

# Evaluation of the DC Opportunity Scholarship Program

Final Report

Executive Summary

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June 2010

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# Acknowledgments

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# Disclosure of Potential Conflicts of Interests<sup>1</sup>

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The research team for this evaluation consists of a prime contractor, Westat, and two subcontractors, Patrick Wolf (formerly at Georgetown University) and his team at the University of Arkansas Department of Education Reform and Michael Puma of Chesapeake Research Associates (CRA). None of these organizations or their key staff has financial interests that could be affected by findings from the evaluation of the DC Opportunity Scholarship Program (OSP). No one on the seven-member Expert Advisory Panel convened by the research team once a year to provide advice and guidance has financial interests that could be affected by findings from the evaluation.

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# Executive Summary

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The *District of Columbia School Choice Incentive Act of 2003*, passed by Congress in January 2004, established the first federally funded, private school voucher program in the United States. As part of this legislation, Congress mandated a rigorous evaluation of the impacts of the Program, now called the DC Opportunity Scholarship Program (OSP). This final evaluation report presents the longer term effects of the Program on families who applied and were given the option to move from a public school to a participating private school of their choice.

The evaluation compares the outcomes of 2,300 eligible applicants randomly assigned to receive an offer (treatment group) or not receive an offer (control group) of an OSP scholarship through a series of lotteries. Although data on most of these outcomes—test scores, high school graduation, perceptions of school safety and satisfaction—were collected annually over four or five years, each year’s estimated impacts are cumulative in that they represent students’ entire educational experience between their application to the Program and the year the data were obtained. Some students offered scholarships never used them, while others used their scholarships to attend a participating private school at some point during the four- to five-year period. Based on analysis of the final, spring 2009 data we find:

- ***There is no conclusive evidence that the OSP affected student achievement.*** On average, after at least four years students who were offered (or used) scholarships had reading and math test scores that were statistically similar to those who were not offered scholarships (figure ES-2). The same pattern of results holds for students who applied from schools in need of improvement (SINI), the group Congress designated as the highest priority for the Program. Although some other subgroups of students appeared to have higher levels of reading achievement if they were offered or used a scholarship, those findings could be due to chance. They should be interpreted with caution since the results were no longer significant after applying a statistical test to account for multiple comparisons of treatment and control group members across the subgroups.
- ***The Program significantly improved students’ chances of graduating from high school.*** Although students may not have raised their test scores in reading and math as a result of the OSP, they graduated at higher rates. The offer of an OSP scholarship raised students’ probability of completing high school by 12 percentage points overall (figure ES-3). The graduation rate based on parent-provided information was 82 percent for the treatment group compared to 70 percent for the control group. The offer of a scholarship improved the graduation prospects by 13 percentage points for the high priority group of students from schools designated SINI in 2003-05 (79 percent graduation rate for the treatment group versus 66 percent for the control group).

- ***The OSP raised parents', but not students', ratings of school safety and satisfaction*** (figures ES-4 and ES-5). Parents were more satisfied and felt school was safer if their child was offered or used an OSP scholarship. The Program had no effect on students' reports on school conditions.

## **The DC Opportunity Scholarship Program**

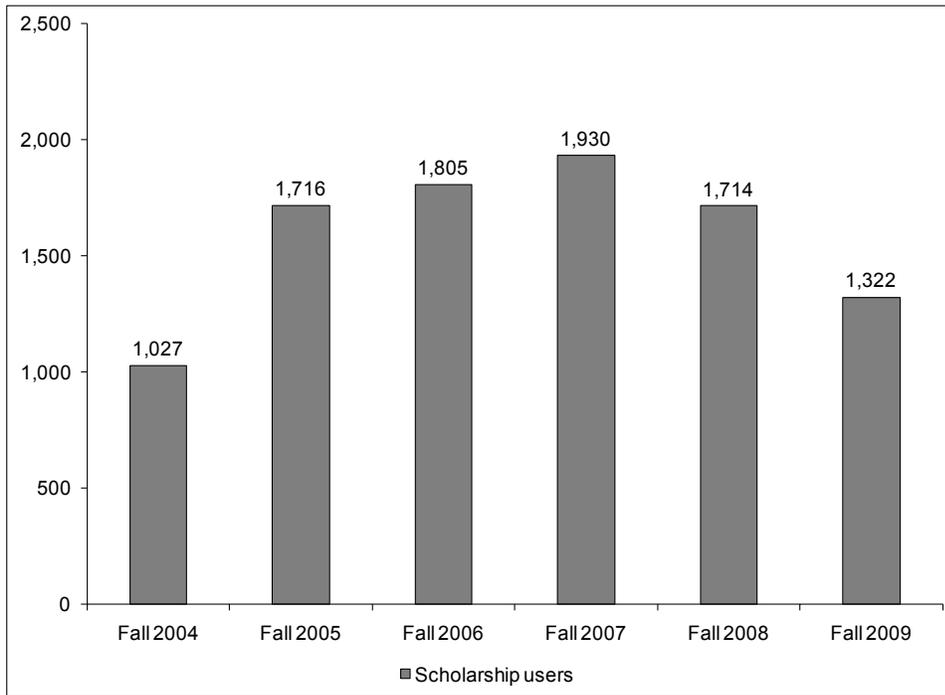
The purpose of the new scholarship program was to provide low-income residents, particularly those whose children attend schools in need of improvement (SINI) or corrective action under the *Elementary and Secondary Education Act*, with “expanded opportunities to attend higher performing schools in the District of Columbia” (Sec. 303). The scholarship, worth up to \$7,500, could be used to cover the costs of tuition, school fees, and transportation to a participating private school. The statute also directed that scholarships be awarded by lottery any year in which there are more eligible applicants than available scholarships or open slots in private schools and that priority in the lotteries be given first to students attending SINI public schools.

The Program has been operated by the Washington Scholarship Fund (WSF). To date:

- 8,480 students have applied;
- 5,547 have been deemed eligible;
- 3,738 have been awarded Opportunity Scholarships; and
- 2,881 students used their scholarships within a year of receiving them.

