Executive Summary

New York City’s Changing High School Landscape:
High Schools and Their Characteristics, 2002-2008

by
Janet C. Quint
Janell K. Smith
Rebecca Unterman
Alma E. Moedano

with
Corinne M. Herlihy
Saskia Levy Thompson
Collin F. Payne

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Overview

New York City’s public high school system — the nation’s largest — underwent a sweeping transformation during the first decade of the twenty-first century. At the start of the decade, students were routinely assigned to their zoned high schools, which often had thousands of students and were overcrowded and low-performing. By the 2007-2008 school year, some 23 large and midsize schools with graduation rates below 45 percent were closed or on their way to closing. Simultaneously, many new schools that were intended to serve high school-age students came into being, including almost 200 new small schools. In a break with past practices, the majority of the new small schools accepted students at all levels of academic proficiency and thus were open to those who would likely have attended the closed schools. School choice was extended to all students — another notable departure from prior policies — by giving them an opportunity to indicate up to 12 schools that they wanted to attend. A computerized process was then used to assign each student to his or her top-ranked school where a space was available and where admissions priorities (for example, academic standing or geographic residence, depending on the school) were met. While the introduction of choice affected all public high school students, most of the school closings and openings were concentrated in low-income, nonwhite areas of the Bronx and Brooklyn. The scale and rapidity of the changes were grounded in the conviction of key New York City Department of Education officials, staff at the Bill & Melinda Gates Foundation, and others committed to school reform that small schools could more effectively meet the academic and socioemotional needs of disadvantaged students. This report is one of four Gates-sponsored inquiries into the implementation and impacts of the City’s small school reforms. The report considers the historical backdrop for the reforms, charting changes in the number of schools that are categorized as large, midsize, or small, and as academically selective or nonselective, depending on whether they consider prior academic performance in their admissions decisions. It also describes the characteristics of schools that fall into the various categories, as well as the characteristics of their students.

Key Findings

- By September 2007, the new small schools collectively served almost as many students as the closing schools had served in September 2002. In general, student enrollment patterns largely reflect the changes sought by the planners of the reforms, with enrollment declining in large schools as increasing proportions of students enrolled in small schools.

- Students at the small, nonselective high schools across the five boroughs of New York City tended to be more disadvantaged than students attending other kinds of schools along a number of socioeconomic and academic indicators.

- On average, the students who were entering the large, academically nonselective schools that were still open in September 2007 were no longer at exceptionally high risk of academic failure.
Preface

In 2009, the U.S. Department of Education announced the creation of Race to the Top — a $4.35 billion initiative to raise student performance and accelerate achievement gains by stimulating innovation and instilling accountability in the nation’s public schools. One of the goals of the initiative was to turn around the country’s lowest-performing schools, which the *New York Times* has described as “the most critical issue in American education.” But what is the best way to do that?

Among the approaches that have been put forward is the creation of small schools, whose proponents observe that the largest schools in urban centers tend to have the lowest graduation rates and the highest incidence of violence. When New York City’s “Children First” school reform agenda was developed in 2002, small schools and other forms of smaller learning environments were being championed by school reformers and professional organizations and were being put in place by urban school districts nationwide. Department of Education officials in New York City believed that small schools could more effectively meet the needs of low-income, disadvantaged students in particular, and, with support from the Bill & Melinda Gates Foundation, Carnegie Corporation, The Wallace Foundation, Michael & Susan Dell Foundation, Open Society Institute, and other philanthropies, they put a plan into action.

Since 2002, dramatic changes have occurred in the city’s public high school system: many new schools were created, including some 200 new, small schools that were largely supported by the Gates Foundation; more than 20 larger, underperforming schools were shuttered; and school choice was expanded to all students. While New York City’s new small schools have various themes and educational philosophies, they share three objectives: to prepare their students for college; to ensure strong student-teacher relationships; and to combine learning with real-world examples both inside and outside the classroom. This report, commissioned by the Gates Foundation, looks at the ways in which New York City’s reform effort transformed the public high school landscape from 2002 to the beginning of 2008, including changes in high school options and student enrollment over time, and describes the characteristics of the schools and students involved. The Gates Foundation also commissioned MDRC and its partners, Policy Studies Associates (PSA) and the Academy for Educational Development (AED), to undertake three additional studies: one by PSA on the role of intermediary organizations in the creation of new small schools; a group of case studies, from AED; and a second MDRC report, which will analyze the impact of New York City’s school reform effort on student achievement.

