# THE SPECIALIZED HIGH SCHOOL ADMISSIONS DEBATE MOVING FROM RHETORIC TO A RESEARCH-BASED SOLUTION

**POLICY BRIEF** 

A PROPOSAL FROM THE COMMUNITY SERVICE SOCIETY OF NEW YORK

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By Lazar Treschan



The Community Service Society of New York (CSS) is an informed, independent, and unwavering voice for positive action representing low-income New Yorkers. CSS addresses the root causes of economic disparity through research, advocacy, and innovative program models that strengthen and benefit all New Yorkers.

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# **Proposal Summary**

This document presents a proposal for reform of the admissions policy used at New York City's specialized high schools (SHS). Our proposal incorporates important new empirical analysis of SHS admissions data, while also attempting to address the key concerns of supporters and opponents of the current policy. Using data provided to us by the NYCDOE, we simulate the changes in the population of students who would receive offers under our proposal, as compared to those who have received offers under the current policy.

## **Our Analysis of the Current Debate**

Broadly, there are two sides to the current debate on SHS admissions, each of which express compelling concerns. Opponents of the current policy argue against the use of the current entrance exam, the SHSAT, for a range of reasons, including the extreme racial disparities in offers that have resulted from its use. Their strongest complaints relate to the particular scoring method of the SHSAT, and the fact that as an extracurricular exam, it offers advantages to students and families with the wherewithal and resources to support preparation outside of school. Supporters of the current system advocate against making any changes to the SHS admission process, and voice persuasive arguments about maintaining the elite academic rigor and standing of the SHS, as well as ensuring that considerations for admission remain as objective as possible.

## The Impact of New Research

Researchers at NYU have recently published their own analysis of students who apply to specialized high schools. They find that performance on the SHSAT correlates strongly with, but is not a complete reflection of, conventional measures of student achievement, such as grades or state exams. They also find that an extremely high concentration of SHSAT offers are to students from a very small subset of middle schools that also screen for their own admissions. As a result, SHSAT performance appears in many ways to reflect performance on assessments that students in New York City are taking as early as age four, and is much less attributable to student performance in middle school.

## **Our Proposal**

We believe the following proposal can meet the concerns of both sides of the debate.

- Replace the SHSAT with use of combined scores on mandatory state exams in Mathematics and English Language Arts (ELA) given during the 7th grade. We understand the need to use an objective assessment of student ability, but see the state Math and ELA exams as better alternatives than the SHSAT, for their complete inclusion and access, as well as their more direct connections to middle school curricula and every student's academic program. Using state exams in lieu of the SHSAT would also save parents significant time, energy, and resources.
- Offer admission into at least one specialized high school to students whose combined Math/ELA scores are in the top 3 percent of their high school class, provided they are amongst the top scorers citywide. Award all other offers to students via citywide rank order. Under our simulation of this plan, approximately 91 percent of SHS offers would be made via citywide rank order (as is currently the case using the SHSAT for all offers), to students with combined state Math/ELA scores between the 93rd and 100th percentile of all scores, citywide. The remaining 9 percent of offers would be to students with test scores in the top 3 percent of scores in their

school, but only if their scores also met a minimum bar of elite achievement (set at being higher than one standard deviation above the mean test score, the 85th percentile of all scorers, citywide). Students in the top 3 percent of their school's scores who fall below the 85th percentile citywide would not be eligible for consideration. This would offer a reward and incentive to very high achievers from relatively low-performing schools across the city.

• This proposal currently does not offer specifics on how to allocate offers within the specialized high schools, but rather how to create a universally accessible means for determining SHS offer eligibility. Allocation within the schools would need to be based on student preferences and include consideration of state law regarding the original three SHS, and might include a range of other mechanisms. Other details of our proposal can be found in the body of our complete report.

#### **Our Simulation of the Results of this Proposal**

- Overall Math and ELA proficiency of students receiving offers would increase average and median math and English language proficiency, as measured by combined scores on state exams, would increase overall.
- Geographic diversity of students receiving offers would increase – the Bronx would see an increase in the share of offers they receive to SHS, along with slight increases for Brooklyn, Queens, and Staten Island.
- Racial and ethnic diversity would increase slightly, but to a notable degree – black and Latino enrollment at the SHS would increase from 4.6 to 8.8 percent for blacks, and 7.2 to 13.0 percent for Latinos.

# Conclusion: A Policy that Recognizes Context, Without Sacrificing Merit

We believe that that our findings offer a strong case for why the New York City Department of Education should consider this proposal to reform the specialized high school admissions process. Our proposal represents a unique effort to understand each side of the SHS debate, and uses empirical analysis of data to find a solution that addresses their concerns.

#### How to Move Forward

We urge the NYCDOE and the range of stakeholders interested in this issue to evaluate and discuss this proposal. One possibility to consider is initial implementation of this model at the five newer SHS for which no state law is required to change admissions processes. A review of how this proposal works at those schools could offer guidance about how it might fare if implemented at the three original SHS.

# Introduction

The admissions policy for New York City's specialized high schools (SHS) has been hotly debated. These eight elite schools represent a great hope for many local parents, who see them as the strongest alternatives to rigorous but prohibitively expensive private schools, or highly regarded public schools located outside of New York City. Yet the limited number of seats in these schools, approximately 5,200 each year, within an overall 9th grade cohort of nearly 80,000 students, has created vigorous competition for seats, which has in turn led to charged discussions of a range of controversial topics related to their admissions policy. Prominent issues within the debate include high stakes testing, racial disparities and segregation, as well as the role of public institutions to influence socioeconomic inequality.

