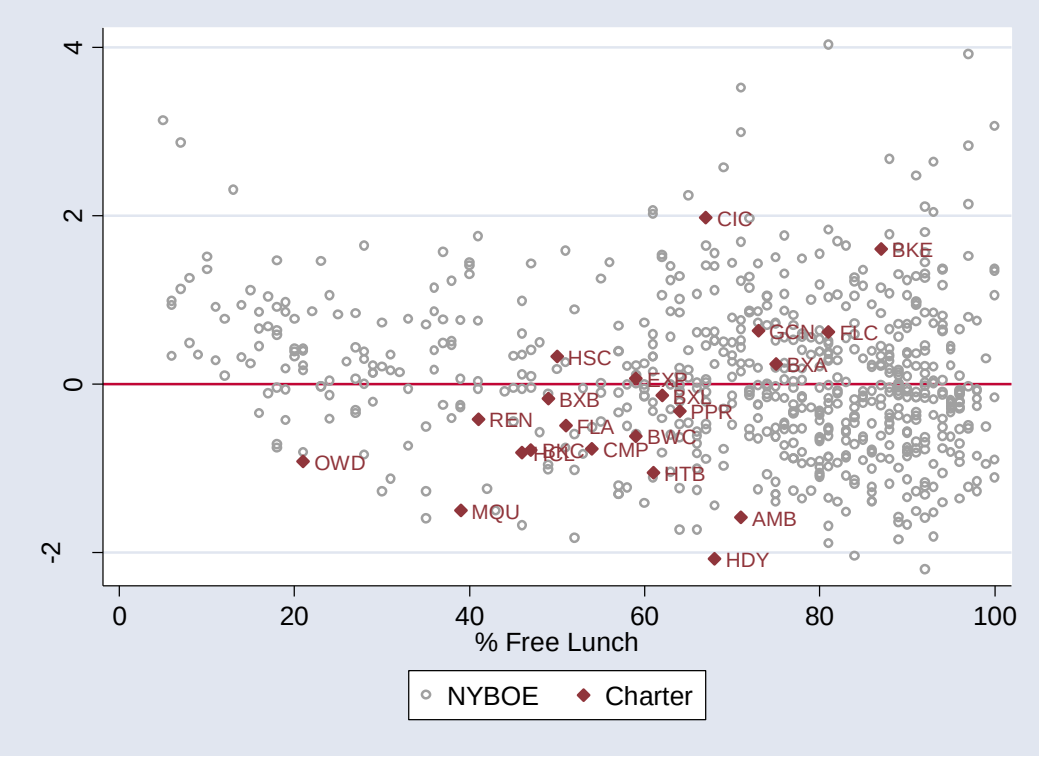
Overall, the charters are distributed similarly to their non-charter counterparts. However, while the traditional public schools are distributed randomly by performance and poverty, higher-poverty charter schools appear to be performing better than lower-poverty charter schools.

In examining this question, we focused on outcomes in 2008, using data from the NYSED School Report Cards, including mean school-level scale scores on English Language Arts (ELA) and Math assessments in grades 4, 5, 6, and 7.

Recall that student populations vary widely across NYC charter schools. Neighborhood context may also be a factor in driving test scores and expenses. Therefore, comparisons of raw scores can be deceiving. School-level rates of children qualifying for free lunch or school-level shares of English Learner (EL) students are generally associated with lower average test scores. Since NYC charters serve fewer of these children, NYC charter school average scale scores may be overstated.

Using 2008 and 2009 data, we employed a relatively simple regression model to examine the scale scores for each grade level (math and ELA combined) against measures of free lunch rates, rates of EL students, rates of year-to-year enrollment stability, borough and year of data. (See Appendix C for details.)

Figure 7 displays the standardized residuals for non-charter and charter schools by free lunch rate for grade 4 and grade 5 English Language Arts and Math. Schools on the red horizontal line perform at expectations (given their population and location) for grade 4 and grade 5



Key to abbreviations in Appendix G

Figure 7. Standardized Residuals of 4th and 5th Grade ELA/Math and % Free Lunch for Charters and Non-Charters (2008)

ELA/Math. Since the models already control for free lunch rate, one would expect a random distribution, by percentage of free lunch, above and below the horizontal line. Interestingly, however, no charter schools serving a student population with 80% eligible for free and reduced-price lunch fall below the horizontal line, while the majority of charters serving a student population with just 60% eligible for free and reduced-price lunch do.

This uneven distribution of charters may either be a function of differences in charter performance by poverty level, or differences in the accuracy of reporting of poverty rates. It may also be a function of unobserved factors such as special education populations. Picking from the plot, Carl Icahn [CIC] and Brooklyn Excelsior [BKE] charter schools beat expectations, but schools such as Harriet Tubman [HTB] and Harlem Day [HDY] fall below expectations. Icahn charter and Brooklyn Excelsior have a very low rate of children with disabilities—both well below similar grade-level traditional public schools.[58]

Examining ELA/Math scores for grades 6 and 7, an important finding is that some charter schools like KIPP Infinity [KIN] and Williamsburg Collegiate [WMC] seem to perform particularly well, but others like Opportunity Charter [OPP] School perform very poorly. Confounding these results, however, is the fact that since Opportunity Charter serves only upper grades (6 to 12), grades 6 and 7 represent the first few years of attendance at the school. Opportunity Charter School is also reported to focus on "troubled" students, and reports very

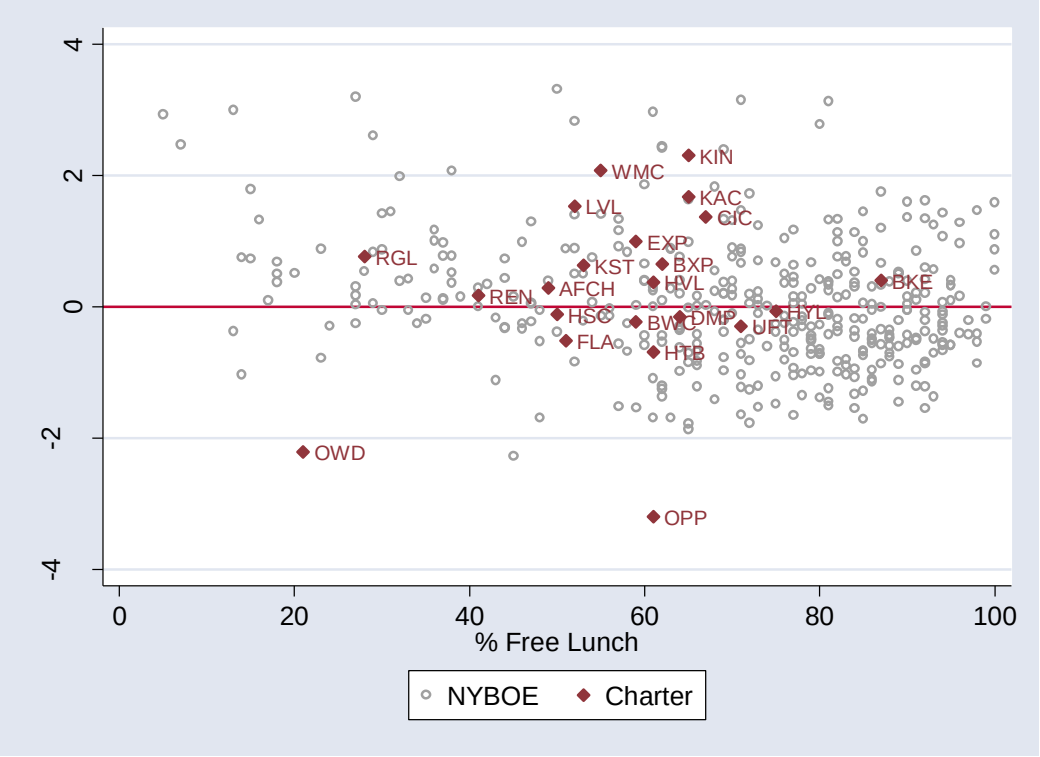


Figure 8. Standardized Residuals of 6th and 7th Grade ELA/Math and % Free Lunch for Charters and Non-Charters

high rates of children with disabilities.[59] (The results from the regression models remain non-significant when the Opportunity Charter School is not included.)

Figure 8 shows the distribution of charter schools and non-charter schools standardized residuals for 6th and 7th grade ELA/Math. While the figure appears to suggest that more charter schools exceed expectations than do non-charter schools, the regression models show the average differences between charters and non-charters at these grade levels were non-significant (note that the school serving children with autism was not included).

Of concern is whether the differences in performance across charter schools that appear quite random with respect to poverty in Figure 7 and Figure 8 are systematically associated with differences in the financial resources available to these schools. These graphs make no attempt to discern whether resource differences may explain which charter schools "beat" expectations and which do not.

KIPP schools appear to have some resource advantages, though the extent of that advantage depends on how KIPP expenditures are truly distributed. In these figures, based on our simple models, they also appear to be performing well. But other high-resource schools like Harlem Children's Zone (HCZ) Promise Academy (noted as ZP1 where visible) and Harlem Day Charter [HDY] are not performing up to expectations.

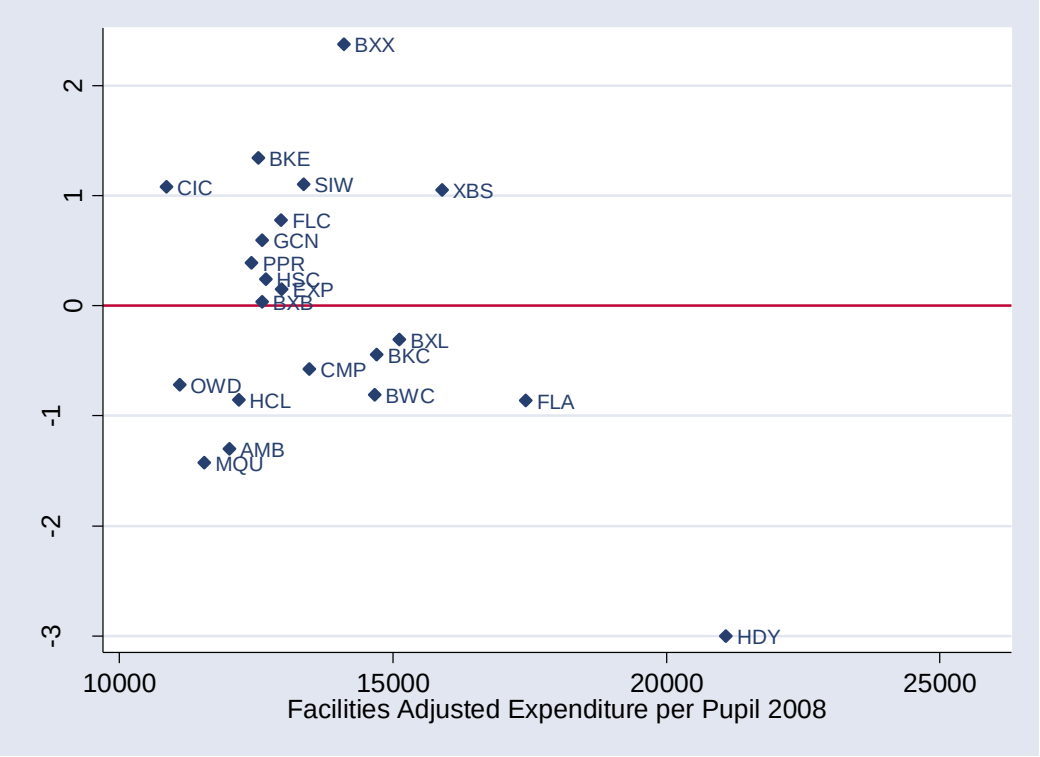


Figure 9. Adjusted Spending and 4th Grade Outcomes

Figure 9 shows no discernable visible pattern and no statistical relationship between fourth-grade test outcomes (standardized residual) and spending per pupil in 2008, adjusted for having or not having BOE facilities. It includes philanthropic giving. Again, many of the highest-performing charters are schools with very low reported rates of children with disabilities. By contrast, Harlem Day Academy, a clear underperformer in this analysis, reports only a marginally lower special education population than the same grade levels district-wide.[60]

Figure 10 shows the relationship between school-site expenditures and fifth-grade test outcomes. Again there is little discernable visible pattern and no statistical relationship. Among the KIPP schools, KIPP Academy and KIPP Infinity perform well and do so with relatively high financial resources.