The Program's \$13-14 million annual appropriation has been sufficient to support about 1,700 scholarship students each year, if each student uses the full value of his or her scholarship. The Program enrolled 1,027 scholarship students in the fall of 2004, its initial year of partial implementation, and grew to its peak enrollment of 1,930 students in the fall of 2007 (figure ES-1). Language in a federal appropriations statute closed the Program to new applicants in the spring of 2009. In the fall of 2009, the OSP supported 1,322 continuing scholarship students attending 1 of the 52 private schools in the District participating in the Program that year.

**Figure ES-1. Scholarship Users, Fall 2004-2009**



SOURCE: WSF's enrollment and payment files.

### **The Congressionally Mandated Evaluation of the OSP**

Guided by language in the statute, the evaluation of the OSP relied on lotteries of eligible applicants—random chance—to create two statistically equivalent groups who were followed over time and whose outcomes were compared to estimate Program impacts. A total of 2,308 eligible applicants in the first two years of Program implementation were entered into scholarship lotteries (492 in year one, called “cohort 1,” and 1,816 in year two, called “cohort 2”). Across the cohorts, 1,387 students were randomly assigned to the impact sample’s treatment group (offered a scholarship), while the remaining 921 were assigned to the control group (not offered a scholarship).

The OSP law also prescribed what types of impacts or outcomes would be assessed as part of the evaluation. These outcomes included student test-score performance in reading and math, educational attainment (in our case, parent reports of high school graduation), school safety, the success of the Program in expanding options (for which we have used “school satisfaction” as an indicator), and the effect of the OSP on District of Columbia Public Schools (DCPS) as well as private schools. To provide context for understanding the effects of the Program, the evaluation also provides a description of the patterns of school and student participation in the OSP. Data on these outcomes and issues were

collected primarily through annual surveys of parents, students in grade 4 or higher, and principals of both public and private schools in the District. Test scores were derived from evaluation-administered assessments using the SAT-9.<sup>2</sup>

The impacts of the Program were computed by comparing the outcomes of the treatment group with those of the control group, controlling for students baseline (pre-Program) reading and math scores and other demographic characteristics.<sup>3</sup> The impacts of the Program were assessed for the complete sample of eligible study participants as well as for several student subgroups, including the high priority set of students who applied from SINI public schools.<sup>4</sup>

## **Program Impacts**

This final report on the OSP examines the effects of the Program on students and their parents near the end of the 2008-09 school year. The analysis is both consistent with and different from that presented in prior evaluation reports examining shorter-term impacts. It is consistent in that impacts are presented in two ways: the impact of the *offer* of an OSP scholarship, derived straight from comparing the average outcomes of the treatment and control groups, and (2) the impact of *using* an OSP scholarship, statistically adjusting for students who declined to use their scholarships. Like the earlier reports, the final estimates provide impacts on achievement, safety, and satisfaction.

Two parts of the analysis are different this year. First, in previous analyses, the two cohorts of students in the impact sample had the potential to experience the same number of years in the Program (e.g., three years after application). In spring 2009, the last year evaluation data were collected, cohort 1 students who applied in 2004 (14 percent of the sample) could have used their scholarships for five years

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<sup>2</sup> By the 2008-09 school year, a total of 296 students (13 percent of the impact sample) had aged to the point where they would have completed 12th grade based on their grade upon application to the Program. The primary outcome measure used for the evaluation, the Stanford Abbreviated Achievement Test, ninth edition (referred to as the SAT-9 and published by Harcourt Educational Measurement in San Antonio, Texas), does not have a version for students beyond 12th grade, so these students effectively “graded-out” of the achievement portion of the study for purposes of this final impact report. Among the remaining 2,012 members of the impact sample, 69.5 percent of both the treatment and control groups effectively responded to test score data collection efforts in the final year of the study. The data they generated were then adjusted to account for nonrespondents before the impact analysis was conducted. For the other measures, response rates were obtained from 63 to 75 percent of eligible sample members, depending on the survey.

<sup>3</sup> There were no statistically significant differences in baseline measures between the treatment and control group samples overall and for those that provided data for this report’s analyses.

<sup>4</sup> In all four years of the impact evaluation, the subgroups included students who had attended SINI 2003-05 and not SINI 2003-05 public schools at the time of application, lower baseline test-score performers and higher baseline test-score performers, and males and females. In the first three years of the evaluation, impacts were also estimated for two additional subgroup pairs: cohort 1 and cohort 2, and students entering grades K-8 and grades 9-12 at baseline. By the final year of the evaluation, all of the students in the baseline grade 9-12 subgroup and most of the students in the cohort 1 subgroup had aged to the point that they were no longer eligible for an achievement test, making the cohort and grade-level subgroups too small to analyze reliably.

while cohort 2 students who applied a year later (86 percent of the sample) could only have used their scholarship for four years. For this reason, we refer to impacts as “after at least four years” since a small portion of the sample—both treatment and control—were in the study a year longer.<sup>5</sup> Another important difference is that for the first time we are able to estimate the impacts of the Program on educational attainment. Most students who applied to the Program were in grades K-5. But by 2009, 22 percent of the impact sample (approximately 500 students) had aged to the point that they could have completed 12th grade and graduated from high school. This number of students was sufficient to reliably estimate impacts on this outcome; this is the first time random assignment has been used to estimate the causal relationship between a school voucher program (or private schooling) and educational attainment, thus providing a more rigorous estimate than previous studies that have addressed this issue. There are some limitations to this analysis, however: it is based on parent reports rather than school administrative records, and it represents a relatively small share of the study sample.

