



DEGREES OF DIFFICULTY

Boosting College Success
in New York City

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Center for an Urban Future (CUF) is a leading New York City-based think tank that generates smart and sustainable public policies to reduce inequality, increase economic mobility, and grow the economy.

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DEGREES OF DIFFICULTY

New York City's high school graduation rate hit an all-time high of 76 percent in 2016, up from 50 percent in 2000.¹ This is a tremendous accomplishment, and a credit to the educational reforms put in place over the past 15 years by Mayors Michael Bloomberg and Bill de Blasio. But if New York City is going to lift more of its residents into the middle class, it will need to go beyond getting New Yorkers to the high school finish line. To expand opportunity in today's economy, policymakers and education officials in New York will need to make similarly dramatic improvements to the rate at which New Yorkers earn a college credential.

Today, far too few New Yorkers who receive a high school diploma are succeeding in college. Only 22 percent of students who enter community college associate's degree programs at the City University of New York (CUNY) earn a degree in three years.² In some communities, the completion rate is even lower: 16 percent at Bronx Community College and 19 percent at Borough of Manhattan Community College.³

The graduation rates are also alarmingly low at many of CUNY's four-year colleges, hovering at 55 percent after six years.⁴ Just 27 percent of students enrolling in baccalaureate programs at Medgar Evers College earned a bachelor's degree in that time.⁵ The completion rates were only marginally higher at the New York City College of Technology (32 percent) and York College (41 percent). Even at City College, the six-year graduation rate is only 55 percent.⁶

These low college completion rates are particularly troubling at a time when a college credential has become the floor to achieving economic success. Indeed, 20 of the 25 fastest-growing occupations in the city that pay over \$50,000 annually require a college degree.⁷ Citywide, the average working adult with only a high school diploma earns 32 percent less annually than a worker with an associate's degree (\$27,259 a year versus \$36,101) and less than half the earnings of a New Yorker with a bachelor's degree (\$54,939).⁸

Fortunately, New York City is moving in the right direction. Graduation rates at CUNY's community colleges have steadily improved over the past eight years—from 13 percent to 22 percent. Meanwhile, CUNY has put in place innovative initiatives aimed at boosting student success, including the nationally renowned Accelerated Study in Associate Programs (ASAP) initiative, and Mayor de Blasio has scaled up a promising effort to boost postsecondary readiness among the city's public school students.

But with nearly 8 in 10 students at the city's community colleges failing to earn an on-time credential—along with nearly half of students at CUNY's senior colleges—New York needs to make significantly more progress in tackling its college success problem. This report identifies the multiple barriers to student success and advances practical strategies to get more New Yorkers to graduation day.

This report, the latest in a series of studies by the Center for an Urban Future examining opportunities to expand economic mobility in New York City, takes an in-depth look at college readiness and success among the city’s public high school students. It explores opportunities to dramatically boost the rate at which New York City’s students enter a best-fit college and graduate with a degree or other credential.

Funded by The Clark Foundation, this report draws on data furnished by the New York City Department of Education (DOE) and CUNY, as well as data prepared by the New York State Education Department (NYSED), the Higher Education Services Corporation, Graduate NYC, and the Research Alliance for New York City Schools. In addition, our research included dozens of interviews and focus groups with officials at DOE, CUNY, high schools and colleges, affinity groups, and community-based organizations, as well as leading academic researchers, policy advocates, and high school and college students from across the five boroughs.

It may come as a surprise to many that New York City has a college degree attainment problem. After all, New York is home to an almost unparalleled concentration of highly educated people.⁹ However, more than 3.3 million city residents over age 25 lack an associate’s degree or higher level of college attainment.¹⁰ The result is that, while New York City boasts large numbers of highly educated residents, the share of residents with a college degree is lower than that of many other U.S. cities—behind Washington, San Francisco, Boston, and Denver, among others—and the distribution of degree-holders is wildly uneven across the five boroughs.

Although 60 percent of Manhattan residents over age 25 have a bachelor’s degree or higher, the rate is just 19 percent in the Bronx—the second-lowest rate among the nation’s 100 largest counties. The college attainment rate is particularly low in several of the city’s lowest-income neighborhoods, including Soundview, where just 12 percent of adults have a bachelor’s degree, Brownsville (11 percent), and Mott Haven (9 percent).¹¹

The good news is that a growing number of New Yorkers are graduating high school and enrolling in college. In fact, New York City provides college access to more high school graduates than most other major cities. In 2014, 77 percent of the city’s on-time high school graduates enrolled in college the following September, compared to 62 percent in Chicago.¹²

Unfortunately, too few students in New York are succeeding once they set foot on a college campus.

The Research Alliance for New York City Schools tracked the entire population of students who entered

public high schools in 2003—some 64,000 ninth graders—for ten years to learn more about their college trajectories.¹³ The data set included all of the city’s high school graduates, including those attending top performing public high schools such as Stuyvesant, Bronx Science, and Brooklyn Tech. Yet only 44 percent of students who graduated from high school on time obtained a college degree by spring 2013, six years later, and another 13 percent were still enrolled.¹⁴

The rates of college success are significantly worse for the city’s low-income students.¹⁵ Just 33 percent of on-time high school graduates in the bottom quarter of family income (\$30,424 or lower) obtained a college degree, compared to 52 percent of students in the top quarter (\$56,492 or higher).¹⁶

An educational pipeline in which only four in ten on-time high school graduates achieve a college degree is failing young adults, employers, and the city’s economy. “It’s not acceptable to have such low completion rates at our colleges and universities,” says Stanley Litow, former president of the IBM International Foundation and the city’s deputy chancellor for schools during the Dinkins administration. “This is a serious crisis. If we can’t improve college readiness and college completion, a large number of students—and particularly low-income students—are not going to be successful.”

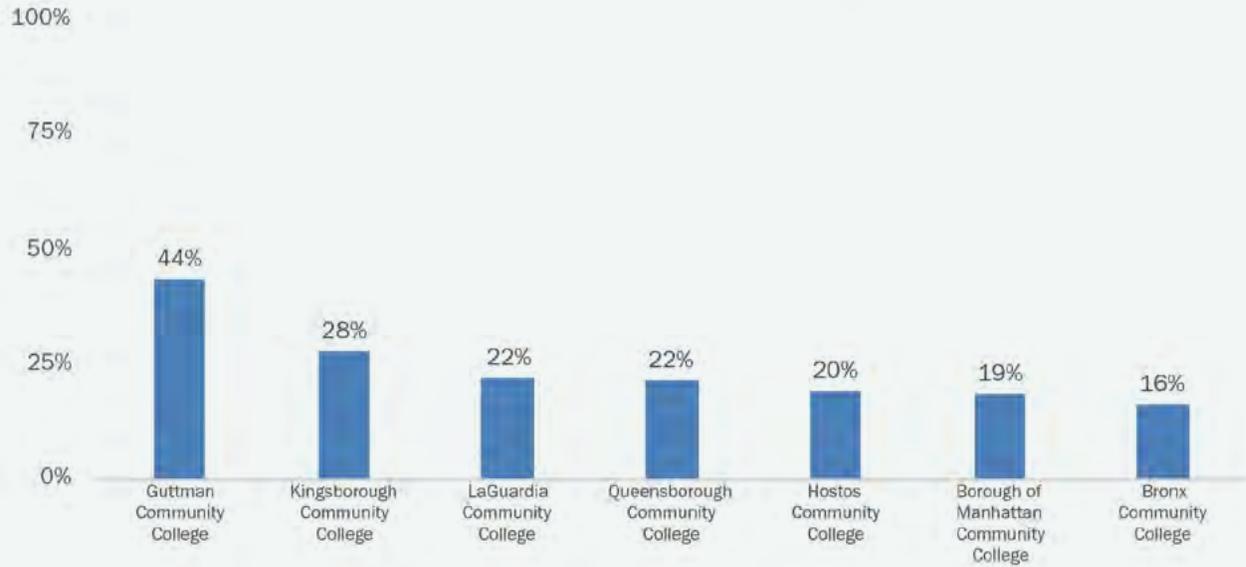
The biggest opportunity to move the needle on college success in New York lies with CUNY. More than 240,000 students are pursuing their associate’s or bachelor’s degrees at CUNY, the largest urban higher-education system in the United States. Six out of every ten New York City high school graduates entering college attend CUNY institutions, and roughly half of all incoming CUNY first-year students attend community colleges.¹⁷

CUNY arguably provides New York City’s most reliable springboard to the middle class, and is far more effective in that role than colleges in most states. A national study by the economist Raj Chetty and colleagues, which analyzed the impact on economic mobility across generations of virtually every higher education institution in the United States, found that CUNY colleges accounted for six of the ten colleges with the highest rates of inter-generational economic mobility.¹⁸

CUNY has also showed more innovative spirit than most college networks in seeking to boost college success, launching path-breaking programs like ASAP, CUNY Start, and College Now. Yet, even with these important efforts, an alarming share of New Yorkers who enroll in CUNY institutions never receive a credential.

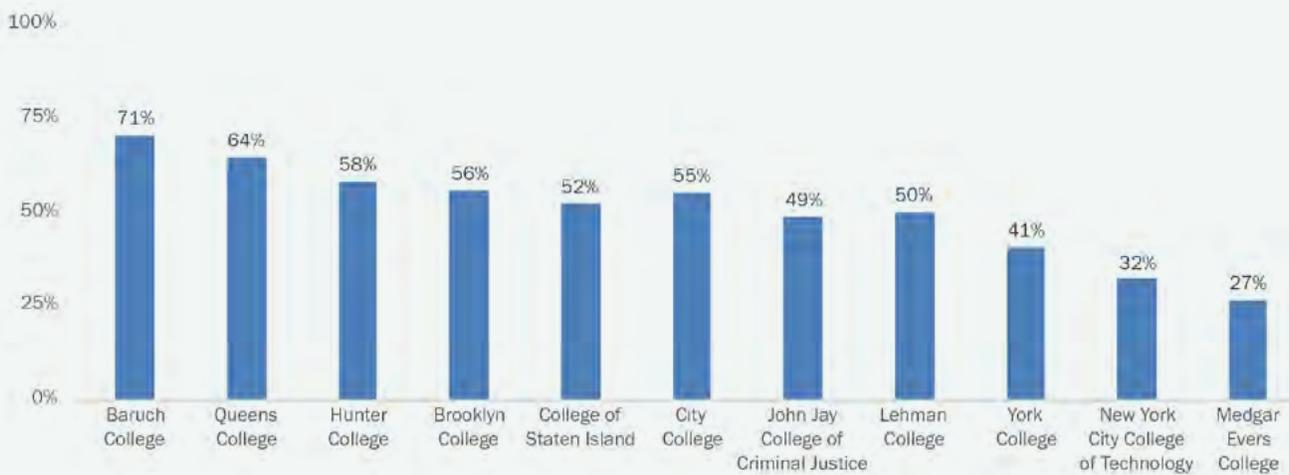
Of the seven CUNY community colleges, none has a three-year graduation rate higher than 30 percent,

**CUNY Community College Graduation Rates
Share of Students Who Earn an Associate's Degree Within Three Years**



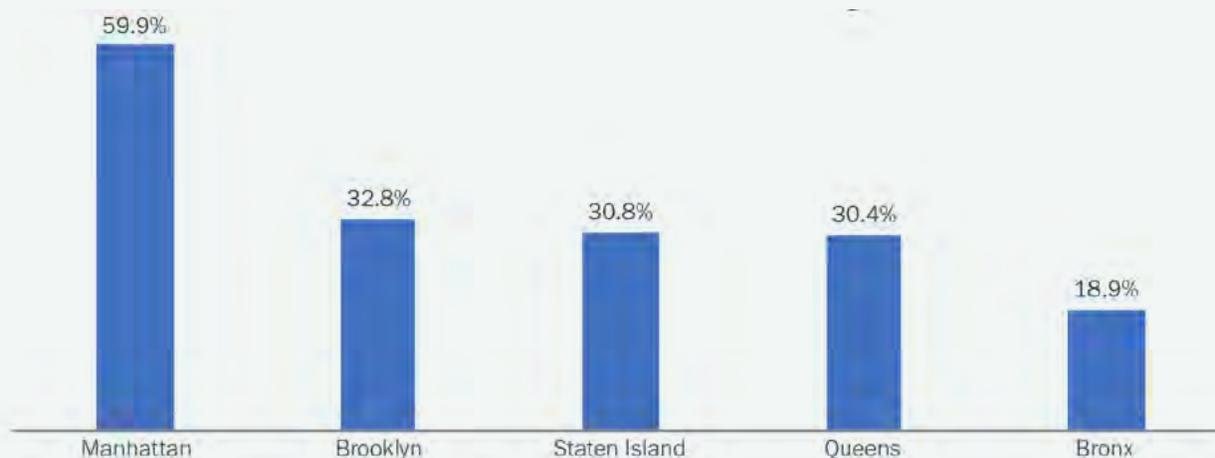
Source: CUNY Office of Institutional Research. Data is for the fall 2013 cohort.

**CUNY Senior and Comprehensive College Graduation Rates
Share of Students Who Earn a Bachelor's Degree Within Six Years**



Source: CUNY Office of Institutional Research. Data is for the fall 2010 cohort.

Share of Adults with at Least a Bachelor's Degree, 2015



Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates; Data is for population 25 years and older.

save for Guttman Community College, which was established in 2012 to serve as a laboratory for innovative student success strategies and, with fewer than 1,000 full-time students, is by far the smallest in the system. At five of the seven, the graduation rate is under 23 percent.

Low graduation rates go hand in hand with high dropout rates. At all of those campuses except Guttman, at least half of incoming first-year students had dropped out within six years (although about one in six transferred out of the CUNY system, where their outcomes could not be tracked). The dropout percentage was particularly high at Bronx Community College (59 percent) and Hostos Community College (55 percent).

Half of all incoming first-year students also drop out within three years at CUNY's four comprehensive colleges, which offer both associate's and bachelor's degree programs. At Medgar Evers College, for example, only one out of four students (24 percent) earns an associate's or bachelor's degree within six years, while 64 percent drop out.¹⁹

Although CUNY's seven senior colleges post higher graduation rates, they too struggle with college success. Roughly 55 percent of incoming first-year students graduate from the senior colleges with a bachelor's degree in six years. Yet only one, Baruch, has a six-year graduation rate above 70 percent. There

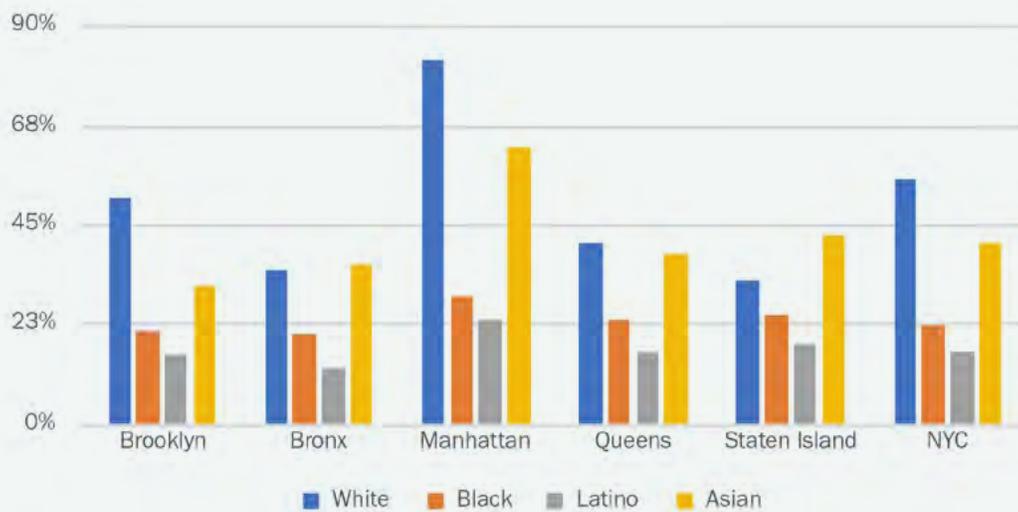
is clear room for improvement at institutions such as York College (41 percent) and Lehman College (50 percent). Overall, at nine of the 11 CUNY colleges offering bachelor's programs, the six-year graduation rate is under 60 percent.

These challenges disproportionately affect students of color, who comprise 79 percent of all CUNY undergraduates and 85 percent of students at its community colleges.²⁰ A June 2017 study by the Research Alliance for New York City Schools found that black and Latino students dropped out without a degree more often than white and Asian students, causing racial achievement gaps to widen slightly after students left high school.²¹

New York is far from the only city with low college completion rates.²² College success is a major problem for urban systems of higher education nationwide, and New York City's system in particular is faced with complex challenges compounded by poverty, underinvestment of public dollars, and the many competing pressures on low-income students. But if New York is to make more substantial and lasting progress in reducing inequality and expanding economic opportunity, the city and state will have to make tackling the college success problem a top priority.

A host of factors contribute to the city's troubling college completion rates. Too many students enter CUNY campuses wholly unprepared academically and

Share of Adults with at Least a Bachelor's Degree, by Race/Ethnicity, 2015



Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates; Data is for population 25 years and older.

socially to succeed in college. Many low-income students struggle to navigate the high school-to-college transition, yet few students receive adequate advisement in either high school or college. Perhaps most important, a host of financial burdens—including living expenses, books and computers, and even the cost of a MetroCard—regularly cause students to drop out. Our research identified eight core problem areas that are dragging down college success rates and derailing students from the path to a degree.

Finding the Gaps: The Obstacles to College Success

Financial burdens make staying in college unsustainable for many students. A significant share of students who drop out of CUNY colleges and community colleges do so because of financial pressures. Seventy-one percent of students attending CUNY community colleges and 54 percent of those enrolled in CUNY's senior colleges live in households earning less than \$30,000 a year.²³ More than half of all community college students have an annual household income of less than \$20,000. For many of these students, the cost of attending school—and importantly, not simply the cost of tuition—simply becomes untenable.

Even though CUNY tuition is relatively affordable and the vast majority of its students qualify for financial aid, countless low-income students get tripped up by other everyday expenses, from meals to day care to

the cost of a MetroCard. For students living at home, CUNY estimates indirect costs of nearly \$10,000 per year, in addition to tuition fees. For students living on their own, that estimate more than doubles.

The pressure to work while in school poses additional burdens; 53 percent of all CUNY students report working for pay. Meanwhile, numerous students end up losing their financial aid—sometimes because of simple application mistakes, but often because state and federal tuition assistance grants expire long before many students have completed their coursework.

Administrators at Kingsborough Community College, for instance, discovered that three-quarters of students who dropped out after their first year had financial red flags on their account: half owed money to one college office or another, and one-quarter had lost their financial aid. Leaders at other colleges recount similar experiences. “Poverty is the number-one reason community college students are dropping out,” says Gail Mellow, president of LaGuardia Community College. “They have to work.”

Too many low-income students struggle to obtain—or hold onto—financial aid under the state’s generous but deeply flawed TAP program. New York State’s Tuition Assistance Program (TAP) is more generous than most other state need-based financial aid programs, covering up to \$5,165 per year in tuition costs. Yet because of TAP’s burdensome rules and restrictions, countless

students exhaust their financial aid well before they complete their coursework and numerous other low-income students never qualify or lose eligibility.

The state does not track how many students exhaust TAP eligibility, but sources interviewed for this report say the number may be well into the tens of thousands each year. TAP provides three years of funding for students seeking an associate's degree and four years for students seeking a bachelor's degree—a much shorter eligibility period than federal Pell Grants. At CUNY, for example, only about four in ten of the 29,000 students who enrolled in fall 2010 and graduated in six years completed within the TAP eligibility period (although some students may have additional semesters of eligibility if they left and then re-enrolled).²⁴ Furthermore, some college students leave without a degree after burning through their TAP benefits or take out burdensome student loans. Students obligated to take developmental education courses are far more likely to exhaust TAP early, since developmental education courses qualify for financial aid but provide no credit toward graduation.