This document attempts to summarize the recent debate about potential reform to the SHS admission policy, taking consideration to understand the primary concerns of each of its two major sides. We suggest that a lack of objective, empirical analysis of student data related to SHS admissions has prevented progress toward any potential reform that might satisfy both proponents and opponents of reform. We then summarize new research that offers to fill this gap, and offer our own analysis of how the findings of this work might influence the SHS policy discussion. Finally, we present a proposal for SHS admissions reform that incorporates these new research findings, while attempting to address the key concerns of supporters and opponents of the current policy. Using data provided to us by the NYCDOE, we simulate the changes in the population of students who would receive offers under our proposal, as compared to those who actually have received offers under the current policy.1

# The Nature of the Debate Thus Far: Opponents and Defenders of the SHSAT

The current method for determining who is offered admission to the eight specialized high schools is

determined by a unique exam, known as the Specialized High School Admissions Test (SHSAT), taken over two and half hours on one day, by only those students who elect to sit for it.<sup>2</sup> Students list their preferences for which of the eight schools they would like to attend, are rank-ordered by their combined overall score on the test (which has two sections, math and verbal), and those with the highest overall scores are offered admission into the available seats for each school. There is no "passing grade" for the test; instead of there being a specific standard of proficiency for direct entry or consideration for admission, students are simply competing against each other, citywide, to determine who can achieve the highest 5,200 scores.

The use of the SHSAT has been the subject of increasing debate in recent years. Much of this has to do with the demographic picture of those who end up receiving offers to the specialized high schools. Racial and ethnic disparities at the SHS have increased dramatically: nearly 75 percent of New York City public school students are black or Latino, yet these youth make up just 12 percent of those who are offered admission into the specialized high schools. These differences also present themselves geographically: whereas there are multiple community districts that send between 400-600 students to specialized high schools each year, there are several that send fewer than ten. Those neighborhoods with the lowest representation at the specialized high schools are also the poorest communities in the city.<sup>3</sup>

# The Two Sides of the Debate

Broadly, there are two sides to the current debate: opponents of the current policy, who argue for a new approach to SHS admissions; and supporters of the current system, who argue that any changes will diminish the objectivity, quality, and standing of the schools.

1. **Opponents** of the current policy have voiced a range of concerns. These can be divided into two general areas, even if they are at times voiced by the same stakeholders. One contention is that the current policy

is bad simply because it leads to undesirable outcomes; the extreme racial disparities in offers provide enough reason for change. The need for diversity in the specialized high schools is the main focus of this argument.

Another argument begins with the method for admissions, and uses the test itself as its focus of analysis. While these voices also decry the outcomes of the current policy, they believe that it is the specifics of the SHSAT itself that produce these unfortunate results. [See the sidebar "The Problems with the SHSAT" for a summary.] These arguments tend to recognize more of the concerns of proponents of the current policy, particularly in regards to the need for objectivity and the importance of recognizing merit.

The two positions voiced by reform advocates have not been well differentiated, but it may be useful to consider them separately. One represents a primary goal of diversity in educational settings, and there is research to support that diverse educational settings are beneficial. The other concern stresses the importance of the fairness of the assessment tools used by elite academic institutions. For this paper, we will prioritize the concerns of the second argument in attempting to reach a common ground for public policy. Without minimizing the value of diversity in and of itself, which we do support, our policy discussion will focus specifically on the merits of the SHSAT, as it is currently used.

In terms of proposals for replacing the SHSAT, most reform advocates have called for a new policy of "multiple measures," but recommendations for what these would include have been inconsistent. Measures that have been mentioned include school-based work such as grades and state exams, while others add recommendations, attendance, essays, and other ideas. Some advocacy has called for an in-depth effort to study and develop the appropriate mix of measures. Leaders of this side of the debate are largely racial and economic justice groups.<sup>4</sup> A complaint to the United States Office of Civil Rights against the use of the SHSAT was submitted by the NAACP Legal Defense and Education Funds, representing a range of social and economic justice advocacy organizations including the Community Service Society of New York, which has produced this document.

2. Defenders of the current policy claim that the SHSAT represents the most merit-based, fair, and appropriate mechanism for determining admission into the specialized high schools. They generally argue that only a single, objective exam can truly assess students solely on the basis of their ability.<sup>5</sup> In their view, the only way to keep school admissions fair and outside of potential corruption is to use the current test. In particular, they point to the potential subjectivity of measures such as grades, and argue heatedly against less academic measures such as attendance.

Those leading this side of the debate are alumni organizations and some groups of parents of current students.<sup>6</sup>

To date, the debate between opponents and supporters of the current admissions policy has been highly charged. Racial justice and advocacy groups stand on one side, decrying the lack of presence of the groups they tend to represent; pitted against alumni and parent organizations, defending the institutions to which they and members of their family worked hard to gain admission. Alumni groups may see the challenges to admissions policy as a threat to their own legacies of achievement, so it is understandable that they might take the debate very personally. Similarly, the starkness of the racial disparities, in a city such as New York, which in many ways prides itself on racial diversity, spurs strong emotions on the part of advocates for reform.

#### Missing from the Debate: Empirical Analysis of Student Data

Notably, the debate around specialized high schools has not been informed by an empirical analysis of data about admissions into these schools. When advocates against the SHSAT have cited research, it has tended to be not directly about New York City students and the test itself, but rather about high stakes testing more broadly, admissions policies at other high schools, and even use of the SAT at colleges. Arguments supporting the SHSAT tend to be based on theory—that use of other measures would lower standards or not be objective. And, as mentioned above, proposed reforms to the SHSAT have not been specific, nor have they modeled how different approaches might play out in terms of the characteristics of students receiving offers, particularly with respect to assessing student merit and academic achievement.

