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Public School Choice in the District of Columbia

A Descriptive Analysis

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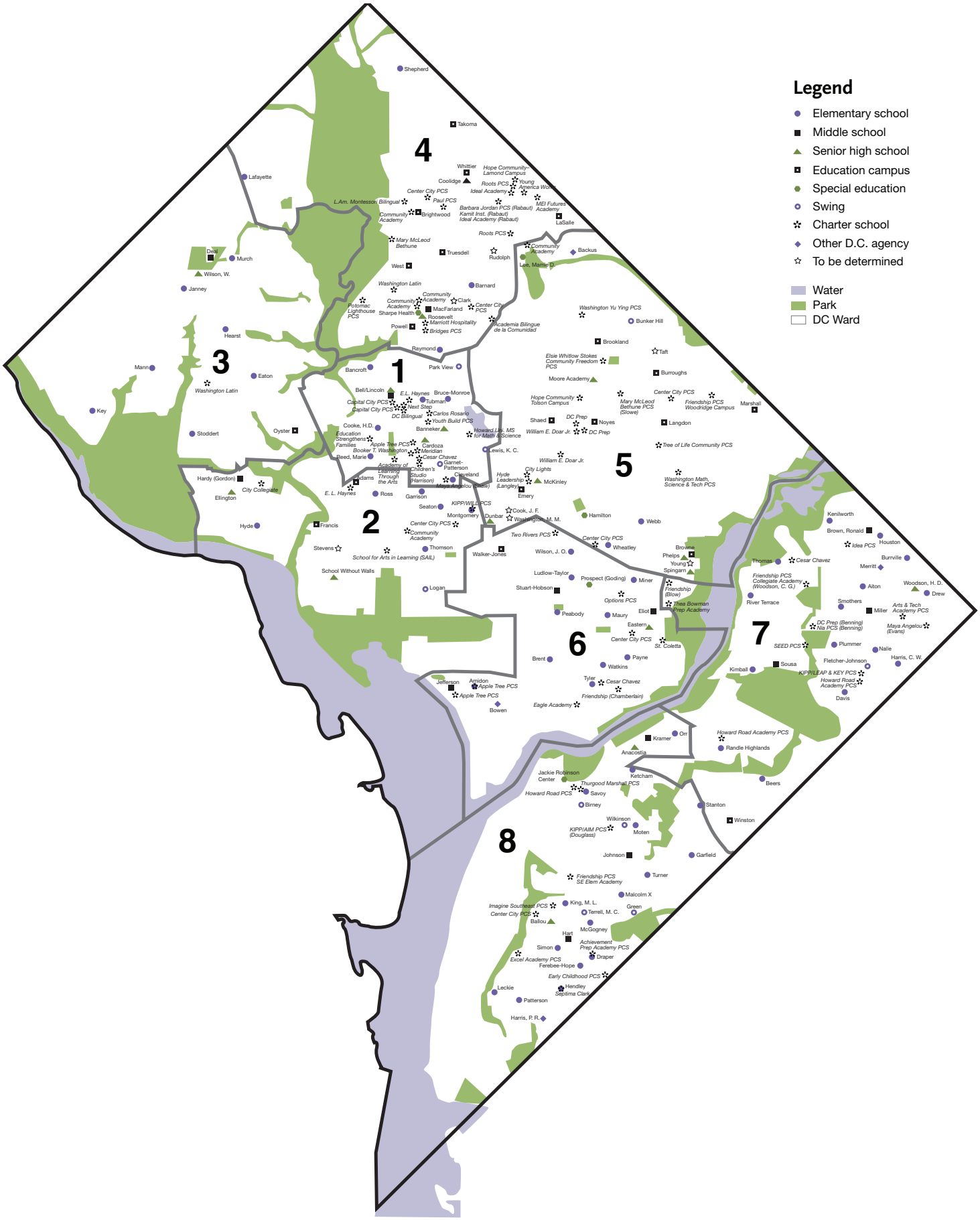
Increasing parental choice has been a leading theme of recent education policy intended to enhance the academic achievement of low-performing students in the United States. These policies aim to "level the playing field" in access to high-quality education for disadvantaged students who cannot otherwise afford higher-quality schooling options. Such reforms employ different instruments in order to provide alternatives to a household's neighborhood public school. These alternatives include private schools (private school voucher programs), new publicly funded schools (charter and magnet schools), or other traditional public schools (open enrollment programs).

