# Post-Secondary Outcomes of Newark High School Graduates (2011-2016)

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A joint project of the Newark City of Learning Collaborative & the School of Public Affairs and Administration, Rutgers University-Newark





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### About Us

The Newark City of Learning Collaborative (NCLC) is an organization working to build a collegegoing culture in Newark. Its mission is to ensure all Newark residents have the information and resources to get to – and through – college. NCLC is comprised of partners from community-based organizations, local government, foundations, corporations, K-12 schools, and higher education, including Berkeley College, Bloomfield College, Essex County College, Felician University, Montclair State University, New Jersey Institute of Technology, Pillar College, Rutgers Biomedical and Health Sciences, Rutgers University-Newark, and Seton Hall University.

The School of Public Affairs and Administration (SPAA) at Rutgers University – Newark is recognized for its values of diversity, competency, knowledge, service, and ethical practice, pursuing an evidenced-based approach to the effective, equitable, and accountable implementation of public policy. SPAA houses the Center for Collaboration and the Urban Child, which works to create and support innovative programs and policies to improve the health, educational attainment, and socio-economic well-being of New Jersey's urban children and their families.

Cover photo credit: Graduates of Montclair State University



### Foreword

Over the past decade, more Newark students from throughout the city have been graduating from high school and enrolling in college. Graduation rates for the city's district high schools in particular have steadily increased, rising from 61% to 78% over the past several years. Yet despite this progress, not enough is known about the experiences of Newark students at the post-secondary level. Thus, *Post-Secondary Outcomes of Newark High School Graduates* represents a crucial analysis for understanding how well recent graduates are faring and offers keen insight for increasing degree attainment.

In the pages that follow, the authors examine post-secondary outcomes from the period of 2011-2016, establishing the first comprehensive analysis of graduates from all Newark school sectors – district, charter, vocational technical, and parochial. Specific findings are drawn from the report's key areas of Enrollment, Persistence, and Completion. We now know that more students are enrolling in college; two-thirds of the sample in this study enrolled in college within two years of graduating high school. However, findings also confirm that far too few Newark students are persisting toward degree completion.

As the Newark City of Learning Collaborative (NCLC) continues to build on its work to expand Newark's college-going culture, we invite the city's stakeholders to consider several recommendations designed to support higher levels of college enrollment and completion. Newark's economic vitality is intimately tied to whether residents are able to earn the degrees and credentials necessary to compete for stable and good paying jobs in the city. We hope that this report will serve as a resource to better understand the experiences of recent high school graduates and will allow the city to make informed policy decisions to ensure as many young people as possible succeed at the college level.

Regnald

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### **Executive Summary**

This report is a longitudinal study of the college-going patterns of almost 13,500 Newark high school students from the district, charter, vocational technical, and parochial sectors. It includes students who graduated high school between 2011 and 2016 from the Newark Public Schools (NPS) – both comprehensive and magnet, Essex County Vocational Technical Schools (ECVTS), KIPP New Jersey, and St. Benedict's Preparatory School (SBP). Taken together, these schools and districts represent about 85 percent of Newark high school students during this period.

Building on a 2014 analysis of post-secondary outcomes for 2004-2011 NPS graduates,<sup>1</sup> this report describes the college enrollment, persistence, and completion patterns of Newark high school graduates from multiple sectors. Current findings will aid Newark in identifying areas of improvement, strength, and success in the city's post-secondary pipeline. By gaining a better understanding of post-secondary outcomes – including the gaps along the path to college enrollment, persistence, and completion – Newark's students, parents, teachers, counselors, principals, community members, policy makers, and businesses can collectively evaluate the current systems and policies to better improve college outcomes for Newark's students moving forward.

### Findings

### Enrollment

**More Newark high school graduates are enrolling in college**. About 54 percent of 2011-2016 Newark high school graduates in this study immediately enrolled in college. This is a substantial improvement from the 2014 finding that only 39 percent of 2004-2011 NPS graduates immediately enrolled in college.<sup>2</sup> Some of the 2011-2016 graduates delayed college entry, with nearly two-thirds of all graduates enrolling in college within two years of high school graduation.

More graduates are enrolling in four-year colleges. Immediate enrollments at four-year colleges increased over time, from 31 percent of 2011 graduates to 39 percent of 2016 graduates. The majority of KIPP New Jersey (76 percent), SBP (59 percent), and NPS magnet (58 percent) graduates immediately enrolled in a four-year college, and the percentage of NPS comprehensive and ECVTS graduates enrolling in a four-year college increased over the study period.

**Fewer graduates are enrolling in two-year colleges.** Immediate enrollments at two-year colleges decreased, from 22 percent in 2011 to 14 percent in 2016. ECVTS and NPS comprehensive sectors had the highest rates of immediate two-year college enrollments, at 25 percent and 21 percent, respectively. Despite decreased enrollments, two-year enrollments also increased the longer time students had to enroll. An average of 28 percent of graduates enrolled in two-year colleges within two years of high school graduation. With this extra time, the largest two-year college enrollment increases occurred among NPS comprehensive and ECVTS graduates.

<sup>&</sup>lt;sup>1</sup> Backstrand et al., "Post-Secondary Outcomes of Newark Public School Graduates (2004-2011): College Matriculation, Persistence, and Graduation."

<sup>&</sup>lt;sup>2</sup> Backstrand et al.

**College enrollments among NPS comprehensive graduates have been slightly decreasing.** NPS comprehensive graduates simultaneously increased enrollments at four-year colleges (18 percent in 2011 to 24 percent in 2016) and decreased enrollments at two-year colleges (35 percent in 2011 to 25 percent in 2016). The net effect of these two trends was a slight decrease in the percent of NPS comprehensive graduates who enrolled in college within two years of high school graduation, from 53 percent in 2011 to just below 50 percent in 2016.

**Few students attend highly selective colleges.** Fewer than 10 percent of students attended a 'highly' or 'very competitive' college (which includes institutions like Rutgers University-New Brunswick and the New Jersey Institute of Technology), and only one percent attended the most competitive institutions (e.g., Harvard, New York University).

Essex County College was the most frequently attended post-secondary institution. Nearly 34 percent of all 2011-2016 college enrollees went to Essex County College. Rutgers-University Newark, Kean University, Bloomfield College, and Montclair State University were the most frequently attended four-year institutions. In all, similar to the 2014 findings, most graduates remained in New Jersey (83 percent) and close to Newark (67 percent) for college.

### Persistence

**Next-term persistence was high across all years and sectors.** Eighty-seven percent of Newark graduates who immediately enrolled in college returned for the next college term.

**Second-year persistence was lower than next-term persistence.** About 64 percent of students who immediately enrolled in college continued through the second year. Though second-year persistence rates were lower than next-term persistence rates for all sectors, NPS comprehensive and ECVTS had the largest decreases in persistence from the next term through the second year.

**Persistence rates were highest among students who initially enrolled in four-year colleges.** About 92 percent of students who immediately enrolled in a four-year college continued to the next term, and about 75 percent persisted through the second year of college. Though the majority (79 percent) of students who immediately enrolled in a two-year college returned for the next term, fewer than half of students continued through the second year.

### Completion

**Bachelor's degrees were the most common degree earned.** Over the study period, Newark graduates earned a total of 1,404 degrees, which includes 59 certificates, 467 associate degrees, 849 bachelor's degrees, and 29 master's degrees. Berkeley College conferred 27 percent of the certificates, Essex County College conferred 75 percent of the associate degrees, and together, Rutgers-New Brunswick, Rutgers-Newark, and Montclair State University conferred about a third of the bachelor's degrees.

**Completion rates increased with time.** Four years post-high school graduation, only 19 percent of Newark students who immediately enrolled in college earned any type of degree or certificate. Within five years, this number increased to 32 percent, and within six years, almost 39 percent of students who immediately enrolled in college had earned any type of degree or certificate. This is a substantial improvement from the 2014 findings, where only 18 percent of immediate enrollers from

the 2006 NPS cohort earned a certificate or degree within six years.<sup>3</sup> The largest increases in the percentage of students earning degrees occurred between the fourth and fifth years of college enrollment.

Completion rates and degrees earned varied by the type of institution students first attended. Almost 17 percent of students who immediately enrolled in a two-year college earned an associate degree within six years. Fewer than seven percent of students who immediately enrolled in a two-year college earned a bachelor's degree. At four-year colleges, 44 percent of immediate enrollers earned a bachelor's degree.

### Recommendations

- 1. Expand Professional Capacity of NPS Guidance Counselors. Provide monthly professional development sessions to all counselors (elementary and above) on college and careers. In addition, appoint a single central office administrator to oversee all guidance and ensure consistency in college advising across the direct.
- 2. Implement NPS Early Warning System. Assess and monitor college readiness for all students (elementary and above) to alert school staff and parents about students in need of academic and/or social interventions.
- **3. Expand Upon District-Sponsored SAT Preparation.** Integrate SAT preparatory content into district curriculum for all high school students.
- 4. Improve Transitions from Eighth to Ninth Grade. Require all rising ninth graders to attend summer bridge programs to introduce students to high school, academic expectations, and the importance of their high school years in post-secondary success.
- **5. Increase Access to Rigorous Coursework.** Expand access to high-level classes such as Advanced Placement, International Baccalaureate, honors, and dual enrollment to ensure every student has exposure to courses that will prepare them for college and careers.
- 6. Increase Family Engagement in College-Going Process. Leverage school- and communitylevel resources to support Newark families in the college-going process, with particular emphasis on FAFSA completion.
- 7. Expand Monitoring of Students' Progress in College. Develop formalized supports to monitor students' progress in college, and provide access to community resources, mentoring, and one-time emergency grants to students who face unanticipated financial hardships.
- 8. Provide Clearer Pathways between Education and Career Opportunities. Make explicit connections between degree programs and career pathways, including opportunities attached to short-term educational programs.

<sup>&</sup>lt;sup>3</sup> Backstrand et al.

### Introduction

In today's economy and labor market, it is essential that individuals have post-secondary credentials, or degrees and certifications earned after high school. In fact, it is estimated that almost two-thirds of jobs will require education and training beyond high school by 2020.<sup>4</sup> Compared to New Jersey and to the larger United States, Newarkers are behind in post-secondary attainment. About 19 percent of Newark residents hold an associate degree or higher, while state and national averages are 45 and 40 percent, respectively.<sup>5</sup>

Despite the gap in educational attainment, it is clear that Newark is experiencing a rebirth after decades of economic disinvestment. Nearly \$4 billion has been invested in recent commercial, residential, and industrial projects,<sup>6</sup> and Newark continues to be the largest employment center within the state, with more than 100,000 people commuting into the city for work.<sup>7</sup> However, it is still unclear how recent economic developments will affect the daily lives of the city's 282,000 residents. Coupled with this economic boom is the underlying reality that a third of the jobs in the city currently require a bachelor's degree, and the majority require training or education beyond a high school diploma.<sup>8</sup>

Apart from attracting new businesses and investment to the city, it is also critically important that Newark residents have access to these new opportunities. Such access is largely dependent on equipping residents with the skills and credentials needed for economic well-being. Newark has made increasing post-secondary educational attainment a priority, with "25 by 2025" describing the city's goal to increase the percentage of residents with a degree or high-quality credential to 25 percent by the year 2025. Beyond a mere numeric target, raising educational attainment in the city would have important implications for economic development, including ensuring that more Newark residents can find good-paying jobs in and around Newark.

This report is an examination of what college-going currently looks like for nearly 13,500 recent (2011-2016) graduates. Included are students who graduated high school between 2011 and 2016 from Newark Public Schools (NPS) – both comprehensive and magnet, Essex County Vocational Technical Schools (ECVTS), KIPP New Jersey, and St. Benedict's Prep (SBP).<sup>9</sup> Representing 85 percent of high school students citywide, this report provides a comprehensive portrait of post-secondary outcomes in the areas of enrollment, persistence, and completion.

<sup>&</sup>lt;sup>4</sup> Carnevale, Smith, and Strohl, "Recovery: Job Growth and Education Requirements through 2020."

<sup>&</sup>lt;sup>5</sup> U.S. Census Bureau, "American Fact Finder." Educational attainment for adults 25 and older.

<sup>&</sup>lt;sup>6</sup> Reitmeyer, "Newark Transformed."