To advance beyond the current impasse, we need to ground policy discussions and proposals in data about student achievement, and performance on the SHSAT as compared to other measures. Only with a rigorous analysis of these data can we seek to develop and connect an understanding of student achievement to broader concepts of merit, and the role that our specialized high schools can play in rewarding it, and providing opportunities to New York City's best students.

New research from NYU offers a new starting point for examination and discussion of SHS admissions. Below, we briefly summarize that work, and later, offer a policy proposal that we believe is grounded in the empirical analysis conducted by its authors. The proposal presented here does involve assumptions and beliefs about larger concepts of student merit and the role of public institutions in New York City, but we attempt to balance those with the findings of the NYU research. We also seek to address the major concerns and values that have been expressed by the supporters of the current admissions policy, principally as they relate to subjectivity and the potential for corruption of the SHS admissions process.

#### The Problems with the SHSAT

The challenges of the SHSAT have been well documented, but not widely understood or accepted. One major study by an economist found challenges to the predictive validity of the exam, noting that it "flies in the face of accepted psychometric standards and practice." <sup>7</sup> And the New York City Department of Education has not publicly presented any research to support the exam's validity, nor about the extent to which the test controls for bias against any particular racial or ethnic groups, a practice generally utilized in high stakes exams offered in diverse student environments.

Perhaps the most glaring challenge to the exam is how it is scored. For example, as The New York Times pointed out, "a student with a 99 percentile score in math and 49 percentile in verbal would have been admitted to Stuyvesant High Schoolthe most coveted specialized school-but a student with a 97 in math and 92 in verbal would not."8 This guirk provides an advantage to students with the resources to attend test preparation programs, and New York City is now home to an industry supporting SHSAT prep. (In a survey of 638 of his 849 fellow classmates, one Stuyvesant student found that those who received the highest scores were more likely to have attended programs that focused specifically on test gaming strategies from day one, rather than programs that focused on teaching the math and verbal content on which the test is based. In his examination of prep programs, he also found that the free programs offered by the public school system focused far more on content, and less on test-taking strategies, than private courses.)9

Other complaints about the SHSAT have less to do with its particulars, and more with its being a high stakes exam. Many education experts are out of favor with giving too much weight to single tests, as can be noted with the de-emphasis of the SAT at colleges and universities, in favor of more holistic means of assessment, supported by research that the SAT is not as predictive as high school grades.<sup>10</sup>

Another challenge to the fairness of the SHSAT is that not all students prepare for the exam as part of their academic program in school. Study for the SHSAT generally occurs outside of the curriculum, and for those with the resources to afford them, in highly specialized prep programs. Although the public school system does offer some free programs, a vast private industry exists to help students prepare for the SHSAT.

#### **Our Assumptions and Beliefs**

This document offers a proposal for reforming the admissions procedures at the specialized high schools. Too often, the beliefs that underlie a policy discussion have been implicit, muddled, or altogether avoided. We feel it is important to be transparent about the set of assumptions and principles have guided our development of this proposal. They include:

- Rewarding academic merit must be at the heart of any reform – admission to these schools should be offered to those students who demonstrate high academic merit. Recognizing and focusing on this principle cannot be understated. The specialized high schools were created in order to offer unique, highly rigorous academic environments, and this must remain the focus of their admissions policy.
- Objectivity is of paramount importance arguments about the subjective nature of grades and other suggested measures are perhaps the most salient and defensible argument among those resisting a change in the current policy. It will be difficult to find common ground with defenders of the current policy without making a significant attempt to allay their concerns about the slippery slope of subjective measures.
- Admissions policies should seek to avoid assessment tools that are too closely linked with socioeconomic status and other variables out of a student's control – we should seek to ensure that a family's resources should not outweigh more independent measures of academic merit. To the extent possible, measures of merit that are less influenced by family resources should supersede those that are more influenced by them.
- **Performance in middle school should matter** in school achievement, measured as objectively as possible, in the years prior to high school should play a major role in determining access to high school.
- Context is a piece of the puzzle education policy must recognize the differences in opportunity faced by different students. Competition for the specialized high school should remain a largely citywide competition. However, there must be some acknowledgement of the massive inequalities in opportunity that students across New York City face. As a range of research and data illustrate, it is simply impossible to understand merit and achievement without considering the differences in opportunities faced by students in different communities.

# New Research and Its Implications for Policy

Researchers at NYU have recently conducted empirical analysis of data on students applying to specialized high schools, to an extent far beyond that which has been conducted in the past.<sup>11</sup> The findings of their work offer considerable new guidance to policymakers examining specialized high school admissions.

The authors present three major findings:

Performance on the SHSAT correlates strongly with • other assessments, but is not a complete reflection of conventional measures of student achievement, on either state-level objective measures of proficiency (ELA and math exams that are given to all public school students) or school-level measures of performance (grades) or effort (attendance), all of which are strong predictors of high school and later achievement. Specifically, the study finds that Asians, whites, and males simply perform better on the SHSAT, even when controlling for these other measures. Asians, in particular, are much more likely to have higher SHSAT scores at all levels of their other achievement. This is true even when controlling for state ELA and math exams, as well as subjective measures such as grades, and non-academic predictors of success, such as attendance. Although there is a strong relationship between state tests, grades, and SHSAT results, SHSAT scores seem to also capture something else. Also complicating this picture is that fact that low-income students, who are more likely to be black and Latino, are less likely to take the SHSAT, even at higher levels of achievement according to other measures.

