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Jan Atwell, Senior Policy Analyst
Joan Povolny, Senior Policy Analyst
Kalima Johnson, Policy Analyst

Finance Committee Staff
Regina Poreda Ryan, Deputy Director
Rebecca Chasan, Counsel
Dohini Sompura, Unit Head
Elizabeth Hoffman, Principal Finance Analyst
Kaitlyn O'Hagan, Finance Analyst

Land Use Committee Staff
Jeff Campagna, Land Use Counsel
John Douglas, Project Manager
James Lloyd, Project Manager
Jeff Yuen, Project Manager

THE COUNCIL OF THE CITY OF NEW YORK

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Latonia McKinney, Finance Director
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COMMITTEE ON FINANCE
Honorable Daniel Dromm, Chair

COMMITTEE ON LAND USE
Honorable Rafael Salamanca, Chair

Oversight: Reviewing Recent City Council Report - *Planning to Learn: The School Building Challenge*

April 18, 2018

Introduction

On April 18, 2018, the Committee on Education, chaired by Council Member Mark Treyger; the Committee on Finance, chaired by Council Member Daniel Dromm; and the Committee on Land Use, chaired by Council Member Rafael Salamanca, will hold a joint hearing on the report and recommendations of the Council in its recent report *Planning to Learn: The School Building Challenge*. Representatives from the Department of Education (DOE), the School Construction Authority (SCA), affected mayoral agencies, unions, parents, advocates, and other members of the public have been invited to testify.

Below is a copy of the report, *Planning to Learn: The School Building Challenge*.

THE NEW YORK
CITY COUNCIL

COREY JOHNSON
SPEAKER

March 2018

Planning to Learn

The School Building Challenge

THE COUNCIL OF
THE CITY OF NEW YORK
CITY HALL
NEW YORK, NY 10007

COREY JOHNSON
SPEAKER

TELEPHONE
(212) 788-7210

Dear Fellow New Yorkers,

Our city succeeds by promoting economic opportunity, embracing diversity, and allowing innovation to thrive. This recipe for success has attracted more families to stay and raise their children here in New York City. As the city continues to grow, the quality of our educational facilities will be critical to the long-term sustainability of our success.

For too long we have let our children learn in schools that are overcrowded. Students who are educated in overcrowded environments are at a disadvantage in an increasingly competitive world. The greatest city in the world deserves educational facilities to match. While the City has made significant new investments in our children's education, there is more we can do.

To address this issue, the City Council formed the Working Group on School Planning and Siting, bringing together staff from the Council's Land Use, Legislative Affairs, and Finance Divisions to work collaboratively to focus greater attention and efforts on reducing overcrowding in our schools. I thank my predecessor Speaker Melissa Mark-Viverito for beginning this important work.

The Working Group met with education advocates, representatives of the School Construction Authority and the Department of Education, real estate experts, architects, and other professionals to better understand the major challenges that decision-makers face when building new schools in New York City. The Working Group also solicited feedback from the public through a web portal on the New York City Council's website in order to allow parents, teachers, students, and other stakeholders to inform the recommendations in this report.

This report highlights existing overcrowding and the challenges related to planning for new schools, calls for greater accountability in the school planning process, and provides recommendations that can help expedite new school construction in order to alleviate overcrowding. We hope this report spurs new opportunities for collaboration between different stakeholders that seek to support the Council's efforts in providing the best educational opportunities to the youngest New Yorkers.

Sincerely,

Corey Johnson
Speaker

Mark Treyger
Chair, Committee on Education

Francisco Moya
Chair, Subcommittee on Zoning and Franchises

Rafael Salamanca
Chair, Committee on Land Use

Daniel Dromm
Chair, Committee on Finance

Vanessa Gibson
Chair, Subcommittee on Capital Budget

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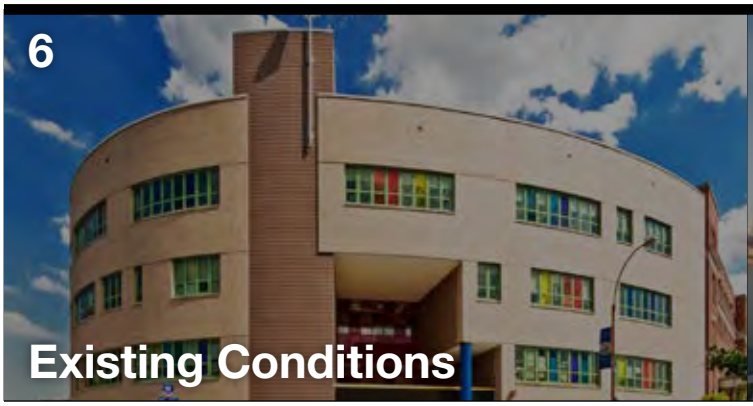
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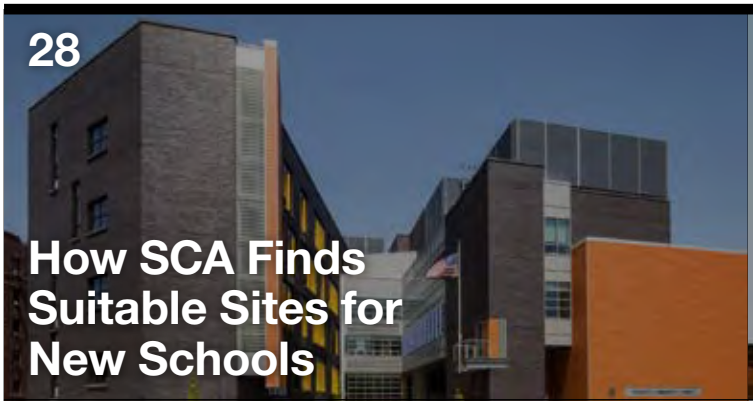
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Executive Summary

Planning to Learn

Overcrowding has well-documented negative impacts on educational opportunity and attainment, and has long been a problem in New York City (NYC) schools. Building new schools to address overcrowding has been a challenge for several decades. NYC is also currently seeing increases in housing development that have the potential to exacerbate school overcrowding, particularly as it takes place in the areas of the city that already have the most overutilized schools.

At the same time, overcrowding also reflects the success of the City's public education system. The proportion of the city's school-aged children attending public schools vs. private schools has increased over the past 10 years and dropout rates have declined. Universal Pre-Kindergarten (UPK) and the new 3-K For All initiative, with their own needs for space, are expanding access to early childhood education. In addition, the landscape of public education is changing as charter schools are educating an increasing share of NYC public school children, yet the process of locating charter schools is disconnected from overcrowding challenges.

The time is ripe for the Council and the de Blasio administration to comprehensively address existing overcrowding and anticipated school enrollment growth through improvements to the school planning and construction process. As first announced in 2017, the Council convened the School Planning and Siting Working Group (hereinafter referred to as the "Working Group"), a group of City Council staff members in the Land Use, Finance, and Legislative Divisions to address the issues of planning, siting, and overcrowding.

Through consultation with education advocates, as well as school planning and real estate experts, and a review of best practices from other cities, the Working Group developed this policy report with recommendations for improving the school planning process, expediting the construction of new schools, and mitigating existing overcrowding through other means.

Most Overcrowded Community School Districts in NYC (K-8)*
(DOE, Blue Book, 2015-16; DOE Capital Plan, 2015-19)

District	Enrollment	Capacity	Utilization Rate	Identified Need	Identified Need as % Enrollment	Total Funded Seats	Funded Unsited Seats
10 (BX)	36,750	33,292	110%	5,692	15%	2,560	2,516
15 (BK)	24,168	21,118	114%	7,546	31%	3,840	2,249
20 (BK)	35,710	29,480	121%	10,322	29%	4,869	3,561
24 (QN)	43,445	36,846	118%	9,403	22%	4,885	907
25 (QN)	25,218	20,941	120%	5,123	20%	2,221	1,073
28 (QN)	22,209	21,216	105%	3,638	16%	1,920	846
30 (QN)	29,201	28,705	102%	5,975	20%	4,536	2,052

*All data on unsited seats in this report are current as of February 2017.

These recommendations support the goal of providing adequate educational facilities to ensure all children in NYC have every opportunity to learn and succeed.

The Working Group's meetings with advocates focused on issues affecting school planning, such as overcrowding, the accuracy of measurements and statistics, and school siting. The advocates had specific questions regarding the school planning process, which can be opaque. Following the first meeting with advocates, the Working Group met with a variety of real estate development professionals to understand the major challenges related to school construction in NYC, with the discussion focused on school design standards, financing opportunities, incorporating schools into new mixed-use building construction, and cost considerations.

The Working Group also solicited input from the public via a web portal on the City Council website. The public provided over 400 comments regarding issues related to accessibility, diversity, specific site opportunities for new schools, and overcrowding.[1] The Working Group received 126 emails on school planning and siting: 78 from parents; 23 from educators; 7 from advocates; and 18 from other stakeholders. At least 6 of the 32 Community School Districts (CSDs) were represented in the comments received. The most frequent comment topic was class size and overcrowding (89 comments). Most responses were from parents who were frustrated about the enrollment waitlists at their zoned schools and the large class sizes experienced by their children in the NYC public school system. Comments also frequently referenced issues related to school zoning (28 comments) and residential development (20 comments). These comments focused on the frustration families feel when their children are unable to attend their respective zoned schools, fears that new residential construction will exacerbate overcrowding in public schools, and the opportunities that new development presents for creating new schools.

The School Construction Authority (SCA), established by the New York State Legislature in 1988, is responsible for the design, construction, and renovation projects for NYC schools.[2] Since SCA took control of the school planning and construction process, it has made significant improvements in the efficiency and quality of new school construction across NYC. SCA has reduced the construction timeline for new schools from an average of 10 years to 3 years and constructed over 27,200 new school seats funded in the last Five-Year Capital Plan (Fiscal Years 2010-14) alone.[3]

The recommendations in this report are meant to support SCA's efforts and help to shed light on the methods it utilizes to plan for new schools. This report also hopes to explain the school planning process for the diverse stakeholders involved in our public education system. In addition, the Council recognizes that no two school districts experience overcrowding and enrollment growth the same way, and each school district will require local solutions that will likely require some trade-offs for different stakeholders.

But, as listed in the above table, there are certain community school districts (CSDs) where overcrowding has been persistent for many years and where the Council proposes specific solutions to address the urgency of the challenge. The following pages identify key challenges to planning and siting new schools and also list this report's recommendations in brief.

Previous page photos: SCA
Pg. 4, Dock St UPK: SCA
Pg. 5, PS 59: Inside Schools

Key Challenges

There are several key challenges in planning for and siting new schools that must be addressed to improve how school capacity is matched with student need.

1. **NYC public school enrollment has fluctuated significantly over time**, which makes planning difficult for future school facility needs. The demographic composition of NYC is always evolving, and the ability to locate adequate school facilities is not always able to keep pace with these demographic changes.
2. **The lack of transparency in the school planning process** is a significant hurdle for understanding the causes of and solutions to overcrowding in NYC schools. It is not clear how the large amount of data related to schools is analyzed to make key decisions in the school planning process.
3. **The data and methodology used to calculate future school capacity needs could be improved.** Using the most up-to-date and relevant information to determine future capacity needs for NYC schools is critical for the public to have confidence that the best data are being used to make important decisions related to new school construction.
4. **Ensuring adequate instructional space as pre-K expands**. Increasing the number of children in DOE early childhood education programs and anticipated further reductions in the dropout rate will increase the amount of instructional space that is needed in public or publicly-funded school facilities.
5. **Difficulty in finding appropriate sites for new schools and constructing new schools** to meet existing and future demand. Very few large vacant parcels are left in the neighborhoods where crowding in schools is most prevalent, and the standard school designs are not easily located on small or irregular sites or in mixed-use buildings, particularly in affordable housing. Even when appropriate sites are identified, there may be competing priorities for use of large publicly-owned land, or local residents may oppose the siting of a new school due to concerns related to traffic, noise, and other quality-of-life issues.
6. **School utilization is not consistent across the city, and this leads to both overcrowded and underutilized school facilities**. There are a variety of reasons for the irregular distribution of students, and making use of that existing capacity is a significant challenge, but also an opportunity for reducing overcrowding in schools.

The City is ultimately responsible for providing students with quality educational facilities and should use every tool at its disposal to build new schools in areas that are overcrowded or where there is an expectation of significant enrollment growth.

This report sets forth several recommendations to improve the school planning process, encourage efficiency in new school construction, and hopefully spark a larger dialogue that encourages others to offer their input and suggestions. The following is a summary of the Council's recommendations.

Recommendations

1. Make it easier and faster to build schools.

1.1 SCA should pilot a request for proposals (RFP) process for finding sites for new school construction.
1.2 Advocate for SCA to receive Design-Build authorization.
1.3 Expand use of eminent domain in CSDs with the most overcrowding that have limited vacant sites.
1.4 Convene a school design working group to consider school design standards for small lots and mixed-use developments.
1.5 Establish zoning incentives to encourage school construction in CSDs with the highest need
1.6 Continue use of the Education Construction Fund (ECF) model where appropriate.
1.7 SCA should lease school buildings in large-scale affordable housing projects.
1.8 Improve the school site identification process with a mayoral-level team that would review City real estate transactions to identify opportunities for SCA. Additionally, the Department of Citywide Administrative Services (DCAS) should alert the Department of Education (DOE) and SCA if a property of appropriate size for a school becomes available.
1.9 Public officials should advocate for school facilities when they are proposed in districts with high need.

2. Accurately describe the problem.

2.1 Enrollment projections should include confidence intervals.
2.2 SCA & the Department of City Planning (DCP) should develop a housing projection model.
2.3 Implement all remaining Blue Book Working Group recommendations that have not been adopted by the DOE or SCA, particularly regarding target class sizes.
2.4 SCA should create neighborhood-based Projected Public School Ratios that use up-to-date Census data.
2.5 Extend the school capacity planning horizon.

3. Give the public and decision makers the information they need.

3.1 Publish subdistrict maps, which are not currently available to the public, on SCA or DOE's website.

3.2 Publish the data from "Enrollment, Capacity, and Utilization Report" ("Blue Book"), "Enrollment Projections for the NYC Public Schools", and "Projected New Housing Starts" in machine-readable format and also aggregated at the subdistrict level.

3.3 Provide SCA's methodology for deriving subdistrict enrollment projections from Statistical Forecasting's K-8 enrollment projections by grade & school district.

3.4 Provide substantive information on the adjustments SCA makes to raw seat need that results in the identified need published in the Capital Plan.

3.5 Monitor data provided by DOE in accordance with Local Law 72 of 2018 on the number of students who apply for, receive offers for, and enroll in each school, as well as the number of school seats available.

3.6 Clarify how race is considered in projecting student enrollment.

3.7 Include the planning process for pre-K seats (for both three- and four-year-olds) in the Five-Year Capital Plan, and release any data and formulas used in this planning process.

3.8 SCA should improve communication with the public about potential new school sites.

4. Increase use of other approaches to drive down overcrowding and integrate schools.

4.1 Create specific school plans to alleviate overcrowding in high-need districts.

4.2 Adjust CSD boundaries and school zone lines to reduce overcrowding.

4.3 Expand use of special programs (e.g. dual language, gifted and talented, progressive education, career and technical education programs, after school programming) to attract students to underutilized facilities and ensure equity of access.

4.4 The School Diversity Advisory Group should consider school capacity and utilization as part of its larger diversity and integration plan.

5. Explore new funding strategies.

5.1 Explore opportunities to raise funding through impact fees from new development.

5.2 Revise CEQR to lower thresholds for impacts to public schools and allow mitigation via payment into a school construction fund.

Dock Street UPK facility

Implementation

Implementing the recommendations in this report will require close collaboration between DOE, SCA, the Mayor's Office, and the City Council. Many recommendations would need to be collaboratively accomplished by the Council and administration acting together, including creating zoning incentives to encourage new school construction on privately owned property, supporting new school construction, and funding for new school construction. Additionally, Design-Build authorization would have to be provided by the New York State Legislature, and advocating for this would require close cooperation between the administration and the Council.

The majority of the report's recommendations for improving the school planning and siting process, however, will require leadership from the Mayor's Office and will need to be carried out by SCA and DOE.

Susan Wagner HS, Staten Island

Morris Heights Educational Complex, Bronx - brand new and overcrowded

Existing Conditions

To explain how some NYC schools came to be so overcrowded and why this situation requires attention, below is a brief history of CSDs and enrollment trends, a description of current overcrowding, and an explanation of how policies have affected school utilization rates.

HISTORY OF THE COMMUNITY SCHOOL DISTRICTS

The NYC school system is a single school district, serving more than one million public school students, which is divided into 32 geographic CSDs. Historically, the number and size of school districts within NYC has varied considerably, ranging from as few as 8 districts in 1878 to as many as 54 districts in 1964.[4] The current configuration of 32 CSDs, as depicted in Figure 1, was established under the 1969 school decentralization law for NYC passed by the New York State Legislature.[5]

The 1969 law required that there be no fewer than 30 and no more than 33 CSDs, each containing at least 20,000 elementary and junior high school pupils in "average daily attendance."[6] The law specified additional criteria for establishing CSDs, including the following:

- suitable size for efficiency,
- convenient location for pupil attendance,
- a "reasonable" number of pupils, and
- "heterogeneity" (ethnic and socio-economic mixture) of pupil population.[7]

Furthermore, the 1969 law stated that in delineating the districts, the City had to take into account the "common and special educational needs of the communities and children involved," as well as transportation facilities, existing and planned school facilities, and the relationship to geographic areas for which the City provides services.[8] The 1969 law allowed for changes to CSD lines only in odd years.[9] The 1969 law has subsequently been amended several times.

Figure 1: Most Overcrowded Community School Districts
(DOE, Blue Book, 2015-16)

In its current form, state law permits the City Board of Education (a 16-member body currently known as the Panel for Educational Policy or PEP) to create no more than 37 districts and permits adjustments to CSD boundaries only once in every 10 years.[10] To make any changes in district lines, the City Board, in conjunction with the Chancellor and community education councils (CECs),[i] must prepare and make public a transition plan regarding any proposed redistricting. Prior to adoption of any plan, the City Board must hold one or more public hearings in each borough and revise the plan based on public comment, if necessary.[11] Current law requires that each CSD shall:

- be a suitable size for efficient policy-making and economic management;
- contain a reasonable number of pupils;
- be compact and contiguous, contained within county lines, and to the maximum extent possible, keep intact communities and neighborhoods; and
- bear a rational relationship to geographic areas for which the City of New York plans and provides services.[12]

The following guidelines must also be considered: maintaining existing boundaries; the "common and special education needs" of the communities and children involved; effective use of school facilities (those already-existing and those planned); maintaining existing and planned feeder patterns between elementary, middle, and high schools; transportation facilities; administrative costs involved in the new districting arrangement; and meeting requirements of fair and effective representation of racial and language groups under the federal Voting Rights Act of 1965.[13] The law also prohibits changes in boundaries of CSD 10 in the Bronx and CSD 31, which includes all of Staten Island.[14] Notably, the City Board is not required to make adjustments to district lines or to create new districts. The current boundaries of the 32 CSDs remain essentially the same as when created in 1969, with only minor changes.

SUBDISTRICTS

Subdistricts are smaller geographic boundaries within CSDs and are the most important geography for school planning because they are used in critical school planning analyses. Specifically, subdistricts are used to allocate capital funding for new school construction and measure potential impacts to public school facilities in local environmental review processes. During environmental review, the utilization rate at the subdistrict level determines when new residential development will result in significant adverse impacts to local schools, which may trigger mitigation in the form of new school construction.

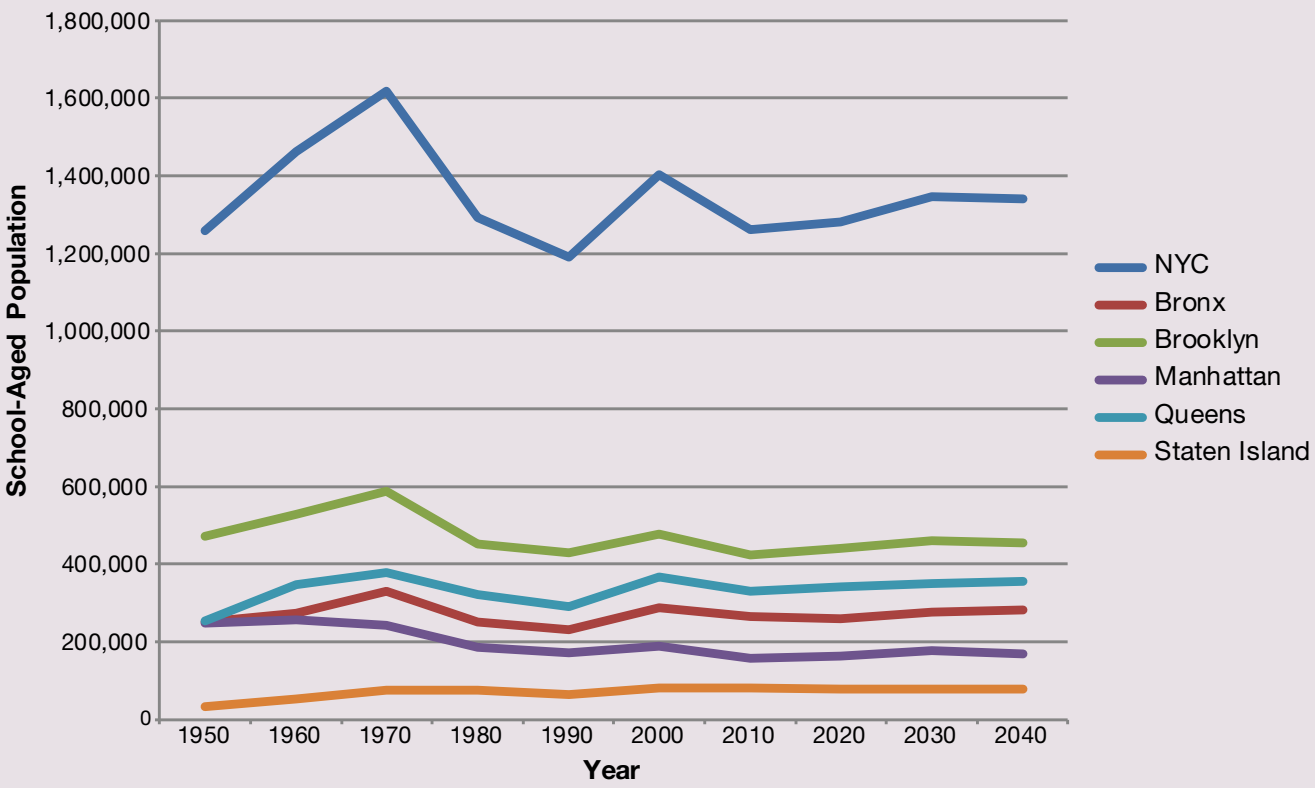
i A CEC is an oversight body for a community school districts that approves changes to school zoning lines and holds public hearings on the quality of local schools, along with other responsibilities.

