New Jersey Charter Schools: A Data-Driven View, Part I

Enrollments and Student Demographics

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October 29, 2014

ABOUT THIS SERIES:

The role of charter schools in New Jersey's education system is one of the most important and controversial issues facing our state's policy makers.

To facilitate an honest and positive discussion, New Jersey policy makers, parents, teachers, administrators, taxpayers and students need research that is comprehensive, current, and based on sound methods and appropriate statistical analysis. Such research also must utilize publicly-available data that others can replicate or question.

The goal of this series is to provide that research.

This report, and the two additional reports to be released over the next few months - on New Jersey charter school staffing and financial issues, and on student outcomes - present a data-driven picture of New Jersey charter schools.

It is our hope that this series will foster an evidence-based debate about the future of charter schools in New Jersey.

Mark Weber and Julia Sass Rubin

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EXECUTIVE SUMMARY:

Policy makers cannot make informed decisions about the regulation of charter schools without first considering the characteristics of the students who are enrolled in these schools. This report – the first in a three-part series on New Jersey charter schools – uses publicly available data to explore the differences found between the student populations of charter schools and those of their host districts.

Our findings are:

- New Jersey's charter sector serves 2.4 percent of the state's total publicly-funded student population. However, the state's charter students are overwhelmingly concentrated in seven urban communities – Camden, Hoboken, Jersey City, Newark, Paterson, Plainfield, and Trenton. Charter schools command 17.3 percent of all publicly-funded student enrollments in these cities, ranging from a low of 7.3 percent in Paterson to a high of 29.2 percent in Hoboken. Charter schools account for only 0.6 percent of all publicly-funded students in the rest of the state.

- The charter schools in these seven urban communities serve a population that is very different demographically than that of their host districts. The charter schools educate:
  - A significantly smaller percentage of economically disadvantaged students, as measured by both Free Lunch (15 percentage point differential) and Free or Reduced Price Lunch (9 percentage point differential) status, than their host districts.
  - One-sixth the percentage of Limited English Proficient (LEP) students as their host districts.
  - A smaller percentage of Hispanic students (28% vs. 47%) and a higher percentage of Black students (62% vs. 40%) than their host districts.
  - A smaller percentage of males (48% vs. 51%) than their host districts.

- Charter schools located outside these seven urban communities also serve significantly smaller percentages of students in economic disadvantage than their host districts. These charter schools' aggregate Free Lunch population is 7 percentage points smaller than that of their host districts, but the Free Lunch differentials for some of the individual charter schools in this group are more than 20 percentage points lower than those of their host districts.

- Charter schools outside the seven urban communities educate a far smaller percentage of Limited English Proficient students (1% vs. 8%) and a smaller percentage of male students (46% vs. 51%) than their host districts.

- As with charter schools in the seven urban districts, those in the rest of the state educate a smaller percentage of Hispanic (30% vs. 34%) and a higher percentage of Black (36% vs. 24%) students than their host districts.
- Charter schools across the state do not enroll as many students with special education needs as their host districts (9% vs.15%). The classified students who enroll in charter schools also tend to have less costly education disabilities. This leaves their host districts with the task of educating both higher percentages of classified students and of students with the most costly needs.

The lower rates of economically disadvantaged, Limited English Proficient, and special education classified students in charter schools result in those students being concentrated at higher rates within the host district schools. This increases segregation and impacts the quality of education that districts can provide and the financial resources available to pay for that education.

The New Jersey Supreme Court has consistently found that the New Jersey Commissioner of Education, who authorizes charter schools, must consider the demographic and financial impact of any authorizing decision on the host district and must use the full powers of that office to avoid segregation.[1] The results of the analysis presented in this report suggest that the Commissioner is not sufficiently meeting this legal obligation.

We recommend that the New Jersey Department of Education and the New Jersey Legislature take steps to bring the population of charter schools in line with the demographic composition of their host districts. There are a number of ways that this could be accomplished including:

- Having the NJ Department of Education conduct the lottery process for all charter schools, with one application deadline, to increase lottery and waiting list transparency and to make it easier for economically disadvantaged and Limited English Proficient families to apply.
- Using weighted lotteries to make it easier for charter schools to admit higher percentages of students who are eligible for Free Lunch and Free or Reduced Price Lunch, who are Limited English Proficient, and who have special education needs at various cost levels.
- Requiring charter schools to replace any students who leave and, whenever feasible, to do so from comparable demographic categories in terms of Free Lunch, Free or Reduced Price Lunch, Limited English Proficiency and special education rates at various cost levels.

[1]http://www.edlawcenter.org/assets/files/pdfs/Newsblasts/Charter%20School%20Regs% 20-%20ELC%20Comments%20August%202014.pdf

- Tying demographic parity in terms of Free Lunch, Free or Reduced Price Lunch, Limited English Proficiency, and special education rates at various cost levels to a charter school's funding. For example, charter schools that fail to match at least 90 percent of their host district's demographic composition on these variables would receive a lower reimbursement rate per student.

To facilitate accurate future assessments of the demographic composition of charter and host district schools, we also recommend that the New Jersey Department of Education collect enrollment data at least twice a year from both charter and district schools, to account for shifts in student population characteristics. We further recommend that the Department conduct an annual analysis, comparable to the one provided in this report, to determine how charter school demographics compare to those of their host districts, and that the department make this analysis available to the public and to policy makers.

More broadly, we recommend that all comparisons of charter and host district schools take into account differences between them in terms of student populations. Given the important differences in educational needs and performance between students who qualify for Free versus Reduced Price Lunch, and students at various levels of special education needs, we also recommend that all comparisons be made with data that is disaggregated at these levels of analysis.

Enrollment Trends for New Jersey Charter Schools

The New Jersey charter sector has grown substantially over the past decade: as Figure 1 shows, student enrollments have more than doubled across the state.

NJ Charter School Enrollments, 2004-05 to 2013-14

Data source: NJDOE Enrollment files, 2004-05 to 2013-14
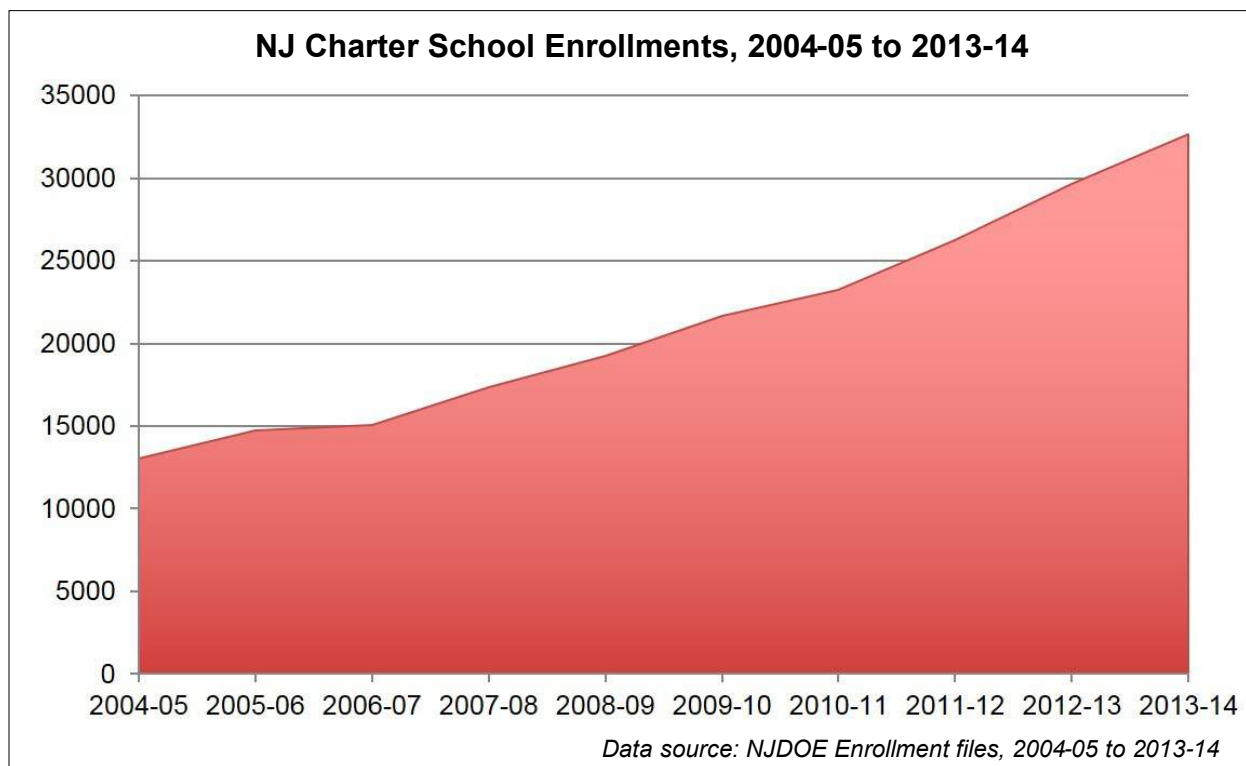
As a percentage of the total publicly-funded student population, however, charter schools still serve only a small proportion of all of the state's students. The percentage of New Jersey's publicly-funded students enrolled in charter schools grew from 0.9 percent in 2004-05 to 2.4 percent in 2013-14.

This growth has not been evenly distributed across the state. As Figure 2 shows, charter school enrollments are concentrated within a relatively small number of host districts.

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Figure 2

NJ Charter School Population by Host District, 2014
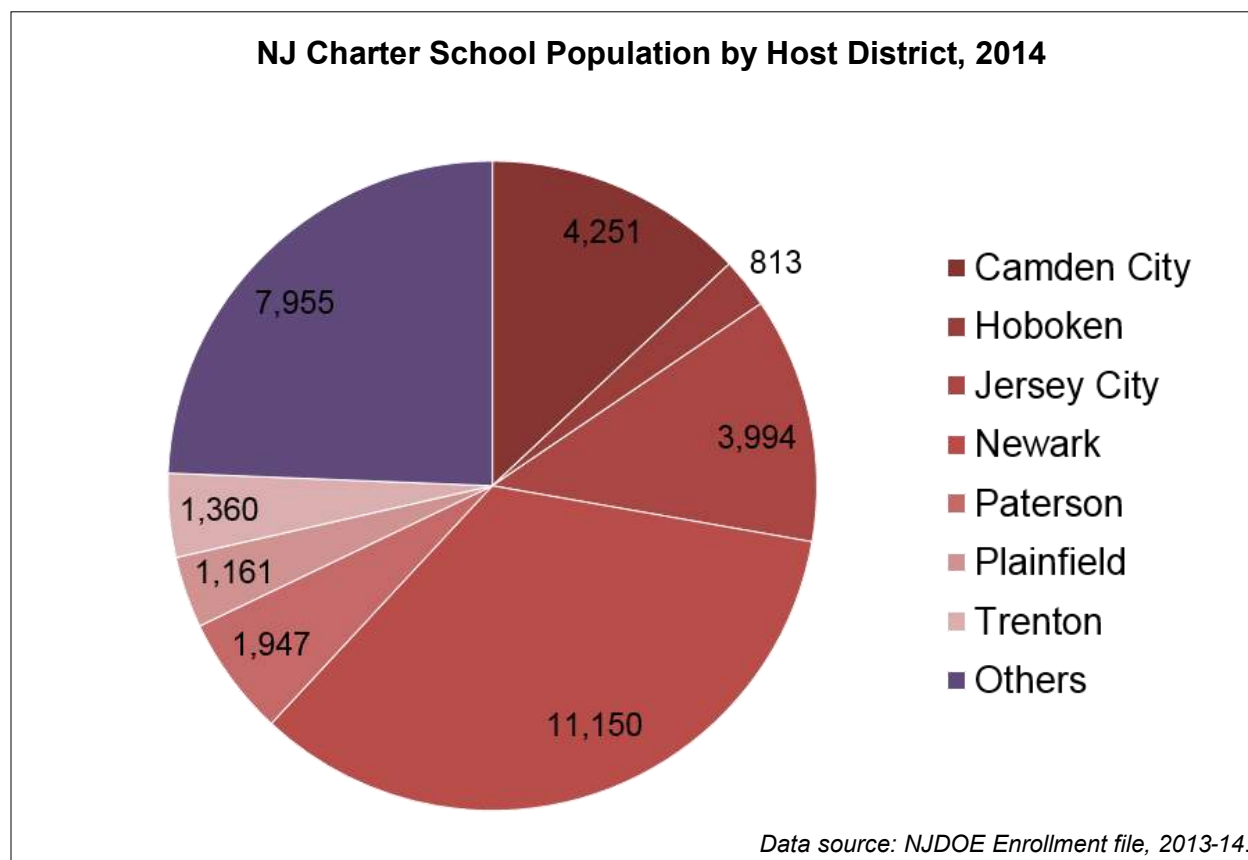
Over three-quarters of New Jersey's charter school students are enrolled in schools that are hosted by seven urban districts: Camden, Hoboken, Jersey City, Newark, Paterson, Plainfield, and Trenton. Throughout this report, we will refer to these seven host districts as the "Big Seven."

Outside of the Big Seven, charter schools command a very small share of the total publicly-funded student population. Figure 3 shows the relative size of the charter sector statewide, in the Big Seven, outside of the Big Seven, and in each of the Big Seven districts.

