

*Supplemental Tables...*

[Enrollment and Capacity Changes Citywide: by Borough](#)

and

[Under/Over Capacity By High School](#)

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## High School Overcrowding Persists, Especially in Large Schools

### SUMMARY

HIGH SCHOOLS HAVE BEEN THE MOST OVERCROWDED part of the public school system for a number of years. As a result, the Department of Education has dedicated a large share of its capital budget towards increasing the number of seats in high schools in areas with severe overcrowding. IBO examined the change in overcrowding over the five years covered by the last schools capital plan. Based on our analysis of enrollment and capacity data for school years 2004–2005 through 2008–2009 from the education department’s “Blue Book”—the only source of data for the entire period—IBO found:

- While roughly half of New York City high schoolers—148,000 students—attended overcrowded schools in school year 2008–2009, the share of students in overcrowded high schools has fallen 15 percentage points since 2004–2005.
- Overcrowding had decreased as capacity grew by nearly 32,250 seats (12 percent) while enrollment grew by about 4,000 students (1 percent) from 2004–2005 through 2008–2009.
- While the citywide gap between capacity and enrollment in large high schools (more than 500 students) has narrowed, large schools were still far more overcrowded than small schools in 2008–2009.
- Although overcrowding eased in all five boroughs, in the 2008–2009 school year 78 percent of students in large high schools in Queens and 63 percent of students in large Brooklyn high schools were in overcrowded schools.
- In the 2004–2005 school year, 72,000 students were enrolled in the most overcrowded quartile of schools; by 2008–2009 the number had fallen to just over 51,000 students.

High school overcrowding persists despite the fact that by 2008–2009 the number of seats exceeded enrollment by 15,100. This was not true in 2004–2005, when enrollment was 291,360 but there were only 275,325 seats. This suggests that ending overcrowding will require more than simply increasing overall capacity—policies that enhance underused schools and encourage students to enroll in them will also be necessary.

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## THE MOST CROWDED PART OF THE SCHOOL SYSTEM

A comparison of enrollment and capacity in the 2004–2005 and 2008–2009 school years shows that high schools remain the most overcrowded part of the city’s public school system. Looking at schools in 2004–2005 and 2008–2009 (excluding charter schools and schools that are part of District 75, the centrally administered special education program), 65 percent of high school students were in schools where enrollment exceeded capacity by at least 2.5 percent in 2004–2005; in 2008–2009 there were still 50 percent facing such conditions, with adjustments described below. In elementary schools, 23 percent of students were in overcrowded buildings in 2004–2005 and 22 percent still attended overcrowded schools in 2008–2009. In middle schools, 18 percent of students were in overcrowded buildings in 2004–2005 and that dropped to 14 percent in 2008–2009. As of 2008–2009, there were more high school students in overcrowded schools (147,831) than in primary (104,798) and intermediate (25,889) schools combined, even though high schools account for only about 30 percent of the city’s public school students.

The extent of high school overcrowding varies geographically with pockets of severe overcrowding in some areas while elsewhere there are high schools with excess capacity. Citywide, there are 15,100 more seats in high schools than students. Students can apply to high schools across the city, but it appears that many students are not exercising this option to apply to schools where there is available capacity, perhaps due in part to the desire to avoid lengthy or difficult commutes. In some cases, students apply to schools with strong reputations in spite of overcrowded conditions.

The Department of Education (DOE) has tried tackling high school overcrowding by adding capacity through the capital plan. One of the DOE’s stated goals in the last five-year education capital plan covering fiscal years 2005 to 2009 was to reduce high school overcrowding in schools citywide, mainly by creating almost 27,000 new middle/high school seats as part of its New Capacity Program. According to the Final Report for the 2005–2009 capital plan, 18,717 of those seats had been constructed, although not all of these were in use.<sup>1</sup> Another 6,691 are still under construction, and the remaining 1,346 (all are in Queens) have been rolled into the new five-year capital plan that began in fiscal year 2010. The 2005–2009 capital plan also aimed to expand the New Small School Initiative. Under the initiative, which began in 2002, many large high schools are slowly being phased out across the city to make way for smaller schools (and in some cases charter schools) to replace them in the same buildings.