Table 1: School-Aged Population by Borough, 1950-2040

	1950	1960	1970	1980	1990	2000	2010	2020	2030	2040
Bronx	251,210	275,325	331,588	251,366	231,489	288,308	265,052	259,013	277,830	281,688
Brooklyn	471,479	527,360	588,273	453,116	429,418	478,912	424,704	441,049	461,688	454,949
Manhattan	247,520	258,476	243,423	186,389	173,437	187,758	157,856	162,931	177,440	170,114
Queens	254,277	348,996	379,369	323,532	289,639	366,604	331,926	341,062	350,544	355,340
Staten Island	34,390	53,121	74,657	77,302	66,037	82,734	80,862	78,759	79,535	80,005
NYC	1,258,877	1,463,279	1,617,310	1,291,705	1,190,021	1,404,316	1,260,400	1,282,814	1,347,036	1,342,097

NYC Department of City Planning, "NYC Population Projections by Age/Sex & Borough, 2010-2040," December 2013.

Chart 1: School-Aged Population by Borough, 1950-2040



NYC Department of City Planning, "NYC Population Projections by Age/Sex & Borough, 2010-2040," December 2013.

Enrollment in NYC public schools has been volatile over the past several decades.

In the DOE Five-Year Capital Plan, subdistricts are used to identify where seats are needed and where capital funding will be directed for building new school capacity. The boundaries of subdistricts are not publicly available, and much of the publicly-available data from SCA and DOE, such as enrollment projections and school utilization rates, are not provided at the subdistrict level.[ii]

HISTORICAL TRENDS

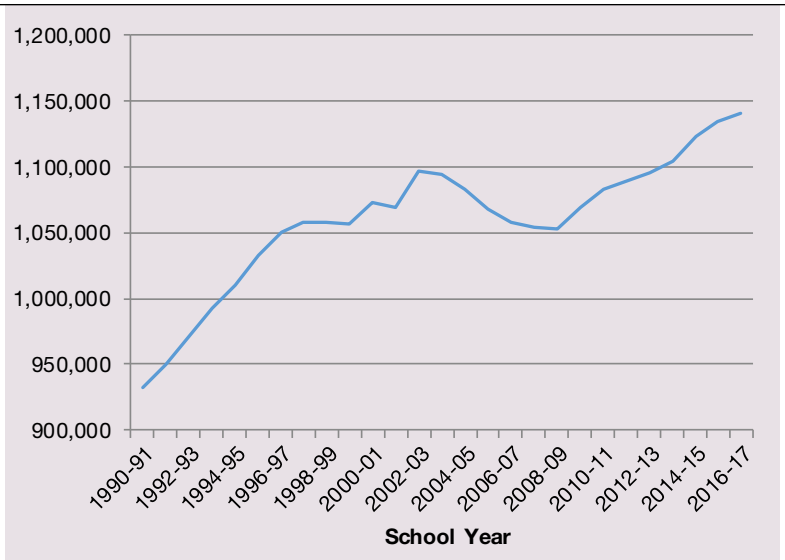
The city's school-aged population reached its peak in 1970 with 1.6 million school-aged children. During the next 20 years, the school-aged population decreased to a low of 1.2 million school-aged residents. Brooklyn has always had the most school-aged children, and Staten Island has consistently had the lowest number of school-aged children (see Table 1 and Chart 1). DCP expects 80,000 more school-aged children to live in NYC by 2040.

Enrollment in NYC public schools has been volatile over the past several decades. DOE enrollment increased by 15% during the 1990s, stayed approximately constant during the 2000s, and again increased by 5% since 2010[15] (see Chart 2). For context, between 1990 and 2010, the overall school-age population of NYC increased by 6%, with growth exhibited in Queens (42,287 children), the Bronx (33,563 children), and Staten Island (14,825 children). Enrollment has grown from approximately 940,000 students in 1990 to over 1.14 million students in 2016 as shown in Chart 2.

1. Participation rates — The proportion of students attending public schools versus private schools increased between the 2005-09 and 2011-15 time periods from 80% to 83%.[16] According to American Community Survey data, private school enrollment declined by almost 60,000 students during the above time frame[17] while public school enrollment has increased by almost 100,000 students over the last 10 years, according to DOE data (see Chart 2).

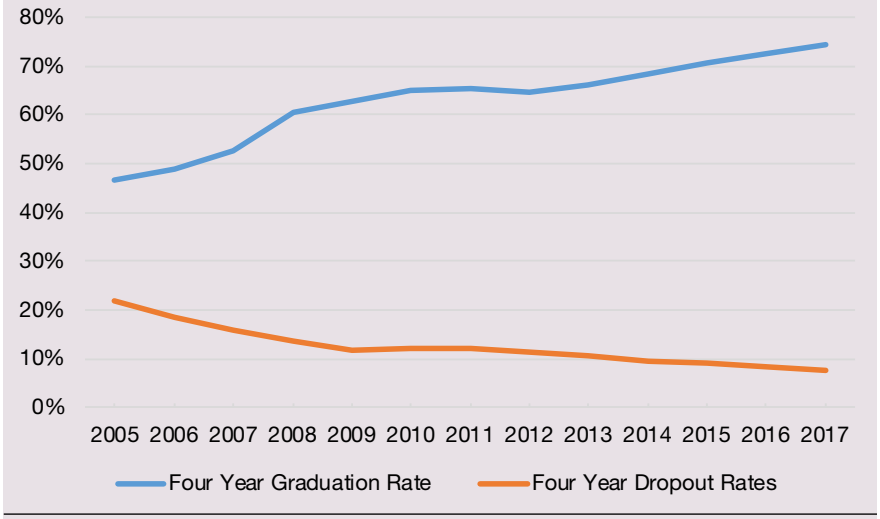
ii Although capital planning is not explicitly required to be done at the CSD level, the Chancellor is required to submit the Capital Plan to each CEC for feedback on projects that impact the individual CSD.

Chart 2: Historical DOE Enrollment



SCA and DOE, provided via correspondence with Working Group, May 2017.

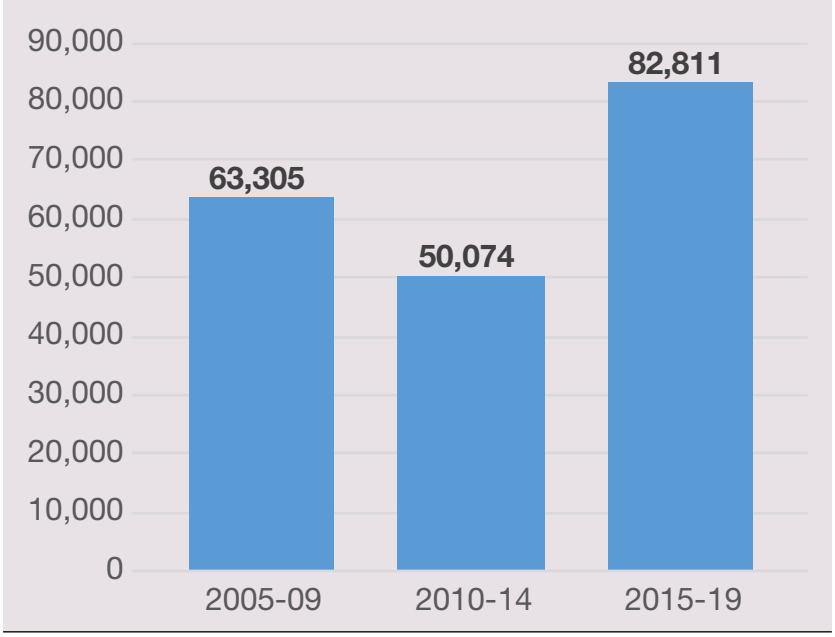
Chart 3: 4-Year Graduation and Dropout Rates



FY 2009, 2013, & 2017 Mayor's Management Reports; NYC Office of the Mayor, Mayor de Blasio Announces Record High Graduation Rate," February 7, 2018. http://www1.nyc.gov/office-of-the-mayor/news/085-18/mayor-de-blasio-record-high-graduation-rate#/0 .

2. Dropout & graduation rates — As student enrollment increases, four-year high school graduation rates are increasing and dropout rates are decreasing (see Chart 3). In 2005 the four-year graduation rate was 46.5%, but by 2017 it had risen almost 28 percentage points to 74.3%. In parallel, dropout rates have declined over the same time period from 22% to 7.8%. If student enrollment continues to increase and dropout rates decline, there will be an increased demand on existing school facilities, which may contribute to ongoing overcrowding.

Chart 4: Historical Identified Need
(DOE Capital Plans: 2004-09, 2010-14, 2015-19)



3. Historical seat need — The last three DOE Five-Year Capital Plans (Fiscal Years 2005-09, 2010-14, 2015-19) include an "identified seat need" for each respective time period, and demonstrate the overall trend of enrollment growth and continued overcrowding (see Chart 4). Identified need is the number of school seats that SCA determines should be built within a Five-Year Capital Plan to meet current and future school capacity needs. In particular, the current Capital Plan (Fiscal Years 2015-19) shows a sharp increase in the number of seats needed. This uptick results from recent methodological changes suggested by the Blue Book Working Group (BBWG), formed by Chancellor Carmen Fariña,[18] which called for DOE to be more realistic in its assumptions when calculating school capacity, such as using smaller target class sizes and no longer counting trailers, art rooms, music rooms, and science labs as regular classroom capacity.

The last three capital plans have shown significant identified need. This chronic need suggests that overcrowding has been a persistent issue in the NYC public school system, and advocates and families have attested to this.[19]

CURRENT OVERCROWDING

1. Negative effects of overcrowding — Overcrowding is generally defined as a school, CSD, or subdistrict with an enrollment that exceeds the required instructional space defined in DOE's "Enrollment, Capacity, and Utilization Report," known as the "Blue Book." Currently, 54% of elementary and middle school students are enrolled in schools that exceed their school's capacity, while 47% of high school students attend schools that are overcrowded.[20]

Several factors can cause or exacerbate overcrowding: a growing school-age population, expanded pre-K programs, co-locating schools, school performance, the removal of trailers, and other policy decisions. Overcrowding in each neighborhood is created by its own unique mix of these causes. Although many of these causes, such as removing trailers and expanding pre-K, are important and worthwhile policies, the exacerbation of overcrowding is an unfortunate side effect that should be considered.

Overcrowding compromises the quality of education students receive, as it typically involves converting specialized educational spaces (i.e. science labs, libraries, music and art rooms) into regular classrooms,[21] holding classes in areas that are not meant to be instructional space (i.e. hallways, closets, stairwells, gymnasiums),[22] and requiring irregular lunch schedules that can hinder students' abilities to focus in the classroom.[23]

Overcrowded schools are not conducive to learning and have a negative impact on students and teachers. Research shows that overcrowded environments cause stress and also impact interpersonal behavior, mental health, and motivation.[24] Overcrowded classroom environments affect children's learning abilities, cognitive development, and ability to focus their attention.[25] Teachers who instruct in overcrowded classrooms are more fatigued and lose instructional time due to higher noise levels.[26] Studies show that larger classes are deleterious to student engagement, achievement levels, and graduation rates.[27] Moreover, research has shown that students in overcrowded NYC schools scored 2-9% lower on math and reading exams than those in underutilized schools.[28]

2. Current school utilization rates — The Blue Book is an annual report produced by DOE that applies a uniform set of assumptions to determine the existing capacities and utilization rates of school buildings. According to data for the 2015-16 school year,[iii] the utilization rate across the entire public school system is 96%, with an excess capacity of 46,505 seats. This figure masks dramatic variability across CSDs, within CSDs, and across different grade levels. Table 2 shows CSD-level[29] enrollment and utilization rates across all grades K-12 as well as the number of overutilized schools.[iv] Due to changes in the way the Blue Book measures school capacity, it is difficult to compare school utilization over time.[30] In 2015, significant changes were made to the Blue Book as recommended by the Blue Book Working Group, including the removal of trailers from capacity calculations. These changes decreased the listed capacity of school buildings compared to that from previous Blue Book reports. Figure 2 provides a map of utilization rates by CSD.

At the borough level, Queens has the highest overall utilization rate and the highest number of seats needed (a shortfall of 21,569 seats). At the CSD level, Queens CSDs 25 (Beechurst, College Point, Whitestone, Flushing, Murray Hill, and Willets Point) and 26 (Oakland Gardens, Fresh Meadows, Bayside, and Auburndale) are experiencing significant overcrowding, with utilization rates at 121% (a shortfall of 6,396 and 5,930 seats, respectively). CSD 24 (Corona, Lefrak City, Elmhurst, Maspeth, as well as parts of Woodside, Middle Village, Glendale, and Ridgewood) also has a significant overcrowding issue with a utilization rate of 115%, but the shortfall in seats is higher than both CSD 25 and 26 with an overall shortfall of 7,660 school seats.

Staten Island (CSD 31) has the second highest utilization rate (101%), but a total shortfall of only 735 seats, and 53 overcrowded schools.

Table 2: District Enrollment and Utilization (K-12)
(DOE, Blue Book, 2015-16)

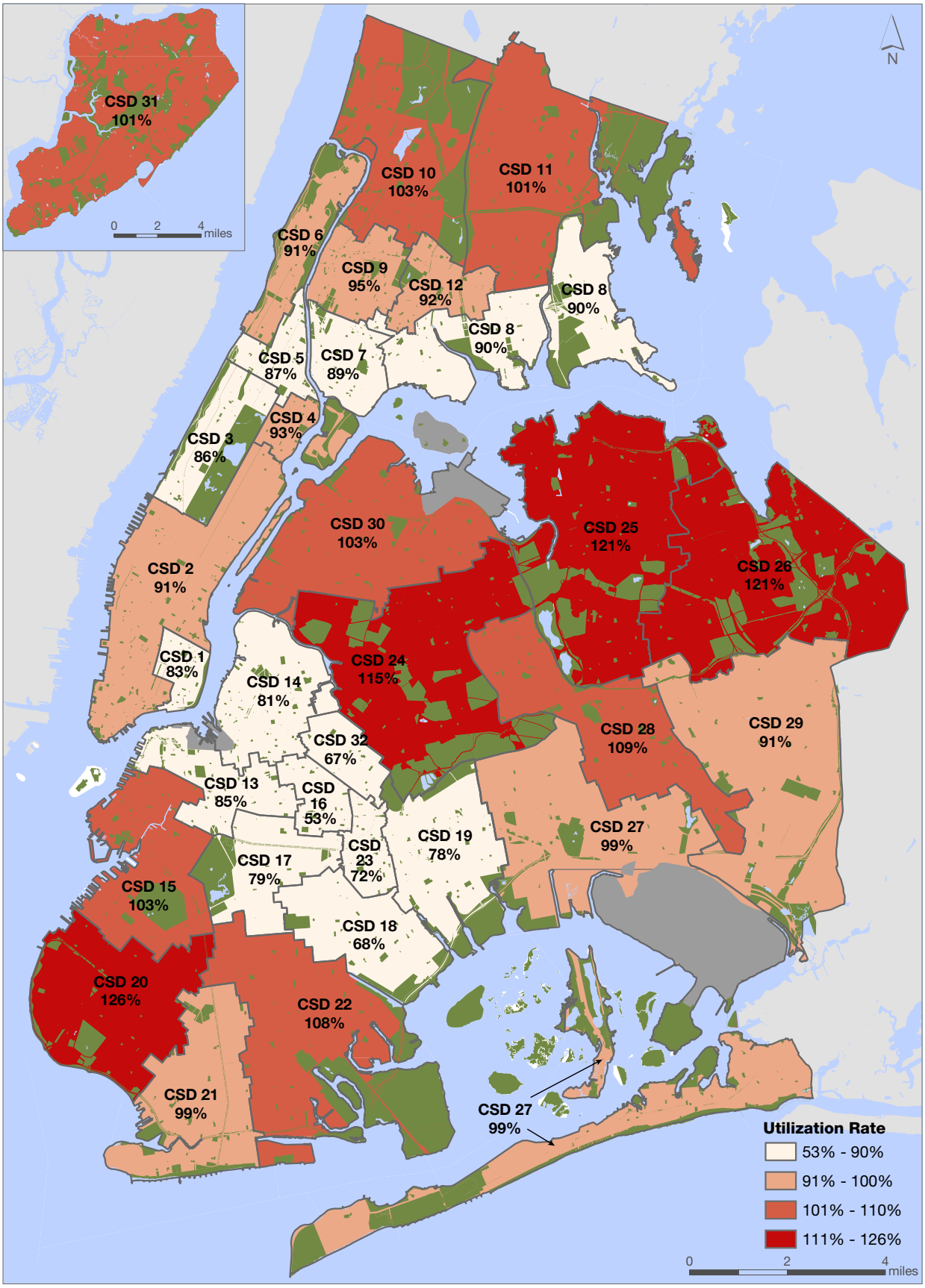
District / Borough Subtotals	Enrollment	Capacity	Excess Capacity (Shortfall)	Utilization Rate	Number of Overutilized Schools
1	13,413	16,133	2,720	83%	11
2	66,321	73,190	6,869	91%	47
3	24,619	28,665	4,046	86%	18
4	16,414	17,735	1,321	93%	20
5	17,173	19,826	2,653	87%	17
6	24,747	27,064	2,317	91%	20
Manhattan	162,687	182,613	19,926	89%	133
7	24,474	27,522	3,048	89%	23
8	31,666	35,342	3,676	90%	31
9	37,041	39,037	1,996	95%	44
10	56,334	54,653	-1,681	103%	68
11	41,298	40,873	-425	101%	50
12	27,109	29,391	2,282	92%	25
Bronx	217,922	226,818	8,896	96%	241
13	24,967	29,225	4,258	85%	16
14	22,979	28,426	5,447	81%	15
15	33,071	32,079	-992	103%	36
16	9,358	17,508	8,150	53%	5
17	27,690	35,060	7,370	79%	18
18	17,869	26,227	8,358	68%	9
19	25,923	33,070	7,147	78%	20
20	49,101	38,991	-10,110	126%	41
21	37,313	37,706	393	99%	28
22	35,378	32,854	-2,524	108%	31
23	13,359	18,459	5,100	72%	11
32	13,946	20,896	6,950	67%	8
Brooklyn	310,954	350,501	39,547	89%	238
24	58,558	50,898	-7,660	115%	55
25	36,246	29,850	-6,396	121%	37
26	34,506	28,576	-5,930	121%	33
27	44,970	45,368	398	99%	39
28	41,754	38,306	-3,448	109%	45
29	26,320	28,937	2,617	91%	19
30	40,619	39,469	-1,150	103%	37
Queens	282,973	261,404	-21,569	108%	265
Staten Isl. (CSD 31)	61,763	61,028	-735	101%	53
Citywide	1,036,299	1,082,364	46,065	96%	930

More than half of the City's students attend overcrowded schools.

iii The 2015-16 Blue Book was the most up-to-date information when this report was drafted.

iv The Blue Book measures capacity by building and by school. A school may be spread across multiple buildings. A building may contain multiple schools, or components of multiple schools. These are alternative ways of analyzing the same issue.

Figure 2: Community School District Utilization Rates, K-12
(DOE, Blue Book, 2015-16)



The Bronx has the next highest utilization rate (96%). Overcrowding in CSD 10 (Spuyten Duyvil, Riverdale, Fieldston, North Riverdale, Kingsbridge, Norwood, Bedford Park, Fordham, and Belmont) is the most acute in the Bronx at 103% (a shortfall of 1,681 school seats), followed by CSD 11 (Van Nest, Pelham Parkway, Woodlawn, and Williamsbridge), which has a utilization rate of 101% (a shortfall of 425 seats).

Brooklyn and Manhattan both have a utilization rate at the borough level of 89%. However, Brooklyn has more severely overcrowded districts than Manhattan. Brooklyn CSD 20 (Owls Head Park, Bay Ridge, and Dyker Heights) is experiencing high levels of overcrowding with a utilization rate of 126% (a shortfall of 10,110 seats). CSD 22 (Flatlands, Midwood, and Mill Basin) has a utilization rate of 108% (a shortfall of 2,524 seats). CSD 15 (Sunset Park, Park Slope, Gowanus, Red Hook, and Carroll Gardens) is also overcrowded with a utilization rate of 103% (a shortfall of 992 seats). While Manhattan has no apparent overcrowding at the borough or CSD level, overcrowding does occur at 133 individual schools.

3. Localized overcrowding — In the city's most overcrowded CSDs there is overcrowding in every school. In some districts, however, borough- and CSD-level analysis often masks localized overutilization and underutilization. For example, CSD 2 has an average utilization rate of 94%, but the range includes PS 150 with a 148% utilization rate and PS 2 Meyere London school with a 70% utilization rate. Localized overcrowding is due to a number of factors, which can include new housing construction, neighborhood population density, school performance, school desirability, or barriers to access like geographic boundaries or limited transit options.

DOE SCHOOL ADMISSIONS PROCESS

DOE has centralized the admissions process for all school levels, from pre-K through high school. Each level has its own application form where students can list up to 12 schools, or programs within a school, ranked in order of preference.[31]

At the elementary school level, the majority of students attend their zoned school, a neighborhood public school where students living within a specific geographic area (or "zone") surrounding the school are given admissions priority.[32] However, students are not guaranteed admission into their zoned school.