In examining the longer term impacts of the Program, we found:

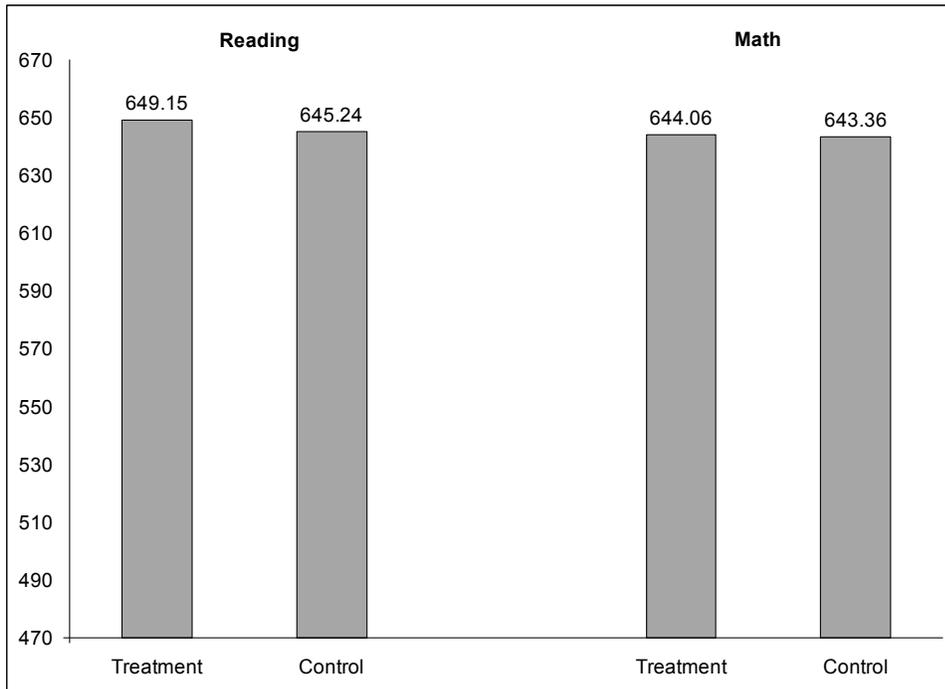
### ***Student Achievement***

- Overall reading and math test scores were not significantly affected by the Program, based on our main analysis approach. On average over the 40-plus months of potential participation, the treatment group scored 3.90 points higher in reading and .70 points higher in math than the control group, but these differences were not statistically significant (figure ES-2).
- No significant impacts on achievement were detected for students who applied from SINI 2003-05 schools, the subgroup of students for whom the statute gave top priority, or for male students, or those who were lower performing academically when they applied.
- The Program may have improved the reading but not math achievement of the other three of six student subgroups. These include students who came from not SINI 2003-05 schools (by 5.80 scale score points), who were initially higher performing academically (by 5.18 points), or who were female (5.27 points). However, the impact estimates for these groups may be due to chance after applying a statistical test to adjust for multiple comparisons.

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<sup>5</sup> Combining the two cohorts in this way was necessary to ensure that the sample size (number of students) for analysis was sufficient to detect impacts of a policy-relevant size and to provide results that could be applied to both cohorts. We were unable to collect data from cohort 1 in their fourth year after application because the legislative decision to extend the OSP and the evaluation came too late.

**Figure ES-2. Achievement (SAT-9 Scale Score Points) After At Least Four Years**



NOTES: Results are for cohort 1 five years after random assignment and cohort 2 four years after random assignment. The possible range of SAT-9 scale scores varies by grade level. The value at which the x-axis intersects the y-axis in this figure (470) represents the minimum average reading score possible given the grade composition of the control group sample in the final year. The minimum average math score possible for the control group sample was 502. The maximum possible reading score and math score was 835 and 832, respectively. Valid N for reading = 1,328; math = 1,330. Separate reading and math sample weights used.

***High School Graduation (Educational Attainment)***

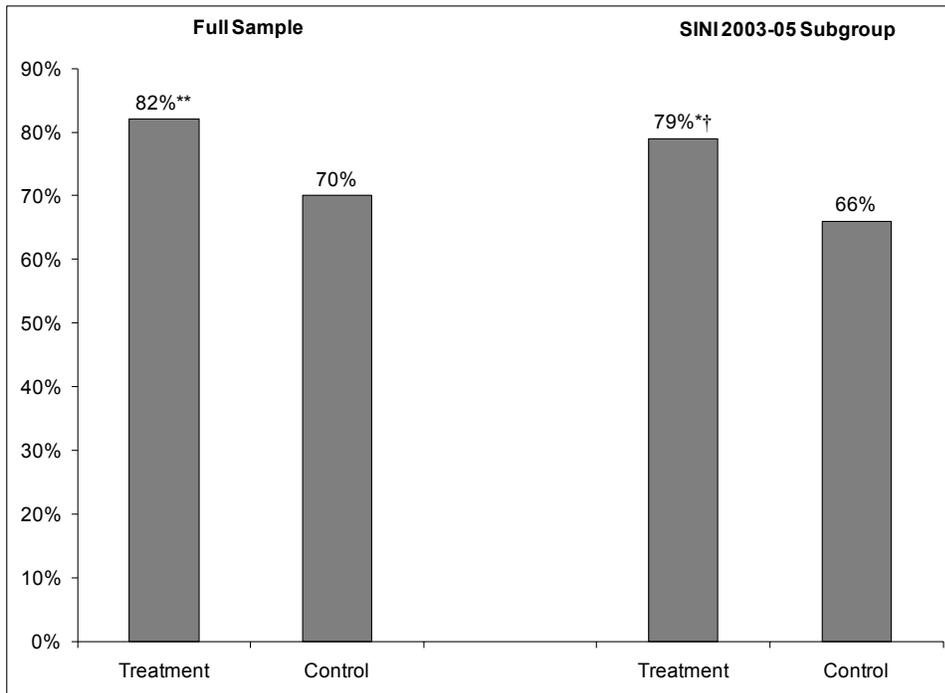
- The offer of an OSP scholarship raised students’ probability of completing high school by 12 percentage points overall. The graduation rate based on parent-provided information<sup>6</sup> was 82 percent for the treatment group compared to 70 percent for the control group (figure ES-3). There was a 21 percent difference (impact) for using a scholarship to attend a participating private school.
- The offer of a scholarship improved the graduation prospects by 13 percentage points for the high-priority group of students from schools designated SINI in 2003-05 (79 percent for the treatment group versus 66 percent for the control group) (figure ES-3). The impact of using a scholarship on this group was 20 percentage points.
- Two other subgroups had statistically higher graduation rates as a result of the Program. Those who entered the Program with relatively higher levels of academic performance had a positive impact of 14 percentage points from the offer of a scholarship and 25 percentage points from the use of a scholarship. Female students

<sup>6</sup> These data were obtained through follow-up telephone surveys with parents of students in the study forecasted to have completed 12th grade by the summer of 2009. A total of 63 percent of parents in the target sample responded to this survey.

had a positive impact of 20 percentage points from the offer of a scholarship and 28 percentage points from the use of a scholarship.

