

# UNEQUAL SHARES:

The Surprising Facts About Charter Schools  
and Overcrowding

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## ***Executive Summary***

Critics sometimes point to New York City charter schools co-locating in district buildings as a cause for school overcrowding across the city. An analysis of building utilization rates from the City’s “Blue Books” (2009-10 and 2010-11) tells a different story: there is more crowding in buildings without co-location; more crowding in co-locations without charter schools; and more crowding at co-located charter schools than the district schools with which they share buildings. These differences underscore the need to consider charter school co-location and overcrowding as different and distinct issues.

## **Introduction**

New York City’s public charter schools do not receive regular funding for school facilities, and therefore must secure space through private fundraising, redirected operating funds, and/or free access to district school buildings. As overcrowding has become a concern at New York City’s district schools, some charter school critics have drawn a connection between tight quarters at some district schools and the roughly two-thirds of charter schools that are co-located in district buildings.

A recent report from NYC Independent Budget Office (IBO) poured cold water on the “blame co-location” theory of overcrowding. Drawing on the “Blue Book” from 2009-10 (the City’s building utilization report), the IBO noted that buildings with a single school have higher utilization rates than buildings with co-located schools (both average and median; see Table 1). Because the Blue Book data are so detailed, they can also be used to address two other questions that are specific to charter schools.

First, are buildings with co-located charter schools also less crowded than single-school buildings? Our analysis of that same 2009-10 Blue Book data shows that they are, by an even wider margin than buildings with co-locations in general.

Second, where charter schools and district schools are co-located in the same building, which side of the building is more crowded? Our analysis, with the recently-released 2010-11 Blue Book data, shows that the co-located charter schools tend to have much *higher* utilization rates, which contradicts the notion that they are somehow favored with more elbow room.

## **IBO: Buildings with co-locations are less crowded than single-school buildings**

The IBO’s comparison of school utilization rates can be found in its 2011 annual report on public schools.<sup>1</sup> As its analysis of the Blue Book data shows, co-located school buildings had lower average and median rates of utilization than buildings that are home to a single school. Informally speaking, they were less crowded.

**Table 1: NYC school building utilization rates, 2009-10**

	<b>Buildings with one school</b>	<b>Buildings with co-located schools</b>
<b>Average utilization rate of buildings</b>	103.7%	84.7%
<b>Median utilization rate of buildings</b>	100.2%	82.2%
<b>Number of buildings</b>	991	389

*Source:* NYC Independent Budget Office, *NYC Public School Indicators* (2011), adapted from p. 23, Table 3.19, based on NYC DOE building utilization data. Note that “Number of buildings” is incorrectly labeled “Number of schools” in the original. Values include District 75 schools, per IBO methodology.

## **Buildings with charter school co-locations are even less crowded**

Since charter schools are only present in 16% of buildings with co-located schools, we applied the IBO’s method to the Blue Book data on only those co-locations that include at least one charter school. The data in question come from the Enrollment Capacity Utilization report for the 2009-10 school year, produced by the New York City School Construction Authority (SCA).<sup>2</sup> Like the IBO, we pulled the numbers for organizational enrollment (“Org Enroll”) and organizational capacity (“Org Capacity”) calculated under the current “Target Method.”

The resulting divide was actually wider. Buildings with co-locations are even less crowded when at least one charter school is present.

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<sup>1</sup> NYC Independent Budget Office. (2011). *New York City Public School Indicators: Demographics, Resources, Outcomes*. Online at <http://www.scribd.com/doc/64996118/IBO-Indicators-Report>

<sup>2</sup> NYC School Construction Authority. (2010). Enrollment, Capacity, and Utilization Report. Online at <http://nycsca.org/Community/CapitalPlanManagementReportsData/Enrollment/2009-10-BlueBook.pdf>

**Table 2: NYC school building utilization rates, 2009-10**

	<b>Buildings with one school</b>	<b>Buildings with co-located schools</b>	<b>Buildings with co-located schools including a charter school</b>
<b>Average utilization rate of buildings</b>	103.7%	84.7%	75.7%
<b>Median utilization rate of buildings</b>	100.2%	82.2%	76.6%
<b>Number of buildings</b>	991	389	63

*Source:* NYC Independent Budget Office, *NYC Public School Indicators* (2011), adapted from p. 23, Table 3.19; and NYC Charter School Center analysis, both based on NYC DOE building utilization data. Note that “Number of buildings” is incorrectly labeled “Number of schools” in Table 3.19. Values include District 75 schools, per IBO methodology.