Focus on Elementary and Middle Schools

This report focuses on K-8 enrollment at the CSD level (and at the subdistrict level) for two reasons. First, the highest utilization rates occur at elementary schools and combined elementary/middle schools (see Table 3). Second, high school students are able to travel further distances to attend school and admissions are generally open to students on a borough- or city-wide basis. Thus, the remainder of this report will discuss K-8 enrollment while acknowledging that high schools, District 75 schools (for students with the most severe disabilities), and pre-K programs also encounter many challenges in terms of overcrowding as well as school planning and siting. DOE currently considers pre-K seat need separately from K-12 seat need in its capital planning process.

Overcrowding in elementary and middle schools is not spread evenly across the city, as shown in Figure 3. The majority of CSDs in Queens are at or exceeding their capacities and southwest Brooklyn is also experiencing significant overcrowding at the CSD level. Underutilized schools are located primarily in central Brooklyn and northern Manhattan. So, while there appears to be significant excess capacity in the total number of seats citywide, as shown in Table 3, that capacity is often not located in the areas where the need is greatest.

Table 3: Enrollment Statistics by School Type
(DOE, Blue Book, 2015-16)

School Type	Enrollment	Target Capacity	Utilization Rate (%)
Elementary	385,586	363,733	106%
Elementary/Middle	118,422	120,184	99%
Middle	143,020	180,315	79%
Middle/High School	50,035	55,486	90%
High School	264,554	286,316	92%
Citywide SpEd	23,048	24,817	93%
Charter*	51,634	51,513	100%
Total†	**1,036,299**	**1,082,364**	**96%**

*Only includes charter school students and seats in DOE facilities.
†Difference between this total and the total enrollment in Chart 2 may be due to public school students enrolled in programs in non-DOE buildings.

Figure 3: Community School District Utilization Rates, K-8
(DOE, Blue Book, 2015-16)

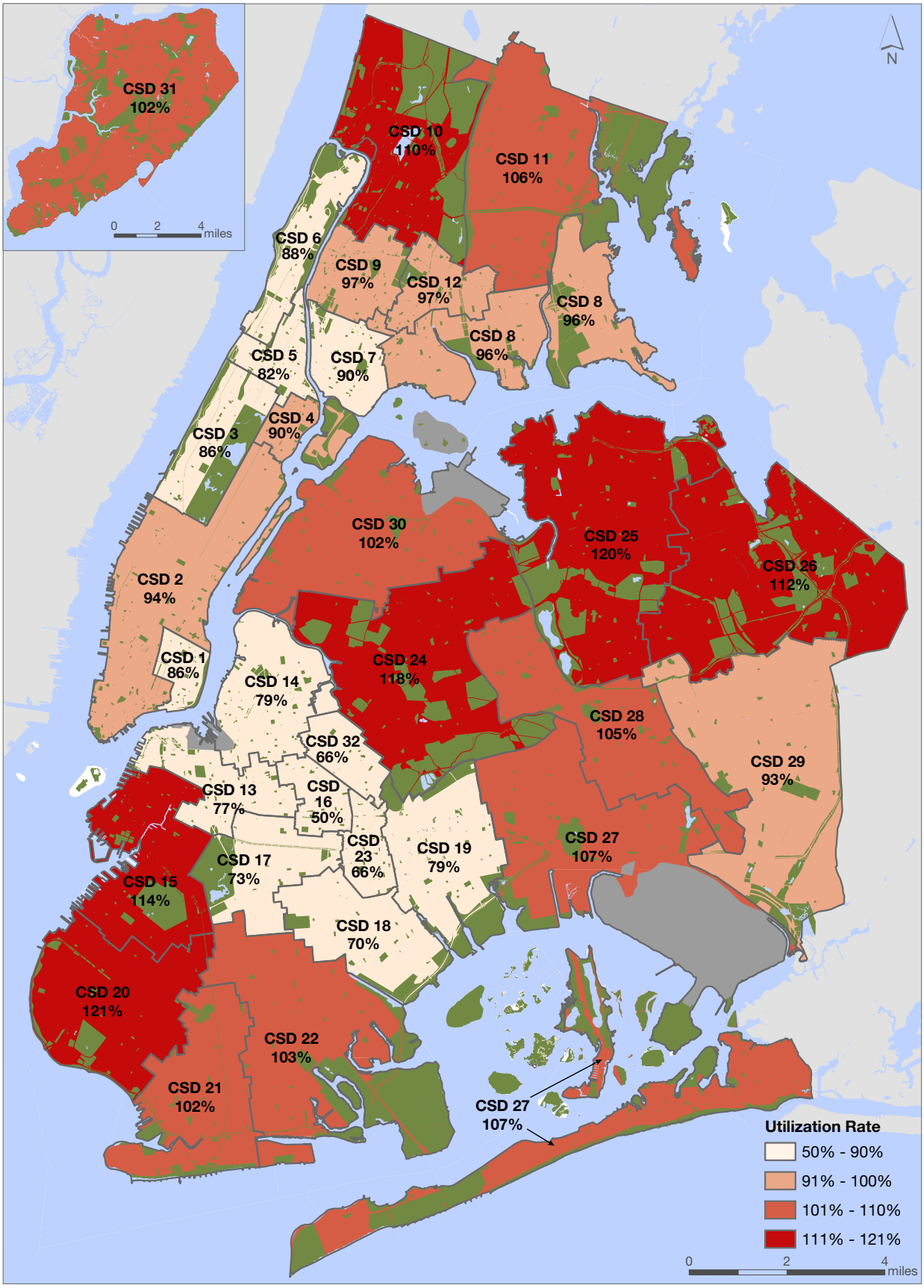


Table 4: Number of schools by type with zoned schools & schools with a zoned program (DOE data, October 2017)

School Type	CSDs 1-32	Charter Schools	CSD 75	CSD 79	Total	Zoned / has Zoned Program
Elementary (K-5)	637	78	1	0	716	567
Middle (6-8)	262	21	0	0	283	62
High School (9-12) *Not Including Transfer	339	21	9	3	372	28
Early Childhood Centers (K-2/K-3)	18	0	0	0	18	14
K-8	141	56	13	0	210	95
6-12	83	14	6	0	103	2
K-12	4	30	29	1	64	0
Pre-K Centers	17	0	0	0	17	0
Transfer High Schools	52	5	0	0	57	0
Ungraded	0	2	0	1	3	0
Total Schools	**1553**	**227**	**58**	**5**	**1843**	**768**

Students must list their zoned school as one of their choices on their admissions application and, in the event that the zoned school is overcrowded, students who exceed the available seats are placed on a waitlist. Zoned schools with excess space can also admit students from outside the zone, with students living within the CSD given first priority, followed by students living elsewhere in the borough.[33] Additionally, students can apply to attend a non-zoned school or program, where available, with admissions preference generally given to those with older siblings attending, those who are current pre-K students, or those who live in the district.[34] There are also three "choice" districts: CSD 1 (Manhattan), CSD 7 (Bronx), and CSD 23 (Brooklyn), which have no zoned schools. In these three districts, students can apply to attend any school.[35] Like elementary schools, there are some zoned middle schools and programs.[36] However, a large number of middle schools, and programs within middle schools, use other admissions methods, such as talent tests, screening students based on test scores and grades, native language, or other criteria.[37] Each CSD has its own school directory, with each entry containing an overview of the school, the programs it offers, and academic performance statistics.[38]

Unlike middle and elementary schools, there are very few remaining zoned high schools that admit students solely based on where they live. Rather, high schools have a variety of different admissions methods: screening students based on academic performance, attendance, language proficiency or other criteria; random selection of students for unscreened programs; and auditions for performing arts programs, to name a few.[39] Students applying to high school are then matched to a school by an algorithm.[40] In addition, there are eight specialized high schools with admissions based solely on a competitive exam, the Specialized High Schools Admissions Test (SHSAT).[41]

Various DOE school admissions policies and methods affect school utilization and overcrowding. For zoned schools and programs, the number of school-age students in the school's zone and the size of the building largely determine whether the school will be under or over capacity. In the case of non-zoned or "choice" schools or programs, the desirability of the program helps determine utilization rate. Table 4 provides an overview of how many schools are zoned by school type.

CHARTER SCHOOLS

Charter schools are independent public schools that are founded by a non-profit board and operate under a contract, or "charter," of up to five years.[42] Charter schools must keep admissions open to the public. Charter schools are not part of DOE's centralized application process; rather, each school has its own application. Most charter schools also use the NYC Charter School Center's Common Online Charter School Application, which allows parents/guardians to apply to multiple charter schools with one application at a time.[43] Charter schools in New York State are required to give admissions preference to children residing in the CSD in which the charter school is located and to siblings of students who are already enrolled.[44]

In addition, charter schools can have other enrollment preferences, such as for English Language Learners, students residing in temporary housing, or children of staff members, among others.[45] If the number of applicants exceeds the number of seats available, a charter school is required to hold a lottery or other random selection process, and students who are not selected are placed on the school's waiting list.[46]

Figure 4: Charter School Locations & K-12 CSD Utilization Rates
(DOE, Blue Book, 2015-16)

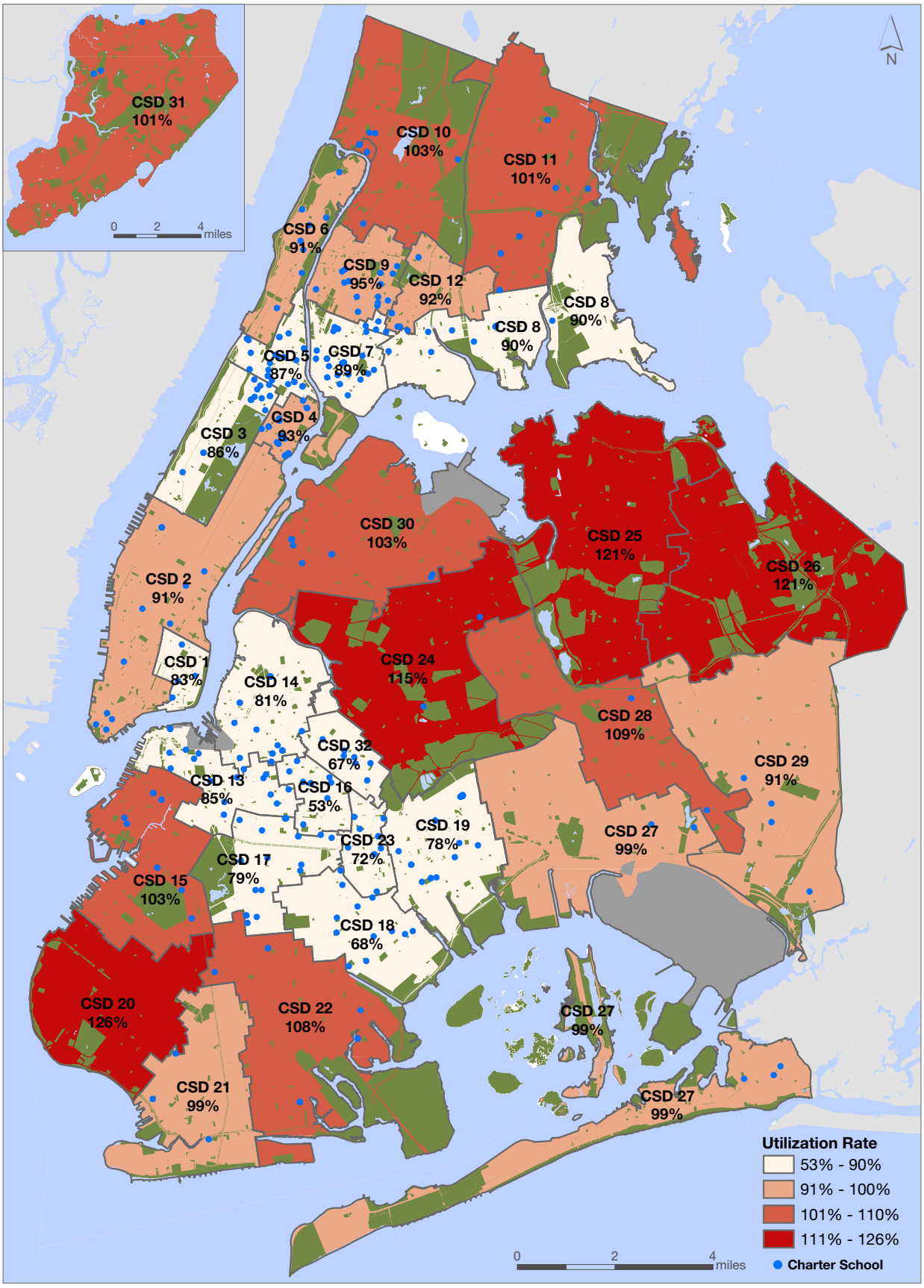
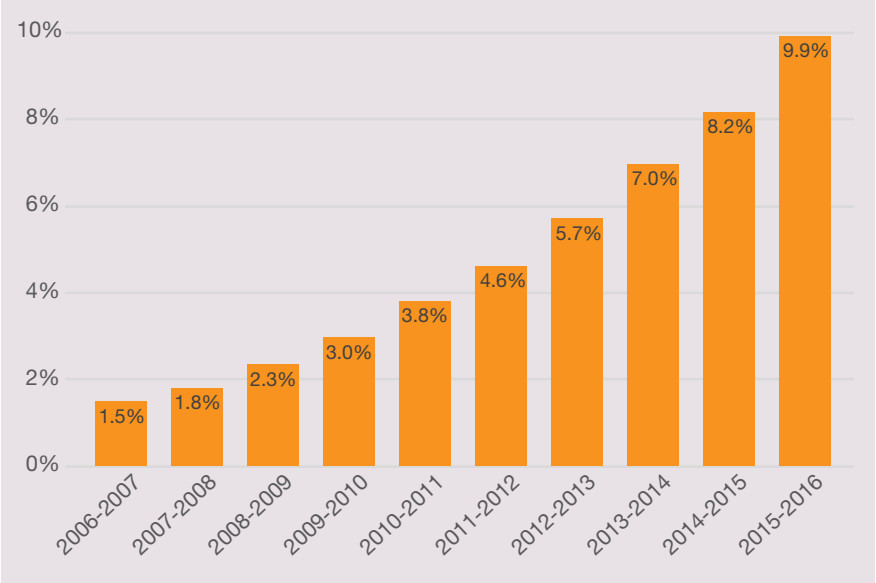


Chart 5: Charter School Enrollment as a Percentage of Total Public School Enrollment (NYC IBO data, May 2017))



Charter schools comprise an increasing share of the NYC public school system, from 15,500 seats in 2006-07 to 106,600 seats in 2015-16, which accounts for approximately 10% of public school seats (see Chart 5). There are currently 227 charter schools in NYC; the majority are located in Brooklyn (87 schools) and the Bronx (65 schools).[47]

As shown in Figure 4, charter schools tend to be located in CSDs with lower utilization rates and the majority of charter schools are co-located inside existing district public schools with available space. One hundred and thirty-seven (60%) of NYC charter schools are either entirely or partially located in buildings owned or leased by DOE.[48] Figure 4 shows the location of charter schools across the city, the CSD utilization rates, and the concentration of charter schools in areas with low school utilization.

UNIVERSAL PRE-KINDERGARTEN

The City's Universal Pre-K (UPK) initiative for four-year-olds has already enrolled approximately 70,000 children in full-day programming in public schools and City-run pre-K centers.[49]

In the 2016-17 school year, 69,510 students enrolled in pre-K.[50] Approximately 47% of those students are enrolled in DOE facilities.[51] The City's 3-K for All Initiative, which extends pre-K to three-year-olds, has begun in two CSDs (7 and 23). The program is expected to roll out to Districts 4, 5, 16 and 27 in 2018; Districts 6, 9, 19 and 31 in 2019; and Districts 12 and 29 in 2020.[52]

UPK at 1423 62nd Street, Brooklyn - Photo Credit: SCA

The City expects to serve 62,000 students in the 3-K for All program by 2021, if it is able to offer the program universally in all school districts (this would require additional funding from the State and/or federal government).[53] Through this initiative (and others), the City hopes to raise graduation rates to 80% by 2026.[54] The expansion of early childhood education programs will require some allocation of space in existing and new DOE facilities.

Pre-K capacity is created by building or leasing stand-alone pre-K centers, adding pre-K classrooms in new buildings that are being constructed for elementary school use, or contracting with community-based organization (CBO) providers, as well as locating them in existing elementary schools with available space.

The expansion of pre-K programs will require some allocation of space in existing and new DOE facilities.

Photo credit: SCA

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Hunter's Point Middle School - Inside Schools

Hunter's Point Community Middle School, Queens

New residential construction in Hunter's Point, Queens

How SCA Plans for Future Enrollment

The following is an explanation of the schools planning process, which includes the SCA capital planning process, the funding process, and impacts on the school system from charter schools and actions that require environmental review.

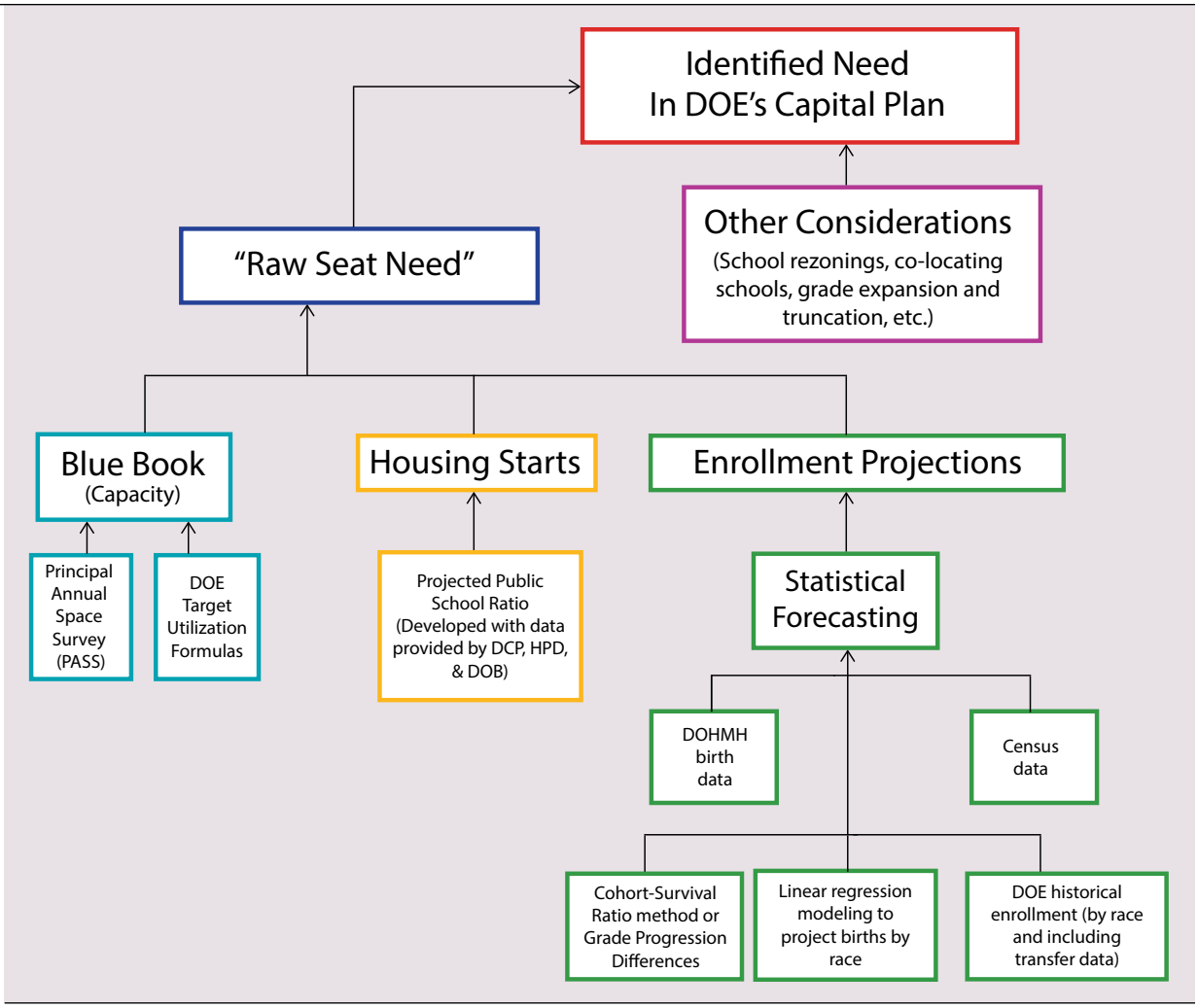
SCA CAPITAL PLANNING PROCESS

In 1988, the New York State Legislature established the SCA to streamline construction of new public schools and to manage renovations for existing NYC public schools.[55] SCA is DOE's capital planning and construction agent. SCA selects and acquires sites for new schools, leases buildings for schools, and converts non-classroom school space for classroom use.

SCA develops the DOE Capital Plan that includes funding allocated for building new schools and additions to existing school facilities. The DOE Capital Plan describes the different sources of information that inform the number of additional school seats needed through the final year of the plan. Those different sources are outlined in Figure 5. The section below provides an overview of each input.

1. Current capacity & utilization rates — The Blue Book applies a uniform set of assumptions to determine existing capacity of school buildings and utilization rate.

Figure 5: SCA Capital Planning Flow Chart



NYC has still not met the agreed to class size reduction goals established in 2007.

Through a detailed analysis, a target capacity — the number of students that can be reasonably accommodated — is assigned to every building and every school (some buildings contain multiple schools). This target capacity takes into account the need for offices, specialized instruction space, and a maximum number of students per class by grade. The utilization rate compares actual enrollment with the target capacity, so a utilization rate above 100% indicates an overcrowded school.

The New York State Contract for Excellence (C4E) Law requires NYC to include a class size reduction plan for all grade levels.[56] NYC has still not met the agreed-upon class size reduction goals established in 2007. The Blue Book's target class sizes also remain above the City's reduction goals (see Table 5). The Blue Book's target class sizes are also above existing class sizes, which means that DOE is planning for schools with larger class sizes than currently exist rather than planning to reduce class sizes as mandated by the State.