- The graduation rates of students from the other subgroups were also higher if they were offered a scholarship, but these differences were not statistically significant.

**Figure ES-3. High School Graduation Rates for the Overall Sample and the SINI 2003-05 Subgroup, 2008-09**



\*Statistically significant at the 95 percent confidence level.

\*\*Statistically significant at the 99 percent confidence level.

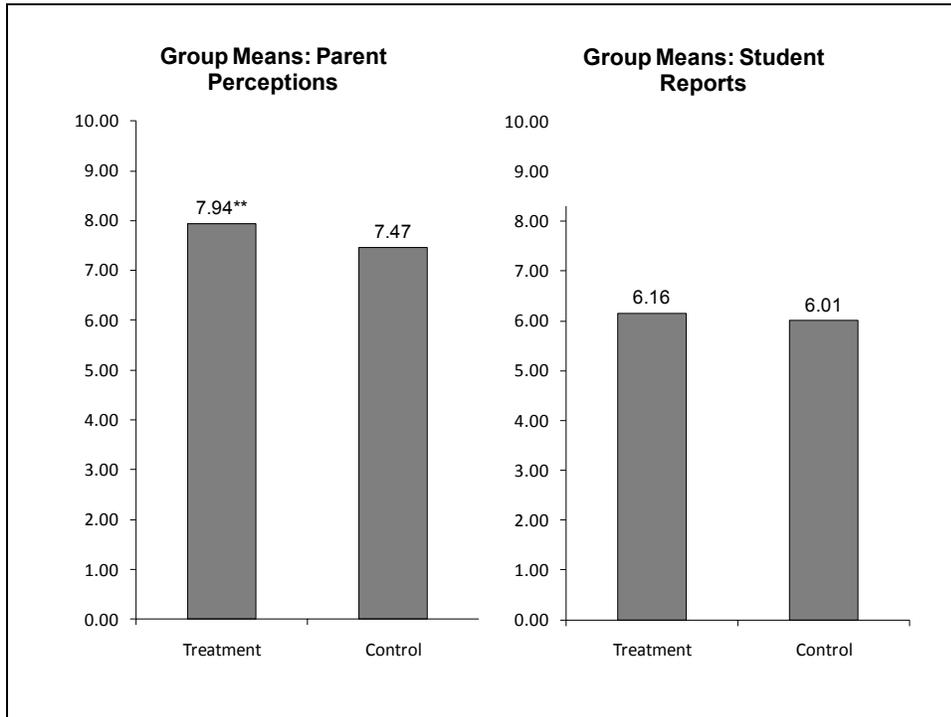
† = subgroup impact result remained statistically significant after adjustments for multiple comparisons.

NOTES: Results are for cohort 1 five years after random assignment and cohort 2 four years after random assignment. Valid  $N = 316$ , including SINI 2003-05  $N = 231$ , not SINI 2003-05  $N = 85$ . High school graduation determined via parental self-reports.

### ***School Safety and Satisfaction***

At least four years after random assignment, the OSP had a positive impact overall on parents' ratings of school safety and satisfaction, but not on students' reports of those same outcomes (figures ES-4 and ES-5). For example, parents were 8 percentage points more likely to give their child's school a grade of A or B if offered a scholarship as compared with the control group; however, student reports of school satisfaction were comparable whether they were in the treatment or control groups.

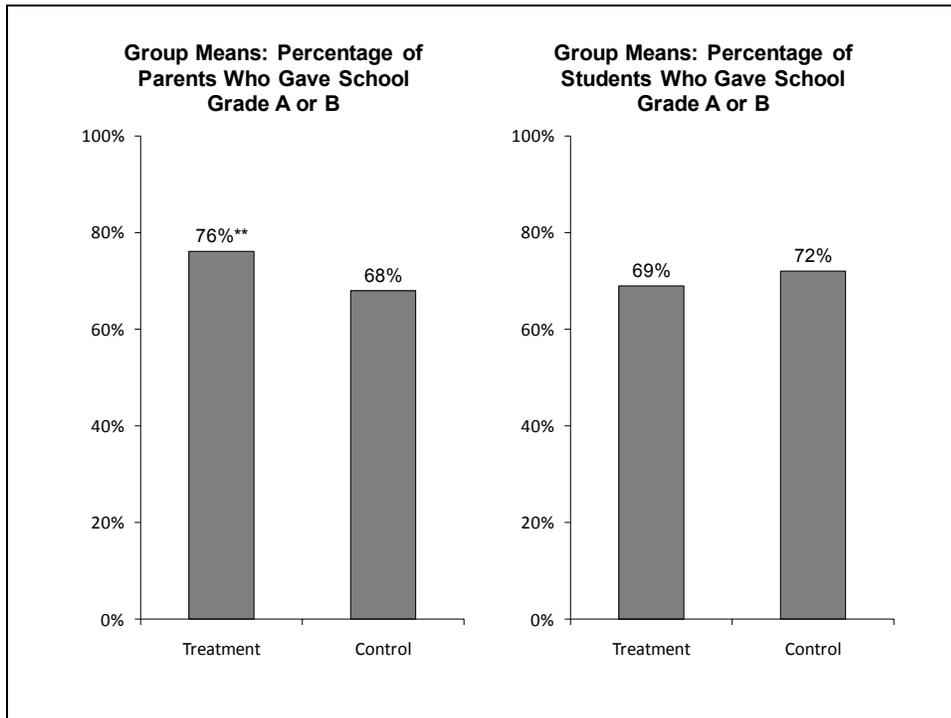
**Figure ES-4. Parent Perceptions and Student Reports of Safety and an Orderly School Climate, 2008-09**



\*\*Statistically significant at the 99 percent confidence level.