"The SHSAT does appear to be a barrier to diversity in the specialized schools." – NYU study

#### Implications for policy

This finding implies that SHSAT scores are capturing something that other objective measures of proficiency, such as state exams, are not capturing, and that this difference has strong racial and ethnic associations. It is not clear what is causing this gap: be it some separate type of academic ability; having received unique preparation for this particular test; a bias towards certain groups; etc. But what is clear is that current SHS admissions may not be as directly connected as possible to how students are performing in middle school. And if one believes that SHS admission should be reflective of middle school achievement, even on the most objective of measures (such as state exams, which are the measures by which schools are rated), this reveals something potentially problematic about the SHSAT.

These findings might support claims that the exam is unfair in that it is not fully linked to general middle school curricula/instruction, which all students receive, and may be more connected to extracurricular preparation that is open to only a subset of students with the resources and/or wherewithal to obtain such support. Related, these findings may support the contention that there are methods to "game" the test that are taught in extracurricular prep programs, due to the particular method by which it is scored.

There are some low-income students with high scores on state exams that are not taking the SHSAT, and thus not allowing themselves to be eligible to receive an offer to attend a specialized high school. Their numbers are small, but not insignificant; these students are relatively more likely to be black and Latino, and reside in low-income communities.<sup>12</sup>

• Even more broadly, performance in middle school, in and of itself, is not strongly connected to admission into the specialized high schools. The NYU study finds that students who receive offers to specialized high schools come from an extremely small relative number of middle schools: 4.5 percent of middle schools receive 50 percent of all offers; another 11.5 percent of schools get 35 percent of offers; and students from the remaining 84 percent of middle schools receive just 15 percent of offers to specialized high schools. Notably, the NYU study finds that this is not directly due to "strengths" of these middle schools—rather middle schools seem to be just sorting students who have shown the ability to score highly on assessments at a much earlier age. More than half of the students who end up receiving offers to the SHS attend "gifted and talented" or otherwise screened middle schools that already required a test for admission at an earlier level.<sup>13</sup>

"In sum, if there are middle school effects on specialized high school admissions, they appear to operate on the application margin rather than SHSAT performance." - NYU study

#### **Implications for Policy**

This means that the SHSAT, for an overwhelming majority of students, appears to be a process of filtering out where a student stood in 4th grade, or even earlier, given that gifted and talented exams are taken at the pre-kindergarten through second grade (ages 3 to 7). For those dubious of the SHSAT, the research might lend some weight to a claim that the exam is simply measuring much more systematic, longer-term advantages for certain students, and merely perpetuating structural socio-economic inequalities. To them, it may seem unfair that getting into an SHS seems strongly determined by ages 4 to 7, and the racial and ethnic disparities in exam results reflect family circumstances that are present at birth and influence early school placement, more than innate academic ability. Others might argue that the SHSAT is measuring intelligence and ability to achieve that is present very early on in young people's development. Under this line of thinking, some kids are simply very bright, and this is clear as early as age four. But this belief would have complicated implications for how

we think about the inherent abilities of students of different races and ethnicities. Given that performance on Gifted and Talented exams mirrors that of the SHSAT, this might imply either that white and Asians students in New York City are simply much more intelligent than black

 Admissions mechanisms that would provide more racially balanced student bodies at the specialized high schools would need to take into account socioeconomic differences inequities that present themselves geographically. The study modeled a series of different admissions policies using data on state exams, grades, and other measures. The authors find that several policies that do not rely on the SHSAT do little to change the makeup of SHS admissions unless they deal with broader economic inequalities that are reflected in the geographic distribution of students across the city.

#### **Implications for Policy**

It is clear that the geography of New York City, much of which is driven by socioeconomic circumstance, has an overwhelming relationship with a student's likelihood to be offered admission into a specialized high school. Unless the socioeconomic and geographic context of a student's experience is taken somewhat into account, efforts to reform SHS admissions will have little impact on diversity.

#### **Uniting Research and Policy Considerations**

When we attempt to unite the above-listed assumptions and principles with the objective empirical analysis conducted by NYU, we come to the following two major conclusions about the current system, which lay the groundwork for the specifics of our proposal for reform:

The SHSAT is not an ideal assessment tool. While it is strongly linked with other objective measures of achievement, there are too many unexplained differences in performance between it and other conventional measures of achievement. The fact that it is separate from the universal preparation that students receive in school creates too much potential benefit to the students with the resources to engage in extracurricular test preparation and tutoring. And given that there is no official validation of the SHSAT that has been publicly presented by the NYCDOE,<sup>14</sup> it does not have an adequate defense to charges of bias, or its ability to be gamed. We see a clear need to use an assessment tool that is more closely aligned with preparation that already happens in school. Finally, as the NYU study finds, a not insignificant number of highachieving students (which the study defines as having state exam scores greater than one standard deviation above the mean test score) do not even take the SHSAT.

• State exams represent strong alternative options – These mandatory tests of proficiency exams offer alternatives without many of the pitfalls of the SHSAT. In line with the concerns of the defenders of the current policy, these tests are as objective as any other. And the fact that all students receive a strong level of targeted preparation for them, due to their importance within each middle school's overall academic program, creates a much more level playing field across students. These exams have been standardized to specific content and skills that New York State has determined for middle school, and validated against different types of bias.