In addition, several classes of students are effectively barred from accessing TAP benefits, including most of the 103,000 students attending CUNY on a part-time basis and students who want to accelerate their path to a degree by studying in the summer.²⁵ Others receive lower benefits, notably married independent students.²⁶

High schools are not adequately preparing students for college-level work. Far too many students graduate high school wholly unprepared to succeed academically in college. In 2016, just 41 percent of graduating high school seniors met CUNY's college readiness standard.²⁷ By graduation, just half of all seniors have taken and passed even one approved rigorous college-preparatory course or assessment.

The Department of Education also tracks the number of graduating seniors who pass at least one such course or assessment. In 2016, just over half (52 percent) did. At 36 city high schools, more than 90 percent of students passed at least one approved rigorous preparatory course or assessment, but at 48 high schools, fewer than 10 percent of students did.²⁸ Meanwhile, 39 percent of the city's high schools do not offer a college-prep curriculum of algebra 2, physics, and chemistry, according to the Center for New York City Affairs.²⁹ As of 2015, more than half of all high schools in New York City did not offer a single advanced placement course in math.

High schools and colleges lack essential advisement support. Many of the low-income students in New York City's high schools and CUNY colleges could benefit from counseling and advising services at various

points along their path to a college degree—from applying to college and filling out financial aid forms to choosing a major and navigating the sometimes overwhelming mix of course options. Yet, both in the city's public high schools and at CUNY campuses, strong advisement is in extremely short supply.

At New York City high schools, one school counselor serves an average of 221 students.³⁰ At one in six schools, each counselor serves 300 or more students. While private high schools typically boast a college access office with several full-time staff who can meet with students every week, many public high schools lack even a single counselor devoted full-time to college access.

The advisement gap in New York grows even wider as students arrive in college. CUNY officials declined to provide student-to-advisor ratios, arguing that the variety of advising models across campuses make a single metric misleading.³¹ But executives of CUNY colleges and practitioners familiar with the colleges describe extremely high ratios of students per academic advisor, on the order of 600 to 1,000 students for each advisor.

Inadequate access to advisement is an underappreciated problem in a city where 52 percent of community college students are the first in their family to attend college, half are working in a job, and 16 percent are supporting children.³² For many of these students, navigating the transition from high school to college is an unfamiliar and challenging experience. For many other students, the barriers they encounter in other parts of their lives often ripple into their college experience and impact their ability to do all the things needed to keep them on the path to graduation.

“The structure of college financial aid and admissions are broken in ways that necessitate a much more intense counseling system,” says Joshua Steckel, senior college and career planning manager at the DOE's Office of Postsecondary Readiness (OPSR).

Colleges offer students too many choices with too little guidance. The lack of counseling options is compounded by a “cafeteria” model of education that predominates at all but a handful of CUNY institutions.³³ Throughout the CUNY system, courses and programs of study are offered in an unstructured way, with little guidance to help students make decisions that determine whether they graduate on time with a marketable degree. Though this type of educational model is common at colleges and universities across the country, many of the educational experts we interviewed say that it presents a particular challenge for many of the first-generation and low-income students enrolled at CUNY.

“At every one of our colleges, you see dozens of

degree programs,” says Eric Hofmann, assistant dean at LaGuardia Community College. “It’s too many choices.”

A number of colleges around the country are working to clarify students’ choices and structure their route to a degree, an approach known as “guided pathways.” Colleges that use the guided pathways approach give students clearer choices that help them build academic momentum. Within the CUNY system, Guttman Community College and the expanding ASAP program have become nationally known for their guided pathways strategies. However, these programs only serve a small portion of CUNY students.

Too many students are pushed into developmental education, a track that greatly increases the chances of dropping out. Roughly 80 percent of students entering CUNY community colleges each year are placed into developmental education based on a series of assessment tests they take between the start of high school and the start of their first college semester. These students, found lacking college readiness in math, reading, and/or writing, must then complete non-credit remedial courses intended to prepare them for credit-bearing coursework. However, remedial students are far more likely to drop out by the end of their first year and the vast majority will fail to graduate with a degree, while using up their limited financial aid dollars in the process. In fact, nearly 90 percent fail to get a degree within the usual timeframe.³⁴

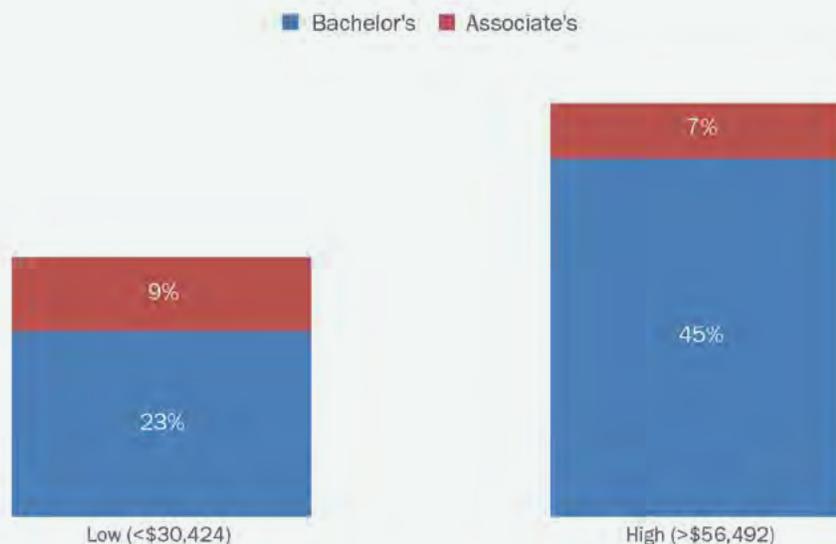
It might be assumed that the students’ lack of academic readiness account for the poor outcomes. But study after study shows that similar students placed into credit-bearing courses succeed at a much higher

rate.³⁵ Community college leaders now know that with the right supports, many first-year students can accelerate their progress through developmental education or even move directly into credit-bearing math and English coursework. A more effective, evidence-based system could enable thousands of college students to pass credit-bearing college courses more quickly and begin working toward a credential.

Until recently, CUNY’s efforts to implement alternative approaches proceeded slowly. Today, the most promising programs serve only a tiny fraction of all students placed into developmental education. To its credit, however, CUNY launched an ambitious initiative in fall 2016 to overhaul its broken placement and remediation system. This promising initiative has the potential to improve CUNY’s ability to accurately place students into developmental education, build stronger supports for students who take either a developmental education course or innovatively designed gateway math courses, and provide faculty with a more decisive role in exiting students out of developmental education. Much of the success of CUNY’s initiative will depend on the willingness and capacity of the individual CUNY community colleges to fully implement it at scale.

New York has not fully leveraged community-based organizations into its support structure for college access and success. New York City is home to dozens of community-based organizations that work to support students in the public education system and help young people achieve their college aspirations. But the city lacks a broad strategy to leverage the contributions of these organizations, or to rigorously evaluate

Degree Attainment by Family Income for NYC High School Graduates



Source: CUF analysis of data provided by the Research Alliance for New York City Schools

their strategies in order to identify and replicate the most effective interventions.

Throughout the five boroughs, community-based organizations offer critically valuable services to aspiring college students, from deep cultural knowledge to credibility with students to a willingness to road-test new approaches. Unfortunately, most have not succeeded in building strong relationships with DOE, CUNY, or other educational institutions. The result is that limited resources are used inefficiently, students fall through the cracks between organizations and schools, and timely, effective interventions may be a matter of luck rather than organized practice.

“There are a lot of educational nonprofits working in New York City,” says Janice Bloom, co-director of College Access: Research and Action (CARA), a leading nonprofit focused on postsecondary guidance for first-generation college students. “But there’s no city-wide game plan on how they should work with schools and colleges, or which ones they should work with.”

Declining state funding for CUNY has hampered promising efforts to boost college success. In recent years, state support for CUNY has failed to keep pace with the significant growth in the university’s student population. In 2009, the state covered 60 percent of the cost of tuition and fees in both direct aid to colleges and financial aid to students, and students paid 28 percent of their own tuition and fees. By 2016, the state was paying only 54 percent and students were paying 35 percent.

The state’s declining support has prevented CUNY from investing in additional full-time faculty, online education, a more robust expansion of ASAP, and initiatives that would support student success—such as student advising and faculty mentoring. “We are in the worst fiscal shape of my memory, particularly at the four-year colleges,” says one longtime CUNY official. The state’s Excelsior Scholarship may help at the margins by attracting additional students to the CUNY system, but program design elements that restrict eligibility and impose post-graduation residency requirements are likely to limit its value to prospective CUNY students.

New York City has increased its funding of CUNY’s community colleges over the years, but its funding of CUNY’s senior colleges has remained at \$32 million for the past two decades, and now covers only 1 percent of their operating costs.

What’s at Stake for New York?

New York has been at the forefront of efforts to lift residents out of poverty, thanks to recent efforts like Mayor de Blasio’s universal pre-kindergarten initiative and Governor Andrew Cuomo’s decision to raise

the state’s minimum wage to \$15 an hour. But to help more New Yorkers actually climb into the middle class, state and city policymakers will also need to double down on efforts to improve student success.

Over the past half-century, multiple avenues into the middle class have shrunk to one: obtaining an education or workforce credential beyond the high school level. The converging forces of automation, computerization, and foreign outsourcing have rapidly eroded jobs for young adults with only a high school diploma or equivalency. Employers seem to value postsecondary credentials more each year.

In New York City, the Great Recession accelerated the erosion of low-skilled jobs. Since 2008, the number of workers with a bachelor’s degree rose by 6 percent and the number with an associate’s degree jumped by 48 percent. But the number of workers with a high school diploma or equivalency dropped by a startling 20 percent.

New York City’s future economic growth in the emerging knowledge economy is also at stake. The city needs to significantly boost the number of adults with postsecondary education to meet employer demand, especially in technical fields.

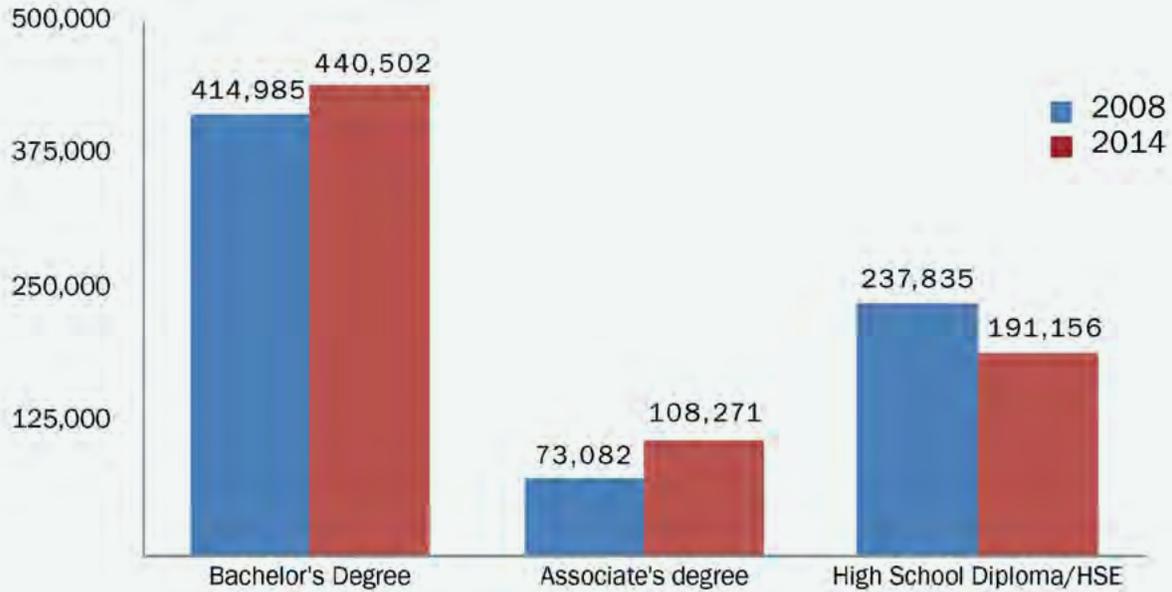
Verizon Communications, for example, hires 12,000 to 15,000 entry-level staff every year, and Director of Workforce Performance Michelle Watts estimates more than half of the company’s hires have college degrees. “What we value is not only their academic skills, but also their ability to continue learning and the life skills they bring,” she says. “It prepares them very well for leadership.”

It is entirely possible for New York to move the needle on student success. Doing so, however, will require a coordinated effort to increase both academic and nonacademic supports, improve college readiness, and help more students afford the pursuit of a college degree.

Although leaders at CUNY and the city’s Department of Education have a major role to play in improving rates of student success, they cannot do it alone. New York City’s college success problem requires a new level of leadership and support from Mayor de Blasio and Governor Cuomo. Although the mayor and governor have each launched important educational reforms—including the governor’s free college tuition plan and the mayor’s universal pre-kindergarten initiative—neither has made improving college success a top priority. This needs to change. As we detail in the report, there is much that the state and city can do to boost rates of student success.

At the state level, the governor and legislators should go beyond their recent efforts to make college

Change in Jobs of NYC Residents by Educational Attainment, Ages 24–35



Source: Current Population Survey

more affordable and support new efforts at CUNY and the State University of New York (SUNY) specifically geared to improving student success. We suggest creating a Student Success Fund—a new pool of money that would empower CUNY to take on a host of student success initiatives. These initiatives could include expanding the successful ASAP initiative, increasing the number of college advisors, developing faculty mentoring programs, designing corequisite instruction models that bypass developmental education, and creating emergency microgrants to keep students from dropping out due to sudden crises.

At the city level, Mayor de Blasio ought to include new efforts to increase college success as part of his agenda to reduce inequality. His administration could play a particularly important role in helping the city's low-income public college students overcome the financial burdens that derail so many on their paths to a degree. In particular, the mayor should support free MetroCards for all community college students, a move that would address one of the key non-tuition related costs that contributes to the high dropout rate. CUNY's highly successful ASAP initiative already provides free monthly MetroCards among its core supports, but this major incentive should be expanded to community college students throughout the CUNY system.

At CUNY, innovative programs and interventions have begun to take root, with meaningful gains

for many students, but there is still much work to be done. CUNY should follow through on its promising initiative to expand the use of alternatives to remediation, which could help scores of CUNY students avoid the trap of taking courses without earning credits. In addition, CUNY should develop and scale a version of ASAP for four-year colleges, and shift more of its campuses to a guided pathways framework to streamline the often-overwhelming path to a degree.

At DOE, substantial gains have been made in high school graduation and college enrollment rates, but much more needs to be done to prepare students to succeed when they arrive at college. DOE should establish a full-time college counselor at every high school, expand the Office of Postsecondary Readiness and give it a leadership role in DOE's college access initiatives, and overhaul math instruction in the city's high schools, among other strategies designed to better prepare students for college.

Finally, given the depth of the problem, the city needs to take full advantage of the kaleidoscope of community-based organizations (CBOs) providing highly successful support for college access and success initiatives. Despite the success of many individual programs, CBOs remain disconnected from the work of DOE and CUNY and underutilized relative to the scope of the challenge.

THE REAL COST OF COLLEGE: MONEY PROBLEMS DERAILED COLLEGE ASPIRATIONS

For the vast majority of New York City’s public high school students bound for college, money is one of the single most daunting obstacles to college success. Time and again, we heard from college administrators, counselors, nonprofit leaders, and college students that financial problems are a major contributing factor in the city’s low rates of persistence and completion.

More than half of the city’s high school students live in low-income households and 60 percent of CUNY students report household income below \$30,000, including 71 percent of community college students. For these students, attending college requires far more than academic aptitude—it means constantly juggling tradeoffs between money and time.

“Our students struggle a lot with the affordability of college,” says Judith Lorimer, director of Goddard Riverside’s Options Center, which supports New Yorkers with getting into, paying for, and graduating from college. “Working is a huge issue. It’s not just being able to pay the cost of college, but also to support oneself in college. We find a lot of instances where a MetroCard or a food stipend make a huge difference in whether a young person can complete or not.”

Although most CUNY students receive need-based financial aid, that aid is rarely enough—especially once students factor in tuition, books, transit, technology, housing, food, and other costs. As a result, students also work and take out student loans, which carry their own painful tradeoffs: either take time away from studying or rack up expenses to be repaid after graduation. Fifty-three percent of CUNY students work for pay, and 50 percent of those who work do so more than 20 hours per week, the point at which work starts to drag down academic performance.³⁶ Indeed, according to CUNY student surveys, over a third of those who work believe that having a job negatively impacts their academic performance.³⁷

In addition, 16 percent of CUNY community college students and 11 percent of students attending

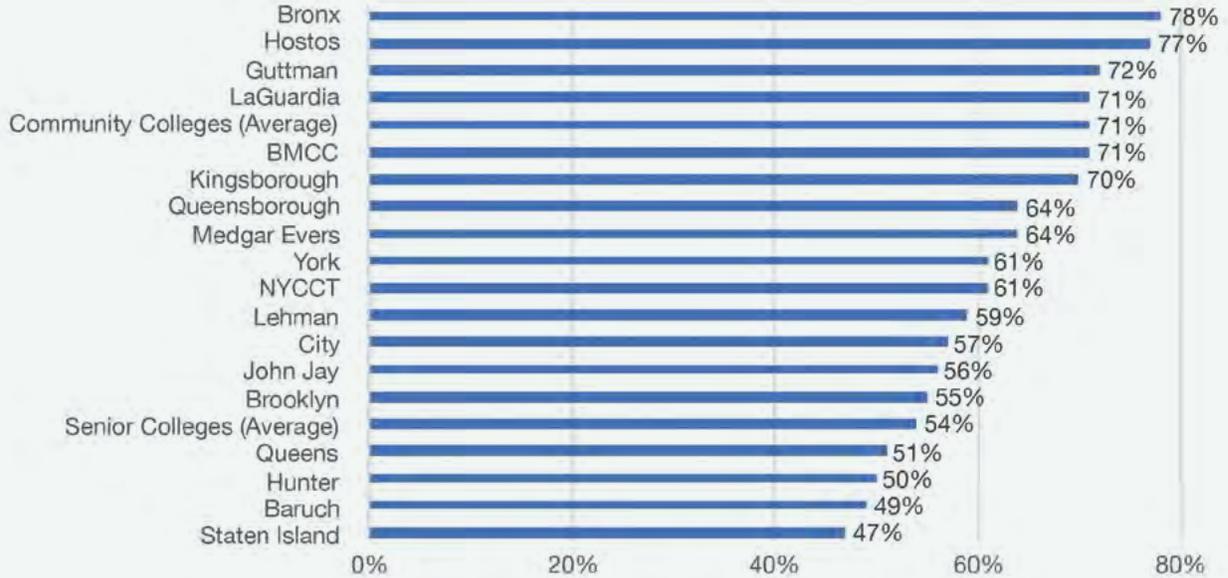
senior colleges have children whom they are supporting financially.³⁸ And that doesn’t count the 82,000 students—more than one-third of CUNY’s undergraduate student body—who study part-time, usually because of work and family obligations.

