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Recommended Citation

Cowen, Joshua M.; Fleming, David J.; Witte, John F.; and Wolf, Patrick J., "School and Sector Switching in Milwaukee" (2010). *School Choice Demonstration Project*. 59.
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The School Choice Demonstration Project (SCDP), based within the Department of Education Reform, is an education research center devoted to the non-partisan study of the effects of school choice policy and is staffed by leading school choice researchers and scholars. Led by Dr. Patrick J. Wolf, Professor of Education Reform and Endowed 21st Century Chair in School Choice, SCDP's national team of researchers, institutional research partners and staff are devoted to the rigorous evaluation of school choice programs and other school improvement efforts across the country. The SCDP is committed to raising and advancing the public's understanding of the strengths and limitations of school choice policies and programs by conducting comprehensive research on what happens to students, families, schools and communities when more parents are allowed to choose their child's school.

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EXECUTIVE SUMMARY

In this report we analyze the movement of students to and from the Milwaukee Parental Choice Program (MPCP) and Milwaukee Public Schools (MPS). We also analyze student mobility between schools within each sector. The analysis rests on two separate sets of data: the administrative records we have collected as part of our separate analysis of academic achievement in MPCP (Witte, Wolf, Cowen, Fleming, & Lucas-McLean, 2010), and the results of an extensive set of surveys collected from parents of private and public school students.

The administrative records indicate that there is more within-sector school switching in MPS, but MPCP students are more likely to move to MPS than MPS students are to move into the private-school voucher program. Racial/ethnic and gender characteristics of the various types of movers do not appear markedly different. Moving students scored lower, on average, on the Wisconsin Knowledge and Concepts Exam (WKCE) in the year prior to their move, although we are not able in this report to say whether students moved *because* of their achievement levels or because of other factors. The survey records indicate that parents of students who move are less satisfied with their child's academic experiences and are more likely to give lower overall assessments of their child's school. MPCP students are more likely to have considered a public school option at some point prior to the survey than are MPS students likely to have considered a private school. As of this report, we are still collecting data on these students and will add an additional two years of information to the three years of data we currently analyze here.

The authors thank Dale Ballou, Chris Jepsen and Helen Ladd for comments at the Association for Public Policy Analysis and Management conference (November, 2009) on an academic version of this report, and David Figlio and Robert Yin for comments at our annual Research Advisory Board meetings in January. We also thank Milwaukee Public Schools for their assistance collecting and interpreting data on the public school students, and the schools participating in MPCP for their assistance with the private school students. All errors are the responsibility of the authors. We thank Marlo Crandall for the graphic design of this report, and Lori Foster for editing the copy.

This project is being funded by a diverse set of philanthropic organizations, including the Annie E. Casey, Joyce, Kern Family, Lynde and Harry Bradley, Robertson, and Walton Family foundations. We thank them for their generous support and acknowledge that the content of these reports are solely the responsibility of the authors and do not necessarily reflect any official positions of the various funding organizations or research institutions involved.

INTRODUCTION

A major question for analysts of school choice policies concerns the characteristics of students who choose between public and private schools. How students in one sector differ in terms of observable demographic and socioeconomic characteristics from their counterparts in the other sector is a primary focus of several academic studies (Betts & Fairlie, 2001; Figlio, 2008, Figlio & Stone, 2001; Howell, 2004; Long & Toma, 1988). Other evidence is available in studies of school voucher effects on student achievement (e.g., Cowen, 2008; Howell, Wolf, Campbell, & Peterson, 2002; Greene, Peterson, & Du, 1998; Peterson, Howell, & Greene, 1999; Rouse, 1998; Witte, Wolf, Cowen, Fleming, & Lucas-McLean, 2009; Witte, 2000; Wolf et al., 2009). Race, income, religion and family structure appear to heavily influence school choice. In general, white students are more likely to attend private schools than African American or Hispanic students (Fairlie & Resch, 2002; Betts & Fairlie, 2001; Lankford & Wyckoff, 2001; Long & Toma, 1988), as are students whose parents have higher levels of education and income (Betts & Fairlie, 2001; Figlio & Stone, 2001; Lankford & Wyckoff, 1992; Long & Toma, 1988). These differences have also appeared to varying degrees in school voucher studies (Campbell, West, & Peterson, 2005; Wolf, Gutmann, Eissa, & Puma, 2005; Howell et al., 2002; Witte, 2000; Witte & Thorn, 1996). Studies based on randomized voucher offers have indicated that minority students are less likely to accept the offer (Campbell et al., 2005) and students who move between homes and neighborhoods are less likely to remain in private school even after winning and accepting the initial offer to attend (Howell, 2004). Students from families who are more actively religious are likewise more likely than non-religious families to choose private alternatives (Campbell et al., 2005; Cohen-Zada & Justman, 2005; Howell et al., 2002; Long & Toma, 1988), and students whose parents seek more active involvement in their childrens' schooling may likewise opt out of the public sector (Goldring & Phillips, 2008).

Research on the general differences between public and private students has usually taken place in an educational environment in which many public school students may not have access to the private sector. School voucher programs, which are intended to provide such students with the means to attend private school, have until relatively recently been operating as small-scale trials with firm caps on participation. Thus the evidence for what determines public and private school choice when both options are available is still largely suggestive.

In this report we focus on the special circumstances surrounding students in the city of Milwaukee. Milwaukee operates the nation's oldest and largest urban voucher program, which is funded by public tax dollars contributed by the state. The Milwaukee Parental Choice Program (MPCP) is capped at 22,500 students, and has yet to exceed this limit. Because the size of the voucher covers tuition in most participating private schools, and because the means-tested limit on voucher eligibility is met by nearly nine out of every ten Milwaukee students, the voucher program represents a readily available alternative to the public sector for the vast majority of families. In addition, there is a large and vibrant charter school sector, where schools are sponsored both by the public school district and by independent authorizers. Finally, Milwaukee public schools offer an extensive open-enrollment program in which students may in principle select any traditional public option with available space. With these features, Milwaukee represents a choice-rich environment in which most students have several options from which to select their schools.

We analyze data collected as part of the separate but related evaluation of the MPCP mandated by the state of Wisconsin (Witte, Wolf, Cowen, Fleming, & Lucas-McLean, 2008). Beginning with the program's reauthorization and expansion after the 2005-2006 academic year, we have tracked students comprising a representative panel of voucher users, as well as a carefully matched panel of comparable public school students. In particular, we observe students who: remain in their original sector from the baseline year (non-switchers); initially located in one sector, public or voucher, but have since moved to the other (sector switchers); and remain in their original sector but have moved between schools (school switchers). School and sector switchers may be systematically different from non-switchers. We focus largely on the schooling decisions made in one academic year conditional on public or private status in the previous year.

