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Scrapping the SHSAT: Breaking Down Who Would Be Affected, And How




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Summary

Mayor Bill de Blasio's proposal to end use of the Specialized High School Admissions Test (SHSAT) would make the city's most elite public high schools more racially and ethnically diverse. The mayor's plan would instead offer seats at the specialized high schools to the top performers in each of the city's public middle schools. We tested this proposal and found that, if enacted, it would give some 2,000 academically qualified Black and Latinx students each year access to higher-performing schools and a more ethnically diverse cohort of fellow students than they typically have through the current school choice process. Students no longer eligible for specialized high schools would instead attend schools with academic performance and learning environment measures lower than the specialized schools, but far higher than the typical non-specialized high school.

Nevertheless, the proposal is not exempt from the law of unintended consequences. Entrenched patterns of demographic and academic sorting among and within non-specialized high schools throughout the city could well intensify as a result of the proposal, because its impact would not be felt evenly across all schools. We find that while 82 percent of non-specialized schools would lose one or more high-achieving students to the specialized high schools under the proposal, only 35 percent of all non-specialized schools would gain students who were no longer eligible for the specialized schools. This concentration of such students would make those schools less demographically and academically diverse as a result. Within-school segregation would increase, too, as White, Asian, and non-poor students would be more likely to find themselves in school programs with competitive admissions screens that produce student cohorts less diverse than their freshman classes as a whole.

By modeling out the potential effects—direct and indirect—of the mayor's proposal we attempt to place the question of admissions to the specialized schools in a wider context of a larger, highly unequal school system. Students who are successful in the current specialized high school admissions process are also typically advantaged in the non-specialized school choice process, so while approximately 72 percent of these students would no longer be eligible for the specialized schools, nearly all of them would land in high-demand, high-performing non-specialized schools. While scrapping the SHSAT would bring the specialized high schools within reach for many more Black and Latinx students, broader reforms are needed to make high school admissions more fair.

Introduction

New York City is in the midst of an intense debate about opportunity and racial and socioeconomic fairness in determining which students get to attend which public schools.

Last month, the School Diversity Advisory Group (SDAG) appointed by Mayor Bill de Blasio released a report recommending a major overhaul of public school admissions practices.[1] It called for phasing out elementary school "gifted and talented" programs and curbing "screened" admissions to middle schools — both practices that have long been criticized as reinforcing economic and racial segregation in City schools.

Focused as it was on policies strictly under the control of City officials, the SDAG report refrained from addressing what has long-been a similarly hot-button educational issue: the system, enshrined in State legislation, controlling admission to the city's most elite public high schools.

Every year, more than 80,000 8th graders apply for admission to 424 public high schools across New York City. Nearly 30,000 of them compete with each other for spots at just eight schools: the specialized high schools that are among the most selective and prestigious public high schools in the country.[2] Admission to these eight schools is solely determined by a one-day entrance exam called the Specialized High Schools Admissions Test (SHSAT), making them the only high schools in New York City that use a single criterion for admissions. (There are also 159 high schools in the city that make admissions decisions based on factors like attendance records, grade point averages, languages spoken, or artistic abilities; there are 257 that randomly select students among those who apply.[3])

In June 2018, de Blasio called the test a "roadblock to justice" and proposed to "scrap the SHSAT and start over."[4] The mayor's argument was based on the widening demographic disparities between the students who make it into the specialized high schools and the city's overall high school population. In 2017-18, for example, White and Asian students made up only 32 percent of all high school applicants, but 75 percent of students who scored high enough on the SHSAT to get offers to specialized schools; Black and Latinx students made up 65 percent of all high school applicants, but less than 10 percent of those who got offers.[5] Moreover, the students getting offers are concentrated in a small number of "feeder" middle schools, most of which screen students based on 4th grade achievement or on the "gifted and talented" exam taken as early as age four.[6] At these schools, prepping for the SHSAT is expected and increasingly common, with some families spending thousands of dollars for test prep over multiple years prior to the exam.[7]

The mayor's proposal seeks to address these disparities through a three-year phase-out of the SHSAT, eventually instead admitting to the specialized high schools the top seven percent of students at each public middle school. The City's Department of Education (DOE) and the New York City Independent Budget Office have both predicted that under such a system offers to specialized high schools would go to a more

1 School Diversity Advisory Group. (2019). "Making the Grade II: New Programs for Better Schools."
2 Fiorello H. LaGuardia High School of Music & Art and Performing Arts is also considered a specialized school, but since it does not require the SHSAT for admissions, we do not include it as one for the purposes of this report.
3 Hemphill, C., Mader, N. & Quiroz, M. (2019). Screened Schools: How to Broaden Access and Diversity. The Center for NYC Affairs
4 De Blasio, B. (2018, June 2). "Our specialized schools have a diversity problem. Let's fix it." Chalkbeat.
5 Source: NYC DOE 2017-18 High School Applications Processing System (HSAPS) data. Throughout this report, we use "Latinx" in place of "Hispanic," which the DOE uses to describe the same group of students.
6 Shapiro, E. & Lai, K.K.R. (2019, June 3). "How New York's Elite Public Schools Lost Their Black and Latinx Students." The New York Times.
7 ibid.

demographically diverse group of students, distributed more evenly across all public middle schools.[8]

But these predictions also note that the average academic proficiency level of accepted students (based on their scores on State standardized Math and English Language Arts exams) would decline slightly, fueling opponents' fears that the academic caliber of the specialized high schools would suffer. Opponents also contend that the SHSAT provides an objective measure of academic ability and access to a world-class education for thousands of low- and middle-income students.[9] The specialized high school alumni and the Asian-American community have been particularly vocal in their opposition, staging protests,[10] lobbying the State Legislature,[11] and filing a lawsuit against the proposal.[12] They argue that the proposal specifically discriminates against Asian students, as offers to them would drop from 50 to 30 percent of total offers to specialized high schools, according to DOE estimates.[13]

While this public debate has raged, legislators in Albany have come no closer to accepting the mayor's proposal.[14] Their approval is required because a 1971 State law makes the SHSAT the sole admissions factor for the "big three" specialized schools—Stuyvesant, Bronx Science, and Brooklyn Tech. Although the other five specialized schools are not specifically mentioned in the law, they also use the SHSAT for admissions, and de Blasio has expressed reluctance to unilaterally change their admissions while leaving the SHSAT in place for the other three.[15]

It is not clear how invested the mayor is in pushing his reform in Albany, or whether he could win. Nevertheless, we conducted a detailed analysis of his proposal because the specialized schools are such an important symbol of both excellence and exclusion. This analysis clearly shows the tradeoffs and intended and unintended consequences of altering school admissions policies.

In this report, we first analyze the various effects of the mayor's proposed admissions plan — demographic, academic, and geographic — on the makeup of the specialized schools. We then seek answers to two questions not previously analyzed concerning this proposal:

> First, how would this proposal alter the high school experiences of the students directly affected by it?
>
> Second, how would proposal affect the incoming cohorts of students at non-specialized high schools?

Whether or not the mayor's proposal is approved by the State Legislature, these questions help us understand how any changes to admissions—even at such a small number of schools—can reverberate throughout the entire school system and lead to unexpected consequences. These questions also illuminate broader issues of fairness in the admissions process to many of the city's most sought-after high schools.

8 NYC Department of Education. (2018). Specialized High Schools Proposal; Subramanian, S. (2019). Admissions Overhaul: Simulating the Outcome Under the Mayor's Plan For Admissions to the City's Specialized High Schools. NYC Independent Budget Office.
9 Chiffrin, L. (2018, June 8). "NYC's top schools wouldn't survive de Blasio's testing plan." New York Post.
10 O'Hara, A. (2018, June 5). "Asian-American Groups Protest Plan To Diversify Specialized High Schools" Gothamist.
11 Shapiro, E. (2019, April 27). "Big Money Enters Debate Over Race and Admissions at Stuyvesant." The New York Times.
12 Veiga, C. (2018, December 13). "Lawsuit seeks to halt program designed to increase integration at New York City's specialized high schools." Chalkbeat.
13 NYC Department of Education. (2018).
14 Shapiro, E. & Lai, K.K.R. (2019, June 24). "Amid Racial Divisions, Mayor's Plan to Scrap Elite School Exam Fails." The New York Times.
15 Shapiro, E. (2018, March 15). "De Blasio has means, if not will, to reform specialized school admissions." Politico New York.

Methodology

The mayor's proposal to reform specialized high school admissions would phase out the SHSAT over three years, while simultaneously phasing in a method to admit the top seven percent of students from each public middle school. This class rank would be determined by a composite score of 7th-grade core course grades and standardized New York State Math and English Language Arts (ELA) exam scores.[16] Students would also have to rank among the top 25 percent by these metrics citywide. The DOE estimates it would fill about 90 percent of all seats at specialized high schools in this way. The remaining 10 percent of seats would be distributed by lottery to private school students, students who are new to New York City, and to any others who are interested and have grade point averages of at least 93 percent in "core" courses.

Our analysis models out the impact of this proposal as if it had been fully phased-in by the 2017-18 application cycle, the most recent cycle for which individual application and biographic data was made available by the DOE. Our analysis did not simulate the lottery step and does not reflect how students from private schools would fare under the proposal. We matched each public school applicant's 7th grade State exam scores and course grades from the 2016-17 school year to his or her application data, which allowed us to determine which students would have been eligible for admission to a specialized high school in the fall of 2018 under the proposed admissions method.[17]

We then estimate where these students might have attended high school if the proposal were already in place. We found that the majority of high school applicants would have seen no change: they either a) did not receive an offer to a specialized high school and would not under the new proposal; b) did receive an offer and still would under the proposal; c) rejected an offer, which we assume they would still do if they also got an offer under the proposal; or d) opted out of the admissions process without being assigned a "match" or confirmation decision in that process because they had instead decided to attend a charter or private school in the city or a school outside the city.