Figure 3

NJ Charter Schools, as % of Total District & Charter Enrollment, 2013-14

Data source: NJDOE Enrollment file, 2013-14
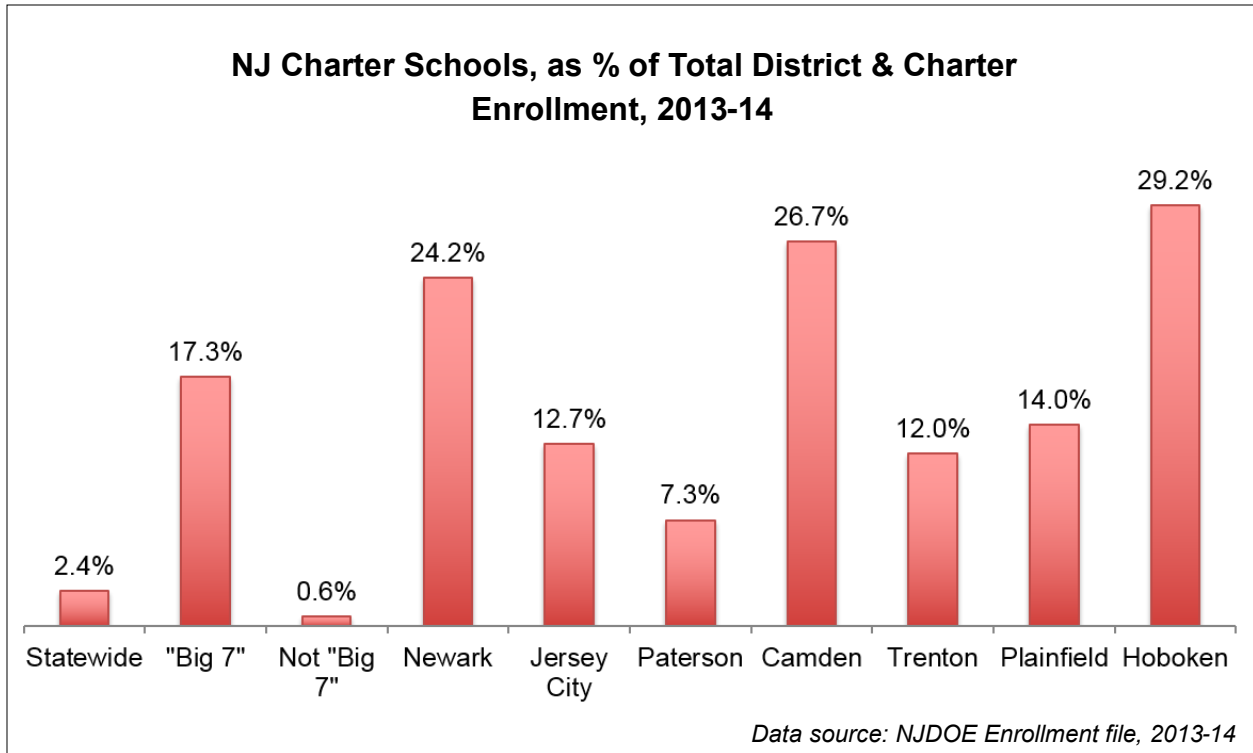
Outside of these seven urban school districts, charter schools have proportionately small enrollments – only 0.6 percent statewide. Within the Big Seven, however, the charter sector enrolls 17.3 percent of the publicly-funded student population. Charter schools account for a particularly large percentage of the publicly-funded student population in Newark, Camden, and Hoboken.

Any analysis of charter school populations must take into account these disparate enrollment trends. Simply juxtaposing the statewide charter and district school student populations creates a distorted view of how these school populations actually compare.

Most notably, the cities where charter schools enroll large proportions of the student population tend to be communities that have significantly larger proportions of students of color and students in economic disadvantage. Comparing the demographics of the charter student population to the statewide population, therefore, masks important differences between charter schools and their host districts.

Instead, any demographic comparison must examine charter schools relative to their host districts. It is at this level that a clearer picture emerges of charter versus district school demographics.

Charter School Student Demographics

This section compares the racial profile, gender, economic disadvantage, and Limited English Proficient status of New Jersey charter school students to their sending districts.[2] We begin with the Big Seven, which account for more than 76 percent of all New Jersey charter school students.

Demographics of the Big Seven Charter vs. Host Districts, 2013-14

Legend: Sending Districts; Charters

Category	Sending Districts	Charters
White	7%	5%
Black	40%	62%
Hispanic	47%	28%
Asian	5%	4%
Other	1%	1%
Male	51%	48%
Free-Lunch	78%	63%
FRPL	84%	73%
LEP	13%	2%

Data source: NJDOE Enrollment file, 2013-14

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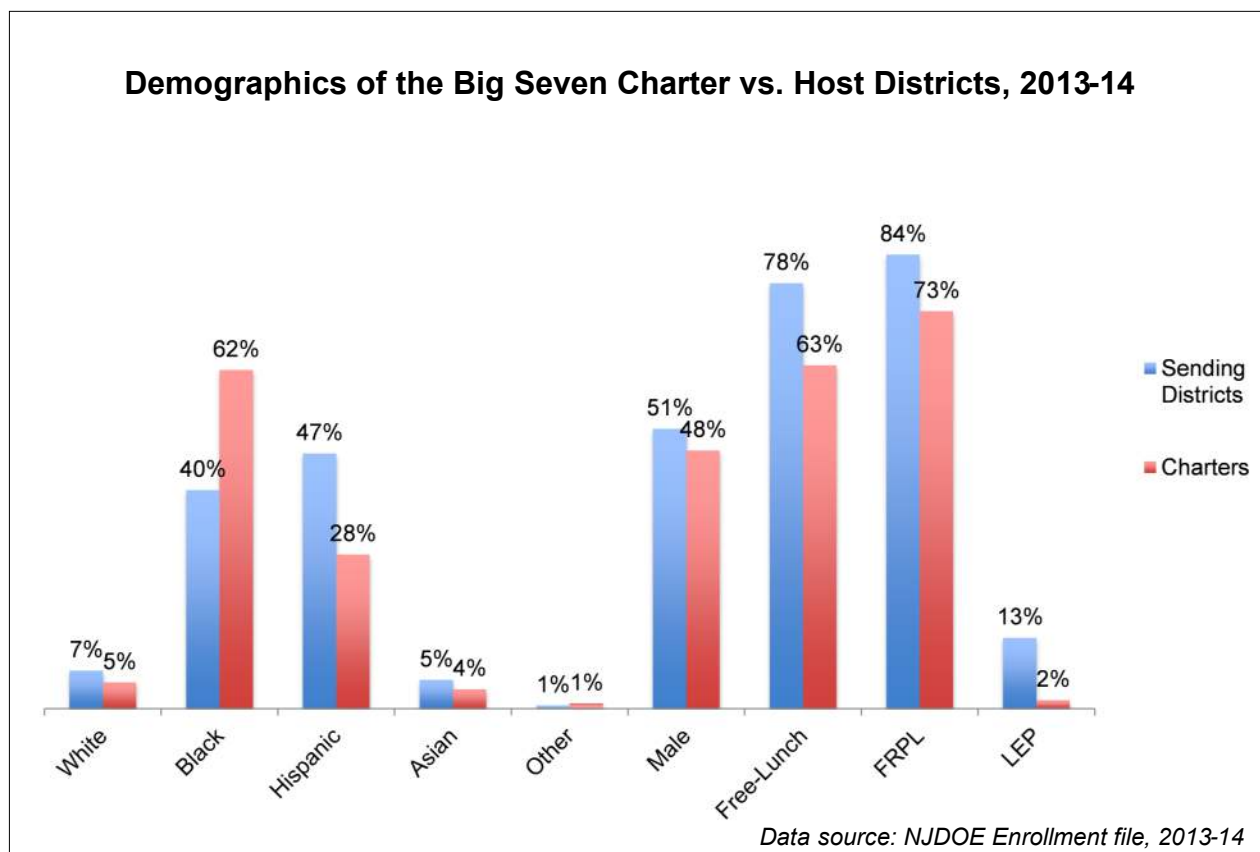
[2]Free Lunch and Free or Reduced Price Lunch eligibility are proxy measures for economic disadvantage. Students who qualify for Free Lunch live in households with incomes below 130% of the poverty line. In 2013-14, 130% of the poverty line equaled an annual income of $31,005 for a family of four. Reduced Price Lunch students' households have incomes of 131% to 185% of the poverty line. In 2013-14, 185% of the poverty line equaled an annual income of $44,123 for a family of four (see: http://www.fns.usda.gov/school-meals/income-eligibility-guidelines). FRPL refers to students who qualify for either Free or Reduced Price Lunch. Limited English Proficient students do not speak English as their primary language, and therefore may qualify for special instructional services (see: http://www.lep.gov/faqs/faqs.html). Free or Reduced Price Lunch status and Limited English Proficient status are used to calculate state aid for schools under New Jersey's School Funding Reform Act, in recognition of the additional services that economically disadvantaged and Limited English Proficient children may require (see: http://www.edlawcenter.org/issues/school-funding.html).

As Figure 4 highlights, the Big Seven charter schools serve a population that is very different demographically than that of their host districts.
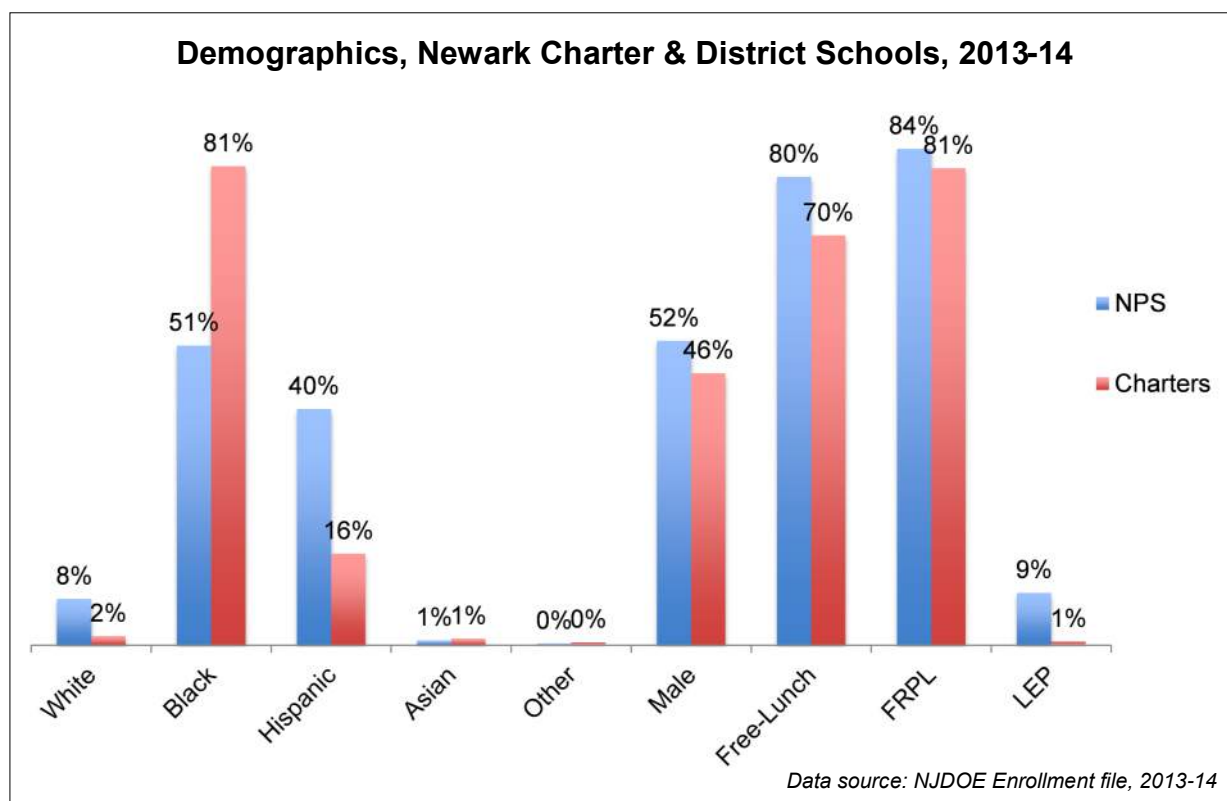
The Big Seven charter schools enroll:

- A significantly smaller percentage of students in economic disadvantage, as measured by both Free Lunch (15 percentage point differential) and Free or Reduced Price Lunch (9 percentage point differential) status, than their host school districts.
- A much smaller proportion of Limited English Proficient (LEP) students. The Big Seven districts educate six times the percentage of LEP students as do the charter schools.
- Proportionately more Black students (62% vs. 40%), but fewer Hispanic students (28% vs. 47%) than the district schools.
- A smaller percentage of males (48% vs. 51%) than the district schools.

It is particularly important to note the differences here between Free Lunch and Free or Reduced Price Lunch status as a measure of economic disadvantage. Free Lunch eligibility is an indicator of deeper poverty than Reduced Price Lunch. Therefore, in districts where nearly all students qualify for Free or Reduced Price Lunch, Reduced Price Lunch is actually a sign of relative economic *advantage* that can translate into higher test scores. Appendix A further explores this issue.

While separating the Big Seven from the rest of the New Jersey charter sector gives us a more accurate basis for comparison to district schools, aggregating the demographic descriptions still masks regional differences. It is, therefore, important for this analysis to look at each of the Big Seven districts individually.