THE SPECIAL CASE OF MILWAUKEE

The analytical problem presented by the question “who chooses?” concerns the number of options available to students in a high choice environment like the city of Milwaukee. Previous work on school vouchers—and indeed, on other choice policies such as charter schools—has largely focused on the more general problem of characterizing those who remain in and those who leave the traditional public sector. Often this work is ancillary to modeling programmatic effects on student achievement in a formal evaluation of the choice policy. Every study has a baseline condition (some determined through a randomized field trial and others simply the condition existing at whatever point in time the study begins), and deviations from this condition pose unique problems of their own in the estimation of the policy's effect on achievement. Students may switch conditions: from initially private to later public status, and vice versa, and back and forth. This is true in the context of the Milwaukee voucher program, but each type of change is a unique and uniquely interesting act in its own right. In principle, each choice option is available to all students, although some practical constraints (such as space in a particular school) apply. So the modeling problem at hand in this research is identifying not only the student characteristics associated with switching in general, but those associated with each type of change in particular.

What are the options in Milwaukee? Students physically located within the contiguous public school district, Milwaukee Public Schools (MPS), are not consigned to their neighborhood public school. They are allowed to name as many as three choices within the district and may change schools between school years. Some schools have waiting lists, on which students living within a broad “attendance area” or the school's “transportation” area are given priority. According to MPS, in the 2008 academic year, “94 percent...of students were assigned to the school listed as their first choice.”¹

Most students are not limited to traditional MPS options. The Milwaukee Parental Choice Program (MPCP) is capped at 22,500 students in the Milwaukee area, although only 16,892 were enrolled in

1 See MPS's website for a detailed description of the school selection process: <http://mpportal.milwaukee.k12.wi.us/portal/server.pt?open=512&objID=318&PageID=38295&cached=true&mode=2&userID=2>

2006-07, the year this study began; 19,069 students were enrolled in 2007-08, and 19,803 were enrolled in 2008-09. The MPCP is available to new families entering the program if their household income is under 175 percent of the poverty limit. In 2006, the federal free/reduced lunch guideline was capped at 185 percent of this limit which means, since approximately 85 percent of MPS students meet the free lunch guideline (Witte et al., 2008), the vast majority of public school students are income-eligible for a school voucher. In 2006, this voucher was worth up to \$6,501 toward school tuition (the same amount in 2007-08, and \$6,607 in 2008-09), and more than 120 private schools participated in the program so far during this study. There are also three different groups of charter schools (one run by MPS, one by the University of Wisconsin-Milwaukee, and a collection of independent institutions) serving 20,000 students. In 2006-07 MPS served approximately 90,000 students in 224 schools, which means that the MPCP and charter school options may serve nearly half the number of students in this large, urban environment.

Data Analysis

The data we analyze here are drawn from our ongoing evaluation of the MPCP, which was mandated by Wisconsin Act 125 during the program's reauthorization and expansion in 2005. The general purposes of the evaluation are to analyze the effectiveness of the MPCP in terms of longitudinal student achievement growth and grade attainment, dropping out, and graduating from high school. The former is primarily accomplished by measuring and estimating student growth in achievement as measured by the Wisconsin Knowledge and Concepts Examinations (WKCE) in math and reading in grades 3 through 8 between the 2006-07 and 2010-11 academic years. The latter will be accomplished by following the 2006-07 8th and 9th grade cohorts over a five-year period or longer. The general research design consists of a comparison between a random sample of MPCP students and a matched sample of MPS students. See Witte et al. (2010) for the updated report on that evaluation.

In Witte et al. (2008) we described the panel construction in detail. Briefly, we selected a grade-stratified random sample of 3,095 MPCP students in grades 3-8 and the total population of 9th graders from an unaudited list of the approximately 17,000 students participating in the program. After cleaning the data for duplicate records and students who we later verified were not actually enrolled in a voucher school, we were left with 2,727 students. To obtain a panel of MPS students as similar as possible to their MPCP counterparts, we matched each MPCP student to a public school student in the same baseline grade on the basis of census tract,² baseline test score, and a propensity score estimated from student gender, race, prior achievement, and English Language Learning (ELL) status. We refreshed both panels with new cohorts of 3rd graders in the 2007-08 and 2008-09 academic years. The result for this paper is a panel of 11,800 student-year observations between the 2006-07 and 2008-09 academic years, with data on subsequent years still being collected. Of particular note here is the ongoing refinement of the indicators for who switched schools or sectors, and when. Throughout the course of a five-year collection of data, such as those this report analyzes, it becomes apparent over time that a few students who were considered

2 See Witte et al. (2008) and Witte et al. (2009) for a discussion of the importance of matching on neighborhood location, which we operationalized using each student's census tract. The general argument rests on the ability of student neighborhood to capture unobserved family characteristics that may affect student achievement.

switchers in one year actually remained in place, and some students who were considered stayers actually left their school or sector. Although we do not expect updates to these switching indicators to dramatically change the results of our analysis, we caution that future iterations of this work may include slightly modified rates of school and sector switching for the years presented here.

BASIC CHARACTERISTICS OF STUDENTS WHO MOVE

We begin by describing the pattern of movement out of previous schools. Following the general discussion of school choice options above, we categorize four distinct types of moves we have thus far observed in the data available (2006-07 to 2008-09). The first (school switchers) is movement between schools within the same sector, MPS or MPCP. This group of students is comprised of those who leave because they choose to, because they are compelled to by the school or because they have reached a school's terminal grade. In MPS, the most common terminal grades are 5th and 8th, while in MPCP the most common terminal grade is 8th grade. The second group (sector switchers) consists of students who move between sectors after their baseline status: either from MPCP to MPS, or from MPS to MPCP. The third group is that of students who move to an MPS charter school. The final group contains students who we believe have left their original school, but whose whereabouts we are unable to determine. These students may have moved away from Milwaukee, moved to a suburban school but remained a Milwaukee resident, moved into a private school that does not participate in the MPCP, or moved to an independent charter school.

Student Mobility Between Schools and Sectors

Table 1 summarizes the rate of each type of switch, by initial sector status and by post-baseline year. There are four major patterns. First, within-sector school mobility is considerably more prevalent in MPS. This is to be expected for at least two reasons. One reason is that there is an additional terminal grade in MPS (5th grade), whereas the majority of MPCP schools end either after the 8th grade or, in a few cases, after 12th grade. The second reason is that MPCP is a school-based program in which students apply for state funding through their chosen school.