<sup>&</sup>lt;sup>7</sup> Mitter, "In the Battle for Newark, Fears of Becoming the next Detroit"; New Jersey State Data Center, "Commuter-Adjusted Daytime Population Counties and Municipalities."

<sup>&</sup>lt;sup>8</sup> New Jersey Institute for Social Justice, "Bridging the Two Americas: Employment and Economic Opportunity in Newark and Beyond."

<sup>&</sup>lt;sup>9</sup> More information on the participating schools, sample characteristics, and data sources used in this study is provided in the **Appendix: Data Sources**.

Specifically, the following questions are addressed:

- What percentage of graduates enrolled in college?
- Which colleges did Newark graduates attend?
- What percent of graduates remained in college after initially enrolling?
- What percent of graduates earned degrees? How long did it take to earn a degree?
- From which colleges did graduates earn degrees?

The findings will aid Newark in identifying areas of improvement and success in the city's postsecondary pipeline. The report also expands on an earlier analysis of post-secondary outcomes of 2004-2011 NPS graduates by including students from multiple school sectors.<sup>10</sup> Each of the sectors included in this report reflects Newark's current high school landscape, which experienced both demographic and enrollment changes over the course of the study period.

### Changing Landscape of Newark's Schools

In addition to being New Jersey's largest city, Newark is also home to the largest school district in the state.<sup>11</sup> Roughly 56,000 students are enrolled in K-12 schools across all sectors, and almost one third of them of are high school age.<sup>12</sup> The racial/ethnic composition of children (under 18) in the city has shifted since 2010, with a nine percent decline in the proportion of Black/African American children (from almost 57 percent in 2010 to 51 percent in 2016), and a 27 percent increase in the proportion of Hispanic children (from 32 percent to almost 41 percent).<sup>13</sup> The percentage of children living in poverty also rose, from almost 35 percent in 2010 to 41 percent in 2016,<sup>14</sup> which keeps Newark in District Factor Group A, or the lowest socioeconomic category, along with 38 other school districts.<sup>15</sup>

There has also been an increase in the number of students enrolled in Newark high schools (**Figure 1**). About 9,000 students were enrolled in 2011, compared to almost 14,000 in 2017. Much of the enrollment growth during this period occurred in the charter sector, where six schools either opened or expanded enrollment to the high school grades. During the same time, enrollments in NPS magnet high schools grew at a slow rate, and NPS comprehensive high school enrollments experienced some fluctuations but had roughly the same enrollment in 2011 as 2017. The four ECVTS high schools had a relatively steep increase in enrollments from 2011 to 2012 that was followed by a leveling off from 2012-2017.

<sup>&</sup>lt;sup>10</sup> Backstrand et al., "Post-Secondary Outcomes of Newark Public School Graduates (2004-2011): College Matriculation, Persistence, and Graduation."

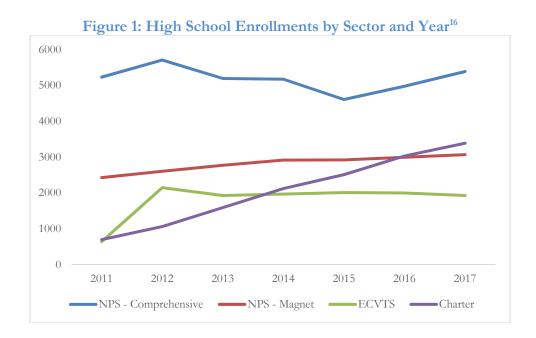
<sup>&</sup>lt;sup>11</sup> U.S. Census Bureau / American FactFinder, "B01003: Universe: Total Population."

<sup>&</sup>lt;sup>12</sup> U.S. Census Bureau, "CP05: Comparative Demographic Estimates (2016 ACS 1-Year Estimates)" American Fact Finder

<sup>&</sup>lt;sup>13</sup> U.S. Census Bureau, "American Fact Finder."

<sup>&</sup>lt;sup>14</sup> U.S. Census Bureau.

<sup>&</sup>lt;sup>15</sup> New Jersey Department of Education, "District Factor Groups (DFG) for School Districts."



As the enrollment numbers indicate, Newark was once comprised of mostly traditional public schools. Today, it is a landscape of district, charter, county vocational-technical, and parochial schools.<sup>17</sup> In 2011, 85 percent of students enrolled in Newark high schools attended NPS schools (58 percent in comprehensives and 27 percent in magnets), eight percent attended charters, and seven percent attended ECVTS. This changed from 2011 to 2017 with the charter sector increasing their share of students from eight percent to 25 percent.<sup>18</sup> Comprehensive enrollment shares decreased from 58 to 39 percent during this same period, and magnet shares decreased as well, from 27 percent to 22 percent (**Figure 2**). These enrollment changes demonstrate the necessity of including graduates of multiple school sectors in this examination of Newark's post-secondary outcomes.

Notwithstanding the demographic, socioeconomic, and enrollment changes, high school graduation rates in Newark have largely improved over time, though this varies by sector (**Figure 3**). The highest rates of high school graduation occurred in NPS magnet and ECVTS schools, with about 95 percent of entering ninth graders earning high school degrees. Intermediate were the charter high schools, which experienced a significant decline from 2012 to 2016, partly due to weaker performing high schools that were subsequently closed by the state.<sup>19</sup> Finally, though NPS comprehensive high schools have the lowest graduation rates compared to the other sectors, they have been steadily increasing, from 64 percent in 2012 to 70 percent in 2017.

<sup>&</sup>lt;sup>16</sup> New Jersey Department of Education, "Fall Enrollments by Academic Year."

<sup>&</sup>lt;sup>17</sup> Including large comprehensives, magnets, and some smaller specialty and alternative schools, the latter of which are not discussed or covered by this report.

<sup>&</sup>lt;sup>18</sup> Charter high school enrollments are lower than overall charter enrollment in Newark, due to the large number of K-8 charter schools.

<sup>&</sup>lt;sup>19</sup> Clark, "N.J. Shuts down 4 Charter Schools for Poor Performance."

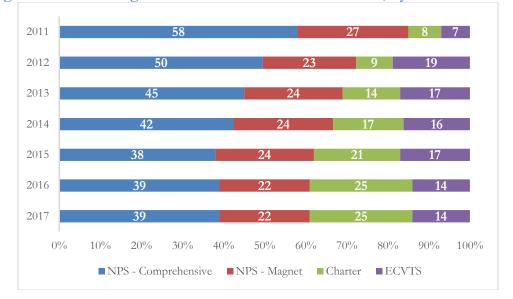
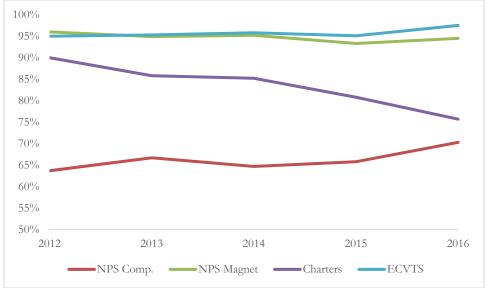


Figure 2: Newark High School Student Enrollment Shares, by Sector and Year<sup>20</sup>





<sup>&</sup>lt;sup>20</sup> New Jersey Department of Education, "Fall Enrollments by Academic Year."

<sup>&</sup>lt;sup>21</sup> New Jersey Department of Education, "Adjusted Cohort Graduation Rates." Note: Adjusted Cohort Graduation Rates broken down by NPS sector were unavailable for the 2011 class.

In all, increased high school graduation rates mean more students in Newark may be immediately eligible to enroll in college. Thus, this report examines post-secondary outcomes of enrollment, persistence, and completion for 2011-2016 Newark high school graduates to identify students' current college-going patterns. Where appropriate, current findings are placed in context of those from the earlier 2014 report, as well as in comparison with other urban areas (e.g. Chicago, Los Angeles, Baltimore) to give a sense of how post-secondary patterns have changed over time, and how variable these patterns can be across different social contexts. By gaining a better understanding of post-secondary outcomes – including gaps along the path to college enrollment, persistence, and completion – Newark's students, parents, teachers, counselors, principals, community members, policy makers, and businesses can collectively evaluate the current systems and policies to improve college outcomes for Newark's students moving forward.

College enrollment is first described in this report, with both immediate and delayed enrollment rates in four- and two-year colleges. Next, both next-term and second-year persistence rates are examined to understand students' continuous college enrollment. Four-, five-, and six-year completion rates are then analyzed to identify how many Newark students earned degrees, and the length of time it took students to complete their degree programs. Finally, the report concludes with a summary of findings and suggested policy recommendations to improve post-secondary outcomes for Newark's students.

When examining the results, it is important to keep in mind that there are some limitations of the college data that can lead to an *underestimation* of enrollment and completion for high school graduates.<sup>22</sup> That is, the number of students who ultimately attend college and earn a degree may be slightly higher than presented here. However, despite these limitations, this study uses the best available source of data on Newark graduates' post-secondary outcomes – information directly reported by the colleges and universities themselves, not student self-reports – and provides a starting point for citywide conversations on college going.

<sup>&</sup>lt;sup>22</sup> For more information on NSC underreporting, see **Appendix: Data Sources**, as well as Dynarski, Hemelt, and Hyman, "The Missing Manual"; National Student Clearinghouse Research Center, "Using NSC StudentTracker for High Schools Reports: Considerations for Measuring the College Enrollment Rates of High School Graduates."

### Enrollment

College enrollment is increasing across the United States. Nationally, the majority of recent high school graduates (70 percent) enroll, with more immediately enrolling in four-year than two-year colleges.<sup>23</sup> However, college enrollment patterns vary considerably among urban areas such as Newark. In Baltimore, immediate college enrollments have decreased.<sup>24</sup> In Los Angeles, college enrollments were static from 2008-2014, and almost twice as many students enrolled in two-year than four-year colleges. Whereas in both Chicago and New York, enrollments steadily increased, and more high school students enrolled in four-year than two-year college enrollments have increased over time, and more students enrolled in four-year than two-year colleges. These trends indicate that there is wide variation in college enrollment patterns across the United States.

### Where Did 2011-2016 Newark High School Graduates Enroll in College?

In Newark, graduates attended post-secondary institutions across the country (Map 1), with substantial clustering in the Northeast, particularly in New Jersey and areas closest to Newark (Map 2). Table 1 describes some of the institutional characteristics, including college location and selectivity, and the percentage of students attending each college type.<sup>26</sup>

Overall, Newark graduates attended more than 700 distinct post-secondary institutions. Slightly more than half of all enrollees attended four-year colleges, though this varied by school sector (**Table 1**). NPS magnet, KIPP New Jersey, and SBP graduates most frequently attended four-year schools, while NPS comprehensive and ECVTS graduates were slightly more likely to attend two-year colleges. Few Newark students attended a Historically Black College or University (three percent)<sup>27</sup> or liberal arts colleges (about two percent). NPS comprehensive high school graduates had much higher percentages of graduates attending for-profit colleges than students from other sectors (**Table 1**).

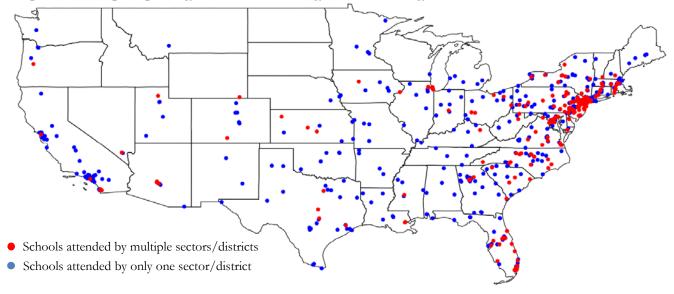
<sup>&</sup>lt;sup>23</sup> Snyder, de Brey, and Dillow, "Digest of Education Statistics 2016" Table 302.10; McFarland et al., "The Condition of Education 2018."

<sup>&</sup>lt;sup>24</sup> Durham, Stein, and Connolly, "College Opportunities and Success: Baltimore City Graduates through the Class of 2014." Baltimore's declining enrollment may partially be a function of increased high school graduation rates, where more students, who previously might not have finished high school, are now completing, which changes the academic profiles of recent graduating classes.