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Newark

Figure 5

Demographics, Newark Charter & District Schools, 2013-14

Data source: NJDOE Enrollment file, 2013-14

Newark's district schools enroll a higher percentage of Free Lunch (80% vs. 70%) and Free or Reduced Price Lunch (84% vs. 81%) students than Newark's charter schools. Newark's district schools also serve nine times the percentage of Limited English Proficient students (9% vs. 1%); two and a half times the percentage of Hispanic students (40% vs. 16%); and six percentage points more male students (52% vs. 46%) than Newark's charter schools. Newark's charter schools serve a higher percentage of Black students than the Newark district schools (81% vs. 51%).
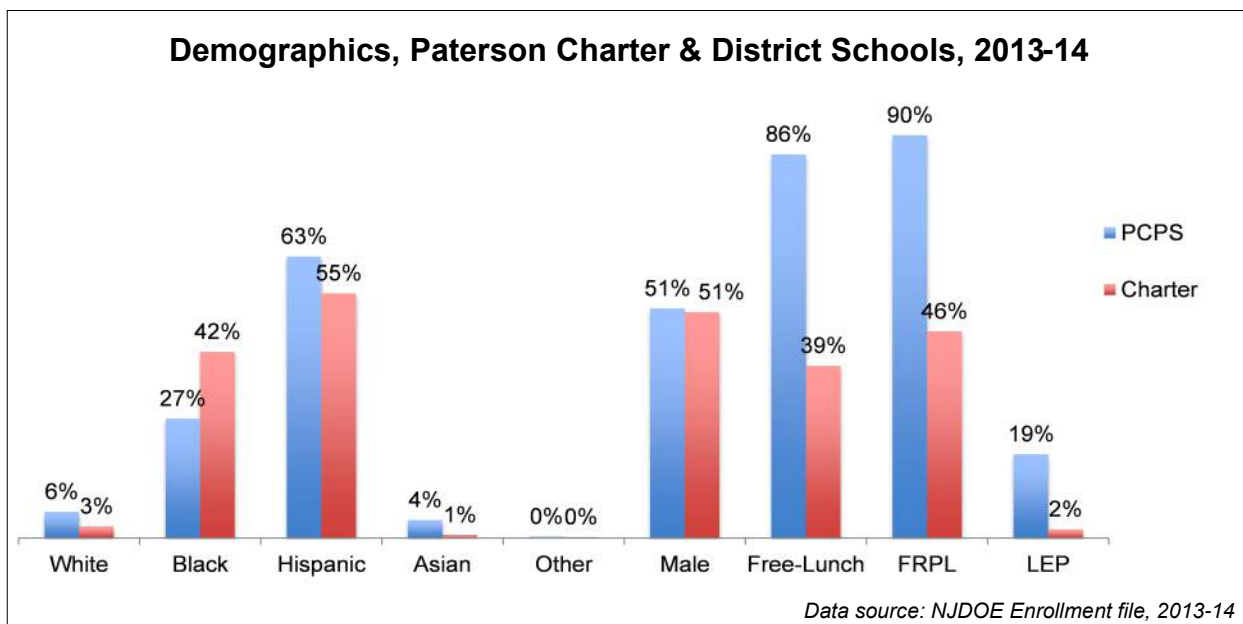
Jersey City

Demographics, Jersey City Charter & District Schools, 2013-14

Data source: NJDOE Enrollment file, 2013-14
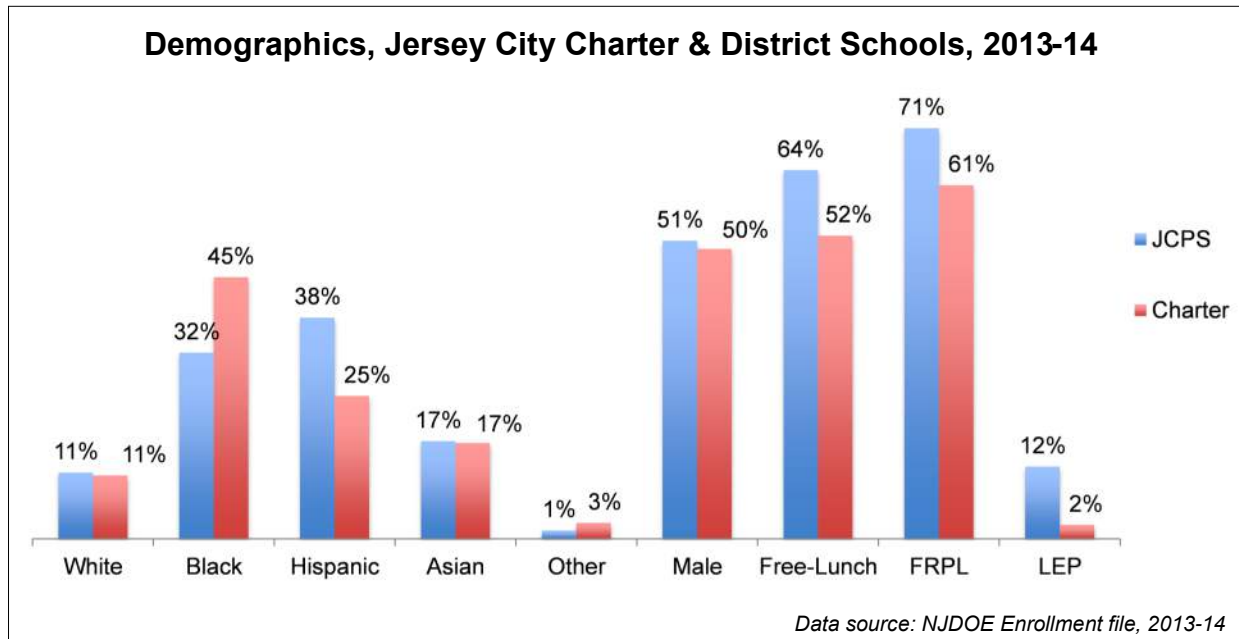
Jersey City's district schools enroll a higher percentage of Free Lunch (64% vs. 52%) and Free or Reduced Price Lunch (71% vs. 61%) students than the charter schools. Jersey City's district schools also serve six times the percentage of Limited English Proficient students (12% vs. 2%) and one third more Hispanic students (38% vs. 25%) than the charter schools. Jersey's City's charter schools serve a higher percentage of Black students than the district schools (45% vs. 32%).

Paterson

Figure 7

Demographics, Paterson Charter & District Schools, 2013-14

Data source: NJDOE Enrollment file, 2013-14

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Paterson's district schools enroll more than twice the percentage of Free Lunch students (86% vs. 39%) and almost twice the percentage of Free or Reduced Price Lunch students (90% vs. 46%) as the charter schools. Paterson's district schools also serve nine and a half times the percentage of Limited English Proficient students (19% vs. 2%) than the Paterson charter schools. Paterson's district schools serve a higher percentage of Hispanic students (63% vs. 55%) while the charter schools have a higher percentage of Black students (42% vs. 27%).

Camden

Demographics, Camden Charter & District Schools, 2013-14

Data source: NJDOE Enrollment file, 2013-14
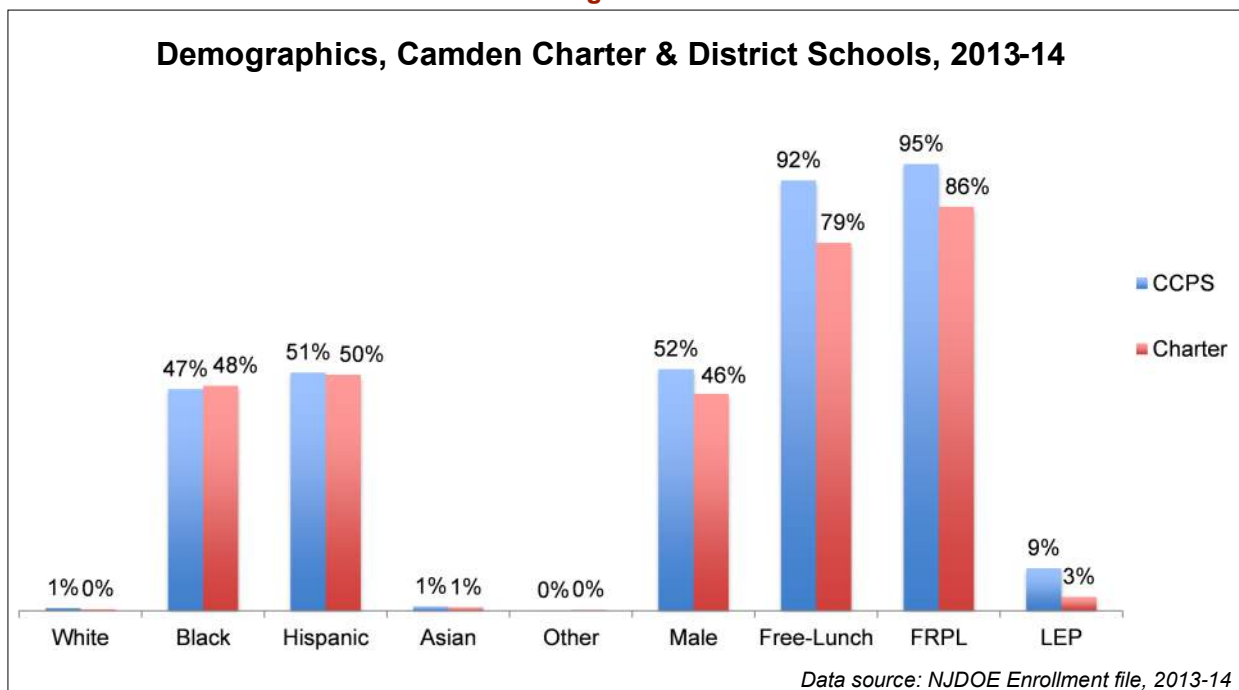
Camden's district schools enroll a higher percentage of Free Lunch (92% vs. 79%) and Free or Reduced Price Lunch (95% vs. 86%) students than Camden's charter schools. Camden's district schools also serve three times the percentage of Limited English Proficient students (9% vs. 3%) and six percentage points more male students than the charter schools. Unlike the other Big Seven districts, the racial composition of Camden's district and charter schools is virtually identical to each other.

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Trenton

Figure 9

Demographics, Trenton Charter & District Schools, 2013-14

Data source: NJDOE Enrollment file, 2013-14

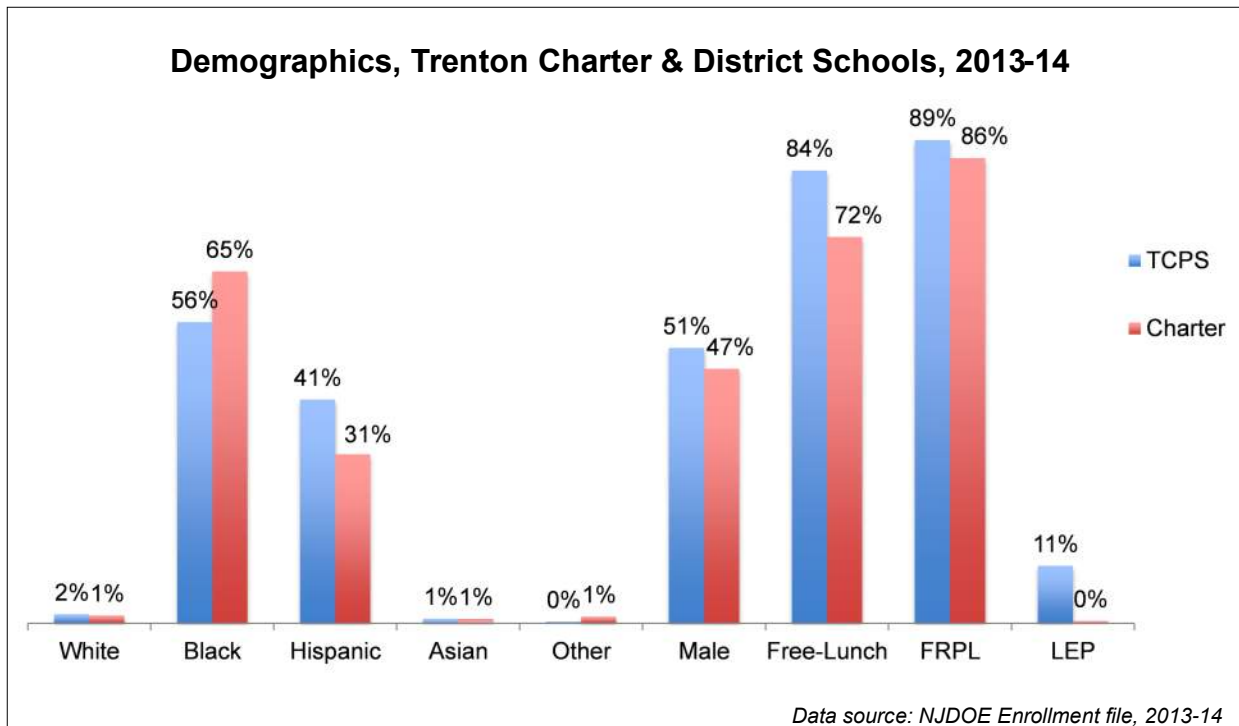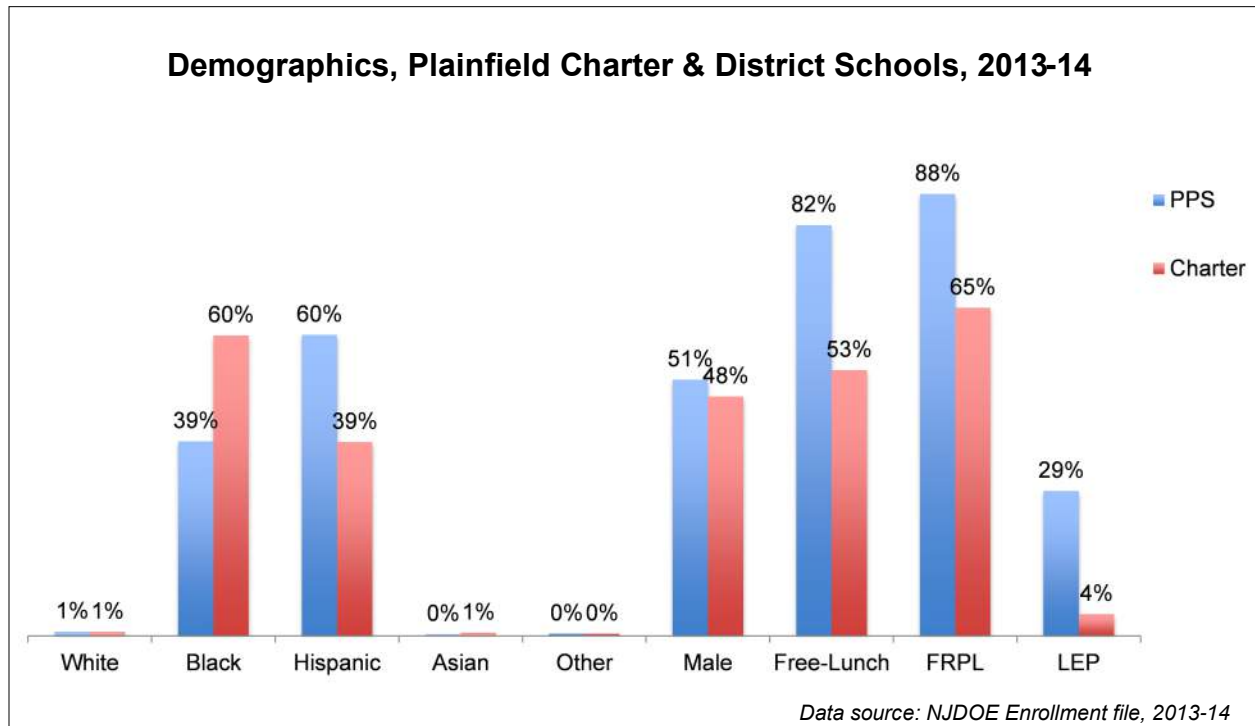Trenton's district schools enroll a higher percentage of Free Lunch (84% vs. 72%) and Free or Reduced Price Lunch (89% vs. 86%) students than Trenton's charter schools. Eleven percent of Trenton's district school students are Limited English Proficient versus Trenton's charter schools, which have almost no LEP students. Trenton's district schools also have four percentage points more male students (51% vs. 47%) than the charter schools. Trenton's district schools have 10 percentage points more Hispanic students (41% vs. 31%) but nine percentage points fewer Black students than the charter schools (65% vs. 56%).