Carl Icahn Charter performs very well with an appearance of relatively low spending, whereas Amber Charter performs poorly with low spending. Amber Charter had higher shares of novice teachers than Icahn, and Icahn had relatively small class sizes (see Appendix F). It is intriguing that Icahn is able to maintain these small class sizes and low rates of novice teachers with what appears to be relatively low spending. However, as noted in Figure 4 earlier in this brief, Icahn's Annual Financial Report 2008 spending figures were much lower than Icahn's IRS 990 reported expenditures (find the two Icahn charters near the bottom of the Figure), which exceeded $12,000 per pupil. If the IRS figures are used, the Icahn charter would move toward the middle on spending rather than toward the bottom. Icahn charter schools also report very low rates of children with disabilities (about 3.9%, compared to 16.9% at same grade-level BOE schools). Brooklyn Excelsior Academy also reports very low rates of children with disabilities.[61]

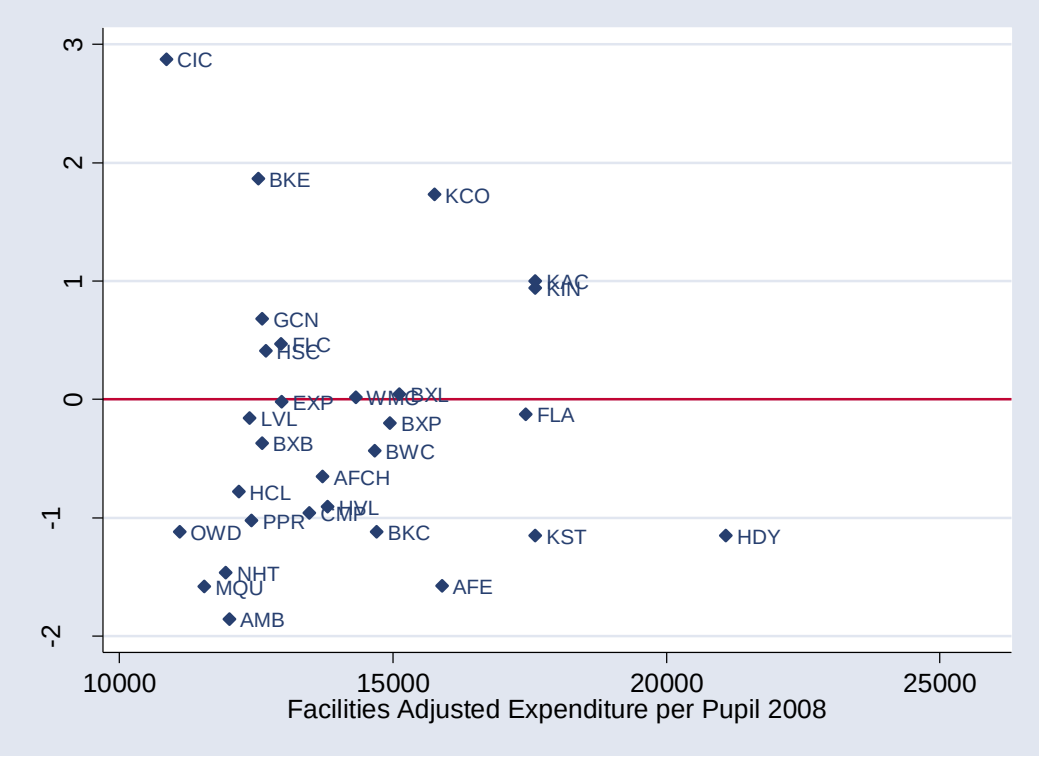


Figure 10. Adjusted Spending and 5th Grade Outcomes

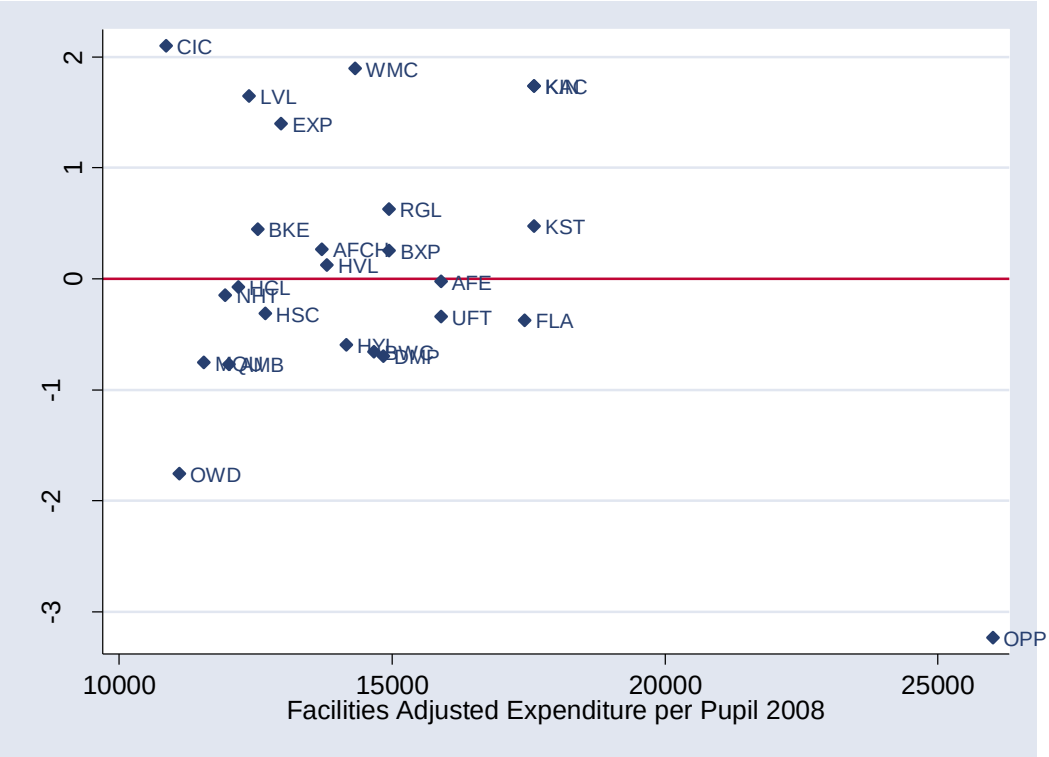


Figure 11. Adjusted Spending and 6th Grade Outcomes

Figure 11 shows the relationship between financial resources and sixth-grade test scores. Again, Icahn Charter performs very well while reporting (on one version of its financial documents) much less spending than others, but it serves very few children with disabilities. Leadership Village, Williamsburg Collegiate and Explore also perform well while spending relatively little. Opportunity Charter performs very poorly while spending the most of all the schools. But Opportunity Charter is unique in that it serves upper grades, potentially leading to higher spending per pupil (especially with its relatively small enrollment); it also serves a much higher rate of children receiving special education services.

Figure 12 shows the relationship between financial resources and seventh-grade outcomes. Here again, there appears to be some pattern (though not statistically significant), with higher-resourced KIPP schools performing well and the poorly resourced "Our World" school performing poorly. In grade 7, Icahn school performance is more in line with others.

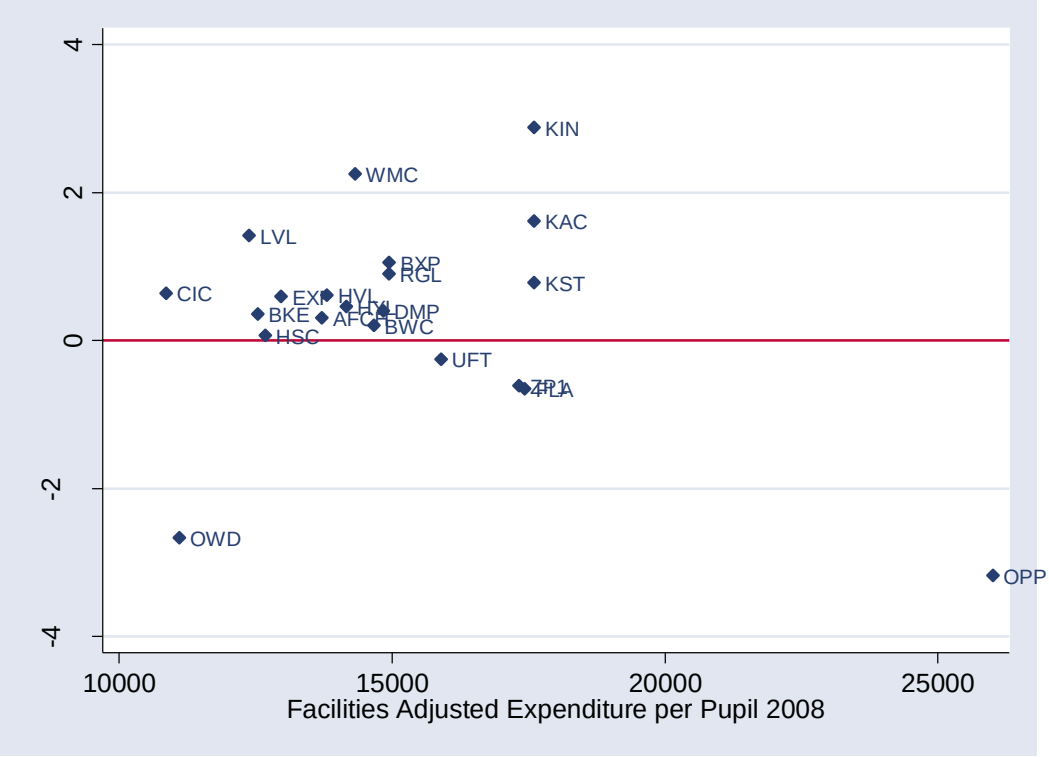


Figure 12. Adjusted Spending and 7th Grade Outcomes

To sum up: Overall among NYC charter schools, the level of funding appears to have no relationship to student test score results.

Comparing Charter Spending with NY Board of Education Spending and Nearby School Site Spending

This section returns to the issue of disparities in funding between non-charter and charter schools. As already noted, the Ball State/Public Impact study identified New York State as

having large financial disparities between traditional public schools and charter schools. In contrast, the NYC independent budget office concluded that charters with department of education facilities had only negligibly fewer resources than non-charter public schools. One of these accounts is incorrect.

Ball State/Public Impact study claims that NYC traditional public school per-pupil expenditures were $20,021 in 2006-07, and that charter school expenditures were $13,468, for a 32.7% difference.[62] However, the first figure appears to be inflated; the only figure that closely resembles $20,021 is the total expenditure, including capital outlay expense. This amounts to 19,198,[63] according to the 2006-07 NCES fiscal survey.[64] This amount includes spending that is clearly not for traditional public schools—it includes not only transportation and textbooks allocated to charter schools, but also the city expenditures on buildings used by some charter schools.[65] In essence, this approach attributes spending on charters to the publics they are being compared with—clearly a problematic measurement.

After offering these figures and the crude comparisons, the Ball State/Public Impact study argues that the purportedly severe funding differential is not explained by differences in need, because on average 43.5% of the students in public schools in New York State qualify for free or reduced-price lunch, while on average 73.3% of those in charter schools in New York State do. But, as was demonstrated earlier, there are three problems: (a) the focus on state rates, rather than NYC rates; (b) the inclusion of reduced-price lunch rates rather than just free-lunch rates as a measure of poverty (when focused on comparisons within NYC); and (c) the failure to compare only schools serving the same grade-levels. When these details are addressed, a different picture emerges. At the elementary level in NYC, for example, charter school free lunch rates were 57% and non-charter public school rates were 68%.

The NYC IBO report offers figures that are more in line with the data. For 2008-09, traditional public schools are found to have expenditures of $16,678, while charters that are provided with facilities are at nearly the same level ($16,373). Public expenditures on charters not provided facilities are found to be about $2,700 per pupil lower ($13,661). But even this comparison is not necessarily the most precise or accurate that might be made, because it does not attempt to compare schools that are (a) similar in grade level and grade range and (b) similar in student needs. The IBO analysis provides a useful, albeit limited, comparison of charter schools in their aggregate to district schools in their aggregate. Importantly, the IBO charter school funding figures do not include funds raised through private giving to schools or monies provided by their management organizations.

Once the cost differences associated with student populations are factored in, the IBO analysis changes significantly. In fact, the cost associated with student population differences is the same as the per-pupil cost associated with lack of a facility: $2,500. After adding the $2,500 low-need-population adjustment to charters, those not in BOE facilities can be seen to have funding nearly equal to that of non-charters ($16,171 vs $16,678) while those in BOE facilities have significantly more funding than non-charters (see Table 3).[66]

Again, these figures do not take into account the additional funding that many NYC charter schools receive from foundations and other donors. The figures only reflect public revenues, and

Table 3. Correcting the IBO Study of School-Site Revenues for Differences in Average Need

Original 2008-2009 Figures (IBO Report, page 3)	$$ per Pupil
IBO Charter with Facility	$16,373
IBO Charter without Facility	$13,661
Low Need Adjustment	
With Facility: Adjusted for Serving Lower Needs (+2,500)	$18,873
Without Facility: Adjusted for Serving Lower Needs (+2,500)	$16,161
IBO Comparison Figure (NYC Public)	$16,678

they clearly belie claims that charters receive an unfairly small allocation of public funds. For the approximately one-half of all NYC charters that were provided with a BOE facility, the per-pupil public revenues received are, on average, $2,200 *more* than comparison traditional public schools in NYC. For those without a BOE facility, their average shortfall is $517.