Despite CUNY’s relative affordability compared to other higher education options, college costs matter at every step of a student’s path. Four in ten CUNY students come from families that earn less than \$20,000 a year, and studies show that high school graduates from low-income families are far less likely to obtain college degrees than graduates from middle- and high-income families. One national study found that only one in four students in the bottom quarter of family income completes a bachelor’s degree in six years, compared to 59 percent in the top quarter.³⁹

“I grew up in New York City public housing,” says David Gómez, president of Hostos Community College. “I’m kind of the great American story. But I have not had to do what my students do every day. I did not have to live in a shelter. I did not have to raise two or three children, hold down four jobs. And when we talk about the cost of education, since most of our students qualify for full financial aid, those aren’t the costs. It’s housing, food, child care—the things that adults have to deal with.”

The financial pressures of college drag down New York’s college completion rates. As then-president of Kingsborough Community College, Farley Herzek set out to understand the factors that precipitate student dropout. Herzek, who has since retired, considered this south Brooklyn community college’s three-year graduation rate of 28 percent to be unacceptably low, even though it is higher than that of most of its peers. Herzek asked for more information on the 3,800 students who failed to return for their sophomore year and one of the findings leapt off the page. Roughly one in four students had lost financial aid, and half had financial stops on enrollment. In other words, they owed the college money.

Share of Students at CUNY Colleges Living in Households Earning Less Than \$30,000 in Annual Income, 2016



Source: 2016 CUNY Student Experience Survey

“For 75 percent of our students not returning [to school in the fall], it was because of money-related issues,” Herzek says. Kingsborough’s research found that the financial problems went far beyond the academic costs of enrollment. “Food was listed as one of the top stressors,” Herzek says, adding that the finding led the college to make free food available.

Tuition and fees at CUNY and SUNY institutions are not terribly expensive compared to the value they provide, and generally in line with rates nationally. Community colleges are a little higher than the national average, while senior colleges are less expensive. In addition, approximately 57 percent of CUNY students attend tuition-free, due to a combination of state and federal financial aid.

But tuition and fees are only part of the cost of attendance, and not the largest part. Students are responsible for books, transportation, food, and other expenses. CUNY estimates that a student living at home pays \$9,762 in personal expenses—almost twice as much as tuition and fees at a CUNY community college. These financial pressures often lead students to make decisions that hurt their academic momentum, such as switching to part-time enrollment and taking jobs unrelated to their major. In addition, students who take out student loans and leave before graduating are at high risk of default, which can have devastating effects on credit scores that linger for years.

One cost in particular bedevils students in ways that do not show up in tables and graphs: the cost of

commuting. Paying for train and bus fare is a daily dilemma for cash-strapped students. At a focus group we convened at Borough of Manhattan Community College, students spontaneously brought up the difficulty of paying for MetroCards to get to their classes. “It got so that I would be at the station,” says one student, “and I would be thinking, it’s either hop the train [jump the turnstile] or go home. So a couple of times I hopped the train.” Other students acknowledged the same temptation, prompting one to recite the steep legal penalty from memory to discourage others from taking the risk.

Despite the severe strain that transit costs place on low-income students, the city and state have made no meaningful effort to alleviate them. CUNY’s ASAP initiative has demonstrated the value of transit subsidies by providing a free, unlimited MetroCard as part of its package of benefits. Yet this benefit is simply not available to most of CUNY’s low-income students.

Financial aid is falling short.

Although financial hardships are a huge reason why so many low-income students end up dropping out of CUNY colleges, the state’s financial aid program comes up short in certain critical ways. These problems—including a limited eligibility period, major gaps for part-time students, and needlessly complex rules—routinely cause students to lose funding and momentum, derailing many from the path to a degree.

New York City high school graduates who attend

college in-state take advantage of two need-based grant programs: federal Pell grants and New York's TAP grants. Both programs cover tuition, expire after a set number of semesters, and are available to students in need who complete the Free Application for Student Aid (FAFSA), the federal form to apply for grant or loan aid. TAP gives New York students an affordability edge over college students in less generous states. A student receiving the maximum TAP grant can cover tuition at CUNY or SUNY while using Pell to cover fees and personal expenses.

Yet TAP falls short of Pell in crucial ways. TAP covers fewer semesters than Pell, provides low or no benefits to many students due to tight restrictions and rules, and imposes a structure of such complexity that many otherwise eligible students lose their benefits.

New York students seeking a bachelor's degree get four years of TAP benefits, while those seeking an associate's degree get only three years (Pell covers six years, even after recent cutbacks). CUNY students are likely to run out of TAP eligibility before graduating. In fact, more than six in 10 CUNY graduates take longer than the maximum eligibility period to complete their degrees. Of those who entered in 2005 seeking an associate's degree and graduated within ten years, only 29 percent completed their degree while still eligible for TAP. Likewise, of those who entered a senior college seeking a baccalaureate degree, only 36 percent graduated within four years.⁴⁰ The rest went at least one semester without TAP benefits.

Entire categories of college students are unable to access TAP benefits. Students who enroll in the summer semester cannot receive TAP, an omission which causes students to skip summer study and lose academic momentum. Part-time students are technically able to receive TAP. But because of a requirement that students attend full-time for two semesters before obtaining part-time TAP (and perhaps because financial counselors rarely mention it), few do. A 2014 Center for an Urban Future study found that in the previous year, only 91 of more than 40,000 part-time CUNY students received financial aid.⁴¹

The complexity of financial aid is an equally serious issue for students, underlined repeatedly by students and counselors with whom we spoke. High school students struggle to complete the FAFSA, often making costly errors in the absence of expert support from counselors. The FAFSA must be submitted annually, and each year many first-year college students fail to renew it and consequently lose financial aid.

TAP eligibility imposes additional layers of complexity. The definition of student income is "unlike any other definition of income used for financial aid purposes," according to a SUNY report prepared for the state legislature.⁴²

One obscure yet highly damaging provision relates

to major selection. Once a student chooses a major, only courses in that major (along with required general education courses) qualify for TAP credit. Courses applicable to a minor are ineligible, as are prerequisite courses. The requirement discourages students from exploring electives. The so-called "TAP-able credits" restriction also punishes students for early selection of a major or for changing a major, since these choices can result in losing TAP eligibility if the student chooses the wrong courses—or courses that a nervous financial aid officer decides are ineligible for TAP credit. Worse, the rule has ambiguous implications, forcing college advisors to figure out how to apply it in various circumstances not written into formal rules.

CUNY officials have become increasingly uneasy with the TAP-able credits rule. "We had a student who couldn't get the course she needed to complete the degree," recalls James Murphy, CUNY's former university dean of enrollment management. "So she took another course, which was disallowed. She didn't get TAP that semester. That happens too often."

TAP's complexity—above and beyond the more commonly discussed questions of benefit and eligibility levels—leads students to lose out on thousands of dollars in financial aid and abruptly find themselves thrust into financial insecurity. "Not having access to TAP funding leaves these young people with constant anxiety about having the funds to buy books, supplies, and Metro-Cards," says Victoria Hult, mid-Atlantic college success director at Let's Get Ready, a nonprofit organization that advises low-income college students. "They have to increase hours at part-time jobs and decrease study hours."

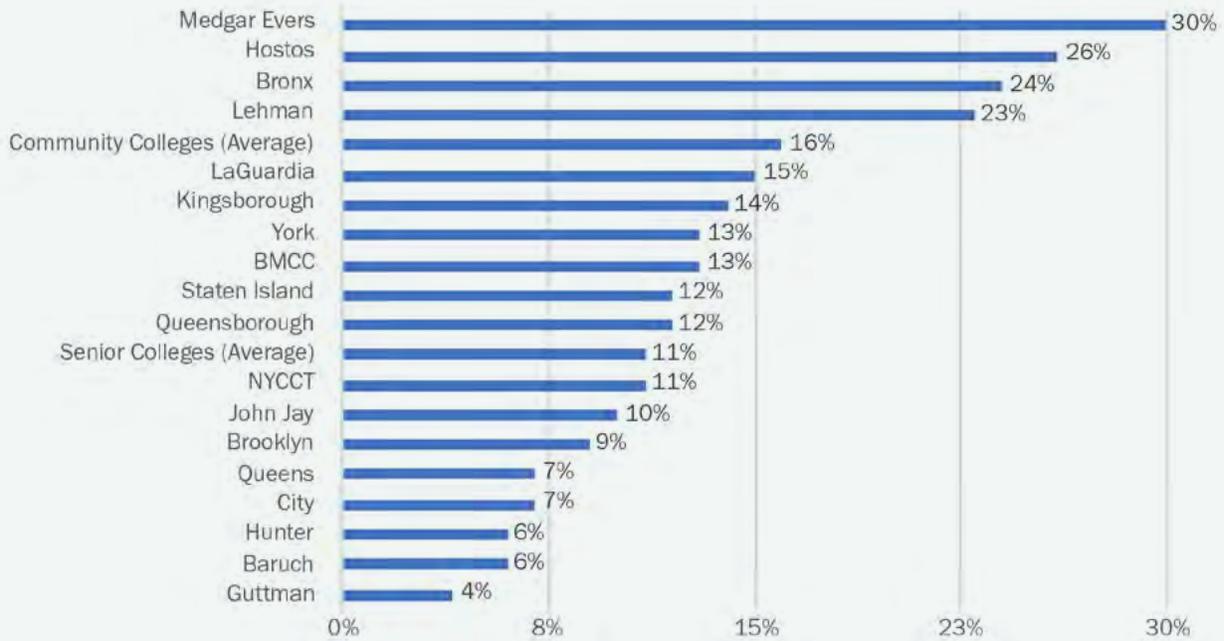
Financial aid officers at CUNY and SUNY colleges have become increasingly cautious and compliance-oriented in their interpretation of state financial aid law, largely due to a series of harsh audits by the Office of the State Comptroller. These audits have exercised a chilling effect on CUNY institutions. "The State Comptroller's Office takes a very conservative approach to TAP regulations," says James Murphy. "The State Education Department backs them on their interpretation even when there has been no history of the rule being applied so conservatively." If the purpose is to safeguard taxpayer funding, these audits are counterproductive. They almost certainly increase financial hardship for students, increasing their risk of dropout and inflicting damage to the state tax base.

Excelsior won't solve the problem.

In January 2017, Governor Cuomo announced the Excelsior Scholarship program, which makes New York State's public universities tuition-free for families making up to \$125,000 per year.

Although the program provides an important

Share of Students at CUNY Colleges Who Are Financially Supporting Children, 2016



Source: 2016 CUNY Student Experience Survey

boost to the college aspirations of students from middle class families, Excelsior offers little to benefit disadvantaged students in New York City. The Excelsior Scholarship is only applied after all other financial aid is counted—including scholarships, TAP, and Pell—and only covers the cost of tuition. Because all other financial aid must be applied before Excelsior, most low-income students will not receive any more support than they do today.

For students struggling with the many non-tuition costs of college—such as fees, transportation, books, food, childcare, or housing—Excelsior does not offer any help. In fact, while New York State is now a national leader when it comes to reducing the cost of tuition, none of these initiatives help tackle the myriad other costs of attending college in one of the most expensive cities in the country.

“It’s not going to help low-income students,” confirms Judith Lorimer of Goddard Riverside’s Options Center. “There’s potential for middle-income students, but there are also a lot of complications and hoops.”

One major barrier is the requirement that students attend college for 15 credit hours per semester, every semester, to maintain eligibility.⁴³ This standard is unrealistic for students who must work and support their families while attending classes, which

further disadvantages low-income, part-time students. The Office of the Governor has announced that just 22,000 of the state’s 605,000 undergraduates are expected to receive Excelsior tuition funding in the 2017–2018 school year, although award amounts are not yet available.⁴⁴

David Gómez of Hostos Community College agrees that the impact is minimal for the city’s most disadvantaged students. “It’s critical that people understand what it is and what it isn’t,” he says. “For those of our students, like our dental hygiene students, who graduate and end up going into professions where they’re earning \$70,000 a year—it may not help you, but it’s going to help your children. But for an institution like ours where students essentially go tuition-free already, it’s not a game changer.”

COLLEGE KNOWLEDGE: STUDENTS FACE HARD CHOICES WITH LITTLE GUIDANCE

Getting into college is not the hardest step for New York City's high school graduates. Three out of four graduates enroll in college every year in the semester after graduation, and another 10 percent enter within another two semesters. But almost half of those aspiring college students fail to obtain a college degree within six years.⁴⁵ They enter facing major obstacles to graduation, including lack of academic preparation, few financial resources outside need-based financial aid, and uncertainty about how to navigate college and plan a career.

These entering students need the best possible advice and support. Navigating the college bureaucracy is extremely complex, especially for first-generation students trying to figure out the best course of action on their own. At CUNY, 52 percent of community college students and 42 percent of senior college students are the first generation in their family to enroll in college.⁴⁶ For these first-generation college students, CUNY institutions often present complex bureaucratic obstacles and sow confusion. The overwhelming choices regarding courses and programs of study, the lack of coordination between types of advising services, and inconsistent use of focused, evidence-based support for incoming students can intimidate students and sap their momentum. Most CUNY colleges have yet to adopt the guided pathways approach used in other parts of the country that clarifies students' educational choices.

Opportunities to trip up and make the wrong choice are plentiful. With more than 1,700 programs of study, CUNY offers a rich—and potentially overwhelming—array of possible majors. At Borough of Manhattan Community College, for example, students can study toward 47 different majors, including three different associate's degrees in accounting, plus a certificate program that includes many of the same courses on a non-credit basis. Efficiently navigating the path to a degree requires enrolling in required courses from week one, which can be particularly difficult for the average community college student who is also juggling a work schedule and family responsibilities along with their course load.

CUNY now offers a web-based advisement and degree-planning tool called DegreeWorks that helps

students identify the courses they will need to graduate. But enrolling in those courses takes savvy, not to mention a generous sprinkling of luck. According to a 2016 survey of CUNY students, three in ten students reported being unable to register for a course. Almost half of those students could not register for at least one course required for their major, and 22 percent could not enroll in a class required for graduation.⁴⁷

“From the point of view of a student, a community college is much more complex for an undergraduate than Columbia,” explains Thomas Bailey, director of the Community College Research Center at Columbia University's Teachers College. “At Columbia, we have roughly 40 majors. Community colleges often have many more. You have this very complex environment [without] the resources to provide the guidance for students to navigate the complexity.”

Students' confusion is worsened by the unavailability of college advisors. At many public colleges, especially in the CUNY system, advising departments are small and overwhelmed, with student-to-advisor ratios of 800 or 1,000 to one. Students are often left to make their choices without college guidance—a minor annoyance for many middle-class students knowledgeable about college culture, but a much more serious challenge for low-income and first-generation students, who lack trusted peers or adults they can turn to for informed advice.

“One time I thought I was going to lose my TAP,” recounts Afridah Rahman, a student at Hunter College. “I was looking at a \$3,000 tuition bill. I had no one to go to. The first time I was on the phone with financial aid so long the office closed. They just said, come back tomorrow!”

“For many of our students, they have been told for most of our lives that they're not college material,” says David Gómez of Hostos Community College. Helping these students to succeed “requires a lot of work, and early intervention,” explains Gómez. “Not just orientation writ large where you herd 300 people [into a room] and talk at them for an hour and a half.”

Transferring from one college to another adds another layer of complexity. Courses taken at a community college may not count for college credit or for credit toward a specific program of study at any given

senior college, even within the CUNY system. Articulation agreements must be negotiated one college at a time, one major at a time, with each course assessed separately by departments at the senior college, leaving students to make transfer choices based on complex and sometimes unreliable information.

CUNY's Pathways initiative has standardized the general education curriculum across colleges, greatly improving the transferability of general education credits to the senior college level.⁴⁸ Yet articulation frameworks are far harder to develop for major credits, which determine whether students can make real progress in their program of study at a community college before transferring to a senior college. In fall 2016, more than 7,000 CUNY community college students transferred to senior colleges, with another 8,000 entering from outside the CUNY system.

CUNY does have a powerful tool for boosting student success through hands-on advising: the Accelerated Study in Associate Programs initiative. ASAP uses an interlocking package of supports—including proactive advising, free MetroCards and books, and block scheduling of classes—to boost student success in associate's degree programs. One rigorous study by MDRC found ASAP to be the most effective student success intervention ever tested.⁴⁹

The de Blasio administration bet on ASAP's value with a major investment to scale up across the CUNY network, and that wager appears to be paying off. The three-year graduation rate at CUNY's community colleges rose from 14 percent for the freshman class of 2008 to 22 percent for the class of 2013. This dramatic improvement, while still far short of an acceptable graduation rate, represents concrete evidence of ASAP's value. Six-year graduation rates at CUNY's senior colleges, which do not use ASAP, barely budged, rising only 3 percentage points (to 57 percent) for students who started between 2006 and 2010. Another program, CUNY Start, rapidly accelerates students' math and English proficiency, dramatically improving the likelihood that students will bypass remedial education.

Still, even the most effective student success initiative is only one component of the systems-level reforms that need to take place in order to significantly refocus attention on the college success problem and support all students struggling to navigate the public education system.

CUNY students often lack access to informed and helpful advising.

Although discussion of student outcomes tends to focus on what happens in the classroom, the supports that students get outside the classroom are just as

important. In particular, academic advising is essential to the success of disadvantaged students. Roughly 40 percent of CUNY undergraduates have no one in their immediate family with a college degree, and they have a lot of questions: how to select their courses, choose a major, arrange courses to complete their major as efficiently as possible, explore subjects that interest them without losing financial aid eligibility, and many more.

These first-generation college students face down challenges that many middle class families take for granted. "The community college students are the ones that haven't been marinated in a college-going culture since the age of two," says Thomas Bailey. "Their family haven't been to college. They don't have a lot of experience or information to draw on."

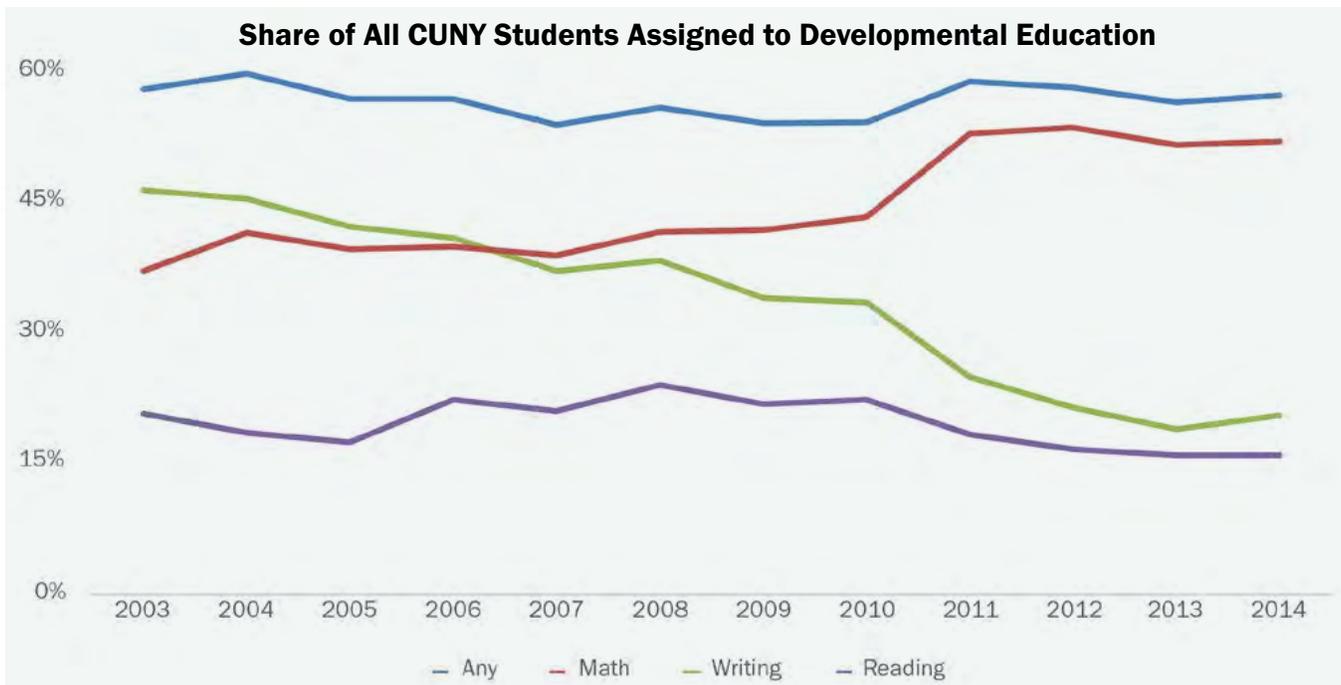
Judith Lorimer of Goddard Riverside's Options Center agrees that many community college students need much more proactive advising than they are often able to receive. "If your parents haven't gone to college, you don't have the context of college," says Lorimer. "[The challenge is] knowing what the system is, how to navigate it, and what the goals are. College is not the end. It's just a means to the next step. But as a whole, we don't do a great job helping students make that connection."