Middle school performance does not matter enough in SHSAT admission. It does not appear that exceptional achievement in middle school plays enough of a role in the SHS admissions process. An overwhelming share of specialized high school offers go to students who appear to have been tracked into specialized programs between the ages of 4 and 7. As a result, too many students appear to be virtually shut out of the SHS track by an extremely early age—this runs counter to our beliefs about what should matter and when in determining high school admissions.

• We have to open a path to SHS for very high achievers from across the city – We should find a way to reward middle school achievement for the 85 percent of young people who did not make it into the small handful of likely feeder schools by age 7.

# **Our Proposal**

The goal of our proposal is to use new research to find a way to meet the primary concerns of both sides of the specialized high school debate. Defenders of the current system voice strong support for objectivity in rewarding merit and the highest levels of achievement. Opponents of the current policy argue against particularities of the SHSAT, and call for including a consideration of context and resources as greater factors in admissions decisions.

We offer a proposal that attempts to meet the following concerns of each side. The major components of our program include:

- 1. Replace the SHSAT with a single, combined score on state Math and English Language Arts (ELA) exams taken in the 7th grade
- Preserve citywide, rank-order competition—the current policy—as the overriding admissions mechanism. Under our proposal, approximately 91 percent of SHS offers would be made to students who would have received offers under a complete, citywide, rank-order competition, as is currently the case for the SHSAT, but instead using combined state exam scores.
- 3. Award a small portion of offers, approximately nine percent of the total seats in specialized high schools, to students whose combined Math and ELA exam scores place them in the top three percent of their school, providing that these students also meet a minimum required score that places them within the highest 16 percent of scorers citywide.

- Replace the SHSAT with a single, combined score on state Math and ELA exams. We propose that New York City replace the SHSAT as the basis for measuring the academic merit of SHS applicants, and instead use students' combined scores on the 7th grade Math and ELA state exams.<sup>15</sup> We believe that this change should be acceptable to both sides of the SHS admissions debate, for several reasons:
- Objective assessment: using state exams allows for objective measure of achievement that would avoid favoritism or other gaming of the system—that could occur by using grades or other subjective measures of achievement—a primary concern of the supporters of the current system.
- *Inclusion and access:* since all public school students receive intensive preparation for and take these state exams, students would not be filtered out of the admissions process, as many currently are, by having to take test that is outside of the standard school program.
- *Curricular alignment and validation:* Since these exams are explicitly linked to New York state standards, students would be directly and objectively rewarded for their proficiency in the areas in middle school academic areas.
- Leveling the economic playing field: although there would likely be a growth in private-sector preparation programs for state exams as a result of this change, potential advantages would be mitigated by the fact that since state exam performance is such an important part of how middle schools themselves are assessed, all students, regardless of whether they participated in outside, private prep programs, would receive a significant amount of preparation, as they already do.
- *Saving parents' time and energy:* using state exams would save tens of thousands of parents from the time, energy, and money they currently spend on helping their students prepare for the SHSAT. Although parents would likely redirect much of those energies

supporting students on state exams, many are doing so already, given the existing importance of state exams. And since state exams are more explicitly based on middle school standards, those efforts would have a more direct impact on helping students learn the specific content and skills relevant to their schools' curricula.

- 2. Preserve citywide, rank-order competition as the overriding mechanism for admission. Under our proposal, 91 percent of offers would be awarded to students who would also receive offers using only a citywide, rank-order competition (as is the case for 100 percent offers under the current system). For these 91 percent of all students receiving offers, only their assessment exam would change, from the SHSAT to the combined state Math/ELA exams.
- 3. Award a small portion of offers, approximately nine percent, to the very highest achievers from each public middle school across the city. We would also offer admission into at least one specialized high school for students who score in the top 3 percent of their school's entire grade in each year's state Math and ELA exams. Offering automatic admission into the specialized high schools for students in the top 3 percent of their class would reserve approximately 9 percent of SHS seats for students who would not gain admission through the rank-order competition.

In order to ensure that the new policy does not sacrifice high academic standards, all students eligible for admission under the 3 percent plan would also have to meet a high minimum score on their Math/ELA exams. Students who fall within the top 3 percent of their class but do not score at least one standard deviation above the citywide average would be removed from the pool of students receiving offers to specialized high schools. This would ensure that all those admitted to the specialized high schools fall within the very top tier of achievers (approximately the top 16 percent of citywide scorers) on state exams.<sup>16</sup> This aspect of our proposal is designed to meet the valid concerns of opponents of the current policy. Above all, this mechanism recognizes the difference in opportunity, rewarding and incentivizing high achievement for all students, regardless of their family, community, and school's resources. Students from every school in New York City would have a much clearer path to the specialized high schools, depending on their ability to achieve at an elite level in their middle school.

#### Smaller details of our proposal include:

- Only students in schools with 8th grade classes of at least 33 students would generate a full admissions offer to at least one student. There are numerous students who attend schools with fewer than 33 students.<sup>17</sup> To address this, we would group students from schools with smaller 8th grade classes into a separate competition, from which the top three percent would be offered SHS admission.
- Currently, about 20 percent of the offers made each year to the specialized high are to students who attend private or parochial schools and who also take the SHSAT. Under this proposal, these interested applicants would take the state Math and ELA exams currently taken only by public schools students. Our simulated model of offers under this system, which uses 2013 data and is presented below, predicts the Math/ELA exam scores of such students based on their SHSAT scores.<sup>18</sup>
- This proposal currently only deals with a pool of eligible students for all of the specialized high schools, taken together. We are not proposing a way to allocate the seats at each specific school, which would depend in part on the preferences of students. The NYCDOE could also develop more specific mechanisms to allocate seats across the schools, using some combination of rank order and the percentage plan. Any policies that used anything other than rank order for the three original SHS would require a change in state law.