Fair Student Funding, School-Site Spending and Charter Comparisons: A Harlem Case Study

To illustrate how some of these calculations play out with actual schools, it is helpful to take a closer look at a small area of Harlem, in the neighborhood of three representative Harlem K-8 schools near several of the charter schools discussed here. Samuel Stern, A. Philip Randolph and Hugo Newman School would each receive about $9,000 per pupil in the school site-based core

Table 4. Fair Student Funding and Relevant Per Pupil Building-Level Costs in Traditional Public NYC Schools (Harlem/East Harlem)

Traditional Public School	Total Budget Per Capita under FSF 0708 [1]	Per Student Site Expenditure (2007-08)[2]	Grade Levels	% Free Lunch (SRC 08)[3]	% EL (SRC 08)[3]	Nearby
PS 007 SAMUEL STERN	$9,002	**$12,476**	pk-8	86	19	Harlem Day
PS 076 A. PHILIP RANDOLPH	$9,048	**$14,123**	k-7	81	12	Link/ Leaders
PS 180 HUGO NEWMAN	$9,199	**$13,263**	k-8	82	10	Link/ Leaders

[1] FY08BudgetFSFData_FINAL.xls.
[2] See appendix D for detail.
[3] NYSED School Report Cards 2008.

instructional budget under the 2007-2008 Fair Student Funding (FSF) model (see Table 4). As an alternative to this core instructional budget, the additional amounts provided by City services can be added. Table 4 provides a per-student site expenditure figure based on the detailed

budget information in Appendix D.[67] Excluded from this figure are citywide overhead expenses, facilities expenses, transportation, food services and textbooks. The resulting per-pupil expenditures in these three representative schools ranged from about $12,500 to about $13,300 in 2007-08. These schools have 81% to 86% children qualifying for free lunch and 10% to 19% children who are ELs.

The nearest charter schools to these traditional public schools are Harlem Day (grades K-5), Harlem Link (grades K-4) and Leadership Village (grades 5-7 in 2007-8). These charters serve much lower shares of low-income children and enroll few or no ELs (see Table 5). Harlem Day serves fewer special education students than schools district-wide serving the same grade levels (10.8% compared to 13.7%), while Harlem Link serves far fewer (4.7% compared with DOE at 14.9%),[68] (Without school-site special education rates for the non-charters in the same neighborhood, however, these comparisons are merely suggestive.)

Table 5. Per-Pupil Spending of Nearby Charter Schools (Harlem/East Harlem)

Charter School	Total	Less Occupancy/ Facilities[1]	% Free Lunch (SRC 08)[2]	% EL (SRC 08)[2]
Harlem Day	21,090	19,632	62	0
Harlem Link	13,171	13,105	70	1
Leadership Village	10,383	10,383	52	1

[1] based on actual AFR2008 occupancy costs per pupil
[2] NYSED School Report Cards 2008

The starting point for Table 5 is the total per-pupil spending for each of the three charter schools, including amounts donated by foundations and others. Then, since Harlem Day does not have a BOE facility provided, the actual facilities expenses are subtracted ($1,458 per pupil). That leads to a per-pupil spending figure for Harlem Day of $19,632, which excludes many centralized services provided by the district. These are the same centralized expenditures that we excluded from traditional public school site based expenditures in the second column above (Table 4).

Harlem Day spends more than twice the site-based budget allotments (first column of Table 4), and substantially more than the actual spending per pupil (second column of Table 4) of nearby, much-higher-need traditional public schools. Leadership Village spending is closest to that of the traditional public schools, but it has much lower shares of low-income children.[69]

These charter schools have 10-30% fewer children qualifying for free lunch and few or no children who are ELs. These differences are even greater than those we addressed previously, citywide, which led to a cost differential of $2,500 per pupil.[70] Therefore, one can expect that even at comparable spending—such as seen between Harlem Link and Hugo Newman—Hugo Newman's higher poverty rate and much higher EL rate creates a sizeable funding disadvantage not converted into dollar deficits in these tables.

Conclusions and Policy Implications

The findings of this study focus on both resources and outcomes and raise significant questions about the proper role of charter schools in education reform. They also shed additional light on the resource differences among charter schools and between charter schools and traditional public schools. Specifically, we find the variation in per pupil spending among charter schools in NYC to be substantial. The amount of funding received by the least-well-funded charter school is more than $10,000 less than the funding received by the most-well-funded charter school. The magnitude of this disparity is widely considered unacceptable when it occurs across non-charter public schools within a district. We find some evidence that access (and non-access) to facilities leads to financial inequities across charter schools but that far greater inequities are caused by access to aggressive and organized external fundraising.

This study also finds that there exists no discernable relationship between the very large differences in resources across charter schools and differences in the needs of the children they serve. This may seem like a rather obvious finding, given that resource variation is primarily a function of private fundraising and successful networking, not a function of a defined, deliberate formula. This finding is important because if charter school growth continues, the existing pattern will lead to increased resource inequities across schools and between students who are equivalent in their needs. In other words if things continue as they have in NYC, expanding the number of charter schools may very likely increase the funding inequities in the public school system.

This finding also severely undermines two popular policy arguments: that charter schools are less-well-funded than non-charter public schools, and that charter schools promote educational equity.

This study shows that charter schools in NYC are not systematically deprived of funding relative to traditional public schools. The key considerations here, which are often neglected, are as follows: (a) accounting for student needs and demographic differences, (b) accounting for access to facilities, (c) accounting for access to philanthropic resources, and (d) comparing only schools serving the same grade levels. Importantly, the first three of these factors generate inequities *among* charter schools as well as between charter schools and traditional public schools. It is the variation, not the averages, that we find most interesting. Some charter schools spend much more than traditional public schools while also receiving services from the school district and serving many fewer high-needs students. Other charters, particularly those with a mission to reach under-served populations, are trying to do more with less.

Prominent advocates of charter school expansion argue that traditional public school districts must allocate funding more equitably to schools, using mechanisms such as NYC's Fair Student Funding approach.[71] Yet the unevenness of charter-school philanthropy may significantly compromise efforts to improve equity across schools within districts, whether charters are integrated into the Fair Student Funding model or remain outside it.[72] Because private giving lies largely outside public control, except as regards tax benefits, policy solutions to these inequities are not readily apparent.

The findings reported here also raise questions about the sustainability and scalability of a model of public-service provision (charters are, after all, providing a public education) that is heavily dependent on ongoing private fundraising and that shows little sign of being able to ever lessen that dependence. What happens to a charter school when donations of more than $10,000 or even $20,000 per pupil dry up?

The historical inequities of school finance in the U.S. were largely a function of racial and socio-economic segregation of children and families into communities with vastly different abilities to raise property tax revenues to pay for schools. Property taxes are highly stable sources of revenue. (They are also largely inequitable, but to varying degrees states have acted over time to mitigate some of those disparities.) By contrast, philanthropy—notwithstanding the admirable intentions behind most acts of giving—is generally distributed in ways that are both inequitable and unstable.[73]

Differential access to public school facilities is certainly among the equity issues that should be addressed, but philanthropy and fundraising are part of that picture as well. They have enabled some charters to construct new elaborate specialized facilities and purchase expensive equipment with private contributions, while others have been unable to do so.

On May 7 of 2010, Juan Gonzalez of the *New York Daily News* reported on the double-edged sword of the federal "New Market Tax Credits," pointing out that wealthy investors had taken advantage of these tax credits to acquire properties and finance new charter school construction. These investors then turned around and escalated rents on their charter occupants dramatically. Regarding two Albany, N.Y., charter schools, the article indicated that:

- The Henry Johnson Charter School saw the rent for its 31,000-square-foot building skyrocket from $170,000 in 2008 to $560,000 last year.
- The Albany Community School's rent jumped from $195,000 to $350,000.

Clearly, schools involved in such arrangements will suffer inequities if those cost increases are not offset by philanthropy, and they will also face sustainability problems. Moreover, fiscal devices such as "New Market Tax Credits" need to be carefully examined in terms of their public cost and their educational impact.

Charter schools in NYC pose a unique set of equity and sustainability concerns. Interestingly, this study finds no consistent relationship between high resources—whether in the form of city-provided facilities or philanthropic benefits—and student test scores, even after controlling for free-lunch rates, EL status and location within NYC. More refined, comprehensive analyses should consider other important outcomes—particularly for schools like those in the Harlem Children's Zone that are pursuing broader life-chance goals.

Despite the lack of relationship between the spending by NYC charters and their test scores, philanthropists continue to give large sums and advocates continue to argue that the charters are doing more with less. Finding little truth to the test score claims or the spending claims does not, and should not, end discussions of what we can learn from these schools, but it does point to the hypocrisy and emptiness of arguments by charter advocates that additional resources would do little to help traditional public schools.[74] Such arguments are particularly troubling in

NYC, where high-spending charters far outspend nearby traditional public schools. Equitable and adequate resources do matter,[75] but there appear to be a considerable number of charters schools in NYC doing less with more.

Research and Policy Recommendations

We offer the following four recommendations for future research and policy considerations:

- **Given the crucial role of private philanthropy, future research should pay close attention to the role of overall resource differences as part of the charter experiment puzzle, rather than looking only at public subsidy rates of charters.**
- **Given the need to have meaningful comparisons of inputs and outcomes, further research should also attempt to identify the most appropriate comparable resource measures across traditional neighborhood public schools and the nearest charter schools.**
- **Policies should be adopted to more tightly link the amount of public funding to the needs of students served at all schools, whether traditional public schools or charter schools. This means adding much greater precision to data collected, annual auditing, and perhaps sanctions when schools fail to serve students with greater needs over an extended period of time.**[76]
- **Policies might be considered to (a) balance resources for schools, whether charter or traditional public, that have less private philanthropic support, and (b) provide support structures for gaining more equitable access to philanthropy for under-resourced charter schools and traditional public schools. Under option "a" above, a common resource pool for supporting less-well-endowed charters might be generated by "taxing" private contributions to other charter schools.**

The findings with regard to New York City Charter Schools may or may not be transferable to other settings across the country. Certainly, the wealth and philanthropic culture of New York City is unique. Further, New York City is much larger than other cities and more racially and socioeconomically diverse as well, creating greater opportunities for cream-skimming and segregation as well as neighborhood selection. But, many other cities including Philadelphia, Houston and San Francisco are struggling with similar issues and adopting comparable policies for mediating within-district funding equities, while simultaneously the number of charter schools is increasing.

Appendix A: Data Sources

Audited Annual Financial Reports: The State University of New York compiles the annual financial statements for each public charter school in NYC, prepared by independent certified public accountants. These annual financial statements include summaries of assets and liabilities, revenues and expenditures of charter schools and appear to include much (but not all) of the private, philanthropic support received and expended by NYC charter schools. We collected the reports for 2007, 2008 and 2009, but use 2007 and 2008 for our analyses, and in many cases report only the 2008 data (having compared those data to 2007 to identify potential inconsistencies). 2007 and 2008 were the only years for which overlapping IRS 990 and Audited Financial Reports were available. 2009 data were used only for evaluating the stability of spending over time.

Non-profit IRS Tax Filings (form 990): Through several web-based private foundation information aggregators, but primarily through Guidestar, we collected the IRS tax filings (form 990), for each NYC charter school for 2006, 2007 and 2008, focusing in our analyses on 2007 and 2008. For each school we identified the primary foundation—the private, not-for-profit foundation established in the name of the individual school itself. We also identified the secondary foundation—the private, not-for-profit foundation of the organization with which the school is affiliated, such as Uncommon Schools, Achievement First, or KIPP. In the case of KIPP, we identified the national and New York State foundations (2nd and 3rd level). We did not review detailed financial statements for all for-profit management companies affiliated with NYC charter schools.

NCES Common Core of Data: We use data from the National Center for Education Statistics Common Core of Data, Public School Universe Survey to determine the locations (latitude/longitude), enrollments and free lunch shares for each school. The enrollments and free lunch shares coincide with high precision to New York State Education Department (NYSED) figures, which is not true in other states. We also use the NCES Common Core to estimate the enrollments of non-NYC charter schools sharing a secondary-level foundation, so that we could distribute KIPP or Achievement First resources across all KIPP or Achievement First schools and not overstate their influence on New York schools.

NYSED School Report Cards: We use the New York State Department of Education's School Report Cards to gather additional demographic and school characteristic information from 2006 to 2008 on each school, reconciling NCES CCD free lunch counts, and including shares of children who are limited English proficient. We also use the report card data to merge the state assessment results with each charter school, for English Language Arts and Math from grade 3 to 8 and for class-size comparisons and shares of teachers with fewer than 3 years' experience.

NYSED Fiscal Analysis Research Unit (FARU) Fiscal Profiles: We use the New York State Education Department fiscal profiles to estimate overall per pupil spending and instructional spending in NYC.