<sup>&</sup>lt;sup>25</sup> Black and Coca, "New York City Goes to College: New Findings and Framework for Examining College Access and Success"; Coca, Nagaoka, and Seeskin, "Patterns of Two-Year and Four-Year College Enrollment Among Chicago Public Schools Graduates"; Phillips, Yamashiro, and Jacobson, "College Going in LAUSD: An Analysis of College Enrollment, Persistence, and Completion Patterns."

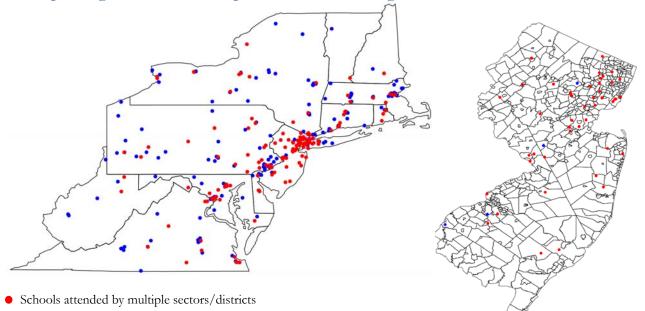
<sup>&</sup>lt;sup>26</sup> In the descriptions of where students enroll, the percentages of students attending each type of institution are based on all institutions students ever attended, which includes students who attended multiple post-secondary institutions.

<sup>&</sup>lt;sup>27</sup> A recent report finds KIPP students who attend HBCUs report a higher "sense of belonging" than KIPP students who attend other schools (Toppo, "HBCUs Doing Something Right for KIPP Alumni.").



Map 1: U.S. Map Depicting Location of Colleges Newark High School Graduates Attended<sup>28</sup>

Map 2: Regional and State Maps of Location of Colleges Newark Graduates Attended



• Schools attended by only one sector/district

<sup>&</sup>lt;sup>28</sup> Students also attended schools in Hawaii and Puerto Rico

Across the country, Black, Hispanic, and low-income students are underrepresented at the most selective colleges, or those with stricter admission standards.<sup>29</sup> Consistent with these national trends, few Newark students, many of whom are Black, Hispanic, and low income, attended selective colleges and universities. These selective institutions have higher graduation rates than less selective colleges, and research suggests that students' chances of graduation are higher at colleges that closely match their academic profile.<sup>30</sup> However, fewer than 10 percent of students attended a highly or very competitive college (which includes colleges like Rutgers University-New Brunswick and the New Jersey Institute of Technology), and only one percent attended the most competitive institutions (e.g., Harvard, New York University).<sup>31</sup> There appears to be a degree of undermatching with respect to college selectivity in Newark, such that when students have the grades and test scores that would allow them to enroll in more selective colleges, they do not.

At the same time, Newark graduates deviated from state and national trends in where they attended college. Across all sectors, Newark graduates tended to remain in New Jersey, with more than 80 percent remaining in-state. This is much higher than the rest of New Jersey, where only about 57 percent of high school graduates (who enrolled in college) stayed in-state for college.<sup>32</sup> Similarly, about two-thirds of Newark graduates attended college within 10 miles of Newark, with higher percentages of ECVTS (79 percent) and NPS comprehensive (70 percent) graduates staying close to home. This number is much higher than national estimates, where only 13 percent of first-year students enrolled in a college that is within 10 miles of their home.<sup>33</sup> These patterns are consistent with earlier findings for 2004-10 NPS graduates, where the majority remained in New Jersey, and close to Newark for college.<sup>34</sup>

The most frequently attended colleges of Newark high school graduates, along with the percentage of enrollees attending them, are listed in (**Table 2**) Notably, Essex County College was the most frequently attended institution across all sectors, with almost 43 percent of comprehensive, 21 percent of magnet, 45 percent of ECVTS, 17 percent of SBP, and 15 percent of KIPP New Jersey graduates enrolling at some point.<sup>35</sup> Essex County College was followed by Rutgers-Newark (five percent), Kean University (five percent), Bloomfield College (five percent), and Montclair State University (four percent) for the top colleges Newark graduates attended.

<sup>&</sup>lt;sup>29</sup> Reardon, Baker, and Klasik, "Race, Income, and Enrollment Patterns in Highly Selective Colleges, 1982-2004"; Harris, "When Disadvantaged Students Overlook Elite Colleges"; Kang and Torres, "College Undermatching, Degree Attainment, and Minority Students."

<sup>&</sup>lt;sup>30</sup> Kang and Torres, "College Undermatching, Degree Attainment, and Minority Students"; Harris, "When Disadvantaged Students Overlook Elite Colleges"; Roderick, Coca, and Nagaoka, "Potholes on the Road to College"; Bowen, Chingos, and McPherson, *Crossing the Finish Line: Completing College at America's Public Universities.* 

<sup>&</sup>lt;sup>31</sup> Categories here include very competitive, highly competitive, and most competitive, the latter of which collapses highly competitive plus and highly competitive institutions. Barron's College Division Staff, *Profiles of American Colleges 2015*.

<sup>&</sup>lt;sup>32</sup> Snyder, de Brey, and Dillow, "Digest of Education Statistics 2016." Table 302.50.

<sup>&</sup>lt;sup>33</sup> Eagan et al., "The American Freshman: National Norms Fall 2016"; However, this may vary by racial/ethnic group. See Desmond and Turley, "The Role of Familism in Explaining the Hispanic-White College Application Gap"

<sup>&</sup>lt;sup>34</sup> Backstrand et al., "Post-Secondary Outcomes of Newark Public School Graduates (2004-2011): College Matriculation, Persistence, and Graduation."

<sup>&</sup>lt;sup>35</sup> Of students who ever attended college.

Though there was considerable overlap in the most frequently attended colleges by enrollees from the different high schools and districts (**Maps 1** and **2**, and **Table 2**), there were also a few notable differences. For example, though students from all sectors enrolled at Berkeley College, a local forprofit school, and Hudson County Community College, higher percentages of students from NPS comprehensive and ECVTS enrolled at both. At the same time, SBP graduates were the most likely to attend Saint John's University in Minnesota (six percent), Saint Peter's University (five percent) and Saint Vincent College (three percent), which like SBP, are all Roman Catholic-affiliated institutions.<sup>36</sup> These findings suggest that, among other things, some high schools may be preparing or advising their students to attend certain types of colleges in ways that other high schools do not.

Type of College or	Newark Public Schools		ECVTS	KIPP NJ	SBP	Total
University	Comp.	Magnet		5		
Level						
Two-Year	57.2	29.1	51.3	24.0	23.2	44.3
Four-Year	42.8	70.9	48.7	76.0	76.8	55.7
Control						
Public	76.7	74.8	82.1	59.8	42.1	75.6
Private	23.4	25.2	17.9	40.2	57.9	24.4
Other characteristics						
Liberal Arts	1.2	2.2	0.8	3.5	12.0	1.8
HBCU	3.5	3.8	1.3	5.1	2.2	3.3
For-Profit	6.9	2.6	3.5	1.9	1.3	4.5
Selectivity						
Most competitive	0.2	2.1	0.3	1.9	8.2	1.1
Highly competitive	0.5	1.3	0.2	1.9	0.4	0.8
Very competitive	4.1	16.1	4.7	9.2	8.2	8.6
Location						
Within 10 miles of Newark	69.6	61.6	79.1	56.8	53.7	67.3
In New Jersey	82.3	83.2	89.8	81.1	65.7	83.4
Urban	64.8	60.0	65.2	42.9	55.8	61.9
Suburban	32.7	38.7	34.3	54.9	36.5	36.3
Town	1.7	0.7	0.4	1.3	1.7	1.1
Rural	0.9	0.6	0.1	1.0	6.0	0.8

Table 1: Percentage of Colleg	e Enrollees, by High Sci	hool Sector and Institution Type <sup>37</sup>

<sup>&</sup>lt;sup>36</sup> Graduates of other sectors were less likely to enroll in Saint Vincent College, and none enrolled in Saint John's University. Fewer than three percent of NPS comprehensive, NPS magnet, ECVTS, and KIPP New Jersey students enrolled in Saint Peter's University, which is located in nearby Jersey City.

<sup>&</sup>lt;sup>37</sup> Weighted by the number of students attending each institution (of the universe of students who ever enrolled in college). These numbers reflect <u>all</u> post-secondary institutions ever attended, which includes students who attend multiple institutions.

	Coneges, by Sector								
College or University		Newark Public Schools		ECVTS	KIPP NJ	SBP	ALL		
		Comp.	Magnet		U				
1	Essex County College	42.8	21.3	44.5	15.4	16.7	33.8		
2	Rutgers-Newark	3.2	8.5	3.9	4.1	8.2	5.3		
3	Kean University	3.8	4.4	6.3	6.0	5.2	4.6		
4	Bloomfield College	3.8	4.5	4.3	11.4	3.9	4.6		
5	Montclair State University	2.9	5.4	6.1	3.8	3.9	4.4		
6	Union County College	5.1	3.4	2.7	4.9	3.0	4.1		
7	New Jersey City University	2.7	3.9	5.6	2.4	2.6	3.5		
8	Rutgers-New Brunswick	0.7	7.4	0.1	2.7	_	2.9		
9	New Jersey Institute of Technology	1.2	4.9	2.4	1.4	3.4	2.7		
10	William Patterson College of NJ	1.3	3.9	2.5	5.7	2.6	2.7		

Table 2: Percentage of Newark Graduates Enrolled at the Most Frequently Attended Colleges, by Sector

### How Many Graduates Immediately Enrolled in College?

While the previous section described *all* college enrollments (both immediate and delayed), this section only focuses on immediate enrollment, defined as enrolling in college the fall after high school graduation.<sup>38</sup> Research suggests that students who immediately enroll in college have higher graduation rates than their peers who delay enrollment.<sup>39</sup> Immediate enrollment is first examined because it is a national indicator of post-secondary attainment, which allows for comparisons of Newark to different cities around the country. Among Newark graduates, comparisons are made across study years (cohorts) and high school sectors.

The percentages of high school graduates not immediately enrolling and enrolling in four- and twoyear colleges are presented in **Figure 4** [See this report's **Online Supplement** for the data tables]. The top bar reflects the percentages of students who did *not* immediately enroll in college, while the bottom two reflect the percentages of students who immediately enrolled, by school type, for each graduating class.

More than half of 2011-2016 Newark high school graduates immediately enrolled in college. The percent of students immediately enrolling increased from 2011 to 2015, from 52 percent to 56 percent, though it decreased slightly for the 2016 cohort.<sup>40</sup> This shows considerable improvement from earlier findings, when only 39 percent of 2004-2010 NPS graduates immediately enrolled in

<sup>&</sup>lt;sup>38</sup> Following the work of the University of Chicago Consortium on School Research (e.g. Roderick, Nagaoka, and Allensworth, "From High School to the Future: A First Look at Chicago Public School Graduates' College Enrollment, College Preparation, and Graduation from Four-Year Colleges."), students are considered 'immediately enrolling' if they enrolled in a post-secondary institution by October 15 of the year of their high school graduation.

<sup>&</sup>lt;sup>39</sup> Attewell, Heil, and Reisel, "What Is Academic Momentum?"

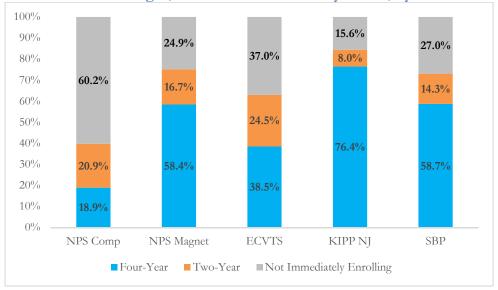
<sup>&</sup>lt;sup>40</sup> The sum of four- and two-year immediate enrollments reflects the overall percentage of high school graduates immediately enrolling for a given cohort. At this point, it is unknown if the 2016 cohort represents a temporary decrease in immediate enrollments or is the start of a downward trend.

college.<sup>41</sup> Additionally, the percentage of Newark graduates immediately enrolling in four-year colleges has been increasing over time, from 31 percent in 2011 to 39 percent in 2016 (**Figure 4**). At the same time, though, the percentage of students immediately enrolling in two-year colleges decreased, from about 22 percent in 2011 to 14 percent in 2016.