Unfortunately, CUNY's academic advisors too often play a reactive role. Students must make an appointment, and often wait around for access to their advisor due to extreme understaffing. At community colleges and some senior colleges, each advisor serves several hundred students, ensuring that no one student ever gets enough support. The College of Staten Island, for example, employs approximately one full-time advisor for every 940 students, according to a 2013 CUNY internal report.⁵⁰

"I get access to advising because I'm in the SEEK opportunity program," says Hunter College sophomore Darlene Laboy. "But for my friends who aren't in SEEK, it feels like, 'I don't know what to do, and no one seems to be helping me because no one cares.'"

Former Borough of Manhattan Community College student Andre Desir recalled his experience on freshman orientation day. "It's like a cattle pen," says Desir. "You go from one checkpoint to another, but you never sit down with one person to figure out what your interests are, what your skill sets are, what you want to do and why you're in college. They were just turning out students."

"At community colleges in general," says Thomas Bailey, "the main intake process is you arrive, you're sent to testing, and you're told you're not ready. The main counseling area is: which remedial course should you take? We have to put much more emphasis on helping students figure out what they want to do,



Source: CUNY administrative data. Originally sourced from Appendix 2, CUNY Task Force on Developmental Education, September 2016

whether that’s a career or a problem to solve. We need to devote more attention to that and get students to have a plan right away.”

A lack of advising, coupled with the unique challenges facing first-generation college students, means that many community college students never receive the chance to fail that is considered a rite of passage for more privileged students. “I’ve taught at both CUNY, SUNY, and Ivy League schools,” says Lisette Nieves, professor of educational leadership at New York University and a member of President Barack Obama’s Advisory Commission on Educational Excellence for Hispanics. “My Columbia students didn’t have as clear a path either. They just wouldn’t pay the consequences that our low-income students will pay.”

“Other students can make a lot of mistakes and not pay a heavy price for that,” agrees Thomas Bailey. “But with the financial burdens that our students face at community colleges, we need something different. If you are struggling with child care, and your car doesn’t work, and you need to have a job, taking a few years to find yourself and wander through courses—those are really serious problems. We need to devote more time and credits in college to help people understand what they want to do.”

Access to other important services, such as tutoring and financial aid counseling, are rationed as well. Furthermore, students report receiving incorrect information from advisors. One student lost a semester of financial aid eligibility because an academic advisor

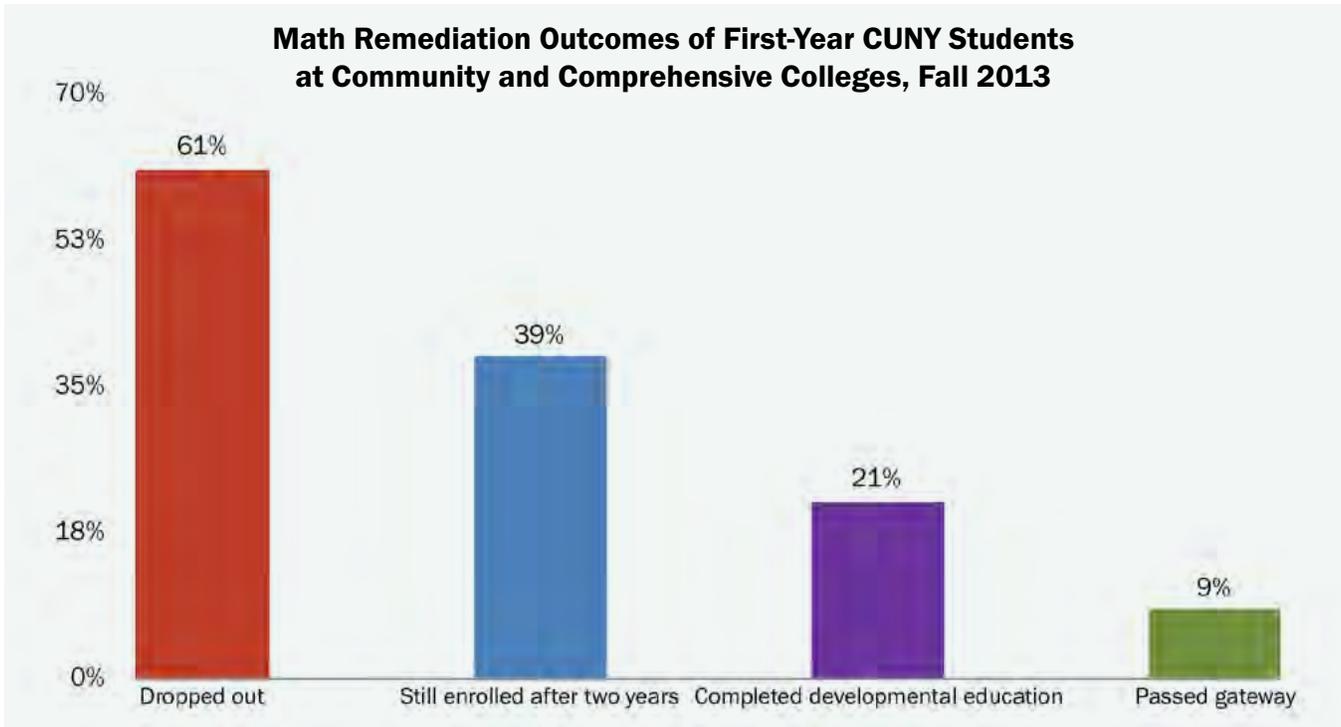
recommended taking a course that turned out to be outside his major, and therefore ineligible for Tuition Assistance Program reimbursement. With fewer than 12 hours of TAP-eligible courses, he was forced to pay for his own courses that semester.

“Young people face a lot of barriers in the system,” says Judith Lorimer. “In the application process, and then on into college, the student is at the receiving end of many institutions. The requirements around financial aid, applying for it and maintaining it—it’s not just the college, it’s also the state, it’s the federal government who set up these invisible barriers that make a huge difference in the trajectory of students.”

Advising could play a much more innovative and effective role in students’ academic lives. One promising model has been dubbed “intrusive advising.” In this model, students are expected to meet with academic advisors regularly in their first year. The CUNY ASAP initiative shows the value of intrusive advising. In ASAP, students get free MetroCards in their first semester of college, on one condition: they must see their advisor twice per month in the first semester, and then monthly thereafter. No visit, no free MetroCard. ASAP’s architects believe that of the various interventions ASAP provides, intrusive advising may be the most crucial in accounting for that program’s high completion rates.

ASAP’s students treasure the advising they receive. “My ASAP advisor is hard on me,” says one student, “but it’s because she cares about making sure I

Math Remediation Outcomes of First-Year CUNY Students at Community and Comprehensive Colleges, Fall 2013



Source: CUNY administrative data

succeed.” However, ASAP is able to play this formative role because its advisor to student ratios are much lower than in the colleges as a whole: about one advisor for every 150 ASAP students. Unless CUNY colleges and universities can staff up to a level that more closely approximates private colleges and universities, they will find it difficult to build ASAP-like support structures to serve all of their students.

Most CUNY schools offer an overwhelming array of disconnected courses, programs, and support services.

Colleges are in the business of offering choices. After all, students enroll in colleges to open up new career opportunities and avenues of personal growth, which will require many consequential decisions along the way. For new CUNY students, the choices to be made are important—and often confusing. Entering first-year students have to navigate four major federal and state financial aid programs, in addition to several smaller ones. They can apply for more than a hundred scholarship programs and seven different support programs, all with varying eligibility requirements and benefits. A high school senior interested in business administration can choose from five types of degrees at 11 colleges. Community colleges will have transfer agreements with some senior colleges to accept major credit, but not others.

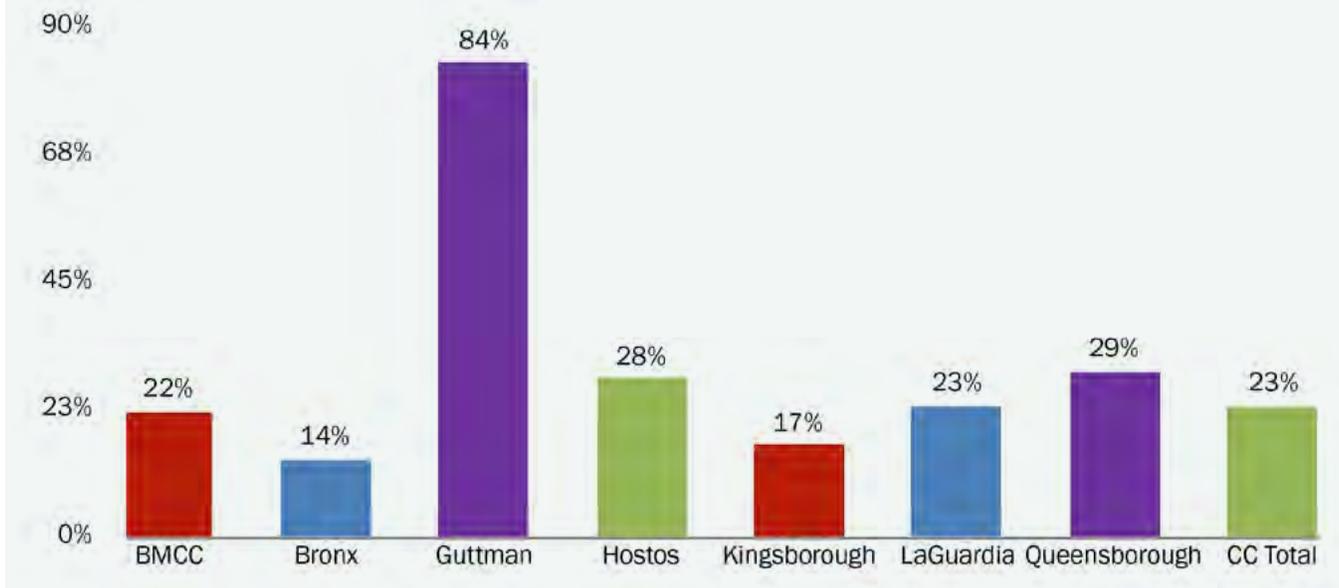
“Students have to choose a major when they apply, and it’s confusing to them,” says Risa Dubow, director

of student success at Bottom Line NYC. She points to other key decision points, such as choosing courses that are eligible for TAP funds, figuring out their transfer options, and learning to use DegreeWorks, the online program that provides valuable degree audit services. “First-generation students in particular are really on their own,” says Dubow. “Many times they don’t even know that there is a system they have to navigate.”

Research in the behavioral and cognitive sciences shows that too many choices, offered without structure, leads to procrastination and paralysis.⁵¹ These findings aptly describe the vast majority of colleges and universities in the United States. A team of researchers at the Community College Research Center, led by Davis Jenkins, distilled the innovative practices of a handful of higher education institutions into an approach called guided pathways.⁵² “There needs to be a real transfer of information,” says Jenkins. “Checking off a box at registration isn’t nearly enough. There has to be an exploratory learning process where students can ask, ‘What am I good at and what am I doing?’”

At a guided pathways college, programs are fully mapped out and aligned with further education and career advancement; students develop academic plans based on these maps when they enter the college; student progress on their plans is closely monitored, with frequent feedback; and early warning systems identify students at risk of failing critical courses. Guided pathways is a strategy for rethinking the relationship between a college and its students to make it more

Share of Students Placed into Math Remediation Who Complete a Credit-Bearing Math Course Within Two Years



Source: CUNY administrative data.

responsive to the needs of students and effective in guiding them to their careers.

“We need to take seriously the guided pathway model and understand that we have to give students more than 10 to 15 minutes or even an hour with a counselor,” says Thomas Bailey. “There’s a huge difference between a student who knows what they want to do and a student who doesn’t.”

Most CUNY colleges still follow the old-fashioned cafeteria model, with too many choices and too little guidance. Yet some CUNY colleges are starting to break out of the “cafeteria model” bind. Guttman Community College is the furthest along. At Guttman, which influenced the development of guided pathways, students are limited to five programs of study. Their first year is highly structured, as students participate in interdisciplinary courses that blur the line between remediation and coursework. They receive intensive advising support and study full-time. As a result, graduation and transfer rates to senior colleges are unusually high, and students have expressed strong satisfaction with their programs of study.

CUNY’s community college system was largely designed more than 50 years ago to prepare students for senior colleges. For the small minority of students who succeed in entering through a community college and graduating from a senior college with a bachelor’s degree, the system is working. But many other community college students lack options to earn employer-recognized certificates in shorter increments of time that are stackable toward a degree—an approach

that other states and systems are implementing successfully. As it begins to develop a guided pathways framework, CUNY has an important opportunity to rethink the programs that are available to community college students, some of whom are not well served by the longstanding focus on traditional four-year liberal arts degrees.

High school counselors also struggle with the maze of CUNY offerings as they coach students on their college applications. “The hardest part of the college application for my students is when they get to major selection,” says college counseling expert Joshua Steckel. “There are literally hundreds of different majors and no hierarchy, so liberal arts looks exactly the same as electrical engineering.”

While Guttman Community College and CUNY ASAP both exemplify guided pathways principles and demonstrate the value of adopting this approach, CUNY as a whole has lagged behind. Outside of New York City, colleges such as Florida’s Valencia Community College (see box on page 21) and Miami Dade College and Ohio’s Cuyahoga Community College are much further along in adopting guided pathways. Fortunately, there is reason to be encouraged that things could change at CUNY over the next several years. CUNY recently inked a partnership with Complete College America, a national organization that provides support for student success reforms, to bring the guided pathways approach to colleges and universities across the CUNY system.

Building guided pathways in Orlando

Valencia Community College, which serves more than 70,000 students at its five campuses scattered around Florida's Orlando metropolitan region, has become a national leader in developing guided pathways. The number of associate's degrees produced at Valencia more than doubled between 2005 and 2014, and its completion rate rose by more than 10 percentage points over that same period.⁵³ In 2014, Valencia became the inaugural winner of the prestigious Aspen Award for Community College Excellence.

At far too many colleges, incoming students get an orientation and then they're on their own. At Valencia, students sit down with an advisor who helps them map out an individualized educational plan, which the student refines and tracks over time using an online platform called LifeMap. First-year students also take a carefully designed course called New Student Experience which helps them to develop skills they will need in college, as well as deeper thought about their career plans after college. Valencia students develop personalized plans for their matriculation through the college, with extensive support from advisors and faculty. Rather than simply choosing a major, for which some students are not ready, students can pick a "meta-major," which consists of a set of courses that fulfill academic requirements for a broad program grouping, such as business or health sciences.⁵⁴

"We work at scale," says Joyce Romano, former vice president for student affairs at Valencia College. "People have a million ideas, but you have to make change at a systemic level."

Valencia College has extended its systems-level approach to high school and college transitions as well. The college funds regional high schools to hire college transition coaches, and it has detailed articulation agreements with the University of Central Florida so that credits earned at Valencia transfer smoothly for students seeking their bachelor's degree.

CUNY is seeking to overhaul a placement and academic remediation system that stalls academic momentum.

Colleges face hard decisions on whom to admit, how to diagnose academic shortcomings that need to be remediated, and how to provide the most effective remediation for each student. These decisions are fraught with consequences for students, especially in the CUNY system, which since 1999 has prohibited senior colleges from providing remediation. That means students with any remedial needs, even as little as a single math or writing course, cannot enroll in a senior college.

Yet CUNY has found its own placement and remediation system may be worsening students' struggles to succeed. Each summer, thousands of recent high school graduates take placement tests in math, reading, and writing. More than half are found in need of remedial instruction before being permitted to take entry-level credit-bearing "gateway" courses. The students then enter a two- or three-course remedial sequence designed by the math department at each community college, or a reading and writing course designed by the English department. The courses are eligible for financial aid but do not qualify for academic credit. They are typically not aligned with instruction in any program of study. Rates of dropout and failure to take or pass gateway courses are extremely high.

Some may argue that it is the students' respon-

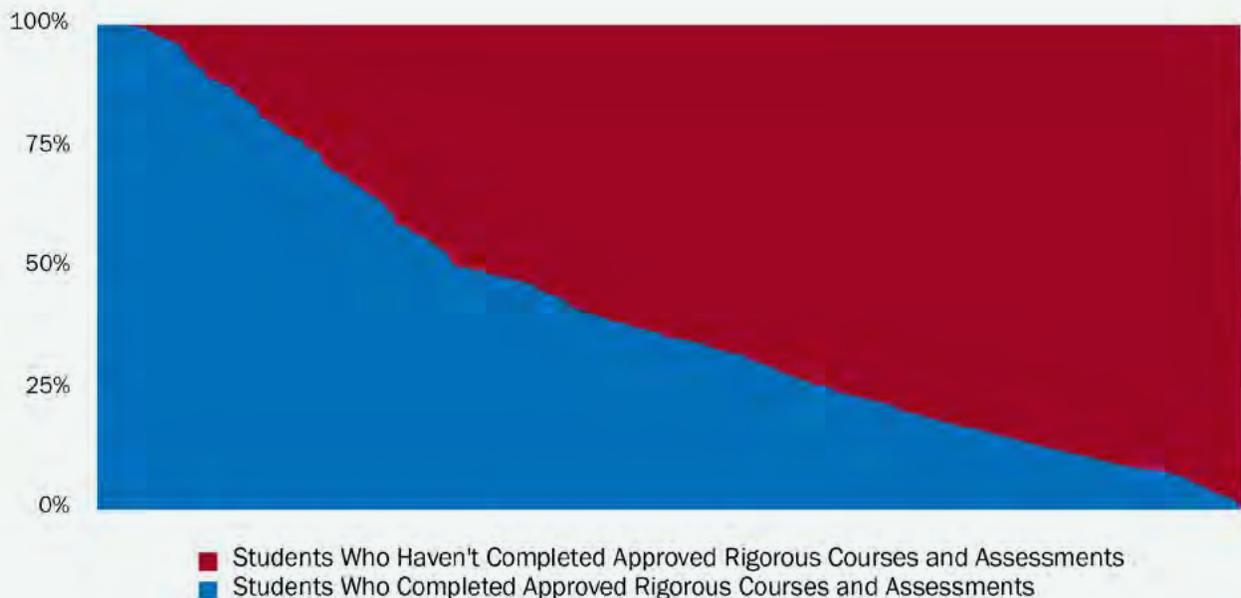
sibility to succeed—or that of the K-12 education system to better prepare them—and that a high dropout rate from developmental education is the natural corollary of open admissions to an academically rigorous system of higher education. Yet studies have found that new students who go directly into gateway courses perform better—accumulating more credits and graduating at higher rates—than comparable students placed into developmental education courses.⁵⁵ Traditional developmental education simply does not work as intended.