Alternative public schooling options have become increasingly popular among households and policymakers within the past two decades. As of 2010, 26 states have passed legislation mandating school districts to implement intradistrict school choice, and 17 states have mandated the school districts within their boundaries to participate in the inter-district choice program of their state.[1] Moreover, the number of charter schools nationwide has soared from 2 in 1992 to 4,400 in 2007, serving approximately 1.3 million students (3 percent of all public school students in the United States). Additionally, the percentage of households participating in such school choice programs has increased. Between 1993 and 2007, the percentage of students attending a public school other than their neighborhood school increased from 11 to 16 percent in the United States.[2]

Public school choice programs in D.C. are successful; disadvantaged students are able to attend higher-performing schools than their neighborhood public schools, even with prolonged commutes.

Washington, D.C., has been a front-runner in the variety and number of alternative public schooling options made available to parents. This brief examines household school choice behavior within the District of Columbia (D.C.) school choice environment, using a two-year (2007–08 and 2008–09 school years) panel of the entire public school student population in D.C.[3] The findings show public school choice programs in D.C. are successful; disadvantaged students (i.e., economically disadvantaged students and students of racial and ethnic minority groups) take advantage of the alternative public schooling options and are able to attend higher-performing schools than their neighborhood public schools, even with a prolonged commute. However, choice exacerbates the student quality disparities between low- and high-poverty schools because these programs attract relatively high-performing students, casting some doubt on the benefits of such programs.

Figure 1. Public Schools in D.C. by Ward: 2008–09



Source: http://dcps.dc.gov/DCPS/maps, accessed October 8, 2009.

Public School Choice in D.C.: A Policy Overview

Under the current intradistrict school choice plan of the District of Columbia Public Schools (DCPS), each student, depending on residential address and grade level, is assigned a traditional "in-boundary" school for which her admission is guaranteed.[4] Any student who does not wish to attend his/her in-boundary public school can participate in the out-of-boundary lottery by submitting a list of preferred public schools, which can include any DCPS school that serves the student's grade. Given the submitted student preferences, a single random lottery is conducted and applicants at each school and grade are ranked first by their priority category and then by their lottery outcomes.[5] Each student is then admitted to her highest choice for which she has a high enough priority ranking and is placed on the waiting list for her other preferred schools.

Public school choice programs in D.C. seem to be reaching their target student groups: the economically disadvantaged and racial and ethnic minorities.

In addition to the traditional public schooling options provided by the intradistrict choice program, there are currently 57 charter schools with 99 campuses under the umbrella of the District of Columbia Public Charter School Board (DC-PCSB), as shown in figure 1. Regardless of residential location, each household has the right to submit an application to any charter school that serves the student's grade. If the number of applicants exceeds the number of available seats at a given charter school grade, the school conducts a public lottery to determine assignments. Once a student is admitted to an out-of-boundary or a charter school, she has the right to attend that school until the terminal grade. Also, regardless of the type of public school a student attends (in-boundary public, out-of-boundary public, or a charter school), residence-to-school transportation is not provided unless the student has special needs.

Table 1. Public School Students by School Type in Washington, D.C., 2007 and 2008

	2007–08	2008–09
Attended "in-boundary" traditional public school	24,432	23,001
	(37.21%)	(35.05%)
Attended "out-of-boundary" traditional public school	22,474	20,248
	(34.23%)	(30.85%)
Attended charter school	18,756	22,379
	(28.56%)	(34.10%)

Source: Author's calculations from district data.

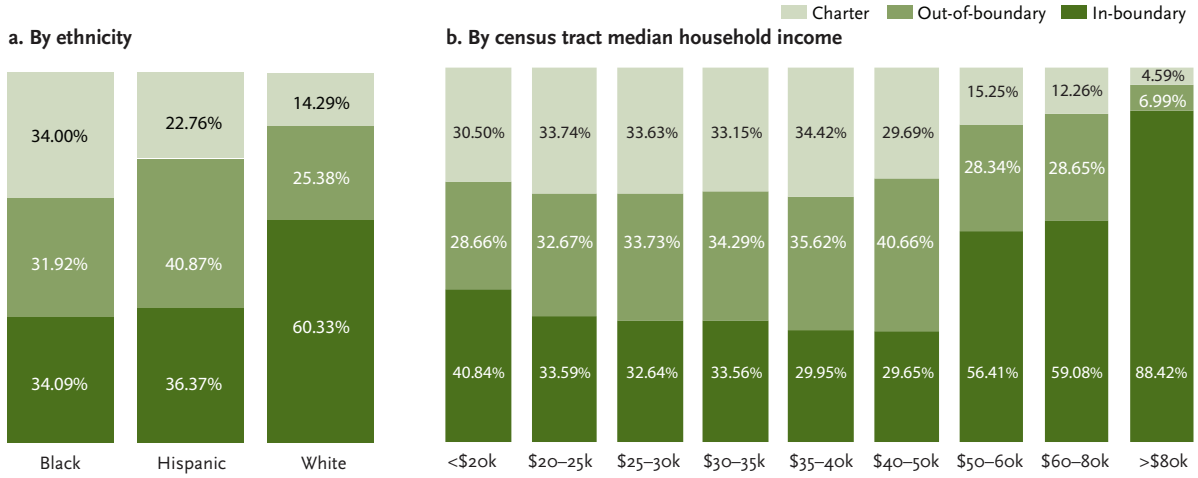
Participation in Public School Choice Programs