Plainfield

Figure 10

Demographics, Plainfield Charter & District Schools, 2013-14

Data source: NJDOE Enrollment file, 2013-14

Plainfield's district schools enroll a significantly higher percentage of Free Lunch (82% vs. 53%) and Free or Reduced Price Lunch (88% vs. 65%) students than Plainfield's charter schools. Plainfield's district schools also serve more than seven times the percentage of Limited English Proficient students (29% vs. 4%) and three percentage points more male students than the charter schools. The Hispanic and Black populations of the district are exact opposites of the charter schools', with 60 percent Hispanic and 39 percent Black in the district schools, and 39 percent Hispanic and 60 percent Black in the charter schools.

Hoboken

Figure 11

Demographics, Hoboken Charter and District Schools, 2013-14

Data source: NJDOE Enrollment file, 2013-14
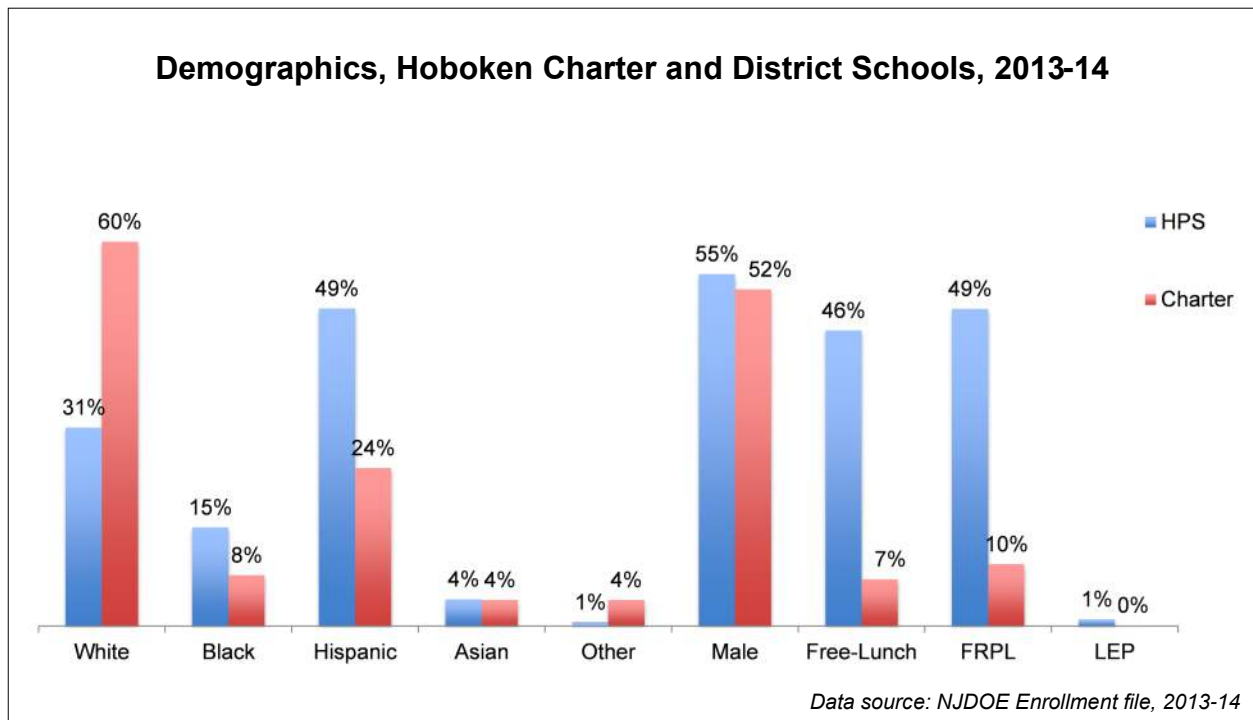
Hoboken shows some of the most dramatic demographic differences of any Big Seven district. The Hoboken district schools enroll almost seven times the percentage of Free Lunch students as the charter schools (46% vs. 7%); and 39 percentage points more Free or Reduced Price Lunch students (49% vs. 10%). Hoboken's district schools also have more than twice the percentage of Hispanic students as the charter schools (49% vs. 24%). Consistent with the other Big Seven districts, Hoboken's charter schools educate a higher percentage of Black students (15% vs. 8%). Unlike the other Big Seven districts, however, Hoboken's charter schools educate a much higher percentage of White students than the district's public schools (60% vs. 31%).

Charter School Student Demographics - Outside the Big Seven

Figure 12 provides an aggregate comparison of student characteristics for charter schools and district schools outside of the Big Seven host districts. As with the prior section, the characteristics include race, gender, Free Lunch and Free or Reduced Price Lunch status, and Limited English Proficient status.

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Figure 12

**Demographics of Charter & Host District Schools
Outside the Big Seven, 2013-14**

Data source: NJDOE Enrollment file, 2013-14
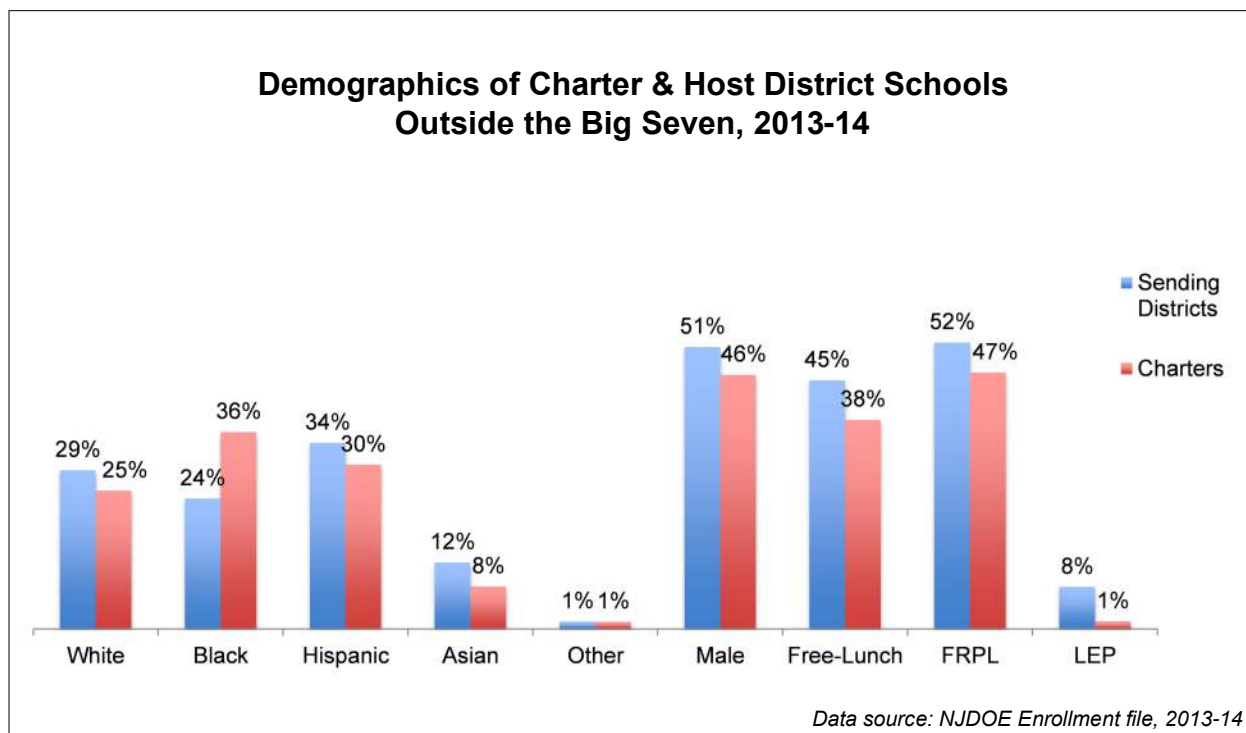
While some of the aggregate differences here are not as pronounced as those within the Big Seven, student demographics still diverge significantly between charter schools and district schools.

With few exceptions, these charter schools serve significantly fewer students in economic disadvantage than their host districts. These charter schools' aggregate Free Lunch population is 7 percentage points smaller than their host district schools. These overall trends mask much larger variations between individual charter and district schools. For example, only three percent of the students at Teaneck Community Charter School quality for free lunch, versus 19 to 27 percent at Teaneck's seven district schools. Similarly, only three percent of the students at the Riverbank Charter School of Excellent qualify for free lunch versus 22 to 26 percent at the Florence host district's public schools.

Charter schools outside the Big Seven also serve a far smaller proportion of Limited English Proficient (LEP) students (1% vs. 8%); and have fewer male students (46% vs. 51%) than the district schools. As with charter schools in the Big Seven districts, those in the rest of the state educate fewer Hispanic and more Black students than their host district schools.
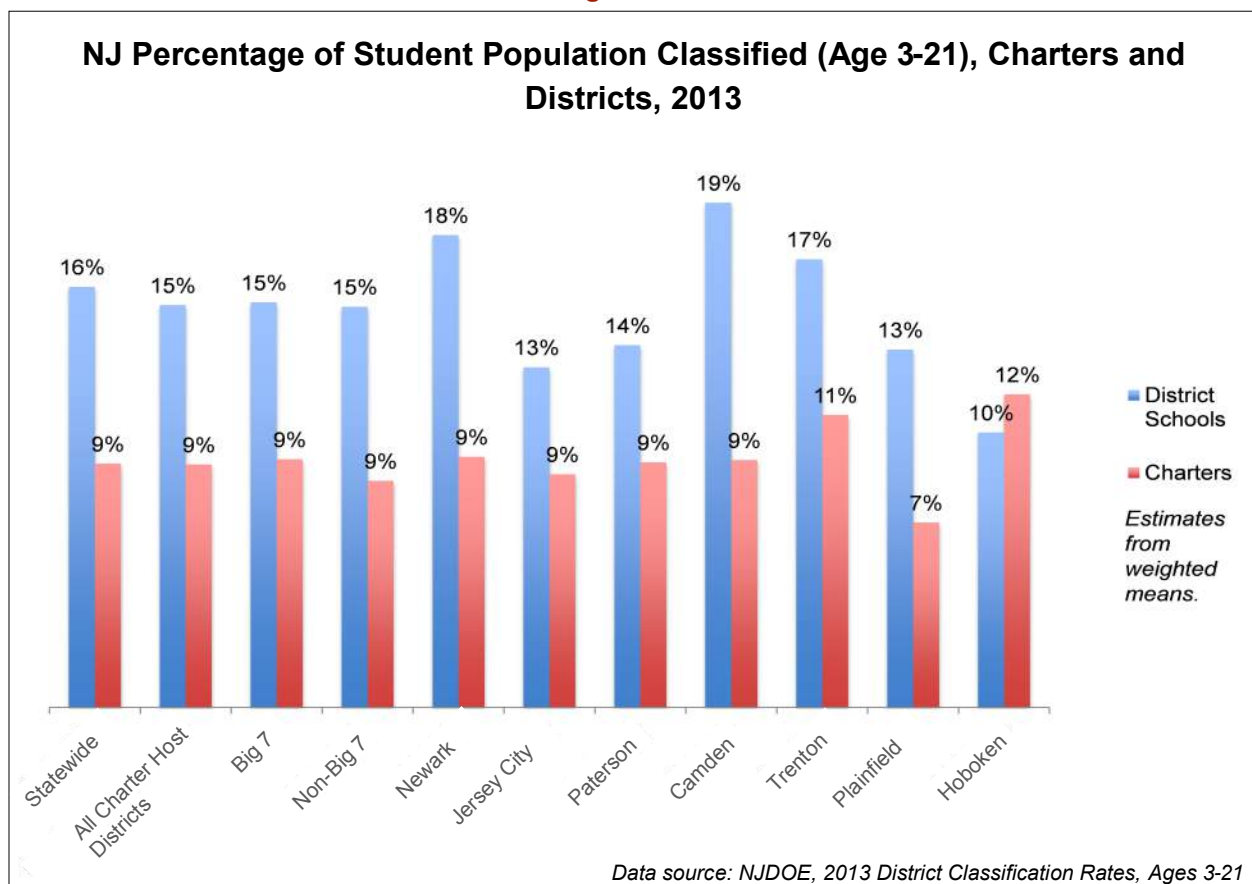
District versus charter demographic comparisons for some of the charter schools located outside of the Big Seven cities are available at: http:// www.saveourschoolsnj.org/nj-charter-school-data/.

Special Education Enrollments

Any meaningful analysis of charter school enrollments must include a look at special education. It is a commonly accepted precept of education policy that special education students require greater resources to address their needs. New Jersey's School Funding Formula is predicated on this idea. Student academic outcomes at the school level also may be affected by the enrollment of students with special needs.

If charter schools enroll fewer classified students than their host districts, it follows that those hosts will need more resources per pupil than the charter schools, in order to provide all of their enrolled students with an adequate education. Districts also may encounter problems mainstreaming their classified students if their general education population shrinks. Charter school enrollments of special education students, therefore, may have a meaningful impact on the funding and operation of their host districts.