This paper will analyze overcrowding in city high schools using the DOE’s Enrollment, Capacity, and Utilization data (commonly referred to as the Blue Book), focusing on differences in overcrowding between small and large schools over time to see how overcrowding has changed during the years of the last five-year plan, from 2005 to 2009. Unless otherwise stated, years are city fiscal years, which correspond to school years. We looked at the set of high schools in each school year so the schools included in the analysis changes over time.

## DATA CONSIDERATIONS

**Definition of Overcrowding.** We have classified schools as overcrowded where enrollment exceeds capacity by at least 2.5 percent. In selecting 2.5 percent as the cut off, we sought to avoid using a definition that would characterize a school as overcrowded if enrollment exceeded capacity by just a handful of students. We assumed that a principal could absorb a modest excess when programming the school and managing enrollment and capacity. While our cutoff is lower than the 5 percent used by the U.S. Department of Education, we concluded that as it related to city high schools, the higher cutoff might discount instances where the number of “extra” students is large in absolute terms even if not in percentage terms. Given that some large high schools have more than 4,000 students, using 5 percent would mean a school could be 200 or more students over capacity (the equivalent of more than six classrooms) and still not be classified as overcrowded.<sup>2</sup>

To avoid labeling a school “overcrowded” when the actual difference between enrollment and capacity is relatively small, we used an additional criterion: a school’s enrollment had to exceed capacity by at least 30 students. We set the cutoff at 30 students based on the DOE’s standard number of additional students necessary to create a new high school class or section. According to the 2009 Blue Book, the target capacity for grades 9–12 is 30 students.

In using this two-pronged definition of overcrowding, we found that less than 6 percent of the schools used in the analysis in any year meet one of the criteria but not the other. Most of these were small schools where 2.5 percent of capacity was less than 30 students. Despite this two-pronged approach, using arbitrary cutoffs can still mean that relatively small changes in enrollment and/or capacity can result in a school being reclassified from one year to the next.

**Blue Book Data.** IBO used Blue Book data on enrollment and capacity at the school (or organization) level. The methodology for calculating the capacity reported in the Blue Book as well as the reliability of the underlying reports from principals has

been strongly critiqued in several reports.<sup>3</sup> Nevertheless, without commissioning surveys of each individual school, it remains the one comprehensive source available for researchers interested in school capacity over time.

Beginning with the 2006–2007 school year, the School Construction Authority introduced an alternative measure of capacity that better reflects the DOE’s target capacity and use of classroom space for each grade. However, in order to maintain consistency across older versions of the Blue Book data, we used the historical, or standard, method for the calculation of capacity.

We excluded from the analysis schools that differed fundamentally from other high schools in our data. For example, we excluded charter schools housed in public school buildings—traditional public schools in the same buildings were included—because they are independently managed and not subject to DOE organizational goals. High schools that are part of the centrally administered special education programs (District 75) were also excluded. We excluded elementary and middle schools housed in high school buildings where the school organization’s highest grade was 8<sup>th</sup> or lower. Middle school students in schools that served grades 6–12 could not be isolated using the Blue Book data and were, therefore, included in the analysis. Finally, we excluded two city high schools that appeared to be severely overcrowded according to the data, but in actuality run programs that can accommodate more students than they have seats for.<sup>4</sup>

Because our analysis hinges on the use of accurate capacity data, we screened out schools that experienced large changes in capacity from one year to the next.<sup>5</sup> We did this in two ways. First, the large high schools that were being phased out under the New Small Schools Initiative were included prior to the phase out but excluded during the phase out. Since these schools are phased out over several years, the capacity data do not always adjust downward as quickly as enrollment drops. In many cases, the high schools being closed were very overcrowded in the years before phase out and then dropped below capacity as phase out began.<sup>6</sup>