NYC Department of Education—Fair Student Funding (FSF) Budget Estimates & School Expenditure Reports for 2007-08: The FSF spreadsheet (FY08BudgetFSFData_FINAL.xls),

acquired from the City Department of Education in 2008, presents the school-by-school final total budget projections under the city Fair Student Funding formula. Coupled with the FSF budget estimates, we used the NYC Department of Education website to access detailed expenditure reports for representative traditional public schools. We use these data to compare school-level budgets for specific Harlem traditional public schools to those of nearby Charter schools, including Harlem Day, Harlem Link and Leadership Village Academy.

Appendix B: Free Lunch vs. Free or Reduced-Price Lunch

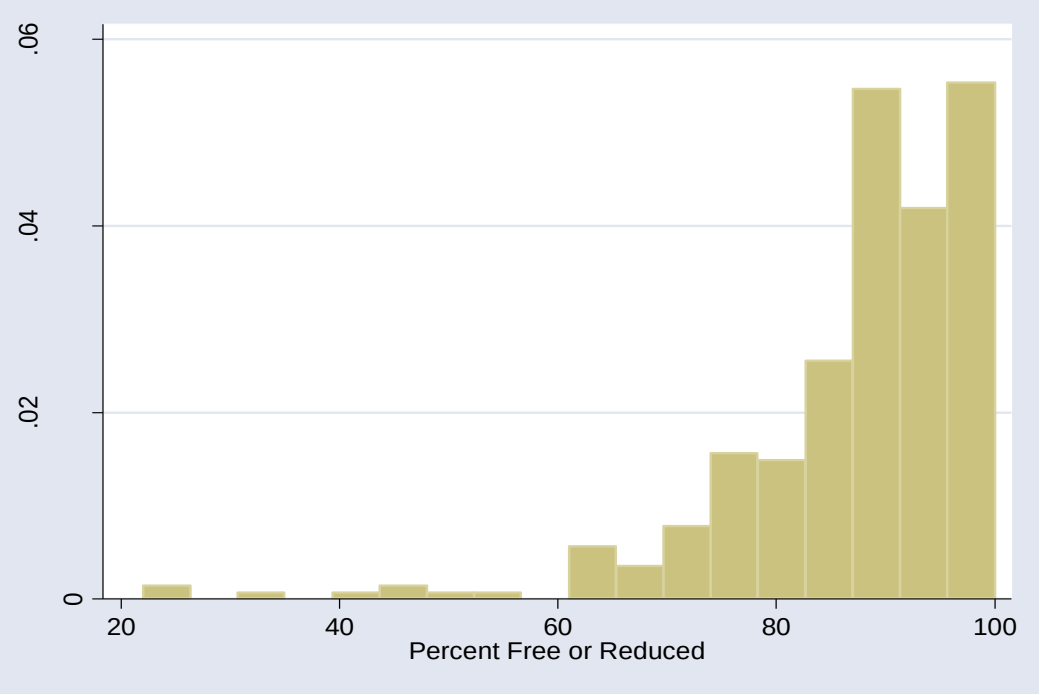


Figure B1: Bronx Percent Free or Reduced-Price Lunch

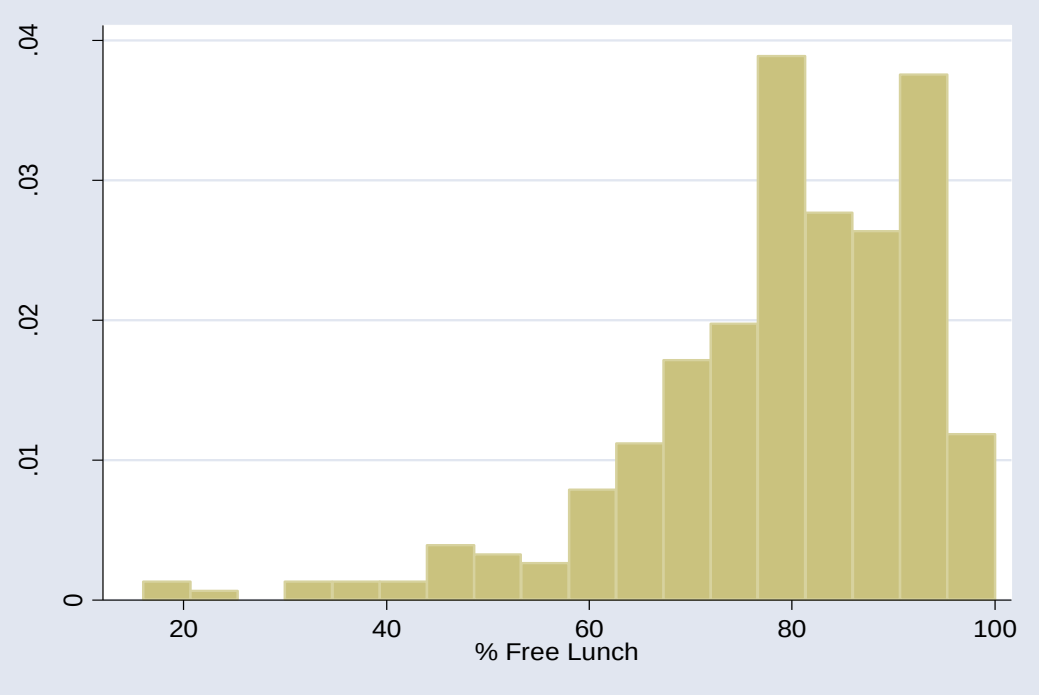


Figure B2: Bronx Percent Free Lunch

Appendix C: Technical Notes on Regression Analyses

One way to evaluate whether resource allocation reflects differences in needs and costs is to estimate a regression model with the school-level expenditures per pupil as the dependent variable (natural logarithm) and determine the extent to which various factors known to influence costs and needs are associated with differences in per pupil spending.[1] The analyses presented below use two alternative approaches for estimating the regression model. The first model uses as the dependent variable ("DV" in Table C1) the natural logarithm of the 'facilities expense adjusted spending' per pupil.[2] The "adjustment" in this model is for facilities expenses, with $2,000 per pupil added (a figure based on our conservative "occupancy cost" estimates of about $2000 in 2007 and 2008 in Figure 6) to schools that were provided (BOE) facilities. That is, these schools have money available for other instructional uses relative to the other charters because the money is not being spent on facilities. (In terms of variation in spending across schools, this approach mirrors the effect of doing the inverse—subtracting $2,000 per pupil from schools not provided facilities.) The second model uses as the DV the raw annual financial report ("AFR" in Table C1) per pupil spending figures for 2008, including actual reported spending for individual KIPP schools (not averaged). This second model also includes a variable indicating that a school resided in a BOE facility.

The independent variables in the regression model are the following: grade-level differences which may influence spending, based on different structures of programs at different grade levels; school size, where it is assumed that very small schools in start-up years may have elevated per pupil spending[3]; and two student-need variables (percent of children who qualify for free lunch and percent of Limited English Proficient children). That is, among schools of similar size serving similar grades, are there differences in spending that are associated with differences in student population characteristics? An effective need-based funding system would produce such differences.

Table C1 shows that using the first regression model we are able to explain about two-thirds of the variations in adjusted spending per pupil with the cost- and need-related covariates. But none of variance predicted is a function of different student needs across charter schools.

The same findings apply for the second regression model, using the schools' annual financial report per-pupil spending figures. In this case, slightly less variance is explained than might be expected—given some seemingly unexplainable accounting choices, such as KIPP reporting all school expenditures on a single schools' financial report.

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[1]Baker, B.D. (2009b) Evaluating Marginal Costs with School Level Data: Implications for the Design of Weighted Student Allocation Formulas. *Education Policy Analysis Archives 17* (3)

[2] Recall that for KIPP schools some of the spending is likely incorrectly attributed to solely KIPP Academy, and that others have spread this spending evenly across KIPP schools. This is done here: the spending is averaged across KIPP schools for Model 1.

[3] For a thorough discussion of factors associated with cost variation, including school- and district-level economies of scale, see Duncombe and Yinger, 2008.

Table C1. Regression Models of Per-Pupil School-Site Spending on Facilities as a Function of Cost and Need Factors

	DV = Natural Log of Adj. Spending per Pupil			DV = Natural Log of AFR Reported Spending per Pupil 2008		
	Coef.	Std. Err.		Coef.	Std. Err.	
Student Needs						
% Free Lunch	0.000	0.002		0.000	0.002	
% LEP	-0.001	0.005		-0.002	0.005	
Economies of Scale						
Ln of Enrollment	-2.808	0.445	*	-2.849	0.490	*
Ln of Enrollment Squared	0.240	0.043	*	0.243	0.047	*
Grade Range						
Elementary School						
Middle School	0.117	0.095		0.216	0.105	
Elem/Middle School	0.024	0.083		0.026	0.091	
High School	0.056	0.126		0.051	0.139	
Middle/High	0.288	0.130	*	0.286	0.143	
BOE Facility				-0.055	0.065	
Constant	17.646	1.134		17.804	1.251	
R-squared	0.662			0.631		
Adj. R-squared	0.600			0.552		

*p<.05

We fit a relatively simple regression model to examine the natural logarithm4 of the scale scores for each grade level (math and ELA combined), including measures of free lunch rates, rates of EL students, rates of year-to-year enrollment stability, borough and year of data. We fit the model to data from 2008 and 2009.

Outcome = *f*(%EL, %Free Lunch, %Stability, Borough, Year)

From these regression models, estimated to each grade level of outcome data, we use the standardized residuals, or differences in standard deviations between actual and predicted values, for 2007-08.[5] That is, how many standard deviations above or below expectations (given

[4] In this case, the natural logarithm of outcomes is used mainly because this rescaling of the data resulted in significantly greater predictability of the outcome measures, given the independent measures in the model. It is generally accepted in an education production function framework that there exist diminishing returns to outcomes as a function of changes in either resource inputs or other conditions. Conceptually relevant or not, the rescaling in this case proved statistically appropriate.

[5] Our models do reveal lower scores in 2008 compared to 2009, picking up the much-reported inflation in NYC scores that occurred in recent years under the state testing system: http://www.oms.nysed.gov/press/Regents_Approve_Scoring_Changes.html

population and location) did a school perform? Such specifications are highly sensitive to the accurate representation of school-level demographics.[6]

The models were fit to all non-charter and charter schools. Model estimates are shown in Appendix Tables C2 and C3.

Table C2: Regression Estimates for Student Outcome Models

		4th Grade ELA and Math (ln)			5th Grade ELA and Math (ln)			6th Grade ELA and Math (ln)			7th Grade ELA and Math (ln)		
Independent Variables		Coef.	Std. Err.	P>t	Coef.	Std. Err.	P>t	Coef.	Std. Err.	P>t	Coef.	Std. Err.	P>t
Student Needs													
	% Free Lunch	-0.0006	0.000	*	-0.0005	0.000	*	-0.0004	0.000	*	-0.0004	0.000	*
	% Stability	0.0004	0.000	*	0.0003	0.000	*	0.0002	0.000	*	0.0003	0.000	*
	% LEP	0.0001	0.000		0.0001	0.000		-0.0004	0.000	*	-0.0005	0.000	*
Borough /"City"													
	Queens (by city)[a]												
	Bronx	0.004	0.008		-0.010	0.007		-0.003	0.011		0.011	0.012	
	Brooklyn	0.012	0.008		-0.002	0.007		0.000	0.011		0.015	0.012	
	New York (Man-hattan)	0.007	0.008		-0.005	0.007		0.004	0.011		0.019	0.012	
Year													
	Year = 2008	-0.013	0.001	*	-0.012	0.001	*	-0.013	0.001	*	-0.011	0.001	*
	Year = 2009 (baseline compar-ison)												
Constant		7.204	0.009	*	7.218	0.008	*	7.208	0.011	*	7.180	0.013	*
	R-squared	0.502			0.490			0.460			0.482		
	N	1456			1474			1033			941		
	Charter in 2008	25			33			29			24		

*p<.05

[a] in the NYSED State Report Card data, schools in New York City are identified by the borough of their location, except for Queens, where schools are identified specifically by the "city" (equivalent of a neighborhood) within the

[6] The enrollment of students with disabilities is not included in these models because of the lack of detailed, comparable data on these students across all charters and all traditional public schools for each year. However, a statistical check including data on charter schools did reveal that the adjusted performance measures were not correlated with differences in disability concentrations across charters, when outliers (Opportunity Charter) were excluded.

borough of location. In our models, we have a dummy variable for each individual borough and/or city location within Queens, such that school outcomes are compared against those of schools in the same borough or city within Queens. The actual matrix of coefficients for cities within queens is excluded here due to space constraints.