NOTES: Results are for cohort 1 five years after random assignment and cohort 2 four years after random assignment. Parent perceptions are based on a 10-point scale; student reports are based on an 8-point scale. For parent perceptions, valid  $N = 1,224$ ; parent survey weights were used. For student reports, valid  $N = 1,054$ ; student survey weights were used. The survey was given to students in grades 4-12. Means are regression adjusted using a consistent set of baseline covariates.

**Figure ES-5. Parent and Student Reports of School Satisfaction, 2008-09**



\*\*Statistically significant at the 99 percent confidence level.

NOTES: Results are for cohort 1 five years after random assignment and cohort 2 four years after random assignment. For parent reports, valid  $N = 1,227$ ; parent survey weights were used. For student reports, valid  $N = 1,001$ ; student survey weights were used. The survey was given to students in grades 4-12. Means are regression adjusted using a consistent set of baseline covariates.

### **Program Context: Student and School Participation in and Response to the OSP**

Understanding how and under what conditions the Program operated is important context for interpreting the impacts. For example, the degree to which students used their scholarships provides some signal of the attractiveness of the OSP and the ability of the Program and its participating schools to accommodate student needs. How the characteristics of the private schools differed from the public school options available may have influenced parent choices and students' educational experiences. Public and private schools' exposure to the OSP, through enrollment losses and gains, and any changes principals made to retain or attract students could indicate a more complete picture of the OSP and its potential for affecting the public and private schools in the area.

## *Students*

As has been true in other school choice programs, not all students offered an OSP scholarship actually used it to enroll in a participating private school. And over the years, some students lost their eligibility for the Program. For example, by 2008-09, a total of 94 of the 1,387 members of the treatment group were no longer eligible to receive scholarships because they had “graded out” of the Program, which means that they would have moved beyond 12th grade. Looking across the remaining members of the impact sample’s treatment group who had four (cohort 1) or five (cohort 2) years of potential Program participation:

- 282 out of 1,293 (22 percent) never used the OSP scholarships offered to them.
- 660 treatment students (51 percent) used their scholarships, but not consistently, during the school years after the scholarship award. Among these students are an estimated 147 who may have been forced by circumstances to stop using their scholarship. Students could become “forced-decliners” because the school they continued to attend converted from a participating Catholic school to a public charter school (confirmed for 35 treatment students),<sup>7</sup> their family income grew to exceed the Program’s income limit (confirmed for 21 treatment students), their family moved out of DC (confirmed for 29 students), or they may have faced a lack of space for them in a participating high school when they transitioned from 8th to 9th grade (estimated for 62 treatment students).<sup>8</sup> Among the students who partially used their scholarship over at least four years after random assignment, 17 percent (9 percent of eligible treatment group students overall) used their OSP scholarship in 2008-09.
- The remaining 351 treatment group students (27 percent) used their scholarship during all years available to them after the scholarship lottery.

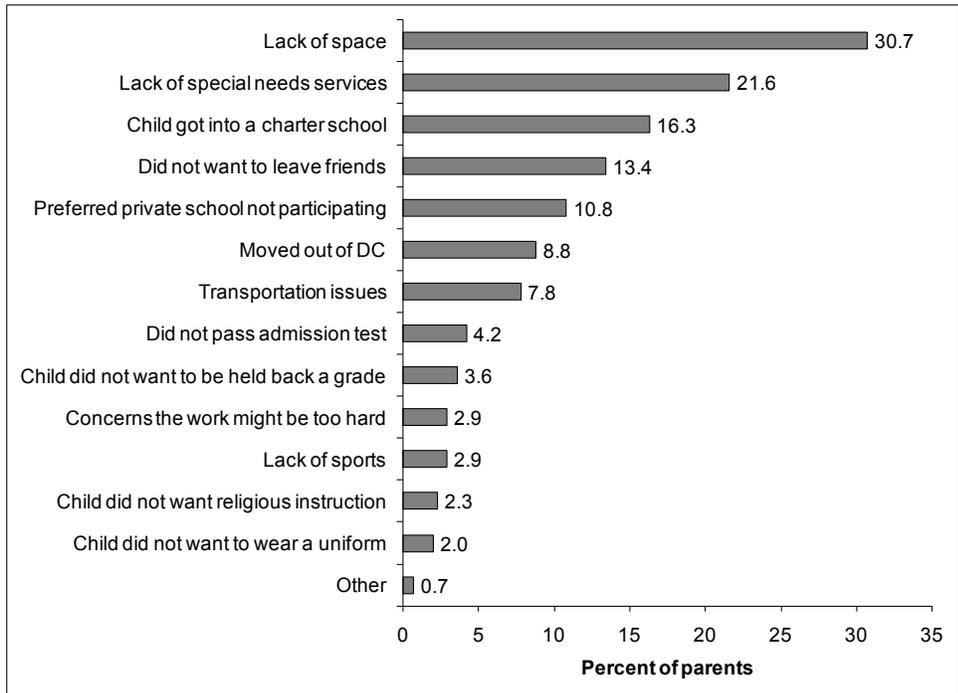
Across the years, the most common reasons given by parents for never using an OSP scholarship that was awarded to their child was a lack of space at their preferred private school (30.7 percent), the absence of special needs services (21.6 percent), and that their child was admitted to a preferred public charter school (16.3 percent) (figure ES-6).