Race to the Top lends added weight to the question of how best to reform our nation’s schools. By any measure, the structural changes made in New York City high schools are unprecedented — including the rapid pace with which large, failing schools were closed and new smaller schools opened; the bet on school size as the instrument of change; and the systemwide introduction of choice. Increasingly, others are looking to these changes as a blueprint for reform. It is our hope that this report and its companion studies will provide valuable insights for all reformers.

Gordon Berlin
President
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In her role as Special Advisor to the Chancellor of the New York City Department of Education, Michele Cahill provided early guidance and support for this series of studies, providing the access and information that seeded the past three years of research. In her current position as a senior official at the Carnegie Corporation of New York, she generously shared her time and illuminated the authors’ understanding of the changing high school landscape in New York City.

We owe a great debt to staff at the New York City Department of Education, who from the outset of this study have been eager to learn about the effects of their reforms and have spent a great deal of time building our understanding. We especially want to recognize DOE Chancellor Joel Klein, Lori Mei, Garth Harries, Jennifer Bell-Ellwanger, and Thomas Gold. We also thank those in the Office of Student Enrollment, including Elizabeth Seiabarra, Jesse Margolis, Evaristo Jimenez, and Hussham Khan, who helped us interpret student application data so that the information could be used for research purposes.

We would also like to thank our research partners in the larger Gates-funded set of studies — Eileen Foley at Policy Studies Associates, Inc., as well as Cheri Fancsali and Vernay Mitchell-McKnight at the Academy for Educational Development — for their comments on an earlier draft and for their support throughout the research enterprise.

We would like to express gratitude to our colleagues at MDRC who have contributed to this report. In his former role at MDRC and currently at the Research Alliance for New York City Schools, James Kemple has helped to define the overall scope of the report. Gordon Berlin, Howard Bloom, William Corrin, Fred Doolittle, John Hutchins, and Pei Zhu reviewed the report and provided detailed comments. Jon Heffley assisted with geo-coding. Mario Flecha provided production assistance. Alice Tufel edited the report, and Stephanie Cowell prepared it for publication.

The Authors
Executive Summary

New York City’s high school system — the nation’s largest — underwent a sweeping transformation during the first decade of the twenty-first century. While the changes — the subject of this report — affected all public high school students, they were most directly intended to benefit academically and socioeconomically disadvantaged students, especially those living in low-income, largely nonwhite areas of Brooklyn and the Bronx.

At the start of the decade, students in these neighborhoods were routinely assigned to locally zoned high schools. These schools were required to accept all students in their attendance zone; often enrolled 2,000 or more students; and were likely to be the most overcrowded, violent, and low-performing schools in the city. By the end of the decade, at least 23 large and midsize schools with graduation rates below 45 percent were closed or on their way to closing. As these failing schools were eliminated, many new schools — including almost 200 small schools — were created to serve high school-age students.¹ The majority of the new, small schools accepted students at all levels of academic proficiency and thus were open to those who would likely have attended the schools that closed.

Moreover, a new school admissions policy called for all students who were entering the system to choose the school that appealed to them. In the past, choice had been largely limited to students who were high-performing and motivated, and/or whose parents knew that alternatives to the zoned schools were available. Under the new procedures, all eighth-graders submitted a list of up to 12 schools that they wanted to attend — ranked in order of preference — to the New York City Department of Education (DOE), which used a computerized process for assigning students to their highest-ranked school whose admissions criteria they met and where spaces were available. The introduction of universal student choice in America’s largest school district marks a major break from previous policy and practice.

This report considers the historical backdrop for the changes. It then focuses on the period between the 2002-2003 school year, when a new chancellor took over the DOE and made high school reform a prominent part of the agency’s school reform agenda — known as “Children First” — and the 2007-2008 school year, the last school year for which data were readily available. The report charts changes in the supply of schools serving high school students and in the process by which students gain access to schools. In so doing, it categorizes schools by their size (large, midsize, and small) and by the extent to which they select students on the basis of

¹In this report, small schools are defined as those that enrolled 550 or fewer students, with a maximum of 175 ninth-graders.
prior academic performance (academically selective and nonselective). Finally, it describes the characteristics of schools that fall into the various categories, as well as the characteristics of their students.

Though descriptive in nature, the report rests primarily on quantitative data that come from large databases maintained by the DOE, the New York State Education Department, and the U.S. Department of Education, along with other sources. MDRC has compiled this information into a database that includes each high school in the system. The quantitative data are complemented by information from interviews with key actors in and observers of the reform process, and from various published and unpublished documents.