### **Charter schools are more crowded than the district schools co-located with them**

To compare charter and district schools that are co-located in the same buildings, we were able to use Blue Book data from 2010-11. We tabulated the organizational enrollments and capacities for all co-located charter schools, and all district schools co-located with at least one charter schools. (Charter schools with multiple co-located campuses were accounted for; for a full description of method see Appendix A.) The comparison reveals striking differences, including an aggregate difference of over 25 percentage points in building utilization.

**Table 3: NYC building utilization at charter and district schools co-located in the same buildings, 2010-11**

	<b>District schools co-located with charter schools</b>	<b>Charter schools co-located with district schools</b>
<b>Number of schools</b>	87	70
<b>Enrollment</b>	34,429	19,207
<b>Capacity</b>	51,260	20,069
<b>Aggregate utilization rate</b>	67.2%	95.7%
<b>Average school’s utilization rate</b>	69.0%	109.6%

*Source:* NYC DOE building utilization data, NYC Charter School Center analysis

All in all, while 41 of the 70 co-located charter schools exceeded the threshold of 100% building utilization, the same was true of only 6 of the 87 district schools with whom they were co-located.

Because the Blue Book methodology includes different standards depending on the grade level<sup>3</sup>, it is important to make sure these differences do not merely reflect co-located charter schools' concentration in the elementary grades.

**Table 4: Utilization rate by grade range in NYC, 2010-11**

Grade Level	District schools co-located with charter schools			Charter schools co-located with district schools		
	Org Enroll	Org Capacity	Utilization Rate	Org Enroll	Org Capacity	Utilization Rate
<b>Elementary</b>	11966	16135	74.16%	10175	9184	110.79%
<b>K-8</b>	5815	8121	71.60%	2994	2988	100.20%
<b>Middle</b>	14413	23880	60.36%	5241	6459	81.41
<b>High School</b>	2235	3124	71.54%	797	1438	55.42%

Source: NYC Progress Reports 2010-11, NYC DOE building utilization data, NYC Charter School Center analysis

Calculating the same utilization rates by grade range, co-located charters have higher utilization rates than their district counterparts at the Elementary, K-8, and Middle School levels. In High School, the difference is reversed, with the district high schools co-located with charter schools having higher utilization rates than the co-located charter high schools.

These comparisons include seven charter school co-locations that were new in 2010-11. Among these most recent additions to the data set, the same pattern persists. In six of the seven buildings, the charter school had a higher utilization rate than its co-located district school(s); in the seventh, both charter and district utilization rates were extremely low (57% district vs. 32% charter).

### **Measurement error is highly unlikely to explain the same-building differences**

The Office of Comptroller John Liu recently audited the Blue Book and the DOE's method of producing it, and the resulting *Audit Report* should inspire caution in any analysis of the Blue

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<sup>3</sup> NYC School Construction Authority

Book data.<sup>4</sup> The Comptroller found substantial errors in individual schools' utilization rates, including an error rate in capacity numbers of 7.22% (p. 7), split fairly evenly between overstatements and understatements of capacity.

Supposing that this report is accurate, does a 7.22% error rate in capacity measures render meaningless our comparison of charter schools and the district schools that share buildings with them? It would if they were narrow differences. However, assuming a 7.22% error rate for both charter and district schools carrying over to the 2010-11 Blue Book, the observed difference in utilization rates between charter schools and district schools in the same building is still statistically significant at  $p < .01$ .<sup>5</sup> In other words, with over 99% certainty, in 2010-11 charter schools had higher utilization rates than their co-located district schools to an extent that withstands the kinds of errors highlighted in the comptroller's audit.

That being said, the Blue Book's reliance on reports by school principals—which the Comptroller found to be verified by SCA only 19% of the time—leaves an unsettling amount of room for biased reporting. Consider this paragraph from the *Audit Report* (p. 10):

Officials at two schools told us that they believe that the purpose of the AFS is to identify extra space in public school buildings to be occupied by charter schools or other schools. Officials at one of the two schools told us that they try as much as possible to deter DOE from placing a charter school in their building. It is important to note that we found no evidence that these or any of the other principals for the sampled schools intentionally provided misleading information on their surveys.

Although the auditors find no evidence of wrongdoing, it is conceivable that the desire to avoid a new co-location leads some principals at single-school buildings to understate their available capacity. Such considerations would be less likely to influence the principals of already co-located schools.

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<sup>4</sup> Office of Comptroller John Liu. (2011). *Audit Report on the Collection and Reporting of School Capacity and Utilization Data by the Department of Education and the School Construction Authority*. Online at [http://www.comptroller.nyc.gov/bureaus/audit/audits\\_2011/09-14-11\\_ME11-064A.shtm](http://www.comptroller.nyc.gov/bureaus/audit/audits_2011/09-14-11_ME11-064A.shtm)

<sup>5</sup> Based on student's t-test using standard deviation of measurement error in comptroller's audit and variance between schools.