These reasons may also help explain the second major pattern of movement: students are more likely to move from MPCP to MPS than they are to move from MPS to MPCP. The process of selecting another MPCP school may ultimately be more cumbersome than simply reverting back to the public sector, whether students are leaving an MPCP school because they have reached its final grade or, for whatever reason, voluntarily exit. The third pattern is the relative lack of movement into charter schools, especially on the MPCP side. The final pattern concerns students with unknown status. We are currently unable to track approximately one quarter of our original MPCP panelists, but less than 15 percent of our original MPS panelists. The major reason for this discrepancy is our lack of data on our original 9th grade panelists. Students in other grades were full members of our panel, who per Wisconsin Act 125 would be tested from 3rd through 8th grade. In 2007-08 we tested as many original 9th grade panelists as possible in MPCP (they were then in 10th grade), but in the second follow-up year after baseline (2008-09) we had to rely simply on enrollment verification surveys sent to principals in MPCP schools for these students, then in 11th grade. During the 2009-10 year, we are intensifying our efforts to find these students, now in 12th grade, who represent our first chance to measure

attainment rates for MPCP and MPS panelists. As such, it is possible that the “unknown” figure is reduced in subsequent analyses.³

Table 1: Total School and Sector Movement by Initial Sector Status: 2006-2008

	2006-07 to 2007-08		2007-08 to 2008-09	
	Baseline Public	Baseline MPCP	Baseline Public	Baseline MPCP
% Non-switchers	56.03	63.00	56.51	44.09
% School switchers	30.03	5.17	23.38	10.84
% Sector switchers	2.60	18.52	3.94	18.00
% Switched to charter	2.02	0.44	2.05	0.82
% Unknown	9.31	12.87	14.12	26.25
% Total	100.00	100.00	100.00	100.00
N	2,727	2,727	3,173	3,173

Cells indicate the percentage of students in each baseline sample by each switching status as of the start of each academic year

Student Demographics

In our baseline report (Witte et al., 2008) we presented sample demographics in considerable detail. Briefly, because of the way our sample was designed, students in both initial sectors had similar numbers of African American (66%), Hispanic (23%), white (9%) and female (54%) students. Despite these similarities, it is possible that one or more of the categories presented in Table 1 contains disproportionate numbers of students with a certain demographic characteristic. Figure 1a-b shows the proportion of each race and gender by original sector and switching status. These figures allow any number of comparisons, but we highlight one general set of comparisons in particular: although the percentage of African Americans in the non-switching category is similar to that of the sample as a whole (60%), African Americans represent a greater share of students in all of the switching categories. We stress that this is not a “causal” difference—we do not imply that student’s race directly motivates them to move—but it does appear that African American students are more likely to leave a school for another option, regardless of sector. We will continue to examine this pattern in subsequent analyses.

³ This caveat can and should be applied to all grades. As the data collection process continues and improves, we anticipate that a few students who according to older information had moved locations actually remained in place, and vice versa. As such, these switching rates should be considered estimates at the current point in time, with final year-by-year switching rates available after the study is completed following the 2010-2011 academic year.

Figure 1a: Proportions of Race and Gender by Switching Status (2007)⁴

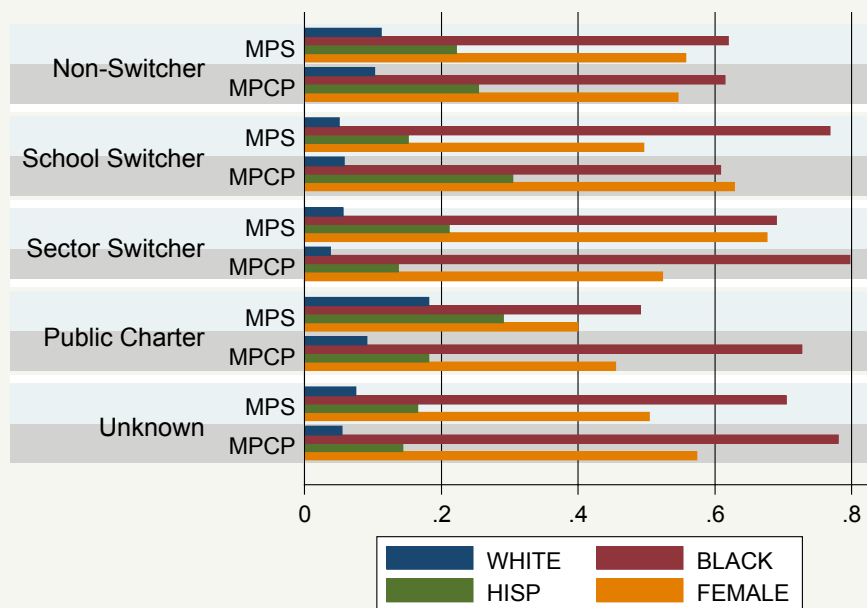
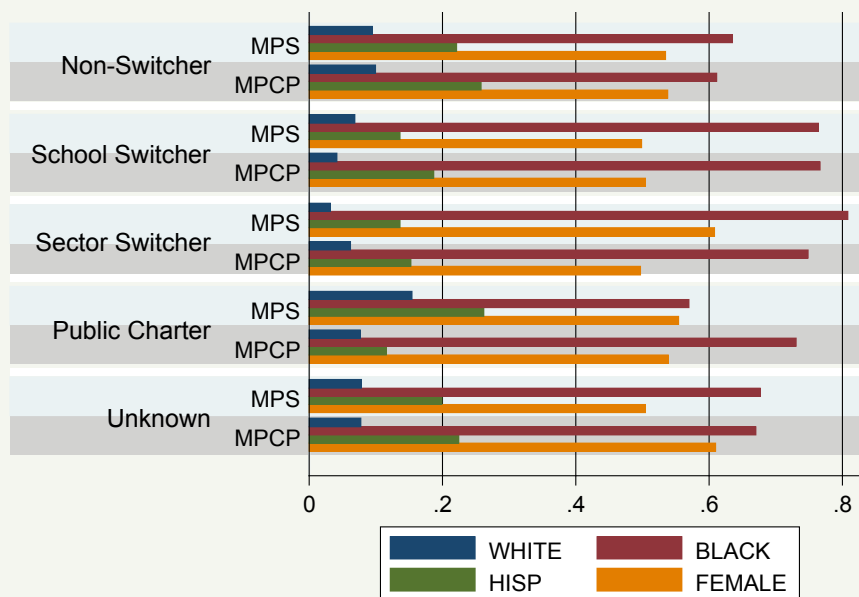


Figure 1b: Proportions of Race and Gender by Switching Status (2008)



⁴ In Figures 1a and 1b, "MPS" and "MPCP" refer to the initial baseline status of the student.

It is also useful to examine the relationship between race and student mobility in the context of the schools they are leaving and entering, although readers should see another report in this series (Greene, Mills, & Buck, 2010) for a more specific analysis of the impact of the voucher program on racial integration. Here we simply provide descriptions of the schools that our panel students are exiting and entering, based on the type of move. Figure 2a-b reports the mean proportion of black, white and Hispanic students in these schools. The most important pattern in these figures is that for students moving either to a new school within their sector or between sectors, there are comparable percentages of black, white and Hispanic students in the schools they are exiting. Students exiting either MPCP or the traditional MPS sector for a public charter school are exiting schools with slightly fewer minorities. Similarly, for students moving to a new school within their sector, or between sectors, there are comparable percentages of black, white and Hispanic students in the schools they are entering. Only for students entering charter schools from traditional MPS schools is the percentage of minority students markedly different than the schools other types of movers are entering.