Public school choice programs have been extremely popular among parents in the District of Columbia. Table 1 portrays the extent of students' participation in school choice programs in D.C. for 2007–08 and 2008–09. In 2008–09, only 35 percent of all public school students attended their in-boundary traditional public school, whereas 31 percent took advantage of the intradistrict program and attended another traditional public school. Compared with the national average of 3 percent, D.C. charter schools served a significantly higher percentage of public school students: in 2008, 34 percent of all public school students exercised their charter school option, up from 14 percent in 2001.

More important, public school choice programs in D.C. seem to be reaching out to their target student groups—economically disadvantaged students and students of racial and ethnic minorities. Figures 2a and 2b portray students' participation in public school choice programs by ethnicity and median household income at the census tract in which the student resides. Approximately two-thirds of all black students exercise public school choice by opting out of their in-boundary schools, whereas 60 percent of white students attend their zoned traditional public schools.[6] Findings also suggest that students residing in high-poverty areas tend to take advantage of the alternative schooling options at significantly higher rates than others. For instance, only 33 percent of students residing in census tracts with median household incomes lower than $40,000 attend their assigned traditional public schools, whereas that number is 73 percent for those with census tract median incomes higher than $60,000.

One possible explanation behind these differences in school choice behavior is the variation in in-boundary public school quality due to residential sorting, which might lead to varying levels of discontent toward neigh-

Figure 2. Public School Students by School Type in D.C., 2007 and 2008



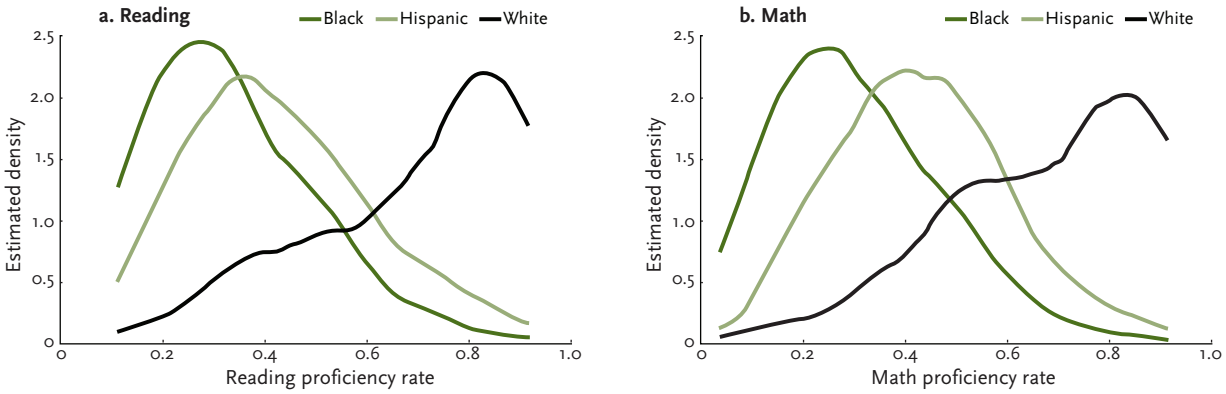
Source: Author's calculations from district data.

borhood schools across subgroups. In other words, if the variation in in-boundary school quality contributes to the heterogeneity in housing prices (as is commonly observed), disadvantaged students who cannot afford to live within the attendance boundaries of high-quality public schools might be forced to live in neighborhoods with unsatisfactory traditional public schools. Figures 3a and 3b examine the in-boundary school performance in reading and math across ethnic groups using Kernel density estimates. As suggested by the graphs, the average in-boundary school proficiency rates of black students in both reading (34 percent) and math (31 percent) are significantly lower than those of Hispanic (43 percent and 44 percent) and white (70 percent and 68 percent) students, validating this explanation.[7]A similar pattern is observed when comparing in-boundary school performance across poverty levels: the in-boundary school reading proficiency rate for free and reduced-price lunch–eligible students is 34 percent (31 percent in math) compared with 42 percent (41 percent in math) for students ineligible for free and reduced-price lunches (FRL).[8]

Where Do Students Opt Out?