Figure 13

NJ Percentage of Student Population Classified (Age 3-21), Charters and Districts, 2013
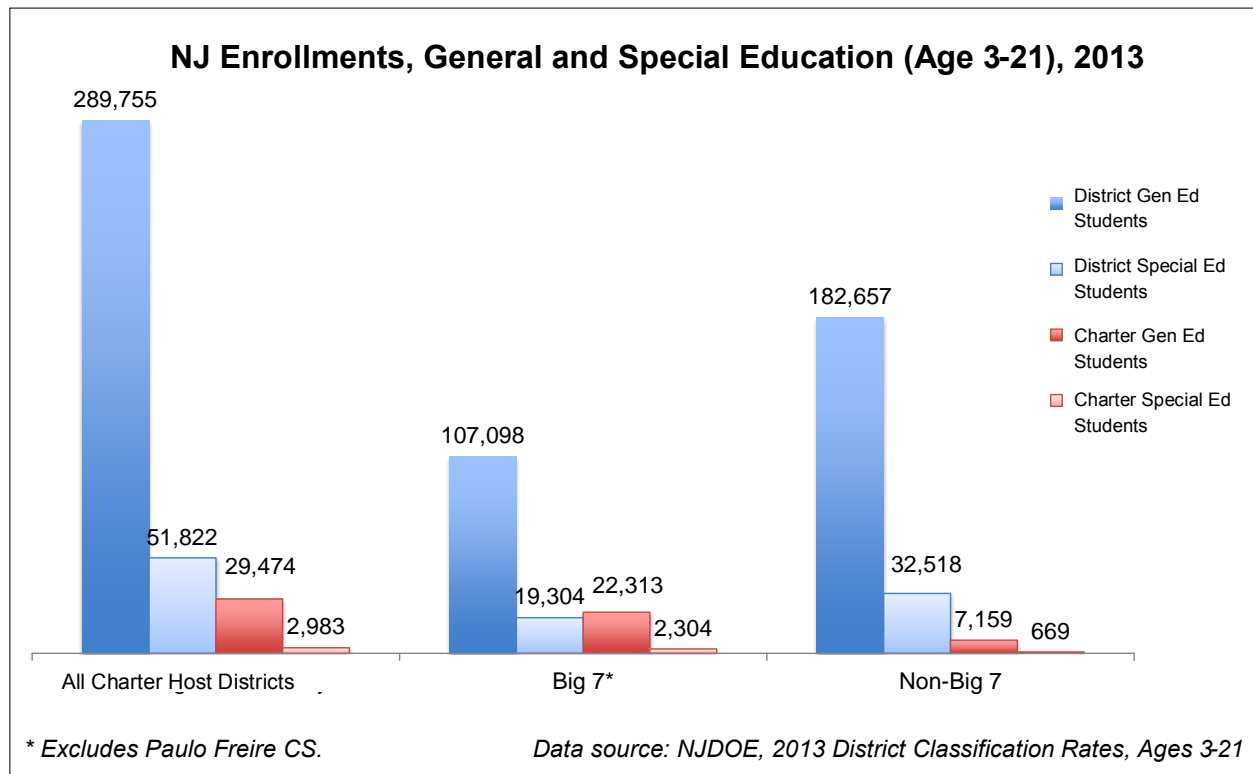
Data source: NJDOE, 2013 District Classification Rates, Ages 3-21

Charter host districts have a special education classification rate of 15% while the charter schools have a rate of only 9%. In every Big Seven district except Hoboken, the district classification rate is higher than the aggregate rate for the charter schools.

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Because charter schools account for only a relatively small part of the entire state's student enrollment, the resulting number of classified students enrolled in charter schools is quite small.

Figure 14

NJ Enrollments, General and Special Education (Age 3-21), 2013

* Excludes Paulo Freire CS.   Data source: NJDOE, 2013 District Classification Rates, Ages 3-21

Across the entire state of New Jersey, charter schools enroll fewer than 3,000 special education students, most of whom are in the Big Seven urban districts.

The question of special education enrollments in charter schools is further complicated by the classifications of students' eligibilities for services. Under the Individuals with Disabilities Education Act (IDEA), terms have been established to describe the various disabilities that may qualify a student for services.[3] These terms are an acknowledgement that classified students have needs that vary greatly in cost and implementation.

In 2011, the New Jersey Department of Education (NJDOE) commissioned a report that analyzed the relative costs of various disability categories.[4] The report found that the disabilities could be classified into three cost levels:

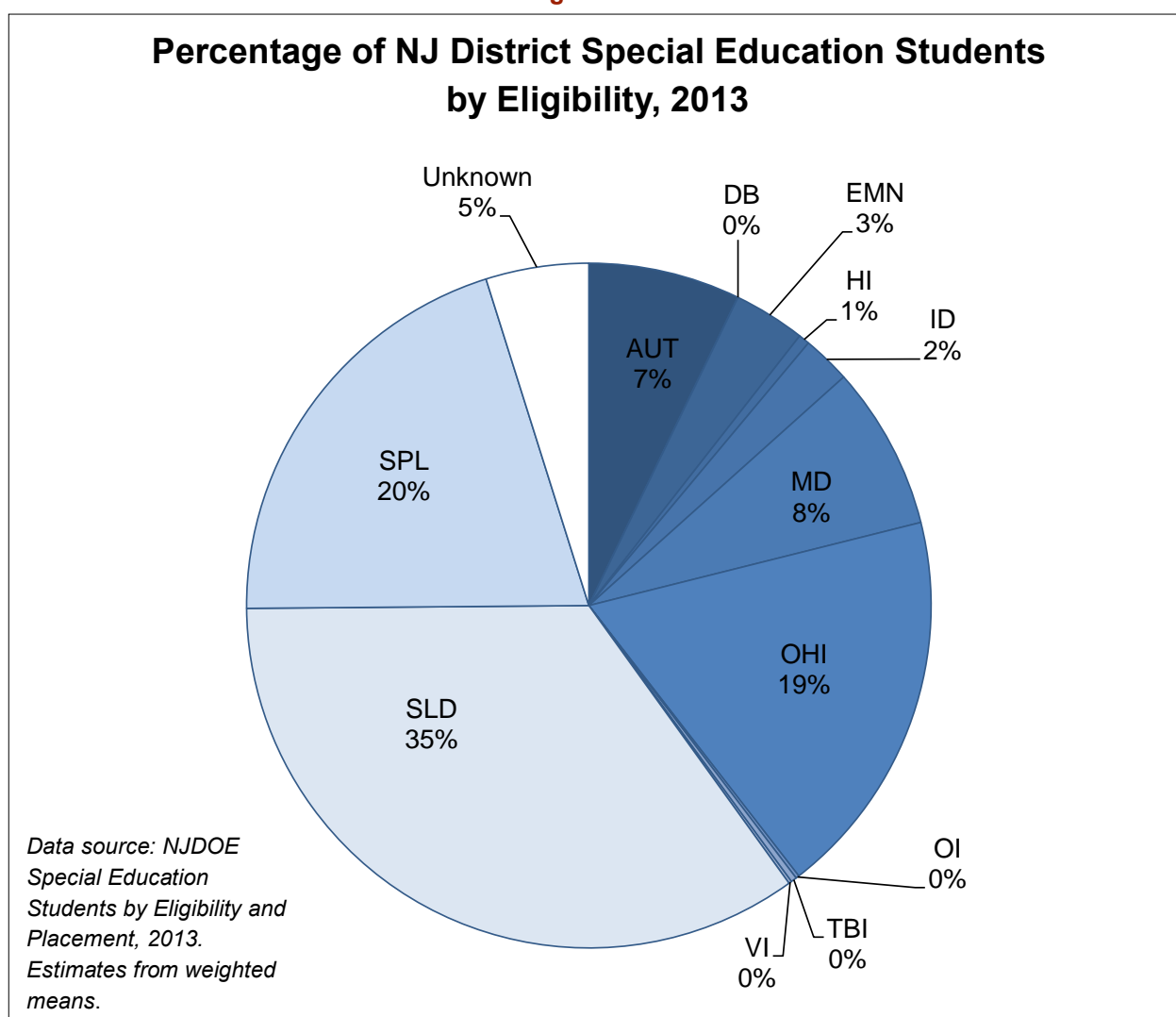- High: autism, multiple disabilities, visual impairment/blindness.

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[3] http://idea.ed.gov/explore/view/p/,root,regs,300,A,300%252E8,c,
[4] http://www.state.nj.us/education/finance/sereport.pdf

- Moderate: emotional disturbance, hearing impairment/deafness, mental retardation, orthopedic impairment, other health impairment, traumatic brain injury.
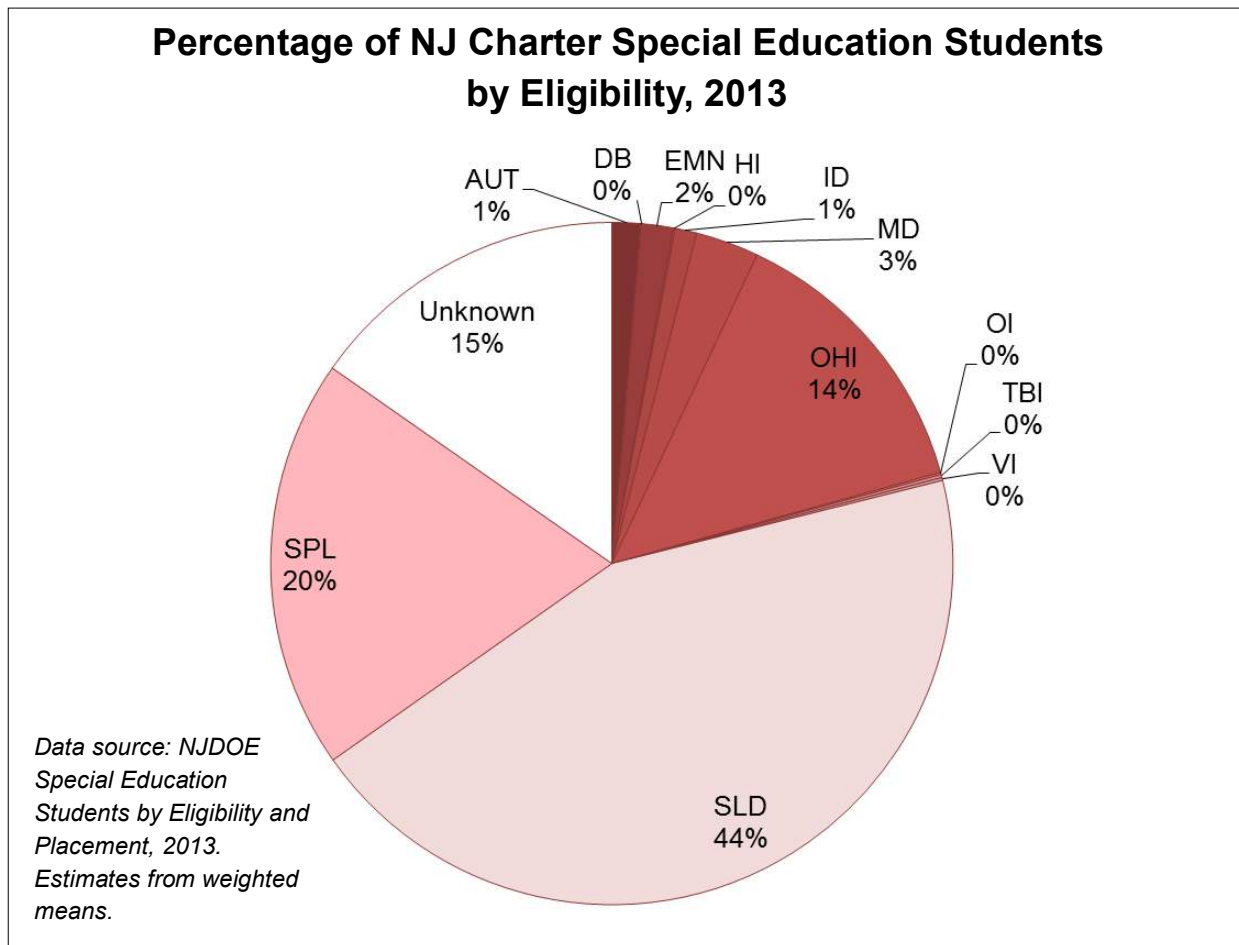- Low: specific learning disability, speech/language impairment.

The low-cost disabilities – specific learning disabilities (SLD) and speech/language impairment (SPL) – are also the most common. They are, however, even more common in charter schools. Figures 15 and 16 compare the percentages of students in various eligibility categories for district schools and charter schools.[5]

Percentage of NJ District Special Education Students by Eligibility, 2013

Unknown 5%
DB 0%
EMN 3%
HI 1%
ID 2%
AUT 7%
SPL 20%
MD 8%
OHI 19%
SLD 35%
OI 0%
TBI 0%
VI 0%

Data source: NJDOE Special Education Students by Eligibility and Placement, 2013. Estimates from weighted means.

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[5] For a complete discussion of the methodology used here and for an explanation of the abbreviations used for the special education eligibility categories, please see Appendix B.

Figure 16

Percentage of NJ Charter Special Education Students by Eligibility, 2013

Data source: NJDOE Special Education Students by Eligibility and Placement, 2013. Estimates from weighted means.

One of the difficulties in analyzing special education data is that, when the number of children in a classification is small, data is often suppressed to protect their privacy. For example, data on New Jersey's special education tables is suppressed if the number of students in any particular placement and eligibility is under five but more than one. Because charter school enrollments are relatively small compared to district enrollments, this analysis shows a larger proportion of charter special education students classified as "unknown."
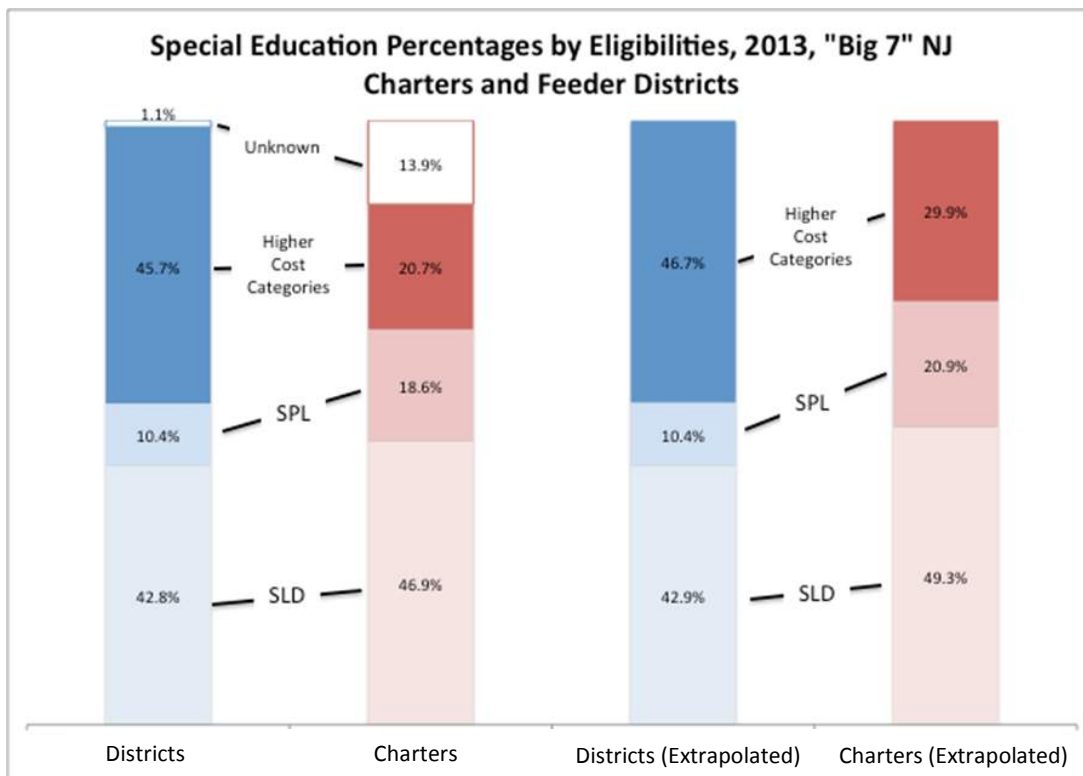
Still, the differences between charter and district special education enrollments by eligibility are significant. Forty percent of known categorizations of district classified students are in moderate- or high-cost eligibilities; only 21 percent of charter students are in eligibilities of a similar relative cost.