Figure 2a: Racial Composition (proportions) of Schools That Panel Students Have Moved From⁵

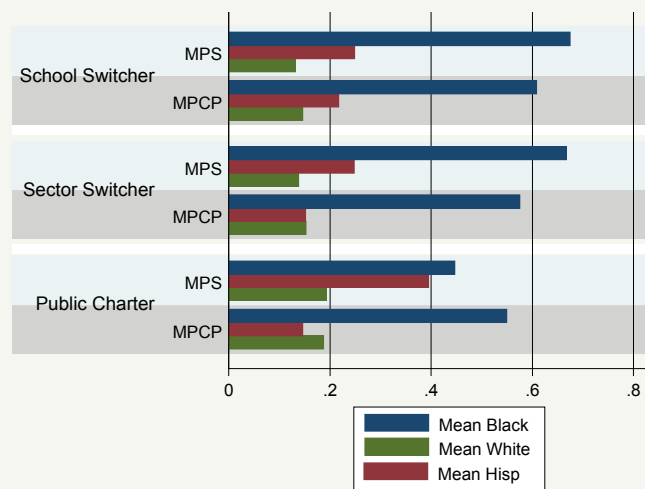
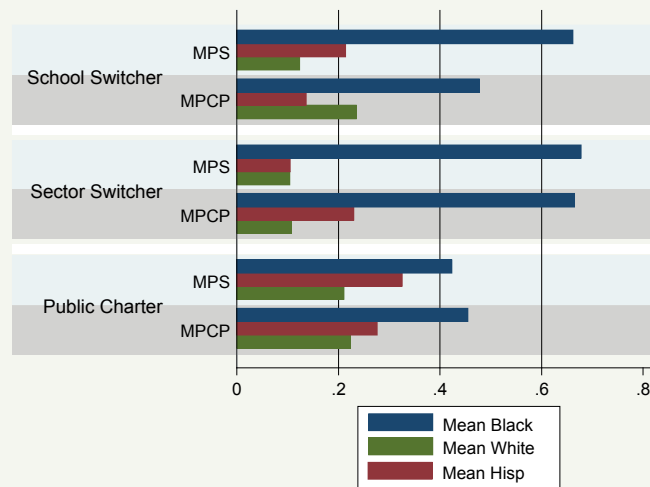


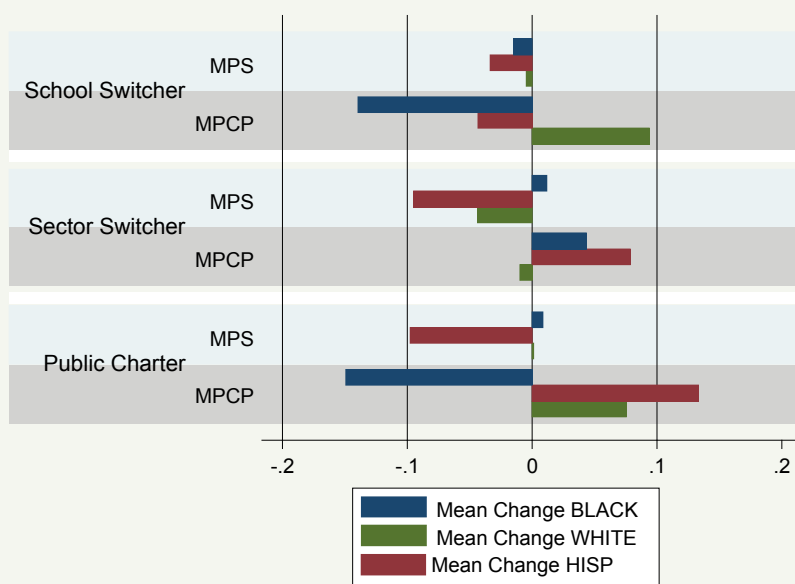
Figure 2b: Racial Composition (proportions) of Schools That Students Have Moved To



⁵ In Figures 2a and 2b, "MPS" and "MPCP" refer to the initial baseline status of the student.

Figures 2a-b, while providing a comparison of school racial/ethnic proportions for each type of student mover, do not allow a direct comparison of these proportions between schools a particular student has exited. Figure 3 provides this comparison. MPS and MPCP students switching schools within sectors are, on average, moving into schools with fewer African Americans and Hispanics, while MPS and MPCP students moving from their original sector into the other are more likely to land in a school with slightly more African Americans. Also, MPCP students moving from private schools to public charter schools are moving to schools with more Hispanics and whites and fewer African Americans.

Figure 3: Mean Change (proportions) in Racial Composition (New School-Old School)



Student Achievement Levels

In the third-year report on the Longitudinal Educational Growth Study (Witte et al., 2010) we address student achievement in MPS and MPCP, and that analysis includes a detailed attempt to model achievement growth after accounting for achievement of school switchers. In this report, however, we simply continue our description of each type of mover by presenting basic achievement levels of each of the types of movers. Figures 4a-d show average WKCE scores for each type of mover that we have been able to locate and ascertain a score. The figures exclude students who had reached the terminal grade in their previous school, thus this analysis is limited to students who either chose to switch or were forced to for reasons other than reaching a final grade. These scores are standardized by grade and reflect an average between math and reading. There are not large disparities, but Figures 4a-d generally indicate that students who moved to a new school were doing somewhat worse in the year prior to switching than students who remained in place.⁶

⁶ As noted in the text, these figures exclude structural school switchers.

Figure 4a:
MPCP Average Standardized Math and Reading
Achievement Scores from Previous Year,
by School-Switching Status (2007)

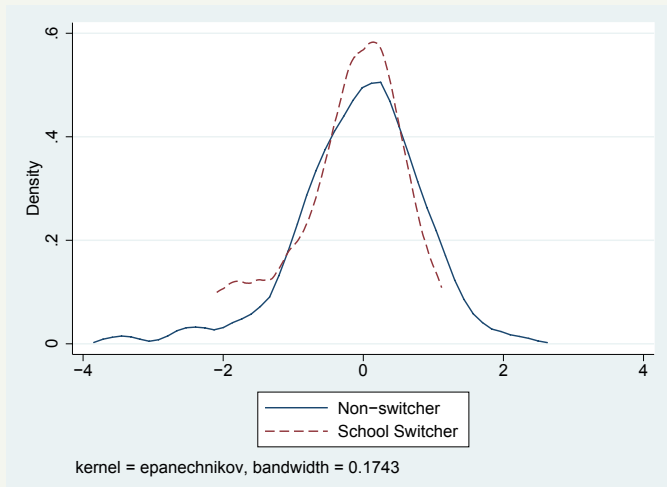


Figure 4b:
MPS Average Standardized Math and Reading
Achievement Scores from Previous Year,
by School-Switching Status (2007)

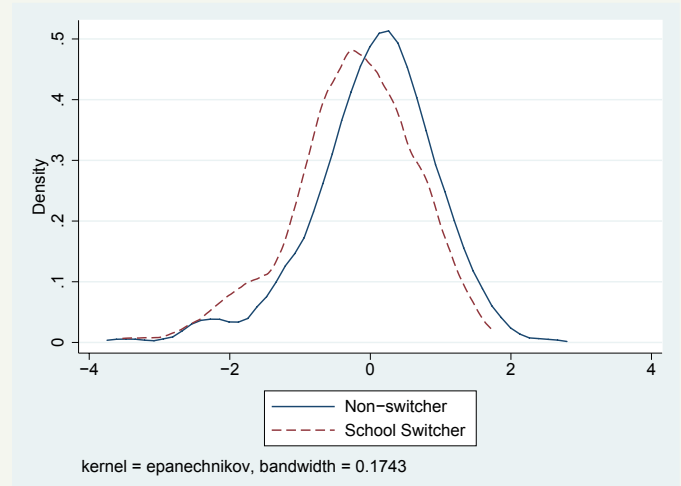


Figure 4c:
MPCP Average Standardized Math and Reading
Achievement Scores from Previous Year,
by School-Switching Status (2008)