#### Simulation:

# How would this proposal change the makeup of the composition of students receiving offers to specialized high schools?

We used data provided to us by the NYCDOE to simulate how our proposal would play out using information from students who applied to the specialized high schools in 2012. Using the guidelines of our proposal, we first created a pool of students whose combined Math and ELA 7th grade test scores placed them in the top 3 percent of their school. We then eliminated students who did not meet our proposed minimum requirement of having test scores at least one standard deviation of the citywide average, (which is statistically the same as being in the top 16 percent of all scorers citywide).<sup>19</sup> This generates about 1,838 of the 5,232 total offers<sup>20</sup> to the specialized high schools. We then generated the remaining 3,394 available offers to all other students, in rank order based on their combined Math and ELA scores, citywide. But even though being in the top three percent generates 1,838 offers, we find that 1,369 of these students would have been admitted anyway if we solely used citywide rank, without consideration for whether or not students' scores were in their school's top 3 percent.

When we look at the overall group receiving offers under our proposal, we can differentiate two groups of students:

- Ninety-one percent of offers would be made to students in citywide rank order based on their combined test score. All students with combined test scores between the 93rd and 100th percentiles on the combined 7th grade Math and ELA exams would receive offers under our proposal.
- Nearly 500 students (469), approximately nine percent of all offers, have combined scores that place them outside of the top 5,200 scores in citywide, rank order. All of their test scores fall between the 86th and 93rd percentiles of scorers and within the top three percent of all scorers their school. We refer to these 500 students receiving admissions offers under our proposal as the 86-93-3% group.

Together, these two pools comprise the approximately 5,200 offers that are typically made to students for the specialized high schools. We examined this group of 5,200 students and compared them to the roughly same number of students who actually did receive offers to specialized high schools in 2012, through complete use of the citywide, rank order scores on the SHSAT.

# **Our Findings**

When we compare the 5,200 students receiving offers under our proposal with those who actually did receive offers in 2012 due to rank order use of the SHSAT, we find the following:

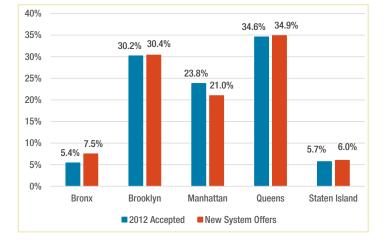
- 1. Math and ELA proficiency levels of students receiving offers to the specialized high schools would, on the whole, increase under our proposal
- 2. The geographic diversity of students receiving offers would increase under our proposal
- 3. The racial and ethnic diversity of students receiving offers would increase under our proposal
- 1. Math and ELA proficiency in the specialized high schools would increase. Under our proposal, both the average and median state exam scores of students offered admission into the specialized high schools would increase, from 1423 and 1417, to 1432 and 1425, respectively.<sup>21</sup> This is largely due to the fact that under the current system, there are students who score well on the SHSAT despite relatively low scores on their state exams, largely due to poor results on the ELA test. The unique scoring of the SHSAT allows those same students to make up for unremarkable scores on the verbal section of the SHSAT with extremely high scores on the math section. Combining state exams scores would admit students with more balanced abilities, according to the state exams that measure proficiency in these areas.

Another reason that Math and ELA proficiency increases is due to the fact that using state exams instead of the SHSAT widens the pool of eligible students, resulting in offers to high achieving students who have not taken the SHSAT. As the NYU research has found, a not insignificant number of high achieving students, who are more likely to be black and Latino than SHSAT takers, become eligible for consideration for admission to the specialized high schools under a system such as the one we propose.

It is also important to note that the differences between students admitted through the rank-order pool and the 3 percent pool are not vastly different. As mentioned above, approximately 91 percent of the students who receive offers for being in the top 3 percent of their school would have received offers anyway under a citywide rank-order system. Overwhelmingly, students who fall in the top 3 percent of their school's test scores are the highest achieving students across the city. Our proposal also ensures that outliers who fall in the top 3 percent but are not high achievers are not considered due to the use of the minimum score requirement.

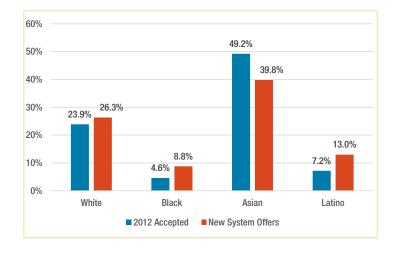
 Geographic diversity in the specialized high schools would increase. Under the new system, the Bronx, the borough that currently receives the lowest shares of SHS offers, would receive a higher share of offers. Brooklyn, Queens, and Staten Island would all see very slight increases, while Manhattan's share of offers would drop.

These changes are even more apparent at the neighborhood level. A group of neighborhoods in the South Bronx represent the poorest area in the city, with an average poverty rate of 40 percent. In 2012, just 72 students from these areas received offers to attend a specialized high school; under our proposal, 152 would receive offers. In Brooklyn's Bedford Stuyvesant,



Borough Park, and Brownsville communities, whose combined poverty rate is about 37 percent, offers would increase from 53 to 84.