Four primary tests determine whether prospective CUNY students are college-ready. To be deemed college-ready in math or English, students must achieve minimum scores on the SAT exam, administered by the College Board; the ACT test, offered by ACT Inc.; or the New York State Regents Exam. If graduates fail to achieve the threshold score in one or more of these standardized tests, they must take the CUNY placement exam in math, reading, and/or writing.

Yet relying on a standardized test to determine such a complex concept as readiness for college-level study invites mistakes. A national study of remediation found that one-quarter of students placed into math remediation and one-third of students placed into English remediation could have succeeded in a college-level course.⁵⁶ A survey of entering community college students showed that six in ten do not even prepare for placement tests, which means that stu-

Percentage of 2015 NYC High School Graduates Who Passed Rigorous College and Career Preparatory Courses and Assessments

At 67 percent of NYC high schools, fewer than half of all graduates have passed a rigorous prep course



Source: New York City Department of Education

dents could be deemed unready because they didn't take a summer test seriously.⁵⁷

Reliance on developmental education is also expensive for CUNY's community colleges, which devote much of their scarce resources to teaching courses that repeat high school material and provide no college credit. In 2016, 16 percent of the instructional costs at CUNY's community colleges went toward developmental education. Guttman College, on the other hand, has managed to shrink its developmental education costs to only 5 percent of its instructional budget by mainstreaming underprepared students into college-level coursework with additional supports.⁵⁸

The record of math remediation is especially troubling, both at CUNY and nationwide. Not only are students more likely to fail developmental math courses than reading or writing, they are more likely to give up college and not retake the class. The rate at which students entering CUNY get placed into math remediation has grown over time, from 37 percent in 2003 to 52 percent in 2014. When CUNY raised its college-ready math standard in 2010, the number of students in math remediation courses jumped by more than 4,000 in a single year.⁶⁰

Internal CUNY data shows how math remediation culls out students. CUNY researchers tracked the entire cohort of 15,279 first-year students placed into

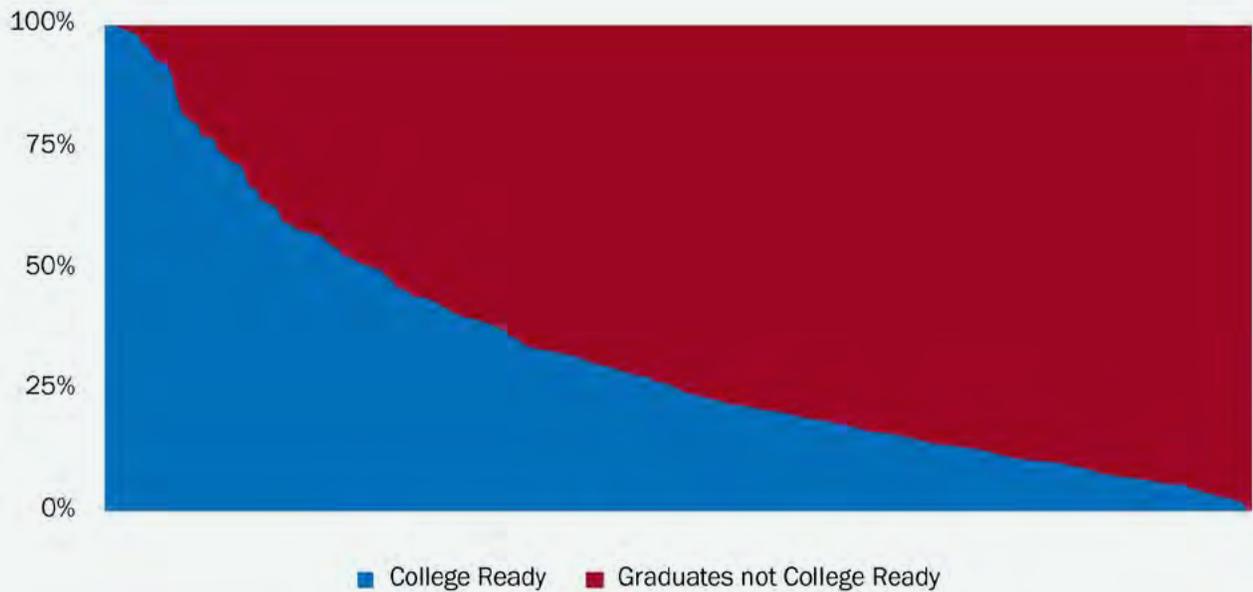
Crash courses save students from remediation

Kingsborough Community College has found remarkable success in one-week boot camps, especially for students falling short in math. The pass rate for students who take the boot camp jumps from 37 percent to 88 percent, says Farley Herzek, Kingsborough's recently retired president. "Most youngsters just need a tune-up," argues Herzek. "If they haven't taken math in two years, they may have forgotten to invert fractions. Teach them that, and they can answer three questions on the placement test correctly."

Incoming first-year CUNY students who score below a certain threshold are referred to developmental education in math, reading, and/or writing. In 2013, 80 percent of students entering CUNY community colleges were referred to remediation, ranging from 75 percent at Kingsborough Community College to 89 percent at Bronx Community College. Most students end up in remedial classes for math needs: 74 percent of entering students were referred for math remediation, compared to 23 percent for reading and 33 percent for writing.⁵⁹

Percentage of College-Ready Graduates at NYC High Schools, 2015–2016

At 76 percent of NYC high schools, fewer than half of all graduates are ready for college



Source: New York City Department of Education 2015–2016 School Quality Report, administrative data

math remediation in fall 2013. After two years, six in ten had dropped out. Two in ten had completed math remediation and fewer than one in ten had passed a gateway math course.

In September 2016, CUNY launched an initiative to entirely rethink its placement and remediation system. The resulting report includes 18 recommendations and calls for changes in three main areas: placement, developmental education, and exit from developmental education.

The placement strategy calls for CUNY to incorporate multiple measures into its placement determination, most notably high school grade point average, and to allow students who score just below the cutoff point on the placement test to retake the test. These steps will have the effect of de-emphasizing the rigid and often dubious outcomes of the placement tests that route so many students into developmental education.

The developmental education strategy focuses on a model known as co-requisite instruction, in which underprepared students are allowed enroll in credit-bearing gateway courses instead of remedial courses, but with the support of weekly workshops that enable them to master difficult concepts. CUNY will also require community colleges to offer alternatives to developmental algebra courses, most notably in the form

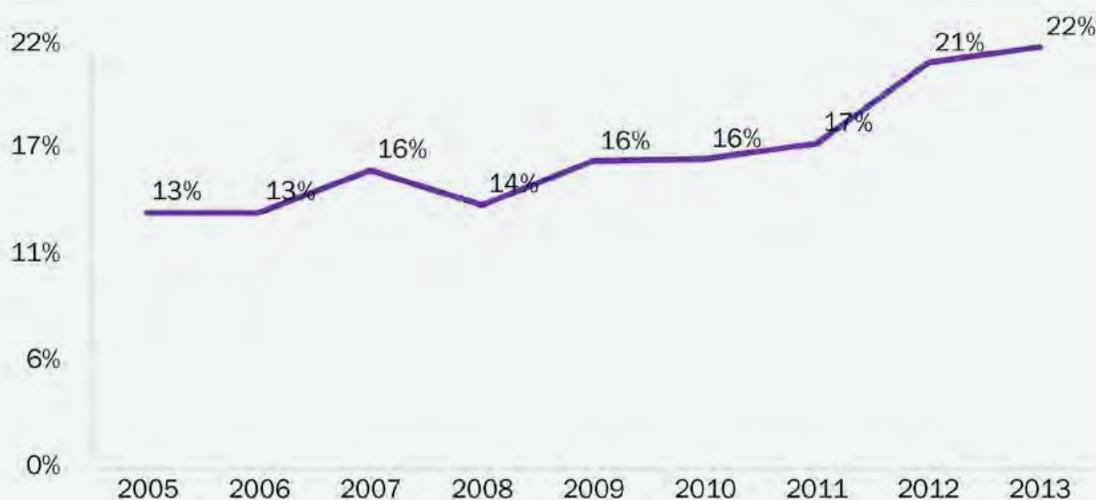
of credit-bearing statistics or quantitative reasoning courses. These courses have proven to be as valuable to many students as algebra courses, and are often more valuable for career purposes after graduation.

Putting statistics and co-requisite instruction together can yield powerful results, as CUNY researcher Alexandra Logue found in a randomized trial of three different developmental education strategies. Substituting a workshop-enhanced gateway statistics course was amazingly effective: 56 percent of students passed it, compared to only 39 percent who passed a developmental course in algebra.⁶¹

Guttman Community College already uses a version of the model Logue tested at scale, and it is extraordinarily effective. At CUNY's other six community colleges, only 23 percent of students placed into math remediation complete a credit-bearing math course within two years. At Guttman, 84 percent complete it.

The strategy also revises the use of the common final exams that students at CUNY must take to exit developmental education. This approach is highly unusual among community colleges, since it creates another barrier that students must struggle to overcome, even if they perform well in their coursework. CUNY's task force decided against abolishing the common final exams altogether. Instead, they proposed

Change in Three-Year Graduation Rate at CUNY Community Colleges, 2005–2013



Source: CUNY Office of Institutional Research and Assessment data

incorporating the exams into the final course in each sequence, counting for no more than 35 percent of the final grade. In addition, students who nearly pass their math remedial course will get short post-semester interventions, after which they can take the final exam again.

The CUNY plan is now in the implementation process.

ASAP and other innovative programs could boost CUNY's completion rate substantially.

The ASAP initiative is a strategy to provide college students with the supports they need to excel, pick up academic momentum, and complete their associate's degree within three years. ASAP is far and away the most effective student success model used at community colleges nationwide. Yet obtaining funding to expand ASAP beyond the pilot program level took years of work by CUNY and its supporters, and still falls short of its full potential scale.

ASAP more than doubles the graduation rate of students who participate by providing multiple supports that work together to keep students on track. What's more, researchers have found ASAP to be so cost-effective that the cost per completed degree is actually about \$6,500 less than for students studying in the traditional approach (and as enrollment in ASAP expands, cost per student is gradually falling).⁶²

But New York, like most states, does not finance colleges based on the number of students they graduate. Rather, New York provides aid based on the number of enrolled students at each college. Thus, doubling the rate at which students graduate provides only modest financial benefit for CUNY's community colleges and therefore fails to create a revenue stream to cover the additional cost of expanding ASAP.

The ASAP initiative launched in 2007, with pilot funding from the Bloomberg administration. From the very beginning, ASAP students graduated at a rate more than double that of other students. In general, 53 percent of ASAP students graduate in three years, compared to 24 percent of a comparison group.⁶³ A study by MDRC found that ASAP's powerful effect did not result from cherry-picking more promising students.⁶⁴

Mayor de Blasio has provided \$77 million in funding to expand ASAP.⁶⁵ CUNY is now preparing to expand ASAP from the current enrollment of about 8,000 to more than 25,000 in the 2018–2019 school year, with a goal of boosting CUNY's total three-year associate's degree graduation rate to 34 percent over the next decade. Already, the expansion of ASAP and related programs has yielded impressive gains in student performance. For the class that started in 2008, only 14 percent graduated within three years. But for

Enrollment in CUNY's two Educational Opportunity Programs has dropped 19 percent since 2010, due to state funding cuts.

the class that started in 2013, 22 percent did—a gain of 8 percentage points, which translates to a 60 percent jump in on-time graduation.

Bronx and Hostos Community Colleges did even better. Both colleges doubled their graduation rates in only five years: Bronx from 8 percent to 16 percent, Hostos from 8 percent to 20 percent. Graduating one out of five students in three years may not seem impressive compared to senior colleges, but the rapid improvement has little precedent in the history of student success reforms at community colleges nationwide. Over the next three years, Bronx Community College is planning to enroll all of its eligible full-time students in ASAP, which should lead to further gains.

Still, ASAP will not serve everyone, even at peak funding. CUNY plans to serve about half of all incoming full-time students seeking an associate's degree in 2019. Students who study part-time or who have more than two remedial needs—a large proportion of the student population at community colleges—are ineligible for ASAP. However, CUNY encourages students with remedial needs to take CUNY Start or Math Start, which can bring them into eligibility for ASAP.

CUNY is aggressively fielding a number of student success initiatives aside from ASAP, most notably CUNY Start—an intensive program for new students who place into remediation. CUNY Start students pay a nominal fee and spend 25 hours each week in an innovative course that accelerates instruction and enables students to quickly get up to speed for college-level math and English coursework. A related program, Math Start, is an eight-week intensive program that focuses on math skills. An internal study found that half of math remediation students got to proficiency through CUNY Start, compared to only 10 percent of students in the comparison group taking traditional remediation.⁶⁶

In addition, CUNY has established a partnership with Single Stop, a nonprofit that coordinates access to the social safety net, to provide CUNY students with all-in-one enrollment in public benefits and other supports. CUNY has established Single Stop offices in each of its community colleges. Students can visit a Single Stop office to be screened for benefit eligibility,

such as Medicaid or the Supplemental Nutrition Assistance Program (i.e., food stamps). The Single Stop coordinator will then assist in applying for benefits, and also provide access to other important services, such as tax preparation, financial counseling, and legal advice. An assessment of Single Stop's community college services found that student adoption rates ranged from 10 percent at Queensborough Community College to one-third of all Hostos Community College students.⁶⁷

New York State's Educational Opportunity Programs have provided important supports for college students for more than two decades. These programs are similar to ASAP in that they offer additional advising and other supports such as tutoring and financial assistance. But Educational Opportunity Programs are less structured than ASAP and, despite being more than two decades old, have never been evaluated to determine their effectiveness. School counselors we spoke with nonetheless considered these programs to be highly effective and worked hard to get their students accepted into them. This is difficult, however, because funding and program availability are sharply limited.

CUNY students can turn to two different Educational Opportunity Programs: College Discovery, which serves community college students, and SEEK, which serves students at senior colleges, and provides the primary route by which a student who lacks full college readiness can enroll in a senior college.⁶⁸ Students enrolled in College Discovery who transfer to a senior college can enroll in SEEK, which provides seamless support that ASAP—since it only exists at the associate's degree level—cannot provide. In 2016, total enrollment in both CUNY opportunity programs totaled 3,043 first-year students, 8 percent of eligible first-years at CUNY colleges and universities. Enrollment in opportunity programs has fallen by one-fifth since 2010, due to state funding cuts.

THE ROAD TO COLLEGE READINESS: NYC PUBLIC SCHOOLS CAN BETTER PREPARE STUDENTS TO SUCCEED

Many of the academic and social challenges that students face when they enter college stem from shortcomings during their time in the city’s public school system. A majority of students graduating from city high school simply aren’t ready for college coursework. Many others struggle because they finished high-school without ever developing a college-going culture.

Although a growing number of city high school students are earning a diploma, too few graduate prepared to succeed in college. Only four in ten graduating seniors are considered ready to enroll in a CUNY institution without taking developmental courses, and about one-half do not pass even one approved rigorous course or assessment over four years—a crucial marker for college readiness.⁶⁹ Better information on college outcomes is making clear the costs of this inadequate preparation. Students who enter CUNY needing remedial courses, for example, are only half as likely to obtain an associate’s degree within three years as those who do not.⁷⁰

Mayor Bloomberg’s third-term chancellor, Dennis Walcott, tightened the focus on college readiness, announcing that DOE’s new standard would “no longer be a high school diploma, but career and college readiness.” DOE and CUNY collaborated to establish the P-TECH early college high school model, expand College Now and dual enrollment programs, and develop indicators that would incentivize high school principals to prioritize college and career readiness. Two key indicators compiled the most important college readiness measures: the College Readiness Index (CRI) and the College and Career Preparatory Course Index (CCPI). These measures hold school leaders accountable for their students’ outcomes beyond high school graduation. But they also provide a dashboard of how the schools are doing, and performance to date continues to lag.

The CRI is based on guidelines established by CUNY for the level of mastery in English and math that a high school graduate should meet prior to entering college. These standards consist of scores in the

SAT, ACT, and Regents tests that CUNY deems high enough to demonstrate college readiness and avoid the need for developmental education in college.

College Readiness Standards, DOE and CUNY		
Test	Subject	
	Reading/Writing	Math
Regents	75 (English)	70 (Common Core Algebra I or Geometry)
		80 (Non-Common Core Integrated Algebra or Geometry)
		65 (Algebra 2/Trigonometry)
SAT	480	500
ACT	20	21

Source: Graduate NYC/City University of New York

As of the 2015–2016 school year, 41 percent of high school graduates were college-ready by the standards of the CRI. At the median high school in New York City, only 25 percent of the cohort graduating on time were deemed college-ready. At 67 high schools, fewer than 10 percent of students were college-ready.

Math is a particularly difficult struggle for many students. More than 22,000 of the 75,500 students who took the Integrated Algebra Regents exam for the first time failed it, according to an analysis by the Center for New York City Affairs.⁷¹ On average, students who flunked the exam had to retake it twice more to pass. At least 2,500 had to take the exam more than five times. These students were struggling to reach a passing score of 65 so that they could graduate from high school, not the much higher score of 80 needed to enter CUNY ready for college.

The College and Career Preparatory Course Index captures the share of students in a school who have successfully completed at least one approved, rigorous pre-college course and assessment after four years of high school. The purpose is to encourage principals to make more challenging courses available so that

students can prepare for the academic standards of college. Indeed, some science and technology majors are effectively out of reach for students who lack access to courses such as chemistry, physics, or calculus in high school.

Taking college-preparatory courses both reflects and builds college readiness. A DOE analysis of students who obtained a standard Regents diploma found that, among students who took algebra 2/trigonometry, at least one advanced placement course, and participated in CUNY's College Now program, only one in four needed to take remedial courses at CUNY. Among graduates who did not take those courses, two in three did.⁷²

Yet CCPI data show that the old system is still dominant: too many schools do not offer approved rigorous or college preparatory courses and assessments (defined here as CCPI-eligible) to their students. Of the roughly 52,000 students who graduated in 2016, half did not take even one approved rigorous college and career preparatory course or assessment.

At the median high school in New York City, 35 percent of students had passed at least one approved rigorous preparatory course or assessment, and availability varied dramatically from school to school. At 49 high schools, fewer than 10 percent of students cleared the CCPI bar. According to the Center for New York City Affairs, 39 percent of the city's high schools do not offer a standard college-prep curriculum in math and science.⁷³ In 2015, more than half of all high schools in New York City did not offer a single advanced placement course in math.

Weak academic preparation does not result from any single cause, but from a number of mutually reinforcing causes. The most obvious and intractable factor is poverty. High schools in high-poverty communities have low college readiness rates. Economic and social hardships also cluster in low-income communities of color. For example, more than 16,000 high school students—6 percent of the city's high school population—are living in unstable housing, either in a shelter or doubled up in someone else's apartment.⁷⁴ These students are concentrated in the south and central Bronx and eastern Brooklyn. They are more likely than other students to commute long distances to attend school, switch schools frequently, and experience high rates of absenteeism.

Ninth graders typically enter high school already lagging behind in math and English. In 2017, only 24.2 percent of eighth grade students in New York City met the statewide proficiency standard in math, and 47.5 percent of eighth graders did so in English language arts.⁷⁵ The vast majority of students enter their first year of high school scrambling to catch up.

Their issues do not begin in eighth grade, or even in elementary school. A growing body of research shows that very young children in disadvantaged families learn fewer words than do their peers in middle-class families. The absence of high-quality early care and education puts them further behind as they enter formal schooling.

"If we really want to solve this problem, we have to look at the time when kids' brains are developing and meet their needs effectively," says former Deputy Chancellor Shael Polakow-Suransky. "Otherwise we're essentially using band-aids all the way up."