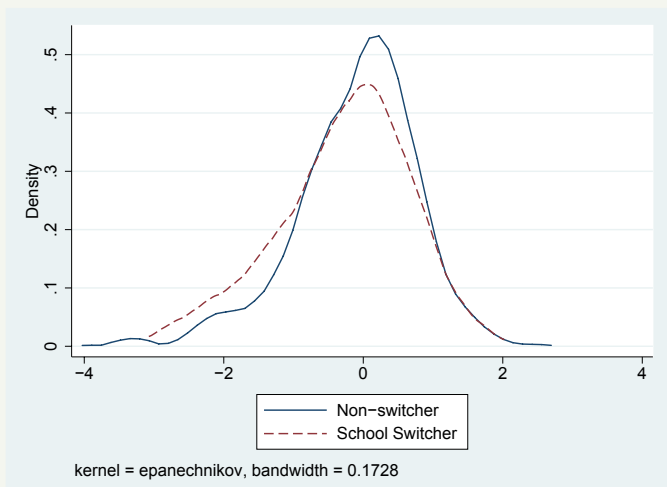


Figure 4d:
MPS Average Standardized Math and Reading
Achievement Scores from Previous Year,
by School-Switching Status (2008)

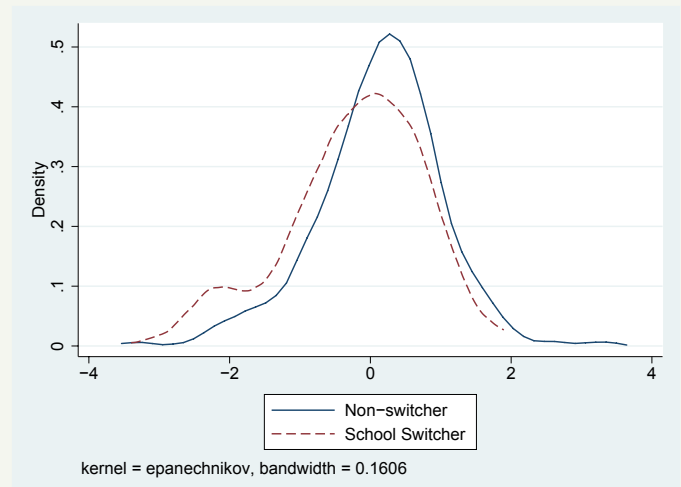


Figure 5a:
MPCP Average Standardized Math and Reading
Achievement Scores from Previous Year,
by Sector-Switching Status (2007)

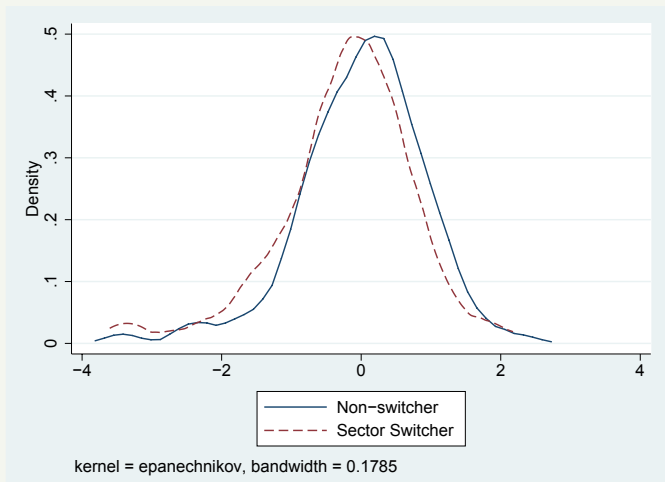


Figure 5b:
MPS Average Standardized Math and Reading
Achievement Scores from Previous Year,
by Sector-Switching Status (2007)

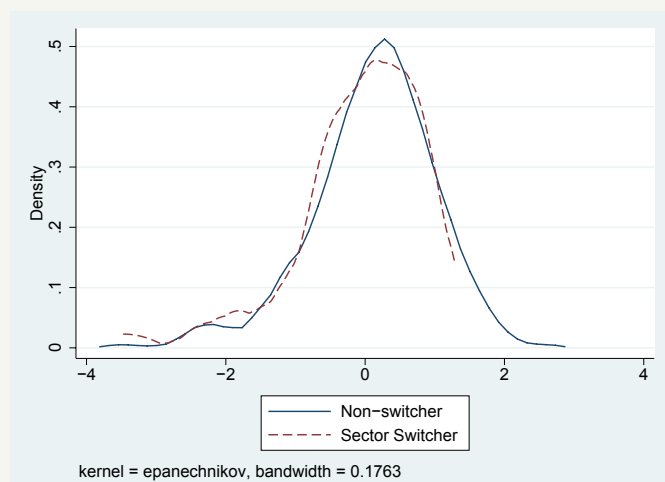


Figure 5c:
MPCP Average Standardized Math and Reading
Achievement Scores from Previous Year,
by Sector-Switching Status (2008)

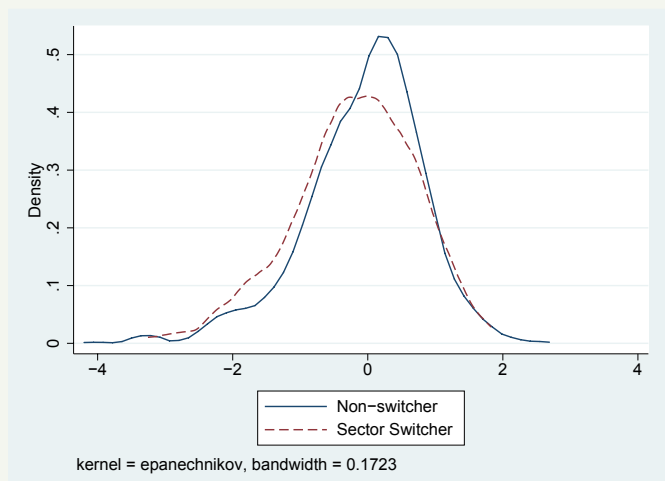
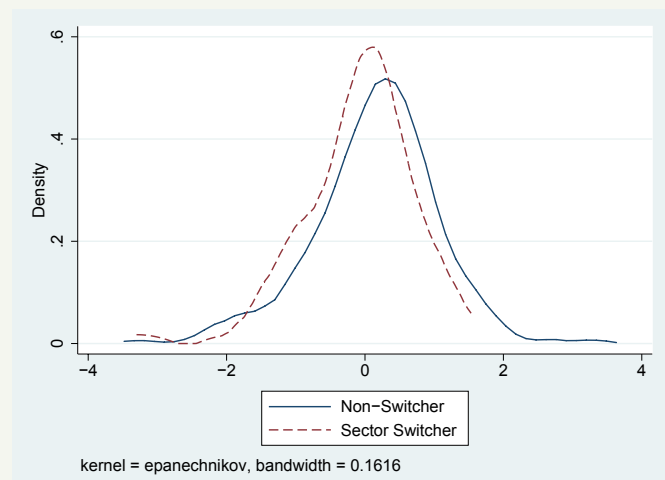