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<sup>7</sup> Based upon survey data, 35.9 percent of 97 treatment group students who used a scholarship to attend one of these Catholic schools in grades K-7 in 2007-08 continued to attend the same school when it converted to a public charter school in 2008-09.

<sup>8</sup> The estimate of the number of students forced to decline their scholarships due to the lack of high school slots was calculated by comparing the higher rate of scholarship continuation for 7th graders moving to 8th grade with the lower rate of scholarship continuation for 8th graders moving to 9th grade. The difference between those two continuation rates, applied to the number of OSP students moving from 8th to 9th grade, generates the estimate of forced decliners due to high school slot constraints of 62 (20 in year two plus 30 in year three plus 12 new cases in 2008-09). It is impossible to know for certain if all 62 of these students declined to use the scholarship solely or primarily because of high school slot constraints, and not for other reasons, or if some treatment students were forced to decline their scholarship at the very start due to high school slot constraints. It also is impossible to know if some students declined to even attempt to renew their scholarships because they knew their family exceeded the income limit, or how many treatment students moved out of DC and never informed the evaluators that they had “moved out” of Program eligibility. Therefore, the total estimate of 147 forced decliners for 2008-09 is simply an estimate based on the limited data available.

**Figure ES-6. Reasons Given by Parents of Treatment Students for Never Using an OSP Scholarship**

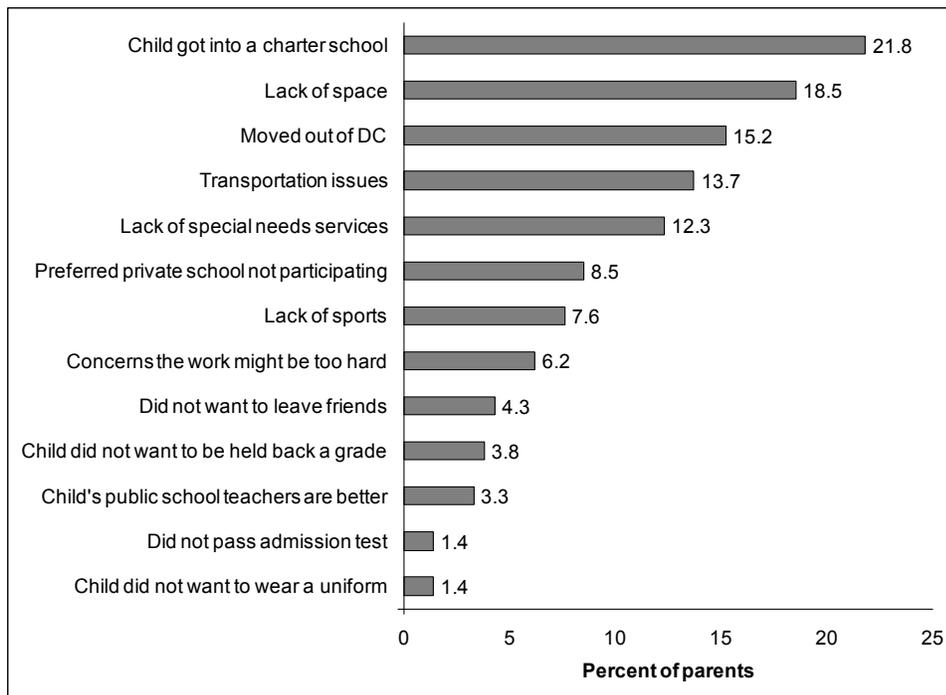


NOTES: Responses are unweighted. Respondents were able to select multiple responses each year, and some respondents participated in data collection for multiple years. Percentages given represent the sum of all responses obtained across years one through four of data collection (i.e., longitudinal responses) divided by the sum of all respondents ( $N = 306$ ) across all of those same years (i.e., longitudinal respondents). As a result, this figure includes initial responses from parents of students who subsequently graded out of the Program. Categories with responses from fewer than three parents in any year are collapsed into the “Other reasons” category for confidentiality reasons.

SOURCE: Impact Evaluation Parent Surveys.

Among students who initially used a scholarship but then left the Program, the most common reasons for leaving were that the child was admitted to a preferred public charter school (21.8 percent), a lack of space at their preferred private school (18.5 percent), and that the family moved out of DC (15.2 percent) (figure ES-7).

**Figure ES-7. Reasons Given by Parents of Treatment Students for Not Continuing to Use an OSP Scholarship**



NOTES: Responses are unweighted. Respondents were the parents of treatment students who used a scholarship in a previous year but not in a subsequent year ( $N = 211$ ). The reasons for not using were drawn from the parent responses the first year after their child stopped using a scholarship. Respondents appear in the data only one time (i.e., unique respondents), though they may have provided multiple reasons for not continuing to use a scholarship. This figure includes initial responses from parents of students who subsequently graded out of the Program.

SOURCE: Impact Evaluation Parent Surveys.

### ***Schools***

Fifty-two of 90 private schools in the District of Columbia were participating in the Program at the start of the 2008-09 school year, down from a peak of 68 schools in 2005-06.<sup>9</sup> Among the 22 schools that participated at some point but left the Program are seven Catholic schools that, in their last year in the Program (2007-08), enrolled 112 treatment group students; these schools converted to become public charter schools in 2008-09 and therefore no longer could be OSP voucher recipients. Overall in 2008-09, the last year of the evaluation, 14 percent of treatment group students attended a private school

<sup>9</sup> While, technically, 56 individual campuses were participating in the OSP from the start of the 2008-09 school year, the research team treats four of the schools with dual campuses as single entities because they have one financial office that serves both campuses, following the classification practice used by the National Center for Education Statistics in its Private School Survey. The 52 schools represent a net loss of nine schools since the prior year. Eleven schools stopped participating, while two new schools participated for the first time in 2008-09. The total number of private schools operating in DC declined from 109 in 2004-05 to 90 in 2008-09.

that charged tuition above the statutory cap of \$7,500, and 80 percent attended a faith-based school, with most of them (53 percent) attending the 15 participating Catholic parochial schools (table ES-1).