Second, we excluded schools that experienced a one-year drop in capacity greater than 50 percent or a one-year jump in capacity greater than 100 percent but were not new schools phasing in.<sup>7</sup> Since the magnitudes of large increases were much greater than the magnitudes of large decreases, we allowed for greater increases in capacity before dropping the school from the analysis. Because these large swings in capacity could be due to inaccuracies in the data, the enrollment and capacity data for these schools for the two years were excluded. For example, if a school experienced a 120 percent increase in capacity from 2006–2007 to 2007–2008, then the data for both years were

<b>Schools Used in the Analysis</b>					
By School Year					
	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009
Total Schools	376	386	390	408	426
District 75 Schools	(18)	(17)	(14)	(20)	(16)
Elementary Schools	(4)	(4)	(3)	(3)	(2)
Middle schools (grades < 9)	(5)	(5)	(6)	(5)	(5)
Charter Schools	(2)	(1)	(1)	(1)	(2)
Large Schools Phased Out	(14)	(13)	(9)	(8)	(9)
Schools With Special Programs	(2)	(2)	(2)	(2)	(2)
Schools with Large Capacity Changes	(17)	(12)	(6)	(3)	(2)
<b>Schools Used in Analysis</b>	314	332	349	366	388
SOURCES: IBO; New York City Department of Education					

excluded. In any given two-year period, a maximum of 17 schools were dropped because of large swings in capacity. Overall, 25 different schools were dropped in at least one two-year period, and several were excluded in more than two years. Those excluded were overwhelmingly small schools and/or schools with large capacity increases as opposed to large capacity decreases.

**Schools Included in the Study.** The number of schools used in the analysis each year ranged from 314 to 388. There was a general increase in the number of schools reflecting the growth of the New Small School Initiative and the completion of capacity projects in the capital plan.

**Small vs. Large Schools.** The schools were then divided into two groups by size: large and small schools. Under the department’s New Small School Initiative, small schools generally have enrollments of around 500 students once fully phased-in; new small schools generally add a grade each year when starting up so that enrollments in the early years are smaller. The distributions of enrollment in each school in each year indicated that enrollment was fairly evenly distributed between 500 and 600 students so there was no obvious cutoff for categorizing small schools versus large schools.<sup>8</sup> Therefore, we relied upon the DOE’s definition. For middle schools that serve grades 6–12, the DOE caps enrollment at schools they identify as small at 525; we adopted that as our cutoff.<sup>9</sup>

Using these definitions, we expect to account not only for the new schools created under the New Small School Initiative but also for other schools with small enrollments, such as alternative high schools that tend to be small programs, or small schools that existed due to previous administrations’ efforts.

While there are more small high schools than large ones, by far the majority of students are in large schools. In school year 2004–2005, 59 percent of schools were categorized as small schools but they accounted for only 16 percent of high school students. Conversely, large schools comprised 41 percent of schools citywide but enrolled 84 percent of high school students. Since then, the number of small schools has increased and as a result the share of students in small high schools is now greater. In 2008–2009, small schools accounted for 66 percent of high schools and their share of students had grown to 29 percent. Still, over 70 percent of high school students are in large schools.

## EFFECTS OF CHANGING ENROLLMENT AND CAPACITY

In order to examine what is driving the changes in overcrowding over time, we analyzed changes in both enrollment and capacity at the city and borough levels.

**Citywide.** Overcrowding in city high schools has decreased by 15 percentage points over the five years. In 2004–2005, 65 percent of all high school students were in overcrowded high schools, but that dropped to 50 percent by 2008–2009. The decrease in overcrowding was driven by a 12 percent rise in capacity from 278,325 in 2004–2005 to 310,574 in 2008–2009 that easily outpaced a 1 percent rise in enrollment from 291,360 in 2004–2005 to 295,387 in 2008–2009. The city’s large high schools—which enrolled more than 70 percent of all high school students in 2008–2009—are much more overcrowded than their small school counterparts.

Sharp differences become apparent when we compare overcrowding in small schools with overcrowding in large schools. Citywide and in each of the five boroughs, small schools experienced far less overcrowding than large schools in each year from 2004–2005 through 2008–2009. Large school overcrowding citywide was highest in 2004–2005, when 74 percent of students in large high schools were in overcrowded schools. For small schools, the highest level of overcrowding occurred in 2005–2006, when 25 percent of students were in crowded small high schools.