Figure 5d:
MPS Average Standardized Math and Reading
Achievement Scores from Previous Year,
by Sector-Switching Status (2008)



The means of standardized achievement scores by switcher status are depicted in Table 2, excluding students who switched because they had reached a terminal grade in their previous school. That table confirms what the graphs reveal: switchers always have lower average scores. The largest differences between stayers are for those students who switch sectors. Sector switchers are between .12 standard deviations (MPCP 2008) and .31 (MPCP 2007) standard deviations lower on the test taken before they move than the relevant group of students who do not switch at all. Table 2 includes 95 percent confidence intervals for these estimates, which reflect that some of these means are imprecisely measured, in part due to smaller sample sizes within each cell. In particular, the interval for the prior score for MPCP school switchers in 2007 includes zero (we cannot at conventional levels of statistical significance reject the possibility that these students are performing at or above the sample-wide mean of zero) and includes the estimated mean for non-switchers (we cannot reject the possibility that the mean for switchers is actually the same as the mean for non-switchers). Similarly, although the interval for sector switchers out of original status in MPS in 2008 does not include the non-switcher mean, it does in both years include zero.

Beyond the imprecision of these estimates, as with other results presented in the preceding sections, we caution readers against drawing a causal interpretation of Figures 4-5 and Table 2; *these differences are unadjusted for other factors, and we cannot say that lower prior achievement caused students to switch.* It may simply be that students who move are inherently lower performing, or that other factors unaddressed here were causing both low achievement and the decision to move. Future analyses will consider these implications further.

Table 2: Standardized Average Math and Reading Scores by Switching Status

	2007-08 Switching		2008-09 Switching	
	2006 Public Score	2006 MPCP Score	2007 Public Score	2007 MPCP Score
% Non-switchers	0.05 [-0.00, 0.11]	-0.05 [-0.11, -0.00]	0.13 [0.08, 0.17]	-0.10 [-0.15, -0.05]
% School switchers	-0.24 [-0.33, -0.15]	-0.23 [-0.48, 0.02]	-0.23 [-0.33, -0.12]	-0.28 [-0.43, -0.14]
% Sector switchers	-0.10 [-0.35, 0.16]	-0.27 [-0.38, -0.15]	-0.13 [-0.31, 0.05]	-0.22 [-0.32, -0.13]
% Charter school	-0.28 [-0.75, 0.18]	-0.78 [-2.78, 1.22]	-0.56 [-0.83, -0.29]	-0.35 [-0.77, 0.06]
% Unknown	-0.15 [-0.28, -0.01]	-0.20 [-0.34, -0.06]	-0.13 [-0.29, 0.03]	0.08 [-0.00, 0.15]

95 % confidence intervals in brackets; school switchers identified as "structural switchers" (students who leave their school because of its terminal grade) are excluded.

SURVEY RESULTS: WHY DO STUDENTS LEAVE THEIR SCHOOLS?

The sections above provide basic descriptions of each type of move and of the racial and achievement characteristics of students moving. We have stressed that these differences may or may not be an underlying causal factor of student mobility. There are numerous statistical techniques available for analysts attempting to address such a question. Although we are interested in these approaches in the future, the most direct way to obtain information about the choices students and their parents make—whether in deciding to switch schools or in deciding which schools to choose in the first place—is to simply ask them.

As part of the longitudinal design of this evaluation discussed above, we contacted parents of students in both the MPS and MPCP samples for phone surveys in the spring and summer of 2007 and 2008. The parental questionnaires included a host of questions regarding demographics, education-related attitudes, and school satisfaction. In the first round of parental surveys, we attempted to contact parents from all 2,727 MPCP and 2,727 MPS students in our original sample. The total number of MPCP survey respondents in 2007 was 1,789, and the final number of MPS surveys was 1,438, which represent response rates of 66 percent and 53 percent, respectively. For more information on the 2007 parental survey see Witte et al. (2008).⁷

The following year we again attempted to contact the parents of the original sample participants, as well as the parents of the third-grade refresh sample. In 2008, 1,644 MPS and 1,619 MPCP parents completed surveys, which represent response rates of 52 and 51 percent, respectively. As shown in Table 3, we were able to re-interview 2,089 parents, using the follow-up survey. The follow-up survey is a shorter version of the original, baseline survey. We have only one year of 2008 survey data for the remaining parents (1,174) who received a similar baseline survey as those parents who responded in 2007. This group constitutes parents involved with the new third grade sample as well as those parents who did not respond to the 2007 survey. Although some demographic information was only asked in the baseline survey, other questions, such as school satisfaction, are included in both the baseline and follow-up surveys. Depending on the comparison of interest, the following description of the survey results will focus on only the 2007 data, only the 2008 results, or changes in attitudes from 2007 to 2008 from the follow-up surveys.

Table 3: 2007 & 2008 Survey Waves: Number of Survey Respondents

	MPS	MPCP	Total
Only 2007 Survey	501	637	1,138
Only 2008 Survey	707	467	1,174
Both 2007 & 2008 (Follow-up) Surveys	937	1,152	2,089
Total	2,145	2,256	4,401

⁷ Response weights did not change the results discussed in Witte et al. (2008).

Our current survey analysis, unless otherwise noted, will focus on differences between MPCP and MPS parents,⁸ as well as between those who switched schools from the 2006-07 school year to the 2007-08 school year and those who remained in the same school. In order to maintain large sample sizes, our survey results analysis compares switchers to non-switchers.⁹ The switching indicator comes from administrative student records. Because the surveys were designed to measure a variety of aspects of students' education (not just switching) we did not have time and space in the survey instrument to include detailed switching questions that included sector-by-sector differences in the way students moved between schools and public/private locations. Thus for both sectors, the 2008 survey simply asked parents if their child's school is new for them this year. The vast majority of cases are in agreement for both measures of student mobility, student records and parental surveys. Among parents whose children our administrative files indicate were in the same school, 93 percent likewise indicated their child had not moved. The major discrepancy arises when our administrative data indicate the student has moved, but the parental response indicates the same school. At the time of the survey, parents of 24 percent of students we identified at the administrative level as having moved responded that their children were in the same school as the previous year.¹⁰ Given that the switching variable was determined in November 2007 and the surveys were completed in spring and summer of 2008, it is not surprising that there are some differences between the two measures of student mobility. For consistency across this and related analyses reported elsewhere, we prioritize the administrative record of the student's location.