Although the DOE Capital Plan identifies K-8 seat need at the subdistrict level, the Blue Book does not provide any data on capacity and utilization by subdistrict. The Blue Book includes data at the school, building, and CSD level only.

2. Enrollment projections — SCA uses consultants to make enrollment projections, which have historically been conducted annually by two consulting companies: The Grier Partnership and Statistical Forecasting LLC. Grier Partnership retired in 2016, but Statistical Forecasting LLC continues to provide enrollment projections to SCA, which also receives technical support from DCP. Statistical Forecasting's annual report is available online and includes further details on its methodology.[57]

Table 5: Existing Average Class Sizes, Target Maximum Class Sizes, and Class Size Reduction Goals

Grade	2015-16 Blue Book Target Max. Capacity Goals	2016-17 Average Class Size	2007 NYC Class Size Reduction Goals
K	20	22	19.9
1	20	24.5	19.9
2	20	25.1	19.9
3	20	25.4	19.9
4	28	26.1	22.9
5	28	26.1	22.9
6	28	26.8	22.9
7	28	27	22.9
8	28	27.4	22.9
9-12	30	26.5	24.5

Danielle Farrie, Monete Johnson, Wendy Lecker, Theresa Luhm, "Reducing Class Size in New York City: Promise vs. Practice," Education Law Center, June 2016.; DOE, Blue Book, 2015-16; DOE, "New York City Class Size 2016-17 Update," February 2017, http://schools.nyc.gov/NR/rdonlyres/673F345F-A22A-4065-AE61-4E6F5B971485/0/201617FebruaryClassSizeReport.pdf

Statistical Forecasting projects student enrollment by grade and CSD for grades K-8 and by grade and borough for grades 9-12. Statistical Forecasting also projects future enrollment by race at the CSD level and aggregates future enrollment by race at the borough level. They use several indicators to develop 10-year enrollment projections for each CSD including historical enrollment, birth counts, and two widely used enrollment projection methods: the Cohort Survival Ratio and Grade Progression Differences.

DOE provides historical enrollment data including racial demographics. Statistical Forecasting relies on historical birth count data aggregated by race and age of mother, which are provided by the NYC Department of Health and Mental Hygiene (DOHMH). The birth data are geocoded by DOHMH based on the mother's residence to determine birth counts at the CSD level. To estimate the number of pre-K and kindergarten students, Statistical Forecasting projects future birth rates. Statistical Forecasting does this by using DCP's age-specific projections of the number of women of childbearing age in each borough in different five-year intervals. Statistical Forecasting estimates fertility rates by computing the previous average number of births over a two-year period and dividing by the estimated age-specific populations. This process is done at the borough level where the number of women in each age group is multiplied by their corresponding age-specific fertility rates. Fertility rates are assumed to remain constant.

Since Statistical Forecasting projects enrollment by race[v] at the CSD level, future estimates of women of childbearing age need to be projected by race. These data are unavailable, so Statistical Forecasting uses historical birth data at the CSD and borough level by race to develop undisclosed linear regression equations. Statistical Forecasting then uses these regression models (128 in total) to "determine the proportions of births by race in each CSD within a borough."[58] These proportions are multiplied by the age-specific fertility rates to yield the number of births by race.

The Cohort Survival Ratio, the primary method used by Statistical Forecasting and other school demographers,[vi] compares the number of students in one grade to the number of students in the previous grade in the previous year. These "survival ratios" are calculated using the historical birth counts to pre-K, and then comparing enrollment between each grade level. Typically, the last two survival ratios are averaged to determine the projected enrollment, but each CSD is analyzed individually and may utilize greater or smaller survival ratios to reflect observed increase or decrease in retention or rising enrollment rates due to other factors. Small CSDs with small grade sizes (30-35 students in a cohort) employ another method: the Grade Progression Differences (GPD) method, which compares the actual change in number of students from year to year. Both methods rely on previous enrollment patterns to project future enrollment.

Statistical Forecasting does not project enrollment at the subdistrict level. For grades K-8, SCA derives enrollment projections for subdistricts by multiplying district-wide enrollment projection by the projected enrollment percentage for each subdistrict.

v Statistical Forecasting uses the following race categories: Asian/American Indian, Black, Hispanic, and White. This differs from the U.S. Census, which does not aggregate Asian and American Indian. Additionally, the Census treats "Hispanic or Latino" and "Not Hispanic or Latino" as ethnicities, enumerated separately from race.

vi Examples include Broward County, FL and the State of California.

Projected subdistrict enrollment percentages are derived from historical enrollment coupled with subdistrict trends (growth and decline).[59]

3. Housing starts — SCA also incorporates data related to housing construction, provided by City agencies (DCP, Department of Buildings (DOB), and Department of Housing Preservation and Development (HPD)), to estimate the number of children in each CSD that are expected to enroll in public schools as a result of the construction of new housing units. SCA estimates the number of children expected to enroll in public schools as a result of new construction by using a multiplier known as the "Projected Public School Ratio (PPSR)." For expected new housing development, SCA applies the PPSR multiplier to the total number of housing units to predict the number of students that are likely to enter the NYC public schools.[60] This ratio is also used during the City Environmental Quality Review (CEQR) process (the process through which NYC agencies determine what effect, if any, a discretionary action may have upon the environment[61]) to determine the impact of future development on NYC's public schools.

SCA generates PPSRs by borough and by age. The current PPSRs (see Table 6) were developed using information for housing units built from 1990 to March 2000.

4. Raw need — The Capital Plan includes a section on new capacity, where DOE outlines the number of additional K-8 school seats needed by subdistrict, and the number of additional high school seats needed by borough, which together make up the identified need through the last year of the Capital Plan. Pre-K seat need is identified and funded separately.

According to the Capital Plan, the process for determining identified need combines three major inputs: current capacity and capacity scheduled to become available over the next several years, long-term enrollment projections, and long-term housing projections. While it is not discussed in the Capital Plan, SCA calculates a "raw seat need" based on these three major inputs. The Blue Book calculations for existing capacity are combined with the enrollment projections provided by Statistical Forecasting. The excess or shortfall in capacity is then combined with the expected number of public school students that will be generated by new housing construction. SCA then makes adjustments to the raw need to determine the identified need.

5. Identified need — To convert raw need to identified need, SCA makes adjustments for challenges that can be solved by solutions other than building new schools, and only proposes new capacity where capital investment in new school construction is the best option to meet the current and future school capacity needs. In describing the process the Capital Plan emphasizes qualitative adjustments, stating, "these are local conditions, requiring truly local analysis."[62]

SCA relies on DOE to identify strategies to create additional school seats that do not require new construction including grade expansion and truncation, school rezonings, co-locating new schools in underutilized buildings, converting inefficient space in existing facilities, capping enrollment, as well as other solutions. The remaining seats that must be created through new construction are the identified seat need in the Capital Plan. As with the raw need, the identified seat need is projected at the subdistrict level for grades K-8 and at the borough level for grades 9-12. The Capital Plan covers five fiscal years, and as mentioned, the identified seat need reflects the seat need as of the final year of the plan.

Table 6: Projected Public School Ratios

Borough	Age of Children (Grades)		
	Age 4-10 (PreK to 5th)	Age 11-13 (6th to 8th)	Age 14-17 (9th to 12th)
Manhattan	0.12	0.04	0.06
Bronx	0.39	0.16	0.19
Brooklyn	0.29	0.12	0.14
Queens	0.28	0.12	0.14
Richmond	0.21	0.09	0.14

SCA, "Projected Public School Ratio," Accessed November 2, 2017, https://dnnhh5cc1.blob.core.windows.net/portals/0/Capital_Plan/Housing_Projections/NewHousingMultiplier.pdf?sr=b&si=DNNFileManagerPolicy&sig=P2ZgFKQmkXqjy%2BYz0G8WR5IXjzii3Z7IDJSS-WJcm0e4%3D.

The current PPSRs were developed using information for housing units built between 1990 and 2000.

Table 7: Historical Identified Need and Funded Need*
(DOE Capital Plans: 2004-09, 2010-14, 2015-19)

	2005-09 Capital Plan			2010-14 Capital Plan			2015-19 Capital Plan		
CSD	Identified Need	Funded Identified Need	Percent of Identified Need Funded	Identified Need	Funded Identified Need	Percent of Identified Need Funded	Identified Need	Funded Identified Need	Percent of Identified Need Funded
1	-	-		-	-		-	-	
2	3,150	2,649	84%	4,624	3,902	84%	3,232	2,384	74%
3	-	-		480	692	144%	692	692	100%
4	-	-		-	-		-	-	
5	-	-		-	-		-	-	
6	1,103	1,103	100%	-	-		-	-	
7	-	-		-	-		1,028	456	44%
8	440	154	35%	1,201	700	58%	1,028	456	44%
9	1,890	1,532	81%	1,148	391	34%	572	-	0%
10	2,520	1,938	77%	2,897	1,406	49%	5,692	3,016	53%
11	2,960	2,960	100%	3,004	2,176	72%	2,492	640	26%
12	-	-		-	-		1,484	456	31%
13	-	-		360	333	93%	3,417	2,593	76%
14	-	-		612	612	100%	1,563	612	39%
15	1,071	-	0%	4,251	2,233	53%	7,546	3,840	51%
16	-	-		-	-		-	-	
17	-	-		-	-		-	-	
18	506	506	100%	-	-		-	-	
19	1,030	1,030	100%	-	-		1,000	1,000	100%
20	5,448	3,247	60%	5,317	1,892	36%	10,322	4,869	47%
21	-	-		-	-		2,436	912	37%
22	1,260	944	75%	1,154	1,154	100%	1,300	456	35%
23	-	-		-	-		-	-	
24	5,220	5,153	99%	7,096	5,339	75%	9,403	4,885	52%
25	630	441	70%	2,171	1,720	79%	5,123	2,221	43%
26	441	350	79%	416	416	100%	2,504	924	37%
27	2,331	1,370	59%	832	832	100%	1,736	972	56%
28	2,520	827	33%	1,645	1,183	72%	3,638	1,920	53%
29	630	630	100%	1,822	1,103	61%	-	-	
30	1,260	41	3%	4,341	3,717	86%	5,975	3,536	59%
31	1,700	1,262	74%	3,218	1,704	53%	3,348	1,736	52%
32	441	441	100%	-	-		-	-	
HS	26,754	25,296	95%	3,485	3,485	100%	7,280	3,147	43%
Total (K-8)	36,551	26,578	73%	46,589	31,505	68%	75,531	38,576	51%
Correlation Coefficient (K-8)			0.93			0.94			0.98

* The February 2017 Proposed Amendment to the DOE Capital Plan adopted in June 2017 was the most up-to-date information when this report was drafted.

Historically, DOE has not had enough capital funding to construct all of the identified seat need. SCA prioritizes funding seats in subdistricts with persistent overcrowding. Over the last three capital plans, funded seats are tightly correlated with identified need. In other words, where identified need is the highest there is likely to be more funding allocated to those CSDs. The closer the correlation coefficient value is to unity (1.0), as shown in Table 7, the closer the relationship is between an increasing identified need and increased funding for new schools. Figure 5 shows identified need by subdistrict. While SCA carries out new school construction projects where there is identified seat need, it is not clear whether SCA or the DOE uses a system or standard metrics for prioritizing neighborhoods to get new schools.

In the Bronx, the identified need is concentrated in the northwest Bronx in the Kingsbridge, Norwood, and Bedford neighborhoods. Several subdistricts in Queens have a significant identified need including the neighborhoods of Long Island City, Ravenswood, Corona, Rego Park, Forest Hills, Kew Gardens, Flushing, Murray Hill, Willets Point, Beechurst, College Point, and Whitestone. The westernmost subdistricts in Brooklyn have the most identified need including the neighborhoods of Dumbo, Fort Greene, Carroll Gardens, Gowanus, Red Hook, Park Slope, Sunset Park, Owls Head Park, Bay Ridge, Dyker Heights, Borough Park, Kensington, and Bensonhurst. The North Shore subdistrict of Staten Island also has a significant identified need according to the Capital Plan.

While the Capital Plan identifies if new school buildings are for K-8 students or 9-12 students (with corresponding differences in design), once the school is constructed DOE determines how students will be assigned to the school, what the zone for the school will be, and any special programs the school might offer.

FUNDING FOR NYC SCHOOL CAPACITY

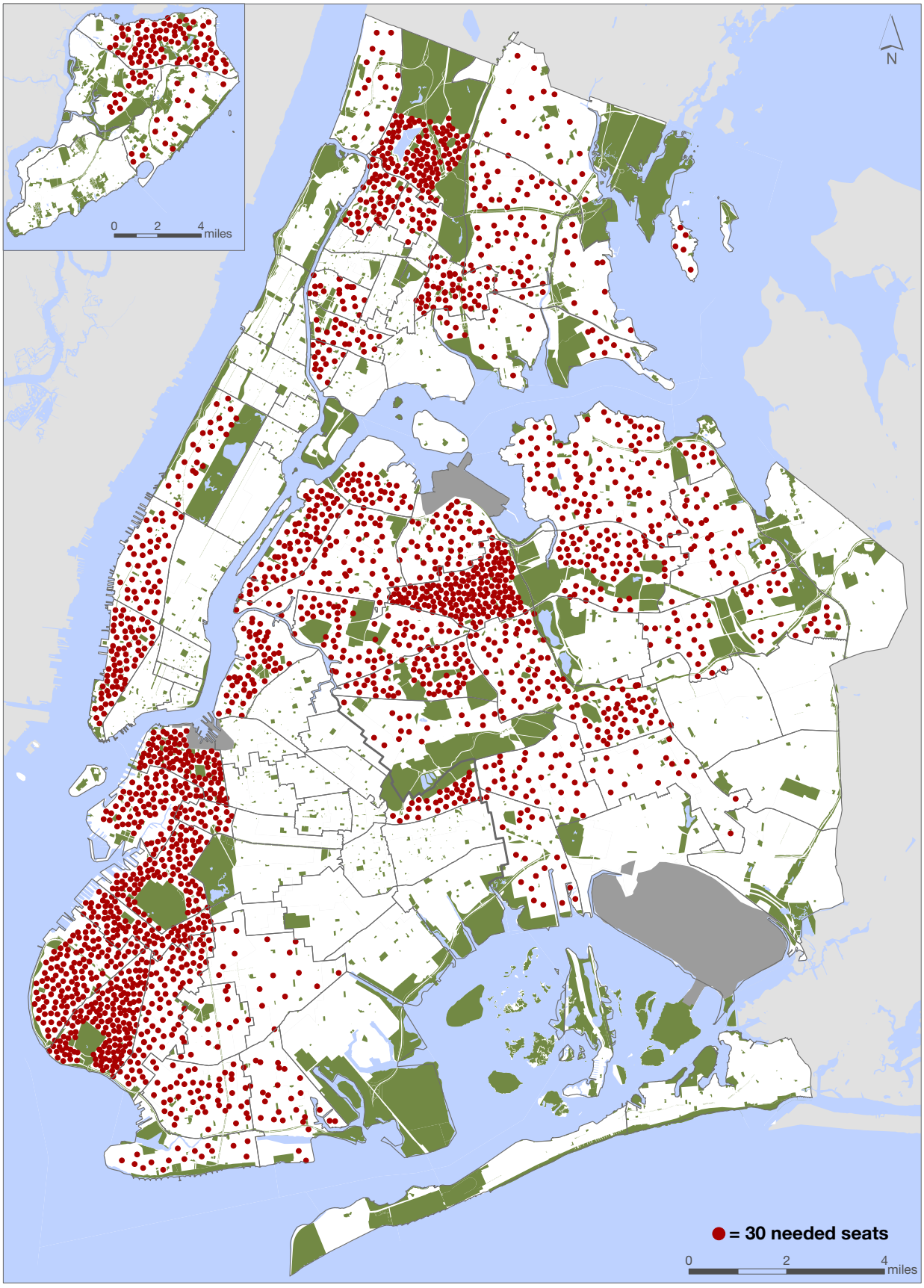
1. DOE Capital Plan approval process — DOE is required to produce a capital plan for schools in addition to the City's capital plan and budget for DOE. SCA works with DOE to develop a capital plan, which lists details of planned projects.[63]

Based on a memorandum of understanding between the Speaker of the Council, the Chancellor of DOE, and the Mayor, the most recent of which is from June 2014, DOE is required to submit a proposed annual amendment of the 2015-19 Capital Plan to the Council no later than March 1st of each year. Traditionally, DOE has also submitted a proposed amendment in November for review and comment by CECs, the City Council, other elected officials, and the public. In additional, the SCA uses a formal suggestion process to solicit capital project ideas from Council Members and CECs.

2. Current Capital Plan — Current funding for the Fiscal Years 2015-19 Capital Plan, as approved by the City Council in June 2017, totals $15.5 billion.[64] Of this, $5.9 billion is for capacity, which includes all projects to create, expand, or replace school buildings. There are four categories of capacity funding in the Capital Plan:

- **New Capacity** funds new K-12 seats. The Capital Plan includes $4.5 billion for 44,324 seats, 2,601 of which are funded for design only (meaning that the cost of constructing these seats is not currently included in the plan). The New Capacity seats are the focus of this report. As of the 2017 adopted Capital Plan, SCA has identified sites for 45 projects with 24,010 K-12 seats.
  - Funding for New Capacity increased by over $870 million in the 2016 adopted amendment to the Capital Plan to fund an additional 11,800 seats. This funding was added in response to a 33,000 increase in identified seat need that resulted from Blue Book capacity calculation changes.
  - More than 5,000 of the funded K-12 seats are in predominately residential development projects undertaken by private developers. The developers contribute land or space, which allows the SCA to provide new school facilities in areas of need. The development projects that will incorporate new school facilities funded in the current Capital Plan include the following: Hudson Square Rezoning, Trinity Place Holdings, Hudson Yards, Crotona Park East/West Farms Rezoning, Atlantic Yards, Greenpoint Landing, Domino Redevelopment, and Halletts Point Rezoning."

Figure 6: Identified Need by Subdistrict
(DOE Capital Plan, 2015-19, February 2017 Amendment)



- **Pre-K for All** funds new pre-K seats. The Capital Plan includes $800 million for over 8,300 pre-K seats. Pre-K capacity is created by building standalone pre-K buildings, adding pre-K classrooms in new buildings that are being constructed for elementary school use (supplementing funding in the "New Capacity" section of the Capital Plan), or by leasing space for pre-K centers. As of the 2017 adopted Capital Plan, SCA has identified sites for 61 projects with 7,763 pre-K seats.
- **Class Size Reduction** funding is for new seats targeted to reduce class size. The Capital Plan includes $490 million for 4,900 new seats; however, only three projects totaling 1,354 seats have been identified.
- **Facility Replacement** funding provides for the development of seats for schools that must be relocated because a building lease is not renewed. Seats are provided through new construction or alternative leasing opportunities, similar to new capacity. The Capital Plan includes $142 million for over 700 seats across seven projects.

The average cost per K-12 seat as budgeted in the Capital Plan is approximately $104,000; however, the cost per seat for each project ranges from approximately $31,000 to $390,000. SCA budgets an average of $120,000 per seat in buildings it expects to build and an average of $47,000 per seat in buildings it expects to lease.

The average cost per pre-K seat as budgeted in the Capital Plan is approximately $95,000. Similar to the K-12 New Capacity projects, the cost per seat for each project ranges from approximately $25,000 to $335,000. SCA budgets an average of $162,000 per pre-K seat in projects it expects to build and an average of $87,000 per seat for leased pre-K sites.

The factors that ultimately determine the cost of any particular project may include site acquisition costs, building design, construction schedule considerations, varying market prices across neighborhoods, and other site-specific conditions.

New seats are created not only through New Capacity, Pre-K for All, Class Size Reduction, and Replacement Projects, but also through Capital Task Force (CTF) projects. CTF projects are small capital projects typically undertaken by DOE's Division of School Facilities (DSF) or Job Order Contract (JOC) contractors. These projects change capacity through room conversions. According to the Blue Book, the net capacity increase from CTF projects for school year 2013-14 was 318 seats; for school year 2014-15 it was 544 seats; and for school year 2015-16 it was 489 seats.

3. NYC Education Construction Fund — The NYC Education Construction Fund (ECF) is a public benefit corporation created by the New York State legislature in 1967 to build new DOE public schools through mixed-use development projects.[65] The ECF does not use DOE capital funding, rather, the school facility portion of the mixed-use project is financed via the issue of tax-exempt bonds with a term of up to forty years. Future revenues from the non-school portion of the development pay the debt service of the school facility. A recent example of this type of development is the ECF East 96th Street Project, recently approved by the City Council in East Harlem. The project, a partnership between ECF and Avalon Bay Communities, Inc., is expected to be a mixed-use development that will include approximately 1,100 residential units and three new schools built on publicly-owned property.

The structures are built on City-owned land conveyed to the ECF. ECF works with DOE and SCA to determine what and where to build, which is where seat needs intersect with available properties. SCA also consults with ECF on the design and construction of the schools to ensure that the design meets programmatic requirements and provides a safe and supportive learning environment. ECF currently has 2 projects underway and has completed over 15 projects since its creation.[66]

4. Expense Funding for School Capacity — In addition to capital funding spent on construction and conversion of space for new capacity, DOE's expense budget supports school capacity through leases and facility payments to charter schools. In Fiscal Year 2017, DOE leased 239 spaces for traditional public schools at a total cost of approximately $195 million.[67]

Charter schools may be co-located with traditional public schools or may lease or buy private space. In accordance with a 2014 state law, DOE is required to provide new or expanding charter schools with space in City-owned buildings or provide rental assistance for the school's private facility.[68] Charter facilities aid is calculated to be the lesser of the actual cost of renting private space or, as of Fiscal Year 2018, 30% of a charter school's basic tuition in the current year adjusted for enrollment (the New York State 2017-18 Enacted Budget increased the percent of basic tuition in the calculation from 20% to 30%).[69] In Fiscal Year 2017, DOE provided $34.8 million in rental assistance payments to charter schools and spent $5.5 million on three charter school leases, for a total of $40.3 million spent on charter school facilities costs. DOE spending on charter facilities aid is projected to grow to $68.7 million by Fiscal Year 2021; however, the 2014 state law does require the State to pay 60% of the cost of charter school facilities once the City is spending $40 million annually.