Comparisons between the assigned and chosen public schools of those who exercise public school choice along various dimensions (e.g., driving distance, school performance in standardized testing, and student composition), as portrayed in figures 4a through 4d, reveal that choice program participants attend significantly higher-performing and lower-poverty schools despite the prolonged commute in the District of Columbia.[9] This finding is significant considering that

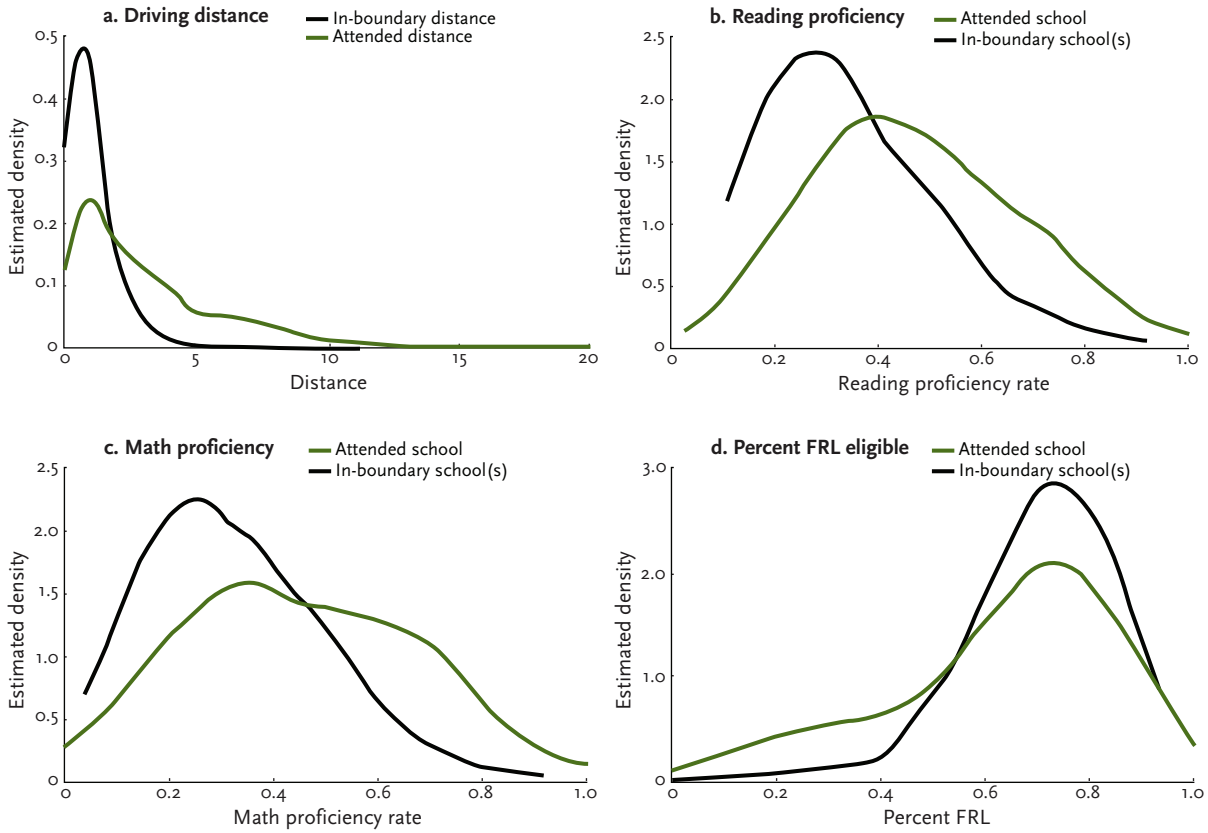
Figure 3. In-Boundary School Proficiency Rates by Ethnicity, 2007 and 2008



Source: Author's calculations from district data.

Note: Both densities were estimated with an Epanechnikov kernel function and halfwidth of 0.08.

Figure 4. In-Boundary versus Target School Characteristics



Source: Author's calculations from district data.