**Table ES-1. Features of Participating OSP Private Schools Attended by the Treatment Group in 2008-09**

Characteristic	Weighted Mean
Charging over \$7,500 tuition (percent of treatment students attending)	14.2%
Tuition	\$7,252
Enrollment	292.1
Faith-based	81.7%
Archdiocesan Catholic	53.3%

NOTES: School *N* for tuition amounts and religious affiliations = 38; *N* for enrollment totals = 31. When a tuition range was provided, the mid-point of the range was used. The weighted mean was generated by associating each student with the characteristics of the school he/she was attending and then computing the average of these student-level characteristics.

SOURCES: OSP School Directory information, 2008-09, WSF; National Center for Education Statistics' Private School Survey, 2007-08.

The schools attended by the evaluation's treatment group (both those who used their scholarship to enroll in a participating private school and those who did not) differed in some ways from the schools attended by students who were not offered scholarships (the control group) in 2008-09:<sup>10</sup>

- Students in the treatment group were less likely than those in the control group to attend a school that offered special programs for students who may be academically challenged; these include programs or services for non-English speakers (32 vs. 57 percent) and for students with learning problems (75 vs. 90 percent);
- Students in the treatment group were less likely to be in schools with special programs for advanced learners (38 vs. 49 percent); and
- Students in the treatment group were less likely than those in the control group to attend a school with a cafeteria facility (76 vs. 91 percent), a nurse's office (50 vs. 82 percent), counselors (77 vs. 87 percent), and art programs (84 vs. 92 percent).

These features of the public and private schools in DC in 2008-09 could, hypothetically, reflect a response by the schools to the OSP. School choice theory suggests that a thriving private school scholarship program provides competition to the public schools and could generate improvements to the public school system, the private school system, or both (see Chubb and Moe 1990; Henig 1994). Such systemic changes could take place if significant percentages of students in the public school system, or in

<sup>10</sup> Differences in the characteristics of schools are noted here only if the difference was statistically significant at the .05 level or higher. In 2008-09, statistically similar proportions of the treatment and control groups were enrolled in schools that offered a computer lab (95 vs. 91 percent), separate library (77 vs. 79 percent), gyms (68 and 71 percent), individual tutors (58 vs. 63 percent), music programs (93 vs. 91 percent), and after-school programs (91 vs. 88 percent).

specific schools, apply for, receive, and use scholarships to transfer to private schools. Systemic changes also could occur in the private sector, if private schools adjust program operations to better attract or retain scholarship students.

As mandated in the statute, we examined how DC public and private schools were affected by the OSP by analyzing how these underlying components of the competitive school theory played out in DC. A maximum of 1,700 to 2,000 students—about 3 percent of those in DCPS public schools (including charter schools)—could be supported by the OSP to attend a private school in any year. We found that 3.2 percent of students in the DC public schools, cumulatively, used an OSP scholarship to transfer out between 2004 and 2009, joining continuing students in the Program. OSP-related student transfers ranged from 0 to 21 percent of enrollment across individual schools during that period. Just over one-quarter (28 percent) of public school principals reported making any changes to their operations in order to retain students who might be interested in the OSP or private schools in general (figure ES-8).<sup>11</sup> On average, OSP students made up 16 percent of participating private schools' student populations, with a range of 0 to 65 percent.<sup>12</sup> Fifty-two percent of principals at those schools indicated they had made changes to encourage OSP students to attend their schools (figure ES-9).<sup>13</sup>

These findings can be placed in some context. The cumulative exposure of DCPS to the Program across five cohorts of students using OSP scholarships represents less than one-fifth of the average annual mobility of students in the district (3 percent versus 20 percent).<sup>14</sup> Given these figures, OSP-related transfers to private schools may not have been distinguishable from the larger share of other student departures. In addition, school choice theory suggests that if any significant system-wide change in public schools is likely, the loss of students to the scholarship program should also entail a loss of funding for the public schools and school system affected by such transfers (Hoxby 2003). However, the law that established the OSP ensured that DCPS would gain, rather than lose, funds, and district officials

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<sup>11</sup> The response rate for the public school principal survey in 2008-09 was 75 percent.

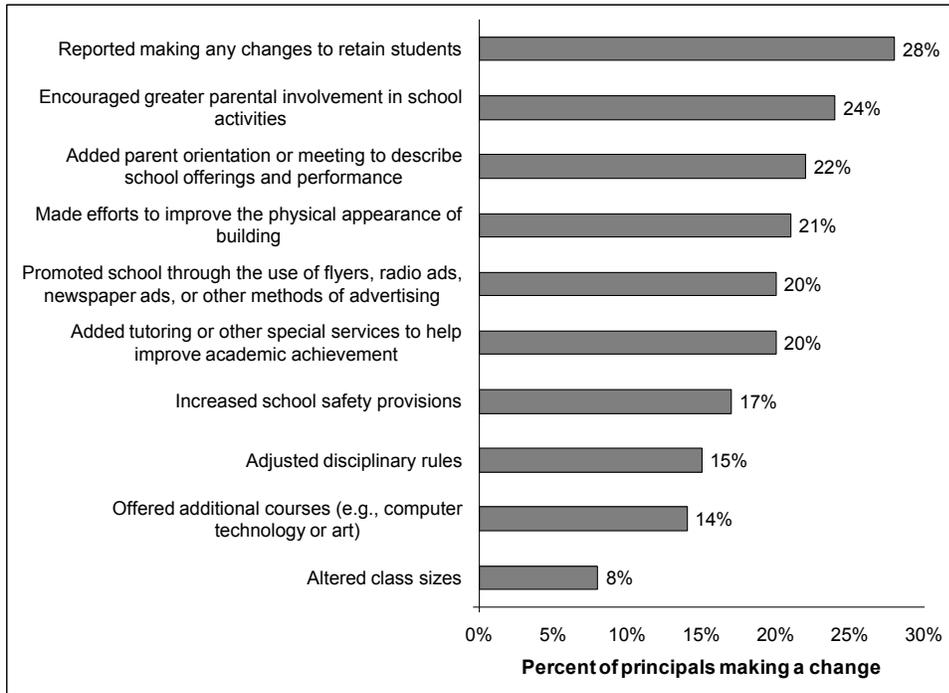
<sup>12</sup> Private schools were deemed by the WSF, the program operator, as participating if they agreed to take OSP vouchers even if no OSP students were admitted.