Figure 4: Percentage of High School Graduates Who Immediately Enrolled in Four- or Two-Year Colleges, or Did Not Immediately Enroll, by Year

Figure 5: Percentage of High School Graduates Who Immediately Enrolled in Four- or Two-Year Colleges, or Did Not Immediately Enroll, by Sector

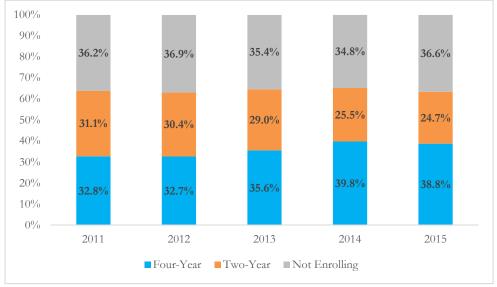


<sup>&</sup>lt;sup>41</sup> Backstrand et al., "Post-Secondary Outcomes of Newark Public School Graduates (2004-2011): College Matriculation, Persistence, and Graduation."

Immediate college enrollment rates varied by sector (**Figure 5**), with 84 percent of KIPP New Jersey, 75 percent of NPS magnet, 73 percent of SBP, 63 percent of ECVTS, and 40 percent of NPS comprehensive graduates immediately enrolling.<sup>42</sup> Immediate enrollments were also unevenly distributed between four- and two-year colleges by sector. The majority of KIPP New Jersey (76 percent), SBP (59 percent), and NPS magnet (58 percent) graduates immediately enrolled in a four-year college, followed by 39 percent of ECVTS and 19 percent of NPS comprehensive graduates. ECVTS and NPS comprehensive sectors had the highest rates of immediate two-year college enrollments, at 25 percent and 21 percent, respectively, followed by 17 percent of NPS magnet, 14 percent of SBP, and eight percent of KIPP New Jersey graduates. Though not shown here, there were also modest increases in immediate four-year college enrollments, and decreases in two-year college enrollments, for NPS comprehensive and ECVTS graduates over time.

### How Many Graduates Enrolled in College Within Two Years of Graduation?

This section describes college enrollments within two years of high school graduation to understand how enrollment patterns changed over time. Though research suggests students who delay college enrollment are less likely to earn bachelor's degrees,<sup>43</sup> there is much to be said about students' commitment to college in enrolling years after high school graduation. Similar to **Figure 4**, trends in four- and two-year college enrollments, and no enrollment, are presented in **Figure 6**.<sup>44</sup>



### Figure 6: Percentage of High School Graduates Who Enrolled in Four- or Two-Year Colleges within Two Years, or Who Did Not Enroll within Two Years, by Year

Nearly two-thirds of Newark graduates enrolled in college within two years of high school, compared to the roughly 54 percent of students who enrolled immediately after high school (**Figure 4**). Similar to immediate enrollments, more students first enrolled (within two years of high school graduation) in four-year than two-year colleges, and four-year enrollments increased over time, from

<sup>&</sup>lt;sup>42</sup> Both KIPP New Jersey and SBP have very small numbers of graduates compared to NPS comprehensive and magnet.

<sup>&</sup>lt;sup>43</sup> Bozick and DeLuca, "Better Late than Never?"; Niu and Tienda, "Delayed Enrollment and College Plans."

<sup>&</sup>lt;sup>44</sup> Since the college data are only up through the spring 2017 semester, the 2016 cohort is not presented in this section.

33 percent in 2011 to nearly 39 percent in 2015. Another similar trend was the decreasing enrollments in two-year colleges, down to 25 percent in 2015 from 31 percent in 2011. However, two-year college enrollments increased as more time passed from high school graduation. An average of 20 percent of graduates immediately enrolled in two-year colleges from 2011-2015, compared to 28 percent enrolling in two-year colleges within two years of graduation.

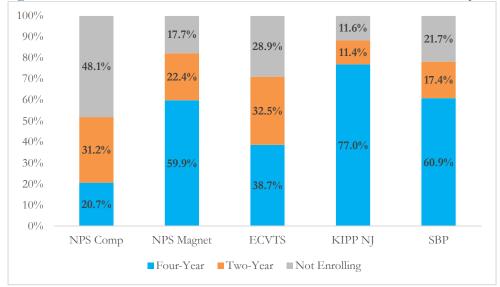


Figure 7: Percentage of High School Graduates Who Enrolled in Four- or Two-Year Colleges within Two Years, or Who Did Not Enroll within Two Years, by Sector

As with immediate enrollments, enrollments within two years also varied by sector (Figure 7). The highest rates of enrollment followed the immediate enrollment patterns, with 88 percent of KIPP New Jersey, 82 percent of NPS magnet, 78 percent of SBP, 71 percent of ECVTS, and 52 percent of NPS comprehensive graduates enrolling in college within two years of high school graduation. However, with the extra time to enroll, the largest enrollment increases occurred among NPS comprehensive and ECVTS graduates. While 40 percent of NPS comprehensive graduates immediately enrolled in college, 52 percent enrolled within two years of graduation – a 28 percent increase. ECVTS experienced similar, though smaller gains, with 71 percent of graduates enrolling in college within two years, up from 62 percent immediately enrolling (a 14 percent increase). Similar to the trends over time (Figure 6), the extra time mostly affected enrollments at two-year colleges, which is where both NPS comprehensive and ECVTS graduates and ECVTS graduates made the most gains in college enrollments.

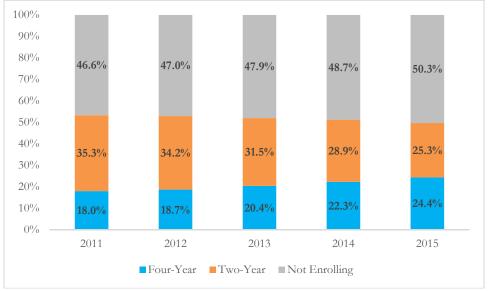
#### What were the College Enrollment Trends for NPS Comprehensive Graduates?

The previous sections did not highlight sector trends over time due to the small number of graduates from certain sectors, like KIPP New Jersey and SBP. Comprehensive graduates, on the other hand, comprise about 55 percent of students in the study, which allows for a more in-depth look at trends in these graduates' college enrollment (**Figure 8**).

Two years after high school graduation, NPS comprehensive graduates increased their enrollments in four-year colleges about 36 percent, from 18 percent in 2011 to 24 percent in 2015. This trend was consistent across all comprehensive high schools and racial/ethnic and gender groups.

However, the increases in four-year college enrollments were coupled with decreases in two-year college enrollments, from 35 percent in 2011 to 25 percent in 2015. The net effect of these two trends was a slow increase in the percent of NPS comprehensive graduates who did *not* enroll in college within two years of graduation, from 47 percent in 2011 to 50 percent in 2015. These trends differ slightly from those nationally, where about 69 percent of recent high school completers (ages 16-24) enrolled in college in 2015, with more students enrolled in four-year, rather than two-year, colleges.<sup>45</sup> At this point, it is possible these trends are in transition, particularly as more comprehensive graduates are enrolling in four-year colleges. However, more information is needed about the decreasing two-year enrollments.

### Figure 8: Percentage of NPS Comprehensive Graduates Who Enrolled in Four- or Two-Year Colleges within Two Years, or Who Did Not Enroll within Two Years, by Year



# What were the Demographic Characteristics of Students Who Immediately Enrolled in College?

The demographic characteristics of Newark graduates who immediately enrolled in college are presented in **Table 3**. In regard to race/ethnicity, White high school graduates were most likely to enroll in college immediately after high school graduation (59 percent, N=560), followed by Hispanic (55 percent, N=2,575) and Black (53 percent, N=4,068) graduates. These racial/ethnic differences are similar to those for the U.S. as a whole, where 71 percent of White, 69 percent of Hispanic, and 56 percent of Black recent high school graduates immediately enrolled in college.<sup>46</sup> Nationally, the Black/White gap in college enrollment has been largely consistent since 2005, though the Hispanic/White gap narrowed, with no measurable difference between White and Hispanic students in recent years.<sup>47</sup>

<sup>&</sup>lt;sup>45</sup> Snyder, de Brey, and Dillow, "Digest of Education Statistics 2016."

<sup>&</sup>lt;sup>46</sup> Snyder, de Brey, and Dillow. Table 302.20.

<sup>&</sup>lt;sup>47</sup> Snyder, de Brey, and Dillow; Fry, "Hispanic College Enrollment Spikes, Narrowing Gaps with Other Groups"; McFarland et al., "The Condition of Education 2018."

Next, as is the case nationally,<sup>48</sup> female graduates were more likely to enroll in college than their male counterparts (60 percent compared to 48 percent). Interestingly, reduced lunch students were more likely to enroll in college than either free lunch or no subsidy students (64 percent compared to 52 percent and 55 percent, respectively). At a national level, the high- and low-income enrollment gap has decreased over time, though recent high school graduates from high-income families still enroll in college at higher rates than those from low-income families.<sup>49</sup> Finally, only 32 percent of special education graduates enrolled in college, compared to 58 percent of non-special education students.

Variable	Value	Value Number Immediately Enrolling		Percent	
	Black	4,068	7,657	53.1%	
Race/	Hispanic	2,575	4,702	54.8%	
Ethnicity	White	560	949	59.0%	
	Other	116	168	69.1%	
Gender	Female	4,296	7,193	59.7%	
Gender	Male	3,024	6,285	48.1%	
	Free	4,680	8,954	52.3%	
Lunch Status	Reduced	930	1,464	63.5%	
	No Subsidy	1,542	2,829	54.5%	
Special	No	6,566	11,394	57.6%	
Education	Yes	586	1,854	31.6%	

Table 3: Demographic Characteristics of Immediate Enrollers (Cohorts 2011-2016)

### What Do the Enrollment Findings Tell Us?

The enrollment findings are positive overall: an increasing number of Newark graduates enrolled in four-year colleges, and almost two-thirds of graduates were enrolled in college two years after high school graduation. However, the enrollment findings portray a complicated picture, as there were some differences in enrollment by college (i.e., two- and four-year) and enrollment types (i.e., immediate and two-year enrollment). There were also notable sector differences in enrollment, such that higher percentages of NPS comprehensive graduates enrolled in two-year colleges than their peers in different sectors. Taken together, the enrollment findings suggest that while Newark college enrollment has improved, additional information is needed to identify what is driving the decreasing NPS comprehensive enrollments and the decreasing shares of students enrolling in two-year colleges. These enrollment data provide information on the first stages of students' post-secondary outcomes. Next, college persistence is addressed to understand students' rates of continuous college enrollment.

<sup>&</sup>lt;sup>48</sup> Snyder, de Brey, and Dillow, "Digest of Education Statistics 2016." Table 302.10

<sup>&</sup>lt;sup>49</sup> Snyder, de Brey, and Dillow; McFarland et al., "The Condition of Education 2017."

### Persistence

While college life can present a number of challenges to students, persistence is a critical outcome for student success. Students who persist in college, or return for another term or year, tend to have higher rates of degree completion than those who do not.<sup>50</sup> College persistence of Newark high school graduates is closely examined with two measures: 1) students who immediately enrolled in a second college term following their first term of enrollment, and 2) students who were continuously enrolled in college for two years.<sup>51</sup> These measures represent short- and long-term persistence, and the latter has been utilized in previous studies on post-secondary outcomes.<sup>52</sup>

Although most students nationally – and in Newark – return for the next college term, fewer students complete the first two continuous years of college. Nationally, about 73 percent of students who enroll in college return for a second year.<sup>53</sup> This varies by institutional type, with 82 percent of students at four-year colleges, and 63 percent of students at two-year colleges returning for a second year.<sup>54</sup> Among Newark graduates who immediately enrolled in college, there were high rates of short-term persistence: 87 percent returned for the next college term. However, second-year persistence was lower, with 64 percent continuing through the second year of college. Both next-term and second-year persistence varied between college type, with higher rates observed in four-year colleges.