## Class size comparisons are mixed

We have referred to building utilization as “crowding” at the building level, but class sizes are also a crowding-related concern. Could higher utilization rates somehow mask smaller class sizes at co-located charter schools? It is theoretically possible, since different schools are staffed and scheduled in different ways.

To check this, we collected class size figures for charter and district schools that share the same buildings from the State Education Department’s School Report Card (SRC) database for the 2009-10 school year. Not all schools report class sizes; in this comparison group they were available for 59 of the 72 district schools and 37 of the 60 charter schools, an unfortunately limited sample. To create overall average estimates by grade range, we applied the SRC’s distribution of enrollment across grade levels to the Blue Book organizational enrollments, then divided by the class sizes reported for each grade level within each school.

**Table 5: Estimated average class sizes by grade range in NYC, 2009-10**

	District schools co-located with charter schools				Charter schools co-located with district schools			
	Elem.	Middle	High	Total	Elem.	Middle	High	Total
<b>Classes (est.)</b>	613	459	38	1110	304	138	73	515
<b>Enrolled (est.)</b>	12976	11114	904	24994	7061	2820	1508	11389
<b>Students/Class</b>	21.2	24.2	24	22.5	23.2	20.4	20.8	22.1

**Sources:** NYC DOE building utilization data (2009-10), NY State Education Dept. Student Report Cards (2009-10), NYC Charter School Center analysis

Overall, co-located charter school that reported class sizes had larger class sizes in elementary grades than the district schools with which they shared buildings, but smaller class sizes in the middle and high school grades. Since most of the charter schools are elementary schools, the total comparison is a wash (a difference of 0.4 students per class). A linear regression analysis also did not show a statistically significant correlation between reported class size and building utilization in this sample of schools.

## **New co-locations in 2011-12 are still projected to be less crowded, on average**

Though Blue Book data are not yet available for the current 2011-12 school year, information on overall building utilization for schools co-locating this year can be gathered from the DOE's Educational Impact Statements (EISs). On each EIS, the DOE provides the target capacity and utilization rate of the building before the change in building usage, as well as the projected utilization rate after the change. Unfortunately, the EISs do not specify utilization by school.

This school year, 15 charter schools have newly co-located in 14 different buildings. The buildings into which they have moved have had utilization rates of 64.5% on average before the move, making them some of the least utilized buildings in the city. After the moves, and after up to six years of growth as all schools in the building grow to scale, the average utilization rate for the buildings is projected to be 90.5%. This is more intense utilization than the 2009-10 average for co-located buildings (84.7%) but still below the 2009-10 average for single-school buildings (103.7%)<sup>6</sup>. The utilization rate is projected to exceed 100% in 3 of the 14 buildings, however, although DOE notes that changes in room use may change the projected utilization rates by the time they are realized.

## **Discussion**

Charter schools do not receive facility funding, and when they are allowed free co-location in district buildings it is without legal right to the space. Given these and other pressing challenges, including lawsuits to halt co-locations or collect \$100 million in rent, the relative crowdedness in different parts of a shared building is a distant concern for most charter school leaders. For New Yorkers and their elected officials, however, it may be more important—especially if they are led to believe that one type of school is systematically causing capacity overflow problems at another.

The most recent Blue Book data, though imperfect, should put that charter school myth to rest. Across New York City, there is more crowding in buildings without co-location; more crowding

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<sup>6</sup> All data and calculations based on NYC Panel on Educational Policy documents, online at <http://schools.nyc.gov/AboutUs/leadership/PEP/publicnotice/default.htm>. Time horizon utilization rates are the Blue Book target capacity divided by the projected total building enrollment in the time horizon year as noted on the PEP Educational Impact Statement.

in co-locations without charter schools; and more crowding at co-located charter schools than the district schools with which they share buildings. Charter school co-location and school crowding are both important concerns, but they are very plainly separate issues.

## **Appendix A: Calculation notes**

To compare the utilization rates of charter schools and district schools that are co-located in the same buildings, we searched the 2010-11 Blue Book for all charter schools operating in the city during the 2010-11 school year by building. Because charter schools sometimes have students in two different buildings, we searched for all buildings where they had students and added together the enrollments and capacities from these locations when necessary, and we included the district schools from both buildings in our comparisons.

We excluded from our calculations all Special Education-specific schools (District 75) and the New York Autism Charter School, as these schools have different per-pupil building space needs. (These schools are included under the IBO's method.) We also kept the sample to co-located schools and did not include charter schools with their own buildings.

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