The analysis in the sections above provided an indication of the way that student mobility is related to factors measurable at the administrative level (student achievement, demographics, and so on). The survey results provide a nuanced description of students who have switched schools regardless of where they moved. For those parents with children in new schools according to administrative records, Table 4 displays the reasons why their children are attending a different school. The most common reason for changing schools is that the student graduated or reached the terminal grade in the school. MPS parents were more likely to list this as a reason for changing schools, which is not surprising since there are more terminal grades in MPS (generally 5th, 8th and 12th) than in the MPCP (generally 8th and 12th). The previous school's location was a larger problem for MPCP (13.4) than MPS (7.7) parents. Almost nine percent of MPCP parents whose children switched schools said that their children were asked not to return while about seven percent of MPS answered likewise.

8 For the survey analysis, parents' sector (MPS or MPCP) was determined by which sector their child was in at baseline (i.e., 2006-07, or 2007-08 for the third grade refresh sample).

9 In the survey results analysis, "switchers" include *school switchers*, *sector switchers*, and students who move to an MPS charter school. "Non-switchers" are those identified as non-switchers by administrative records. Students of unknown status are not included in the survey analysis presented here. See Table 1.

10 Investigating and explaining these discrepancies further is part of our ongoing data collection as the project nears completion.

Table 4: Why Did You Child Change Schools?

	MPS-Baseline (%)	MPCP-Baseline (%)
Next grade level not offered	42.3	29.2
Inconvenient school location	7.7	13.4
Child uncomfortable at school	10.2	11.4
Quality of school/teacher unacceptable	6.4	8.9
Child asked not to return	6.9	9.4
Moved	3.9	5.9
School didn't meet child's special needs	3.0	3.5
Coursework was too easy/hard	2.5	2.5
Concerned about school safety	4.4	0.5
Wanted all children in same school	3.0	4.0
Child admitted to a preferred school	1.7	3.5
School closed	2.2	1.0
Other	14.1	15.3
N	362	202

Note: Data from the 2008 parental survey. Parents could select more than one category.

Satisfaction with School

School quality can also affect a parent's decision to switch schools. After the 2006-07 school year, parents were asked how they would grade their child's school (A through F). These grades were then converted into a grade point average.¹¹ Table 5 shows that parents who were less satisfied with their 2006-07 school were more likely to enroll their child in a new school for the 2007-08 year, although the differences are not large.¹² Using a simple t-test, we find that there is a statistically significant difference between switchers and non-switchers regarding their prior level of school satisfaction.

11 To convert grades to GPA: A = 4, B = 3, C = 2, D = 1, F = 0.

12 The total sample sizes for Table 5 and the following tables are smaller than the number of respondents from Table 3 because students of unknown switching status were not included in the survey analysis.

Table 5: School Satisfaction GPA 2006-07

	Non-Switcher	Switcher	N
MPCP-Baseline	3.5***	3.0	1,657
MPS-Baseline	3.1***	2.8	1,343
N	2,109	891	3,000

Note: School Satisfaction GPA comes from the 2007 parent survey. Switcher variable measures if student switched from 2006-07 to 2007-08. *** indicate statistically significant differences between Non-Switchers and Switchers at $p < .01$.

These 2006-07 school satisfaction grades can be compared the 2007-08 school grades for those parents who completed the follow-up survey. Table 6 shows the difference in GPA between the two years for switchers and non-switchers, as well as MPCP and MPS parents. When a student's school did not change, parents are a little more pessimistic about their children's school than they were the year before. The GPA difference is less negative for school switchers, however the difference between switchers and non-switchers is not statistically significant for MPS parents.

Table 6: Difference in Satisfaction GPA Between First and Second Year

	Non-Switcher	Switcher	N
MPCP-Baseline	-0.17**	-0.01	1,065
MPS-Baseline	-0.15	-0.06	868
N	1,419	514	1,933

Note: Differences are calculated by subtracting the School Satisfaction Grade in 2006-07 from School Satisfaction Grade in 2007-08. Switcher variable measures if student switched from 2006-07 to 2007-08. ** indicate statistically significant differences between Non-Switchers and Switchers at $p < .05$.

It should be noted that not all parents who are dissatisfied with their children's school move their children to a new school. According to Table 7, approximately 47 percent of parents who gave their child's school a C grade or lower for the 2006-07 school year did not send their children to a new school the next year. However, the higher the grade that the parent gave to the school, the less likely the student switched schools the following year.

Table 7: School Satisfaction Grade by Administrative Switching Status

	Non-Switcher	Switcher	Total
A	1,097 78.4 52.0	303 21.6 34.0	1,400 100.0 46.7
B	770 70.8 36.5	317 29.2 35.6	1,087 100.0 36.2
C	193 53.0 9.2	171 47.0 19.2	364 100.0 12.1
D	34 37.8 1.6	56 62.2 6.3	90 100.0 3.0
F	15 25.4 0.7	44 74.6 4.5	59 100.0 2.0
Total	2,109 70.3 100.0	891 29.7 100.0	3,000 100.0 100.0

Note: School Satisfaction Grade comes from the 2007 parent survey. Switcher variable measures if student switched from 2006-07 to 2007-08. In each cell the top number is the count, the middle number is the row percentage and the bottom number is the column percentage.

Parental Involvement

Were parents whose children moved more or less involved with their children's education? On one hand, one could expect that parents who are dissatisfied with their child's original school will be more likely to be active in order to improve the situation. Such behavior would be consistent with the decision to exercise "voice" as discussed in Hirshman's (1970) classic treatise, *Exit, Voice, and Loyalty*. When these parents instead select a new school -- exercising their "exit" option, there would be a positive relationship between school switching and parental involvement. Alternatively, being an involved parent to begin with may make one less likely to switch schools.

The 2006-07 survey results provide two different dimensions of parental involvement. First, parents were asked if they did any of the following in the school year: (1) volunteer at their child's school, (2) attend parent/teacher conference, (3) participate in a PTA organization, and (4) belong to another education-related organization. An additive scale (0-4) was then created. Table 8 shows that parents who were more active in their children's schools were more likely to be non-switchers than switchers, and this is a statistically significant relationship. The second measure of parental involvement concerns activities that parents perform at home, such as reading to their children or helping with homework. Based on

this additive scale in Table 9, parents who did not change their child's school the following year were somewhat more likely to be active in their children's education at home than were school switchers.¹³ The differences between MPCP and MPS parents are not large, and the size of the differences between switchers and non-switchers are not substantial or statistically significant.

Table 8: Parental Involvement in School 2006-07

	Non-Switcher	Switcher	N
MPCP-Baseline	2.3***	2.1	1,655
MPS-Baseline	1.9***	1.7	1,337
N	2,105	887	2,992

Note: Parental Involvement comes from the 2007 parent survey. Switcher variable measures if student switched from 2006-07 to 2007-08. *** indicate statistically significant differences between Non-Switchers and Switchers at $p < .01$.

Table 9: Parental Involvement at Home 2006-07

	Non-Switcher	Switcher	N
MPCP-Baseline	12.5	12.1	1,651
MPS-Baseline	13.6	13.6	1,334
N	2,101	884	2,985

Note: Behaviors at Home Scale comes from the 2007 parent survey. Switcher variable measures if student switched from 2006-07 to 2007-08.