**Key Findings**

- By 2008, the new small schools collectively served almost as many students as the closing schools had served in 2002. In general, student enrollment patterns largely reflect the changes sought by the planners of the reforms, with enrollment declining in large schools as increasing proportions of students enrolled in small schools.
- Students appear to take many factors into account — not just size and degree of academic selectivity — in choosing the schools to which they apply.
- Students at the small, nonselective high schools across the five boroughs of New York City tended to be more disadvantaged than students attending other kinds of schools along a number of socioeconomic and academic indicators.
- On average, the students who were entering the large, academically nonselective schools that were still open in September 2007 were no longer at exceptionally high risk of academic failure.
- Teachers in small, academically nonselective schools were, on average, less experienced and had fewer credentials than their counterparts at other schools.

**The Context for Change**

The creation of new small schools reflected the shared commitments of key DOE officials, the Bill & Melinda Gates Foundation — which invested more than $150 million to support the development of these schools — and other key foundations. Small public schools, often designed to serve students who had not done well in traditional high school settings, had been

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2In this report, midsize schools are defined as those that enrolled 551 to 1,400 students, and large schools are defined as those that enrolled more than 1,400 students.
successfully implemented in New York City since the 1960s. The immediate predecessor to and model for new small school creation in the city was the New Century High Schools initiative, launched in 2001 with funding from the Gates Foundation, the Carnegie Corporation, and the Open Society Institute. The initiative called for groups of educators to establish “theme-based” small high schools (schools whose course offerings are guided by specific themes — for example, technology, the arts, business, law, or hospitality) that would draw on the expertise and resources of community partner organizations.

By the time that the DOE chancellor announced the department’s intention to create some 200 new schools as part of Children First, small schools and others forms of smaller learning environments were being championed by school reformers and professional organizations and were being put in place by urban school districts across the country. What made small school creation under Children First unique, perhaps, was the scale and rapidity of change, grounded in the conviction of key DOE officials that small schools could more effectively meet the needs of disadvantaged students than could the large low-performing schools that DOE leaders were determined to close.

The rapid growth of the new schools would not have been possible without the vision and support provided by a group of committed foundations, led by the Gates Foundation. (The Gates Foundation also sponsored a series of studies about the implementation and impacts of the small schools; this report is one of those studies.) Gates Foundation officers saw the creation of more small high schools and the transformation of large high schools into smaller learning environments as a key step toward the goal of increasing the number of students who would graduate from high school and be ready for college.

Gates provided financial support for New York City’s new small schools through its grants to 18 nonprofit intermediary organizations that were charged with starting the new schools and providing them with ongoing technical assistance, largely in the areas of leadership development, instructional support, and college-readiness services. Most of these intermediary organizations focused primarily on education; the large majority had started new schools before receiving Gates funding to do so in New York City. They varied widely, however, in the number of new schools they developed: while one intermediary had created 79 schools by the 2006-2007 school year and another had established 17 schools, half of the intermediary organizations had four or fewer schools in their networks.

By the 2006-2007 school year, Gates Foundation funding had supported nearly two-thirds of all small high schools in New York City, along with 85 percent of the new small high schools.
Changing School Options and Enrollment Patterns

Options for high school-age students have proliferated since the implementation of Children First. These include not only regular DOE-operated general high schools that serve students in grades 9 through 12, but also charter schools operating independently of the DOE, middle/high schools that are primarily serving students in grades 6 through 12 or grades 7 through 12, specialized high schools serving students admitted on the basis of academic and/or artistic merit, and transfer schools for students who have too few credits to graduate with their age cohort.

Moreover, New York City’s eighth-graders now play an active and direct role in choosing among this array of schools, which are listed in the DOE publication, *Directory of the New York City Public High Schools*. Students and their parents can also attend high school fairs, where they can get more information about the schools in which they are interested before submitting up to 12 choices to DOE. In the past, low-performing students, who often did not meet the academic criteria of the small schools that then existed and/or were unaware of the alternatives, tended to enroll in their zoned high school. By 2007-2008, low-performing students had a number of high school options from which to choose, among them more than 100 new small schools open to students at all levels of academic ability. This approach marks an impressive departure from the system that was in place before Children First was implemented.

The increase in the total number of schools was largely driven by the increase in the number of small schools. In the 2002-2003 school year, there were 58 small high schools (including “veteran” small schools remaining from previous rounds of small school creation); six years later, that number had climbed to 161. The number of midsize schools remained relatively stable (some were closed but some new ones were created), while the number of large schools declined as the DOE began to close the lowest-performing schools. Some large and midsize schools were downsized, usually in preparation for being closed entirely.