Table C3. Correlations across Performance Residuals

	Grade 4 Standardized Residual	Grade 5 Standardized Residual	Grade 6 Standardized Residual
Grade 5 Standardized Residual	0.8004		
Grade 6 Standardized Residual	0.6547	0.691	
Grade 7 Standardized Residual	0.7108	0.685	0.8461

Appendix D: School Site Budgets

Table D1. Detailed school site budgets for representative traditional public schools in Harlem

Summary Information	Newman	Samuel Stern	A Philip Randolph
Enrollment (NYSED Comp. Inform. Report)	503	427	371
Enrollment (NYC Budgeting)	574	462	414
Total per Pupil	18,342	17,826	20,179
Direct Services per Pupil	16,071	15,568	17,911
Direct Services less Textbooks, Food, Building, Transport & Regional	13,263	12,476	14,123
Budget Functions			
I. Direct Services to Schools	9,224,808	7,192,410	7,415,072
A. Classroom Instruction (All Funds)	5,259,594	4,104,321	3,718,904
i. Teachers	3,899,501	3,216,817	2,831,654
ii. Education Paraprofessionals	236,149	237,287	365,189
iv. Text Books	65,756	43,683	40,232
v. Librarians and Library Books	91,884	102,030	24,645
vi. Instructional Supplies and Equipment	304,894	180,468	115,606
vii. Professional Development	461,786	267,918	292,564
viii. Contracted Instructional Services	190,540	40,476	28,022
ix. Summer and Evening School	9,083	15,641	20,992
B. Instructional Support Services (All Funds)	1,229,518	975,007	1,491,827
i. Counseling Services	197,555	119,054	118,460
ii. Attendance & Outreach Services	29,359	41,797	187,090
iii. Related Services	375,260	381,622	657,395
iv. Drug Prevention Programs	58,729	1,614	68,119

Summary Information	Newman	Samuel Stern	A Philip Randolph
v. Referral and Evaluation Services (All Funds)	204,059	287,865	228,214
vi. After School and Student Activities	251,444	109,661	172,297
vii. Parent Involvement Activities	113,112	33,395	60,253
C. Leadership/Supervision/Support (All Funds)	1,189,992	728,220	676,204
i. Principals	195,035	183,524	178,445
ii. Assistant Principals	332,462	150,143	229,203
iii. Supervisors	276,708	89,381	2,441
iv. Secretaries, School Aides & Other Support Staff	285,240	256,756	218,750
v. Supplies, Materials, Equipment, Telephones	100,548	48,415	47,364
D. Ancillary Support Services (All Funds)	731,003	558,891	982,180
i. Food Services	396,576	245,251	461,571
ii. Transportation	112,914	135,349	360,842
iii. School Safety	153,024	123,165	110,369
iv. Computer System Support			
(School Level)	68,490	55,126	49,398
E. Building Services (All Funds)	762,629	789,322	513,509
i. Custodial Services	456,549	415,189	282,379
ii. Building Maintenance	120,858	163,511	115,850
iv. Energy	185,221	210,622	115,280
F. Regional Support (All Funds)	52,072	36,649	32,448
i. Additions to Salary / Projected Expenses	52,072	36,649	32,448
II. Regional Costs	182,569	139,217	127,285
A. Instructional Support and Administration (All Funds)	170,112	130,338	123,716
No type required	170,112	130,338	123,716

Summary Information	Newman	Samuel Stern	A Philip Randolph
B. Other Regional Costs (All Funds)	12,458	8,879	3,569
i. Sabbaticals, Leaves, Termination Pay	9,796	7,191	1,537
ii. Additions to Regular Salary	2,327	1,421	1,791
iii. Projected Expenses	334	268	241
III. System-Wide Costs	218,901	177,612	160,949
A. Central Instructional Support (All Funds)	31,318	25,386	24,496
i. Instructional Offices	31,318	25,386	24,496
B. Central Administration (All Funds)	187,583	152,226	136,453
i. Instructional Offices	38,741	32,177	28,907
ii. Operational Offices	131,149	105,812	94,795
iii. Central Leadership	17,693	14,237	12,751
IV. System-Wide Obligations	902,199	726,160	650,715
A. Other System-Wide Obligations (All Funds)	902,199	726,160	650,715
i. Debt Service	690,616	555,862	498,110
ii. Retiree Health and Welfare	207,485	167,000	149,649
iii. Special Commissioner for Investigation	4,098	3,298	2,956
Total	10,528,477	8,235,399	8,354,021

Data Sources:

School Portals: http://schools.nyc.gov/NR/exeres/CC465EEB-7FDB-4F34-B0F3-47DC473A83D9.htm

Detailed Expenditures (Hugo Newman Example)
https://www.nycenet.edu/offices/d_chanc_oper/budget/exp01/y2007_2008/function.asp?district=03&LCMS=M180&search=M180&schoolgo=Go&prior=search

Appendix E: Variations in Employee Compensation

Form IRS 990 includes information on compensation for directors and officers and for the five highest-paid employees. Table 2 summarizes the director compensation and highest-paid employee compensation for 2008 for each school and then calculates the per pupil amount of compensation for the highest three. In some cases, schools report their head of school as a director but in others as an employee. We include only those individuals associated with specific schools; we do not include in Table 3 the compensation of individuals overseeing more than one school. An example of this latter type of leader would be Geoffrey Canada, who had 2007 compensation of $494,669 with over $20,000 in additional benefits. As with total HCZ organizational expenditures, it is difficult to determine what shares of Geoffrey Canada's compensation should be allocated to the charter schools. HCZ organization had three other employees on base salary exceeding $200,000 in 2007.

Table E1 lists the salaries. The range in top-three salary expense per pupil extends from about $500 to over $9,500 per pupil, but most fall between $600 and $2,000. Highest-paid individual school-site employees range from under $100,000 at Harlem Link and Harlem Village charter schools to well over $200,000 at Hellenic Classical. These levels of salary variation may lead to significant differences in the ability of schools to recruit and retain quality leaders.

Table E1.

School Name	Enrollment	Director Compensation	Highest Paid	Second Highest Paid	Third Highest Paid	Top 3, per Pupil
NY Ctr Autism	24	$108,000	$65,000	$56,700	$56,100	$9,571
Kings Colleg.	81	$0	$96,750	$96,750	$59,908	$3,128
Manhattan	159	$0	$140,000	$89,000	$85,000	$1,975
KIPP Infin.	213	$155,000	$119,000	$105,000	$100,000	$1,779
Icahn Brx. North	108	$0	$113,460	$77,470	$0	$1,768
Harlem Day	237	$179,808	$120,765	$109,692	$86,082	$1,731
Comm. Rts.	150	$90,000	$90,000	$74,000	$60,000	$1,693
Ross Global	211	$0	$140,000	$112,440	$95,000	$1,647
KIPP Acad.	245	$155,000	$129,823	$117,276	$107,000	$1,641
Girls Prep.	177	$99,000	$105,000	$75,600	$68,000	$1,580
Lead. Prep.	170	$0	$103,225	$91,200	$73,000	$1,573
Carl Icahn	316	$0	$235,350	$121,338	$116,072	$1,496
Sbrx Class.	204	$120,000	$105,000	$75,000	$63,000	$1,471
HCZ Promise II	199	$0	$128,280	$83,583	$77,383	$1,453
Harbor Science	210	$0	$132,220	$84,378	$83,438	$1,429

School Name	Enrollment	Director Compensation	Highest Paid	Second Highest Paid	Third Highest Paid	Top 3, per Pupil
Opport.	267	$132,500	$132,500	$115,000	$107,236	$1,423
KIPP Success Team	279	$155,000	$118,000	$118,000	$95,000	$1,401
Hellenic Class.	245	$210,000	$72,035	$60,000	$51,102	$1,396
Int. Lead.	170	$102,750	$76,666	$56,244	$53,300	$1,386
Wmsbrg Collegiate	190	$101,860	$81,860	$73,039	$73,039	$1,351
Brklyn Chrtr	230	$0	$132,252	$93,408	$71,375	$1,291
Democ. Prep.	211	$81,000	$111,834	$78,000	$77,245	$1,284
Future Lead.	296	$136,686	$119,939	$117,096	$102,952	$1,263
Excel Bed. Stuy.	221	$105,000	$95,000	$78,000	$68,750	$1,258
Harlem Link	216	$84,667	$84,667	$79,413	$76,975	$1,152
Brx Excel.	252	$58,167	$140,000	$91,083	$84,096	$1,148
SBrx Cult&Arts	268	$0	$145,000	$71,235	$70,000	$1,068
Com. Partner.	287	$115,731	$100,000	$82,813	$65,000	$1,040
Harlem Village	233	$0	$86,750	$75,915	$70,546	$1,001
Bronx Arts	289	$126,037	$86,756	$72,500	$66,589	$987
Achv.Frst.Bushwk	345	$0	$126,135	$125,384	$87,500	$983
Hyde Lead.	329	$135,287	$107,748	$78,515	$76,857	$977
Sisulu-Walker	260	$0	$124,800	$67,600	$60,320	$972
Brx Better Learn.	284	$0	$99,117	$93,474	$68,250	$918
JL Wildcat	475	$194,000	$133,176	$103,754	$99,189	$907
Harlem Success	276	$0	$115,000	$66,923	$64,442	$893
Penin. Prep.	301	$0	$130,000	$70,000	$65,000	$880
Brx. Children	320	$120,609	$86,991	$72,260	$69,183	$875
Achv.Frst.EastNY	335	$0	$125,000	$86,836	$80,000	$871
Family Life	289	$0	$116,000	$67,476	$64,408	$858
Explore	427	$141,641	$127,654	$90,795	$90,152	$843
Amber	367	$115,731	$100,000	$82,813	$65,000	$813
New Hghts	384	$126,834	$85,000	$84,000	$81,266	$770
Brx. Lthouse	326	$0	$98,664	$76,271	$74,775	$766
UFT	525	$0	$141,027	$137,128	$102,636	$725
Beg. w/Children	442	$0	$109,185	$108,899	$100,135	$720
Wmsbrg CHS	580	$168,478	$135,199	$104,255	$97,233	$703
Grand Concourse	344	$0	$86,057	$74,900	$73,980	$683

School Name	Enrollment	Director Compensation	Highest Paid	Second Highest Paid	Third Highest Paid	Top 3, per Pupil
HCZ Promise	600	$0	$142,527	$135,846	$126,850	$675
Harriet Tubman	439	$0	$135,000	$79,167	$70,964	$650
Bronx Prep	580	$128,000	$119,000	$118,000	$109,760	$629
Merrick-Queens	495	$0	$146,000	$83,200	$79,000	$623
Renaissance	533	$134,697	$97,976	$94,534	$91,863	$614
Achv.Frst.Crn.Hts	591	$0	$133,124	$133,124	$77,500	$582
Our World	700	$164,000	$100,005	$98,500	$91,283	$518

Appendix F: Are Differences in Resources Related to Teacher Characteristics or Class Size?

Spending differences across NYC charter schools may be associated with differences in key resources, specifically class size and concentrations of novice teachers. A substantial body of literature focuses on "novice" teachers and finds significant negative effects of elevated concentrations of novice teachers on student outcomes, and significant positive effects of smaller class sizes.[7]

We focus on these measures because decreasing class sizes and hiring and/or retaining more experienced teachers are each potential drivers of differences in spending and vice versa; that is, greater financial resources allow schools to reduce class size or hire and retain more experienced teachers. Further, schools are likely to consider tradeoffs between these two measures: a school with a fixed budget can choose either to hire more less-experienced teachers and reduce class sizes or it can have larger classes with more experienced, higher-paid teachers.

Figures F1 and F2 provide some context, showing both charter schools and traditional public schools in New York City. Figure F1 compares elementary class sizes (most of the charters in our sample serve elementary grade-levels) to school-site free lunch rates. Traditional public schools are shown as hollow gray circles and charter schools as filled red diamonds with their names adjacent. Charter school class sizes vary widely and vary according to poverty in a similar pattern to those of traditional public schools. Interestingly, there is no clear overall pattern of smaller class sizes correlating with increased poverty across schools, a pattern one would expect in a city school system that has attempted to improve equity in recent years. Icahn Charter and HCZ Promise II have relatively small class sizes, whereas Achievement First of East NY has much larger class sizes.

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[7] See also.