3. Racial diversity in the specialized high schools would increase slightly, but to a notable degree. In the proposed system, the shares of black and Latino students given offers to the specialized high schools would increase by about four and six percentage points, respectively. And while these groups would still be relatively underrepresented, their share would nearly double, from 4.6 to 8.8 percent for black students, and from 7.2 to 13.0 percent for Latinos. Asian students would remain a strong plurality, receiving 40 percent of all offers under our proposal.



#### Who's In, Who's Out?

As discussed above, 91 percent of the students receiving offers in this proposal would have received offers in a citywide rank-order competition, as is the current policy (albeit using state exams, instead of the SHSAT). These nearly 4,800 students represent the 93rd through 100th percentiles of scorers on the combined state Math and ELA exams. The major difference in our proposal—aside from the use of state exams instead of the SHSAT-is the awarding of the remaining nine percent of offers. Instead of giving offers to approximately 500 students at around the 93rd percentile of scores citywide, our proposal instead gives offers to 500 students with test scores somewhere within the 86th and 93rd percentile of scorers, if those students also fall within the top three percent of all the 7th grade test scorers in their school. We are rewarding 500 students for being in the very top of their class, despite having combined Math and ELA test scores that are a few percentiles lower than the group that would now just miss the cut.

A deeper look at these newly rewarded students offers several points that justify this policy:

• There is little difference in academic ability of students receiving offers under the new policy—if anything, new offer recipients would be stronger students. First, it is important to note that the Math and ELA proficiency

of the 86-93-3% group, as represented by their 7th grade test scores, are very high—these are strong students, who all have scores at least one standard deviation above the average combined test score. Their scores are just several points below that of the group in the 93rd percentile that is not receiving offers. The modal (most common) score of the 93rd percentile is 1408, compared to 1407 among the 86-93-3% group.

When we compare their scores to the bottom decile of those who received offers under the previous policy using rank order of the SHSAT (instead of who would recieve offers under a rank-order of state exams), we find that the 86-93-3% students in our proposal actually have significantly higher state test scores than the bottom decile of students that would have been admitted using the rank-order SHSAT, whose state exam scores range between 1339 and 1389, with a modal score of 1389. (Although the gains are largely from higher ELA, not Math scores.)

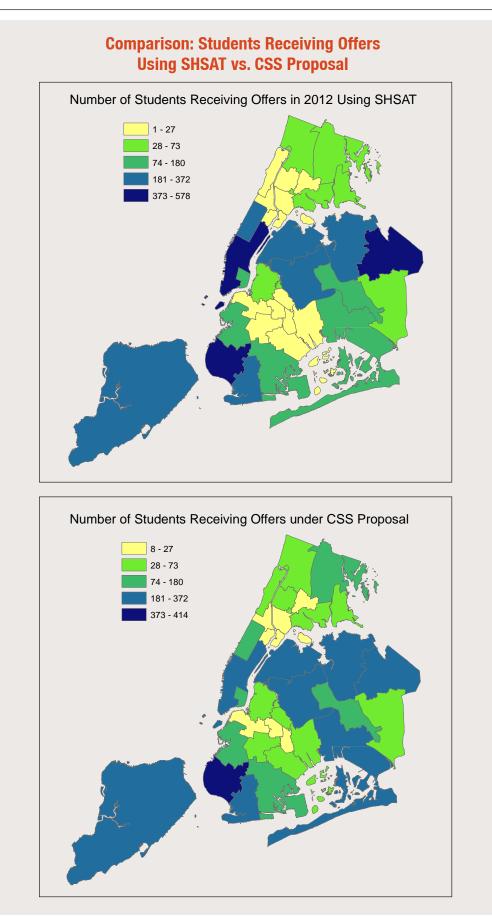
 The new policy would provide strong incentives and rewards for achieving academic success despite living in the poorest neighborhoods in New York City. The 500 students in the 86-93-3% pool come from schools and communities that were extremely underrepresented in the specialized high schools. The new policy appears to provide strong incentives for students in low-performing schools—whose students enjoy relatively fewer resources—to achieve, offering the rewards of an elite high school for their efforts to overcome whatever obstacles are in their path. When we examine middle schools in the poorest neighborhoods in New York City, we find dramatic increases in offers to specialized high schools, as noted above.

One related possible critique of our proposal is that it might create incentives for families with more resources to send their children to lower-performing schools, thus taking the opportunities ostensibly in place for other students. Yet even if this were to happen, the considerable research showing the value of increasing the socioeconomic diversity of school environments might suggest that the benefits of these changes would supersede the specialized high school considerations.

Another possible critique is that this proposal still places a high emphasis on standardized tests, by substituting state exams for the SHSAT. We would argue that the 3 percent plan portion of offer allotment answers one of the major complaints about standardized tests, in that they tend to favor students from better-resourced communities. Another possible option to add to our proposal that might also ameliorate concerns over testing emphasis would be to lower the eligibility bar-which we have proposed at one standard deviation of the state test mean score, being within the top 16 percent of scores-and add a grades requirement. For instance, eligibility for consideration could instead be the top 20 or 25 percent of scores, if students also have a 90 grade point average.

# Conclusion: A Policy that Recognizes Context, Without Sacrificing Merit

We believe that the above findings offer a strong case for why the New York City Department of Education should consider this proposal to reform the specialized high school admissions process. As a starting point, we have attempted to taken into consideration the key concerns of each side of the existing SHS admission debate. This proposal utilizes findings of new, objective analysis of students applying to specialized high schools in order to craft a policy that builds off the findings of this work, while also addressing the leading concerns of supporters and opponents of the current policy. Finally, we simulate how our proposal would create a new population of students receiving offers that is both objectively strong in terms of academic ability, and also incentivizes and rewards achievement among the very highest performing middle school students who face the greatest obstacles to success.