### How Many Immediate Enrollers Persisted at Four-Year Colleges?<sup>55</sup>

With respect to persistence at four-year colleges, immediate enrollers experienced high levels of both next-term and second-year persistence. Both trends appeared to be largely consistent over the study period. Across cohorts, about 92 percent of students who immediately enrolled in a four-year college in fall continued on to the next term, and about 75 percent persisted through the second year of college (**Figure 9**). Second-year persistence was higher in Newark than in Chicago, where only 59 percent of immediate enrollers persisted through the second year at four-year colleges.<sup>56</sup>

Persistence rates varied by sector, with NPS comprehensive graduates trailing slightly behind their peers in next-term persistence. In all, 97 percent of SBP, 95 percent of NPS magnet, 92 percent of ECVTS, 91 percent of KIPP New Jersey, and 87 percent of NPS comprehensive graduates who immediately enrolled in a four-year college returned for a second term (**Figure 10**). Though the majority remained in college through the second year, persistence rates decreased for students from all sectors.

<sup>&</sup>lt;sup>50</sup> Adelman, "Answers in the Tool Box: Academic Intensity, Attendance Patterns and Bachelor's Degree Attainment"; Adelman, "The Toolbox Revisited"; Crosta, "Intensity and Attachment."

<sup>&</sup>lt;sup>51</sup> "Terms" for this report are defined as six-month periods (January through June, and July through December) when students were enrolled. A student who enrolled in a summer course in May would be counted as a "spring" enrollment, but not as a "fall" enrollment. Second-year persistence is defined here as enrollment in four continuous "terms."

<sup>&</sup>lt;sup>52</sup> Nagaoka, Seeskin, and Coca, "The Educational Attainment of Chicago Public Schools Students: 2016."

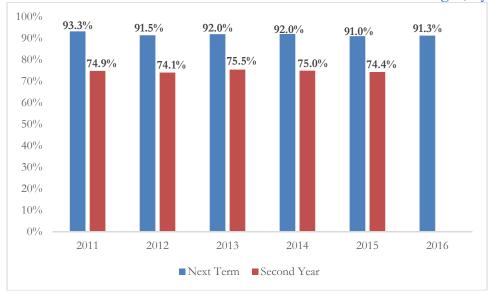
<sup>53</sup> NSC Research Center, "Snapshot Report - First-Year Persistence and Retention."

<sup>&</sup>lt;sup>54</sup> NSC Research Center.

<sup>&</sup>lt;sup>55</sup> Results for second-term persistence are presented for all cohorts, 2011-2016. Second-year persistence results are only presented for the 2011-2015 cohorts. As students were followed through spring 2017, the 2016 cohort did not have enough time to be enrolled for two years.

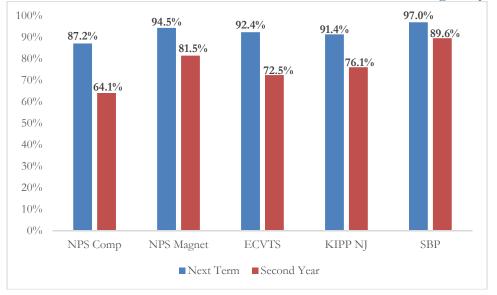
<sup>&</sup>lt;sup>56</sup> Nagaoka, Seeskin, and Coca, "The Educational Attainment of Chicago Public Schools Students: 2016."

NPS comprehensive, ECVTS, and KIPP New Jersey had the largest decreases in persistence from the next term through the second year. There was a 39 percent decrease in the number of students persisting through a second year from those who persisted to the next term among NPS comprehensive and ECVTS immediate enrollers, and about a 36 percent decrease for KIPP New Jersey. Though not shown here, KIPP New Jersey's decrease in persistence through the second year appears to be largely driven by earlier graduating cohorts. More recent KIPP New Jersey graduates (2014 and 2015) had higher second-year persistence rates than earlier cohorts (2011-2013).



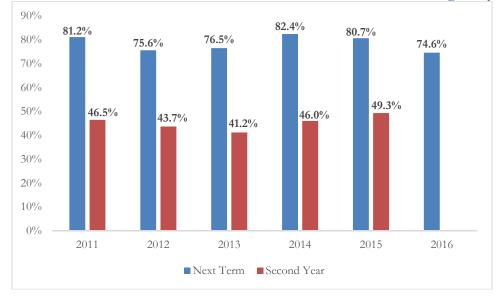






### How Many Immediate Enrollers Persisted at Two-Year Colleges?

For Newark graduates who immediately enrolled in college, both next-term and second-year persistence were higher at four-year than two-year colleges. Though the majority of students (79 percent) who immediately enrolled in a two-year college returned for the next term, persistence through the second year was substantially lower: fewer than half of students who immediately enrolled in a two-year college continued through the second year (**Figure 11**).





Persistence rates also varied by sector at two-year colleges (**Figure 12**). About 91 percent of SBP, 82 percent of ECVTS, 81 percent of NPS magnet, 80 percent of KIPP New Jersey, and 76 percent of NPS comprehensive graduates who immediately enrolled in a two-year college continued on to the next term.<sup>57</sup> All sectors saw larger drops in second-year persistence in two-year colleges. Similar to rates at four-year colleges, graduates of NPS comprehensive and ECVTS experienced the largest declines from next-term to second-year. Almost 52 percent of NPS comprehensive and ECVTS students who persisted to the next term did *not* persist through the second year of college.

There are a number of possible reasons why students in four-year colleges might have higher persistence rates than their peers in two-year colleges. For instance, two-year colleges tend to have more of an 'open access' structure than four-year colleges. This means that admissions happen continuously throughout the year, which allows for more flexibility in students' enrollment patterns than at four-year colleges. It is important to note that although Newark students are less likely to complete two immediate and continuous years of college at two-year institutions, this may not necessarily indicate a decreased ambition to earn a degree. Research suggests that, despite one or

<sup>&</sup>lt;sup>57</sup> Very few graduates of KIPP New Jersey and SBP attended two-year colleges (39 and 33 graduates, respectively, over the study period).

more periods of non-enrollment, having the flexibility to return allows students to "hold steady" in their educational ambitions and continue progress toward a degree at two-year colleges.<sup>58</sup>

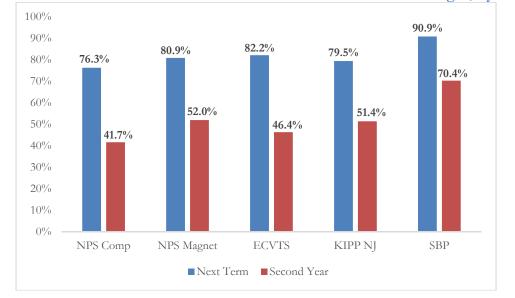


Figure 12: Next-Term and Second-Year Persistence at Two-Year Colleges, by Sector

# What were the Demographic Characteristics of Students Who Persisted through the Second Year?

This section describes variation in second-year college persistence among Newark high school graduates according to demographic characteristics (**Table 4**). As with college enrollment, there were important racial/ethnic disparities in college persistence. Almost 72 percent of White high school graduates (N = 333) enrolled through the second college year, compared to 62 percent of Hispanic (N = 1,316) and 63 percent of Black students (N = 2,170). These rates are similar to those seen nationally, where 79 percent of White, 73 percent of Hispanic, and 67 percent of Black students return for a second year of college.<sup>59</sup> Female graduates were more likely to persist for two years than males (66 percent versus 60 percent). Additionally, though higher percentages of reduced lunch students persisted through the second year than free lunch students (69 percent compared to 62 percent), other school lunch status differences were small. Finally, special education high school graduates were less likely to persist in college for two years than non-special education graduates (45 percent versus 65 percent).

<sup>&</sup>lt;sup>58</sup> Nielsen, ""'Fake It "Til You Make It"."

<sup>&</sup>lt;sup>59</sup> NSC Research Center, "Snapshot Report - First-Year Persistence and Retention."

Variable	Value	Number Persisting through Second Year	Total Number of Immediate Enrollers	Percent
Race/	Black	2,170	3,450	62.9%
Ethnicity	Hispanic	1,316	2,106	62.5%
	White	333	465	71.6%
	Other	71	90	78.9%
Gender	Female	2,370	3,593	66.0%
	Male	1,521	2,519	60.4%
Lunch	Free	2,367	3,845	61.6%
Status	Reduced	544	794	68.5%
	No Subsidy	866	1,340	64.6%
Special	No	3,558	5,487	64.8%
Education	Yes	219	492	44.5%

### Table 4: Demographic Characteristics of Students who Immediately Enrolled in College and Persisted through the Second Year (Cohorts 2011-2015)

### What Do the Persistence Findings Tell Us?

Overall, Newark graduates who immediately enrolled in college had high rates of short-term persistence. Second-year persistence was considerably lower, however. While it is encouraging that persistence rates were higher at four-year colleges, where the majority of Newark graduates enrolled, more attention must be paid to increasing second-year persistence, particularly at two-year colleges. Building on the enrollment and persistence findings, college completion among both immediate enrollers and all high school graduates is examined next.

# Completion

College degree attainment has become more consequential for future economic prospects. Nearly 75 percent of the 30 fastest growing occupations typically need a certificate, associate degree, or higher for entry.<sup>60</sup> Median annual earnings for young adults (25-34) vary greatly by educational attainment, from \$53,800 for those with a bachelor's degree, to \$36,900 for those with an associate degree, to \$30,500 for those with a high school diploma.<sup>61</sup> Beyond the economic benefits, college graduates tend to be healthier, live longer, and participate in civic activities at higher rates than high school graduates.<sup>62</sup> These trends demonstrate the increasing need for credential attainment beyond a high school diploma in today's economy.

College graduation rates are typically measured in two ways – "on time" and 150 percent time. Ontime measures capture the length of the degree program; associate degrees are considered two-year programs and bachelor's degrees are four-year programs. However, as is the case nationally and in Newark, many students take longer to earn degrees. The 150 percent time measure is intended to capture some of the extra time needed to earn a degree, with three years as the 150 percent time for associate degrees and six years for bachelor's degrees.

Nationally, three-year (150 percent time<sup>63</sup>) graduation rates at two-year colleges is about 29 percent, while six-year (150 percent time) graduation rates at four-year colleges is 59 percent.<sup>64</sup> In Newark overall, about 39 percent of 2011 graduates who immediately enrolled in college earned degrees.<sup>65</sup> This constitutes a substantial improvement from 2014 findings for 2006 NPS immediate enrollers, where only 18 percent earned a certificate or degree in six years.<sup>66</sup>

### Where did Newark High School Graduates Earn a Degree or Certificate?

During the study period, Newark graduates earned a total of 1,404 degrees, which includes 59 certificates, 467 associate degrees, 849 bachelor's degrees, and 29 master's degrees (**Table 5**). These numbers include students who earned multiple degrees, such as the 39 students who earned both associate and bachelor's degrees.

<sup>&</sup>lt;sup>60</sup> Bureau of Labor Statistics, "Education and Training Assignments by Detailed Occupation, 2014"; Bureau of Labor Statistics, "Fastest Growing Occupations."

<sup>&</sup>lt;sup>61</sup> McFarland et al., "The Condition of Education 2017."

<sup>&</sup>lt;sup>62</sup> Ma, Pender, and Welch, "Education Pays 2016: The Benefits of Higher Education for Individuals and Society"; Belfield and Levin, *The Price We Pay: Economic and Social Consequences of Inadequate Education*; Hout, "Social and Economic Returns to College Education in the United States."

<sup>&</sup>lt;sup>63</sup> The National Center for Education Statistics tracks graduation rates nationally for first-time, full-time degree-seeking students. This qualification is important to keep in mind, as the population of students who are first-time, full-time, and degree-seeking varies across racial/ethnic and socioeconomic lines. These rates also only represent students who persist and graduate at the first post-secondary institution they attended. Recent reports (see Itzkowitz, "New Data Further Cements Completion Crisis in Higher Education.") estimate that the college completion rate *decreases* once part-time and transfer students are included in the calculations. Full-, part-time and transfer students are included in calculations of Newark's completion rates.

<sup>&</sup>lt;sup>64</sup> McFarland et al., "The Condition of Education 2017."

<sup>&</sup>lt;sup>65</sup> This includes: certificates (one percent), associate (nine percent), and bachelor's degrees (29 percent).

<sup>&</sup>lt;sup>66</sup> Backstrand et al., "Post-Secondary Outcomes of Newark Public School Graduates (2004-2011): College Matriculation, Persistence, and Graduation."