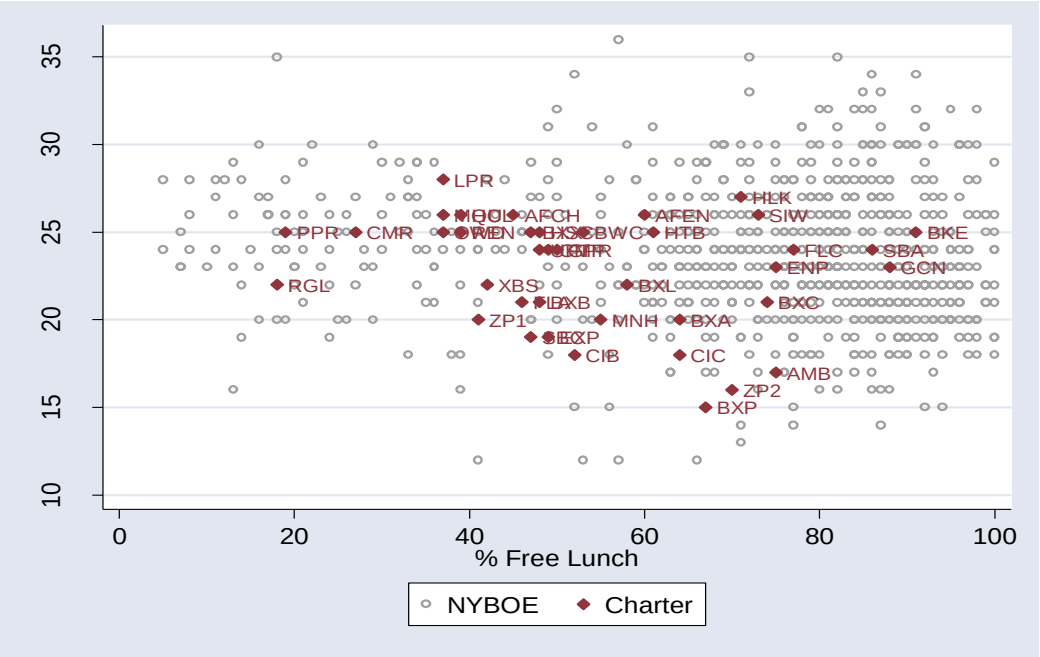
Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2005). Who Teaches Whom? Race and the distribution of novice teachers, *Economics of Education Review*, *24*(4) 377-392

Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2004). *Teacher sorting, teacher shopping, and the assessment of teacher effectiveness*. Sanford Institute of Public Policy, Duke University.

Spyros Konstantopoulos and Vicki Chun, "What Are the Long-Term Effects of Small Classes on the Achievement Gap? Evidence from the Lasting Benefits Study," American Journal of Education 116, November 2009.

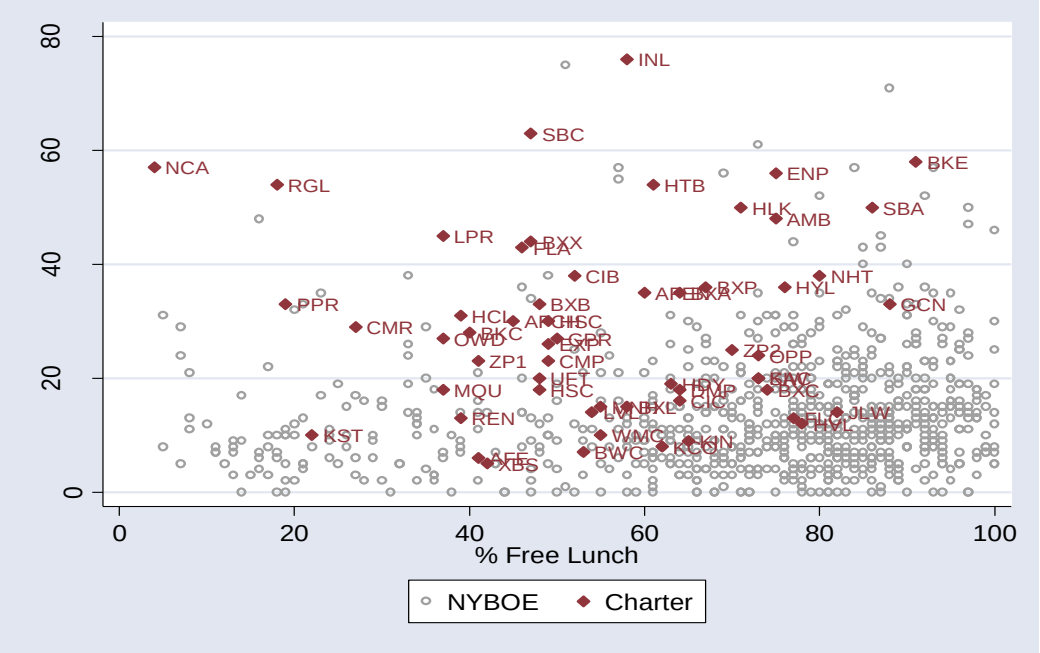
Peter Muennig and Steven H. Woolf, "Health and Economic Benefits of Reducing the Number of Students per Classroom in US Primary Schools," American Journal of Public Health, published online September 27, 2007.

Thomas Dee and Martin West, "The Non-Cognitive Returns to Class Size," NBER Working Paper 13994, 2008.



Data Source: NYSED School Report Cards 2008

Figure F1. Elementary Class Sizes and Percent Free Lunch for Charters and Traditional Public NYC Schools

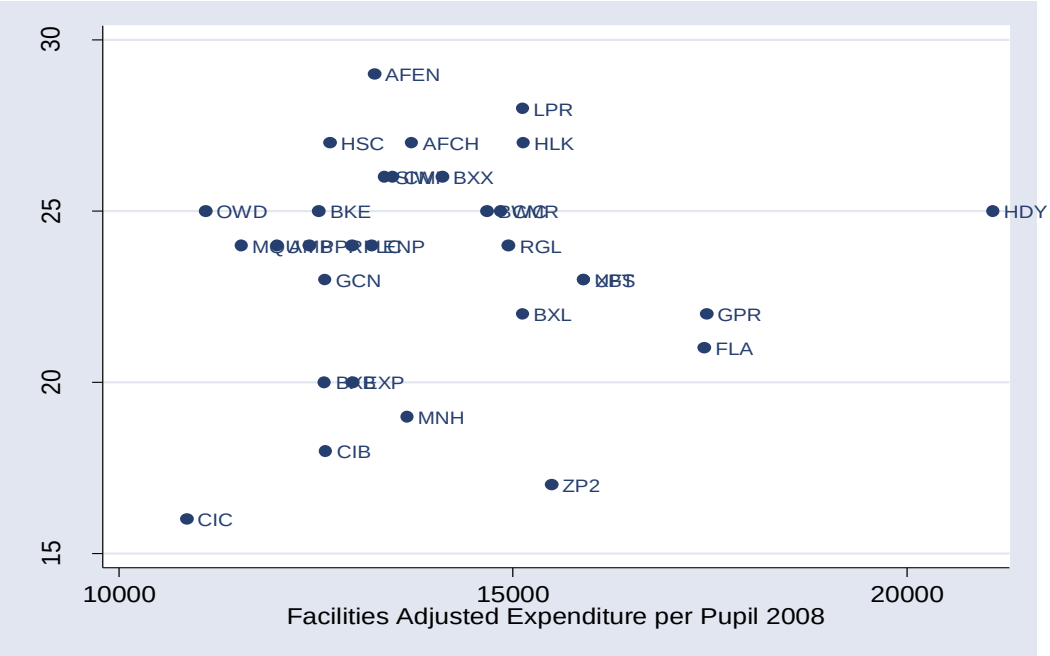


Data Source: NYSED School Report Cards 2008

Figure F2. Percentages of Novice Teachers (<3 years) and Percent Free Lunch for Charters and Traditional Public NYC Schools

Figure F2 shows the percentages of novice (<3 years) teachers in each school by school-level free-lunch rate. Here the charter schools do look somewhat different from traditional public schools, but in a manner consistent with the findings of several other studies revealing high rates of early-career teachers in charter schools. In Figure F2, NYC charter schools tend to have higher shares of novice teachers than do traditional public schools. While some high-poverty charter schools have few novice teachers, others have a majority of teachers who are in their first two years in the profession. In this figure, International Leadership, South Bronx Classical, Brooklyn Excelsior and East NY Prep report about 60% novice teachers each.

Figure F3 shows the relationship between class sizes across charter schools and charter school per-pupil spending figures, adjusted for facilities expenditures (with KIPP averaged). Typically in this type of analysis one would see a relatively clear pattern of higher spending associated with smaller class sizes. Here we focus on elementary class sizes (for which a stronger research base on beneficial effects exists) and are able to include most of the charter schools (since most serve elementary grades). There appears to be little or no relationship between charter school spending and class size. This may suggest that charter operators with more resources simply do not place a premium on reduced class size, or it may suggest other cost pressures limiting the ability to focus on class-size reduction even where more resources are available. (It is likely that, for charter schools, class size remains largely a function of school size and organizational constraints, since these schools are often small.)

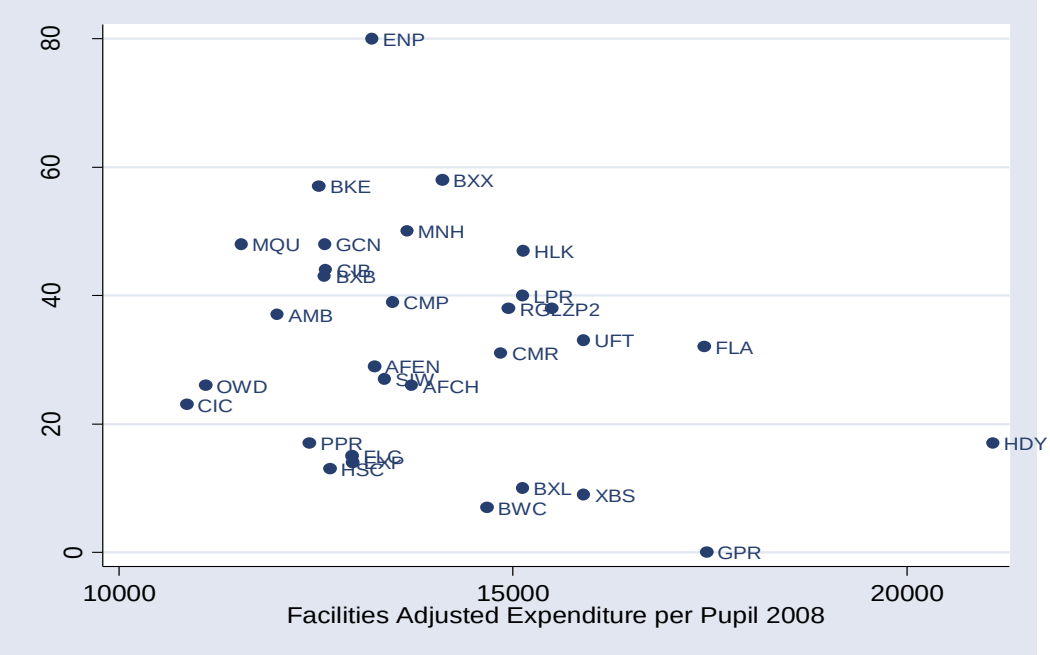


Data Source: NYSED School Report Cards 2008 & Charter Finance Database (compiled by authors)

Figure F3. Class Size and School-Level Expenditures per Pupil (2008)

Figure F4 shows the relationship between our adjusted per pupil spending measure and shares of novice teachers. Here, there exists a more expected relationship, whereby higher-spending schools appear to have a smaller proportion of novice teachers. Yet some relatively low-spending

charters are seemingly able to maintain a faculty with few novice teachers. Among the higher-spending schools, few have large shares (more than one-third) of novice teachers.