Over the period, the closing of large schools and the creation of small schools (coupled with broad demographic trends) has resulted in a 14 percent decline in total enrollment in the large high schools, exceeding the simultaneous 5 percent fall in large school capacity. As a result, overcrowding has generally declined in those large high schools that remain open. Sixty-three percent of students (roughly 134,000 students in our study) in large high schools experienced

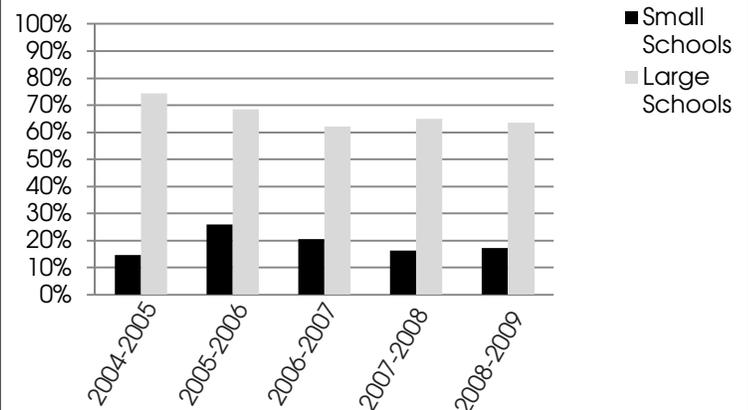
overcrowded conditions in 2008–2009, down from 74 percent in 2004–2005. At the same time, overcrowding in small high schools has crept up from 14 percent in 2004–2005 to 17 percent in 2008–2009, as increases in enrollment exceeded increases in capacity. In 2008–2009, over 14,000 students in small high schools were in overcrowded facilities.

Overcrowding also eased in every borough over time, although Queens in particular has continued to experience considerably more overcrowding than the other boroughs. In 2008–2009, 71 percent of students attending high schools in Queens were still in overcrowded schools, at least 12 percentage points higher than any other borough that year and higher than all but one borough in 2004–2005, when overcrowding citywide was considerably worse.

**Queens.** The level of overcrowding in large schools in Queens has declined from 84 percent of students in 2004–2005, although it still remained high at 78 percent of students in 2008–2009. The improvement in large high school overcrowding is attributable to increasing capacity coupled with modest enrollment declines. In small schools, overcrowding has fluctuated more, but still decreased over time. Small school overcrowding peaked in 2006–2007, when 31 percent of students in small schools faced overcrowded conditions, as some schools that were previously underutilized had enrollment increases push them over capacity while some already overcrowded schools became even more overcrowded. By 2008–2009, small school overcrowding decreased to 17 percent of students, an 11 percentage point decline since 2004–2005, as excess capacity grew to 2,532 students compared to 1,590 students in 2004–2005.

Queens had the greatest number of overcrowded large and small schools in 2008–2009. Three of the five most crowded large high schools were in Queens. Forest Hills, the most crowded large high school in the city, had over 3,600 students enrolled despite

**Percent of High School Students in Overcrowded Schools: Citywide**



SOURCES: IBO; New York City Department of Education

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a capacity of only 2,153 students. Francis Lewis and Richmond Hill were the second and fourth most overcrowded at 67 percent and 50 percent overcapacity, respectively. In Queens small schools, 17 percent of students were in overcrowded schools in 2008–2009 and two of the five most crowded small high schools in 2008–2009 were in Queens: Middle College High School and Queens Academy High School.

**Brooklyn.** In Brooklyn’s large high schools, overcrowding declined modestly over the last five years. Although capacity declined, enrollment declined more rapidly and the share of students in overcrowded large schools fell by 5 percentage points, from 68 percent in 2004–2005 to 63 percent in 2009. Despite this decrease in overcrowding, 5 of the city’s 10 most crowded large high schools in 2008–2009 were in Brooklyn, taking up the fifth through ninth spots on the list. They were, in order of most to least overcrowded: James Madison, Midwood, Fort Hamilton, New Utrecht, and Science Skills Center High School at Water’s Edge. Each was between 42 percent and 50 percent over capacity.