In an attempt to gain more clarity, this brief reports eligibilities for charter schools and their host districts in two ways: placing all suppressed data into an "unknown" category using the most generous scenario possible, and extrapolating the most likely eligibility placement percentages.[6]
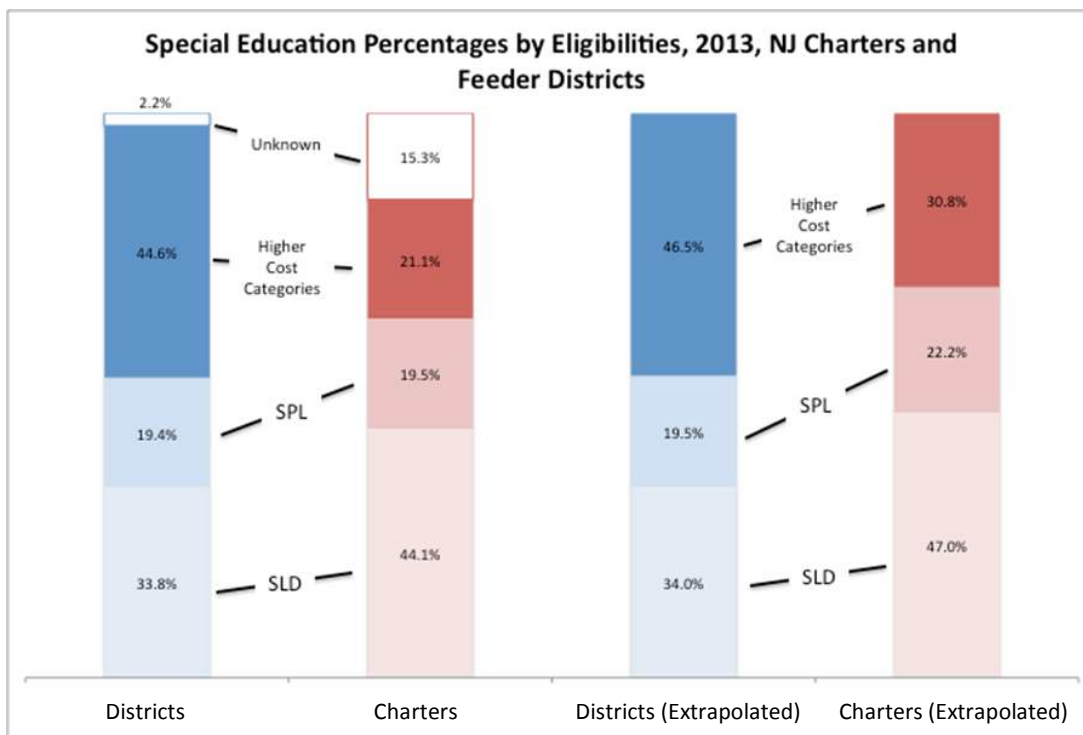
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[6]The full methodology for this technique is explained in Appendix B. Special education percentages by status for each of the Big Seven districts are available at: http://www.saveourschoolsnj.org/nj-charter-school-data/
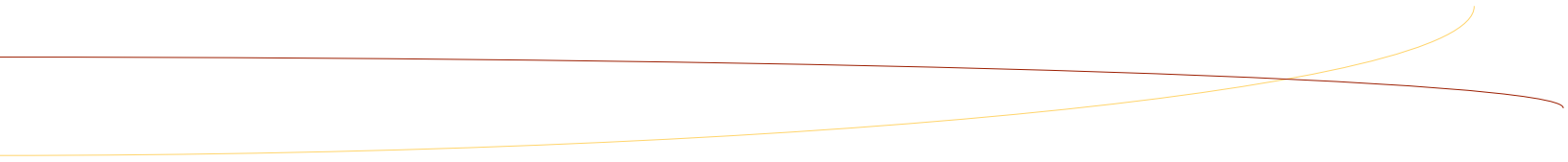
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Figure 17 presents the percentages for the Big Seven charter schools and host districts and Figure 18 for all charter schools and host districts

Figure 17

Special Education Percentages by Eligibilities, 2013, "Big 7" NJ Charters and Feeder Districts

Figure 18

Special Education Percentages by Eligibilities, 2013, NJ Charters and Feeder Districts

In all the scenarios, the same pattern emerges: charter schools educate a much smaller percentage of students with the most costly special education eligibilities.

This trend has significant implications for charter funding policies. The smaller number of special education students in charter schools and those students' lower rates of higher-cost classifications lead to the concentration of more special education students with highest-cost disabilities within the district schools. Yet districts must fund charter schools at a per pupil rate that does not account for these differences in students' special education needs.

In other words, this disparity between charter schools and district schools places a disparate financial burden on the districts. We will explore this issue in further detail, later in this series.

Conclusions and Policy Implications

Whether at the district or statewide level, the data presented in this report makes clear that New Jersey's charter schools educate a demographically different population of students than their host district schools. While there are a few exceptions at the individual school level, as a whole, New Jersey charter schools educate:

- a smaller percentage of economically disadvantaged students.
- a significantly smaller percentage of Limited English Proficient students.
- a smaller percentage of students with special education needs and the classified students they do enroll tend to have less costly education disabilities.
- students with a different racial profile than that of the host districts.

The lower rates of economically disadvantaged, Limited English Proficient, and special education classified students in charter schools result in those students being concentrated at higher rates within the host district schools. This increases segregation and impacts the quality of education that districts can provide and the financial resources available to pay for that education.

In December 2013, the New Jersey Supreme Court reaffirmed its position that the New Jersey Commissioner of Education, who authorizes charter schools, must consider the demographic and financial impact of any authorizing decision on the host district and must use the full powers of that office to avoid segregation.[7] The results of the analysis presented in this report suggest that the Commissioner is not sufficiently meeting this legal obligation.

We recommend that the New Jersey Department of Education and the New Jersey Legislature take steps to bring the population of charter schools in line with the demographic composition of their host districts. There are a number of ways that this could be accomplished including:

- Having the NJ Department of Education conduct the lottery process for all charter schools, with one application deadline, to increase lottery and waiting list transparency and to make it easier for low-income and Limited English Proficient families to apply.

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[7]For discussion of New Jersey Supreme Court rulings regarding this issue, see http://www.edlawcenter.org/assets/files/pdfs/Newsblasts/Charter%20School%20Regs%20-%20ELC%20Comments%20August%202014.pdf

- Using weighted lotteries to make it easier for charter schools to admit higher percentages of students who are eligible for Free Lunch and Free or Reduced Price Lunch, who are Limited English proficient, and who have special education needs at various cost levels.

- Requiring charter schools to replace any students who leave and, whenever feasible, to do so from comparable demographic categories in terms of Free Lunch, Free or Reduced Price Lunch, Limited English Proficiency and special education rates at various cost levels.

- Tying demographic parity in terms of Free Lunch, Free or Reduced Price Lunch, Limited English Proficiency and special education rates at various cost levels to a charter school's reimbursement rate. For example, charter schools that fail to match at least 90 percent of their host district's demographic composition on these variables would receive a lower reimbursement rate per student.

To facilitate accurate future assessments of the demographic composition of charter and host district schools, we also recommend that the New Jersey Department of Education collect enrollment data at least twice a year from both charter and district schools, to account for shifts in student population characteristics. We further recommend that the Department conduct an annual analysis, comparable to the one provided in this report, to determine how charter school demographics compare to those of their host districts, and that the department make this analysis available to the public and to policy makers.
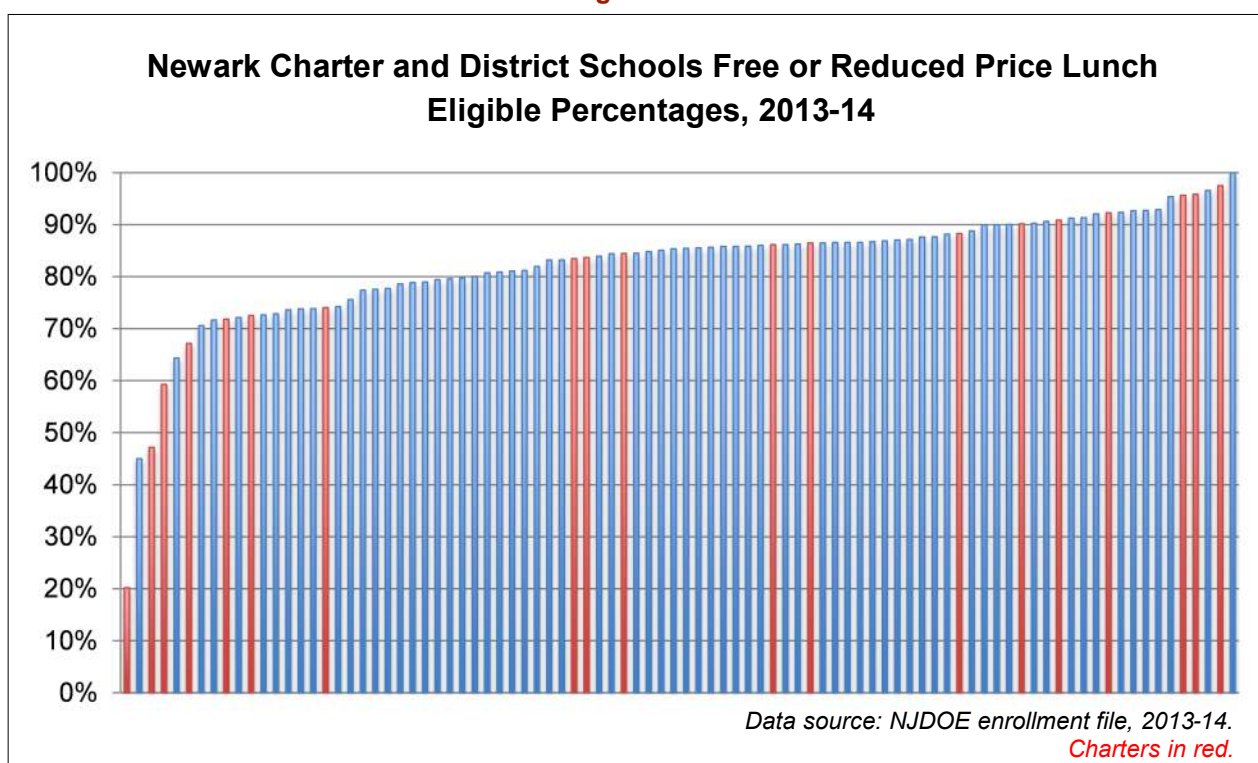
More broadly, we recommend that all comparisons of charter and district schools take into account differences between them in terms of student populations. Given the important differences in educational needs and performance between students who qualify for Free versus Reduced Price Lunch, and students at various levels of special education needs, we also recommend that all comparisons be made with data that is disaggregated at these levels of analysis.

Appendix A: Measuring Economic Disadvantage: Free Lunch vs. Free or Reduced Price Lunch

To understand how the measurement of economic disadvantage affects an analysis of charter schools, we begin by focusing on Newark, New Jersey's largest city and largest school district. Remember that Free Lunch students live in households with incomes below 130 percent of the poverty line, while the household income for Reduced Price Lunch students is 131 percent to 185 percent of the poverty line.

Figure 19 shows the proportions of students who qualify for Free or Reduced Price Lunch in each school, district or charter, within the Newark area.[8]

Figure 19

Newark Charter and District Schools Free or Reduced Price Lunch Eligible Percentages, 2013-14

Data source: NJDOE enrollment file, 2013-14.
Charters in red.

Clearly, most of Newark's publicly-funded schools – whether charter or district – have high percentages of students who are economically disadvantaged. The median school-level Free or Reduced Price Lunch percentage is 85 percent. Ten of the 19 charter schools in this analysis have fewer Free or Reduced Price Lunch students than the median.

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[8]This information, with school names included, is available under the Newark tab at http://www.saveourschoolsnj.org/nj-charter-school-data/

However, when economic disadvantage is measured by Free Lunch status only, the number of charter schools at or below the median increases. Figure 21 shows that the median school-level Free Lunch percentage is 79 percent and 12 charter schools are below this level. When judged by Free Lunch status alone, the charter sector does not serve nearly the percentage of students in economic disadvantage as the Newark District schools.