High school principals are by no means powerless in bringing their students up to a college-ready level. But they do face tough choices in allocating resources. Every principal of a struggling school agonizes over the dilemma of allocating scarce resources between underprepared ninth graders and college-aspiring juniors.

Interviews with high school education experts identified other trouble spots, including a lack of teacher preparation for college-ready instruction, which leads to some teachers at underperforming schools feeling unsure of their ability to teach the most challenging material. Even when teachers are prepared, they may not teach from a curriculum that is aligned with college standards. In addition, many small high schools created during the Bloomberg administration lack the scale to offer college preparatory courses.

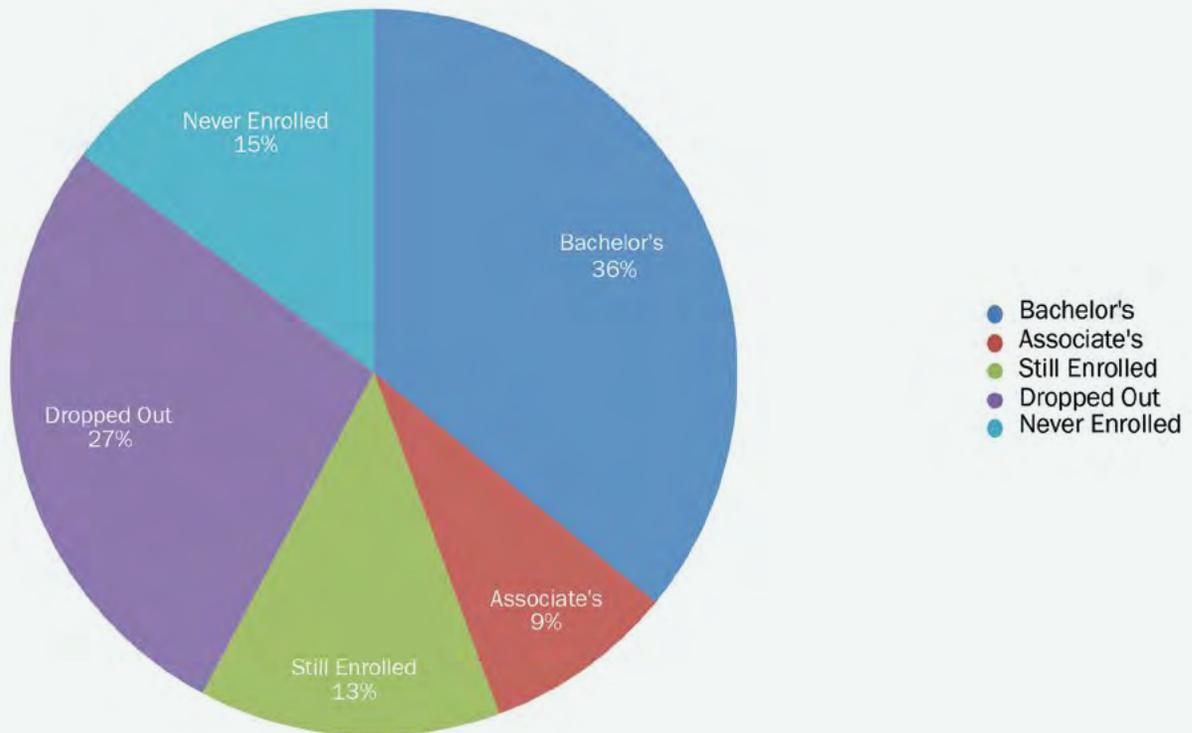
The college readiness yardstick itself is a highly contested measure, which reflects the ongoing debate over changing standards, reworking developmental education, and linking college access and success. In 2010, for example, CUNY changed its remedial math placement policy at the request of math department chairs concerned that incoming students lacked sufficient readiness. At the same time, CUNY instituted a new writing test that reduced the number of students placed into writing remediation. Although seemingly minor, these changes influenced the college outcomes of thousands of the city's high school graduates.

The city struggles to build a college-going culture in high school.

The city's high schools lack a consistent college-going culture, with troubling consequences for college readiness. Readiness entails not only understanding the content of a particular course, but also possessing the time management skills, study habits, and goal-seeking strategies needed to succeed. It's part of what leading researcher David Conley defines as "the content knowledge, strategies, skills, and techniques necessary to be successful in any of a range of postsecondary settings."⁷⁶

What Happens to NYC Public High School Students After Graduation?

Postsecondary outcomes of 2011 NYC public high school graduates after six years



Source: CUF analysis of data provided by the Research Alliance for New York City Schools

Students with “college knowledge” understand crucial facts about higher education, such as the college application timeline, the difference between types of colleges, how to write a persuasive college essay, and so on. These factors make the difference between going and staying home, or going to a best-fit college versus a college that happens to be in the neighborhood.

Middle-class students get much of the assistance they need in all three areas from family and peer networks, often supplemented by private tutors and other purchased supports. Yet these students still find the college application process stressful and confusing. Low-income students have a far more difficult experience, especially those who are the first members of their families to enroll in college. First-generation college applicants typically receive little or no practical advice at home when it comes to preparing for college.

“Most of the students in my school didn’t have parents or family members who went to college or did any type of education after high school—so they didn’t know much about going to college,” says Rama Sagna, a former student at Science Skill Center High School in Brooklyn. “The students didn’t really go out and get their own information.”

For many of these first-generation college

applicants—who comprise 45 percent of all CUNY students—the admission process is more than difficult: it is a foreign country they cannot navigate alone.⁷⁷ Their support structure consists almost entirely of whatever supports their school makes available, and they may bring little pre-existing knowhow to the table. When the Center for New York City Affairs surveyed tenth grade students at several city high schools, they found that seven in ten believed that high school graduation requirements were the same as college entrance requirements; half thought that their ninth and tenth grade GPA would not count in their college applications.⁷⁸ Although these misconceptions are easy to correct—through classroom lessons focused on understanding college entrance requirements or a simple conversation with a knowledgeable school counselor—the findings reflect a serious gap when it comes to preparing for college.

While every adult in a high school should have a role to play in building such a culture, the school counselors who are typically tasked with this responsibility are in many cases too overwhelmed to fulfill it. Not only are the city’s schools often understaffed and its counselors undertrained in the complex field of college access counseling, they lack a consistent professional

development network of the kind that teachers and principals take for granted.

School counselors can build college-going culture, but need more time and training.

High schools need a college-going culture in which students receive reinforcing messages from adults about the importance of postsecondary education, plenty of good college-going advice, effective study and note-taking habits, and early opportunities to explore career choices. Principals set the tone for such a culture, and teachers provide trusted and accessible advice to students. But the heavy lifting is done by school counselors, who provide the college access counseling that students desperately need. At too many schools, that's where the sought-after development of a college-going culture falls apart. School counselors are split between too many duties, of which college access counseling is only one—and not one that most counselors are professionally trained to do.

College access counseling and exploration can touch every high school grade. In ninth and tenth grade, the counselor arranges for college visits and helps students explore possible careers. In eleventh grade, the counselor helps students build a college list, complete a family income form, sign up to take standardized tests, and consider potential college majors. In twelfth grade, the pace quickens as application time arrives. The counselor assists students in completing their college applications and FAFSA forms, visiting prospective colleges, and making hard choices. In addition, college access counseling does not begin and end with students. The most effective schools encourage counselors to conduct or facilitate professional development for teachers, so that they can play a more active role in supporting college aspirations.

To provide high-quality college access counseling requires specialized expertise and extensive time on task with students. The FAFSA, for example, frequently changes and requires sensitive tax and income information from parents. Its role as gatekeeper to federal financial aid is so consequential that even a small mistake can derail a young person's chance at the college of their choice. Recent immigrants and foster youth find financial aid forms particularly perilous, since their family status may be complex and their access to adults with college experience minimal. The admissions process may also call for a counselor's personal attention, as they advocate for students with admissions officers at selective colleges. Such conversations can help boost a student's chances, but they require counselors to develop personal relationships one at a time—a duty all but unimaginable for counselors who can only devote part of their time to college access.

"It takes about ten hours of individual attention per student," says Joshua Steckel of DOE's Office of Postsecondary Readiness. "That is at least the amount of time I was giving each student at the private school where I worked." Multiply Steckel's estimate by the number of high school students applying to college in any given year, and it seems clear that high schools would need to relieve at least a few school counselors of other responsibilities so that they can spend quality time with students.

School counselors are eager to provide college access counseling. A national survey found that 90 percent of high school counselors view helping students navigate the college application and financial aid process as an important focus of their job, and 84 percent believe that building a college-going culture should be a high priority.⁷⁹ Yet public school counselors reported spending only 23 percent of their time on postsecondary admission counseling, compared to 54 percent for private school counselors.⁸⁰

In practice, most public school counselors are overstretched, in some cases from tasks that could not even be called counseling, such as carrying out disciplinary actions or performing clerical functions. Further, they lack a clear structure for support and professional development. "There's no real dedicated staff that has sufficient time on task to navigate this process for the student," says Jon Roure, senior managing director of CollegeBound Initiative, an organization that places full-time college access counselors in a number of New York City high schools. "There's a void."

Lisa Toledano feels the strain personally. As a school counselor at International High School at Union Square, she considers herself luckier than many other school counselors. "We have a fairly big support staff here: two guidance and two social workers for about 350 students. And yet I feel like I'm doing five different jobs," she says. Toledano is the principal college access counselor at her school, but she estimates that only about 60 percent of her time is spent on that work.

"I love working here," says Toledano. "But it can be an isolating job. When you're a teacher or a counselor you never have enough time. The teachers know very little about the college process, so a lot of it ends up falling on one person."

The counselor-to-student ratio in New York City public high schools is actually better than much of the rest of the country, averaging one counselor for every 221 students, and counselor availability improved slightly in 2015–2016 from the previous year.⁸¹ But it is still too high to provide solid one-on-one support of the kind Steckel describes. If counselors were

Services provided by college access and success programs in New York City

College readiness

College exploration	58%
College campus visits	56%
Tutoring/academic support	50%
Academic behaviors	45%
ACT/SAT/PSAT preparation	38%

College matriculation

College application help	42%
Financial aid	42%
Placement test prep	24%

College persistence

Connecting students to campus resources	47%
Support services related to college persistence	42%
Connecting to off-campus resources	41%
Non-academic skills	41%
Mentoring	40%
Academic/degree planning	37%
Major selection	32%
Financial aid reapplication	32%
Course registration	32%
Tutoring	29%
Financial support/incentives	28%

Career preparation

Resume and interview skills	46%
Career counseling	45%

For many first-generation college applicants—who comprise 45 percent of all CUNY students—the admission process is more than difficult: it is a foreign country they cannot navigate alone.

doing nothing but college counseling—an impossibility, given the many competing demands—they would still only have about six hours to spend per student in an average school year. Furthermore, many city high schools have extremely high ratios of students to counselors. About one in six high schools (17 percent) has more than 300 students for every school counselor.

School counselors make up a tiny share of the city's school budget: about 2.3 percent in 2016–2017, down from 2.4 percent in 2010. DOE's budget report for high schools does not itemize spending on school counselors, but all staff in "counseling services"—including counselors as well as social workers, psychologists, and psychiatrists—constitute about 4 percent of direct school funding, comparable to the cost of custodial services.⁸²

Some DOE leaders dispute the necessity of full-time college access counselors, instead championing a "distributed counseling" model in which teachers and other staff share responsibility for counseling students about college access. Distributed counseling is practiced at some high schools respected for their college-going cultures. But some leaders of educational nonprofits express skepticism about sustaining such a model without at least one full-time college access counselor in a key role.

"The distributed counseling model is important, but it depends on how well the people you're distributing that information to are taking on that responsibility," argues Jon Roure. "Think about the challenges of a teacher day-to-day, just relevant to their subject area. Now throw on a layer of college access. How many teachers can go out and network with a hundred different colleges? How many people can pick up the phone and advocate on behalf of a student who got insufficient financial aid to enroll in their favorite college?"

Shael Polakow-Suransky, the former deputy chancellor, agrees with Roure—up to a point. "You ideally want one leader for this work who engineers a distributed model," says Polakow-Suransky. "This person's job would be to define the content of the [college access] work that teachers are doing with students, train the

teachers, check that it's happening, and put systems in place." But he cautions against mandates from the central office. "With a top-down approach, you get a compliance-type response that does not get the results you intended." Polakow-Suransky favors instead a system that uses accountability for student outcomes and supports for teachers and students to incentivize high schools to build college-going cultures.

Training in college access counseling is an especially sore subject for school counselors. School counseling as a profession involves specialized education and training, including certification by NYSED, DOE licensure, and a master's in education with occupation-specific coursework. Yet the schools of education that train counselors have historically not provided instruction in college access counseling.

"College access counseling has not been on the radar screen of schools of education at all until very recently," says Stuart Chen-Hayes, program coordinator of the Lehman College Counseling Program and a nationally recognized expert on school counseling. Chen-Hayes's school counseling program was the only one at CUNY to provide even a single listed course pertaining to college access counseling until the 2016–2017 school year—an omission that is common nationwide.

Joshua Steckel recalls the annual arrival of interns at his Brooklyn high school from master's degree programs as the beginning of a laborious months-long education process. "Each year, every single intern came in lacking any formal training in college access counseling."

New York City has at least one professional development resource not available in most other cities: a college-access counseling boot camp offered by the Options Institute at Goddard Riverside Community Center. DOE invested in Goddard Riverside's intensive 60-hour certificate course, which covers topics such as matching students to postsecondary opportunities, strong college applications, and financial aid for foster care students. High schools can send staff to study for a certificate free of charge, thanks to DOE funding. Roughly three in four city high schools have sent at least one staff member to the Options Institute to date.

DOE's office focused on college access and success is ramping up its efforts.

The Office of Postsecondary Readiness, which reports to DOE's deputy chancellor for teaching and learning, Phil Weinberg, takes a leading role in promoting college readiness, college access, and effective high-school-to-college transitions in the city's high schools and middle schools. OPSR also oversees the city's network of career and technical education schools and its network of early college high schools.

Until recently, the office's college access division lacked the staff and authority to reach a significant share of the city's 400-plus high schools. For several years, OPSR employed only a handful of staff for college access promotion, far too modest a commitment for the country's largest school system. In 2015, however, Mayor de Blasio announced the Equity and Excellence Agenda, and assigned a key initiative—College Access for All—to OPSR. Since that time, OPSR's college access staff has risen to 25, including some of the city's leading experts on building a college-going culture.

Established in 2012 to support college readiness across the city school system, OPSR has identified four areas that drive its work: promoting college-preparatory academics, shifting the city's academic program-

ming, strengthening access to college opportunities, and building students' academic and personal behaviors. OPSR and its senior executive director, Vanda Belusic-Vollor, see these factors as the key determinants of college access and completion.

OPSR does not exercise direct authority over school leaders or staff. Instead, the office brings about change by training counselors and other school staff, working with teachers to build college and career competencies, providing direct supports to students, and engaging in policy analysis and advocacy. "We do everything from running forums and bringing awareness to stakeholders to teaching people how to do this work to advocating for policy reforms," says Belusic-Vollor. In 2015, the city funded CUNY to waive application fees for low-income high school students, and the mayor and City Council agreed to boost funding for career and technical schools by \$122 million, both changes that OPSR has advocated for several years.

Even as OPSR's staffing level and profile continues to rise, its role in a decentralized college access framework remains a concern among OPSR's outside supporters in the field. DOE's Office of Equity and Access and Office of Counseling Support Services also oversee extensive college access programs, reporting to separate deputy chancellors, raising questions about how

P-TECH model shows early results

The traditional framework for the education system leaves ample room to drift off course. If students are lucky, ambitious, and well-supported, they graduate from high school, attend college, earn a degree, and then hunt for an entry-level career-track job. Unfortunately, young people slip through the cracks at each stage, leaving a relatively small share to reach a post-college career. A handful of innovative educational thinkers came up with an ingenious solution: combining high school, college, and career in a single educational setting. That concept became the basis for the Pathways in Technology Early College High School, or P-TECH, model.

The first P-TECH school, founded in Brooklyn in 2011, redefined the standard high school framework. P-TECH partnered closely with the IBM Corporation to develop a new model for career and technical education where students learn the traditional core subjects of high school while graduating with a no-cost associates degree in an applied science, engineering, or computer-related field. IBM managers consulted on the design of relevant technology courses, provided mentors and internships, and offered a hiring preference to each

P-TECH graduate. P-TECH tweaked the template in other ways too: extending the school day and focusing the curriculum on experiential learning to make students more active participants in their own learning.

The first cohort of students graduated in June 2017 and early outcomes are highly promising. Nearly 100 members of the original cohort completed the full six-year program early, and ten have accepted jobs at IBM. Forty students are either pursuing a bachelor's degree or applying to four-year colleges.⁸³ These are powerful results for a high school that does not screen its applicants for high-performing students.

P-TECH has spread far beyond its Brooklyn roots. Seven P-TECH schools operate in New York City, with employer partners that include SAP, National Grid, Omnicom Media Group, and New York–Presbyterian Hospital. Governor Cuomo has presided over the opening of 30 P-TECH model schools outside of New York City, and schools have opened in five other states. Nearly 12,000 students now attend P-TECH schools nationwide. However, P-TECH has not expanded further in New York City, despite the promising early outcomes.

DOE sets overall strategy and exercises accountability for outcomes.

New DOE initiatives aim to support college aspirations among middle school and high school students.

In Mayor Bloomberg's third term, DOE took a number of important steps to elevate college and career readiness. Chancellor Dennis Walcott identified college and career readiness as the new goal of the city's public education system, collaborated with CUNY to develop "Where Are They Now" reports that informed high school principals on the college outcomes of their graduates, and added several college-related outcome measures to the report card for which each high school is held accountable. Walcott also established the Office of Postsecondary Readiness to take a leading role in building college access and success preparation throughout the five boroughs, as well as oversight of career and technical schools and early college high schools. Despite the encouraging new attention, however, the college access division consisted of only a handful of staff spread over more than 400 high schools, leaving it distinctly underpowered for such an expansive mission.

As the Bloomberg administration passed the baton to its successor, practitioners in the field observed a diminution of attention and systems-level thinking around college access and success. But that appears has changed in the last two years. In September 2015, Mayor de Blasio announced the Equity and Excellence Agenda, which includes several initiatives relevant to college aspirations. DOE and CUNY collaborated closely to design and implement these initiatives, which suggest that the city's serious college access and success problems have become a much greater focus.

High School College Access for All focuses on three areas: increasing school capacity, reducing college remediation rates, and providing school staff and administrators with data tools, systems, and clear benchmarks. The school capacity component is particularly ambitious. OPSR has targeted 100 high schools with low college-going rates for special interventions. Each school participates in a five-day Inquiry Institute to assess its college and career readiness and develop a college access plan. The schools then receive funding to support college-going culture from a pot of \$3.5 million. The funding is flexible and based on the plan each school submits. OPSR also provides a year-long cycle of coaching for each participating school. By the 2018–2019 school year, DOE plans to include every New York City high school in College Access for All.

Other related initiatives include scheduling SAT testing during the school day, so that students will be more likely to take the test; peer counseling for students in the crucial summer after high school gradu-

ation; providing school leaders with data on completion of financial aid applications; combating "summer melt," the phenomenon in which students are accepted into a college yet fail to actually enroll, for financial or administrative reasons; expanding pre-remedial courses; and providing professional development in college access counseling through Goddard Riverside's Options Institute.

Middle School College Access for All enables all middle-grade students to visit at least one college campus. The visits are embedded in a set of student and parent workshops to discuss college planning. The initiative rolled out with 150 pilot middle schools in the 2016–2017 school year.