CITY ENVIRONMENTAL QUALITY REVIEW

CEQR is a state-mandated process that determines what effect certain governmental discretionary actions will have on the environment.[70] The City of New York publishes the *CEQR Technical Manual*, which is used by government agencies and private applicants to determine how projected impacts will be determined. The impacts on NYC schools are reviewed in the "Community Facilities" section of an environmental review statement, which can be either of the following: an Environmental Assessment Statement (EAS), which is drafted when impacts may be expected, but are determined after initial review to not rise to the level of a significant adverse impact; or an Environmental Impact Statement (EIS), which requires a detailed analysis to determine the level of impact and any mitigating measures required to reduce the impact from a proposed project.

The *CEQR Technical Manual* provides guidance on what level of impact a proposed project will have on NYC public schools by estimating the number of school-aged children that will be attracted to the area as a direct or indirect result of a proposed project. A detailed analysis is required during CEQR if, based on the number of residential units constructed, the project will meet any of the following criteria: it is expected to draw a combined 50 or more elementary/middle school students to the area; it will draw 150 or more high school students; or it will exceed the minimum number of residential units outlined in Table 8.[71]

If a project reaches any of these thresholds, a detailed analysis is conducted to determine if significant adverse impacts are likely to occur. Impacts to elementary and middle schools are measured at the subdistrict level. Impacts to high schools are measured at the borough level.[72]

The No-Action scenario (in which the proposed action is not adopted) utilizes three key pieces of information to measure what the future enrollment and utilization rates will be in schools within the affected school district: (1) 10-year enrollment projections produced by demographers, (2) projected housing starts and (3) qualitative data from SCA, DOE, or DCP.[73]

Table 8: Public Schools Thresholds for Detailed Analyses
(*2014 CEQR Technical Manual*, March 2014)

Borough	Elementary/ Middle	High School
Bronx	90	787
Brooklyn	121	1,068
Manhattan	310	2,492
Queens	124	1,068
Staten Island	165	1,068

Table 9: Multipliers for Estimating Public School Students Generated by New Residential Units of All Sizes
(*2014 CEQR Technical Manual*, March 2014)

Borough	Elementary students/unit (ages 4-10)	Middle School students/unit (ages 11-13)	High School students/unit (ages 14-17)
Bronx	0.39	0.16	0.19
Brooklyn	0.29	0.12	0.14
Manhattan	0.12	0.04	0.06
Queens	0.28	0.12	0.14
Staten Island	0.21	0.09	0.14

Mott Haven Educational Campus, Bronx - home to both DOE and charter schools

Photo credit: SCA

The With-Action scenario (also known as the "reasonable worst case scenario" — the most intense impacts that could be expected from development that fully utilizes its new development potential) would include the projected number of public school students who would be introduced to the subdistrict based on Table 9.[74]

The impacts from the proposed actions are measured by the difference between the No-Action scenario and the With-Action scenario.[75] The No-Action scenario includes other expected development that will likely occur if the proposed action is not taken. Significant adverse impacts on schools, as a result of the incremental change between the No-Action and With-Action scenario, have two threshold criteria: (1) a collective utilization rate of the elementary or middle schools that is equal to or greater than 100% in the With-Action condition; and (2) an increase of 5% or more in the collective utilization rate between the No-Action and With-Action scenarios.[76]

When impacts to schools have been identified, the applicant for the project under review (private or public) may be required to mitigate the impacts to the local schools. This mitigation, if required, can be done through several methods, which can include funding new seats, providing space on the applicant's property for DOE use, working with DOE to reallocate existing school space to reduce overcrowding, or other measures that may reduce the effects of the proposed project on DOE facilities.[77]

Charter schools comprise an increasing share of the NYC public school system.

Following page photo credits: SCA

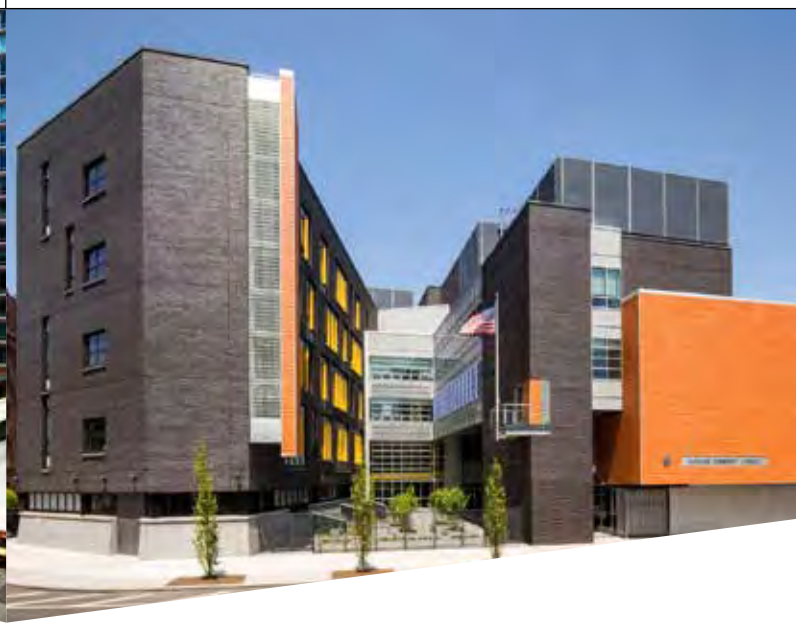
CHARTER SCHOOLS

New York State law requires that charter schools be given assistance in securing facilities in NYC. New York State law limits the number of charter schools that are able to open in the State[78] and provides a formal process that guides how a charter school is able to access space in an existing or new DOE facility or financial assistance to purchase its own facilities.

The process for locating a new charter school in an existing DOE facility begins with DOE publishing its Under-Utilized Space Memorandum, which lists all school buildings that have at least 150 seats available. Once a building is chosen to host a co-located school, DOE must publish an Educational Impact Statement (EIS) that provides how the building utilization would change and the impact of that change on the school. A Building Usage Plan (BUP) must also be developed, which details how the two or more schools located in a building will share the facility's resources. Public hearings are held to allow the public to comment on the EIS. Charter school authorizers are also responsible for holding their own public hearing on the co-location plan that allows those families affected by the plan to voice their opinions. The appropriate PEP will then vote on the co-location plan. There is an appeals process on the PEP's decision that is managed by the State Education Commissioner. A Shared Space Committee is established for each co-located facility comprised of principals, teachers, and parents from each co-located school. This Shared Space Committee oversees the implementation of the BUP. Facility improvements greater than $5,000 by a charter school co-located in a DOE building must be matched at each school in that co-located facility ("charter matching funds"). Any expansion of a charter school in a co-located school building requires the public review process described above.[79]

PS 276, Manhattan

PS/IS 347, Brooklyn



How SCA Finds Suitable Sites for New Schools

School siting is a critical aspect of school planning, and below is an explanation of how SCA finds appropriate school sites and what development, design, and construction issues and policies influence this process.

SCA SITE SELECTION

The Real Estate Services Division within SCA is responsible for identifying potential sites for new schools where the need exists. This division also oversees the lease and license agreements for DOE. SCA has in-house staff and contracts with a small number of real estate brokers who evaluate potential new school sites. SCA allows the public to submit potential sites for new schools via a web portal on SCA website.[vii] Below are three criteria SCA uses when evaluating the feasibility of a potential site before acquiring or leasing a property for a new school. While these criteria are general, they do provide some insight into what challenges SCA faces when finding appropriate sites.

- Size: SCA looks for sites of at least 20,000 square feet (SF), but will consider sites as small as 12,000 SF in high-need areas. In contrast, some charter school providers will consider sites below 10,000 SF. Smaller sites do constrain the programming of a school, including less open recreational and gym space.

vii http://www.nycsca.org/Community/Real-Estate#Submit-Form-65

Sendero Verde, East Harlem - a mixed-use project incorporating a charter school

Rendering:
Handel Architects

- Location: SCA prefers sites where pedestrians are adequately protected on the street (i.e. away from major thoroughfares or highways), and that are not located near commercial buildings with uses incompatible with a school (e.g. an adult use establishment).
- Property History: Real estate experts have indicated that there are very few large sites left without some level of contamination, including but not limited to semi-volatile organic compounds and heavy metals. Most developers are willing to accommodate these sites through remediation, which typically add marginal costs to a project ($15-$20 per SF). SCA has not identified what thresholds of contamination and remediation that it is willing to accept. Some community groups have voiced concern over the safety of these sites.

When SCA is interested in a site for new school construction, it develops a site plan.[80] SCA submits a public notice of the site plan including details of a public hearing on the plan and an invitation for public comment.[81] SCA then submits the site plan to the Mayor and the City Council for approval.[82] SCA then notifies a site owner of its interest in the property and begins negotiation for purchase, including an appraisal and an offer based on that appraised value. A report on the site is created and presented to SCA's board of trustees for their review. The order of these actions may differ depending on the particular circumstances surrounding each possible acquisition.

After approval by the board of trustees, SCA may choose to begin eminent domain proceedings. Eminent domain is a procedure through which a government entity may take private property for public use. Eminent domain can expedite the timeline for purchasing potential school sites. SCA has the authority to condemn property, but prefers to commence eminent domain proceedings to encourage property owners to enter into "positive negotiations."[83] Eminent domain proceedings allow SCA to negotiate a reasonable price for potential school sites.[84]

DESIGN & CONSTRUCTION CONSIDERATIONS

Experts in various professions (including real estate, architecture, planning, and government), involved in public and charter school construction provided the Council with information about what challenges face developers when constructing a school as a standalone facility or when incorporating a school into a mixed-use development. Additionally, the Council received input from advocates, developers, and the public that developers of new mixed-use buildings prefer charter schools. This section incorporates both the information they provided and also SCA policy decisions to show how charter schools are more attractive tenants and partners in mixed-use development projects than traditional public schools.

New York State requires that NYC schools meet certain design standards that protect human health, provide safe environments, and meet certain environmental standards.[85] New York State also requires that the NYC school district keep a long-range plan on file pertaining to providing for adequate facilities to accommodate the district's educational programming needs.[86] Charter schools are subject to the same health and safety laws as other public schools but are exempt from most other state and local laws, regulations, and policies governing public schools, boards of education, and school districts.[87]

In general, charter schools have a greater flexibility in building design compared to SCA/DOE facilities. Charter schools are easier to site in mixed-use buildings and on small lots because charter schools do not have the same space requirements. SCA's policy choices on design standards necessitate building larger spaces such as gymnasiums, auditoriums, and/or cafeterias. SCA/DOE facilities also have more stringent design standards for windows, façade materials, and room requirements. SCA and charter schools have similar size requirements for classrooms.

PS 210, Manhattan - rooftop playground

Photo credit: SCA

Developers of new mixed-use buildings prefer charter schools as tenants.

1. Gyms — One of the major design challenges for incorporating schools into mixed-use buildings is the SCA design requirement for gymnasiums. SCA design standards require that gymnasiums be roughly 5,000 SF and column-free. These requirements make schools built to SCA standards difficult to integrate into affordable housing developments, especially when located below a residential tower. Affordable housing projects are typically built with concrete, which is unable to support the bay spacing required for SCA standard gyms. Development professionals that work with SCA design standards have attested to the rigidity of those design standards that do not allow for much flexibility. PS 397 Spruce Street School, while a successful project, is an example where SCA design standards were incongruous with current architectural design. SCA's preferred design materials are evident; the school is easily discernible from the residential portion of the building. The location of the gym had to be in the portion of the building not underneath the residential tower as the large open spans are unable to support the weight of the tower. Both of these SCA requirements can increase construction costs and make a mixed-use building with a school that meets SCA design standards infeasible.

Charter schools have much more flexibility in programming for physical education requirements, and therefore can accommodate smaller gym spaces compared to SCA/DOE school facilities. While changing the design requirements for gym spaces may allow for more schools to be built, such changes could exacerbate an equally important problem that a significant number of schools do not have adequate physical fitness spaces to meet State requirements for physical education.[88]

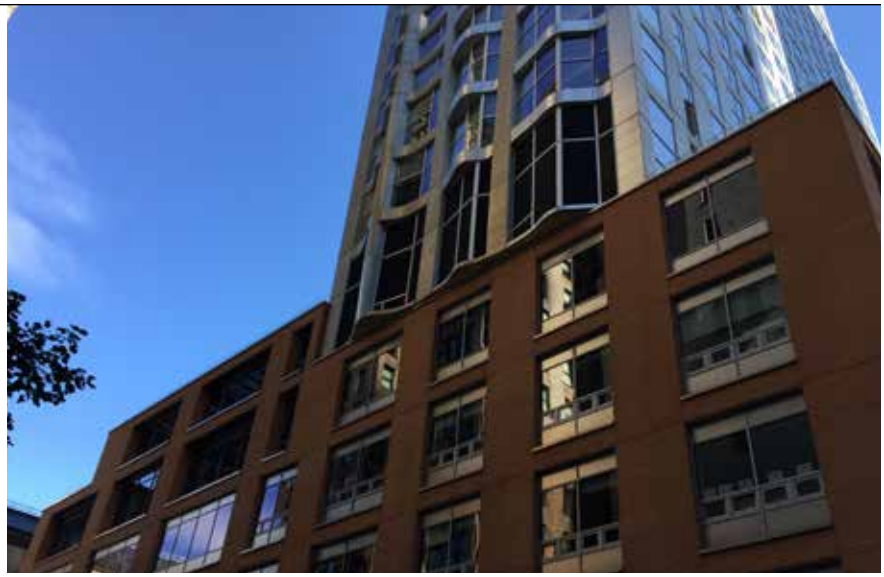
Approximately 200 DOE schools lack the space they need to provide students with full physical education instruction.[89] NYC's Fiscal Year 2018 budget provides $1.8 million annually for 21 leases of physical education space. The City's capital budget includes an additional $105.5 million to address the capital needs of 76 schools that currently have no access to gyms.[90] This capital funding will also cover a survey by SCA/DOE of 129 additional schools that have no gym space to determine the best approach to provide physical education space and identify capital costs. Options include building new gymnasiums, renovating schoolyards, converting existing rooms into fitness areas, and converting auditoriums into "gymatoriums."

These recent investments reflect strategies DOE and SCA can use to provide adequate physical education space in new school buildings where the site or other design concerns do not allow for the construction of a full-size column-free gym space.

2. Recreation space — Finding adequate outdoor recreation space is another challenge for SCA when building new school facilities. To manage the ongoing crowding in existing facilities, SCA has had to resort to building annexes on school yards. SCA does consider placing outdoor space on rooftops in order develop schools on small sites, which continues to be explored as an alternative to large ground floor outdoor recreation areas.

3. Seismic standards — DOE facilities can have seismic standards that are more stringent than those required for residential uses. Real estate professionals listed this as another challenge to incorporating DOE/SCA facilities into mixed-use developments, as this can raise costs dramatically for a mixed-use facility.

PS 397- Frank Gehry-designed tower above an SCA-designed school. Outdoor recreation space visible at bottom left of photo.



CONSTRUCTION

1. Turnkey vs shell and core construction "Turnkey" construction refers to projects where a construction contractor will build a new building as a ready-to-use facility for the future potential owner. The construction team is responsible for "fitting-out" or making the interior spaces in a newly constructed building ready for immediate use by the future tenant of the space. "Shell and core" construction refers to construction projects where a construction team will only build the exterior portions of the building and some essential elements of the interior spaces. Proponents of the shell and core construction model prefer this method, as it expedites construction because a future tenant is allowed to design their interior spaces to their own specifications. However, real estate professionals voiced strong preference for turnkey development when siting a school in a private mixed-use building. Developers cite the time and cost savings of having one construction team complete the work. Additionally, union labor is not required when a private developer completes the fit out. This would reduce the costs of construction for new DOE facilities, but this policy choice may compromise other citywide goals, such as promoting prevailing wages in the construction industry.

2. Design-Build construction — Design-Build construction is a process where the developer of a project will sign a contract with one entity to both design and construct the entire project. This process is an alternative to design-bid-build projects where there are separate contractors for the design and construction phases of the project. Proponents of the Design-Build method claim that it reduces construction time and costs for government infrastructure projects. The most recent examples of the use of Design-Build in the New York City region are the reconstruction of the Governor Mario M. Cuomo Bridge (formerly the Tappan Zee Bridge) and the Kosciuszko Bridge. State officials have estimated that Design-Build saved $1.5 billion in costs on the Gov. Mario M. Cuomo Bridge project[91] and that it shortened the construction timeline by 18 months.[92] Although SCA is exempt from certain procurement requirements and can thereby complete projects more quickly, it does not currently have the authority to use Design-Build.[93]

Table 10: Comparison of Construction Costs Per Square Foot

	Elementary School	Middle School	High School	Charter
National[1] (median)	$212	$243	$235	$150-$250[2] (range)
Regional[3] (median)	$235	$251	$333	NA
NYC[4] (average)	$657	$573	NA	$450[5]

1. Paul Abramson, "National Statistics, Building Trends, & Detailed Analysis: 20th Annual School Construction Report," School Planning and Management, February 2015.
2. National Charter School Resource Center, "Building Hope: A Charter School Facilities Fund," https://www.charterschoolcenter.org/sites/default/files/files/field_publication_attachment/Building%20Hope%20...%20A%20Charter%20School%20Facilities%20Fund.pdf.
3. Paul Abramson, "National Statistics, Building Trends, & Detailed Analysis: 20th Annual School Construction Report," School Planning and Management, February 2015.
4. Preliminary Mayor's Management Report (PMMR) for Fiscal 2017, February 2017, p. 193.
5. Perkins Eastman, personal communication, September, 2017.

3. Costs — Nationally, construction costs for new school facilities have increased over the last 20 years.[94] These changes can be attributed to a number of factors including rising real estate values and increasing materials and labor costs. Also, construction costs in the Tri-State area are higher than the national average (see Table 10).

Charter schools spend an average of $2,350 per student on facility costs in NYC, but only $108 per student for district-provided spaces.[95] The majority (60%) of NYC charter schools are provided space in DOE facilities.[96]

Photo credit: James Lloyd

An eminent domain site in Sunset Park - 4525 8th Ave, former site of a supermarket. The owner planned to build condos before eminent domain proceedings were begun.

Source: Caroline Spivack, "Eminent Domain Invoked To Build 2 Sunset Park Schools in Overcrowded Area," *DNAInfo*, August 31, 2017, https://www.dnainfo.com/new-york/20170831/sunset-park/new-schools-eminent-domain#

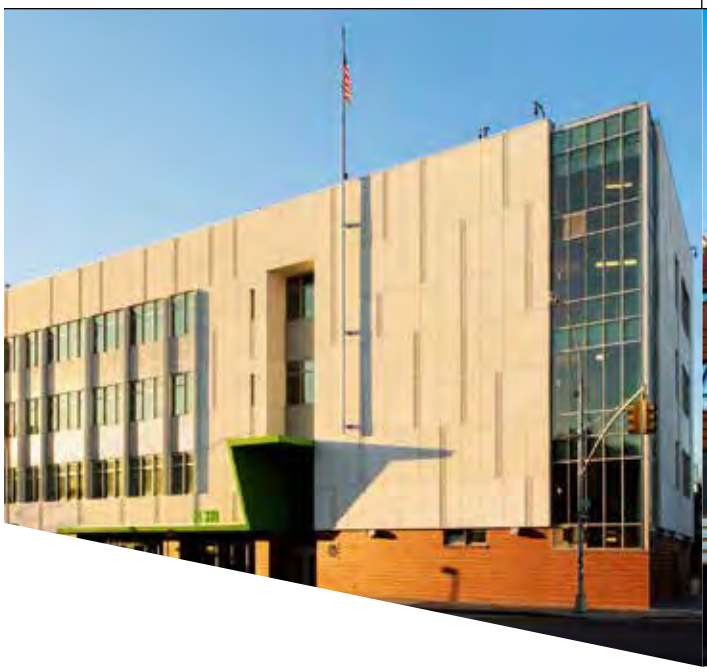
4. Lease vs. own — DOE typically owns the school facilities it operates. The decision to purchase or lease a site is dependent on the unique circumstances of the property and the property owner. According to SCA, based on previous capital plans approximately 25% of new school sites are expected to be leased.

5. Financing incentives — The Mayor's initiative to build a substantial new affordable housing stock presents an opportunity to also construct new schools in areas facing significant overcrowding. Public subsidies, tax exemptions, and tax credits are typically required for affordable housing to be economically-viable.

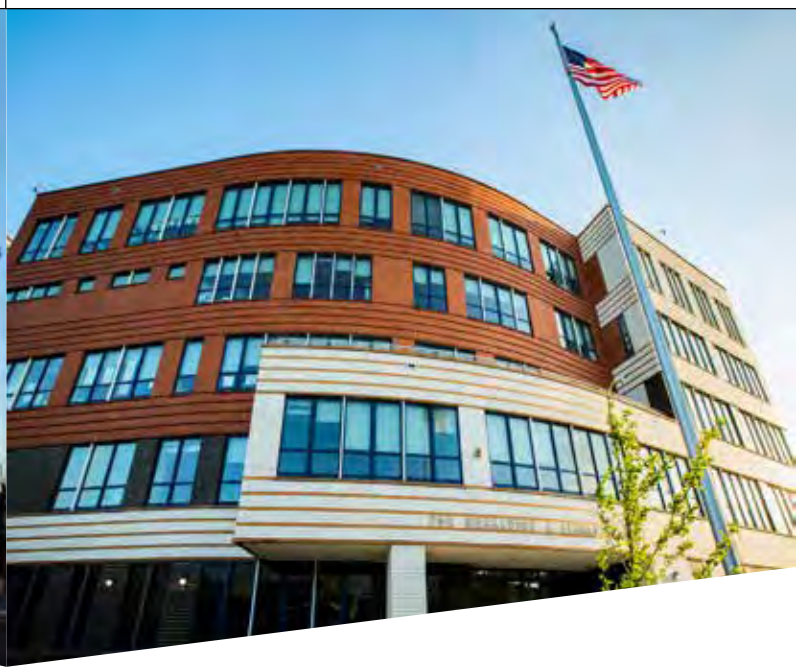
The Low-Income Housing Tax Credit (LIHTC), a United States Department of Housing and Urban Development (HUD) tax credit for the acquisition, rehabilitation, or new construction of rental housing targeted to lower-income households, was pointed out by real estate experts as a financial incentive that is not typically used when considering mixed-use affordable housing projects with an SCA school facility. These kinds of projects do not generally qualify for LIHTC because SCA typically purchases its property and to be eligible for the LIHTC program the school must be a leased tenant in a mixed-use affordable housing project.