However, we found that two groups of students would be directly impacted by the proposal: those who would be newly eligible for a specialized high school; and those who would no longer be eligible. Our analysis of where they might go to high school as a result required different assumptions for each of these groups.

For the group of newly eligible students—those who did not receive an offer to a specialized school in the actual 2017-18 admissions cycle, but would have under the new proposal—we make the assumption that all would have accepted their offer. Although about 23 percent of students who currently get offers to specialized high schools decline them each year, we have no way of predicting which students would accept offers

16 The DOE provided a weighted formula for this composite score that combines the average of each student's core course grades (in English, Math, Social Studies and Science) for the last semester of their 7th grade year and the average of each student's 7th grade ELA and Math State exam scores. Course grades are standardized into z-scores around the school mean and exam scores are standardized around the City mean, then weighted into an average composite score where grades make up 55 percent of the composite score and exam scores make up the other 45 percent.

17 Of the 75,005 high school applicants from public middle schools, only 63,107 (84 percent) had at least one core course grade and at least one State exam score with which to create a complete composite score. The DOE has not addressed whether or how students who are missing 7th-grade course grades or State exam results – because they opted out of the State exams or did not receive traditional numeric grades in middle school, for example - would be considered for eligibility at a specialized high school under the proposal. So our main analysis presented in the text is based on the eligibility of only the 63,107 students with complete composite scores. In addition, we constructed a secondary analysis using an alternative version of the composite score formula that includes the 9,601 students (13 percent of public middle school applicants) who had only course grades or State exam scores by "weighting" the only element they had as 100 percent of their composite score. Although 733 additional students would be considered eligible for a specialized high school if the DOE chose to include students with incomplete composite scores, almost all the findings were robust concerning either composite score type. Where findings from the secondary analysis varied more than three percentage points from the primary analysis presented in the text, we made a note of this discrepancy in a footnote.

and which would not. We do know that 70 percent of the students who would have been newly eligible under the mayor's admissions proposal actually took the SHSAT in 2017, which indicates their interest in going to a specialized school. Without more detailed information, we assume all would have accepted an offer to attend a specialized school. The DOE has also not yet specified how students who would get offers under the mayor's proposal would be assigned to each of the eight specialized high schools, so we group all of these students into one large "specialized schools" cohort for our analysis.

For the group of students who would no longer be eligible—those who accepted offers to specialized schools in 2017-18 but would not have received such offers if the proposed plan had been in effect — our predictions of where they would have gone to high school instead could be more precise, though still not exact. Because almost all students who took the SHSAT also applied through the first round of the regular citywide high school choice process, the DOE also assigned them non-specialized high school "matches" in the application data we analyzed. We make the assumption that if they had not received admissions offers to a specialized high school, they would have attended that non-specialized match, though some percentage would have applied again in round two, or opted out of the public admissions process altogether by applying to a charter, private, or non-New York City school instead.

These assumptions have allowed us to make the closest possible predictions of how the high school admissions decisions of those directly affected by the proposal would have changed if it had already been in place in 2017-18. After reassigning students to new freshman cohorts, we could see how the proposal would have impacted students in the specialized and non-specialized schools, and also what the impact would be on the schools themselves. We looked at how the demographic and academic characteristics of these alternative cohorts would shift, thus indirectly affecting many more students. We also used public school-level data from the 2017-18 School Quality Reports and School Surveys conducted by the DOE to estimate how the high school experiences of those directly affected by the proposal would change, by comparing the academic opportunities, learning environments, and peer groups at their alternative schools to the ones they actually attended.

Findings

Which students would be directly affected by the proposal?

In the 2017-18 application cycle, 81,135 8th grade students applied to City public high schools; 28,335 of them took the SHSAT. Of these, only 5,069 got offers to specialized high schools, and 3,926 of them accepted those offers.

If the mayor's proposal had been fully implemented in this application cycle, all but 1,432 of these students would no longer have been eligible for a specialized high school. Instead, 3,126 different students who did not take the SHSAT or earn a high enough score on the SHSAT to qualify in that year would have become eligible. Table 1 highlights how the demographics of the students receiving offers to specialized high schools would have changed under the mayor's proposal.

The proposal would have brought offers to specialized high schools demographically closer to citywide proportions of students in almost every category.

The proposal would have brought offers to specialized high schools demographically closer to citywide proportions of students in almost every category. The share of Black and Latinx students receiving offers would have increased four-fold, while still remaining short of the 65 percent of all public school applicants that they represent. The share of offers going to students speaking Spanish at home would have increased from three to 17 percent. Offers to students identified as living in poverty would also have risen, from 47 percent to 67 percent. And the borough-by-borough distribution of students receiving offers would line up almost exactly with the citywide high school population; students in the Bronx would have seen a large increase of offers—from five to 22 percent.

Of course, many groups of students would also have seen their share of offers decrease, including students applying from private middle schools,[18] students who are Asian or White, students who speak Chinese at home, and students living in Manhattan, Brooklyn, or Queens. All of these shifts would mean a more representative distribution of offers to the specialized schools.

The proposed plan would also have dramatically improved specialized high school admissions prospects for female students. Under the current SHSAT admissions system, although slightly more females chose to take the SHSAT than males, they represented only 45 percent of those who received offers and only 41 percent of those who accepted offers in 2017-18. Under the proposal, admissions offers would have shifted much more favorably to female students, who would receive 64 percent of offers.

The proposal would not address all demographic disparities in the current specialized schools admissions process. Multilingual learners[19] and students with disabilities would still have been deeply underrepresent-

18 Under the mayor's proposal, private school students would only be eligible through a lottery after all eligible public school students are offered seats. The DOE estimates that about 10 percent of seats will be available via lottery, which will also be open to non-New York City students and anyone who is interested and has at least a 93 percent core course grade point average. So although our analysis did not include a simulation of this lottery step, we can infer that the number of offers made to private school students would decrease significantly under the proposal below the 13 percent of offers they received under the SHSAT in 2017-18.

19 Throughout this report, we use "multilingual learners" in place of "English Language Learners (ELLs)," which the DOE uses to describe the same group of students.

Table 1: Students Receiving Current and Proposed Offers to Specialized High Schools

	ALL HS applicants		SHSAT Offers		Proposal Offers	
	Count	% of applicants	Count	% of offers	Count	% of offers
TOTALS	81,135		5,069	6.2%		
Public school students	75,005	92%	4,396	87%	4,558	~ 90%
Private and home school students	6,130	8%	673	13%	??	<10%
STUDENT CHARACTERISTICS (includes public school students only)						
Sex	Count	% of applicants	Count	% of offers	Count	% of offers
Male	38,119	51%	2,429	55%	1,637	36%
Female	36,886	49%	1,967	45%	2,921	64%
Race/Ethnicity						
Asian	12,724	17%	2,535	58%	1,591	34%*
Black	19,116	25%	172	4%	781	17%*
Latinx	30,225	40%	298	7%	1,252	27%
White	11,238	15%	1,223	28%	808	18%
Multiracial or Native American	1,336	2%	135	3%	105	2%
Other characteristics						
Multilingual Learners	8,931	12%	5	0%	32	1%
Students with Disabilities	14,640	20%	81	2%	72	2%
Students in Poverty	56,812	76%	2,067	47%	3,055	67%
Home Language						
English	41,486	55%	2,130	48%	2,262	50%
Spanish	18,649	25%	128	3%	781	17%
Chinese	4,721	6%	1,220	28%	578	13%
Other or NA	10,149	14%	918	21%	937	21%
Residential Borough						
Brooklyn	22,297	30%	1,453	33%	1,302	29%
Manhattan	7,775	10%	856	19%	489	11%
Queens	21,685	29%	1,602	36%	1,439	32%
Staten Island	4,630	6%	245	6%	305	7%
Bronx	17,097	23%	240	5%	1,000	22%
7th grade ELA Proficiency						
Average Score	2.9	*(6,995 NAs)*	4.0	*(56 NAs)*	3.9	*(41 NAs)*
Level 3 or higher	30,209	40%	4,303	98%	4,294	94%*
Level 4 or higher	10,078	13%	3,384	77%	2,908	64%
7th grade Math Proficiency						
Average Score	2.7	*(6,114 NAs)*	4.2	*(53 NAs)*	3.9	*(26 NAs)*
Level 3 or higher	25,883	35%	4,337	99%	4,120	90%*
Level 4 or higher	11,046	15%	4,013	91%	2,908	64%
Core Course Grade Average						
Average Grades	81.0	*(8,996 NAs)*	94.5	*(153 NAs)*	94.4	*(0 NAs)*
90 or higher	16,057	21%	3,781	86%	3,923	86%*

Source: 2017-18 DOE Individual Student Biographic, Course Grades, Test Scores, and HS Application Data
*These figures varied from the above by 3-8.5 percentage points in our secondary analysis that included students with incomplete composite scores. Results available upon request.

ed in receiving offers, suggesting that the formula proposed to identify top-ranked middle schools students under the proposal would still fail to capture many talented students in these groups.