Single Shepherd assigns mentors to students at high-need middle and high schools who stay with the students as they transition to college. The initiative, managed by DOE's Office of Counseling Support Programs, has set a goal of pairing a counselor or social worker with every child between sixth and twelfth grade in Districts 7 and 23. Crucially, that adult mentor will continue the relationship even after graduation, as the young person enrolls in college.

Two DOE initiatives seek to build academic rigor that will better prepare students for college. The *Algebra for All* initiative calls for every student to complete algebra no later than ninth grade, by providing intensive professional development for math teachers between fifth and tenth grades. *AP for All* seeks to expand access to Advanced Placement classes to schools that have not historically offered them, and make those classes available to a wider array of students, notably English language learners and students with disabilities. This fall, 63 high schools offered new AP courses, including 31 that did not previously offer them.

DOE is also collaborating closely with CUNY to operate early college high schools that expose high school students to college coursework and purposefully blur the line between high school and college; P-TECH, a promising initiative that blends the early college high school model with hands-on career and technical education; and College Now, a partnership with CUNY in which colleges provide college courses to high school students.

Taken together, these efforts are a promising step toward addressing the city's college success crisis, which will require significant improvements before students ever arrive on a college campus. But much more still needs to be done to support the college ambitions of New York City's high school students and prepare them to succeed in college.

TAPPING NONPROFIT EXPERTISE: LEVERAGING EDUCATIONAL NONPROFIT ORGANIZATIONS

Community-based organizations play a critical role in supporting the college aspirations of thousands of New York City’s youth. These groups offer advantages that educational institutions and government agencies cannot easily match, such as neighborhood and cultural ties, generous philanthropic funding, and entrepreneurial strategies. They provide critical services to high school and college students that can make the difference between making it to college or letting the opportunity slide by, and between getting to graduation or dropping out.

Unfortunately, that supportive role could be leveraged more effectively throughout the school system. High schools and colleges do not systematically seek out nonprofit organizations as partners, in part because they lack the dedicated staff required to implement and sustain these relationships, and in part because they require more information to demonstrate the specific strategies and organizations that are most effective at keeping students on track. Still, more organized approaches are emerging. Models like Strive for Success and South Bronx Rising Together (SBRT) hold potential for matching nonprofit organizations with educational stakeholders in an effective and scalable partnership. Furthermore, Graduate NYC’s database of college access and success programs has potential to identify underserved communities and missing links in the chain of external supports.

For more than a year, Graduate NYC, a research and service organization co-sponsored by CUNY and DOE, surveyed organizations throughout New York City to identify all those working on college access and success. Released in September 2016, Graduate NYC’s findings—including an interactive online map—provide a wealth of new information on 201 college access and success programs housed in 164 organizations. The map reveals that the south Bronx is home to the greatest number of programs and Staten Island has the fewest.

The findings also document significant disparities and gaps in terms of the services provided. A whopping 58 percent of programs provide support for

college exploration, and almost as many assist with college campus visits. But fewer than one-third of programs tutor college students or coach them in dealing with complex systems, such as degree planning, major selection, and financial aid reapplication.

The college access and success programs identified by Graduate NYC range in size from small neighborhood-based organizations to groups that have scaled citywide. In general, however, these programs work entrepreneurially to fill gaps in services that educational institutions do not provide. Unfortunately, many of the nonprofit leaders we interviewed for this report say that DOE and CUNY lack a cohesive vision for how to integrate community-based organizations into their educational missions. As a result, many such groups serve students directly in their communities instead of coordinating with local educational institutions, resulting in redundant services and, in some cases, mutual distrust.

Tensions and misunderstandings abound. On the nonprofit side, staff sometimes express concern that a high school will drop the ball on providing counseling and other supports needed to make good decisions, or that poor academic counseling at a college will cause a student to lose financial aid eligibility. At the educational institution, staff fear that nonprofits will duplicate their services without the necessary training and institution-specific knowledge to get them right.

Many high schools have community relations staff who are capable of working with nonprofit organizations. But there is no corresponding role at most colleges and universities. As a result, partnerships are often the product of personal relationships and historical accidents. “Where CBOs plug into colleges are often just about how good the CBO is in getting in touch with the college and making programs sound compelling,” says Lisa Castillo Richmond, director of strategy at the Partnership for College Completion and former executive director of Graduate NYC. “After the first one or two, there’s a capacity issue. They just cannot coordinate with 15 different programs addressing 15 student profiles.”

The obstacles to collaboration posed by a lack of constructive relationships are worsened by the practical limitations that leaders at schools and colleges face: lack of physical space to house outside partners; inadequate management staffing to build and troubleshoot outside relationships; and a scarcity of organized forums to convene potential partners.

Yet some key players are working at breaking through those obstacles. CUNY's Office of K-16 Initiatives manages one of the most ambitious programs, Strive for Success. The model addresses a tough dilemma: low-income and first-generation students benefit from having support from community-based organizations throughout college, yet they also need campus-based support that integrates them into their new community. In Strive for Success, students are referred by 24 participating community-based organizations to become peer leaders, where they complete 70 to 80 hours of training sponsored by CARA, a nonprofit with specialized training expertise. The organizations then sponsor those young people at CUNY campuses, where they provide peer counseling to their fellow students, coaching them on how to navigate the physical and online systems of campus, while at the same time connecting them to the most important advising resources they will need. In this way, Strive for Success bridges the gap between college and nonprofit.

In 2008, education advocates in Cincinnati and northern Kentucky organized the Strive Partnership, the first educational collective-impact initiative. The collective-impact model enables stakeholders from different fields to collaborate in solving large-scale social problems that are too intractable for any one organization or agency. Participants in a collective-impact initiative start by agreeing on a common agenda and shared measurement systems that track the effectiveness of their interventions. The Strive Partnership included superintendents of the three public school districts in the region, presidents of three nearby universities, executives from the area's major employers and charitable foundations, and directors of civic groups such as the Urban League and United Way. After five years, the Strive Partnership measured improvements in 40 of the 53 educational outcomes they tracked. Similar initiatives have also been launched in Seattle, Detroit, Austin, Memphis, the Rio Grande Valley of Texas, and other areas.

A collaborative called South Bronx Rising Together is building the first educational collective-impact initiative in New York City. Phipps Neighborhood Houses and Children's Aid Society serve as co-chairs, and they have brought on board more than 150 partners, including a wide array of community boards, schools, police precincts, city agencies, colleges, and nonprofits.

Elizabeth Clay Roy, chief of staff at Phipps, codirects the alliance.

"What we're trying to do is make public the set of expectations we have for our system," explains Roy, "so we are all working toward them in a more meaningful and coordinated way." To do this, the partners in SBRT have created a roadmap of key indicators, published a report on the baseline level of their indicators, and intend to publish annual updates on progress in their community district. SBRT may point the way toward effective adaptation of the collective-impact model in New York City.

In upstate New York, SUNY-Plattsburgh reached out to three NYC-based organizations—Bottom Line, Urban Assembly, and College-Bound Initiative—to shape a college access and success initiative. Urban Assembly and College-Bound Initiative recruit qualified students from the schools they support, and Bottom Line provides student success supports to help students navigate the unavoidable culture shock of leaving the five boroughs for the Finger Lakes region. Crucially, SUNY-Plattsburgh pays Bottom Line NYC on a per-student basis for its services, based on an estimation of the value provided in the form of increased student retention and completion. This aspect of the arrangement may serve as a template for colleges within New York City.

DOE has also worked to build CBO partnerships. OPSR works with Goddard Riverside's Options Institute to provide professional development on college access counseling, with CARA to provide peer mentoring to high school students and college-bound graduates, and with CollegeBound Initiative to station privately funded college access counselors in high schools across the city.

Scarcity of evidence-based interventions remains a key stumbling block. Both high schools and colleges lack evidence on which college access and success programs can generate the best results. Only one out of five programs surveyed by Graduate NYC reported having an evaluation report on the effectiveness of their interventions that they would be willing to share. Most of the models used to assist New York's high school and college students remain woefully untested, not because of indifference, but because of daunting financial and legal obstacles. External evaluation is difficult for non-profit organizations to afford without philanthropic or government support. In addition, tracking high school graduates into college requires access to student-level data in both systems, which most community-based organizations do not have. In the absence of hard evidence, though, it is difficult to advise educational leaders and policymakers on how best to support the college aspirations of young people.

Yet a few important exceptions hint at what community-based organizations could contribute at a broader scale. A randomized study found that students enrolled in Bottom Line’s peer counseling program were 14 percent more likely to attend a four-year college, 30 percent more likely to review financial aid letters with a counselor, and were more likely to enroll full time in college.⁸⁴ A RAND Corporation study of Single Stop USA, which provides wrap-around supports to students at CUNY’s community colleges,

found that Single Stop use boosted college persistence by at least 3 percentage points.⁸⁵ An assessment of CollegeBound Initiative (CBI) documented that students at CBI schools were more likely to apply to college, apply to more colleges, and enroll in college, compared to other low-income students from high poverty schools nationwide.⁸⁶ Most strikingly, three-quarters of students at CBI schools attended a four-year college, almost twice the rate (42 percent) of the comparison group.

Nonprofits use diverse models to serve students

Community-based organizations employ a number of strategies to improve college access and success among the young people they serve. The following models have been implemented at varying scales in New York City.

Embedding student supports in high schools. CollegeBound Initiative funds a full-time college access counselor in 27 high schools, which combined serve more than 15,000 students. These directors of college counseling work closely with principals and teachers to promote a college-going culture.

Several organizations provide full-spectrum partnerships to high schools in their communities. Cypress Hills Local Development Corporation, Henry Street Settlement, Make the Road NY, Asian Americans for Equality, Hudson Guild, and the New Settlement Apartments College Access Center are some of the leading practitioners of this approach, which may include a full-time or part-time college access counselor, logistical support for peer counselors, and a student success center where students can study and get advice on college applications. DOE has invested in student success centers, adding five new sites in spring 2017.

Providing personalized student counseling and mentoring in an external location. Bottom Line NYC operates a center that provides personalized counseling and mentoring services to high school and college students. Students receive assistance in college selection, completing financial aid forms, and college applications. Once students enter college, Bottom Line coaches them in key areas, such as assessing credits and selecting majors, maintaining and building financial aid, and preparing resumes.

Training peer counselors. CARA provides dedicated training for high school and college students who serve as part-time college access and success

mentors to fellow students. The schools then pay a modest stipend to the students to serve as college coaches. They work 10 to 15 hours each week, supporting school counselors in advising students on college selection, seeking financial aid and filling out FAFSA, and completing their college applications.

CARA’s College Bridge program enables youth leaders, referred to as College Coaches, to continue their support into the summer between high school graduation and college enrollment—a time when the college plans of many low-income youth fall apart. CARA has documented substantial increases in FAFSA completion, submission of college applications, and college deposits at high schools served by College Coaches.

Supporting school counselors. Goddard Riverside’s Options Institute provides professional development courses in college access counseling. The courses mainly serve the city’s population of high school counselors, but teachers, principals and other staff may also attend. Goddard Riverside’s main offering is its 60-hour certificate course, which provides nine full days of training. Sessions cover key subjects like financial aid packages, what a strong college application should look like, and support for immigrant students and students with disabilities.

Bridging the leap to college. Good Shepherd Services’ LifeLink bridge program works with young people who have graduated from high school to prepare for the CUNY placement test. College students trained as near-peer counselors provide direct instruction and coaching on testing skills. They also serve as role models, assuring aspiring first-generation college students that college is real and doable.

STATE FUNDING HAS FAILED TO KEEP PACE WITH THE CITY'S EDUCATIONAL NEEDS

As the economic engine of the state economy, New York City's college success shortfall puts the state's economic future at risk. Yet the state has fallen far behind its financial obligations to the city's public education system at both the K-12 and postsecondary levels. New York State subsidies provide just under half the operating income of DOE and CUNY, as well as funding for college financial aid, opportunity programs, and loan guarantees for new construction. But years of anemic state support have led to shortcomings throughout the system, undercutting college access, readiness, and success initiatives.

As CUNY's student population booms, state funding has failed to keep pace. In 2009, the state covered 60 percent of the cost of tuition and fees, while students paid 28 percent. By 2016, the state was paying only 54 percent and the students' share had jumped to 35 percent. Since the Great Recession, per-student funding from New York State has fallen 17 percent for CUNY's senior colleges and 5 percent for community colleges, after adjusting for inflation.⁸⁷ In 2016, Governor Cuomo's executive budget proposed a \$485 million reduction in state aid to CUNY—a proposal that was ultimately scrapped after an outcry.

Languishing state support has prevented CUNY from making crucial investments in areas ranging from full-time faculty hiring and technology improvements to student advising and faculty mentoring. This underinvestment is particularly detrimental to student success initiatives, which would benefit enormously from dedicated state funding. Lack of state support has stalled efforts to expand proven student success programs and forced other initiatives to scale back. For example, enrollment in CUNY's two Educational Opportunity Programs, College Discovery and SEEK, has declined by nearly 19 percent since 2010 due to state funding cuts.

One potential bright spot in the state funding picture is the Excelsior Scholarship program, which will expand tuition assistance benefits to more middle-class families and potentially boost CUNY enrollment. So far, however, the effect appears to be marginal for CUNY. Only 4 percent of CUNY students enrolled in 2017–2018 have been deemed eligible for Excelsior, and at least half of those are likely to find their

tuition covered by Pell and TAP grants.⁸⁸ Given that two-thirds of the cost of college attendance at CUNY consists of non-tuition expenses, the vast majority of CUNY students need financial support that Excelsior is not designed to provide.

Student affordability tells only part of CUNY's story. CUNY itself faces major cost increases, of which some are directly imposed by the state. Traditionally, New York State raises college tuition and the maximum TAP grant in tandem, so that TAP will continue to cover the full cost of tuition for the most disadvantaged students. This is expensive, however, since private colleges and universities also gain the benefit of TAP increases.

The most recent tuition hikes did not lead to a TAP increase. Instead, CUNY and SUNY agreed to cover the gap between the two out of their own funding. These tuition waivers have become an expensive burden. CUNY now pays \$50 million annually in tuition waivers, and the cost could go up as tuition increases further.

Chronic underfunding by New York State also continues to hamper efforts to invest in New York's K-12 system. Although the state constitution entitles all children to "a sound basic education," the funding picture fails to live up to that lofty goal. In 2006, the New York Court of Appeals ruled that this standard obligated the state government to substantially raise its investment in the most impoverished school districts, many of which are in New York City. In response, the state promised \$5.5 billion in basic classroom operating aid, to be phased in over a four-year period. But when the Great Recession hit, the state legislature abandoned its obligation, and it has never returned. The cumulative amount owed to New York City since 2009 has crossed the \$16 billion mark, and would be considerably more if adjusted for inflation.⁸⁹

The impact of underfunding from New York State is pervasive. Additional funding would have made it possible to provide rigorous college-preparatory education in many more high schools, early intervention services in elementary schools, evidence-based bilingual education programs for recent immigrants, and more specialized counseling at all levels of the K-12 system.

RECOMMENDATIONS: 21 ACHIEVABLE IDEAS FOR TACKLING NEW YORK CITY'S COLLEGE SUCCESS CRISIS

New York City still has a major problem when it comes to college completion. Despite some clear improvements in high school graduation rates and college enrollment, far too few New Yorkers who enroll in college are graduating with a degree. This inadequate level of college completion is a longstanding problem, to the point where other issues often overshadow college success. Yet lagging student success in college is hurting the city's ability to reduce economic inequality and expand opportunity, and this shortcoming will only deepen in the years ahead as automation and globalization reshape the world of work. If policymakers are serious about tackling inequality, then college success needs to become a top priority for New York.

New York has taken steps to begin meeting the challenge, but there is much more work to be done. To their credit, CUNY and DOE are implementing an array of innovative initiatives aimed at boosting college completion rates. But the status quo won't change until the mayor and governor, city and state legislators, and education officials come together to make New York City's college completion gap a top priority. A serious improvement in college success will take significant resources—not only in terms of funding, but in time, energy, and creativity. But the reward will be an unparalleled engine of economic mobility living up to its full potential.

FOR NEW YORK CITY AND STATE GOVERNMENT

Mayor de Blasio and Governor Cuomo need to make improving college success a top priority.

Mayor de Blasio and Governor Cuomo have launched important new programs designed to reduce inequality and increase economic mobility—from raising the minimum wage to \$15 an hour to implementing universal pre-kindergarten. Their next step should be to tackle New York City's college success problem. Few other policy actions would have as great an impact on their common goal of getting more New Yorkers from low-income backgrounds on the path to the middle

class. In today's economy, most of the occupations that can provide middle-income wages and opportunities for advancement require a college degree. At the same time, an alarming share of New York City residents lack any form of postsecondary credential. And while a growing number of New Yorkers are enrolling in CUNY's community and senior colleges, far too few are succeeding. Unless New York can dramatically strengthen college degree attainment for the low-income New Yorkers who comprise the overwhelming majority of students at CUNY institutions, it will be difficult to significantly reduce inequality or expand economic mobility.

The state should establish a Student Success Fund for CUNY and SUNY.

New York State is the largest funder of the CUNY and SUNY higher education systems, the recipient of tens of billions of dollars in annual tax revenues from college graduates, and the steward of a state economy powered by a college-educated workforce. The launch of the Excelsior Scholarship demonstrates the state's commitment to expanding access to its public colleges. Over the years, however, the state has paid too little attention to the capacity of its public colleges and universities to graduate their students. That needs to change.

New York State should establish a Student Success Fund, enabling colleges to invest in boosting student success. Allowable uses of funding should include the action items identified in this report, such as expanding CUNY ASAP or testing ASAP-like models in the SUNY system; designing corequisite instruction models that bypass developmental education; developing guided pathways to reduce student confusion on the way to a degree; and exploring strategies to strengthen college advising, such as student peer counseling or text-message-based artificial intelligence assistance.

A Student Success Fund could make New York a national leader in strengthening college completion—but only if it is guided by rigorous evidence. Colleges

should be expected to use funding to build the evidence base around student success initiatives and to scale up strategies that the evidence supports. Student outcomes should be reported consistently and publicly disclosed, and interventions should be evaluated by third-party organizations. California has already created a competitive statewide grant program for developmental education reform. New York should learn from the Golden State's example, but aim for a broader set of potential strategies to enhance student success.

Help low-income students overcome the non-tuition financial burdens that push many to drop out.

Although CUNY and DOE can make important educational reforms that boost student success—from revamping developmental education to increasing the number of student peer counselors—city and state policymakers need to play a major role in addressing one of the biggest contributing factors to CUNY's high dropout rate: non-tuition financial barriers. More than 70 percent of community college students at CUNY live in households that earn less than \$30,000 annually. Even though CUNY's colleges all provide a host of services for low-income students—such as food pantries for students who cannot afford lunch and Single Stop offices that connect eligible students to public benefits—financial hardship remains a constant struggle for the majority of CUNY students. The recently retired president of Kingsborough College, Farley Herzek, reports that as many as three-quarters of first-year students who dropped out within a year were struggling to pay college expenses. Although financial aid programs such as TAP, Pell, and now Excelsior help cover tuition for a significant number of CUNY students, up to two-thirds of the total cost of attendance is in non-tuition expenses. To increase student success, the city and state should direct resources toward the non-tuition expenses that burden low-income students.

Provide free MetroCards for all full-time CUNY community college students.