Photo credit: Google Streetview
Following page photo credits: SCA

PS 330 - built in 2013 in CSD 24



PS 290 - built in 2014 in CSD 24



Case Study: CSD 24

For the purposes of this report, the Council identified the CSDs with the most acute need, which for the purposes of this analysis met three requirements:

- Utilization rate above the median value (95%);
- Identified need above the median value (greater than 12% of enrollment);
- Above average number of unsited seats (650 seats).[97]

Table 11 highlights the CSDs that met these criteria: 10, 15, 20, 24, 25, 28, and 30. This section is a case study of CSD 24 and includes possible causes for the overcrowding found in that district.

CSD 24 is located in Queens and includes the neighborhoods of Corona, Glendale, Ridgewood, Elmhurst, Long Island City, Maspeth, and Middle Village. Figure 7 shows CSD 24, its subdistricts, and utilization rates by schools. CSD 24 has four subdistricts with the North Corona/South Corona subdistrict experiencing some of the most acute overcrowding in the city. CSD 24 is divided by two major highways (I-495 and I-278), Queens Boulevard, the Long Island Railroad and freight railroad tracks, as well as several large cemeteries. There are only two vacant parcels that are located outside of heavily industrial areas that meet the site size requirements for SCA to consider constructing a new school.

Table 11: Comparison of CSD Needs (K-8)
(DOE, Blue Book, 2015-16)

District	Enrollment	Capacity	Utilization Rate	Identified Need	Identified Need as % Enrollment	Funded Seats Unsited
1	8,554	9,926	86%		-	-
2	24,728	26,444	94%	3,232	13%	974
3	13,189	15,365	86%	692	5%	-
4	9,241	10,215	90%		-	-
5	7,431	9,094	82%		-	-
6	17,121	19,352	88%		-	-
7	11,253	12,528	90%	1,028	9%	456
8	19,864	20,730	96%	1,028	5%	112
9	25,036	25,870	97%	572	2%	-
10	36,750	33,292	110%	5,692	15%	2,516
11	29,298	27,622	106%	2,492	9%	86
12	16,315	16,805	97%	1,484	9%	456
13	9,645	12,490	77%	3,417	35%	2,260
14	11,688	14,728	79%	1,563	13%	991
15	24,168	21,118	114%	7,546	31%	2,249
16	5,110	10,300	50%		-	-
17	13,338	18,164	73%		-	-
18	11,597	16,634	70%		-	-
19	16,575	21,097	79%	1,000	6%	-
20	35,710	29,480	121%	10,322	29%	3,561
21	23,107	22,761	102%	2,436	11%	-
22	24,410	23,790	103%	1,300	5%	456
23	7,731	11,687	66%		-	-
24	**43,445**	**36,846**	**118%**	**9,403**	**22%**	**907**
25	25,218	20,941	120%	5,123	20%	1,073
26	18,702	16,693	112%	2,504	13%	456
27	32,974	30,798	107%	1,736	5%	332
28	22,209	21,216	105%	3,638	16%	846
29	20,772	22,371	93%		-	-
30	29,201	28,705	102%	5,975	20%	2,052
31	42,740	42,107	102%	3,348	8%	456
32	9,908	15,063	66%		-	-
Median	19,283	20,836	95%	2,498	12%	222
Average	20,220	20,757	93%	3,433	14%	632

At the K-8 level, CSD 24 has the third highest utilization rate in the city, the second highest identified need, and the largest enrollment of any CSD.

Figure 7: CSD 24 School Utilization Rates and Identified Need by Subdistrict
(DOE, Blue Book, 2015-16)

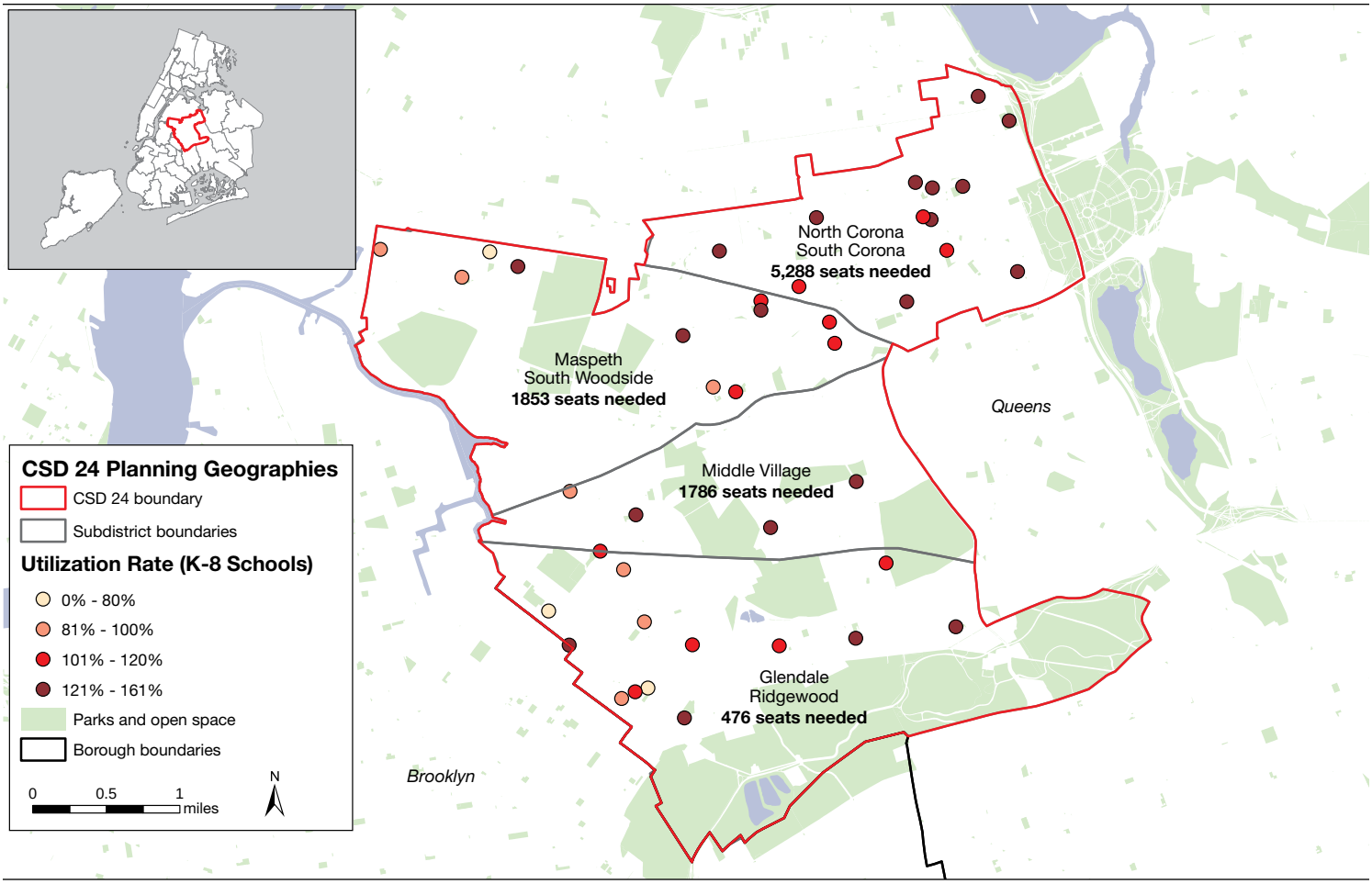


Table 12: CSD 24 Overview Statistics (K-8)

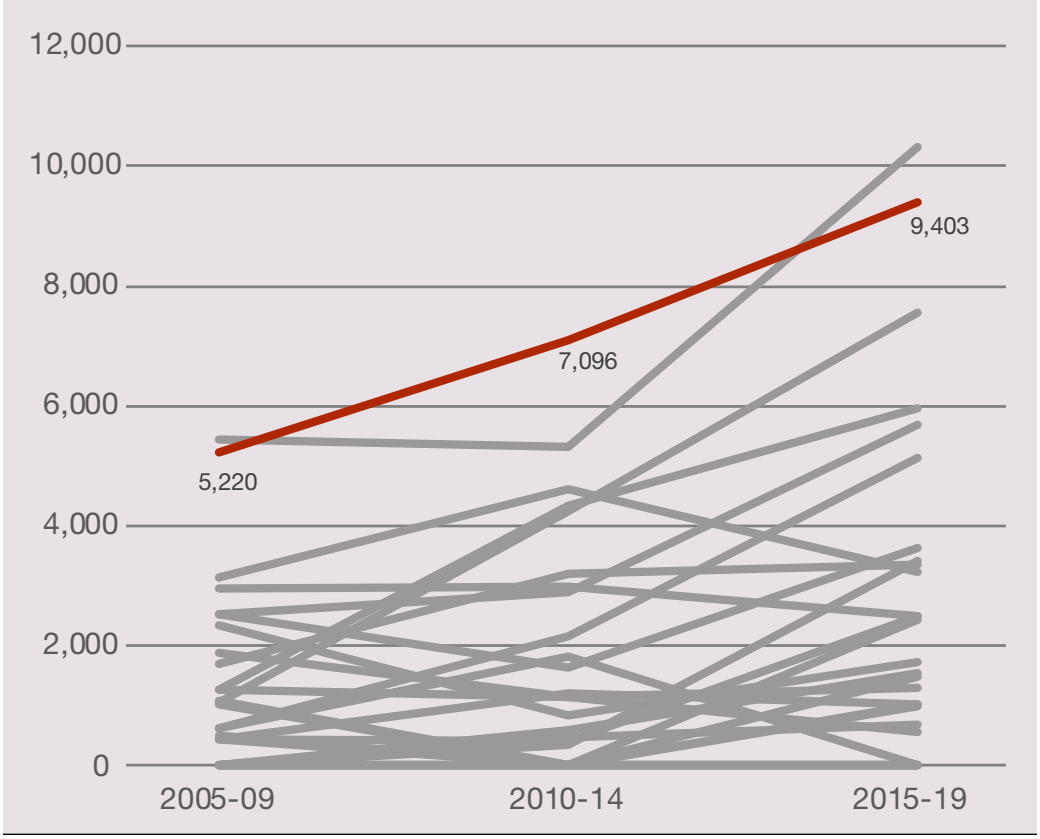
Current Conditions (2015-16)	
Enrollment (students)	43,445
Capacity (seats)	36,846
Shortfall (seats)	(6,599)
Utilization Rate[1]	118%
Number of Schools	44
Number of Overutilized Schools	38
Projected Conditions (2018-19)	
Projected Enrollment in 2019 (students)	43,395
Projected Change in Enrollment by 2019 (students)	-50
SCA Adjustment[2] (seats)	2,854
SCA Identified Capacity Needed by 2019 (seats)	9,403
Total Capacity Needed By 2019 (seats) (Current enrollment + Identified Need)	46,249

1. DOE, Blue Book, 2015-16
2. This was the Working Group's best approximation of the how SCA projects future enrollment and identified need based on the information provided to the Working Group.

At the K-8 level, CSD 24 currently has a 118% utilization rate[98] (only CSD 20 at 121% and CSD 25 at 120% have higher utilization rates), with overcrowding in 38 of 44 elementary and middle schools. There is a shortage of 6,599 seats (See Table 12). CSD 24 also has the highest enrollment of any school district (43,445 students).

The last three capital plans all show an acute and increasing seat need in CSD 24, with 5,220 seats needed in 2005-09,[99] 7,096 seats needed in 2010-14,[100] and 9,403 seats needed in 2015-19[101] (see Chart 6). The methodology for capacity calculation changed significantly during this time, resulting in a citywide increase in seats needed. However, the shortage of seats has been persistent in CSD 24, which ranked highest or second highest in seats needed over the past decade at the K-8 level.

Chart 6: Growth in seats needed over last three DOE Capital Plans
(DOE Capital Plans: 2004-09, 2010-14, 2015-19)



The last three capital plans all show an acute and increasing seat need in CSD 24, with 5,220 seats needed in 2005-09, 7,096 seats needed in 2010-14, and 9,403 seats needed in 2015-19.

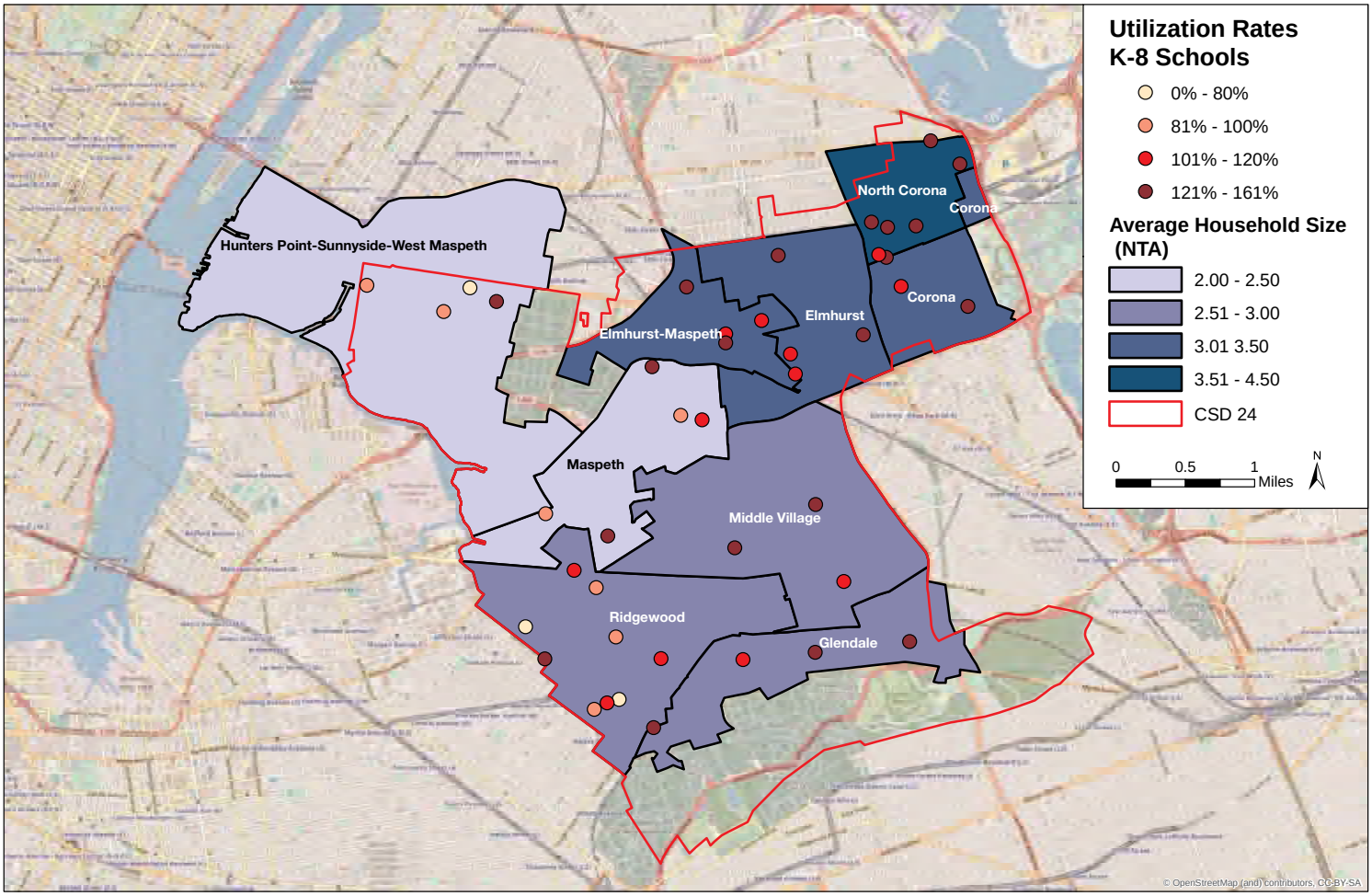
FIVE-YEAR PROJECTIONS

As described in an earlier section, SCA contracts with Statistical Forecasting to create projections of future enrollment. Statistical Forecasting anticipates CSD 24 enrollment to decline by 520 students, from 43,445 students in 2015 to 42,925 students in 2019. However, Statistical Forecasting does not account for student population growth from new housing units being built in the neighborhood. SCA uses data from DCP and DOB to adjust the projections accordingly. SCA estimates that 1,175 housing units will be built in District 24 between 2015 and 2019, resulting in 470 additional students above and beyond the Statistical Forecasting projections. Thus, SCA anticipates a total of 43,395 students in District 24 by 2019. However, the Capital Plan calls for the creation of 9,403 new seats by 2019, which in addition to current capacity of 36,846 seats will result in a total capacity of 46,249 seats. This is 2,854 seats greater than the projected enrollment of 43,395; this enrollment adjustment is not fully explained in the Capital Plan. These numbers are approximated because SCA does not publish the data that are the basis for raw need at the subdistrict level for the public to review. The distance between schools as well as geographic barriers may make it challenging to even out enrollment across a district, and this may mean that additional capacity is needed to resolve serious overcrowding at the subdistrict level.

HOUSING STARTS

Overcrowding can occur when enrollment derived from new housing production strains existing school capacity. However, overcrowding in CSD 24 has been acute for many years, while housing production has been modest. Most of CSD 24 is fully built-out with medium density residential development, and there are few large sites suitable for major redevelopment efforts. SCA estimates that 1,340 housing units were built from 2009-13, and an additional 1,175 units will be built from 2015-19.[102] This level of new housing development ranks 22nd and 25th respectively across all 31 districts. For comparison, CSD 2 in Manhattan added 32,676 new housing units from 2009-13 and is expected to add another 45,747 units from 2015-19.[103]

Figure 8: CSD 24 Median Household Size
(US Census, ACS 2010-14)



Every K-8 school in Corona and Elmhurst is overcrowded.

DEMOGRAPHICS

Demographic indicators can highlight additional trends that may cause overcrowding. The NYC median household size is 2.65 persons per household. Figure 8 shows that portions of District 24 have significantly larger household sizes that may result in additional students attending local schools. The neighborhoods with higher concentrations of students enrolled in school (public, private, and homeschool) tend to be in the neighborhoods with large household sizes (see Figures 8 and 9). Therefore, one can infer that the larger household size is linked to a larger number of households with children. These neighborhoods include Elmhurst, Corona, and North Corona. This is also an area with a significant immigrant population, which makes school planning efforts difficult,[104] as foreign-born populations are not reflected in birth rate trends.

The problem with projecting student enrollment is also exacerbated by the high levels of residential overcrowding in the Jackson Heights, Elmhurst, and Corona neighborhoods.[105]

Every K-8 school in Corona and Elmhurst has a utilization rate above 100%. These are the areas with the largest household sizes in the district, the areas of highest immigration, and an overall higher level of pre-K through 8th grade enrollment in school. CSD 24 has had a persistently high identified need that deserves significant attention by public officials to ensure new school construction is a high priority.