Meanwhile, over the last five years, Brooklyn has seen the largest growth in the number of small schools, with 37 more small schools in our study in 2008–2009 than in 2004–2005. From 2004–2005 to 2006–2007, Brooklyn’s small schools experienced increased overcrowding, with 30 percent of students in overcrowded small schools in 2006–2007. In the next two years overcrowding declined substantially as the number of small schools jumped from 50 in 2006–2007 to 67 in 2007–2008 and then 81 in 2008–2009. In school year 2008–2009, 12 percent of students in the borough’s small schools were in overcrowded schools, a 5 percentage point increase from the level of overcrowding experienced in 2004–2005. Two of the city’s 10 most crowded small high schools in 2008–2009 were in Brooklyn: East New York Family Academy and the School for Human Rights.

**Manhattan.** Large school overcrowding declined more in Manhattan than any other borough, falling 24 percentage points from 2004–2005 through 2008–2009. The share of Manhattan students in overcrowded large high schools fell from 69 percent in 2004–2005 to 44 percent in 2008–2009—the lowest share of any borough—as declines in enrollment outpaced declines in capacity. None of the 10 most crowded large high schools in the city in 2008–2009 were located in Manhattan.

In Manhattan’s small high schools, overcrowding remained relatively flat at around 15 percent until 2007–2008 and then dropped to 11 percent in 2008–2009. By 2008–2009, six more small schools were in the sample than the 50 in 2004–2005, and overcrowding in Manhattan’s small schools eased despite growth in enrollment that exceeded the growth in capacity. Unity High

School was the only small high school in Manhattan among the city’s 10 most crowded small schools in 2008–2009.

**Staten Island.** Staten Island has relatively few high schools (seven large schools and no more than three small schools over the five-year period) and one large school (Port Richmond) accounts for most of the observed change in overcrowding. Although the number of students in overcrowded large high schools has fallen by 14 percentage points since 2004–2005, 62 percent of students in Staten Island’s large schools remained in overcrowded conditions in 2008–2009. Curtis High School was the third most crowded large high school in the city in 2008–2009, at 65 percent above capacity. In contrast, enrollment at each of Staten Island’s small schools was below capacity throughout the period.

**The Bronx.** Overcrowding in large high schools in the Bronx eased considerably over the past five years. Most of the improvement occurred in 2005–2006, with enrollment declines in several large overcrowded schools and one overcrowded school that began phasing out. Over the five years, the decrease in enrollment in large schools in the Bronx was much greater than the decrease in capacity.

Small schools in the Bronx have experienced the largest increase in overcrowding of any borough. Although overcrowding first rose and then fell, small Bronx high schools saw overcrowding increase from 13 percent in 2004–2005 to 24 percent in 2008–2009—higher than any other borough. Overcrowding in school year 2008–2009 was still higher than the 2004–2005 level, as was the case in Brooklyn. Five of the 10 most crowded small schools in 2008–2009 were in the Bronx. They were, in order of most to least overcrowded: Academy for Language and Technology, Dreamyard Preparatory, Holcombe L. Rucker School of Community Research, High School for Contemporary Arts, and Bronx Academy High School. Each was between 29 percent and 68 percent over capacity.

The Bronx may have high levels of small school overcrowding because it was the pilot borough for the New Small School Initiative. Seven large schools in the Bronx (out of 25 citywide) were gradually phased out beginning in 2001–2002. Because the new small schools that were created to replace them were mostly phased in by 2008–2009, they were more likely to be overcrowded relative to newer small schools in the other boroughs.