Although the proposal is intended to bring the demographic characteristics of specialized high school students closer in line to citywide proportions, it hopes to do so without lowering the academic caliber of the students who receive offers. The average student who received an offer through the SHSAT in 2017-18 scored more than one point higher (on a scale of 1 to 4.5 points[20]) on their 7th-grade ELA and Math standardized State exams than the typical high school applicant from a public middle school. They also had a 7th grade core course grade point average of almost 95 percent. Under the proposal, the average standardized test scores of students receiving offers would have decreased by only 0.1 for ELA and 0.3 points for Math. The average core course grade point average would have been almost exactly the same under either admissions method.

Larger disparities emerge, however, when comparing the share of students considered "proficient" (at or above grade level, or earning Levels 3 or 4 on State exam scores). Virtually all of the students eligible for specialized high schools admission using the SHSAT in 2017-18 were proficient on both exams; if the reform proposal had been in effect, only about 64 percent of students offered admissions would have scored at Level 4 on either exam. Students earning grades of 90 or above on average in their core courses would have remained the same under either scenario.[21]

How would this proposal alter the high school experiences of the students directly affected by it?

One concern expressed by the proposal's opponents is that it would deny thousands of academically high-performing students their only opportunity to attend one of the city's best high schools. This stems in part from the fact that the specialized high schools—especially Stuyvesant, Bronx Science, and Brooklyn Tech—are known to most families in New York City, have long-held and sterling reputations, and do extremely well on every measure of academic performance collected by the DOE. But this concern also stems from limited information about high-quality non-specialized alternatives, ways to compare schools beyond academics and student demographics, and the long-term benefits of attending an integrated school.

This section uses a variety of publicly available data to present a more holistic picture of the tradeoffs required by the mayor's proposal, through the lens of the students who would be directly affected by it. We compared academic opportunities, learning environments, and peer groups at each school the students actually attended in 2018-19 to the same measures at the schools they would have attended had the proposed admissions reform plan been fully implemented the year they applied to high school.

Academic Opportunities:

Previous research[22] on the benefits of attending a specialized high school found no difference in individual

20 Middle school students may opt to take the Algebra or Geometry Regents exams in lieu of their State Math exams. There were 187 7th grade students in public middle schools who applied to high school in 2017-18 that did so. We converted their Regents scores to match other students' proficiency scores using a conversion chart provided by the DOE. On this chart, Regents scores above 85 points were equivalent to proficiency level 5, which goes above the highest possible score of 4.5 that students can earn on the State Math exam.

21 Our secondary analysis including students with incomplete composite scores found that 8.5 percentage points fewer students who would receive offers under the proposal earned a 90 or higher in their 7th grade core courses, compared to students who received offers under the SHSAT.

22 Dobbie, W. & Fryer, R.G. (2014). Exam Schools and Academic Achievement: Evidence from the New York City. American Economic Journal: Applied Economics, Vol. 6, No. 3, pp. 58-75; Abdulkadiroglu, A., Angrist, J. & Pathak, P (2014). The Elite Illusion: Achievement Effects at Boston and New York Exam Schools. Econometrica, Vol. 82, No. 1, 137–196.

students' SAT scores, Regents exam scores, where the students enrolled in college, or rates of college graduation compared to similar students at non-specialized schools.[23] But one study did find that students in the specialized schools took more high-level courses while in high school and were more likely to graduate with an Advanced Regents diploma than their peers who fell just below the minimum scores needed on the SHSAT and went to non-specialized schools. We therefore focus on the most analogous measures that are available publicly for our comparison of the academic opportunities at each group of schools: the percentage of students in each high school graduating class who earned a passing score on an advanced math or science Regents exam,[24] an AP exam, or a course for college credit. These courses go beyond what is necessary to attain a regular high school diploma, covering testing and course work that a student would have to complete to receive an Advanced Regents diploma and be competitive in the college admissions process.[25]

For the purposes of this study, we use these measures as taken from the 2017-18 School Quality Reports. They therefore reflect the academic attainment of students who would have graduated just before the high school applicants in our study would have enrolled. Nonetheless, these measures speak to the quantity and quality of advanced coursework that would have been available to them after they arrived. And because these measures go above and beyond the regular requirements for graduation, they help us evaluate the full range of high schools at the high end of the academic spectrum.

Table 2 shows how academic opportunities could change for all students who would be directly affected by the admissions reform proposal. For example, the average student who would have been newly eligible for a specialized high school actually attended a school where 28 percent of students passed an AP exam in 2017-18. Under the proposal, those students would have had the opportunity to attend a specialized school where 81 percent of students passed an AP exam in 2017-18.[26] They would also have seen similarly large increases in being among students passing advanced math or science Re-

Table 2: School-level Comparisons for all Students Directly Affected by the Proposal, Academic Opportunity Measures

	Newly eligible students'… (n=3,094)		No longer eligible students'… (n=2,467)	
Measure	…actual high schools (n= 353)	…specialized schools under the proposal (n=1)*	…actual specialized high schools (n= 8)	…schools under the proposal (n= 151)
Percent of students who…				
scored 3 or higher on AP Exams	28%	81%	84%	41%
scored C or higher in college credit courses	35%	52%	56%	37%
scored 65%+ on an Advanced Math or Science Regents Exam	46%	100%	100%	68%

Source: Average of values from the 2017-18 NYC DOE School Quality Reports, weighted by number of students who attended or would have attended each school.

*Newly eligible students' measures under the proposal are an aggregate of all 8 specialized schools, whereas the no longer eligible students' actual measures are weighted based on the specialized high school they actually attended.

23 Both studies used a quasi-experimental technique that compared the students who scored just above the minimum score needed on the SHSAT to get into Stuyvesant, Bronx Science, or Brooklyn Tech, to those who scored just below that cutoff, making the two groups of students statistically identical in all other respects. Both papers conclude that although students at the specialized schools typically have very good outcomes, they would have done equally well at a non-specialized school.

24 Algebra 2, Chemistry or Physics Regents.

25 Many non-specialized schools have embraced rigorous educational approaches that are not captured by these metrics, like the 38 schools in the Performance Standards Consortium that use portfolios and other alternatives to Regents exams (see http://www.performanceassessment.org/memberschools for a list of schools).

26 Newly eligible students' measures under the proposal are an aggregate of all eight specialized schools, whereas the no-longer-eligible students' actual measures are weighted based on the specialized high schools they actually attended.

gents tests, but a more moderate increase in being among students earning college credits.

Conversely, the students who would no longer have been eligible for a specialized high school would no longer have attended schools where 84 percent of students passed an AP exam. They would instead have been in schools where only 41 percent did, on average. They would no longer have attended schools where all students passed an advanced math or science Regents test, and would instead have gone to schools where 68 percent did.

These represent significant differences in academic opportunity for students who would have been affected by the proposal. However, it is important to remember that they indicate previous school-wide achievement, and do not predict the individual achievement of the students who would have moved to one school or the other as a result of the proposal.

It is also important to recognize that gains and losses in academic opportunity achieved under the proposed plan would not have been a zero-sum game. Students newly eligible for specialized schools would have gained greater opportunities than no-longer eligible students would have lost. This is because, as a group, the no-longer-eligible students had matched to more academically rigorous non-specialized schools than the students in the newly eligible group had, even though, by definition, the newly eligible students were ranked more highly in their middle school classes. There could be a variety of explanations for this, including possible differences in awareness of high-quality high school options, or the weight some high schools give in admissions to attendance records, interviews, and other factors.

The gains and losses in academic opportunity achieved under the proposed plan would not have been a zero-sum game.

Appendix Table 1 drills down on these findings by race and poverty status. We can see that newly eligible Black or Latinx students and students experiencing poverty would have gained more academic opportunities after switching to a specialized high school than their Asian, White, and non-poor counterparts.

Learning Environment:

Another important dimension of the high school experience is the learning environment, including such aspects as extracurricular opportunities, academic pressure, student safety, and students' respect for difference. Each year, the DOE administers a survey with hundreds of questions that gauge how high school students feel about their school environment. We chose nine questions from the 2017-18 School Survey that we believed could best capture the variation between specialized and non-specialized schools.[27] Again, although these survey responses were recorded the year before the high school applicants in our study would have enrolled in 9th grade, they allow us to make comparisons between school options for the students who would be affected by the proposal.

Table 3 details the average responses to these nine survey questions at all schools where students who would have been directly affected by the proposal actually went and where they would have gone under

27 We grouped survey questions into thematic categories, then selected questions within each category that had the higher variance between schools and best phrasing to most accurately identify the differences we sought to explore.

the proposal. Across the board, these differences are smaller than the differences in Table 2 (measuring school-level academic performance). This is especially the case in terms of extracurricular opportunities, feeling safe around campus, and incidences of bullying. The largest differences for newly eligible students switching to a specialized high school would have been felt in terms of more academic challenge or pressure, more respect among students, and less physical fighting compared to the non-specialized schools they actually attended. Again, the gains for the newly eligible students would have been greater than the losses for students no longer eligible to attend a specialized high school, except in extracurricular programming.