Notes: All densities were estimated with an Epanechnikov kernel function. Halfwidth of 0.5 is used for figure 4a and halfwidth of 0.08 is used for all other figures.

public school choice programs accomplish their objective of "leveling the playing field" to the extent that they enable disadvantaged students to attend higher-quality schools or schools that are better matched to their needs and interests.

Students who opt into another traditional public school, on average, travel 2.9 miles compared with 1.02 miles for their in-boundary schools, whereas those who attend charter schools travel 3.1 miles compared with the 0.98 miles they would have needed to travel had they stayed at their assigned public schools. Yet, these students seem to be attending significantly higher-performing schools with lower poverty rates as suggested in figures 4b through 4d. For instance, the average reading proficiency rate at the out-of-boundary traditional school for intradistrict choice participants is 50 percent (47 percent in math), compared with 35 percent (33 percent in math) at their in-boundary school(s). Likewise, for students who opt into charter schools, the average reading proficiency rate at the schools they attend is 45 percent (44 percent in math) versus 34 percent (32 percent in math) at their in-boundary schools.

Comparisons along poverty rates, as measured by FRL eligibility, also reveal that public school choice participants attend lower-poverty schools. For intradistrict choice participants, approximately 57 percent of all students in their out-of-boundary public school are FRL eligible, whereas the average FRL-eligibility rate at their in-boundary school is 69 percent. For those who opt out to a charter school, the average gap between poverty rates is relatively lower: 68 percent compared with 71 percent at the in-boundary public school.[10]

Who Exercises Public School Choice?

One of the major arguments against school choice programs is that they exacerbate the student quality gap between low-performing and high-performing schools by attracting the best students from the former—a side effect commonly referred to as "cream-skimming."

Table 2. Who Exercises Choice?

	Student Characteristic		
	Prior-year reading score	Prior-year math score	FRL eligibility
All schools			
Opt out to a traditional public school	0.178***	0.213***	-0.126***
	(0.044)	(0.042)	(0.018)
Opt out to a charter school	0.212***	0.255***	-0.044***
	(0.036)	(0.035)	(0.017)
N	5,781	5,789	7,083
High-poverty in-boundary schools			
Opt out to a traditional public school	0.195***	0.212***	-0.156***
	(0.049)	(0.054)	(0.024)
Opt out to a charter school	0.236***	0.295***	-0.076***
	(0.046)	(0.046)	(0.022)
N	3,150	3,149	3,695

Source: Author's calculations from district data.
Notes: The regressions in the upper panel include all middle school students who were in the terminal grade of their elementary schools in the previous school year. The regressions in the lower panel restrict the analysis to students with middle schools that have more than 80 percent of their students eligible for free and reduced-price lunches (FRL). Robust standard errors, clustered at the school level, are given in parentheses.
*** Difference is statistically significant at the 1 percent level.

Therefore, in order to accurately assess the costs and benefits associated with any choice program, it is essential to examine who participates in those programs.

Using a basic regression framework, the results presented in the upper panel of table 2 indicate that on average, students who opted into an out-of-boundary public school performed roughly one-sixth of the standard deviation in reading and one-fifth of the standard deviation in math better in the previous year than their peers who chose to stay at their in-boundary schools, and they were 13 percent less likely to be FRL eligible.[11] Likewise, those who chose to attend charter schools significantly outperformed their "staying" peers by one-fifth and one-quarter of the standard deviation, respectively, in reading and math during the previous school year, and they were only 4 percent less likely to be economically disadvantaged.

Choice exacerbates student quality disparities between low- and high-poverty schools, casting some doubt on the benefits of such programs.

The findings are quite similar when the sample is restricted to students with high-poverty in-boundary schools, as presented in the lower half of table 2. Students who opted out to other traditional public schools outperformed their staying peers by one-fifth of the standard deviation in reading and math, whereas those who chose to attend a charter school scored one-quarter of the standard deviation better in reading (one-third in math) during the previous school year. Further, out-of-boundary public school "travelers" were 16 percent (8 percent for charter school "travelers") less likely to be FRL eligible than those who stayed in their high-poverty assigned public school. Overall, these findings provide evidence that the relatively advantaged students are taking advantage of public school choice programs, supporting the existence of the cream-skimming effect.

Notes

1. Education Commission of the States, "School Choice State Laws: 50-State Profile," http://mb2.ecs.org/reports/Report.aspx?id=205.

2. National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1999–2000 (version 1b) and 2007–08 (version 1a), http://nces.ed.gov/ccd/pubschuniv.asp.