## DEGREE OF OVERCROWDING

Since overcrowding varies from school to school, IBO took a closer look at the degree of high school overcrowding and how it has changed over time. In order to gauge the extent of overcrowding, we divided schools in which enrollment exceeded

<b>Percent of Students Over Capacity, Quartiles by Number of Schools</b>					
	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
First Quartile	10%	9%	12%	9%	12%
Second Quartile	23%	19%	24%	18%	17%
Third Quartile	36%	35%	36%	33%	29%
# Schools					
Overcrowded	113	134	114	118	106
SOURCES: IBO; New York City Department of Education					

capacity by at least 2.5 percent into four quartiles according to the percent of students over capacity, with each quartile containing an equal number of schools. The quartiles varied each year, depending on the level of overcrowding and the number of overcrowded schools in the sample. For school year 2008–2009, for example, the first quartile included the schools which were at least 2.5 percent above capacity up to and including 12 percent above capacity. Similarly, the second quartile included schools ranging from more than 12 percent above capacity up to and including 17 percent above capacity, and the third quartile included schools ranging from more than 17 percent above capacity up to and including 29 percent above capacity. Overcrowding was most severe in the fourth quartile, with schools that were more than 29 percent above capacity in 2008–2009. Compared to 2004–2005, there were fewer overcrowded schools in 2008–2009 and the level of overcrowding experienced in the fourth quartile of overcrowded schools fell from a minimum of 36 percent over capacity down to 29 percent over capacity.

The charts, which show the number of students in each quartile from 2004–2005 through 2008–2009, highlight two points that have already been made: high school overcrowding has declined over time and remains primarily a large school problem. But a closer look reveals that the steepest decline in overcrowding has occurred among those schools which are most severely overcrowded. In 2004–2005, over 72,000 students were enrolled in the most overcrowded quartile of high schools and 98 percent of these students were in large high schools. By 2008–2009, the number of students in the most overcrowded high schools had fallen to just over 51,000, with 94 percent of those students in large high schools. Among the most severely overcrowded schools in 2004–2005, the

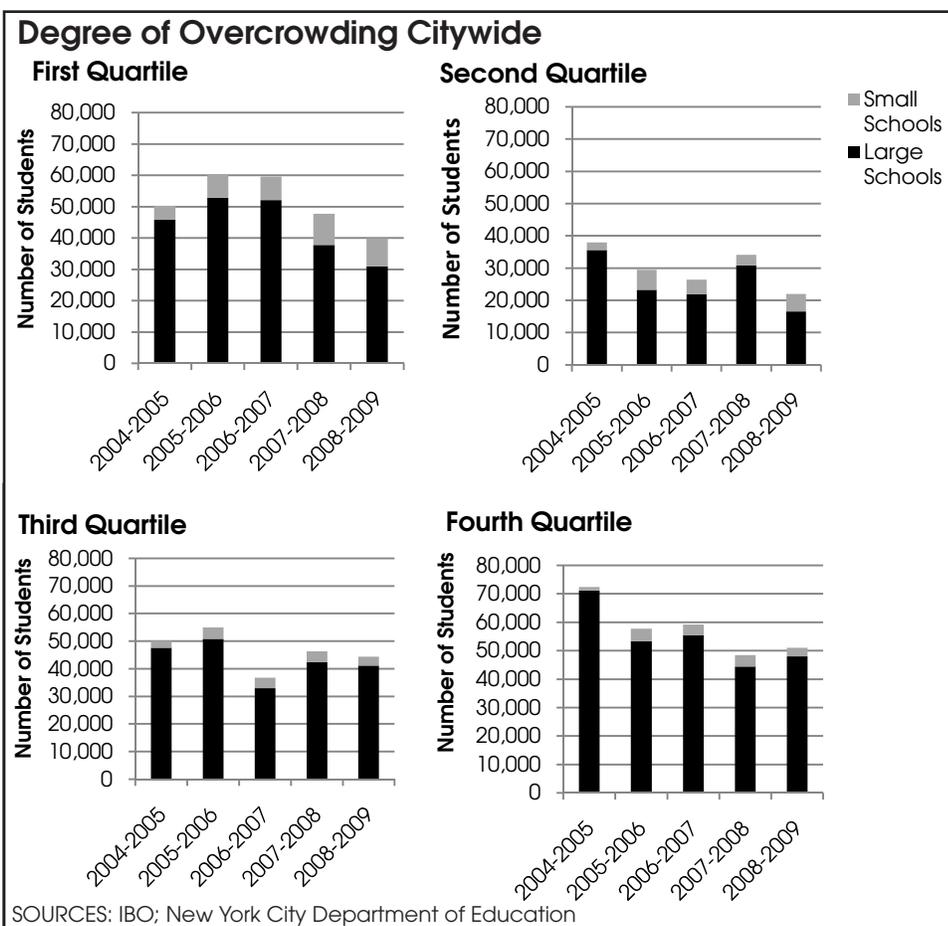
median school was 151 percent of capacity while the median severely overcrowded school was 145 percent of capacity in 2008–2009.