Table 3: School-level Comparisons for all Students Directly Affected by the Proposal, Learning Environment Measures

Measure	Newly eligible students'… (n=3,094) …actual high schools (n= 353)	…specialized schools under the proposal (n=1)*	No longer eligible students'… (n=2,467) …actual specialized high schools (n= 8)	…schools under the proposal (n= 151)
Extracurricular Programming				
Percent of students who agree with the following:				
This school offers a wide enough variety of programs, classes and activities to keep me interested in school.	82%	81%	90%	84%
The programs, classes, and activities at this school encourage students to develop talent outside academics.	82%	82%	87%	82%
Academic Challenge and Pressure				
Percent of students who answered "most" to the following:				
In how many of your classes are you challenged?	60%	76%	75%	64%
In how many of your classes at this school do YOU feel most students try hard to get good grades?	76%	90%	89%	81%
Respect				
Percent of students who agree with the following:				
Most students at this school treat each other with respect.	69%	88%	87%	76%
At this school students harass, bully or intimidate each other because of their race, religion, ethnicity, national origin or citizenship immigration status.	26%	13%	15%	23%
At this school students harass, bully or intimidate each other because of their gender, gender identity, gender expression or sexual orientation.	25%	13%	15%	22%
Safety				
Percent of students who agree with the following:				
At this school students get into physical fights.	37%	9%	11%	29%
I feel safe in the hallways, bathrooms, locker rooms and cafeteria of this school.	86%	94%	93%	87%

Source: Average of values from the 2017-18 NYC DOE School Survey, weighted by number of students who attended or would have attended each school.
*Newly eligible students' measures under the proposal are an aggregate of all 8 specialized schools, whereas the no longer eligible students' actual measures are weighted based on the specialized high school they actually attended.

These patterns largely hold true when disaggregated by race/ethnicity and by poverty, as displayed in **Appendix Table 2**. Most of the differences between all groups are less than five percentage points.

Grade-and program-level peers:

Our findings thus far have been based on schoolwide data from 2017-18, the year prior to our high school applicants' enrollment in high school. Like data about previous performance and survey results

that are published in the DOE's high school directory, those findings are presented as a way to compare schools, not a predictive estimate of what each student's academic and social experiences would be like after enrolling in that school.

This section, by contrast, is based on individual students' high school assignments from the 2017-18 application cycle that allow us to see not only which school each student attended in 2018-19, but also which "program" of academic study (similar to a major) they were assigned to within the school. To our knowledge, this represents the first such analysis of New York City high school students, as program assignments are not typically included in other sources of student data, and public demographic reports are not broken down at the program level. The program level is the most relevant for analyzing student peer groups, as students typically attend the majority of classes within their program. Also, programs are often more academically homogenous than the entire school, because students apply to programs - not schools - and therefore have to meet any program-specific admissions criteria or screens.

After grouping students into their actual grade- and program-level cohorts, we also grouped them into the alternative cohorts with whom they would have attended school had the admission reform proposal been fully implemented by 2017-18. Because the proposal does not specify a mechanism for assigning students

Table 4: Cohort Comparisons for all Students Directly Affected by the Proposal, Demographic and Academic Variables

	Newly eligible students'… (n=3,094)			No longer eligible students'… (n=2,467)		
Measure	**…actual grade-level cohorts** (n= 353)	**…actual program-level cohort** (n= 553)	**…specialized schools cohort under the proposal** (n=1)*	**…actual specialized schools cohorts** (n= 8)	**…grade-level cohort under the proposal** (n= 151)	**…program-level cohort under the proposal** (n= 233)
Size						
Number of students in cohort	418	185	524	839	607	284
Demographics						
Percent of students who are:						
Multilingual Learners	8%	7%	1%	0%	5%	3%
Students with Disabilities	18%	17%	2%	2%	14%	12%
Students in Poverty	68%	66%	70%	48%	51%	48%
Female	53%	54%	64%	43%	49%	48%
Asian	24%	25%	34%**	67%	42%	47%
Black	30%	29%	18%**	11%	22%	21%
Latinx	42%	41%	29%	13%	30%	27%
Other	9%	9%	2%	10%	13%	14%
White	23%	24%	17%	29%	37%	38%
Incoming Academics						
Average ELA Score	3.0	3.1	3.9	4.0	3.4	3.6
% at Level 3 or higher in ELA	48%	53%	93%**	91%	62%	70%
% at Level 4 or higher in ELA	19%	24%	61%	71%	34%	42%
Average Math Score	2.9	3.1	3.9	4.2	3.5	3.7
% at Level 3 or higher in Math	43%	49%	89%**	92%	61%	70%
% at Level 4 or higher in Math	21%	27%	61%	86%	41%	52%
Average Core Course Grades	84.0	85.3	94.3	94.2	88.5	90.5
% at 90 or higher	33%	40%	85%**	86%	55%	66%

Source: Cohort composition compiled from 2017-18 DOE Individual Student Biographic, Course Grades, Test Scores, and HS Application Data

*We treat all newly eligible students as one grade- and program-level cohort. The number of student row shows the total of that cohort (4,188 students) divided by 8 to get the average size. The rest of the figures show raw percentages within that large cohort.

**These figures varied from the above by 3.1-7.8 percentage points in our secondary analysis that included students with incomplete composite scores. Results available upon request.

to particular specialized high schools, we placed all students who would have been newly eligible for a specialized high school in a single grade- and program-level cohort. This allows us to compare the average specialized high school cohort under the proposal to the non-specialized schools these students actually attended instead, as shown in **Table 4**.

Demographics:
Although the reform admission proposal would help to diversify the student bodies of the specialized high schools, students newly entering specialized high schools as a result would nevertheless have joined more segregated student cohorts under the proposal than the ones they actually did. This is true for all demographic characteristics with one exception: the average newly eligible student would have had fewer White students in their cohort at the specialized schools than at the non-specialized schools they actually attended. On the other hand, students who would no longer have been eligible for a specialized high school would have entered more diverse cohorts than the ones they were actually a part of. However, these improvements in diversity would have been dampened slightly when we look at the program-level figures. This suggests that the students in this group of no-longer-eligible students were more likely to match to programs more segregated than their freshman class as a whole.

These patterns do not hold true for every type of student who would have been directly affected by the proposal, as **Appendix Table 3** shows. For the average White student and student not in poverty, enrolling in a specialized school under the proposal would have meant much greater exposure to students in poverty; newly eligible Black and Latinx students would have had slightly less contact. Newly eligible White, Black, and Latinx students would all have had about 25 percentage points fewer students from their own racial or ethnic group in their specialized school cohort; Asian students would have had six percent more. Black students who would no longer be eligible to attend a specialized school would instead land in freshman cohorts with far higher rates of students in poverty and other Black and Latinx students than in the specialized school they actually attended. White students, too, would have entered grade-level and program-level cohorts with far more White students than in the specialized schools they attended.

Academics:
Newly eligible students would have joined specialized high school cohorts with far higher incoming proficiency and grade point averages than the non-specialized cohorts and programs they actually joined. The average State ELA and Math scores of their specialized high school cohorts would have been nearly one full point higher, which translates to over 40 percentage points more students at or above grade level than the program or freshman cohorts they were actually in. They would also have been among many more students who earned at least a 90 grade point average in their core courses.

Conversely, the average no-longer-eligible student would have instead joined a freshman cohort with far lower incoming proficiency in ELA and Math and grade point averages than at the specialized school they went to. However, these losses would have been significantly smaller when we look at their academically selective program cohorts. As a result, more than 80 percent of these no-longer-eligible students would have entered programs with at least 30 students at Level 4 in ELA or Math. With that critical mass of high-achieving students, those programs would have been able to fill at least one section of advanced or accelerated classes.

Appendix Table 4 shows that differences these students would see in their peer groups if they switched schools as a result of the proposal in terms of State exam proficiency are largely consistent across race, ethnicity, and socioeconomic groups groups of students. They would, however, vary significantly concerning grade point average. No-longer-eligible Black students would have joined freshman cohorts with 38 percentage points fewer students who earned a 90 core course grade point average (but would have been in programs with only 34 percentage points fewer such students). By contrast, White students would have had 25 percentage points fewer such students in their grade and only 15 percentage points fewer in their cohort. This once again indicates that no-longer-eligible students would have tended to land in academic programs similar in these respects to the current population at the specialized schools, particularly for White and non-poor students.

How would the proposal affect the incoming cohorts of students at non-specialized high schools?

This part of our analysis looks more closely at where students would have enrolled in 2018-19 had the proposed admissions method for specialized high schools been fully implemented when they applied. Previous analyses of the proposal have estimated how the population at the eight specialized high schools would change without the SHSAT, but it is important to remember that those are not the only high schools that would be affected. A large proportion of students newly eligible for specialized high schools would accept their offers, and all students no longer eligible would have to go elsewhere.

Assuming all 3,094 newly eligible students would accept their offers, 353 high schools, or more than 82 percent of all non-specialized high schools, would have "lost" at least one of their actual 2018-19 students to a specialized high school. On the other hand, the 2,467 no-longer-eligible students matched to 151 different non-specialized high schools that year, or only 35 percent of all non-specialized schools. (We treat their round one matches as their most likely destinations because they were actually offered seats there in the 2017-18 admissions cycle, which they rejected to attend a specialized school.[28]) If all of these students had accepted these matches (rather than apply again in round two or leave the system for a charter or private school), it could have meant a large influx of students and potential overcrowding at those schools. Schools facing both scenarios would thus have needed to adjust their admissions formulas.

Our analysis considers the impact of the proposal on these schools as if no adjustments were made to the 2017-18 admissions offers at non-specialized schools. We looked at student movement in both directions; for example, Midwood High School, a large school with screened and unscreened programs in Brooklyn, would have lost the greatest number of newly eligible students to specialized high schools, but would have also "gained" the greatest number of students no longer eligible for a specialized high school. Without any adjustment to the number of seats made available in the round one match, this would have meant 115 more students in Midwood's freshman cohort. This 10 percent increase would place it near the top of the list shown in **Table 5** of schools that would "net" the most students.