Some of the new small schools were strategically established at the sites of large and midsize high schools that were downsizing. Large and midsize high schools that have become the sites of new small schools are known in DOE parlance as “educational campuses.” Four new small schools, on average, were located on each of the 21 educational campuses where large or midsize schools were closed or designated for closure between 2002 and 2008. New small high schools were also opened in available spaces across the city, including vacant floors of existing elementary or middle schools. Schools located on educational campuses or in other school buildings usually share building facilities, such as the auditorium, gymnasium, cafeteria, library, and science laboratories. Each school has its own principal and faculty, however, and maintains a distinct identity.
The changes in enrollment patterns of students across types of schools mirror the changes in school options. The most salient changes involve shifts in the proportions of students attending large and small high schools. At the beginning of the study period, in 2002, more than two-thirds (69 percent) of all high school students were enrolled in large high schools, while by its end, in 2008, the proportion of students enrolled in such schools had dropped to a little over half (52 percent), a decline of about 17 percentage points. Small high schools filled much of the slack: The proportion of students enrolled in small schools more than tripled during the six-year period, from a little over 5 percent to about 19 percent. The percentages of students in charter schools, middle/high schools, specialized schools, and transfer schools also grew as these options expanded.

Although it would be simplistic to regard the new small schools as direct replacements for the large schools, it is notable that by the end of the six-year period, the new small schools collectively served almost as many students as the closing schools had served at the beginning of the period. The majority of these students enrolled in small schools that were not academically selective — that is, they did not take prior school performance into consideration in setting admissions preferences. In general, the data suggest that student enrollment patterns largely reflect the changes sought by Children First planners. As large dysfunctional schools that formerly served low-performing students were closed, these students increasingly were placed in small, nonselective schools that, it was hoped, could better meet both their academic and socioemotional needs. Notably, these enrollment shifts took place as the total number of students who were enrolled in New York City high schools increased from approximately 280,000 to approximately 312,000 students.

While all students now had a great number of schools from which they could — and indeed, were required to — choose, one point of interest that emerges from the analysis is that students did not consistently choose schools on the basis of overall size and degree of selectivity. Of students who listed a small, nonselective school as their top choice, 30 percent listed the same type of school as their second choice, while 70 percent opted for another kind of school. Only 11 percent listed three small, nonselective schools as their first, second, and third choices. Size and selectivity appear to be just two among many factors that students take into account in choosing the schools to which they apply.

Comparing School Characteristics

Data for the 2007-2008 school year were used to compare various characteristics of schools in categories defined by school size and selectivity.

While it was fully expected that small schools would have smaller enrollments than schools in the midsize and large categories, the degree of disparity was striking. On average,
small, nonselective schools each enrolled just under 400 students, while large, nonselective schools each enrolled some 3,100 students. Smaller schools also had lower enrollments in tenth-grade English and math classes than did large (selective and nonselective) and midsize selective schools.

The data also make it clear that the large, nonselective schools that remained in the 2007-2008 school year were very different from those that were in place at the beginning of the decade. For one thing, more than half of the large, nonselective schools that remained in operation were located in Queens and Staten Island. Perhaps because of their location in these areas, they were more likely to serve white and Asian students and less likely to serve low-income students than were schools in the other categories.

In contrast, most of the small schools were located in Brooklyn and the Bronx, and the students at these small, nonselective schools tended to be exceptionally disadvantaged along a number of indicators: more than 80 percent came from low-income families; more than one-fourth were overage for grade in eighth grade; and more than half scored low on eighth-grade proficiency tests in both reading and mathematics. In addition, more than 90 percent of the students in these schools were black or Hispanic. While the DOE permitted these schools to exclude special education students and English language learners (that is, students whose native language is not English) during the schools’ first two years of operation, by the 2007-2008 academic year, the small nonselective schools served students in these categories at rates similar to the averages across all school types.

**Teacher Experience**

On average, more than one-third of the teachers in the small, nonselective schools were novice teachers with less than three years of classroom experience. This was true of only about one-fourth of teachers in schools across the various categories, with the large schools having the lowest proportions of new teachers, and midsize (both selective and nonselective) and small, selective schools occupying an intermediate position. This disparity may reflect the newness of many small, nonselective schools, some of which had not been in existence long enough for those new to teaching to have taught in them for three years. It may also reflect different hiring practices — a greater willingness on the part of principals to hire bright and enthusiastic but inexperienced teachers — as well as higher teacher turnover in these schools. Teachers in small nonselective schools were only half as likely as their large-school counterparts to hold advanced credentials like a doctorate or a master’s degree plus additional credit hours. While the teachers’ inexperience may have placed their students at a disadvantage, the research literature does not
point to strong links between advanced credentials and teacher effectiveness for teachers in most disciplines.\(^3\)

**School Evaluations**

The DOE evaluates schools using three accountability measures. Only schools in existence for four years or more receive an overall score on the *New York City Progress Report*, which is intended to inform parents, teachers, and others about how well a particular school is doing, especially when compared with other schools serving similar students. Small schools, both selective and nonselective, received higher marks on this measure than did schools in the other categories that were analyzed.