Most Newark graduates earned degrees at New Jersey colleges and universities, which is not surprising given the high percentages of students remaining in-state for college (Enrollment). Of the relatively few students who earned certificates, most of them were conferred by Berkeley College, Everest Institute, and Montclair State University. About three out of every four associate degrees were earned at Essex County College, the most commonly attended college by Newark graduates. Together, Rutgers-New Brunswick, Rutgers-Newark, and Montclair State University conferred nearly a third of bachelor's degrees, and Montclair State University and Rutgers-New Brunswick conferred more than a third of the master's degrees.

Certificates			Assoc			Bachelor's		
College	N	Percent	College	N	Percent	College	N	Percent
Berkeley College	16	27.1	Essex County College	348	74.5	Rutgers-New Brunswick	100	11.8
Everest Institute	13	22.0	Union County College	33	7.1	Rutgers-Newark	88	10.4
Montclair State University	13	22.0	Everest Institute	15	3.2	Montclair State University	85	10.0
Essex County College	4	6.8				Kean University	57	6.7
Anthem Institute	2	3.4				Bloomfield College	45	5.3
Sanford- Brown College	2	3.4				William Patterson University	31	3.7
0						NJIT	29	3.4
						Seton Hall University	25	2.9
						New Jersey City University	24	2.8
						Saint Peter's University	20	2.4
ALL	59	100.0	ALL	467	100.0	ALL	849	100.0

Table 5: Leading Colleges where Newark Graduates Earned a Degree or Certificate<sup>67</sup>

### How Many Immediate Enrollers Earned a Degree?

In this section, degree attainment is described for students who immediately enrolled in college. Focusing on immediate enrollers allowed for like comparisons of students across graduating cohorts,<sup>68</sup> and also facilitated comparisons with other urban areas and national trends.<sup>69</sup>

<sup>&</sup>lt;sup>67</sup> For colleges that conferred at least two percent of certificates and degrees.

<sup>&</sup>lt;sup>68</sup> Students who immediately enroll in college may differ from students who delay enrollment in a variety of ways (e.g. academic preparedness, educational or career ambitions, motivation, financial support). Comparing immediate enrollers across cohorts allows for comparisons of somewhat similar students across these dimensions. It also eliminates the compounding issue of time, as students from earlier graduating cohorts have had more time to enroll in college than those from later cohorts.

<sup>&</sup>lt;sup>69</sup> Post-secondary researchers have typically focused on students who immediately enroll in college to facilitate comparisons among cohorts and different populations. For Newark graduates who attended four-year colleges, this approach likely captures most students who will ever attend these types college, as these students tend to immediately

Because some students take longer than four years to graduate with a bachelor's degree, graduation rates are presented for different lengths of time. As seen nationally, the percentage of students earning degrees increases with time. Not all students graduate on time by earning an associate degree within two years or bachelor's degree within four. Graduation rates for different lengths of time – four, five, and six years – are presented to 1) illustrate the length of time to degree attainment for Newark students; and 2) include completion rates for multiple cohorts or graduating classes.

With the latter, the college data used in this report are from June 2011 through June 2017. This means students from the class of 2011 had six years to enroll in college and earn a degree, the class of 2012 had five years, and the class of 2013 had four years. These three cohorts are the main focus of degree attainment, as they have had the longest time to earn a degree. Therefore, four-year graduation rates include graduates of 2011-13, five-year rates include graduates of 2011 and 2012, and six-year rates reflect only 2011 graduates.<sup>70</sup>

As seen nationally and in the 2014 report, the percentage of students earning degrees increases with time. At four years post-high school graduation, about 19 percent of Newark students who immediately enrolled in college earned any type of degree or certificate (**Figure 13**). Within five years this number increased to 32 percent, and within six, almost 39 percent of students who immediately enrolled in college had earned any type of degree or certificate. The largest increases in the percentage of students earning degrees occurred between the fourth and fifth years of college enrollment.

The extra time to degree mostly affected the number of bachelor's degrees earned. Twelve percent of Newark high school graduates earned a bachelor's degree on time, or in four years. Within five years though, 23 percent earned bachelor's degrees, and within six years, almost 29 percent earned this degree. Compared to bachelor's degrees, low percentages of students earned associate degrees, no matter the length of time or high school sector (**Figures 13** and **16**).

Time to bachelor's degree completion has been increasing in the United States, with fewer students earning this degree on time, or within four years.<sup>71</sup> A recent report from Complete College America estimates that only five percent of full-time students earn an on-time associate degree, 19 percent earn an on-time bachelor's degree at less selective four-year colleges, and 36 percent earn a bachelor's degree within four years at more selective colleges.<sup>72</sup> Consistent with these trends, few students earned on time bachelor's degrees, but the percent of Newark immediate enrollers earning bachelor's degrees doubled between four and six years.

enroll. However, time to enrollment is more variable for students who attend two-year colleges, so the degree attainment metrics may underestimate actual degree attainment for these students over the long term.

<sup>&</sup>lt;sup>70</sup> Completion rates can be updated for the more recent graduating cohorts as more years of college data become available.

<sup>&</sup>lt;sup>71</sup> Bound, Lovenheim, and Turner, "Increasing Time to Baccalaureate Degree in the United States."

<sup>72</sup> Complete College America, "Four-Year Myth."

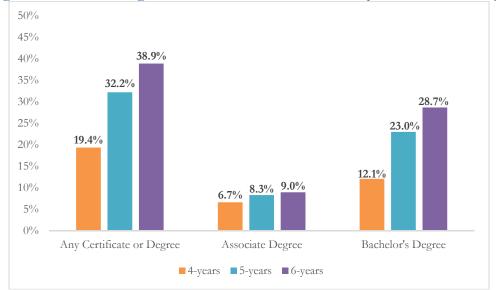
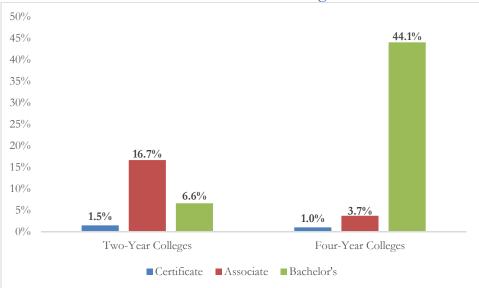


Figure 13: Time to Degree for Students who Immediately Enrolled in College





In addition, similar to findings for **Enrollment** and **Persistence**, completion rates varied by the type of institution students first attended (**Figure 14**).<sup>73</sup> The percentage of students earning an associate degree was higher for students who first enrolled in a two-year college, with almost 17 percent earning an associate degree within six years. Fewer than seven percent who immediately enrolled in a two-year college earned a bachelor's degree within six years, about half the national average of 14 percent.<sup>74</sup> At four-year colleges, about 44 percent of Newark students who

<sup>&</sup>lt;sup>73</sup> The findings presented in **Figure 14** are only for the 2011 cohort.

<sup>&</sup>lt;sup>74</sup> Jenkins and Fink, "Tracking Transfer: New Measures of Institutional and State Effectiveness in Helping Community College Students Attain Bachelor's Degrees."

immediately enrolled earned a bachelor's degree. By way of comparison, in Chicago this figure is 48 percent,<sup>75</sup> and in Baltimore it is about 39 percent.<sup>76</sup> Though all three rates are lower than the national average of 59 percent,<sup>77</sup> there is remarkable similarity among these three cities with respect to bachelor's degree completion upon initial enrollment at four-year colleges.

### What Did Degree Completion Look Like for Immediate Enrollers Across Sectors?

Across all sectors, the percentage of immediate enrollers earning bachelor's degrees increased over time, with the largest percentage increases occurring between four and five years (**Figure 15**). NPS magnet graduates had among the highest rates of bachelor's degree attainment across all sectors, along with graduates of SBP and KIPP New Jersey. Graduates of ECVTS and NPS comprehensive had the lowest rates of bachelor's degree attainment, which could be due, in part, to the lower proportions of these student enrolling at four-year colleges (**Enrollment**). As higher percentages of the more recent ECVTS and NPS comprehensive cohorts enrolled at four-year colleges, it will be important to update and examine bachelor's degree attainment rates for graduates from these sectors to determine how increasing enrollment at four-year colleges impacts bachelor's degree attainment.



Figure 15: Bachelor's Degrees Earned: Students Who Immediately Enrolled in College

Very few students, regardless of sector, earned associate degrees (Figure 16). Despite the higher percentages of NPS comprehensive and ECVTS graduates enrolling in two-year colleges (Enrollment), there was little difference between the percentage of associate degrees earned by graduates of these and other sectors. Almost 11 percent of NPS comprehensive graduates who immediately enrolled in college earned an associate degree, compared to almost eight percent of KIPP New Jersey, ECVTS, and NPS magnet, and seven percent of SBP graduates.

<sup>&</sup>lt;sup>75</sup> Nagaoka, Seeskin, and Coca, "The Educational Attainment of Chicago Public Schools Students: 2016."

<sup>&</sup>lt;sup>76</sup> Durham, Stein, and Connolly, "College Opportunities and Success: Baltimore City Graduates through the Class of 2014."

<sup>&</sup>lt;sup>77</sup> McFarland et al., "The Condition of Education 2017." Again, this rate includes only first-time, *full time* students while the Newark, Chicago, and Baltimore rates include part-time and transfer students.

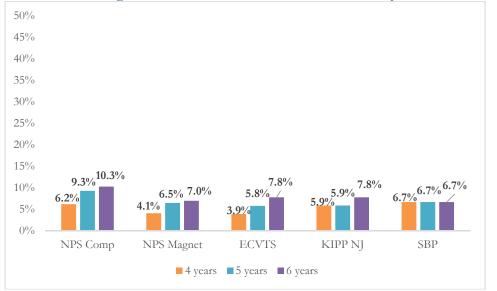


Figure 16: Associate Degrees Earned: Students Who Immediately Enrolled in College

### How many High School Graduates Earned a Degree?

Next, this section describes completion in terms of the percentage of the high school graduating class that earned a degree. These percentages include certificates and degrees earned by both immediate and delayed enrollers. In Newark, the vast majority (85 percent) of all certificates and degrees were earned by immediate enrollers. However, this was, in part, due to the longer time immediate enrollers have had to earn a degree, as described in the previous section.<sup>78</sup>

Newark graduates earned more than twice the number of bachelor's degrees as associate degrees: six percent earned an associate degree and 16 percent earned a bachelor's degree. Overall, about 23 percent of Newark high school graduates earned any certificate or degree within six years of graduation (**Figure 17**). While this is a more than twofold improvement from the 2014 finding that 11 percent of 2006 NPS graduates earned a degree within six years, it is low relative to both the proportion of jobs requiring more than a high school diploma in Newark and the proportion of adults in the U.S. with more than a high school education.<sup>79</sup>

The variability in degree attainment among the high school sectors is shown in **Figure 18**. About 42 percent of NPS magnet, 41 percent of SBP, 38 percent of KIPP New Jersey, 23 percent of ECVTS, and 14 percent of NPS comprehensive 2011 high school graduates earned a certificate or degree within six years. The low completion rates for NPS comprehensive graduates relative to other sectors may be partially attributed to their overall lower enrollment and persistence in college (see **Enrollment** and **Persistence**).

<sup>&</sup>lt;sup>78</sup> Since time to enrollment is more variable for delayed enrollers, these degree completion rates may underestimate actual degree attainment for these students over the long term.

<sup>&</sup>lt;sup>79</sup> New Jersey Institute for Social Justice, "Bridging the Two Americas: Employment and Economic Opportunity in Newark and Beyond"; U.S. Census Bureau, "American Fact Finder."

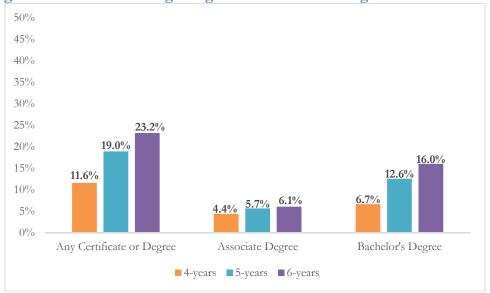


Figure 17: Time to a College Degree for All Newark High School Graduates



Figure 18: Time to a Degree for All Newark High School Graduates, by Sector

# What were the Demographic Characteristics of High School Graduates who Earned a College Degree?

The demographic characteristics of high school graduates who earned a college degree or certificate within six years of high school graduation are presented in **Table 6**. The highest rates of degree attainment occurred among White high school graduates (42 percent, N=52), followed by Hispanic (25 percent, N=158) and Black (19 percent, N=271) high school graduates. These racial/ethnic gaps in completion are consistent with national trends, which persist at both four- and two-year colleges.<sup>80</sup> Also consistent with national trends,<sup>81</sup> female graduates were much more likely than males to attain a college degree or certificate (28 percent compared to 17 percent). High school graduates with free lunch status were less likely to complete (19 percent) than reduced lunch or no subsidy (both about 26 percent) graduates. Very few special education graduates earned a college degree or certificate (four percent).