<sup>13</sup> The response rate for the private school principal survey in 2008-09 was 72 percent.

<sup>14</sup> "A student is defined as 'mobile' if the student attended a different school or was not enrolled in the snapshot from the prior month." [http://www.osse.dc.gov/seo/lib/seo/dc\\_student\\_mobility\\_report2008\\_06\\_10.pdf](http://www.osse.dc.gov/seo/lib/seo/dc_student_mobility_report2008_06_10.pdf). The DC Office of the State Superintendent of Education (OSSE) reported the average monthly student mobility rate in the district was about 2 percent from the fall of 2007 to the spring of 2008. Taken across a 10-month school year, that monthly rate translates into an annual average mobility rate of 20 percent.

were not given information to determine how many students left individual public schools as a result of the Program.<sup>15</sup>

**Figure ES-8. Public School Responses to the OSP, 2008-09**

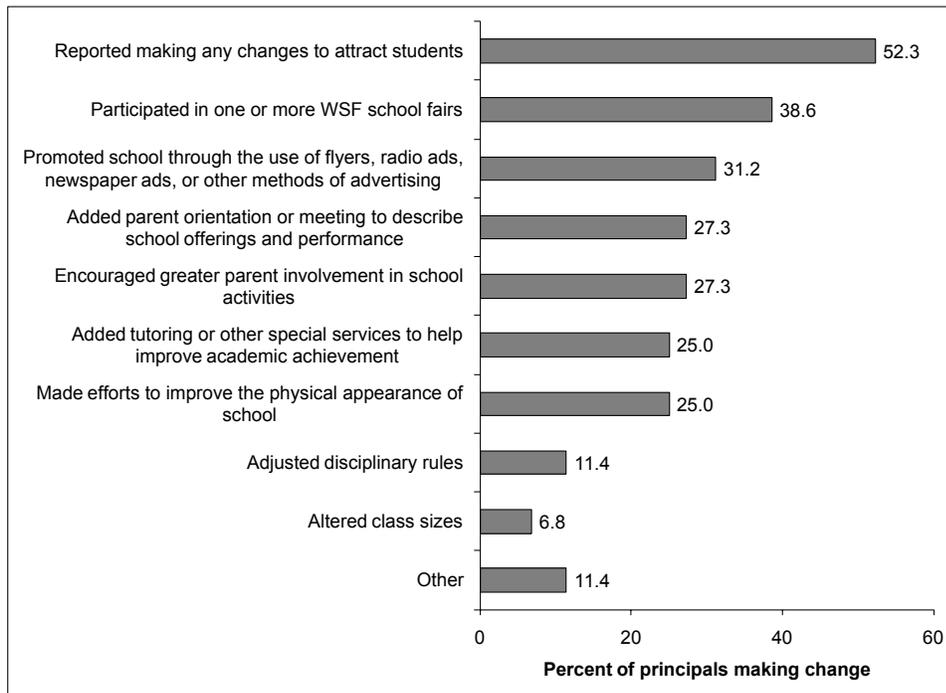


NOTES: Responses are unweighted. Respondents were able to select multiple responses. The survey question is “In the past five years or since you became principal, have you made any changes specifically to encourage students interested in private schools (or the Opportunity Scholarship Program) to remain enrolled in your school?” If the principal answered yes, then the principal was asked to indicate which (of the following) changes were made. For all percentages, the numerator is the number of principals who answered “yes” to making a change and the denominator is the total number of survey respondents ( $N=168$ ). The response rate for the public school principal survey was 75 percent.

SOURCE: Impact Evaluation Public School Surveys, 2008-09.

<sup>15</sup> The appropriations law that established the OSP and each subsequent appropriations bill that funded the Program provided approximately \$13 million for the OSP, approximately \$13 million for DC charter schools, and approximately \$13 million for the traditional public schools in DCPS. Because of the confidentiality provisions in the law, neither WSF nor IES could reveal information about which or how many students left individual DC schools.

**Figure ES-9. Participating Private School Responses to the OSP, 2008-09**



NOTES: Responses are unweighted. Respondents ( $N = 44$ ) were able to select multiple responses. Categories with responses from fewer than three principals are collapsed into the “Other reasons” category for confidentiality purposes. The response rate for the private school principal survey was 72 percent.

SOURCE: Impact Evaluation Principal Surveys, 2008-09.

This final report on the impacts of the OSP adds to the growing body of evidence on private school voucher programs in the United States. As is the case with previous evaluations of such programs, our study had some limitations. We studied early Program applicants, and not all members of our original sample participated in data collection each year. By the final year, 13 percent of the students were no longer eligible to take the K-12 achievement assessment because they had “graded out,” reducing the size of the analysis sample and the precision we had to detect effects. In addition, some of our measures, including high school graduation and school safety, are based on respondents’ recall and perceptions and not on more conclusive administrative records. Finally, it is important to note that the findings in this report are a reflection of the particular Program elements that evolved from the law passed by Congress and the characteristics of the students, families, and schools, both public and private, that exist in the Nation’s capital. The same program implemented in another city might yield different results, and a different scholarship program administered in Washington, DC, might also produce different outcomes.

## References

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Chubb, John E., and Terry M. Moe. *Politics, Markets, and America's Schools*. Washington, DC: The Brookings Institution Press, 1990.

Henig, Jeffrey. *Rethinking School Choice: Limits of the Market Metaphor*. Princeton, MA: Princeton University Press, 1994.

Hoxby, Caroline M. "School Choice and School Competition." *Swedish Economic Policy Review* 2003, 10: 11-67.