Figure 20

Newark Charter and District Schools Free Lunch Eligible Percentages, 2013-14

Data source: NJDOE enrollment file, 2013-14.
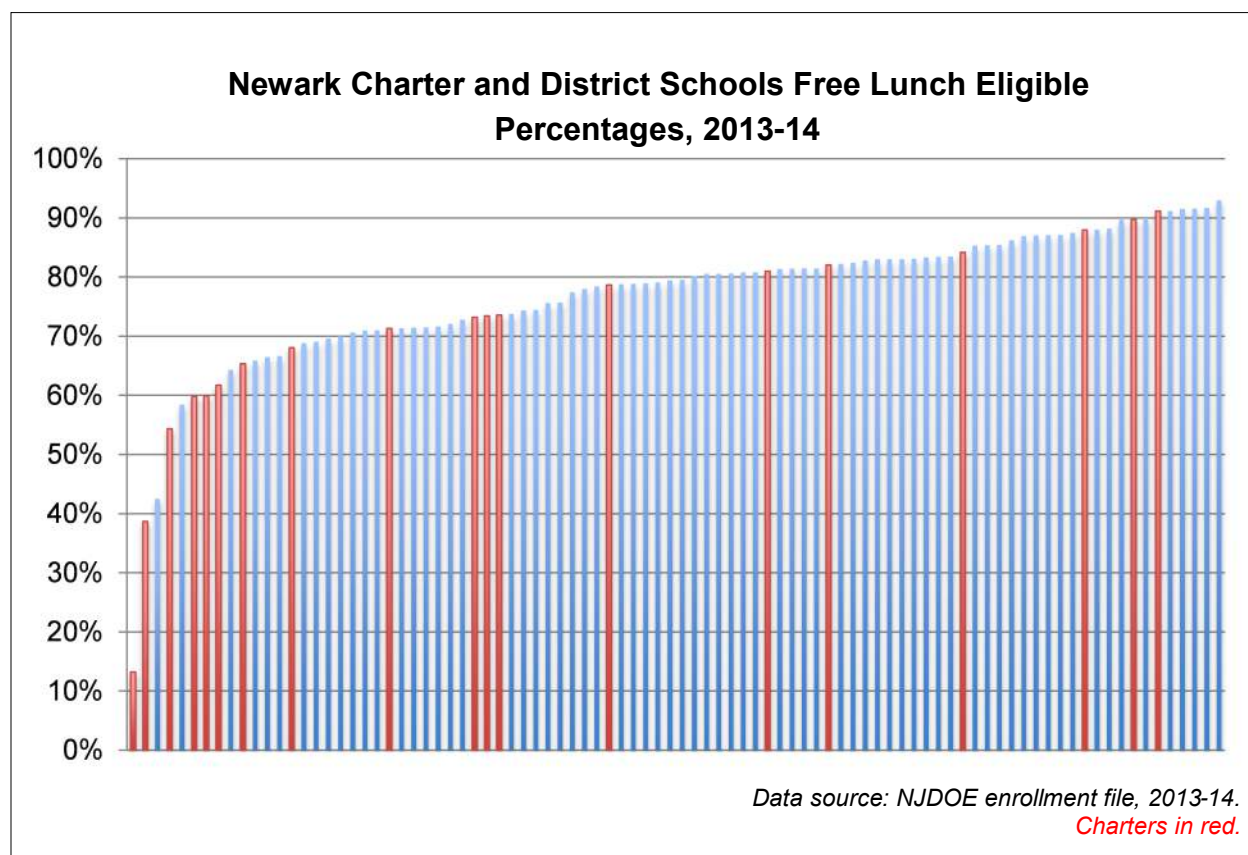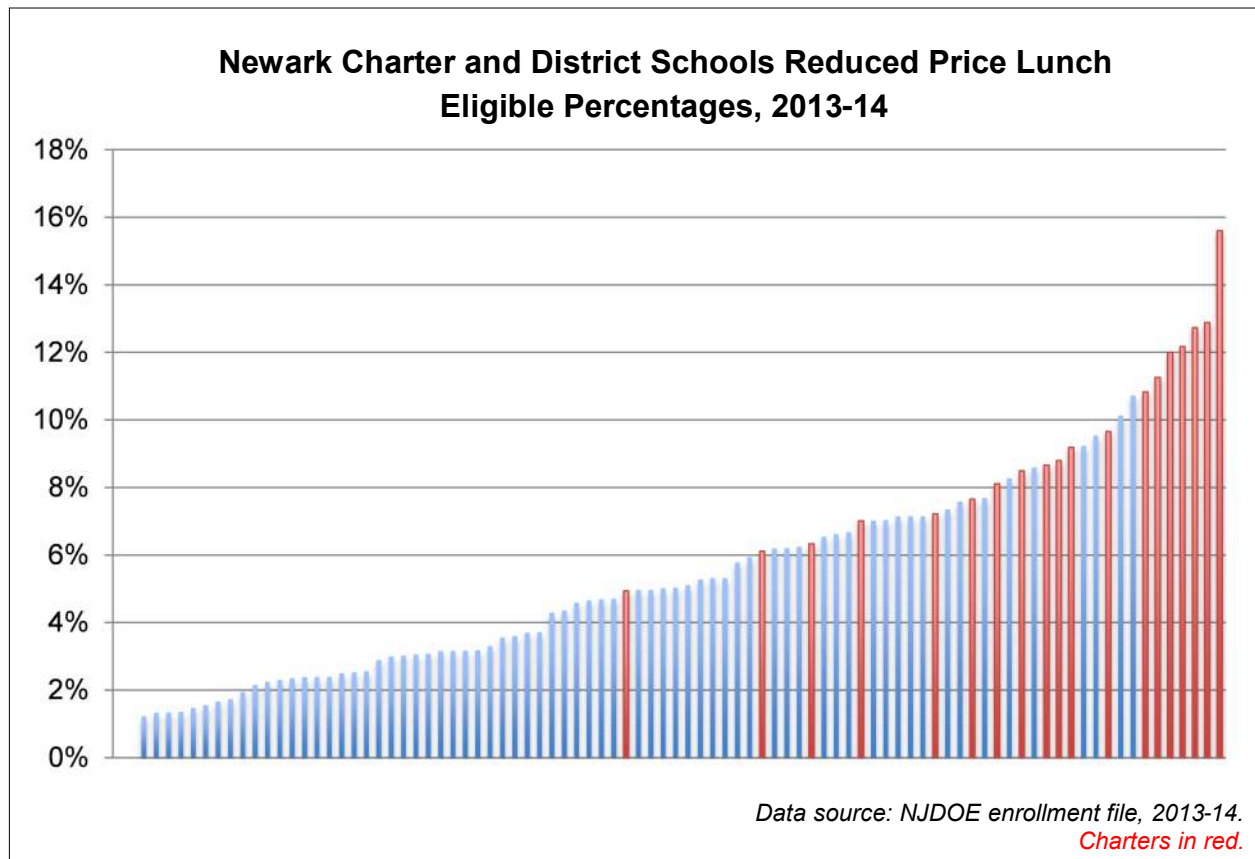*Charters in red.*

Figure 21 shows the percentage of students at each Newark school who qualify for Reduced Price Lunch. Newark's charter schools serve greater percentages of students who are at this relatively higher level of socioeconomic status.
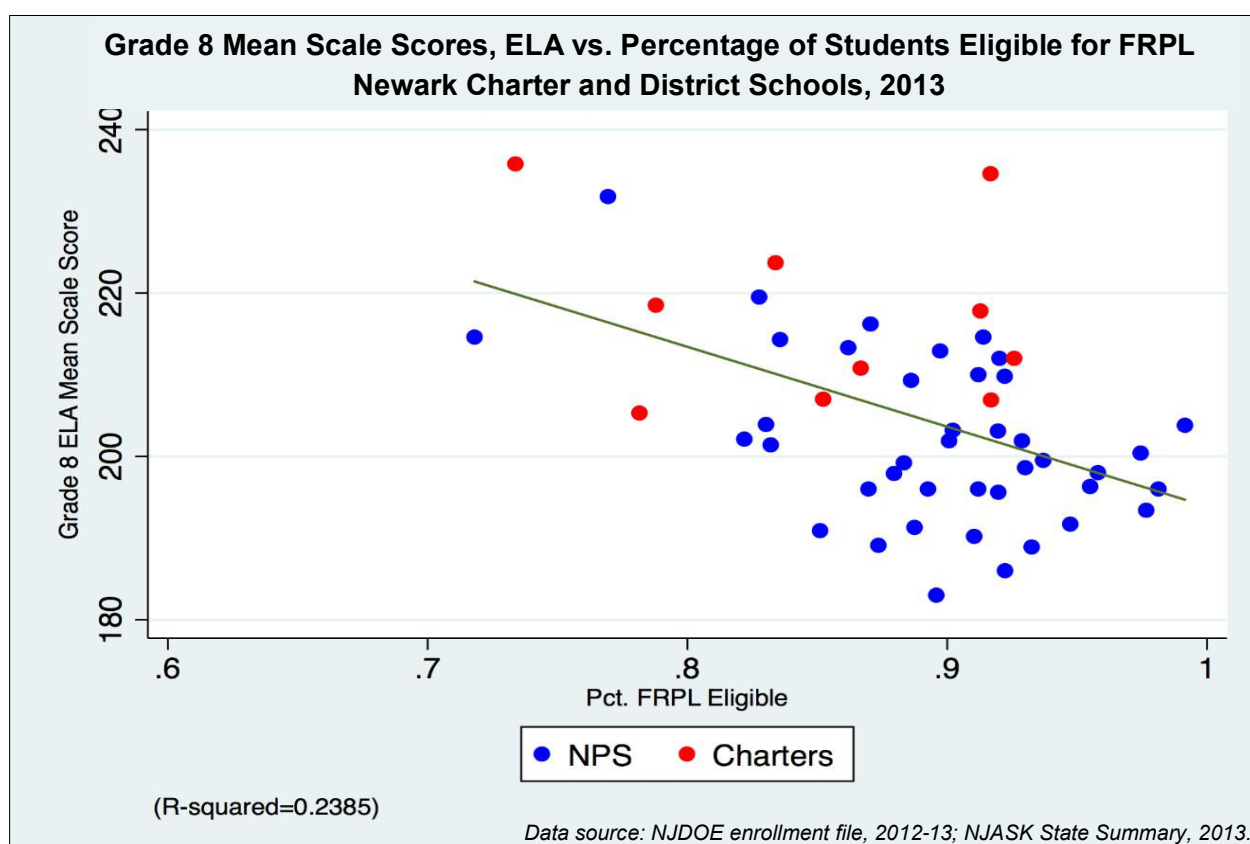
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Figure 21

Newark Charter and District Schools Reduced Price Lunch Eligible Percentages, 2013-14

Data source: NJDOE enrollment file, 2013-14.
Charters in red.

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Why does this matter? In a city like Newark – where 84 percent of students qualify for Free or Reduced Price Lunch – Reduced Price Lunch is actually a sign of *relative* economic advantage. Because test score gains correlate strongly to economic disadvantage, a school within Newark that serves more Reduced Price Lunch students actually has an edge in producing desirable academic outcomes.
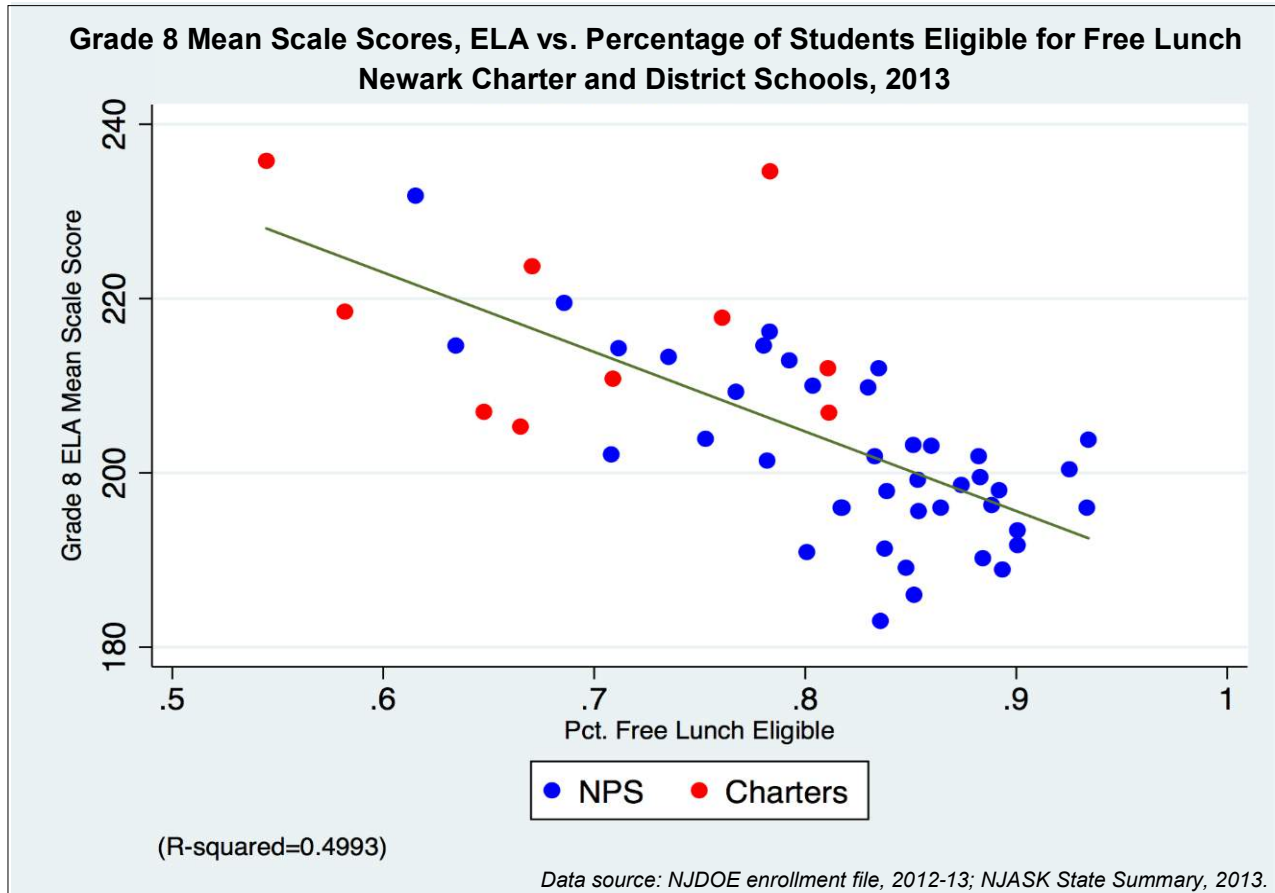
Consider Figure 22, a scatterplot that shows average (mean) test scores in English Language Arts (ELA) on the 2013 Grade 8 NJASK for Newark schools, plotted against each school's Free or Reduced Price Lunch percentage. There is a moderate but clear correlation between a school's Free or Reduced Price Lunch proportion and its average test score: as a school's Free or Reduced Price Lunch percentage falls, its scores rise.

Figure 22

Grade 8 Mean Scale Scores, ELA vs. Percentage of Students Eligible for FRPL
Newark Charter and District Schools, 2013

(R-squared=0.2385)

Data source: NJDOE enrollment file, 2012-13; NJASK State Summary, 2013.