Figure 9: CSD 24 Pre-K – 8th Grade Student Enrollment (US Census, ACS 2010-14)

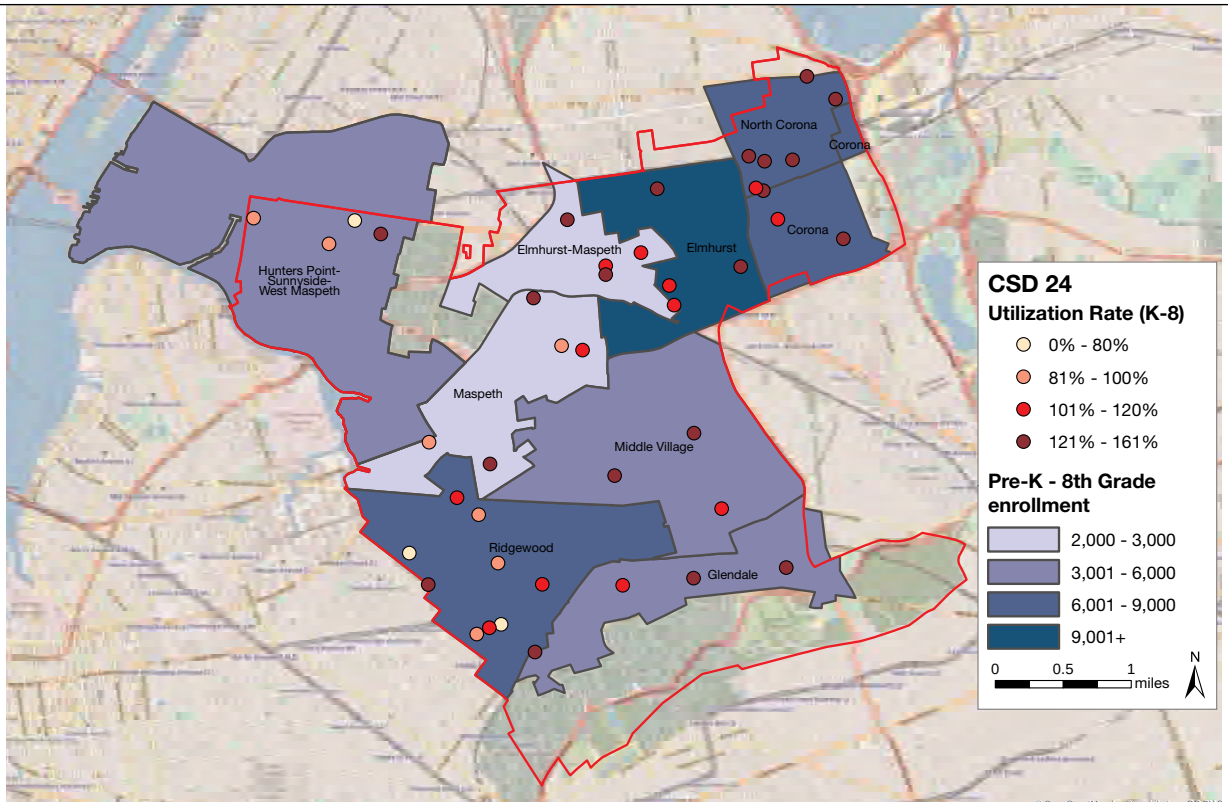


Figure 10: CSD 24 Elementary School Zones (DOE: NYC Open Data)

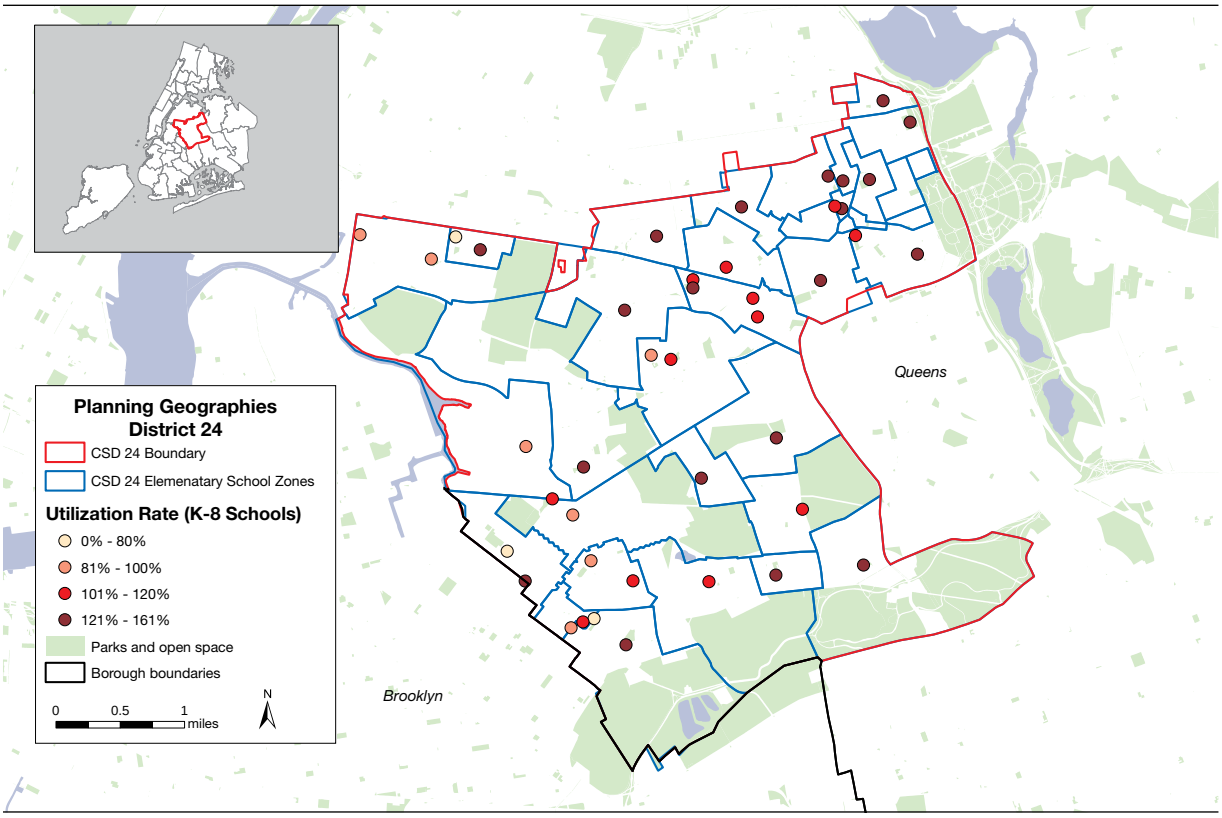


Table 13: New School & Annex Construction in CSD 24 (K-8)

Capital Plan Funded	Capacity Project (K-8)	Year Opened[1]	Capacity[2]
FY05-09	PS/IS 269	2007	500
CTF*	PS 89	2007	30
FY05-09	PS 245 ECC (at Seneca Ave)	2008	441
FY05-09	PS 307 (in Capital Plan as PS/IS 260)	2008	996
CTF	PS 75	2008	10
FY05-09	PS 113 Addition	2009	446
FY05-09	PS 128	2009	648
FY05-09	PS/IS 49 Addition	2009	410
FY05-09	PS/IS 102 Addition	2009	936
FY05-09	PS 14 Annex (in Capital Plan as St. Bart School)	2009	204
FY05-09	PS 13 Addition	2010	707
FY10-14	PS 199 Annex	2012	288
FY10-14	PS 87 Addition	2013	140
FY10-14	PS 330	2013	420
FY10-14	Geraldine Ferraro Campus (PS 290)	2014	616
FY10-14	Walter Mccaffrey Campus (PS 343)	2014	432
FY10-14	Tiffany School (PS 315)	2015	1,110
FY10-14	Ridgewood School (PS 320)	2015	472
FY10-14	PS 199 Annex at St. Teresa's	2015	256
FY10-14	Gabriela Mistral Campus (IS 311)	2016	785
CTF	PS 119	2016	14
FY10-14	PS 298	2017 (expected)	796
FY15-19	P.S. 49 Addition	2017 (expected)	333
FY15-19	I.S. 125 Addition	2017 (expected)	728
Total			**11,718**

* CTF: Capital Task Force
1. According to Blue Book
2. According to Blue Book in year opened

Table 14: Summary of Historical School Construction in CSD 24

Capital Plan	New construction	Identified Need	Roll Over Need*
2005-09	5,328	5,220	-108
2010-14	5,329	7,096	1,767
2015-19	1,061	9,403	TBD

*Identified Need not constructed within the respective SCA capital planning timeline

NEW SCHOOL CAPACITY

In CSD 24, 25 new schools, annexes, or additions have been built since 2005 resulting in 11,718 seats[106] (see Table 13).

The amount of identified need over the last three capital plans has been 5,220 for 2005-09, 7,096 for 2010-14, and 9,403 for 2015-19. New school construction has not kept pace with identified need (see Table 14). This may be due to several factors, such as the limited number of available sites or the limited amount of funding in the district.

Part of the overcrowding problem in this neighborhood is due to a significant number of school closings in the 1970s as student enrollment decreased and the fiscal crisis hit the City's finances. As the population has increased over the last three decades, the City has not been able to fund, site, or construct new schools at the same pace.[107] Overcrowding has been persistent in this CSD, and the City has not addressed the significant need in this community. This case study shows that overcrowding has many causes that may not be directly related to new housing construction; CSD 24 has had limited new housing development, but significant overcrowding in housing, large household sizes, and other demographic factors may have contributed to an unexpected rise in the number of students entering the public school system.

There were a significant number of school closings in the 1970s as student enrollment decreased and the fiscal crisis hit the City's finances.

Following page photo credits:
UPK Site: SCA
Far Rockaway rezoning: NYC Mayor's Office of Environmental Coordination

Rendering of Far Rockaway development scenario

UPK at PS 392, Queens

Key Challenges

Through the study process the Council identified several key challenges that hinder the provision of adequate school facilities to all New Yorkers: a lack of transparency in the school planning process; issues with the integrity of identified seat need; the expansion of pre-K; difficulties in building new schools; and the twin issues of localized overcrowding and underutilized school facilities. These issues are explained in detail below.

LACK OF TRANSPARENCY IN THE SCHOOL PLANNING PROCESS

The lack of transparency in the school planning process was the most significant challenge identified by stakeholders during the Working Group's outreach, and it also posed major challenges in the report-writing process. For years, advocates have raised concerns about how DOE measures overcrowding. Class Size Matters, an advocacy organization devoted to reducing class sizes, has been a leading voice in this effort, and in its 2014 report, "Space Crunch," they outline a series of flaws in how DOE and SCA measure overcrowding and plan for future student enrollment.[108] While some information related to school planning for NYC schools is readily available, including data on school capacity, enrollment projections, and housing starts, how the pieces of data are combined and used to determine future school seat need is not as transparent. In addition, there is no clear and transparent process by which new schools are funded. This opacity erodes public trust in decisions made related to building new school facilities and hinders the ability for the public, the City Council, and other officials to advocate on behalf of SCA and DOE.

Addition to IS 259, Brooklyn

Photo credit: SCA

DIFFICULTY IN PROJECTING FUTURE SCHOOL FACILITIES NEEDS

The drastic fluctuation in enrollment over the last 50 years reflects the difficulty in properly planning for future needs related to school facilities. Migration patterns, fluctuating birth rates, and other unpredictable events can change student enrollment patterns over a few years or a decade.

DCP recently released data that suggest NYC is increasingly perceived by the public as a place to raise a family because more families are living and moving to NYC.[109] Unforeseen changes in immigration, changes in household sizes, and other significant changes in the city can have dramatic effects on student enrollment. However, there are some specific areas of improvement in the school planning formula that can be addressed by SCA and DOE.

ISSUES WITH THE INTEGRITY OF IDENTIFIED SEAT NEED

1. Enrollment projections — SCA's demographer, Statistical Forecasting, releases data that project future enrollment by borough, CSD, and race. In their Enrollment Projection Reports, SCA's demographers include information related to charter school enrollment, federal education policy, birth counts, natural increase in population due to more births and less mortality, immigration, migration, and new housing. Statistical Forecasting provides no explanation of how they incorporate these factors to make reliable projections for enrollment by borough, by CSD, or by race. The actual methodology only includes historical enrollments, birth counts, and the two enrollment projection methods (Cohort-Survival Ratio and Grade Progression Differences). The lack of transparency in how a host of important factors are synthesized to produce future enrollment projects has significant implications for capital planning and new school construction.

2. Housing start data accuracy — The housing data used by SCA rely on data from DOB, HPD, and DCP that include permit applications for new housing construction or known planned projects. This may not provide the best estimates for future housing construction, as the difference between five- and 10-year estimates are minimal (and have been shrinking over the last three years). It is difficult to believe that after five years, there will be a sudden decline in housing starts in NYC. Since the Capital Plan is only produced in five-year periods, these data may be appropriate for that planning effort. This information is not published at the subdistrict level.

As it relates to CEQR, there are issues with the way these housing starts are being used to project future needs for school planning. The CEQR analysis for needed school facilities relies on SCA to project the future need of a community before the impact of a proposed action (e.g. a rezoning) can be evaluated. If the projected need only reflects the housing starts in the first five years, then the full impacts of a project are not being fully measured.

3. Projected Public School Ratio — The PPSR also has several shortcomings. The PPSR relies on Census data from 2000 to estimate the number of public school students that will be generated from new housing starts. While the formula used to develop those ratios is not publicly available, it is unclear why the 2010 Census data is not being incorporated into the PPSR formulas. Additionally, the PPSR is only developed as borough-wide ratios. While many factors are likely used to develop these ratios, most New Yorkers are aware of the significant cultural diversity that exists within each borough. There is no clarity for the public on how these ratios are developed and why a borough-based estimate is more practical than more neighborhood-based ratios.

4. Blue Book challenges — For years, elected officials, educators, parents, and others charged that DOE's method for determining the official capacity of a school indicated in the Blue Book was faulty, resulting in inaccurate utilization rates for schools, thereby masking the true level of school overcrowding. In response to these concerns, as previously discussed, in February 2014, Chancellor Fariña formed the Blue Book Working Group (BBWG), including parents, educators, advocacy organizations, members of community education councils, and other stakeholders tasked with improving the Blue Book. While many of the recommendations of the BBWG have been adopted, some of the most significant proposals have not yet been acted upon. For example, the BBWG noted that the existing Blue Book target class size for grades 4-8 is 28 and for grades 9-12 is 30, which is actually higher than the current average class sizes for those grades. The BBWG's recommendation to change the target class sizes used for capacity calculations has not yet been adopted.

5. Projection horizon — In the City's Ten-Year Capital Strategy for Fiscal Years 2018-27, Mayor de Blasio committed to funding the 38,487 unfunded seats identified in the DOE Capital Plan. However, this funding is allocated for Fiscal Years 2020-24 (the period of the next DOE Capital Plan), which is too late. These seats are part of the identified need for 2019, and based on the timing of capacity construction in past capital plans and the current Capital Plan, some seats funded in DOE's Fiscal Years 2020-24 Capital Plan will not actually be complete until as late as Fiscal Year 2028. In addition, DOE's Fiscal Years 2020-24 Capital Plan is likely to identify additional capacity needed by 2024 beyond these 38,487 seats.

The existing Blue Book target class size is higher than the current average class size for grades 4-12.

Downtown Far Rockaway: A Case for CEQR Reform

Both the enrollment projections and the housing starts data can have significant effects on environmental impacts. The recently passed Downtown Far Rockaway Rezoning provides a good argument for revising the CEQR methodology as it relates to impacts to schools.

The Environmental Impact Statement for the Downtown Far Rockaway Rezoning included an analysis of the impact to local schools due to the proposed addition of more than 3,000 housing units to the Rockaway peninsula that would likely occur as a result of the rezoning. In 2016, the overall utilization for the affected CSD subdistrict (which is used as the geography for measuring impacts at the elementary and middle school levels) was 93.8% for elementary schools, which is an excess capacity of 351 seats.[110] The CEQR methodology uses enrollment projections by SCA's demographers, the existing utilization rates, the expected capacity that will be built in the current DOE Capital Plan, and the 10-year SCA Projected New Housing Starts (housing starts are calculated at the subdistrict level, but those numbers are not publicly available). All of these inputs were used to determine that if the rezoning were not adopted the enrollment for the subdistrict elementary schools would drop to 79.4% by 2032, leaving an excess of 1,160 seats.[111] The total expected number of elementary students (in a scenario where the total number of units projected is actually built) to be introduced by the rezoning is 874 students.

The expected impact is a 15.6% increase in the subdistrict utilization rate, which would have triggered an impact if the projected number of students had not significantly declined in the alternate scenario proposed by the City (the no-action scenario in which the rezoning did not occur).

The enrollment projections used in this model assume a continued decline in the student population and a very limited amount of housing construction between 2019-24.[112] The 10-year housing starts (2015-24) predict 974 housing units to be built between 2015-19 and only 44 units between 2020-24. The small amount of housing starts projected for the second five year period may well be artificially low; if this is the case, then the enrollment projections for both the with-action and no-action scenarios may also be artificially low, potentially obscuring adverse impacts to the local schools.

Furthermore, the projected changes in enrollment by race are not provided publicly by CSD or by subdistrict, making it impossible to independently verify the expected decline in enrollment.

THE EXPANSION OF THE PRE-K PROGRAM

The expansion of the pre-K program will have a significant effect on overcrowding, particularly in school districts that are already facing an overcrowding problem. Since the introduction of UPK, pre-K enrollment has increased dramatically to 64,510 students in the 2016-17 school year. In order to accommodate these new students, the City allocated $800 million in capital funding to create pre-K capacity in new elementary school buildings and pre-K centers. The City also expects to enroll an additional 62,000 three-year-old students by 2021 through the new 3-K for All program.[113] The program began this year in CSDs 7 and 23, which are underutilized districts. Like pre-K, 3-K programs are housed in standalone DOE-operated pre-K Centers, public elementary schools, and Early Education Centers run by CBOs. As the 3-K program expands citywide, SCA will need to consider 3-K in planning for capacity and the City may need to fund the construction of additional pre-K Centers. In addition, if UPK and 3-K are successful, the reduction in student drop-out rates may increase the K-12 capacity requirements in the long-term.

As with planning for K-12 capacity, there is a lack of transparency in pre-K capacity planning. The Capital Plan includes no description of how SCA and DOE identify pre-K capacity need.

DIFFICULTY BUILDING NEW SCHOOLS

1. Design and construction requirements limit where new schools can be built — SCA's design criteria ensure important safety and educational goals are met for NYC students. However, these design standards also make siting new schools difficult in a city characterized by expensive land that is divided into small and/or irregular lots.

There is also a significant discrepancy in the design standards for DOE facilities and charter schools. In a city where available land is limited, charter schools have an advantage over DOE facilities when a school is being considered for a mixed-use building.

2. Lack of development sites — NYC's population is growing, and many of the largest parcels that could accommodate a new school facility are not often put on the market. As shown in the case study, in areas with high need, there are very few vacant properties that are suitable for new school construction, and those parcels that are adequate size are located in areas that are undesirable for a new school to be located. The City will be required to acquire the appropriate sites for new schools which can be a time intensive and costly process.

3. Lack of coordination with the private sector to find suitable sites — SCA employs a limited number of brokers to seek out available property for new school construction. It also relies on those real estate brokers to return with opportunities for new school sites. A more inclusive method for engaging with the real estate market may provide new opportunities to secure viable sites for school construction.

4. Local opposition can make the siting of new schools difficult. Since new school construction is subject to City Council review, Council Members have to balance the need for new schools with community concerns related to traffic and other issues that affect the quality of life in a neighborhood. Typically, residents are not made aware of new school projects until they reach the City Council for public review.

LOCALIZED OVERCROWDING & UNDERUTILIZED SCHOOL FACILITIES

While a significant number of students are enrolled in schools that are overcrowded, there are still some seats available in DOE facilities.[114] Citywide, approximately 46,000 unused seats exist in grades K-12 according to current Blue book data. The geographic distance that exists between overcrowded and underutilized schools is often very large, which makes matching the need with existing capacity difficult. Underutilized school facilities exist for a number of reasons including academic performance, school safety, and a decreasing number of students attending public schools in specific areas. Solutions are needed to find ways to attract families to existing underutilized facilities to minimize capital funding needs for new school construction.

Recommendation 1.

Make it easier and faster to build schools

The problem in many districts is an urgent one and the City needs to act more quickly. There are many districts in New York City where the funding is in the DOE Capital Plan but no school seats are sited, which demonstrates a failure to build seats in neighborhoods even when we have the resources. We need to do better.

RECOMMENDATIONS

1.1 SCA should pilot an RFP process for finding sites for new school construction.

Currently, SCA relies on a handful of real estate brokers to find suitable sites for new school construction. To get assistance in finding new opportunities for school construction, SCA could pilot a new Request for Proposals (RFP) process that allows developers to present the agency with opportunities to build new schools with a specific funding constraint dictated in the RFP. To ensure the RFP process is successful, strict guidelines for applying should be instituted to ensure that application process provides viable options for SCA to construct new schools. The RFP process may also provide new opportunities for building schools at a lower price point.

Forcing the private sector to compete may help to drive down costs and present more innovative options for the construction of public schools.

1.2 Advocate for SCA to receive Design-Build authorization.

Design-build has proven to expedite construction timelines and result in cost savings. The State should authorize SCA to use the design-build process for school construction projects. Giving SCA design-build authority would chiefly result in cost savings by reducing change orders, changes made to the scope of work for a contract after it has been awarded. Change orders often result from complications with the design encountered during construction. However, if SCA could bid out one contract for both design and construction, these kinds of change orders would be greatly reduced or eliminated.

A reduction in change orders during the construction of capacity projects would save not only money but also time. In addition, design-build inherently results in time savings of approximately 1-3 months because there is only one round of procurement, rather than two separate rounds for design and construction. SCA also believes design-build has the potential to improve project quality. Design-build would facilitate greater collaboration between the SCA, the architect, and the builder, which could lead to better decisions regarding design, materials, and construction.

SCA would use design-build particularly for large projects. The current DOE Capital Plan includes 12 large capacity projects (new high schools and/or buildings with at least 1,000 seats). Assuming up to 10% cost savings due to reduced change orders, using design-build for these 12 projects could have resulted in up to $104 million in savings—enough to fund another capacity project in itself. While all but one of these projects is already in-progress or complete, the next capital plan will also include large projects that could benefit from design-build. If design-build were used more broadly for all capacity projects, and/or large capital improvement projects (state of good repair projects on existing buildings), savings could be even greater.

1.3 Expand use of eminent domain.

Eminent domain is always a last resort because it creates conflict between government and property owners, can take a significant amount of time, and may be more expensive for the City than a typical property sale. However, in CSDs with the most overcrowding that also have limited vacant sites that are suitable for new school construction, SCA should more often use aggressive measures like eminent domain to build schools.

1.4 Convene a School Design Working Group.

SCA and DOE should convene a School Design Working Group to consider additional flexibility for design requirements for building schools on a small or irregular lot or in a mixed-use or affordable development. This working group could work under the direction of SCA's school design staff, and would consist of experts in architecture, construction, and education. Experts in real estate have often described the ease of siting charter schools in new buildings, particularly in mixed-use buildings, when compared with siting DOE facilities, and the design standards are a part of the challenge. As a result the City is seeing far more charter schools than DOE schools in mixed-use projects, particularly in affordable housing projects.

School Design Working Group

The School Design Working Group should consider how to better balance the need for schools with rigorous design requirements. Some considerations for the working group as it relates to SCA design standards include the following:

- Fit-out of school buildings. SCA requirements are rigid, and charter schools are much more flexible when it comes to building closets in classrooms, window design, finishing, and display cases. These requirements may not prevent the construction of a new school, but may reduce the City's ability to fully fund the seats needed across the city.
- Exterior specifications. SCA requires the same exterior design regardless of whether a school is being located on a standalone site or incorporated into a mixed-use building. There should be some consideration on how to allow greater flexibility on exterior requirements on a mixed-use building that uses different materials.
- Dimensions of building bays. With concrete construction it can be cost prohibitive to accommodate the large spans required for a gymnasium required by SCA and switching to steel is cost prohibitive for affordable housing. The working group should identify how smaller physical education spaces without the large span requirements can be accommodated for new school construction in mixed-use buildings. These are issues that particularly affect affordable housing construction.
- Typically, SCA requires designs to be within 5% of SCA's specifications, and the working group should consider some flexibility around these percentages when working in overcrowded districts as well as for schools that are being incorporated into mixed-use buildings (particularly affordable housing projects).
- The working group should also explore how to create greater parity between charter school and SCA design requirements.