Data Source: NYSED School Report Cards 2008 & Charter Finance Database (compiled by authors)

Figure F4. School Level Expenditures per Pupil and Novice Teachers 2008

Appendix G - Key to Charter Abbreviations

ACHIEVEMENT FIRST CROWN HEIGHTS CHARTER SCHOOL	AFCH
ACHIEVEMENT FIRST EAST NEW YORK CHARTER SCHOOL	AFEN
ACHIEVEMENT FIRST ENDEAVOR CHARTER SCHOOL	AFE
AMBER CHARTER SCHOOL	AMB
BEGINNING WITH CHILDREN CHARTER SCHOOL	BWC
BRONX CHARTER SCHOOL FOR BETTER LEARNING	BXB
BRONX CHARTER SCHOOL FOR CHILDREN	BXC
BRONX CHARTER SCHOOL FOR EXCELLENCE	BXX
BRONX CHARTER SCHOOL FOR THE ARTS	BXA
BRONX LIGHTHOUSE CHARTER SCHOOL	BXL
BRONX PREPARATORY CHARTER SCHOOL	BXP
BROOKLYN CHARTER SCHOOL (THE)	BKC
BROOKLYN EXCELSIOR CHARTER SCHOOL	BKE
COMMUNITY PARTNERSHIP CHARTER SCHOOL	CMP
COMMUNITY ROOTS CHARTER SCHOOL	CMR
DEMOCRACY PREPARATORY CHARTER SCHOOL	DMP
EAST NEW YORK PREPARATORY CHARTER SCHOOL	ENP
EXCELLENCE CHARTER SCHOOL OF BEDFORD STUYVESANT	XBS
EXPLORE CHARTER SCHOOL	EXP
FAMILY LIFE ACADEMY CHARTER SCHOOL	FLC
FUTURE LEADERS INSTITUTE CHARTER SCHOOL	FLA
GIRLS PREPARATORY CHARTER SCHOOL OF NEW YORK	GPR
GRAND CONCOURSE ACADEMY CHARTER SCHOOL	GCN
HARBOR SCIENCE AND ARTS CHARTER SCHOOL	HSC
HARLEM CHILDREN'S ZONE PROMISE ACADEMY CHARTER SCHOOL	ZP1
HARLEM CHILDREN'S ZONE PROMISE ACADEMY II CHARTER SCHOOL	ZP2
HARLEM DAY CHARTER SCHOOL	HDY
HARLEM LINK CHARTER SCHOOL	HLK
HARLEM SUCCESS ACADEMY CHARTER SCHOOL	HSC
HARLEM VILLAGE ACADEMY CHARTER SCHOOL EHVACS	HVL
HARRIET TUBMAN CHARTER SCHOOL	HTB

HELLENIC CLASSICAL CHARTER SCHOOL	HCL
HYDE LEADERSHIP CHARTER SCHOOL	HYL
ICAHN CHARTER SCHOOL 1	CIC
ICAHN CHARTER SCHOOL 2	CIB
INTERNATIONAL LEADERSHIP CHARTER SCHOOL	INL
JOHN V LINDSAY WILDCAT ACADEMY CHARTER SCHOOL	JLW
KINGS COLLEGIATE CHARTER SCHOOL	KCO
KIPP ACADEMY CHARTER SCHOOL	KAC
KIPP INFINITY CHARTER SCHOOL	KIN
KIPP SUCCESS THROUGH TEAMWORK ACHIEVE & RESPON COL PREP CHARTER SCH	KST
LEADERSHIP PREPARATORY CHARTER SCHOOL	LPR
LEADERSHIP VILLAGE ACADEMY CHARTER SCHOOL	LVL
MANHATTAN CHARTER SCHOOL	MNH
MERRICK ACADEMY-QUEENS PUBLIC CHARTER SCHOOL	MQU
NEW HEIGHTS ACADEMY CHARTER SCHOOL	NHT
NEW YORK CENTER FOR AUTISM CHARTER SCHOOL	NCA
OPPORTUNITY CHARTER SCHOOL	OPP
OUR WORLD NEIGHBORHOOD CHARTER SCHOOL	OWD
PENINSULA PREPARATORY ACADEMY CHARTER SCHOOL	PPR
RENAISSANCE CHARTER SCHOOL (THE)	REN
ROSS GLOBAL ACADEMY CHARTER SCHOOL	RGL
SISULU-WALKER CHARTER SCHOOL OF HARLEM	SIW
SOUTH BRONX CHARTER SCHOOL-INTER CULTURES AND ARTS	SBA
SOUTH BRONX CLASSICAL CHARTER SCHOOL	SBC
UFT CHARTER SCHOOL	UFT
WILLIAMSBURG CHARTER HIGH SCHOOL	WMH
WILLIAMSBURG COLLEGIATE CHARTER SCHOOL	WMC

Notes and References

[1] Dobbie, W. & Fryer, R. G. (2009). Are High-Quality Schools Enough to Close the Achievement Gap? Evidence from a Bold Social Experiment in Harlem. Unpublished manuscript, Harvard University.

Hoxby, C. M., Murarka, S. & Kang, J. (2009, September*). How NYC's Charter Schools Affect Achievement*. Second report in series. Cambridge, MA: NYC Charter Schools Evaluation Project. Retrieved October 1, 2009, from http://www.nber.org/~schools/charterschoolseval/.

CREDO (Center for Research on Educational Outcomes) (2010). *Charter School Performance in New York City*. Palo Alto: Author. Retrieved December 13, 2010, from http://credo.stanford.edu/reports/NYC%202009%20_CREDO.pdf.

Interestingly, one of these three studies, by Dobbie and Fryer, focuses on just two schools, and another of these studies, from the Center for Research on Education Outcomes (CREDO) at Stanford, is drawn from a larger national study that shows charters to perform no better, and perhaps worse, as compared to traditional public schools.

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Public Impact; The University of Dayton, School of Education and Allied Professions; and Thomas B. Fordham Institute. (2008, March). *Fund the Child: Bringing Equity, Autonomy and Portability to Ohio School Finance How sound an investment?* Washington, DC: Thomas B. Fordham Institute.

[6] Baker, B.D. & Welner, K.G. (2010) Premature celebrations: The persistence of inter-district funding disparities. *Education Policy Analysis Archives*. Retrieved December 13, 2010, from http://epaa.asu.edu/ojs/article/viewFile/718/831.

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[8] Batdorff, M., Maloney, L., May, J., Doyle, D., & Hassel, B. (2010). *Charter School Funding: Inequity Persists*. Muncie, IN: Ball State University.

Center for Education Reform (2010). Annual Survey of America's Charter Schools 2010. Retrieved December 13, 2010, from http://www.edreform.com/published_pdf/Annual_Survey_of_Americas_Charter_Schools_2010.pdf.

Hassel, B.C. & Doyle, D. (2009) The Tab: How Connecticut Can Fix its Dysfunctional Education Spending System to Reward Success, Incentivize Choice and Boost Student Achievement. Connecticut Coalition for Achievement Now & Public Impact. Retrieved December 13, 2010, from http://www.conncan.org/sites/default/files/research/TheTab.pdf.

[9] Gittleson, K. (2010) Charter School Philanthropy 2009. *Gotham Schools*. Retrieved October 27, 2010, from http://gothamschools.org/2010/01/11/charter-school-philanthropy-2009/.

Miron, G. & Urschel, J.L. (2010). Equal or fair? A study of revenues and expenditure in American charter schools. Boulder and Tempe: Education and the Public Interest Center & Education Policy Research Unit. Retrieved October 27, 2010, from http://nepc.colorado.edu/publication/charter-school-finance.

[10] Baker, B.D. & Elmer, D.R. (2009) The Politics of Off-the-Shelf School Finance Reform. *Educational Policy 23* (1) 66-10.

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[13] Baker, B.D. (2009) Evaluating Marginal Costs with School Level Data: Implications for the Design of Weighted Student Allocation Formulas. *Education Policy Analysis Archives , 17* (3).

[14] See Appendix A for detailed descriptions of the data sources used.

[15] Baker, B.D. & Welner, K.G. (2010) Premature celebrations: The persistence of inter-district funding disparities. *Education Policy Analysis Archives*. Retrieved December 13, 2010, from http://epaa.asu.edu/ojs/article/viewFile/718/831.

[16] Center for Education Reform (2010). Annual Survey of America's Charter Schools 2010, 14. Retrieved December 13, 2010, from http://www.edreform.com/published_pdf/Annual_Survey_of_Americas_Charter_Schools_2010.pdf.

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[18] Batdorff, M., Maloney, L., May, J., Doyle, D., & Hassel, B. (2010). *Charter School Funding: Inequity Persists.* Muncie, IN: Ball State University, 1.

[19] Batdorff, M., Maloney, L., May, J., Doyle, D., & Hassel, B. (2010). *Charter School Funding: Inequity Persists.* Muncie, IN: Ball State University, 1.

[20] NYC Independent Budget Office (2010, February). Comparing the Level of Public Support: Charter Schools versus Traditional Public Schools. New York: Author.

[21] Winters, M. (2010, March 1). Charter Schools Aren't Just Better, They Cost Less! *New York Daily News*. Retrieved December 13, 2010, from http://www.nydailynews.com/opinions/2010/03/01/2010-03-01_city_charter_schools_arent_just_better__they_cost_less.html.

[22] See: http://gothamschools.org/2010/01/11/charter-school-philanthropy-2009/.

[23] Miron, G. & Urschel, J.L. (2010). Equal or fair? A study of revenues and expenditure in American charter schools. Boulder and Tempe: Education and the Public Interest Center & Education Policy Research Unit. Retrieved October 27, 2010, from http://nepc.colorado.edu/publication/charter-school-finance.

Note that Miron and Urschel were limited in this analysis to evaluating charter schools that are financially independent of their host districts, therefore reporting their finances as independent school districts on the U.S. Census Bureau fiscal survey of local governments.

[24] Hoxby, C. M., Murarka, S. & Kang, J. (2009, September).How NYC's Charter Schools Affect Achievement. Second report in series. Cambridge, MA: NYC Charter Schools Evaluation Project. Retrieved October 1, 2009, from http://www.nber.org/~schools/charterschoolseval/.

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[30] Hoxby, C. M., Murarka, S. & Kang, J. (2009, September).*How NYC's Charter Schools Affect Achievement*. Second report in series. Cambridge, MA: NYC Charter Schools Evaluation Project. Retrieved October 1, 2009, from http://www.nber.org/~schools/charterschoolseval/.

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[34] For Gittleson's data, see http://gothamschools.org/2010/05/11/closing-the-gap-charter-school-special-education-stats/.

Across the Hudson River in Newark, New Jersey, highly acclaimed charter schools like Robert Treat Academy and North Star Academy (part of Uncommon Schools) serve only 3.8% and 7.8% children with disabilities respectively while Newark Public Schools serve 18.1% children with disabilities. See: http://www.state.nj.us/njded/specialed/data/ADR/2007/classification/distclassification.xls.

[35] This is common across states and districts and accompanied by a number of possible explanations, ranging from different compliance rates for filing for free lunch status to expected changes in family poverty status as children grow older and families mature.

[36] That is, many NYC elementary schools—charter or non-charter—have effectively maxed out on reporting for families who fall below the 185% poverty level. But this does not mean that there are not substantive differences in the socio-economic status of students across these schools. Some of these schools have much higher shares of children who fall below the 130% poverty level (free lunch), even though the remaining share of their population falls below the 185% level.

[37] Yet charters within a given neighborhood in Newark, New Jersey typically serve proportionately fewer (far fewer) of the poorer students.

[38] Buckley, J. & Sattin-Bajaj, C. (2010) *Are ELL students under-represented in charter schools? Demographic Trends in NYC 2006-2008*. New York: National Center for the Study of Privatization in Education. Retrieved December 13, 2010, from http://www.ncspe.org/publications_files/OP188.pdf.

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[40] Duncombe, W. & Yinger, J. (2005). *How Much More Does a Disadvantaged Student Cost?* Syracuse, NY: Center for Policy Research, Syracuse University. Retrieved December 13, 2010, from http://www-cpr.maxwell.syr.edu/cprwps/pdf/wp60.pdf.

[41] Note that the "weight" for children qualifying for free lunch should be substantially greater than 100% (and even greater than 111%). This is because the income threshold to qualify for free lunch (130% of the poverty level) is a more stringent threshold than the 185% (free or reduced lunch) income threshold associated with Duncombe and Yinger's 111% weight. Duncombe and Yinger find the additional cost associated with children under the 100% poverty threshold to be 141% (see Duncombe & Yinger, 2005, Table 6, simple average). Our weight should lie somewhere between 111% and 141%. Thus, our estimate is likely very conservative.

Duncombe, W. & Yinger, J. (2008). Measurement of Cost Differentials. In H.F. Ladd & E. Fiske (eds), pp. 203-221. *Handbook of Research in Education Finance and Policy*. New York: Routledge.

Duncombe, W. & Yinger, J. (2005). How Much More Does a Disadvantaged Student Cost? *Economics of Education Review 24* (5), 513-532.

In this regard, note that the Duncombe and Yinger 111% weight is designed to capture the differences in rates of students receiving free- and reduced-price lunch across settings in all of New York State. It uses an income threshold sufficient to pick up that variation statewide. A stricter threshold (e.g., comparing to only non-poor children) would, of course, result in a higher weight. Similarly, if NYC has relatively few non-poor students, the 111% weight would be higher than if the researchers looked only at City schools. However, the very conservative choice of a 100 weight would more than compensate for this.

[42] Duncombe, W. & Yinger, J. (2005) How Much More Does a Disadvantaged Student Cost? *Economics of Education Review 24* (5), 513-532.

[43] For a detailed description of data sources, see Appendix A.

[44] IRS 990 expenditures are higher than audited financial report expenditures in Community Partnership and the Carl Icahn schools. This difference for Icahn schools is relevant to later discussions in this report where Icahn schools appear as high performers at low spending levels—using audited financial reports, not the higher IRS 990 spending levels. Audited financial report expenditures are higher in the Bronx Lighthouse, Peninsula Prep, Hellenic Classical and Brooklyn Charter schools and much higher in the HCZ charters. This finding suggests that significant expenditures from the HCZ organization were included on the audited financial reports but not on the school-site IRS 990s. But, the organization IRS 990 does not report allocations to specific school sites (two of which were active during the period investigated).

[45] This variation likely neglects significant unmeasured variation in secondary and tertiary level foundation support.