Mayor de Blasio could take a giant step to make college more affordable by funding free MetroCards for CUNY's 58,000 full-time community college students. Doing so would help address one of the biggest—and least understood—reasons that so few of the students who enroll in CUNY community college make it to graduation: the cost of public transportation. Although the state's Excelsior Scholarship program is intended to make college more affordable, this report points out that relatively few students in the five boroughs will benefit from that program. As we heard in our research, so many of the city's community college

students get tripped up by other non-tuition costs, including the cost of transit, which CUNY estimates at more than a thousand dollars annually for full-time students. CUNY ASAP provides free monthly MetroCards to its participants, and that benefit has proven one of ASAP's most popular features. ASAP has succeeded in more than doubling the three-year graduation rate of its participants in part by addressing college expenses that halt student momentum. It's time to bring this important benefit to all of CUNY's 58,000 full-time community college students.

Provide state funding to expand ASAP to all full-time associate's degree students.

CUNY ASAP is the nation's most effective student success initiative, according to independent researchers, more than doubling the graduation rate of community college students that participate. Yet only a small share of CUNY's community college students is able to benefit, due to limited financial support for the program. Although CUNY is now in the process of expanding ASAP to more than 25,000 students, this still represents fewer than half of CUNY's full-time community college students. The governor and State Legislature should develop a funding source that would make ASAP a universal program at CUNY—and whichever SUNY institutions are willing to implement it. Some funding could come from merging the College Discovery opportunity program into ASAP, but state policymakers should be challenged to put enough dedicated funding on the table to make ASAP a wall-to-wall CUNY program.

New York State should overhaul the Tuition Assistance Program (TAP) to support college completion.

New York's need-based financial aid scholarship plays a vital role in helping low-income students afford college. Yet many compromises and choices were made in TAP's design without proper consideration for how college students learn and build momentum to reach graduation. Here are four steps the state should take to align TAP with the best evidence on student success in college:

- *Abolish TAP provisions relating to TAP-able credits.* New York State's financial aid grant, the Tuition Assistance Program, requires all courses beyond the general education level to be related to the student's major. This "TAPable" credits requirement is supposed to incentivize students to complete their studies quickly. Instead, it causes students to lose TAP eligibility altogether. Countless students

do not understand the provision or often even know about it, and neither do their advisors—a recipe for sudden disaster when the student enrolls in an ineligible course that causes their tuition load to fall below the minimum needed for TAP eligibility. Further, the provision itself is counterproductive in that it penalizes students for choosing a major early, and holds students responsible for taking major-related courses that may not even be available in a given semester. The state should simply legislatively repeal the requirements related to TAP-able credits.

- *Expand TAP and Excelsior coverage to part-time study.* State policymakers should expand TAP to the roughly 103,000 students attending CUNY on a part-time basis. These part-timers are now effectively barred from accessing the state’s TAP program, a serious flaw in the program that hurts many low-income students’ college aspirations. Although full-time study is far better than part-time study for maintaining academic momentum and should be encouraged, the reality is that tens of thousands of New Yorkers who recognize the importance of getting a college credential cannot set aside work and family responsibilities to attend college on a full-time basis. Moreover, when family or financial problems arise, many students that begin college full-time need to scale back hours for a semester. Doing so, however, typically causes the student to lose eligibility for TAP. Restrictions on the state’s current part-time TAP program should be lifted to improve flexibility, enabling students to stay with their college studies and relieving them of the need to take additional classes just to preserve TAP eligibility. Further, the state’s Excelsior Scholarship Program requires students to attend for 15 credit hours per semester to maintain eligibility, an unrealistic expectation given the financial demands on so many public college students. Excelsior should also be expanded to include part-time study, possibly by covering a certain number of credits rather than semesters of study.
- *Expand TAP coverage to summer study.* TAP covers college tuition during fall and spring semesters, but not the summer semester. As a result, most students take the summer off. But that’s not necessarily a good thing. When it comes to low-income college students, the

motto of the organization Complete College America is right on target: “Time is the enemy.” The longer it takes to complete necessary classes and graduate, the more opportunities there are for family or financial emergencies to throw students off course. New York should expand TAP to cover full-year study, not just spring and fall semesters, so that students who want to can study year-round and graduate sooner.

- *Increase the TAP maximum award to the level of tuition, but only for public institutions of higher education.* The state has saddled CUNY and SUNY with the massive fiscal burden of covering the difference between the TAP maximum grant and the level of tuition paid at senior colleges. At CUNY alone, this cost amounts to \$50 million annually—money it should be using to hire full-time faculty, improve student advising and expand innovative programs like ASAP and START. It would make sense to raise the maximum TAP grant to the annual tuition level, and then index it for future tuition hikes. But doing so for all colleges in New York would be prohibitively expensive. The state legislature should therefore break with tradition and raise the TAP maximum award only for CUNY and SUNY. While students at private colleges also deserve assistance, the reality is that students attending the colleges and universities chartered by New York State deserve special consideration.

New York State and New York City should collaborate to develop a work-study program for collegiate peer counseling.

Providing more student support does not always mean hiring new staff. One of the most effective interventions at both the high school and college level is peer counseling, in which high school students are trained to support other high school students and college students support other college students. They work 10 to 15 hours per week and are paid for their time. Both DOE and CUNY favor this model, which has shown positive outcomes, but it is limited by funding constraints. New York City should collaborate with New York State to launch a work-study program designed to fund peer counselors and house them within the high schools and colleges most in need of support.

New York State should create a task force on college access and success.

The state should convene a high-level task force

composed of top leaders in the field as nominated by the governor and both chambers of the State Legislature. This task force could be modeled on the Michigan College Access Network (MCAN), which coordinates college access advocacy and technical support in communities across the state. MCAN has set an ambitious goal of achieving 60 percent college attainment for all adult residents of Michigan, and to achieve that goal it brings state and local stakeholders together to advocate for effective policies that support students. In addition, MCAN identifies and implements high-impact practices like promise zones, near-peer college advising, and a college application week—all approaches that New York State could adopt.

New York City should coordinate more effectively with community-based organizations.

The city's rich network of community-based organizations offers a powerful resource for supporting college access and success. A survey by Graduate NYC found upwards of 200 programs across the city providing a range of supports across their communities, from college exploration and campus visits to advice on financial aid applications to help connecting to assistance with degree planning and major selection, and much more. Yet the leadership of many of these community-based organizations say there is little sign of a cohesive vision for weaving them into the support structure for aspiring high school and college students. That does not mean that DOE or CUNY are standing still. CUNY's Strive for Success initiative enables community-based organizations to train young people to become peer counselors at CUNY colleges, forging a point of contact between organization and college. DOE has built specific partnerships with leading organizations such as CARA and Goddard Riverside's Options Center to provide needed services. But the city's policymakers need to go further, by inviting the leaders of community-based organizations to whiteboard a more systematic structure of collaboration between DOE, CUNY, and the nonprofit community.

FOR THE NYC DEPARTMENT OF EDUCATION AND CITY HIGH SCHOOLS

Establish a full-time counselor at every high school to provide targeted support to all students in the college-going process.

Testimony of professionals in the field and the best evidence from researchers converge on a paradigm shift that all high schools in New York City need to make: staffing a full-time college and career counselor. It is not that hiring or contracting for such a position ensures that students will achieve their college

aspirations. On the contrary, building a college-going culture takes a village. Teachers, administrators, school counselors, and others play vital roles, and models will vary from school to school. But someone has to learn complex financial aid policies that no one else has time to keep up with. Someone has to build and leverage relationships with college admissions counselors. Someone has to provide individualized support to each student, not just the most obviously college-bound. These essential tasks cannot be done on a part-time basis, especially when college application season arrives and counselors are inundated with anxious students.

Many high schools lack a dedicated college access counselor. With a citywide average student-to-counselor ratio of 224 to 1 and numerous demands on counselors' time, college access becomes just one of several balls they have to juggle. One approach might be to simply require high schools to hire a dedicated college access counselor. But this would invite paper compliance. Instead, DOE should take two steps that will move toward the goal. First, provide a funding stream for college access counseling, with the understanding that schools that already employ a full-time college access counselor can use the money creatively for a related purpose. Second, require high schools to report whether they have full-time staff carrying out the full-time college access counseling function, and publicly post the information for parents to see. That will enable the public to find out how seriously a given high school takes building a college-going culture and generate support from each school's community of parents and students.

The city also needs more consistent training in college access counseling for the next generation of school counselors. The Department of Education could offer preferential hiring for applicants who have college access training, and create externship slots for counselors in graduate programs to be mentored by school counselors experienced in college access counseling.

Expand the Office of Postsecondary Readiness and give it a leadership role in DOE's college access initiatives.

The Office of Postsecondary Readiness's college access division is responsible for boosting college access and success in the New York City public school system. Until recently, however, the college access and success staff at OPSR consisted of only a handful of people. Even now, as the staff swells to 25, it remains too small to bring individualized services to the city's 400-plus public high schools, and lacks authority to drive change beyond the specific initiatives it has been tasked with carrying out. DOE should develop the budget and staffing levels needed to provide sustained and

effective support for the development of college-going culture in the city's middle and high schools, as well as research and analysis into effective college access interventions.

OPSR should be the clearinghouse and coordinator for college access and success initiatives at DOE. While OPSR already plays a valuable role in professional development through its collaboration with Goddard Riverside's Options Institute, the office should have the capacity to conduct extensive ongoing professional development for school counselors in college access counseling, comparable to that provided by affinity groups such as Urban Assembly and New Visions for Public Schools for the schools they support.

Leverage economies of scale in expanding access to rigorous college-preparatory courses.

Students who take and pass rigorous college-preparatory courses—such as chemistry, physics, and pre-calculus—are more likely to succeed in college. Too few high school students take such courses, in part because many schools do not offer them. A lack of college-preparatory courses disproportionately affects the small high schools created during the Bloomberg administration. Yet attempting to add such courses to every single small high school could take years—especially given competing commitments to expand availability of computer science courses. Furthermore, the supply of teachers trained to use instructional techniques grounded in evidence on what helps young people learn is too small, and will also be a long-term project.

Instead, DOE should seek economies of scale. For example, many small high schools are co-located with other small schools or charter schools. It should be possible to offer college-preparatory courses—as well as other courses for smaller subpopulations, such as English language learners—for all schools co-located in a single building. Another strategy could be called a “hub-and-spoke” approach. For example, Board of Cooperative Educational Services (BOCES) schools are active in most counties outside New York City. They are funded and managed by school districts in their service area in order to provide educational services that span multiple school districts. DOE could replicate this approach by establishing a “hub” center to offer courses and programs of study that are not cost-effective for individual schools to provide. Students in the “spoke” schools attend the center to take college-preparatory courses relevant to their career aspirations. There are difficult issues to solve with such an approach, such as finding space for the center and providing convenient transportation so that getting to and from the center does not become an obstacle. But the reward would be equitable and cost-effective access

to rigorous college-preparatory courses.

Yet another strategy would be to add new capacity to the College Now program, which already teaches college-preparatory courses to more than 20,000 high school students annually. However, the students who currently visit CUNY to take these courses are among the school system's most gifted young people and are likely to enroll in college regardless. CUNY and DOE should consider adding new capacity for College Now to target services to students who lack college readiness. Offering a set of courses that can engage young people who read, write, or perform math below grade level would be a valuable service, and it would build on the services College Now already provides.

Overhaul math instruction in the city's high schools.

More than half of all first-year students entering a CUNY associate's degree program—some 13,000-plus students—place into a remedial math course, and six in ten of those students drop out within the next two years. One key problem seems to be the city's math curriculum, shaped in part by State Regents Examination requirements. Students do not take enough years of math to succeed in college, according to experts we interviewed; the senior year of math study is underutilized; and math curricula are aligned with the Regents math exams, but not with the CUNY math placement exam, thereby driving many students unnecessarily into math remediation courses. The State Education Department oversees the Regents math examinations and statewide graduation requirements. DOE should work jointly with the State Education Department and CUNY to align Regents math exams with credit-bearing math courses; encourage or incentivize students to take four years of math coursework, notably in the senior year; and provide more instruction in practical alternatives to higher-level algebra and pre-calculus, such as statistics and quantitative reasoning.

Advocate for collective-impact initiatives in high-need communities throughout the city.

The city's wealth of community-based organizations are too disconnected and piecemeal in their approach to students and schools. New York urgently needs a comprehensive strategy to harness their enormous value. One promising approach is the collective-impact model, which brings stakeholders together to collaborate in solving large-scale social problems too intractable for any one organization or agency. Collective impact is strengthening educational reform in several communities, including Seattle, Cincinnati, and south Texas. In the Bronx, South Bronx Rising Together, Bronx Opportunity Network, and Here to Here are implementing a model from which other high-needs

communities can learn. DOE should encourage and staff the development of collective-impact collaborations on a pilot basis in neighborhoods such as Brownsville / East New York, Harlem, and Corona.

Build capacity to evaluate the effectiveness of college access and success interventions.

The city lacks crucial information on what interventions are most effective at improving students' ability to get into college, afford college, navigate college culture, and graduate with a marketable credential. DOE already operates an effective in-house evaluation office, and works closely with the Research Alliance for New York City Schools. What is needed, however, is a top-level citywide agenda that aligns research, evaluation, and practice to compare the effectiveness of the most commonly used college access and success models and to develop new approaches as evidence emerges. The mayor should engage the Center for Economic Opportunity to bring in top national research organizations in collaboration with DOE, with external funding secured through the Fund for Public Schools to the extent possible. Armed with evidence-based practice models, the city can invest in partnering with organizations that use the most effective interventions to pilot new strategies and scale the approaches that work best.

FOR THE CITY UNIVERSITY OF NEW YORK AND PUBLIC COLLEGES

Expand the use of alternatives to remediation, notably fixing math remediation through college-level statistics with corequisite workshops.

The track record of developmental education is a grim one. Students who test into developmental education in math or English must attend a community college (unless accepted into the SEEK opportunity program), and 85 percent of students enrolled at community colleges are placed into developmental education. Students taking remedial courses use up their financial aid without getting any closer to graduation, and they are far more likely to drop out than other students. Furthermore, test-based placement into developmental education is highly inaccurate: research shows that many of these students could have succeeded in credit-bearing coursework, which could have kept them on the path to a degree.

CUNY has launched an ambitious reform that calls on community colleges to offer at least one alternative to conventional remediation. Math is especially overdue for a top-to-bottom overhaul, and CUNY has a promising evidence-based strategy to offer: a non-algebra gateway course—such as statistics or quantita-

tive reasoning—paired with weekly workshops (known as corequisite workshops) in which students can deal with concepts that give them trouble. Other colleges and states have found that this model produces remarkable gains in pass rates and college success. But CUNY's community colleges need to embrace the statistics-plus-corequisite model and reorient their math remediation systems around it to achieve system-wide change. In the past, some math and English departments responsible for developmental education have shown little enthusiasm for reform. If that pattern repeats itself over the next several years, thousands of first-year college students each year will fall prey to wasted time and a far higher dropout risk.

Support student transfer from community colleges to senior colleges.

Transfer students are the lifeblood of CUNY's 11 senior colleges. In fall 2016, for example, half of senior colleges' entering class of 36,587 undergraduate students were transfer students. Yet their progress toward a degree is too slow and uncertain. It is essential for CUNY to support student transfer more effectively. One effective strategy is to standardize acceptance of community college courses for credit at senior colleges, and in particular for credit toward the student's major. CUNY needs more consistent and effective credit approval procedures that span all of its senior colleges.

CUNY ASAP provides another potentially promising route to support transfer students. Many students transfer from community colleges to senior colleges through the ASAP program, at which point all of the supports they received through ASAP lapse, leaving them to struggle through a new academic environment on their own. John Jay College is piloting a CUNY ASAP program for bachelor's degree students called John Jay ACE. The city and state should support the scaling and replication of a bachelor's degree version of ASAP, particularly for transfer students who participated in ASAP at their home institutions. The benefit to the city's economy and CUNY's degree production effectiveness would far outweigh the costs. One possibility would be to create an outcome-based funding stream, so that improved graduation rates are rewarded by higher funding levels.

Shift CUNY's colleges and universities to a guided pathways framework.

CUNY plays a vital role in offering higher education opportunities to young people who are the first in their family to seek a college education. Yet these students find navigating a college to be extraordinarily different. They face an alien culture and expectations, complex rules, tangled financial aid regulations, and

unforgiving expectations, usually without any family members or close friends to ask for help. Too often they fall off track, signing up for a course that costs them financial aid eligibility or misunderstanding their major requirements.

Colleges across the country are developing guided pathways models that clarify the paths students can take to graduation day, with promising results. Guttman Community College already uses a guided pathways approach, as does CUNY ASAP. CUNY has already endorsed guided pathways at the systems level by agreeing to partner with Complete College America to develop a strategy. But the rubber will hit the road at the 17 campuses that have yet to transition to guided pathways. CUNY should build a template to facilitate the process by which most if not all of its colleges and universities can migrate to a career pathways framework. The city and state, as well as the philanthropic community, should explore funding opportunities that will help individual colleges manage start-up costs.

Develop more employer-recognized, credit-bearing non-degree programs at community colleges.

In an ideal world, most community college students would be able to attend school full-time, accumulate transferable credits, and ultimately graduate from a senior college with a bachelor's degree. But for students facing financial burdens, family obligations, and other challenges, CUNY needs to offer other options, too—options like certificates and certifications that cost far less in terms of both time and money while increasing employment opportunities and ultimately building a path to a degree. The most effective bridge between certificates and degrees is an agreement to allow courses in a certificate program of study to count for college credit if the student later enrolls in a degree-seeking program. Some programs, such as Borough of Manhattan Community College's IT Career Pathways program and Bronx Community College's Community Health certificate program, are "stackable" in this way.

Yet stackable programs are few and far between in the CUNY system. CUNY should work closely with industry partners, including employers and unions, to develop employer-recognized credentials that stack toward a degree. These credentials could form a crucial link in the chain from occupational coursework to graduating with a two- or even a four-year degree. In addition, New York State should provide partial subsidies to certificate and certification programs if they are stackable toward a degree and meet certain minimum standards.

Develop an artificial intelligence assistant to reduce summer melt and support advisors.

Georgia State University (GSU) has achieved a powerful breakthrough that points the way for CUNY and other New York colleges. GSU faced a common problem called summer melt, in which students are admitted, commit to attending, and then fail to enroll—not just at GSU, but at any college. GSU has tracked summer melt rates as high as 18 percent. In response, researchers working with the college developed an artificial intelligence assistant they dubbed Pounce to send texts to admitted students' cell phones. The texts provided information to students on milestones they had yet to complete, such as submitting their financial aid form to the federal government, submitting a high school transcript to the college, and RSVPing for orientation. The program was highly successful, reducing the workload for advisors and cutting the summer melt rate significantly.⁹⁰ CUNY should use a virtual assistant like that used by GSU. If it proves successful, the virtual assistant could be trained to support colleges with other tasks, such as financial aid and career services advising.

Reform the Office of the State Comptroller's approach to TAP audits.

CUNY students who lose TAP eligibility are often driven out of college, unable to foot the tuition bill. This problem is far more prevalent than most New Yorkers realize due to the complexity of TAP's eligibility and benefit rules. Harsh audits by the Office of the State Comptroller exacerbate the issue by forcing financial aid administrators to adopt a legalistic compliance mentality with students, either suddenly depriving them of financial aid or forcing them to choose courses solely to maintain TAP eligibility. To be sure, the State Comptroller has a fiduciary duty to provide oversight of this major financial aid program. But the office needs to focus on safeguarding against bad actors without punishing students—or college administrators acting in good faith.

The Office of the State Comptroller should adopt more restrictive criteria for launching audits, and use them as correctives rather than opportunities to confiscate college revenues. In addition, the State Education Department should convene a working group—including representatives from OSC, HESC, SUNY and CUNY financial aid offices, and community-based organizations—to identify changes to TAP regulations that can help more students succeed, develop clear guidance for all rules and regulations, establish appropriate training for TAP certifying agents, and help colleges and CBOs adopt best practices to maintain compliance.

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