At the very top of that list is New Explorations into Science, Technology and Math (NEST+m), a K-12 gifted school in Manhattan, which gave 199 offers in the round one high school match to students who would no longer have been eligible for a specialized high school, but only 35 offers to students who would have

28 LaGuardia High School, which does not offer seats through the matching process, is not included in this part of our analysis

been newly eligible. They thus could have had a net of 164 more high school applicants accept their offers, nearly doubling the freshman cohort if no adjustments were made to their current admissions formula. Over time, this could introduce yet another unintended consequence of the proposal: NEST and other high-demand schools would have to decrease the number of students admitted in the first round of admissions to anticipate higher matriculation rates. This would raise the academic qualifications required to get a seat even higher, crowding out students who would traditionally have been admitted, but have slightly lower scores.

The largest net loss would have been at Townsend Harris High School, a screened school in Queens, which could have lost 53 students, or 14 percent of their freshman cohort. Central Park East High School, in Harlem, would have seen the largest percent change in freshman cohort size, with a net loss of 41 students or 21 percent of their cohort. These schools would both have needed to increase the number of offers made in the round one match to make up for these losses.

Figure 1 links to our interactive map that shows the potential net gain or loss for each non-specialized school, as well as details about how their freshman cohorts would change academically and demographically, when you hover over the points on the interactive map.

Because the number of students who would have enrolled in a different school as a result of the proposal is relatively quite small—only about 5,500 students—the average incoming freshman cohort at all non-specialized schools would not have changed significantly, as shown in Table 6. The average non-specialized school would only have lost between one and two percent of the freshmen who actually enrolled there in 2018. This would not have impacted the demographic makeup of the average cohort, but would have slightly decreased the percentage of freshmen in those cohorts who were proficient in their 7th-grade ELA and Math exams or earned at least a 90 grade point average in their core courses that year.

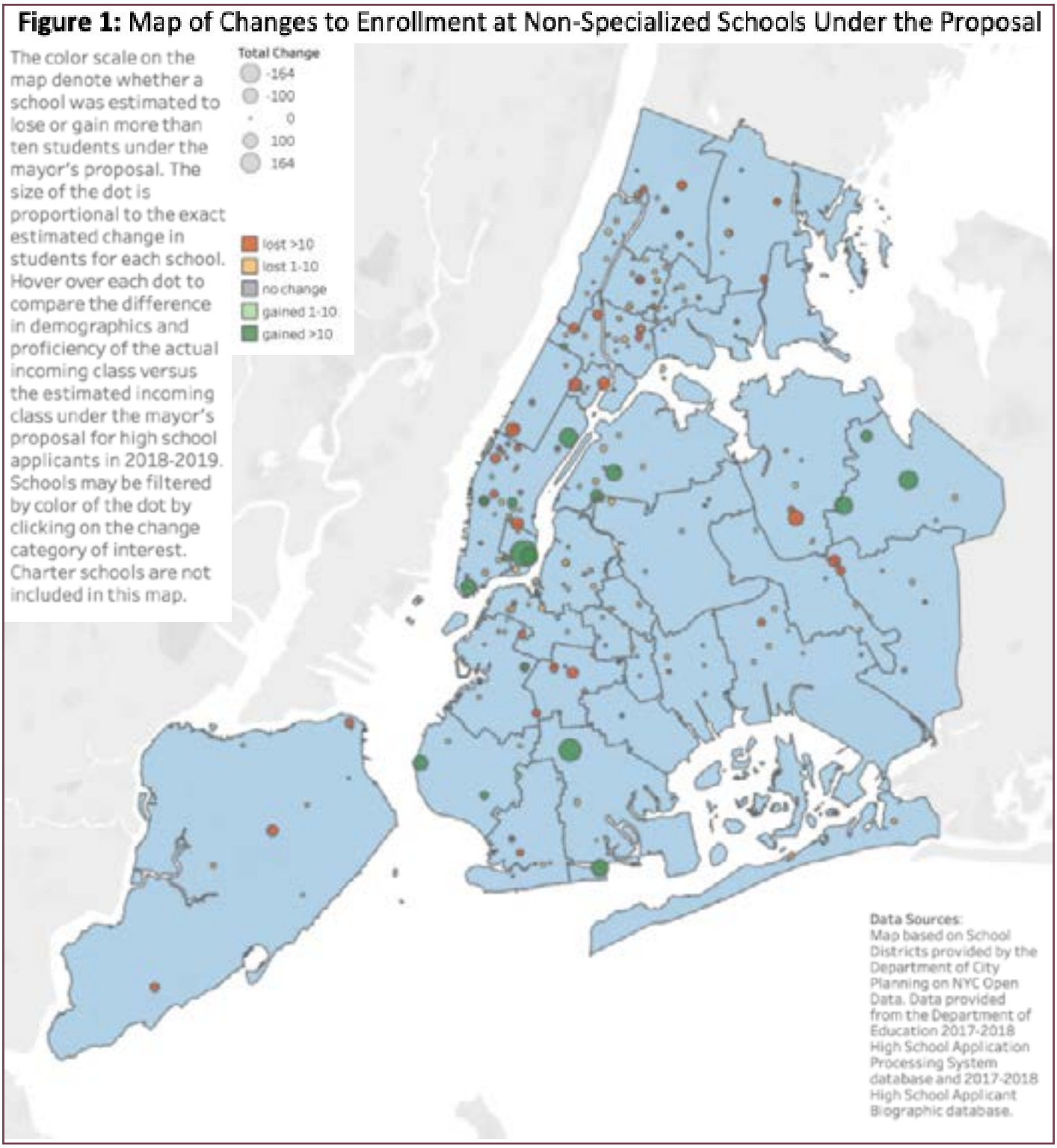
Table 5: Non-Specialized Schools That Could See the Largest Changes to Their Incoming Cohorts Under the Proposal

Non-specialized schools that would net GAIN at least 10 students:
New Explorations into Science, Technology and Math (NEST+m)
Midwood High School
Benjamin N. Cardozo High School
Eleanor Roosevelt High School
Francis Lewis High School
Bard High School Early College
Leon M. Goldstein High School for the Sciences
Baccalaureate School for Global Education
Millennium High School
Fort Hamilton High School
Bard High School Early College Queens
Bayside High School
N.Y.C. Lab School for Collaborative Studies
Baruch College Campus High School
Millennium Brooklyn HS
New Utrecht High School
N.Y.C. Museum School
High School for Dual Language and Asian Studies
Columbia Secondary School
Non-specialized schools that would net LOSE at least 10 students:
Townsend Harris High School
Central Park East High School
High School for Health Professions and Human Services
Manhattan Center for Science and Mathematics
Thomas A. Edison Career and Technical Education High School
Medgar Evers College Preparatory School
Susan E. Wagner High School
A. Philip Randolph Campus High School
Beacon High School
Frederick Douglass Academy
University Heights Secondary School
DeWitt Clinton High School
Bronx High School for Medical Science
Hillcrest High School
Curtis High School
Tottenville High School
Clara Barton High School
The High School of Fashion Industries
Marble Hill High School for International Studies
Collegiate Institute for Math and Science
Brooklyn College Academy
Hostos-Lincoln Academy of Science
Brooklyn High School of the Arts
High School for Construction Trades, Engineering and Architecture
Herbert H. Lehman High School
In-Tech Academy (M.S. / High School 368)
Harry S Truman High School
Williamsburg Preparatory School
Art and Design High School
The Celia Cruz Bronx High School of Music
John Dewey High School
John Bowne High School

Source: Changes to cohort size compiled from 2017-18 DOE Individual Student Biographic, Course Grades, Test Scores, and HS Application Data

Note: You can search our interactive map by school name to find out more information about how the cohorts would change under the proposal at each of these schools.

Figure 1: Map of Changes to Enrollment at Non-Specialized Schools Under the Proposal



But as our map and the rest of our findings demonstrate, the students who would no longer have been eligible for a specialized high school would not have matriculated at a typical non-specialized high

school. Instead, they predominantly matched to schools with far higher outcomes in terms of academic performance and learning environment, but less diverse student bodies, than the average non-specialized school.

If we look at just the schools that would all have gained at least 10 students under the proposal—where no longer eligible students would have concentrated most densely—we find that they are almost entirely screened schools in mid-Manhattan, Lower Manhattan, or Queens. They would have seen an average increase of 53 students each, which could have more than filled additional sections of the college preparatory and AP classes these schools already offer in abundance. With the most competitive admissions screens in the city, these schools already had far higher incoming student proficiency and average course grades than the schools that would have lost more than 10 students. Their freshman cohorts also tend to have far fewer students with disabilities, multilingual learners, students in poverty, and Black and Latinx students. If the proposal had been fully implemented, all of these disparities would have increased.