[46] One quirk that appears in Figure 4 is that KIPP Academy spends far more than the other KIPP schools. This occurs on both the annual financial report and the IRS 990. We include the numbers as reported, but others, including Gittleson (2009), spread KIPP schools' primary foundation expenditures across all KIPP schools on the assumption that KIPP within NY has simply chosen to record expenditures for "all schools" on the KIPP Academy budget. Gittleson also subtracts from KIPP Academy expenditures those devoted to the KIPP to College program. We also include in the graph, the KIPP figures, if averaged across KIPP schools in operation and excluding KIPP to College, bringing their average to $15,604 (as reported by Gittleson) for 2008, which includes KIPP AMP (not shown) for which not all other data were available. At the very least, this is sloppy, albeit consistently sloppy (across sources) financial accounting by the KIPP schools.

Gittleson (2009) makes a number of reasonable assumptions and adjustments to KIPP funding, including the spreading of KIPP expenditures across all KIPP schools and the removal of KIPP to College expenditures. Her analyses can be found here:
http://gothamschools.org/2010/01/14/charter-school-expenses-2009/
and are an exceptional complement to the analyses we provide in this report.

[47] Retrieved December 13, 2010, from
http://www.nces.ed.gov/ccd/.

[48] See Dobbie, W. & Fryer, R. G. (2009). Are High-Quality Schools Enough to Close the Achievement Gap? Evidence from a Bold Social Experiment in Harlem. Unpublished manuscript, Harvard University, 5.

[49] See http://www.hyde.edu/. Similar issues apply to the Ross schools: http://www.rossinstitute.org/.

[50] In the case of Hyde Leadership Academy, it is certainly reasonable to assume that the Maine boarding school consumes a far greater share of organization resources than the various charter schools affiliated with the boarding school. There is no clear way to parse out these resources.

[51] Individual contribution amounts as listed on IRS 990 filings for 2008 of Walton Family Foundation, Bill and Melinda Gates Foundation and New Schools Venture fund, retrieved from http://www.guidestar.org.

[52] Batdorff, M., Maloney, L., May, J., Doyle, D., & Hassel, B. (2010). *Charter School Funding: Inequity Persists*. Muncie, IN: Ball State University.

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http://www.nydailynews.com/opinions/2010/03/01/2010-03-01_city_charter_schools_arent_just_better__they_cost_less.html.

[53] NYC Independent Budget Office (2010, February). Comparing the Level of Public Support: Charter Schools versus Traditional Public Schools. New York: Author, 1

[54] The U.S. Department of Education Blueprint for ESEA reauthorization argues: "Over time, districts will be required to ensure that their high-poverty schools receive state and local funding levels (for personnel and relevant nonpersonnel expenditures) comparable to those received by their low-poverty schools. In addition, districts that use their resources to provide strong support to disadvantaged students will be given additional flexibility to provide such support." Retrieved December 13, 2010, from
http://www2.ed.gov/policy/elsec/leg/blueprint/blueprint.pdf

[55] New York City Department of Education (2007). Fair Student Funding: Fair Funding for All. New York: Author. Retrieved December 13, 2010, from
http://www.edpriorities.org/Info/CityBudget/Fair_Funding-WEB.pdf.

[56] Alternative models using school-site special education population shares (based on Gittleson's 2008-09 reported data: http://gothamschools.org/2010/05/11/closing-the-gap-charter-school-special-education-stats/) as an additional student-need measure did reveal some relationship between spending differences and special education shares, but this effect was driven almost entirely by specific outlier schools like Opportunity Charter School, which reports very high rates of special education children and very high spending per pupil.

[57] Note that our outcome measure does not attempt to discern whether a child lotteried into one of these schools is better off than if he or she had stayed in the neighborhood public school as a result of being lotteried out.

[58] Gittleson, K. (2010, May 11). Closing the Gap: Charter School Special Education Stats. *Gotham Schools*. Retrieved December 13, 2010, from http://gothamschools.org/2010/05/11/closing-the-gap-charter-school-special-education-stats/.

[59] For a May 2010 report on disciplinary problems at Opportunity Charter, see:
Deutsch, K. & Kolodner, M. (2010, May 19). Manhattan's Opportunity Charter School accused of using disciplinary goon squad to beat problem kids. *New York Daily News*. Retrieved December 13, 2010, from http://www.nydailynews.com/ny_local/education/2010/05/19/2010-05-19_manhattans_opportunity_charter_school_accused_of_using_disciplinary_goon_squad_t.html

For information information on rates of children with disabilities, see:
Gittleson, K. (2010, May 11). Closing the Gap: Charter School Special Education Stats. *Gotham Schools*. Retrieved December 13, 2010, from http://gothamschools.org/2010/05/11/closing-the-gap-charter-school-special-education-stats/.

[60] Gittleson, K. (2010, May 11). Closing the Gap: Charter School Special Education Stats. *Gotham Schools*. Retrieved December 13, 2010, from http://gothamschools.org/2010/05/11/closing-the-gap-charter-school-special-education-stats/.

[61] See: Gittleson, K. (2010, May 11). Closing the Gap: Charter School Special Education Stats. *Gotham Schools*. Retrieved December 13, 2010, from http://gothamschools.org/2010/05/11/closing-the-gap-charter-school-special-education-stats/.

[62] See: Batdorff, M., Maloney, L., May, J., Doyle, D., & Hassel, B. (2010). *Charter School Funding: Inequity Persists.* Muncie, IN: Ball State University, bottom of Table 5

[63] Depending on how one chooses to calculate this figure, the range is from 19,199 to about 20,162. The reported total expenditures for the district are $20,144,661,000 and enrollment figures range from 999,150 (as reported in the fiscal survey) to 1,049,273 (implied enrollment from current expenditure per pupil calculation in fiscal survey).

[64] From the Census Bureau's Fiscal Survey of Local Governments, Elementary and Secondary Education, F-33. Retrieved December 15, 2010, from http://www.census.gov/govs/school/historical_data_2007.html.

[65] The New York State Education Department reports several versions of expenditure figures. Total expenditures per pupil for NYC in 2007-08 were $18,977—much lower than the total reported by Batdorf and colleagues. But the IBO correctly points out some expenses would be appropriately excluded from this number. For instance, the NYC Department of Education provides facilities for about half the city's charter schools as well as many other forms of support for some charter schools, including authorizer services, food service, transportation services, textbooks, and management services:

> Pass-through Support for Charter Schools. Charter schools are eligible to receive goods such as textbooks and software, as well as services such as special education evaluations, health services, and student transportation, if needed and requested from the district. In NYC there is a long-established process for non-public schools to access these services, and charter schools have access to similar support from DOE. For these items, charter schools receive the goods or services rather than dollars to pay for them. Most of these non-cash allocations are managed centrally through DOE.

IBO report, 2010: Retrieved December 13, 2010, from http://schools.nyc.gov/community/planning/charters/ResourcesforSchools/default.htm.

It is simply wrong to compare the city aggregate spending per pupil to the school-site allotment for charters, as was done by Batdorf and colleagues (who also use the most inflated available figure for the city aggregate spending). In 2007-08 (a year earlier than the IBO comparison figure, but likely a reasonable substitute), NYSED estimates for the instructional/operating expenditures per pupil in NYC were $15,065 (this uses the instructional expenditure share, including expenditures on employee benefits [IE2%, Col. AP] times the total expenditures. Retrieved December 13, 2010, from http://www.oms.nysed.gov/faru/Profiles/datacolumns1.htm). This figure may be far more relevant than that chosen by Batdorf and colleagues, but is still potentially problematic.

[66] Again, we are unable to adjust precisely for differences in special education populations, due to lack of sufficiently detailed data.

[67] The table draws on school-site budgets from the New York City Fair Student Funding Model (FSF) for 2007-08 and also from school site audited expenditure reports from 2007-08 (detail provided in Appendix D).

[68] See: Gittleson, K. (2010, May 11). Closing the Gap: Charter School Special Education Stats. *Gotham Schools*. Retrieved December 13, 2010, from http://gothamschools.org/2010/05/11/closing-the-gap-charter-school-special-education-stats/.

[69] An argument could be made that we should also subtract management fees from charter spending, as representing an expense roughly equivalent to central-office services, and an expense not incurred by traditional public schools in their site-based expenditures. These fees are incurred by those charters that are part of a network or are embedded in school-site costs in charters operating independently. The argument against subtracting these fees, however, is that the services provided by the central office of the network supplant services provided at the school site by employees of other charters; they do not supplant the services provided by the NYC Department of Education's central office. Subtracting these fees would reduce the charter budgets by another $2,000 per pupil, at the high end. For example, Gittleson (2010) finds that management fees range from about $1,300 to $13,000 per pupil. (See http://gothamschools.org/2010/07/27/victory-for-victory-schools-comparing-charter-management-options/.) Using that figure, two of the three charters considered in Table 5 would remain above the FSF budget allocation, with Harlem Day still well above, despite serving a much lower-need population. Two of the three would have somewhat lower resources than reported spending per pupil among the three traditional public schools.

In yet another useful comparison, Gittleson (March 9, 2010) compares spending of "co-located" schools, and finds, "charter schools spent $365 *less* per pupil than their co-located traditional public schools in 2007-2008."

Gittleson, K. (2010, March 9). Spending at co-located schools. *Gotham Schools*. Retrieved November 1, 2010, from http://gothamschools.org/2010/03/09/spending-at-co-located-schools/comment-page-1.

But Gittleson does not in this analysis correct for the differences in the costs of serving what may be substantively different student populations. She does include expenditure of philanthropic resources, but only those reported on school site annual financial reports.

[70] In yet another comparison, Kim Gittleson finds that charter schools spend about $365 less per pupil than nearby traditional public schools (without correcting for differences in student needs).

Gittleson, K. (2010, March 9). Spending at co-located schools. *Gotham Schools*. Retrieved November 1, 2010, from http://gothamschools.org/2010/03/09/spending-at-co-located-schools/#more-34359.

This difference is very small to begin with, and our data suggest some sizeable differences in student populations between nearby schools.

[71] Hassel, B.C. & Doyle, D. (2009) The Tab: How Connecticut Can Fix its Dysfunctional Education Spending System to Reward Success, Incentivize Choice and Boost Student Achievement. Connecticut Coalition for Achievement Now & Public Impact. Retrieved December 13, 2010, from http://www.conncan.org/sites/default/files/research/TheTab.pdf.

Public Impact; The University of Dayton, School of Education and Allied Professions; and Thomas B. Fordham Institute. (2008, March). *Fund the Child: Bringing Equity, Autonomy and Portability to Ohio School Finance How sound an investment?* Washington, DC: Thomas B. Fordham Institute.

[72] Charter schools that are fiscally dependent on public school districts but have lower poverty rates and higher spending than traditional public schools in the same district, as is the case for many in NYC, may compromise those districts' ability to gain access to Title I funding to the extent that the charter schools compromise measures of "comparability" under both current and proposed "comparability" regulations (unless comparability regulations were to ignore private contributions to charters, which would defeat the purpose entirely). That is, under "comparability" regulations, especially under tightened proposed regulations, districts would have to show that budgets allocated across schools are substantially equal, or preferably more highly targeted to high need schools. Where charters are funded through districts rather than direct from state sources, one would assume that charters would count within this analysis of "comparability." If they do, and if they disrupt equity in other cities to the extent we find in NYC here, then Charter schools pose a significant risk to Title I funding.

[73] Further, as Rob Reich points out, philanthropy tips the balance of control over the mission of these quasi-public schools into the hands of a small number of mostly wealthy contributors, as opposed to the general public. See:

Reich, R. (2005). Philanthropy and its Uneasy Relation to Equality. Retrieved from http://econ.duke.edu/~staff/wrkshop_papers/2005-Fall/Reich.pdf

[74] For example, see:

http://www.tilsonfunds.com/Personal/SchoolReform/ and specifically, http://www.tilsonfunds.com/Personal/TheCriticalNeedforGenuineSchoolReform.pptx.

Whitney Tilson opines that increased spending on public education has yielded no return in outcomes over time. Tilson, who sits on the boards of the high-spending NYC KIPP Academies, is featured prominently in this *New York Times* article on affluent fund managers in NYC rallying for charter schools:

Gabriel, T. & Medina, J. (2010, May 10). Charter Schools' New Cheerleaders: Financiers. *The New York Times*, A20. Retrieved December 13, 2010, from http://www.nytimes.com/2010/05/10/nyregion/10charter.html.

[75] Baker, B. D. & Welner, K. G. (2011). School Finance and Courts: Does Reform Matter, and How Can We Tell? *Teachers College Record, 113*(11). Retrieved December 13, 2010, from http://www.tcrecord.org/content.asp?contentid=16106 (subscription required).

[76] A thoughtful reviewer noted: "This means, adding much greater precision to data collected, annual auditing and sanctions for maintenance of imbalanced student needs. There are a number of state laws to prevent cream skimming/segregation, many studies have found relationships between state laws and charter school student populations but some argue that the laws have not been enforced."