# NOTES

1. We are extremely grateful to the New York City Department of Education (NYCDOE) for providing us the data to use in this study.

2. Under New York state law, admission to the three original Specialized High Schools must be based "solely and exclusively" on student's rank-order scores on an admissions exam. The reforms discussed in this proposal would thus require a change in state law if they were to affect those three schools; it has been debated whether the changing the remaining five school's admissions policies would require a change in state law, or whether local policy could simply remove their recent designation as specialized high schools.

3. CSS analysis of NYCDOE data and income data from the American Community Survey of the United States Census Bureau.

4. Al Baker, "Scant Support for Elite New York High Schools' Admission Options," *The New York Times*, June 9, 2014, available at: http://www.nytimes.com/2012/09/28/nyregion/ specialized-high-school-admissions-test-is-racially-discriminatory-complaint-says.html?\_r=0

5. Ibid

6. Statement on the Brooklyn Technical High School Alumni Foundation website, most recently visited on March 10, 2015: http://www.bths.edu/apps/news/show\_news.jsp?REC\_ ID=315274&id=35

7. Joshua Feinman, High Stakes, but Low Validity? A Case Study of Standardized Tests and Admissions into New York City Specialized High Schools, Nat'l Educ. Pol'y Ctr. (2008), available at http://epicpolicy.org/publication/high-stakes-but-low-validity

8. David Herszenhorn, "Admission Test's Scoring Quirk Throws Balance into Question," *The New York Times*, Nov. 12, 2005, available at: http://www.nytimes.com/2005/11/12/ nyregion/12exam.html?pagewanted=all

9. Tommy Lin, "The Relationship between Specialized High School Admissions Test Preparation Methods and Household Income as an Explanation of the Racial Admissions Gap," Stuyvesant High School Senior Class Project, June 2014.

10. William C. Hiss, Valerie W. Franks, "Defining Promise: Optional Standardized Testing Policies in America College and University Admissions," February 2014.

11. Sean P. Corcoran and Christine Baker Smith, "Pathways to Elite Education: Application, Admission, and Matriculation to New York City's Specialized High Schools" Working Paper, The Research Alliance for New York City Schools, March 2015. It should be noted that the authors of the NYU report were not able to access and analyze SHSAT scores for their study; they were only able to see if students had high enough scores to receive offers. Our dataset does include specific SHSAT scores, allowing us to conduct some additional analyses. http://steinhardt.nyu.edu/ research\_alliance/publications/pathways\_to\_an\_elite\_education

12. Ibid and CSS analysis of NYCDOE data.

13. Corcoran and Baker Smith.

14. Complaint from NAACP Legal Def. and Educ. Fund, Inc., LatinoJustice PRLDEF, and the Ctr. for Law and Soc. Justice at Medgar Evers Coll., City U. of N.Y. to U.S. Dep't. of Educ 18 (Sept. 27, 2012) http://www.naacpldf.org/files/case\_issue/ Specialized%20High%20Schools%20Complaint.pdf.

15. Just as changing the use of the SHSAT would require a change in state legislation, using the state exams to determine high school entry would as well. A 2014 state law prevents use of state exams, on their own, to determine school admissions. So, to implement our proposal, this law would also have to be changed. Another alternative would be to add use of another measure to our proposal, such as a minimum grade point average for consideration. Use of an 85 grade point average minimum for SHS consideration would not significantly change the results of our simulation.

16. The NYU study also used this threshold as their definition of "high-achieving" students.

17. Under our proposal, a school would generate one automatic admission if its 8th grade class has 33 students. Two admissions would be generated for classes of 49 students (the midpoint between 33 and 66 students). Three admissions would be generated with 82 students, with another offer generated for every additional 33 students (four admissions for classes with 115 students, etc.). But all of these automatic offers would be subjected to review based on whether each student's score fell within the top 16 percent of all scorers.

18. Our simple regression analysis of how SHSAT scores might predict state exam scores offers a strong R-squared of .667

19. As mentioned above, we created a separate pool for students with class sizes of under 33 students, and selected the top three percent of those students.

20. In the year we are simulating, 5,229 students were accepted to a specialized high school. However, since we have not introduced.

21. Statistics comparing test scores of different groups only use actual Math/ELA scores and not the predicted values we generated in order to allot SHS seats to private school students.

# Acknowledgements

At CSS, Apurva Mehrotra provided invaluable data analysis, and Nancy Rankin offered crucial editing for this project. Alia Winters and Jeff Jones delivered their usual stellar editorial and design support, and Judy Whiting started CSS' efforts on this issue through her work on the federal complaint. We are also particularly grateful to Michelle Paladino and her team, including Brent Morita, at the Research and Policy Support Group within the NYC Department of Education, for providing us with the data for this study.

We also thank the following individuals for their vauable feedback on drafts of this proposal: Rachel Kleinman of the NAACP LDF, John Garvey, Aaron Pallas of Teachers College, David Bloomfield of Brooklyn College, Sean Corcoran of New York University, and Larry Cary of the Brooklyn Tech Alumni Association. It is also important to note the leadership that other organizations are playing in the Specialized High School debate, including Latino Justice PRLDEF, The Office of NYC Council Member Brad Lander, and the Center for Law and Social Justice at Medger Evers College.

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