Variable	Value	Number Earning Degrees	Total Number of High School Graduates	Percent
Race/	Black	271	1,394	19.4%
Ethnicity	Hispanic	158	629	25.1%
	White	52	125	41.6%
	Other	9	21	42.9%
Gender	Female	319	1,152	27.7%
	Male	172	1,018	16.9%
Lunch	Free	232	1,209	19.2%
Status	Reduced	74	284	26.1%
	No Subsidy	166	635	26.1%
Special	No	459	1,794	25.6%
Education	Yes	13	334	3.9%

# Table 6: Demographic Characteristics of High School Graduates who Earned a Certificate or Degree (2011 Cohort)

### What Do the Completion Findings Tell Us?

There has been considerable improvement in Newark graduates' college completion rates. In 2006, only 11 percent of NPS graduates earned a degree within six years, compared to 23 percent of 2011 Newark high school graduates. This is a substantial improvement in a short period of time, but more work remains to get students through college. In Newark and throughout the U.S., few students earn degrees on time and many take longer to complete their degree programs. More information is needed about Newark students to understand their varied pathways, starts, and stops on the way to degree completion. Ultimately, students need to be better supported once in college, and it will be critical to identify strategies that maximize degree completion for students.

<sup>&</sup>lt;sup>80</sup> Snyder, de Brey, and Dillow, "Digest of Education Statistics 2016"; Shapiro et al., "Completing College: A National View of Student Attainment Rates by Race and Ethnicity - Fall 2010 Cohort."

<sup>&</sup>lt;sup>81</sup> Snyder, de Brey, and Dillow, "Digest of Education Statistics 2016"; McFarland et al., "The Condition of Education 2017."

# Conclusion

A 2014 report documenting college enrollment and degree attainment of NPS graduates (2004-2011) found that 39 percent immediately enrolled in college, but few earned degrees.<sup>82</sup> Significant improvements have been made in students' post-secondary outcomes since then.

In the current analysis, nearly 54 percent of Newark graduates immediately enrolled in college, and almost two-thirds enrolled within two years of high school graduation. In addition, increasing numbers of students attended four-year colleges and there were high rates of persistence through the first year. Six-year graduation rates more than doubled from the earlier findings: about 23 percent of 2011 graduates earned a degree, compared to only 11 percent of 2006 NPS graduates.

However, despite the marked improvements that have occurred, more needs to be done to get students to and through college. College enrollment has slightly declined among graduates of comprehensive high schools, persistence through the second year of college remained an issue at two-year colleges, and though completion rates have improved, far too few students earned degrees relative to the number of immediate enrollers and high school graduates.

This timely analysis provides an opportunity to strengthen and reimagine P-16 pathways for students in all school sectors, particularly for NPS with its recent return to local control. In addition to identifying areas of improvement and success in Newark's post-secondary pipeline, this report provides a baseline for future examinations of students' college-going patterns. The measures used in this report are similar to those used nationally and in other urban areas across the country, which will facilitate the comparisons and tracking of college enrollment, persistence, and graduation over time, and ultimately lead to higher levels of post-secondary success.

<sup>&</sup>lt;sup>82</sup> Backstrand et al., "Post-Secondary Outcomes of Newark Public School Graduates (2004-2011): College Matriculation, Persistence, and Graduation."

### Recommendations

The following recommendations are intended to build on the positive findings of the report and address gaps in Newark's current college pipeline. Many of the recommendations span across school sector, though the first three are specific to NPS, as these students comprised the majority of the study sample.

### Expand Professional Capacity of NPS Guidance Counselors

NPS has recently provided more professional development opportunities for guidance counselors. However, in-service training related to college advising should be strengthened to include monthly professional development sessions for every district counselor, including those at the elementary level. These sessions should include, but not be limited to, training in: creating and sustaining a college-going culture, college admissions for both two- and four-year institutions, how to apply for financial aid and evaluate financial aid packages, practices for engaging and assisting students and parents with post-secondary planning, designing course loads, PSAT/SAT preparation, determining college fit and/or suitable college matches, college essay writing, how to reduce summer melt, and career pathways that connect current course requirements with future job skills.

A single central office administrator to oversee all guidance should also be appointed. District-level oversight would ensure consistency in college advising across the district and aid in reducing variation in college advising across schools.

### Implement NPS Early Warning System

An early warning and intervention system should be implemented to track, assess, and monitor college readiness for every student in all elementary and high schools. Such a system could utilize ninth grade GPA (a strong predictor of high school graduation and college enrollment),<sup>83</sup> number of absences,<sup>84</sup> reading proficiency, course failures, and other indicators, beyond standardized test scores (e.g., study habits, attendance), to alert school staff about students in need of academic and/or social intervention. To distribute this information to families, the district should examine ways to maximize the use of the Parent Portal currently available in the NPS PowerSchool data system.

### Expand Upon District-Sponsored SAT Preparation

NPS has a partnership with the College Board to provide free PSATs to the district's 10<sup>th</sup> and 11<sup>th</sup> graders, free in-school SAT for all 11<sup>th</sup> graders, and free online SAT practice.<sup>85</sup> The district should consider building on this partnership to integrate SAT preparatory content into the curriculum for all high school students. Integrating test prep (e.g., vocabulary, writing prompts, and reading comprehension) into existing courses would provide students with additional opportunities for SAT preparation, improve college readiness, as well as contribute to each school's college-going culture.

<sup>&</sup>lt;sup>83</sup> Easton, Johnson, and Sartain, "The Predictive Power of Ninth-Grade GPA."

<sup>&</sup>lt;sup>84</sup> Chen and Rice, "Showing Up Matters: A Look at Absenteeism Inside Newark's High Schools"; Chen and Rice, "Showing Up Matters: Newark Chronic Absenteeism in the Early Years."

<sup>&</sup>lt;sup>85</sup> The College Board, "Newark Public Schools Partners with the College Board to Expand Student Access to SAT Testing and AP Course Work."

### Improve Transitions from Eighth to Ninth Grade

Throughout the eighth grade year, students should be exposed to ongoing workshops and activities introducing them to the high school environment and issues relating to transitioning, such as school options, expectations, routines and scheduling, and socially/emotionally adjusting to the secondary level. In addition, existing "summer bridge" opportunities should be required for rising freshman at all Newark high schools. Clear discussions of college preparation and readiness should be incorporated into these activities to signal to students and their families the importance and connection of their high school years to post-secondary success. School sectors should also explore strategies and creative approaches to maintaining high levels of attendance at these summer bridge opportunities to ensure all entering ninth graders are better prepared to succeed at the high school level.

### Increase Access to Rigorous Coursework

Access should be expanded to more rigorous and academically-challenging coursework, including Advanced Placement, International Baccalaureate, honors, and dual enrollment programs. To ensure every student has exposure to courses that will prepare them for college and careers, these opportunities should be offered to *all* students, not just the highest achievers. In particular, comprehensive high schools should be prioritized as a strategy for keeping students on-track for high school graduation and enhancing college readiness across the district.

Increased rigor enables schools to expand their college-going cultures, reduces the need for remedial college courses, and smooths the transition to college. With stronger academic training, students may be better prepared to persist toward degree completion. In these and other courses, students should be exposed to college readiness behaviors beyond academics, including good study habits, intellectual curiosity, and how to succeed in college.

### Increase Family Engagement in the College-Going Process

Family involvement and support can aid in a young person's eventual college success. Parents and caretakers should be engaged in their child's college preparation as early as possible – even in primary and middle grades. Specific supports should include information about: college options, the application and admissions processes, financial aid, and evaluating and choosing the best college fit.

Particular emphasis should be placed on supporting families in the completion of FAFSA (or Free Application for Federal Student Aid) documents. For example, NPS's FAFSA completion rate was approximately 55 percent in June 2017.<sup>86</sup> Completing financial aid documents on time will help students receive consideration for the most generous financial aid packages, packages which can reduce or eliminate most college expenses. In all, current school- and community-level resources should be leveraged to reach and engage all Newark parents in the post-secondary planning process.

<sup>&</sup>lt;sup>86</sup> U.S. Department of Education, "FAFSA® Completion by High School and Public School District."

### Expand Monitoring of Students' Progress in College

With second-year persistence representing a major challenge for many Newark high school graduates, several strategies are recommended to assist students in avoiding interruptions in their academic experiences. First, building on models already provided by SBP and KIPP New Jersey, NPS and ECVTS should vigorously explore the development of post-graduation monitoring supports to enable students to remain connected to community resources and caring adults at their high schools. Secondly, partnerships should be established across school sectors and NCLC partner institutions<sup>87</sup> to create commitments for enhanced academic advising and peer mentoring. This would formalize protocols to flag Newark students requiring additional assistance and foster a greater sense of belonging within a campus community. Finally, NCLC partners should collectively explore the use of one-time emergency grants to assist students who face unanticipated financial hardships.

### Provide Clearer Pathways between Education and Career Opportunities

More explicit connections between degree programs and potential career pathways need to be made. This includes career opportunities for any type of post-secondary credential, be it a certificate, associate degree, bachelor's degree, or advanced study. Students and their families should understand, upon choosing a major, what potential career opportunities are likely to be available to them and how to best build their resume while in college.

Partnerships should be established across high school sectors to increase awareness for students and their families about different career pathways and credentialing opportunities, particularly for those that do not require degree attainment. Very few 2011-2016 graduates earned certificates, yet certificate programs may be of particular interest to high school graduates who are not currently enrolling in college. These short-term educational programs are offered throughout the city in both traditional colleges (e.g. Essex County College, Berkeley College) and workforce development organizations like the New Community Corporation. It is imperative that Newark high school students have pathways to well-paying jobs in the twenty-first century global economy, whether they earn a college degree or not.

<sup>&</sup>lt;sup>87</sup> This includes Berkeley College, Bloomfield College, Essex County College, Felician University, Montclair State University, New Jersey Institute of Technology, Pillar College, Rutgers University-Newark, Rutgers Biomedical and Health Sciences, and Seton Hall University.

## Appendix: Data Sources

The data for this report come from three sources: participating Newark high schools/districts, the National Student Clearinghouse (NSC), and the Integrated Post-Secondary Education Data System (IPEDS).

### Participating Newark High Schools/Districts

### Data Collection

The study team approached high schools with the largest Newark student enrollments, and 2011-2016 graduating classes to participate in this study. This includes traditional public (Newark Public Schools), county (Essex County Vocational Technical Schools), charter (KIPP New Jersey, North Star/Uncommon Schools, Marion P. Thomas,<sup>88</sup> and People's Prep)<sup>89</sup>, and parochial schools (St. Benedict's Preparatory, St. Vincent Academy, Christ the King Preparatory, Seton Hall Preparatory).<sup>90</sup> From the charter sector, North Star, Marion P. Thomas, and People's Prep declined participation.<sup>91</sup> St. Vincent Academy, Seton Hall Prep, and Christ the King also chose not to participate.

Newark Public Schools (NPS), Essex County Vocational Technical Schools (ECVTS), KIPP New Jersey, and St. Benedict's Preparatory (SBP) elected to participate in the study. A brief description of each is provided below:

- Newark Public Schools: NPS is the largest school district in New Jersey, and third-oldest public school system in the U.S., educating about 35,000 students pre-K through high school. There are 64 schools in the district, with comprehensive (Barringer, Barringer STEAM, Central, Eagle Academy, East Side, Malcolm X. Shabazz, Weequahic, West Side, Newark Early College, and Newark Vocational) and magnet high schools (American History, Arts, Bard Early College, Science Park, Technology, and University).
- *Essex County Vocational Technical Schools:* ECVTS is a county high school district. Founded in 1914, the district has four high schools, two located in Newark (Newark Tech and North 13th Street Tech), one in West Caldwell, and another in Bloomfield. Newark students can attend all four high schools.
- *KIPP New Jersey*: KIPP New Jersey schools are part of the nationally recognized "Knowledge Is Power Program," a non-profit, charter network of college-preparatory, free, public charter schools educating elementary, middle, and high school students. Founded in 2002 in Newark's South Ward, KIPP New Jersey graduated its first high school class in 2010.
- *St. Benedict's Preparatory*: SBP is a Catholic high school serving young men in Newark. It was founded in 1868 by Benedictine monks.