Table 6: Projected Demographic and Academic Characteristics of Incoming Cohorts At Non-Specialized Schools Under the Proposal

	All Non-specialized High Schools (n=419)		Non-specialized schools that would net GAIN at least 10 students under the proposal (n=19)		Non-specialized schools that would net LOSE at least 10 students under the proposal (n=32)	
Measure	Actual 2017-18 Admissions	2017-18 Admissions under Proposal	Actual 2017-18 Admissions	2017-18 Admissions under Proposal	Actual 2017-18 Admissions	2017-18 Admissions under Proposal
Number of students	73,978	73,351	8,823	9,837	14,435	13,742
Percent of students who are:						
Multilingual Learners	16%	16%	7%	6%	8%	9%
Students with Disabilities	21%	21%	14%	13%	19%	20%
Students in Poverty	78%	77%	49%	46%	72%	71%
Female	50%	49%	54%	49%	56%	54%
Asian	14%	15%	43%	47%	19%	20%
Black	35%	35%	19%	18%	34%	34%
Latinx	50%	50%	28%	26%	45%	45%
Other	7%	7%	13%	14%	8%	8%
White	14%	14%	41%	41%	18%	19%
7th Grade Academics						
Average ELA Score	2.6	2.6	3.5	3.5	3.0	2.9
% at Level 3 or higher in ELA	28%	27%	65%	67%	46%	43%
% at Level 4 or higher in ELA	7%	6%	35%	38%	16%	13%
Average Math Score	2.4	2.4	3.6	3.6	2.8	2.8
% at Level 3 or higher in Math	22%	20%	67%	68%	40%	37%
% at Level 4 or higher in Math	6%	6%	42%	47%	15%	14%
Average Core Course Grades	78.5	78.1	89.6	89.8	83.3	82.6
% at 90 or higher	14%	12%	61%	62%	28%	24%

Source: 2017-18 DOE Individual Student Biographic, Course Grades, Test Scores, and HS Application Data

The schools that would have lost more than 10 students under the proposal, by contrast, are also mostly screened schools or have at least one screened program. More than half are located in the Bronx, Harlem, or Washington Heights. Because they are at least partly screened, they have slightly fewer students with disabilities, multilingual learners, or students in poverty, and more students profi-

cient in ELA or Math than the typical non-specialized school. However, they more closely reflect the racial/ethnic makeup of their neighborhoods and the freshman population of the city as a whole. If the mayor's proposal had been implemented for the 2017-18 admissions cycle, this group of schools would each have lost a net average 21 students (or an average of seven percent of their freshman cohorts). Their cohorts would not have shifted significantly in terms of demographics, but the loss of so many high-achieving students might have had a significant influence on the students left behind. To the extent that these schools have more applicants than seats, they could adjust their offer rates and make up for this loss, but would likely do so with students who have slightly lower academic qualifications than the ones who left.

Because the no-longer-eligible students would end up concentrating in so few non-specialized schools, they would move those schools even farther away from the citywide proportions for each demographic group.

To summarize: More non-specialized schools would have lost students than gained students. Students no longer eligible for the specialized high schools would have been highly concentrated at only a handful of non-specialized schools. And the existing demographics in those schools would have come to resemble the demographic composition of the students they would thus be gaining. Taken together, this reveals an unintended consequence of the mayor's admissions proposal. Because the no-longer-eligible students would end up concentrating in so few non-specialized schools, they would move those schools even farther away from the citywide proportions for each demographic group, and also add to academic stratification among all non-specialized schools.

Other unintended consequences of the proposal could impact middle schools, too. Where selective middle school admissions have led to "feeder" schools that send high numbers of graduates to specialized high schools, students, families, and staff would have to adjust to the new criteria for eligibility. For example, 204 students, or 73 percent of all 7th graders, at The Christa McAuliffe School received offers to a specialized high school in 2017-18 under the SHSAT. If the proposal had been in place that year, only 19 of them would have received offers. The next 200 students below them in class rank-order earned average core course grades of 95 and State exam scores of 4.2. There and at other such middle schools, the proposal would put the most high-achieving students in direct and intense competition with their classmates to get an extra percentage point on report card grades or an extra tenth of a point on State exams.

Of course, some parents might seek to avoid such competition altogether by enrolling their children in middle schools with far fewer students performing above grade level according to State exams. This could potentially balance the number of students with high incoming proficiency across more middle schools, and also diversify their student bodies both racially and socioeconomically.

Conclusion

This report confirms that the mayor's proposal would meet its primary goal of making the student bodies of the specialized schools more diverse and representative of the city. It also extends beyond previous research to look at the variety of ways thousands of individual students and hundreds of non-specialized schools would be impacted by the proposal, identifying some unintended consequences of the proposal and placing the specialized schools in a wider context as one small piece of a larger, highly unequal school system.

Changing the admissions criteria for the specialized high schools from top scorers on the SHSAT to top-ranked students in each middle school would give a more racially, academically, and geographically diverse group of students a chance to attend specialized high schools. This would also dramatically improve the academic opportunities and learning environment those students experience, and raise the academic proficiency level of the student populations these students would be joining, compared to the schools they attended instead.

This is not only the case because of the unquestionably high-achieving nature of the specialized high schools. It is also because, as a group, students who would be newly eligible to attend these schools tend not to apply to or match at similarly lustrous non-specialized public high schools — the NESTs, Townsend Harrises, and Midwoods of our city. This is despite the fact that all such students were in the top seven percent of their middle school classes and the top 25 percent of all high school applicants citywide.

This speaks to a larger truth about the city's high school choice system: there is not a simple relationship between an individual applicant's academic strengths and the caliber of the school she or he ultimately attends. Myriad factors influence where each student applies, including: different individual and family preferences; exposure to and awareness of high-quality options and the application process in general; the quality of middle school counseling; transportation issues or family needs that make long commutes to school infeasible; safety concerns; and other issues.[29] A recent experiment in several high-poverty New York City middle schools found that even after students were provided a short list of high-performing nearby high schools, they still did not apply to schools with higher graduation rates than did their peers who did not receive such a list. They instead applied only to schools they were more likely to get into.[30]

There is not a simple relationship between an individual applicant's academic strengths and the caliber of the school she or he ultimately attends.

One of the most powerful consequences of the mayor's specialized high school proposal is that it

29 Carolyn Sattin-Bajaj. (2014). Unaccompanied Minors: Immigrant Youth, School Choice, and the Pursuit of Equity. Harvard Education Press: Cambridge, Mass.

30 Sean P. Corcoran, Jennifer L. Jennings, Sarah R. Cohodes, and Carolyn Sattin-Bajaj (2018). Leveling the Playing Field for High School Choice: Results from a Field Experiment of Informational Interventions, NBER Working Paper No. 24471.

would — at least in theory — offer all eligible students guaranteed seats at some of the best high schools in the city without requiring them to apply, thereby allowing them to circumvent many of the barriers that put similar schools out of reach in the regular high school choice process.

Yes, some students would lose the opportunity to attend a specialized school. Nevertheless, we found that many of those students would still have access to a far-above-average high school experience, according to the measures we used, because the majority of them matched to top-tier non-specialized schools.

Success on the SHSAT and success in the high school choice process go hand-in-hand, because both require resources above and beyond academic ability to succeed. The mayor's proposal would help to level the playing field at the specialized schools, but it would leave the unfair competition intact — and perhaps even intensify it — at the most high-demand non-specialized schools.

Appendix

Appendix Table 1: School-level Comparisons for all Students Directly Affected by the Proposal, Academic Opportunity Measures by Race/Ethnicity and Poverty Status

Measure	Newly eligible ASIAN students'… (n=772) …actual high schools (n=145)	…specialized schools under the proposal (n=1)*	No longer eligible ASIAN students'… (n=1,409) …actual specialized high schools (n= 8)	…schools under the proposal (n=113)	Newly eligible BLACK students'… (n=732) …actual high schools (n=226)	…specialized schools under the proposal (n=1)*	No longer eligible BLACK students'… (n=80) …actual specialized high schools (n= 8)	…schools under the proposal (n=42)
Percent of students who…								
scored 3 or higher on AP Exams	37%	81%	84%	39%	20%	81%	66%	35%
scored C or higher in college credit courses	40%	52%	54%	37%	33%	52%	62%	36%
scored 65%+ on an Advanced Math or Science Regents Exam	61%	100%	100%	68%	38%	100%	100%	61%

Measure	Newly eligible LATINX students'… (n=1,118) …actual high schools (n=273)	…specialized schools under the proposal (n=1)*	No longer eligible LATINX students'… (n=120) …actual specialized high schools (n= 8)	…schools under the proposal (n=49)	Newly eligible WHITE students'… (n=447) …actual high schools (n=112)	…specialized schools under the proposal (n=1)*	No longer eligible WHITE students'… (n=534) …actual specialized high schools (n= 8)	…schools under the proposal (n=73)
Percent of students who…								
scored 3 or higher on AP Exams	23%	81%	81%	38%	36%	81%	88%	43%
scored C or higher in college credit courses	30%	52%	62%	35%	41%	52%	63%	38%
scored 65%+ on an Advanced Math or Science Regents Exam	39%	100%	100%	62%	55%	100%	100%	69%

Measure	Newly eligible students IN POVERTY… (n=2,315) …actual high schools (n=339)	…specialized schools under the proposal (n=1)*	No longer eligible students IN POVERTY… (n=1,095) …actual specialized high schools (n= 8)	…schools under the proposal (n=136)	Newly eligible students NOT in POVERTY… (n=778) …actual high schools (n=197)	…specialized schools under the proposal (n=1)*	No longer eligible students NOT in POVERTY… (n=1139) …actual specialized high schools (n= 8)	…schools under the proposal (n=93)
Percent of students who…								
scored 3 or higher on AP Exams	26%	81%	82%	38%	33%	81%	86%	43%
scored C or higher in college credit courses	34%	52%	59%	38%	38%	52%	54%	36%
scored 65%+ on an Advanced Math or Science Regents Exam	44%	100%	100%	66%	53%	100%	100%	70%

Source: Average of values from the 2017-18 NYC DOE School Quality Reports, weighted by number of students who attended or would have attended each school.

*Newly eligible students' measures under the proposal are an aggregate of all 8 specialized schools, whereas the no longer eligible students' actual measures are weighted based on the specialized high school they actually attended.