3. Currently, the District of Columbia Public Schools employs a long-standing, expansive intradistrict school choice program that enables each public school student residing within the boundaries of D.C. to apply for a seat in any D.C. public school, regardless of his/her residential location. Another appealing feature of D.C. for this analysis is that the majority of public school students is economically disadvantaged, who typically constitute the target student group of school choice programs. Specifically, in the 2007–08 school year, 63 percent of all public school students in D.C. were free or reduced-price lunch (FRL) eligible, compared with the nationwide inner-city school district average of 56 percent (National Center for Education Statistics; see note 2 above).

4. Since the 2009–10 school year, students also have had the right to attend "destination" schools, into which their current DCPS school feeds, even if they differ from their neighborhood schools.

5. Under the current open enrollment plan, the following priority categories are used in DCPS: applicants who have siblings attending that school, applicants who live in the walk zone (within three blocks for elementary school students and five blocks for middle and high school students), and all others.

6. Participation rates also indicate considerable variation across wards of residence: 85 percent of all students in Ward 3 attend their zoned public schools, whereas 74 percent of students in Ward 5 exercise public school choice.

7. For all possible ethnic pairs, Wilcoxon rank-sum test also rejects the null hypothesis of distributional equality at the 1 percent significance level.

8. Across-ward comparisons also reach the same conclusion. The average in-boundary school reading proficiency rate for students residing in Ward 3, which has the lowest opt-out rate, was 79 percent in 2008, compared with 41 percent in Ward 5, which has the highest opt-out rate. Nevertheless, one should keep in mind that these numbers are insufficient to draw a causal link between in-boundary school performance and choice program participation. Instead, high participation rates might be responsible for the low performance of some schools if "cream-skimming" exists. In other words, if those who exercise public school choice are the relatively motivated and high-performing students, variation in observed performance across public schools can partially be explained by differences in participation rates. This possibility is explored in subsequent sections.

9. Naturally, not every student who participates in the out-of-boundary lottery and/or a charter school lottery is able to get into his or her desired schools. Instead, "participating students" are those who took advantage of the choice program and were able to attend a choice school (out-of-boundary or a charter school).

10. Once again, due to the possibility of the cream-skimming effect, these figures should be interpreted as only vague evidence that public school choice programs in D.C. provide students with opportunities to attend higher-quality public schooling options. Instead, the observed differences between attended and in-boundary school performances and poverty rates might partially arise from the departure of the best students from some schools as a result of school choice programs.

11. I estimated the following equation using OLS: $y_{i,t-1} = \beta_0 + \beta_1 O_{it}^{p} + \beta_2 O_{it}^{ch} + \beta_3 X_{it} + \lambda_g + \eta_{ts} + \gamma_w + \varepsilon_{it}$, where $y_{i,t-1}$ represents the student characteristics at the end of the previous year (student test score standardized to mean zero and unit variance, FRL eligibility); O_{it}^{p} and O_{it}^{ch} are indicators for students who opted out to another traditional public school *or* a charter school at the end of year *t-1* respectively; X_{it} denotes the vector of students characteristics including race and gender; λ_g is a grade fixed-effect; η_{ts} is the in-boundary school-year fixed-effect; and γ_w is the student's ward of residence fixed-effect. I restrict the sample to middle school students who were in the terminal grade of their corresponding elementary schools in year *t-1* and exclude high school students to limit the selection issue created by those who drop out. In this framework, β_1 and β_2 should provide the relative achievement and poverty levels of the students who exercise choice compared to their otherwise similar (along observables) non-exercising peers with the same in-boundary middle school(s). Table 2 reports the OLS estimates of β_1 and β_2 for all middle schools (upper panel) as well as high-poverty in-boundary schools (lower panel) using three student characteristics: previous-year standardized reading and math scores as well as FRL eligibility.

About the Author

Umut Özek is a research associate with the Education Policy Center at the Urban Institute and an affiliated researcher with CALDER. His research interests include the economics of education, public economics, and health economics. Dr. Özek's recent research focuses on school choice reforms with emphasis on open enrollment programs, investigating the empirical aspects of such programs by analyzing their impact on households' public school choice behavior and student outcomes as well as the theoretical aspect by evaluating different assignment mechanisms that are commonly used to implement these programs. He holds an M.A. in economics from the University of Colorado at Denver and a Ph.D. in economics from the University of Florida. His full C.V. is available at www.caldercenter.org.

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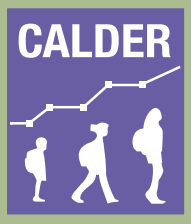

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