A second measure, the *School Quality Review*, focuses on schools’ use of data to set goals and improve learning. Small, nonselective schools scored somewhat lower than the average on most composite measures, although differences were small, and, on average, schools in all categories had scores that placed them between “proficient” and “well developed.”

Finally, the *Learning Environment Survey* is administered to students, teachers, and parents at all schools and taps respondents’ opinions about the school’s functioning with respect to four domains: Safety and Respect, Academic Expectations, Engagement, and Communication. This report analyzes the student survey responses for schools where the response rate was 70 percent or higher. (Response rates for the teacher and parent surveys — 61 and 24 percent, respectively — were too low to support generalizable conclusions.) On all four dimensions, students in small, nonselective schools rated their schools more positively than did students in large and midsize schools, and these differences were statistically significant — that is, it is highly unlikely that the differences arose by chance alone.

**In Summary**

The evidence in this report indicates that by the 2007-2008 school year, eighth-graders at the greatest risk of academic failure faced a very different set of high school options than they had six years earlier. Dysfunctional large schools (which such students had often attended) had largely been phased out, while new, much smaller, theme-focused schools had been opened, and school choice had been extended to all students in the city. Changes of this magnitude and rapidity were accomplished because key DOE officials had a clear vision of what they wanted to achieve; they pursued that vision in a focused, determined way; and they had the full support of the Mayor. The changes also took place because the Bill & Melinda Gates Foundation was

\(^3\)See, for example, Jason Snipes and Amanda Horwitz, *Recruiting and Retaining Effective Teachers in Urban Schools* (Washington, DC: Council of Great City Schools, 2007).
committed to making an extraordinary investment in the educational success of New York City’s least advantaged students.

To describe these changes and the characteristics of the schools existing at the end of the study period, researchers assembled a rich database that can readily be updated and used to answer additional questions. Of particular interest for future research is the question of how students select schools — how, for example, school theme and geography shape students’ choices.

This report sets the context for three additional Gates-funded studies about New York City’s small school reforms. Two companion reports investigate the questions of how intermediary organizations have fostered change and how schools are organized to promote personalization, high-quality instruction, and college-going. A subsequent impact report will provide rigorous evidence about how well the investment in the new small schools is paying off in terms of student attendance, progress, and achievement.
About MDRC

MDRC is a nonprofit, nonpartisan social policy research organization dedicated to learning what works to improve the well-being of low-income people. Through its research and the active communication of its findings, MDRC seeks to enhance the effectiveness of social and education policies and programs.

Founded in 1974 and located in New York City and Oakland, California, MDRC is best known for mounting rigorous, large-scale, real-world tests of new and existing policies and programs. Its projects are a mix of demonstrations (field tests of promising new program approaches) and evaluations of ongoing government and community initiatives. MDRC’s staff bring an unusual combination of research and organizational experience to their work, providing expertise on the latest in qualitative and quantitative methods and on program design, development, implementation, and management. MDRC seeks to learn not just whether a program is effective but also how and why the program’s effects occur. In addition, it tries to place each project’s findings in the broader context of related research — in order to build knowledge about what works across the social and education policy fields. MDRC’s findings, lessons, and best practices are proactively shared with a broad audience in the policy and practitioner community as well as with the general public and the media.

Over the years, MDRC has brought its unique approach to an ever-growing range of policy areas and target populations. Once known primarily for evaluations of state welfare-to-work programs, today MDRC is also studying public school reforms, employment programs for ex-offenders and people with disabilities, and programs to help low-income students succeed in college. MDRC’s projects are organized into five areas:

- Promoting Family Well-Being and Child Development
- Improving Public Education
- Promoting Successful Transitions to Adulthood
- Supporting Low-Wage Workers and Communities
- Overcoming Barriers to Employment

Working in almost every state, all of the nation’s largest cities, and Canada and the United Kingdom, MDRC conducts its projects in partnership with national, state, and local governments, public school systems, community organizations, and numerous private philanthropies.