■ **1.5 Establish zoning incentives to encourage school construction in CSDs with the highest need**.

Special zoning districts could be established to encourage school construction in areas of the City with the highest need. Any change to the Zoning Resolution would require public review and a vote by the City Council. These zoning incentives would be meant to encourage developers to incorporate public schools into their development plans. The provisions of each zoning district should be tailored to the specific challenges in that school district. Some features that could be included in those zoning districts are listed below:

- In some zoning districts, a floor area exemption for schools could provide a major incentive for developers to include district schools in new mixed-use construction. This would mean that floor area devoted to school space would not count against zoning limits on floor area. Additionally, buildings containing schools could receive relaxed height and setback requirements, making it easier to located schools in mixed-use developments. A floor area exemption could be contingent on including certain design elements, such as outdoor at-grade recreation space, which is often not included in mixed-use developments that include schools.
- A new certification process could be established where an applicant who is applying for a zoning change would be required to ask SCA if they would consider siting a new school in their proposed development plans.
- A new notification requirement could be created wherein property owners within these high needs school geographies would have to notify SCA before applying for a building permit to develop on the property. This mechanism could be modeled along the lines of the transit easement districts which require consultation with the MTA on development sites where the MTA determines it needs a subway entrance.

The process of establishing special zoning districts would need to involve close consultation with affected communities, which would be able to consider tradeoffs between the need for more schools and the potential for taller buildings.

Addition to PS 163, Brooklyn

1.6 Continue use of the Education Construction Fund (ECF) model where appropriate.

The ECF model has been used successfully in a variety of projects, and it is an excellent way to leverage the private market to raise funding for new schools and achieve multiple policy goals, including building new affordable housing.

1.7 SCA should lease school buildings in large-scale affordable housing projects.

SCA is a "credit tenant" (a tenant with the financial security worthy of being rated as an investment grade by any of the major credit agencies), which means a firm early commitment from SCA to lease space is very useful in helping a developer to secure financing. SCA could secure a 99-year pre-lease with stipulations that the developer has to deliver space according to a timeline and criteria. If SCA did lease space in a mixed-use affordable housing project, the "core & shell" costs could be eligible for tax credits, but the "fit-out" costs cannot count towards the tax credits. The school space would need to generate less than 20% of the total revenue from the project, and thus would require a very large residential component of the project.

1.8 Improve the site identification process.

The SCA's Real Estate Division is responsible for finding adequate sites for new school construction and buildings that may be leased for school use. The Division employs several real estate firms to locate available land and buildings. In order to bolster the Division's efforts, the administration should form a mayoral-level team to review city real estate transactions and deals to identify opportunities for SCA. The Economic Development Corporation, HPD, DCAS, and DCP should be key participants.

Additionally, given competing demands on City-owned or leased space, DCAS should alert DOE and SCA if a City-owned or leased property of adequate size for a school becomes available, so that DOE and SCA can consider that site for creating additional capacity. DCAS should also routinely review or provide the necessary data to allow SCA to review City leases and City-owned space to identify opportunities for SCA.

1.9 Advocate for school facilities when they are proposed in a district with high need.

When SCA is proposing a new school where need is significant, public officials should make every effort to support the construction of new schools. While local input can improve the final design and ensure the school will be integrated into the surrounding neighborhood, public officials should support the siting and creation of new schools where SCA and DOE have demonstrated a need for new school seats.

Photo credit: SCA

Recommendation 2.

Accurately describe the problem

There are legitimate concerns about the integrity of the data used by SCA to develop the identified need for each capital plan. Listed below are several recommendations for each of the data sources used for the capital planning process.

The de Blasio administration has made progress in being more forthright with the public about the true need for school seats, but there is still significant work to be done to make sure our planning documents reflect the true scope of the challenge.

RECOMMENDATIONS

- **2.1 Enrollment projections should include confidence intervals.**

SCA's demographers should incorporate confidence intervals into their projections to allow the public to see what range of student populations SCA is considering when deciding where new school construction will be funded. SCA should be planning for the projected student enrollment at the higher end of their confidence intervals to ensure every student has adequate space.

- **2.2 Develop a housing projection model.**

SCA, in conjunction with other relevant city agencies, should develop a housing projection model that creates more realistic estimates for housing construction beyond the immediate future. In particular, the housing permits for years 6-10 are poor predictors of housing starts because very few developers seek building permit 6-10 years before construction begins.

- **2.3 Implement all remaining Blue Book Working Group (BBWG) recommendations that have not been adopted by DOE or SCA, particularly regarding target class sizes.**

SCA and DOE should adopt all of the BBWG recommendations related to measuring capacity and acceptable standards for required instructional space. The BBWG made a series of recommendations that have been partly implemented, but some of the most important recommendations were not adopted. SCA and DOE should update their target capacity class sizes to meet approved class size goals for the City under the State's Contract for Excellence.

Adopting the remaining BBWG recommendations will likely increase the identified need in many schools and districts. If we are to address the problem we need to accurately measure the state of overcrowding to better plan for future student needs.

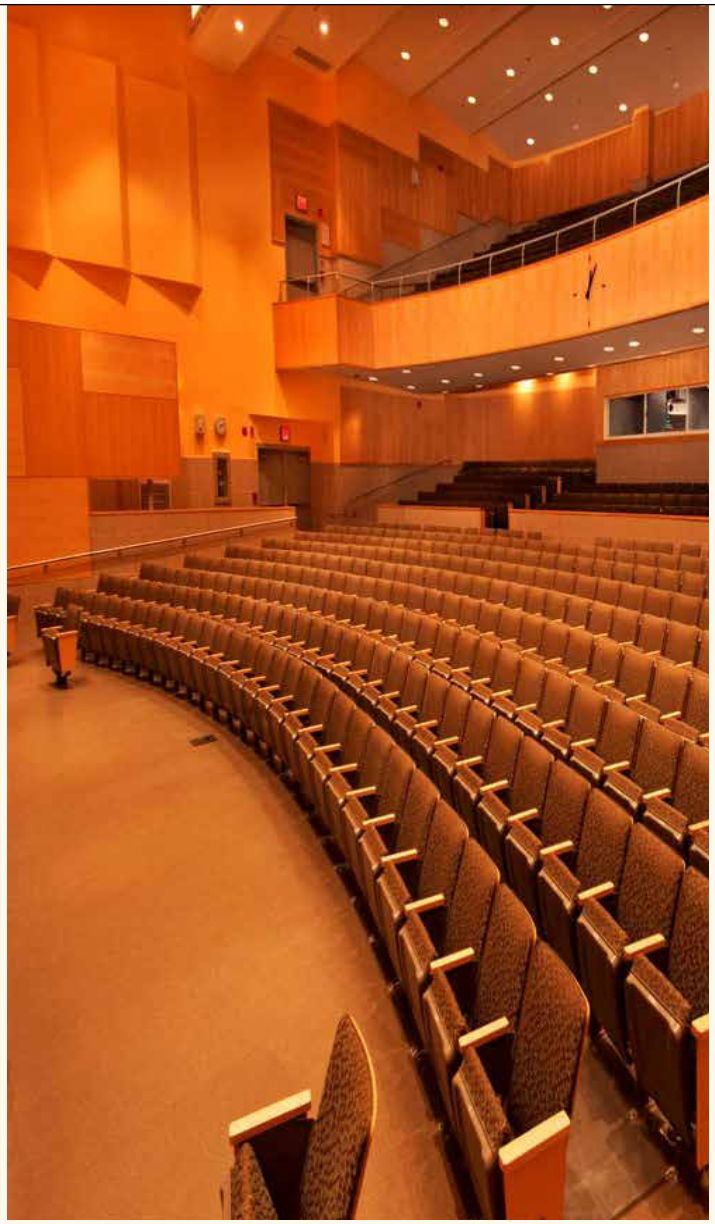
- **2.4 Revise Projected Public School Ratios.**

SCA should use the most current information available to develop PPSRs. Advocates have raised concerns that the data used to determine the number of students expected to be added to the public school system are out of date (U.S. Census data from 2000), and should reflect the most recent data (U.S. Census data from 2010). For instance, Census data have shown that over the last 10 years there has been a trend of more families in New York choosing to enroll their children in public schools as opposed to private schools. This trend should be reflected in revised PPSRs.

The SCA should develop more localized PPSRs. Recognizing that U.S. Census data alone is not an appropriate estimate for public school student generation, creating PPSR boundaries that reflect localized demographics and participation rates (percentage of students that choose to attend public schools versus private or parochial schools) will help to better plan for new school facilities.

The updated PPSRs should consider the number of bedrooms in housing units and other relevant factors that play a role in determining the likelihood of a household to generate children that will attend public school. Many other cities operate at this level of specificity.

Auditorium at Metropolitan Avenue Campus, Queens



2.5 Extend the school capacity planning horizon.

The DOE Capital Plan only projects identified seat need through the final year of its fixed five-year plan period.[115] Given the extended period of time it takes to construct or lease and renovate new school seats, it is virtually impossible for SCA to meet the seat need identified in each plan by the end of the plan. Even the K-12 seats fully funded in the current Capital Plan will not be complete by 2019, the final year of the plan; the majority of these seats are projected to open between Fall 2019 and Fall 2023. SCA is constantly playing catch-up, constructing seats that may have been needed for years even as the identified seat need continues to grow.

The DOE Capital Plan should project seat need for a rolling, 10-year period and clearly indicate how new capacity projects completed during any plan period change the identified seat need. The identified seat need should be a best projection of the number of new school seats and school buildings required to appropriately accommodate all students, regardless of the funding level included in the City or State budgets. The administration should then consider the identified seat need when proposing a capital budget and preparing the Capital Commitment Plan and Strategy.

With a long-term projection of need, SCA can prepare each capital plan to take into account the need, the available resources, and the ability to deliver projects within each five-year plan period. The capacity portion of the DOE Capital Plan should also present preliminary estimates of how to address the identified seat need beyond the Plan period. This would allow DOE to plan to actually meet that need in the long-term, rather than continually projecting an unachievable seat need in fixed, five-year increments. Furthermore, this long-term planning strategy should provide the flexibility for SCA to purchase small properties over time in order to facilitate future school construction in areas with projected seat need beyond any one Five-Year DOE Capital Plan.

The recommendations in this report that intend to streamline and expedite the site identification and construction of new schools would help make meeting the identified seat need an achievable goal. It is also critical that this recommendation is implemented in tandem with recommendations to improve the transparency and integrity of the identified seat need projection, so the administration, the Council, and the public share a common understanding of the basis for the allocation of funding for school capacity.

Photo credit: SCA

Recommendation 3.

Give the public and decision makers the information they need

While SCA provides a general description of their planning for capacity in the Capital Plan, additional transparency is needed to fully understand the identified seat need. The description of the process currently included in the Capital Plan makes no mention of a "raw seat need." In addition, some of the data used for this calculation is not public or easily available to the public. Below are recommendations for the information that should be released in order to enhance transparency and create additional public trust in the planning process.

Making this information public would allow for an informed dialogue between community members, education policy experts, the Council, and the administration on the best way to identify where new school seat construction is needed. In addition, it would allow the public and the Council to hold DOE accountable for the non-construction strategies used to create capacity and reduce overcrowding.

RECOMMENDATIONS

■ 3.1 Publish subdistrict maps, which are not currently available to the public, on SCA or DOE's website.

DOE/SCA should publish the subdistrict boundaries to the public in pdf and shapefile format. These files are available to the public when requested, but they should be available for download via NYC Open Data web platform and on SCA or DOE's website.

■ 3.2 Publish the data from the Blue Book, "Enrollment Projections for the NYC Public Schools", and "Projected New Housing Starts" in machine readable format and also aggregated at the subdistrict level.

The public should be able to analyze these data in an easily accessible format. Many advocates, educational institutions, and other members of the public can provide meaningful research and analysis to devise strategies to help reduce overcrowding with information provided in a machine-readable format.

The subdistrict boundaries are the most important geographies for decisions by the City related to school planning. For transparency in the school planning process, the data listed above should be aggregated at the subdistrict level to ensure the public has full confidence in the way the City allocates resources related to school planning and construction.

■ 3.3 Provide DOE/SCA's methodology for deriving subdistrict enrollment projections from Statistical Forecasting's K-8 enrollment projections by grade and school district.

DOE/SCA do not publish data at the subdistrict geography. Therefore, it is impossible for the public to determine how they project identified need in the DOE Capital Plan. For the public to have confidence in the published identified need in the Capital Plan, the SCA should aggregate the data sources used in the developing the Capital Plan at the subdistrict level.

■ 3.4 Provide substantive information on the adjustments SCA makes to the raw seat need that results in the identified seat need.

DOE/SCA use strategies other than constructing new schools to accommodate projected student enrollment. These adjustments are likely sensible measures to take that are much more cost-efficient than building new schools. For the public to have confidence in the identified need in the Capital Plan, DOE/SCA should list what strategies are being utilized to address overcrowding before requesting funding for new school construction.

Recommendation 3.

UPK facility at PS 443, Bronx

3.5 Monitor data provided by DOE on the number of students who apply for, receive offers for, and enroll in each school, as well as the number of school seats available, in accordance with Local Law 72 of 2018.

In 2018, the City Council passed Local Law 72, requiring DOE to issue reports on the number of individuals who applied for, received offers for, and enrolled in pre-K, kindergarten, 6th and 9th grade in DOE schools, and also requiring DOE to report on anticipated seats available at each school. The local law requires the reports to be disaggregated by, among other things, the zip code and community school district of residence of students. The information provided will provide greater transparency on where students are attending school in relation to where they live.

3.6 Clarify how race is used to project enrollment.

The demographers hired by SCA to project future student enrollment conduct their analysis using undisclosed algorithms to project student enrollment by race. In some cases, these enrollment projections vary dramatically by race. Projecting declining enrollments for Hispanic and Black students may deny neighborhoods that are predominately Hispanic and Black adequate school facilities in the future.

3.7 Include the planning process for pre-K seats (for both three- and four-year-olds) in the Capital Plan, and release any data and formulas used in this planning process.

As the pre-K program continues to expand in DOE facilities, the DOE/SCA should publish their method for streamlining the pre-K program into the Capital Plan. DOE/SCA have no published plan for how accommodated this new program in current facilities or new planned construction. As overcrowding is already a challenge in many communities, the expansion of the pre-K program should not worsen overcrowding.

3.8 SCA should improve communication with the public about potential new school sites.

Public feedback that was received during the writing of this report reflects the public's frustration with the lack of response to their suggestions for new school sites. When SCA receives a recommendation for a potential site, SCA should provide a meaningful response that includes detailed criteria for site selection. This would encourage the public to continue to submit potential school sites.

Photo credit: SCA

Recommendation 4.

Increase use of other approaches to drive down overcrowding and integrate schools

As outlined in the Capital Plan, and as evidenced by the difference between the raw and identified seat need, there are ways DOE can alleviate existing overcrowding and ensure capacity for increased enrollment through solutions other than new school construction. While there are many cases where capital investment in new construction is the only remedy, DOE interventions allow for less expensive and more flexible potential solutions to capacity needs. Additionally, as the City begins to earnestly address issues of segregation in NYC public schools, the recommendations in this section can be used to address issues related to overcrowding and segregation in tandem. In the interim, the recommendations below can help address current funding shortfalls in SCA's Capital Plan.

RECOMMENDATIONS

- **4.1 Create specific school plans to alleviate overcrowding in high-need districts.**

For consistently and extremely overcrowded schools in the highest need districts (as defined in the case study section of this report), DOE should publicly release a strategic plan to alleviate the overcrowding. This may include planned capacity construction in the area, but should also incorporate any non-construction strategies, as discussed in this report, as well as policies such as capping enrollment. In addition, the plan should set explicit targets for alleviating overcrowding over the short- and long-term. Finally, DOE should engage community stakeholders during the creation of this plan to ensure buy-in and give them the ability to hold the administration accountable for implementation.

- **4.2 Adjust CSD boundaries and school zone lines to reduce overcrowding.**

Most students in elementary and many in middle schools still attend zoned schools. The CSDs with localized overcrowding are best suited for a comprehensive school rezoning effort by DOE. Although this process is often very political, solving localized overcrowding by means other than new school construction can allow SCA to build more schools in areas where no other options are available.

- **4.3 Expand use of special programs (dual language, gifted & talented, progressive education, career technical education, after school programming) to attract students to underutilized facilities and ensure equity of access.**

While existing capacity in the school system is not always located near where the need is, in some cases there are overcrowded schools with neighboring underutilized schools. Even without undertaking a formal school rezoning, DOE can promote better utilization of existing DOE facility capacity through improving physical accessibility of school buildings and offering attractive academic programming.

At the most basic level of intervention, underutilized schools may need help with branding. DOE has begun publishing "Building Accessibility Profiles" on its website, which help parents and students to understand the schools that are accessible. Additionally, DOE already works with Renewal schools to improve the public perception of these schools through outreach to families of potential students, tours and open houses for parents, and engagement with the larger community including local businesses. DOE should expand these outreach efforts in all underutilized schools in overcrowded districts. DOE enrollment center staff should be engaged in these rebranding efforts as well.

In addition, programs such as dual language, career and technical education (CTE), progressive education models, and gifted and talented (G&T) programs can attract students to underutilized schools. DOE should expand attractive programs to underutilized schools, particularly in districts that lack these programs. Rather than creating a "brain drain" from overcrowded schools and areas, this programmatic expansion should improve equity in school desirability. In terms of accessibility for students with disabilities, DOE should address the shortage of barrier-free programs so that all students have equitable access to schools. The goal should continue to be to provide equally desirable educational opportunities both within local communities and throughout the city.

4.4 The School Diversity Advisory Group should consider school capacity and utilization as part of its larger diversity and integration plan.

As part of its "Equity and Excellence for All: Diversity in New York City Public Schools" plan released in June 2017, DOE has created a School Diversity Advisory Group tasked with reviewing policies and practices and making recommendations to the Mayor and Chancellor for changes to increase diversity in DOE schools.[116] As part of its work, the School Diversity Advisory Group should consider school capacity and utilization as part of its larger diversity and integration plan. Further, the SCA and DOE should consider the impact of new school construction projects, individually and collectively, on school segregation.

Despite being one of the most diverse cities in the world, New York City has one of the most segregated public school systems in America.[117] The overall population of students in DOE schools is very diverse – approximately 41% of students are Hispanic, 23% are Black, 17% are Asian, and 16% are White.[118] Yet, based on a review of data provided by DOE pursuant to the Local Law 59 of 2015, during school year 2016-17, 77% of all Black and Hispanic students attended a school that had fewer than a 10% White student population, and 39% of all White students attended majority White schools. DOE schools are also segregated by socioeconomic status. In 2016-17, 77% of Hispanic students and 72% of Black students attended schools in which 75% or more of their classmates qualified for free or reduced price lunch (FRPL). Conversely, only 34% of White students and 57% of Asian students attended a school in which 75% or more of their classmates qualified for FRPL. Schools also lack diversity with regard to students who are English language learners (ELL), students with disabilities (SWD), and students living in temporary housing (STH). In 2016-17, while 24% of DOE schools served an ELL student population of 20% or more, 50% of DOE schools had an ELL population of 10% or less. In addition to this discrepancy, SWD were also underrepresented in many DOE schools. In fact, while 19.4% of DOE students were SWD, 6% of DOE schools had a SWD population of 10% or less. Furthermore, STH were overrepresented in some schools and underrepresented in others. While 27% of all DOE schools had a STH population of more than 15%, 5% of DOE schools did not serve any STH.

The lack of diversity in schools is concerning because a considerable body of research indicates that racial, cultural, and economic diversity of schools – when implemented properly – is strongly associated with a range of short- and long-term benefits for all students.[119]

Following page photo credit:
Wikimedia

Explore new funding strategies

As discussed, the City has never fully funded the identified seat need in the DOE Capital Plan, and SCA continues to play catch-up, often not completing construction until years after it's actually needed. However, until there is a clear and rigorous determination of the capacity needs of our school system, it is hard to know what the appropriate level of funding for capacity should be. A full implementation of Recommendations 2 and 3—increasing transparency in the planning process and improving the methodology of this process—would instill confidence in the accuracy of this needs assessment. In light of a true needs assessment, all stakeholders, including the public, can consider the trade-offs associated with various solutions to capacity challenges. Then the administration and the Council can work together to determine the amount of funding needed to create additional capacity and a realistic but ambitious timeline in which to fully fund required school construction.

RECOMMENDATION

■ 5.1 Explore opportunities to raise funding through impact fees from new development.

Impact fees are payments that are required by local government before new development occurs to ensure that a developer provide some level of improvements to a public amenity that would be impacted by the proposed development (e.g. a large residential building may generate new students in an area with overcrowded schools, and that developer would need to build a new school to mitigate the impact of that development on existing schools). The fees are based on a methodology that ties the cost of the public amenity to the impact of the development on that public amenity. As NYC's real estate industry regains strength, the City should explore the feasibility of new development contributing its share of the costs that are a result of new students generated from their respective residential units. This practice is common in other jurisdictions.

432 Park Avenue: As-of-right development

■ 5.2 Revise CEQR to lower thresholds for impacts to public schools and allow mitigation via payment into a school construction fund.

CEQR requires two threshold criteria to trigger significant adverse impacts as a result of a rezoning proposal: (1) a collective utilization rate of the elementary or middle schools that is equal to or greater than 100% and (2) an increase of 5% or more in the collective utilization rate as a result of the rezoning. In CSDs that are already overcrowded, this threshold is too high. The Mayor's Office of Environmental Coordination should work with DOE, SCA, and the City Council to revise the CEQR guidelines in order to reduce these thresholds for significant adverse impacts to public school facilities. Reducing the CEQR thresholds will better address the cumulative impacts of many discrete projects by ensuring that a greater proportion of projects mitigate their impacts on schools. Additionally, impacts from development should be able to be mitigated by paying into a fund for new school construction, which would help SCA build more schools.

Notes

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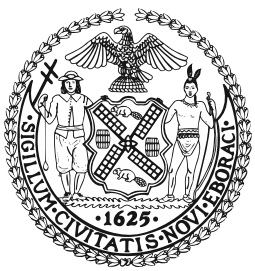

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