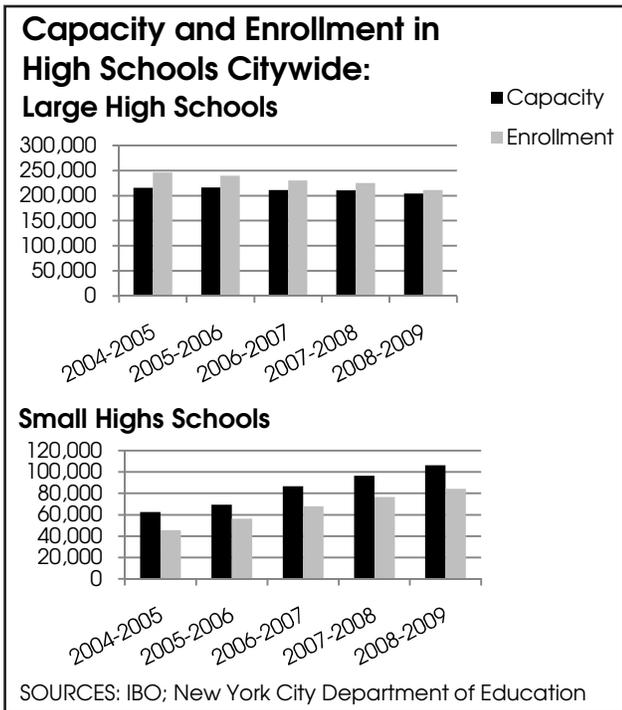
## CAPACITY AND ENROLLMENT MISMATCH

Overcrowding occurs because of a mismatch between enrollment and capacity. To see the extent of the mismatch, we looked at total capacity and total enrollment from 2004–2005 through 2008–2009, both by borough and citywide.

In 2004–2005, there were more than 13,000 more students than there were seats; by 2008–2009, that trend had reversed as there were more than 15,100 more seats than students. The same trend could be seen in Brooklyn and the Bronx, and the amount of excess capacity in Manhattan and Staten Island increased from 2004–2005 to 2008–2009. Queens, however, was the only borough where enrollment exceeded capacity in 2008–2009, although the gap between enrollment and capacity narrowed over time, leading to a lower level of overcrowding in 2008–2009. This discrepancy may also explain why Queens has experienced relatively high levels of overcrowding in all schools.

Citywide in large schools, enrollment exceeded capacity in all years. The same is true in three boroughs—Brooklyn, Queens,





there are roughly 15,100 more seats in high schools than there are students, which suggests that policies to encourage students to move to underused schools could also be effective in reducing overcrowding. To the extent that underutilized schools are also underperforming schools, efforts to improve their academic reputations could attract more students and thereby reduce the need to add further capacity to the system. Other administrative actions such as enforcing enrollment caps at those large high schools that continue to attract high enrollments is an option, but may be difficult to implement if faced with strong community or political opposition given that some of that overcrowding is due to high demand for schools that have strong academic reputations or special programs. Finally, removing impediments for students to enroll in the small high schools that remain below capacity could also help to reduce overcrowding.

*This report prepared by Sarita Subramanian*

## ENDNOTES

<sup>1</sup>Seats under one capital plan generally only come online (i.e. open in a new school) during the years of the next capital plan. The DOE acknowledges that the process of siting, designing, and constructing seats takes longer than the five years designated for each plan. Therefore, most of the nearly 27,000 new high school seats will likely open during the current five-year plan (2010–2014).