Each participating Newark high school or district (NPS, ECVTS, KIPP New Jersey, and SBP) provided a list of high school graduates, along with students' demographic and academic

<sup>&</sup>lt;sup>88</sup> Marion P. Thomas merged with Visions Academy in the 2014-15 school year, to give Marion P. Thomas its first graduating high school class in 2015.

<sup>&</sup>lt;sup>89</sup> Newark Prep and Paulo Freire closed at the end of the 2016-17 school year. Due to these closures, it was not possible to request data for their 2016 cohorts (which was the first graduating class at both schools). Merit Prep also closed at the end of the 2016-17 year, but did not have any graduating seniors.

<sup>&</sup>lt;sup>90</sup> Seton Hall Preparatory is located in the neighboring community of West Orange, but enroll students from Newark.

<sup>&</sup>lt;sup>91</sup> Great Oaks Charter was also in early discussions to participate, but did not have any high school graduating classes for the study time period.

information.<sup>92</sup> These student rosters were submitted to the National Student Clearinghouse, which matched post-secondary data records (including college enrollment, transfers, degrees attained) with students' first and last names, and birthdates.<sup>93</sup>

Variable	Value	NPS Comp. (N=7,463)	NPS Magnet (N=3,579)	ECVTS (N=1,718)	KIPP NJ (N=488)	SBP (N=230)	ALL (N=13,478)
Cohort Year	2011	16.4	16.0	15.7	11.3	18.3	16.0
	2012	17.8	16.2	15.5	13.3	17.0	16.9
	2013	17.9	16.2	16.4	11.3	19.6	17.1
	2014	15.3	16.7	16.0	21.5	13.5	15.9
	2015	16.6	18.2	17.8	20.1	11.3	17.2
	2016	16.0	16.7	18.6	22.5	20.4	16.8
Race/Ethnicity	Black	62.1	50.5	37.3	95.5	49.1	56.8
	Hispanic	30.0	37.4	59.5	4.3	35.5	34.9
	White	7.1	10.3	1.3	0.2	11.8	7.0
	Other	0.8	1.8	1.9	0.0	3.5	1.2
Gender	Female	51.9	57.2	55.4	65.8	0.0	53.4
	Male	48.1	42.8	44.6	34.2	100.0	46.6
Lunch Status	Free	69.0	63.5	72.8	57.6		67.6
	Reduced	7.9	14.8	14.3	19.9		11.1
	No Subsidy	23.1	21.7	13.0	22.5		21.4
Special	No	80.8	93.9	90.9	91.0		86.0
Education	Yes	19.2	6.1	9.1	9.0		14.0
HSPA LAL <sup>94</sup>	Partially Proficient	33.2	3.1	3.2	4.6		18.8
	Proficient	65.0	80.2	94.2	82.8		74.4
	Advanced Proficient	1.9	16.7	2.6	12.7		6.9
HSPA Math <sup>94</sup>	Partially Proficient	59.8	13.2	19.9	25.5		40.9
	Proficient	37.5	61.3	72.6	68.2		49.6
	Advanced Proficient	2.6	25.4	7.6	6.4		9.6

Table 7: Demographic characteristics of the participating high schools/districts

<sup>&</sup>lt;sup>92</sup> All NPS students resided in Newark, and for ECVTS and SBP, analyses were restricted graduates who were Newark residents. Students' city of residence was not received from KIPP New Jersey, so though KIPP New Jersey graduates were predominately Newark residents, some may have also lived in neighboring communities like East Orange, Irvington, or Orange.

<sup>&</sup>lt;sup>93</sup> NPS and KIPP New Jersey have their own NSC subscriptions, and provided those data to NCLC, along with the student files. As ECVT and SBP did not have active NSC subscriptions, NCLC obtained these records directly from NSC.

<sup>&</sup>lt;sup>94</sup> The New Jersey High School Proficiency Assessment (HSPA) was replaced in 2014-15 with the Partnership for Assessment of Readiness for College and Careers (PARCC) examination. The HSPA values are for the 2011 through 2015 cohorts. Students in the 2015 cohorts took the HSPA exam in the spring of 2014.

#### Sample Characteristics

Demographic and academic characteristics of the entire sample and each sector are presented in **Table 7**. Overall, the majority of students in this report are NPS graduates (82 percent). About 55 percent of students are graduates of NPS comprehensive high schools, followed by NPS magnet graduates (27 percent), ECVTS graduates (13 percent), KIPP New Jersey graduates (4 percent), and graduates of SBP (2 percent).

The racial/ethnic composition of 2011-2016 graduates was 57 percent Black, 35 percent Hispanic, and 7 percent White, though there was variation in this across sector. Nearly all of KIPP New Jersey students were Black, and the majority of ECVTS graduates were Hispanic. Both NPS magnet and SBP mirrored Newark's race/ethnicity breakdown, while the NPS comprehensives had somewhat more Black students and fewer Hispanics than the city's demographic profile. Just more than half of the graduates (53 percent) were women, and the majority of graduates were eligible for free (68 percent) or reduced (11 percent) lunch. Additionally, about 81 percent of 2011-2016 graduates scored proficient or better in language arts, compared to mathematics, where only 59 percent scored proficient or higher.

### National Student Clearinghouse (NSC)

This study uses individual-level NSC student records to examine post-secondary outcomes from the time period of students' high school graduation through June 2017. Founded in 1993, NSC is a non-profit organization that uses institutional data from more than 3,600 colleges and universities throughout the United States to track student enrollments, representing more than 98 percent of all enrolled students in the U.S.<sup>95</sup> The original focus of NSC was to facilitate documentation of college student enrollment and eligibility for federal student loans. Today, due in part to the federal ban of a national unit-record database,<sup>96</sup> NSC is the main source of information on post-secondary enrollments, with students tracked over time from college matriculation to degree attainment.

Despite its many benefits, NSC also suffers from limitations that can underestimate the results presented in this report. First, students who are not matched to NSC records are treated as non-enrollers. Some non-matches are students who did not enroll in college. Other non-matches may be students who opted out of reporting (NSC estimates about five percent of students do this), students whose names changed, students whose post-secondary institution blocked all records from individual-level NSC reporting, students who were not properly matched (NSC estimates individual-level match rates to be around 90 percent), or students who attended post-secondary institutions not covered by NSC.<sup>97</sup>

With the latter, the NSC institutional coverage rate is 98 percent, though it varies by institutional type.<sup>98</sup> For Fall 2016, overall coverage of post-secondary institutions was about 97 percent, with the highest coverage for public (99 percent) and private not-for-profit (95 percent) institutions, and the lowest coverage for private for-profit institutions (71 percent). Four-year private for-profits (82 percent) have higher coverage than two-year private for-profits (25 percent) but both have among

<sup>&</sup>lt;sup>95</sup> National Student Clearinghouse Research Center, "Clearinghouse Facts."

<sup>&</sup>lt;sup>96</sup> 110th Congress, Higher Education Opportunity Act.

<sup>&</sup>lt;sup>97</sup> National Student Clearinghouse Research Center, "Using NSC StudentTracker for High Schools Reports: Considerations for Measuring the College Enrollment Rates of High School Graduates."

<sup>&</sup>lt;sup>98</sup> National Student Clearinghouse Research Center.

the lowest coverage rates of any institutional sector.<sup>99</sup> Due to lower institutional coverage rates of for-profits, Newark students enrolled in these sectors may not be well represented in the data. Students enrolled in post-secondary institutions not covered by NSC will be reported as having no post-secondary records. Though these omissions can potentially underestimate student enrollment, persistence, and completion, nationally, the majority of students attend public (73 percent) or private nonprofit institutions (20 percent).<sup>100</sup>

Finally, NSC matches for undocumented students may be especially impacted. According to an NSC report, undocumented students "are often not reported to the Clearinghouse, even when they are enrolled at participating U.S. institutions. In those cases when they are reported ([NSC] estimate[s] it to be less than half), these students are also more difficult to track if they change institutions."<sup>101</sup> As the population of undocumented Newark high school graduates is unknown, it is difficult to estimate how the findings of the report could be affected, other than saying the results (at least partly) underestimate the rates of enrollment, persistence, and graduation for these students. Several of Newark graduates' most frequently attended colleges are Hispanic-Serving Institutions (HSI), including Rutgers-Newark, Hudson County Community College, New Jersey City University, Felician University, Union County College, and William Patterson University; estimates for these institutions may be especially impacted.

#### Integrated Post-Secondary Education Data System (IPEDS)

NSC post-secondary institutions were matched with IPEDS records, which allowed an assessment of Newark students' success at a range of different types of colleges and universities. IPEDS is a product of the National Center for Education Statistics (NCES), and an annual survey of post-secondary institutions that participate in federal student financial aid programs. More than 7,500 institutions participate and report on various institutional, admissions, enrollment, financial aid, degree completion, and persistence characteristics, among other measures.<sup>102</sup>

Using NSC-provided crosswalks,<sup>103</sup> 2016-17 IPEDS data were matched with the post-secondary institutions students attended from the NSC data.<sup>104</sup> This provided additional information about the post-secondary institutions, beyond the level (two- or four-year) and control (public or private) provided by the NSC. In particular, additional sector information (e.g. non-profit status, indicator for historically Black college or university), urbanicity, basic Carnegie classification, and selectivity were used in this report.<sup>105</sup>

Additional information can be found in the **Online Supplement** to this report.

<sup>&</sup>lt;sup>99</sup> National Student Clearinghouse Research Center, "National Student Clearinghouse's Coverage of Enrollments at Post-Secondary, Title IV, Degree-Granting Institutions." With the exception of the private, not-for-profit, two-year sector, which has about 38 percent coverage in NSC (ibid). However, as these institutions account for nearly 0 percent of all undergraduate enrollments (see Dynarski, Hemelt, & Hyman 2015), their impact on the outcomes presented in this report should be limited.

<sup>&</sup>lt;sup>100</sup> Snyder, de Brey, and Dillow, "Digest of Education Statistics 2016."

<sup>&</sup>lt;sup>101</sup> National Student Clearinghouse Research Center, "Using NSC StudentTracker for High Schools Reports: Considerations for Measuring the College Enrollment Rates of High School Graduates," 4.

<sup>&</sup>lt;sup>102</sup> National Center for Education Statistics, "About IPEDS."

<sup>&</sup>lt;sup>103</sup> National Student Clearinghouse Research Center, "Clearinghouse School Code to IPEDS Unit-ID Crosswalk Table." <sup>104</sup> Some institutions, like Corinthian Colleges subsidiaries Everest College, closed prior to 2016-17. IPEDS data for institutions closed prior to 2016-17 were obtained from previous IPEDS collections.

<sup>&</sup>lt;sup>105</sup> The latter of which come from Barron's College Division Staff, *Profiles of American Colleges 2015*.



As the study's appendix states, the enrollment figures for all of the schools involved in the study are underestimated because of the study's reliance on figures reported by the NSC. For example, looking at St. Benedict's Class of 2016, if St. Benedict's NSC enrollment data is supplemented with the institutional knowledge that the St. Benedict's administration has of the college enrollments of its members of the Class of 2016 who are residents of Newark, the figure for its Class of 2016's "Immediate Enrollments in Any College" would increase from 76.10% to 86.96%.

However, St. Benedict's enrollment numbers are further impacted by its having boarding students. Those boarding students were reported to NCLC as having Newark addresses since the St. Benedict's school address served as their mailing address while they boarded at St. Benedict's. However, those students were often not, in fact, Newark residents, and some were international students who returned to their home country to attend college, in which case the NSC does not have a record of their attending college. Once again using St. Benedict's Class of 2016 as an example, removing from the study those students who were reported as Newark residents but who, in fact, were not further increases the St. Benedict's Class of 2016 "Immediate Enrollments in Any College" figure to 90.69%.

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