Compare this to Figure 23, which shows the same schools, but plots their average NJASK-8 ELA score against their Free Lunch percentages. The correlation is actually *stronger* here: nearly half of the variation in the average scores can be statistically explained by the changes in Free Lunch percentages.

Figure 23

Grade 8 Mean Scale Scores, ELA vs. Percentage of Students Eligible for Free Lunch Newark Charter and District Schools, 2013

(R-squared=0.4993)

Data source: NJDOE enrollment file, 2012-13; NJASK State Summary, 2013.
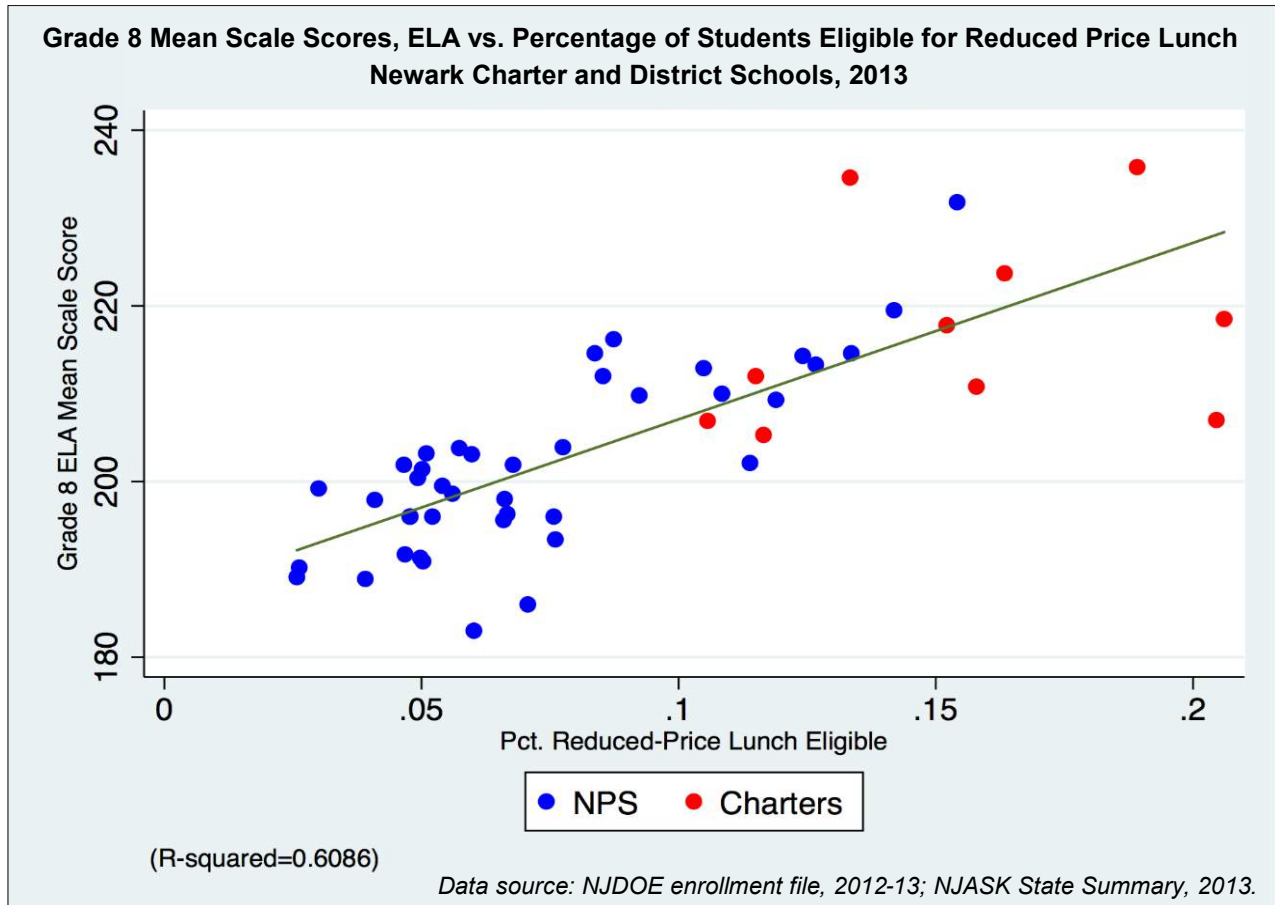
Finally, consider Figure 24, which plots the same test scores against Reduced Price Lunch percentages. In this case, the correlation actually flips: as the Reduced Price Lunch percentage rises, test scores also rise. Again, this is because Reduced Price Lunch is a measure of *relative* advantage in a community, like Newark, which has large numbers of students in economic disadvantage.

In its 2012 report on New Jersey's charter schools, the Center for Research on Education Outcomes (CREDO) used Free or Reduced Price Lunch as a proxy measure for economic disadvantage, rather than disaggregating Free Lunch or Reduced Price Lunch.[9] Given the correlations above, the methodology of the report should be called into question. While Reduced Price Lunch may indicate economic disadvantage at the statewide level, it is a sign of relative advantage in a community such as Newark. We will explore this dynamic further, later in this series.

[9]http://credo.stanford.edu/pdfs/nj_state_report_2012_FINAL11272012_000.pdf

Figure 24

Grade 8 Mean Scale Scores, ELA vs. Percentage of Students Eligible for Reduced Price Lunch
Newark Charter and District Schools, 2013

(R-squared=0.6086)

Data source: NJDOE enrollment file, 2012-13; NJASK State Summary, 2013.

Appendix B: Extrapolating Special Education Eligibility Percentages

The greatest difficulty in determining the distribution of types of disabilities among a population of classified students is dealing with the suppression of data. New Jersey's public data files can suppress special education data when reporting at the district level, ostensibly to protect the privacy rights of students.

 The 2013 special education placement by eligibility file includes the following note:

> *Cells sizes containing counts of students 5 or less have been suppressed and are marked with "-" symbol.*

This is especially problematic for any study of charter schools and special education placements and eligibilities because counts between 1 and 5 are more likely in charter schools, which enroll smaller numbers of students than most school districts.

It is possible, however, to make reasonably accurate estimations of the categorization of a charter schools' special education population. This report uses the following method to extrapolate the categorization of special education student disabilities under the most generous possible scenario.

The "Number of Classified Students by Eligibility and Placement, Ages 6-21" file lists seven possible special education placements:

- More than 80 percent included in general education classes
- Between 40 and 80 percent included in general education classes
- Less than 40 percent included in general education classes
- Public Separate & Private Day School
- Public & Private Residential School
- Home Instruction
- Correctional Facilities

Each placement can have one of 12 different eligibility categories:
- AUT: Autism
- DB: Deaf Blindness
- EMN: Emotional Disturbance
- HI: Hearing Impairment

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- MD: Multiple Disabilities
- ID: Intellectual Disability
- OHI: Other Health Impairment
- OI: Orthopedic Impairments
- SLD: Specific Learning Disability
- SPL: Speech or Language Impairment
- TBI: Traumatic Brain Injury
- VI: Visual Impairment

7 placements by 12 eligibilities yield 84 cells of data for each school district or charter school. Counts of 0 are not suppressed, which means that if the cell does not contain a 0 or a number higher than 5, we can assume it contains some number between 1 and 5.

The sum of all the numbers in all 84 cells, however, cannot be greater than the total count of classified students ages 3 to 21 for the district or the charter school. It also cannot be greater than the total for each district or charter calculated from the "Percent of Classified Students by Placement, Ages 6-21" file (assuming no cells are suppressed in that file).

So the highest possible total of age 6 to 21 classified students is either the total of all non-suppressed students and 5 students for each suppressed cell, or the total count of students classified ages 3 to 21, or the total placement count of students classified ages 6 to 21, whichever is the lowest.

Since we know every suppressed cell has a count of at least 1, and since we know the highest possible total count of age 6 to 21 classified students, we can calculate the number of unknown students – the highest possible count minus the known students and 1 for each suppressed cell – in the most generous scenario possible.

As a practical matter, the number of unknown students using this method is very small. The histogram in Figure 25 shows how many charter schools have a certain number of unknown special education student eligibility categorizations and placements. The mode is 3.

Figure 25
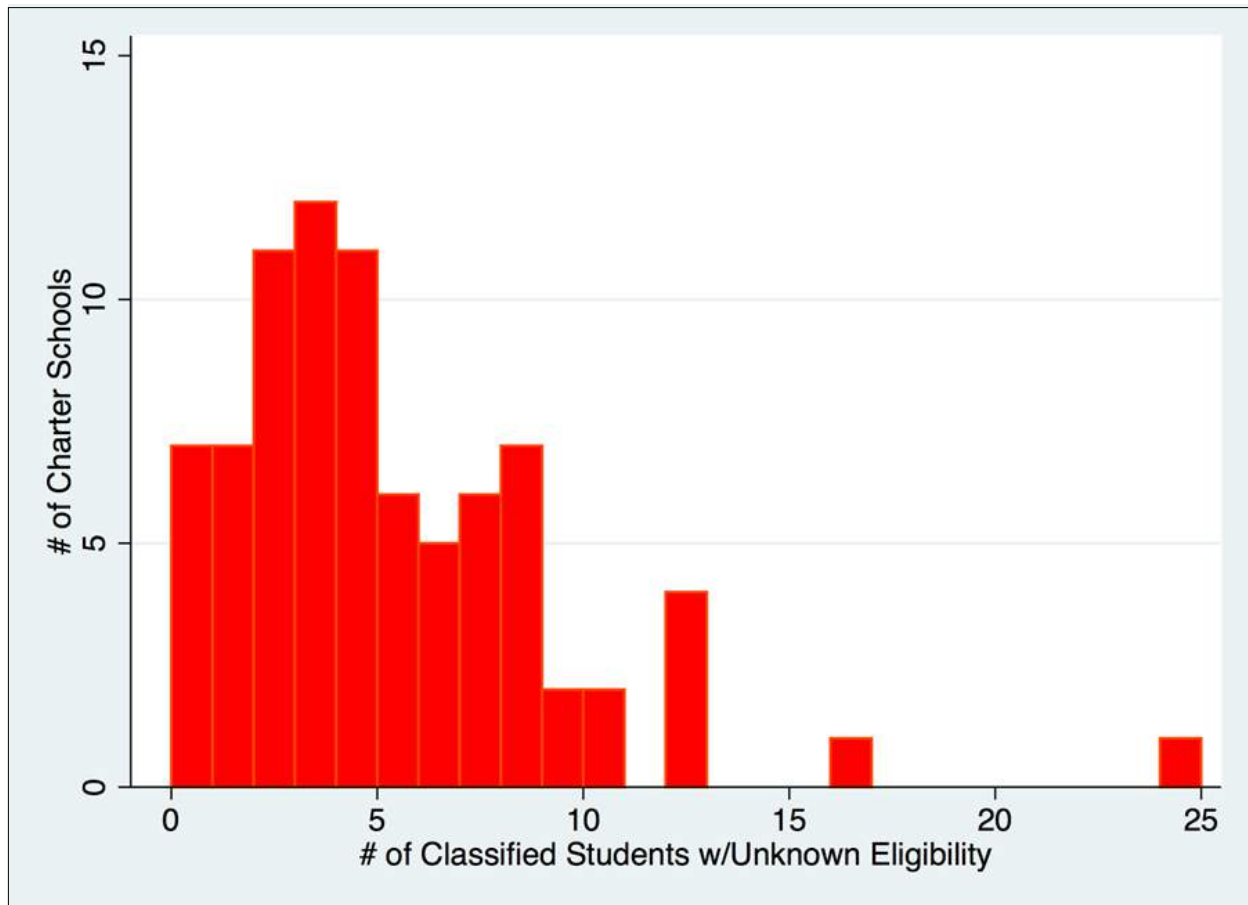
To make the extrapolated counts, this method divides the unknown students by the number of suppressed cells and distributes that amount among them, even if that means distributing a fraction.

It is worth noting that if this method does overstate classification rates, it does so in a way that overstates them only for those districts or charter schools that have suppressed data. Again, charter schools are more likely to have suppressed cells when those cell values are not 0, because their overall counts are lower than entire districts. Arguably, this method will produce special education eligibility rates for charter schools that are higher than their actual rates.

Appendix C: Data Sources and Technical Appendix

All data for this report is from the New Jersey Department of Education (NJDOE). The files used are:

- Enrollment files (Fall Survey Collections), 2004-05 to 2013-14. Downloaded 7/28/14 from: http://www.state.nj.us/education/data/enr/

- New Jersey School Directory. Downloaded 2/13/14 from: http://education.state.nj.us/directory/ (Note: a later download of this file on 7/29/14 did not include several schools that were listed in the 2013-14 enrollment files, so we used an earlier version of the School Directory)

- Grade 8 New Jersey Assessment of Skills and Knowledge, Spring 2013. Downloaded 7/29/14 from http://www.nj.gov/education/schools/achievement/index.html

- 2013 special education data: District Classification Rates, Ages 3-21; Number of Classified Students by Placement, Ages 6-21; Percent of Classified Students by Placement, Ages 6-21; Number of Classified Students by Eligibility and Placement, Ages 6-21. Downloaded 7/29/14 from http://www.nj.gov/education/specialed/data/

Charter schools were matched to their host districts using the NJDOE Charter School Directory, found at: http://www.nj.gov/education/chartsch/allcharters.htm.

Any district listed as a host in the Charter School Directory is included in charter feeder comparisons.

Aggregate percentages are calculated as weighted means; the weights are based on total student enrollment.

Paulo Freire CS is not included in the special education analysis. In the District Classification Rate file the school is listed with an 83.33 percent classification rate, yet its School Performance Report shows a 0 percent rate.[10] In 2012, the school's classification rate was 6.56 percent. There is quite likely a data integrity issue here; consequently, this school has been excluded from this part of the brief.

All data was imported into Stata statistical software for analysis. Graphics were prepared in Stata and Microsoft Excel.

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[10]http://www.state.nj.us/education/pr/1213/80/806090977.pdf

About the Authors

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Weber's research work has appeared in the NJ Education Policy Forum, where he has published several pieces. He has testified before the NJ Legislature on state education policy issues. Most recently, he authored a report for the Education Law Center on inequities in staffing placements found in New Jersey schools.

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