<sup>2</sup>When using a definition of overcrowding where enrollment was at least 5 percent overcapacity, the results of our analysis remain essentially the same. The share of high school students in overcrowded schools using this definition was 63 percent in 2004–2005 (compared to 65 percent using our current definition) and overcrowding dropped to 49 percent in 2008–2009 (compared to 50 percent). The share of students in overcrowded small schools remained the same using either definition. The share in overcrowded large schools dropped 3 percentage points in 2008–2009 to 61 percent of students. Due to the size of some large New York City high schools, we believe our definition using 2.5 percent overcapacity is a more reliable measure.

<sup>3</sup>See, for example, New York City Comptroller “[Growing Pains: Reform Department of Education Capital Planning to Keep Pace with New York City’s Residential Construction](#),” Campaign for Fiscal Equity “[Maxed Out: New York City School Overcrowding Crisis](#),” and Inside City Schools. Nevertheless, without commissioning surveys of each individual school, it remains the one comprehensive source available for researchers interested in school capacity over time.

<sup>4</sup>The first, International High School at Laguardia Community College, not only serves a unique population of high-needs students who have been in the U.S. for less than four years, but also mandates that its students take classes at LaGuardia College—perhaps explaining why the school enrolls so many more students than it can physically accommodate. The second, City As School, is a transfer school that serves students over 16 years old with at least 20 credits towards graduation. The curriculum also values internships highly, so students spend two or three days a week at external placements. Therefore, only a portion of the school’s students will be on campus on any given day.

<sup>5</sup>For the most part, school capacity was generally consistent for most schools. Year-to-year average change in school capacity (weighted by enrollment in the more recent year) ranged from 3.2 percent to 7.5 percent. After screening out schools with large capacity changes, the average change ranged from 2.2 percent to 6.7 percent.

<sup>6</sup>The list of large schools that were phased out from 2001–2002 to 2008–2009 was obtained from an ongoing study. Jennifer Jennings and Aaron Pallas. “Who Attends New York City’s New Small Schools.” <http://gothamschools.org/2009/09/23/among-new-small-high-schools-enrollment-patterns-vary>.

<sup>7</sup>As new high schools phase in a grade each year, the measure of capacity for these schools increases accordingly. The list of new high schools was determined from the annual School Allocation Memoranda for Other than Personal Services (OTPS) for new schools.

<sup>8</sup>Two other recent studies have had similar issues with identifying small schools. An MDRC study entitled “[New York City’s Change High School Landscape: High Schools and Their Characteristics, 2002–2008](#),” published in February 2010, defines a small school as one with an enrollment less than or equal to 550. A Center for New York City Affairs study entitled “[The New Marketplace: How Small-School Reforms and School Choice Have Reshaped New York City’s High Schools](#),” published in June 2009, defines a small school as one with an enrollment less than or equal to 600.

<sup>9</sup>Sensitivity analyses on the cutoff indicate that our major findings remain the same for a cutoff of 525, 550, or 600.

and the Bronx (except in 2008–2009). In Staten Island large schools, capacity exceeded enrollment each year. For large schools in Manhattan, enrollment exceeded capacity in 2005–2006 and 2006–2007, then capacity exceeded enrollment in 2007–2008 through 2008–2009. The gap between capacity and enrollment at large schools across the city decreased over time from almost 30,000 in 2004–2005 to just less than 6,900 in 2008–2009, largely because of falling enrollment.

In small schools citywide and in each of the boroughs, capacity exceeded enrollment in all years. Although growth in citywide enrollment in small schools from 2004–2005 to 2008–2009 outpaced growth in capacity, there were more than 22,000 more seats in small schools than there were students in 2008–2009, which allowed overcrowding to remain relatively low.

## CONCLUSION

Persistent high school overcrowding in Queens due to insufficient capacity is a problem that needs to be addressed. Additional construction in Queens appears to be necessary, and the current DOE capital plan (for 2010–2014) calls for building 1,469 new high school seats in the borough by 2016, 1,346 of which were rolled over from the last plan. More immediately, 2,856 seats from the 2005–2009 capital plan will open in September 2010 with an additional 1,119 coming in September 2012.

Given that overcrowding persists even though citywide capacity exceeds enrollment suggests that ending overcrowding will require more than simply increasing overall capacity. Citywide

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