Appendix Table 2.1: School-level Comparisons for all Students Directly Affected by the Proposal, Learning Environment Measures by Race/Ethnicity

Measure	Newly eligible ASIAN students'... (n=772) ...actual high schools (n=145)	...specialized schools under the proposal (n=1)*	No longer eligible ASIAN students'... (n=1409) ...actual specialized high schools (n=8)	...schools under the proposal (n=113)	Newly eligible BLACK students'... (n=732) ...actual high schools (n=226)	...specialized schools under the proposal (n=1)*	No longer eligible BLACK students'... (n=80) ...actual specialized high schools (n=8)	...schools under the proposal (n=42)
Extracurricular Programming								
Percent of students who agree with the following...								
This school offers a wide enough variety of programs, classes and activities to keep me interested in school.	84%	81%	90%	84%	79%	81%	86%	84%
The programs, classes and activities at this school encourage students to develop talent outside academics.	84%	82%	87%	83%	81%	82%	84%	83%
Academic Challenge and Pressure								
Percent of students who replied "most" to the following...								
In how many of your classes are you challenged?	62%	76%	75%	63%	59%	76%	74%	65%
In how many of your classes at this school do YOU feel most students try hard to get good grades?	79%	90%	89%	80%	74%	90%	86%	81%
Respect								
Percent of students who agree with the following...								
Most students at this school treat each other with respect.	75%	88%	87%	75%	64%	88%	86%	77%
At this school students harass, bully or intimidate each other because of their race, religion, ethnicity, national origin or citizenship immigration status.	25%	13%	15%	25%	28%	13%	15%	22%
At this school students harass, bully or intimidate each other because of their gender, gender identity, gender expression or sexual orientation.	23%	13%	15%	23%	27%	13%	16%	21%
Safety								
Percent of students who agree with the following...								
At this school students get into physical fights.	32%	9%	11%	32%	42%	9%	10%	27%
I feel safe in the hallways, bathrooms, locker rooms and cafeteria of this school.	86%	94%	93%	86%	84%	94%	93%	89%

Measure	Newly eligible LATINX students'... (n=1,118) ...actual high schools (n=273)	...specialized schools under the proposal (n=1)*	No longer eligible LATINX students'... (n=120) ...actual specialized high schools (n=8)	...schools under the proposal (n=49)	Newly eligible WHITE students'... (n=447) ...actual high schools (n=112)	...specialized schools under the proposal (n=1)*	No longer eligible WHITE students'... (n=534) ...actual specialized high schools (n=8)	...schools under the proposal (n=73)
Extracurricular Programming								
Percent of students who agree with the following...								
This school offers a wide enough variety of programs, classes and activities to keep me interested in school.	80%	81%	89%	82%	86%	81%	92%	84%
The programs, classes and activities at this school encourage students to develop talent outside academics.	81%	80%	86%	81%	85%	82%	88%	82%
Academic Challenge and Pressure								
Percent of students who replied "most" to the following...								
In how many of your classes are you challenged?	60%	76%	75%	65%	61%	76%	75%	64%
In how many of your classes at this school do YOU feel most students try hard to get good grades?	75%	90%	88%	81%	78%	90%	89%	81%
Respect								
Percent of students who agree with the following...								
Most students at this school treat each other with respect.	69%	88%	87%	78%	72%	88%	88%	28%
At this school students harass, bully or intimidate each other because of their race, religion, ethnicity, national origin or citizenship immigration status.	25%	13%	15%	20%	26%	13%	14%	22%
At this school students harass, bully or intimidate each other because of their gender, gender identity, gender expression or sexual orientation.	24%	13%	15%	19%	25%	13%	14%	21%
Safety								
Percent of students who agree with the following...								
At this school students get into physical fights.	37%	9%	11%	25%	38%	9%	10%	26%
I feel safe in the hallways, bathrooms, locker rooms and cafeteria of this school.	86%	94%	93%	89%	86%	94%	94%	89%

Source: Average of values from the 2017-18 NYC DOE School Survey, weighted by number of students who attended or would have attended each school.

*Newly eligible students' measures under the proposal are an aggregate of all 8 specialized schools, whereas the no longer eligible students' actual measures are weighted based on the specialized high school they actually attended.

Appendix Table 2.2: School-level Comparisons for all Students Directly Affected by the Proposal, Learning Environment Measures by Poverty Status

	Newly eligible students IN POVERTY… (n=2,315)		No longer eligible students IN POVERTY… (n=1,095)		Newly eligible students NOT IN POVERTY… (n=778)		No longer eligible students NOT IN POVERTY… (n=1,139)	
	…actual high schools (n=339)	…specialized schools under the proposal (n=1)*	…actual specialized high schools (n=8)	…schools under the proposal (n=136)	…actual high schools (n=197)	…specialized schools under the proposal (n=1)*	…actual specialized high schools (n=8)	…schools under the proposal (n=93)
Extracurricular Programming								
Percent of students who agree with the following…								
This school offers a wide enough variety of programs, classes and activities to keep me interested in school.	81%	81%	90%	84%	83%	81%	91%	84%
The programs, classes and activities at this school encourage students to develop talent outside academics.	82%	82%	87%	83%	83%	82%	87%	82%
Academic Challenge and Pressure								
Percent of students who replied "most" to the following…								
In how many of your classes are you challenged?	60%	76%	74%	63%	61%	76%	75%	64%
In how many of your classes at this school do YOU feel most students try hard to get good grades?	76%	90%	88%	80%	77%	90%	89%	81%
Respect								
Percent of students who agree with the following…								
Most students at this school treat each other with respect.	69%	88%	87%	76%	72%	88%	88%	77%
At this school students harass, bully or intimidate each other because of their race, religion, ethnicity, national origin or citizenship immigration status.	26%	13%	15%	25%	25%	13%	15%	22%
At this school students harass, bully or intimidate each other because of their gender, gender identity, gender expression or sexual orientation.	25%	13%	15%	23%	24%	13%	15%	21%
Safety								
Percent of students who agree with the following…								
At this school students get into physical fights.	38%	9%	11%	32%	36%	9%	11%	28%
I feel safe in the hallways, bathrooms, locker rooms and cafeteria of this school.	86%	94%	93%	86%	86%	94%	93%	88%

Source: Average of values from the 2017-18 NYC DOE School Survey, weighted by number of students who attended or would have attended each school.

*Newly eligible students' measures under the proposal are an aggregate of all 8 specialized schools, whereas the No longer eligible students' actual measures are weighted based on the specialized high school they actually attended.

Appendix Table 3: Cohort Comparisons for all Students Directly Affected by the Proposal, Cohort Demographic Makeup by Race/Ethnicity and Poverty Status

	Newly eligible ASIAN students'… (n=772)			No longer eligible ASIAN students'… (n=1409)			Newly eligible BLACK students'… (n=732)			No longer eligible BLACK students'… (n=80)		
Measure	**…actual grade-level cohort** (n=145)	**…actual program-level cohort** (n=207)	**…specialized schools cohort under the proposal** (n=1)*	**…actual specialized school cohorts** (n=8)	**…grade-level cohort under the proposal** (n=113)	**…program-level cohort under the proposal** (n=167)	**…actual grade-level cohort** (n=226)	**…actual program-level cohort** (n=308)	**…specialized schools cohort under the proposal** (n=1)*	**…actual specialized school cohorts** (n=7)	**…grade-level cohort under the proposal** (n=42)	**…program-level cohort under the proposal** (n=47)
Percent of students who are…												
Asian	36%	40%	35%	68%	44%	51%	18%	18%	35%	64%	31%	34%
Black	24%	23%	18%	10%	21%	19%	43%	43%	18%	14%	32%	32%
Latinx	34%	32%	29%	13%	29%	26%	39%	38%	29%	16%	35%	34%
White	28%	28%	17%	27%	33%	33%	15%	15%	17%	29%	25%	26%
In Poverty	64%	61%	70%	49%	56%	52%	73%	73%	70%	51%	62%	61%
Female	53%	54%	64%	42%	49%	47%	53%	54%	64%	44%	48%	49%
Students with Disabilities	16%	14%	2%	2%	14%	12%	19%	19%	2%	2%	16%	16%
Multilingual Learners	7%	6%	1%	0%	6%	4%	8%	7%	1%	0%	6%	4%

	Newly eligible LATINX students'… (n=1,118)			No longer eligible LATINX students'… (n=120)			Newly eligible WHITE students'… (n=447)			No longer eligible WHITE students'… (n=534)		
Measure	**…actual grade-level cohort** (n=273)	**…actual program-level cohort** (n=368)	**…specialized schools cohort under the proposal** (n=1)*	**…actual specialized school cohorts** (n=8)	**…grade-level cohort under the proposal** (n=49)	**…program-level cohort under the proposal** (n=57)	**…actual grade-level cohort** (n=112)	**…actual program-level cohort** (n=152)	**…specialized schools cohort under the proposal** (n=1)*	**…actual specialized school cohorts** (n=8)	**…grade-level cohort under the proposal** (n=73)	**…program-level cohort under the proposal** (n=97)
Percent of students who are…												
Asian	18%	19%	35%	63%	36%	39%	29%	30%	35%	64%	38%	41%
Black	28%	28%	18%	12%	23%	23%	23%	22%	18%	11%	22%	21%
Latinx	53%	53%	29%	15%	37%	35%	33%	30%	29%	14%	30%	28%
White	17%	18%	17%	31%	36%	36%	43%	46%	17%	32%	46%	48%
In Poverty	73%	72%	70%	46%	50%	47%	52%	47%	70%	46%	43%	40%
Female	52%	53%	64%	44%	50%	49%	54%	56%	64%	43%	50%	50%
Students with Disabilities	19%	19%	2%	2%	15%	14%	16%	13%	2%	2%	14%	12%
Multilingual Learners	10%	8%	1%	0%	5%	3%	5%	3%	1%	0%	4%	2%

	Newly eligible students IN POVERTY… (n=2,315)			No longer eligible students IN POVERTY… (n=1,095)			Newly eligible students NOT IN POVERTY… (n=778)			No longer eligible students NOT IN POVERTY… (n=1,139)		
Measure	**…actual grade-level cohort** (n=339)	**…actual program-level cohort** (n=501)	**…specialized schools cohort under the proposal** (n=1)*	**…actual specialized school cohorts** (n=8)	**…grade-level cohort under the proposal** (n=126)	**…program-level cohort under the proposal** (n=180)	**…actual grade-level cohort** (n=197)	**…actual program-level cohort** (n=282)	**…specialized schools cohort under the proposal** (n=1)*	**…actual specialized school cohorts** (n=8)	**…grade-level cohort under the proposal** (n=93)	**…program-level cohort under the proposal** (n=135)
Percent of students who are…												
Asian	23%	24%	35%	67%	42%	48%	27%	28%	35%	66%	42%	46%
Black	31%	30%	18%	10%	22%	20%	27%	26%	18%	10%	22%	20%
Latinx	44%	43%	29%	13%	30%	27%	38%	36%	29%	13%	29%	27%
White	20%	20%	17%	28%	31%	32%	32%	34%	17%	29%	41%	42%
In Poverty	71%	70%	70%	50%	58%	55%	58%	55%	70%	47%	46%	42%
Female	52%	53%	64%	42%	48%	47%	54%	56%	64%	43%	50%	49%
Students with Disabilities	18%	17%	2%	2%	15%	13%	17%	15%	2%	2%	14%	12%
Multilingual Learners	9%	7%	1%	0%	7%	4%	6%	4%	1%	0%	4%	2%

Source: Cohort composition compiled from 2017-18 DOE Individual Student Biographic, Course Grades, Test Scores, and HS Application Data

*We treat all newly eligible students as one grade- and program-level cohort. The number of student row shows the total of that cohort (4,188 students) divided by 8 to get the average size. The rest of the figures show raw percentages within that large cohort.

Appendix Table 4: Cohort Comparisons for all Students Directly Affected by the Proposal, Incoming Academics by Race/Ethnicity and Poverty Status

	Newly eligible ASIAN students'… (n=772)			No longer eligible ASIAN students'… (n=1409)			Newly eligible BLACK students'… (n=732)			No longer eligible BLACK students'… (n=80)		
Measure	…actual grade-level cohort (n=145)	…actual program-level cohort (n=207)	…specialized schools cohort under the proposal (n=1)*	…actual specialized school cohorts (n=8)	…grade-level cohort under the proposal (n=113)	…program-level cohort under the proposal (n=167)	…actual grade-level cohort (n=226)	…actual program-level cohort (n=308)	…specialized schools cohort under the proposal (n=1)*	…actual specialized school cohorts (n=7)	…grade-level cohort under the proposal (n=42)	…program-level cohort under the proposal (n=47)
Average ELA Score	3.2	3.4	3.9	4.0	3.4	3.5	2.9	3.0	3.9	3.9	3.3	3.4
% at Level 3 or higher in ELA	56%	64%	94%	92%	61%	71%	43%	45%	94%	90%	58%	62%
% at Level 4 or higher in ELA	26%	33%	61%	71%	31%	40%	14%	16%	61%	62%	29%	32%
Average Math Score	3.2	3.4	3.9	4.2	3.4	3.7	2.8	2.8	3.9	4.2	3.3	3.4
% at Level 3 or higher in Math	54%	63%	90%	93%	60%	71%	37%	39%	90%	91%	56%	61%
% at Level 4 or higher in Math	30%	40%	61%	86%	39%	52%	15%	16%	61%	81%	35%	40%
Average Core Course Grades	86.6	88.7	94.2	94.3	87.7	90.2	81.6	82.2	94.2	93.5	86.3	87.2
% at 90 or higher	45%	56%	85%	86%	51%	65%	23%	26%	85%	79%	41%	46%

	Newly eligible LATINX students'… (n=1,118)			No longer eligible LATINX students'… (n=120)			Newly eligible WHITE students'… (n=447)			No longer eligible WHITE students'… (n=534)		
Measure	…actual grade-level cohort (n=273)	…actual program-level cohort (n=368)	…specialized schools cohort under the proposal (n=1)*	…actual specialized school cohorts (n=8)	…grade-level cohort under the proposal (n=49)	…program-level cohort under the proposal (n=57)	…actual grade-level cohort (n=112)	…actual program-level cohort (n=152)	…specialized schools cohort under the proposal (n=1)*	…actual specialized school cohorts (n=8)	…grade-level cohort under the proposal (n=73)	…program-level cohort under the proposal (n=97)
Average ELA Score	2.9	3.0	3.9	4.0	3.4	3.5	3.3	3.5	3.9	4.0	3.5	3.7
% at Level 3 or higher in ELA	42%	45%	94%	90%	64%	68%	56%	68%	94%	91%	65%	72%
% at Level 4 or higher in ELA	14%	16%	61%	69%	35%	39%	28%	41%	61%	71%	38%	45%
Average Math Score	2.8	2.9	3.9	4.2	3.5	3.6	3.2	3.5	3.9	4.2	3.6	3.8
% at Level 3 or higher in Math	36%	40%	90%	92%	62%	67%	52%	66%	90%	92%	63%	71%
% at Level 4 or higher in Math	16%	18%	61%	84%	41%	46%	29%	43%	61%	86%	44%	53%
Average Core Course Grades	82.6	83.3	94.2	94.1	88.5	89.4	87.2	90.2	94.2	94.1	89.9	89.4
% at 90 or higher	27%	30%	85%	84%	52%	58%	49%	65%	86%	87%	62%	72%

	Newly eligible students IN POVERTY… (n=2,315)			No longer eligible students IN POVERTY… (n=1,095)			Newly eligible students NOT IN POVERTY… (n=778)			No longer eligible students NOT IN POVERTY… (n=1,139)		
Measure	…actual grade-level cohort (n=339)	…actual program-level cohort (n=501)	…specialized schools cohort under the proposal (n=1)*	…actual specialized school cohorts (n=8)	…grade-level cohort under the proposal (n=126)	…program-level cohort under the proposal (n=180)	…actual grade-level cohort (n=197)	…actual program-level cohort (n=282)	…specialized schools cohort under the proposal (n=1)*	…actual specialized school cohorts (n=8)	…grade-level cohort under the proposal (n=93)	…program-level cohort under the proposal (n=135)
Average ELA Score	3.0	3.1	3.9	4.0	3.3	3.5	3.2	3.4	3.9	4.0	3.5	3.7
% at Level 3 or higher in ELA	46%	50%	94%	91%	60%	69%	54%	61%	94%	91%	64%	72%
% at Level 4 or higher in ELA	17%	21%	61%	69%	30%	38%	25%	33%	61%	72%	37%	45%
Average Math Score	2.9	3.0	3.9	4.2	3.4	3.6	3.1	3.3	3.9	4.2	3.5	3.8
% at Level 3 or higher in Math	41%	46%	90%	93%	59%	69%	49%	58%	90%	92%	63%	72%
% at Level 4 or higher in Math	19%	24%	61%	85%	38%	50%	26%	35%	61%	86%	43%	54%
Average Core Course Grades	83.3	84.5	94.2	94.2	87.3	89.5	85.9	87.9	94.2	94.4	89.3	91.3
% at 90 or higher	30%	36%	85%	85%	48%	61%	42%	53%	85%	86%	59%	70%

Source: Cohort composition compiled from 2017-18 DOE Individual Student Biographic, Course Grades, Test Scores, and HS Application Data

*We treat all newly eligible students as one grade- and program-level cohort. The number of student row shows the total of that cohort (4,188 students) divided by 8 to get the average size. The rest of the figures show raw percentages within that large cohort.

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Promising Outcomes, Limited Potential: Diversity in Admissions in New York City Public Schools, by Nicole Mader, Abigail Kramer, and Angela Butel, Center for New York City Affairs, November 2018.

The Paradox of Choice: How School Choice Divides New York City Elementary Schools, by Nicole Mader, Clara Hemphill, and Qasim Abbas, Center for New York City Affairs, May 2018.

The Calculus of Race and Class: A New Look at the Achievement Gap in New York City Schools, by Nicole Mader and Ana Carla Sant'anna Costa, Center for New York City Affairs, January 2018.

No Heavy Lifting Required: New York City's Unambitious School 'Diversity' Plan, by Nicole Mader and Ana Carla Sant'anna Costa, Center for New York City Affairs, June 2017.

Five Steps to Integrate New York City Elementary Schools, by Clara Hemphill, Lydie Raschka, and Nicole Mader, Center for New York City Affairs, November 2016.

West Side Story: How City Leaders Can Back a Brave School Zoning Plan, by Clara Hemphill, Center for New York City Affairs Urban Matters blog, November 2016.

Integrated Schools in a Segregated City: Ten Strategies that Have Made New York City Elementary Schools More Diverse, by Clara Hemphill, Nicole Mader, and the InsideSchools staff, Center for New York City Affairs, October 2016.

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Segregated Schools in Integrated Neighborhoods: The City's Schools Are Even More Divided Than Our Housing, by Clara Hemphill and Nicole Mader, Center for New York City Affairs, January 2016.

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