Earlier Student Mobility

Although we are tracking the panel of students over five years to gauge achievement growth, we are not surveying these students every year. Thus this survey discussion has necessarily focused on changing schools between the 2006-07 and the 2007-08 school years. That said, it is possible that the students we are studying exhibit longer term patterns of mobility, and the surveys provide information about students' education histories. On average, students have attended about three different schools. See Table 10. It is not the case that MPCP students attend only private schools, and MPS students always stay in public schools. Rather, the data indicate some crossover between sectors, which is consistent with our analysis of the administrative data. This is particularly true for MPCP students. Not surprisingly, students who switched schools between the 2006-07 and 2007-08 school years have attended a greater number of

13 This additive scale was created by examining how often a parent performed a certain activity in a normal week (1 = never, 2 = once or twice, 3 = three or four times, and 4 = five or more times). The activities include: (1) helping child with homework, (2) reading to child, (3) working on math with child, (4) working on writing with child, and (5) watching educational programs with child. An additive scale was created by adding up the frequency of each of these five activities. The scale ranges from 5 to 20.

schools than non-switchers. This difference is more pronounced when examining the number of public schools attended. A closer analysis of MPS students (not shown here) finds that almost 10 percent of them have used vouchers in the past. Further, results from the 2008 survey indicate that MPCP students have used vouchers for an average of four years.

Table 10: Student Mobility (2007-08)

	MPS	MPCP	Non-Switchers	Switchers
Number of Public Schools Ever Attended	2.5	1.4	1.9	2.4
Number of Private Schools Ever Attended	0.3	1.4	0.7	0.9
N	623	386	673	336

Note: Mean number of schools ever attended comes from the 2008 parental survey. Respondents completing the follow-up survey were not asked this question. Switcher variable measures if student switched from 2007-08 to 2008-09.

The Spring/Summer 2008 survey provides more evidence that MPCP parents have a larger view of their school options than do MPS parents. Parents were asked how many schools they contacted or visited before they selected the last school for their child. According to Table 11, MPCP parents visited more schools, on average, than did MPS parents. These MPCP parents did not limit their search to voucher schools, as they also contacted or visited one public school on average. An analysis using data from the 2007 parental survey produces similar results (Witte et al., 2008). Parents with children who recently switched schools said they visited or contacted more schools than did non-switchers. Overall, one sees few large differences between switchers and non-switchers. Perhaps this is not surprising, since this analysis does not include controls for one of the most important predictors of student mobility: a student's grade.

Table 11: The School Search (2007-08)

	MPS	MPCP	Non-Switchers	Switchers
Number of Public Schools Visited/Contacted	1.6	1.0	1.3	1.5
Number of Private Schools Visited/Contacted	0.3	1.3	0.6	0.9
Number of Charter Schools Visited/Contacted	0.2	0.3	0.2	0.2
N	633	403	685	351

Note: Number of schools visited or contacted comes from the 2008 parental survey. Respondents completing the follow-up survey were not asked this question. Switcher variable measures if student switched from 2007-08 to 2008-09.

CONCLUSIONS

As of this round of data collection, several patterns appear evident with respect to school and sector switching in Milwaukee. Although the majority of public and private school students stay in their respective sectors, those that do move tend to do so in different ways. Public school students are far more likely to move between schools in the public sector, while comparably few of them actually leave the public sector. In contrast, private school students tend to remain in their particular private school, and those who do leave are more likely to leave for the public sector. It seems clear that private school students are inherently more accustomed to making between-sector choices — whether they were always in the private sector or whether they were only “temporarily” MPCP participants when we initially observed them — voucher users are simply more likely to consider different sector alternatives.

Our survey results indicate that some MPS parents -- 45 percent in our 2008 survey -- have simply never heard of the voucher program. Our analysis of the 2007 parental survey data produced a similar finding (Witte et al., 2008). Despite the size of the MPCP and given the fact that our panel of public students is matched in part on the basis of age and neighborhood, it is clear that some parents do not consider other sector alternatives to their child’s school, even as many children are moving for whatever reason between different public schools. Not surprisingly, our surveys revealed that, among the subset of parents whose students moved in any way, school satisfaction was markedly lower than for those who stayed in place. Finally, we have shown small differences in student achievement between switchers and non-switchers. Students who move, regardless of sector, appear to have generally performed slightly lower, on average, in the year prior to their move, and this result may be driving satisfaction levels as well.

These results are tentative.¹⁴ Future analyses may more clearly relate student mobility to student demographics, student achievement, parental perceptions of school quality and parental satisfaction in general. From the current patterns we have identified, however, it does appear that students who move may be doing slightly less well academically, on average, and their parents are less satisfied with their schooling experience. These results, while intuitive to some observers, suggest empirically that for many students the decision to stay with a particular educational option may be directly tied to their academic experience within it.

14 We are continuing to track students through the 2010-2011 academic year.

REFERENCES

- Betts, J., & Fairlie, R. W. (2001). Explaining ethnic, racial and immigrant differences in private school attendance. *Journal of Urban Economics*, 50 (1), 26-51.
- Campbell, D. E., West, M. R., & Peterson, P. E. (2005). Participation in a national, means-tested voucher program. *Journal of Policy Analysis and Management*, 24 (3), 523-541.
- Cohen-Zada, D., & Justman, M. (2005). The religious factor in private education. *Journal of Urban Economics*, 57, 391-418.
- Cowen, J. M. (2008). School choice as a latent variable: Estimating the “complier average causal effect” of vouchers in Charlotte. *Policy Studies Journal*, 36 (2), 301-315.
- Fairlie, R. W., & Resch, A. M. (2002). Is there “white flight” into private schools? Evidence from the national educational longitudinal survey. *The Review of Economics and Statistics*, 84 (1), 21-33.
- Figlio, D. N. (2008). *Evaluation of Florida's corporate tax credit scholarship program: Baseline report, compliance and test scores in 2006-07*. Retrieved February 4, 2009, from http://www.floridaschoolchoice.org/information/ctc/files/CTC_Baseline_Report.pdf.
- Figlio, D. N., & Stone, J. A. (2001). Can public policy affect private school cream-skimming. *Journal of Urban Economics*, 49, 240-266.
- Goldring, E. B., & Phillips, K. J. (2008). Parent preferences and parent choices: The public-private decision about school choice. *Journal of Education Policy*, 23 (3), 209-230.
- Greene, J. P., Mills, J., & Buck, S. (2010). *The Milwaukee Parental Choice Program's effect on school integration*. University of Arkansas School Choice Demonstration Project.
- Greene, J. P., Peterson, P. E., & Du, J. (1998). Effectiveness of school choice: The Milwaukee voucher experiment. *Education and Urban Society*, 31 (2), 190-213.
- Hirshman, A.O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*, Cambridge, MA: Harvard University Press.
- Howell, W. G. (2004). Dynamic selection effects in means-tested, urban school voucher programs. *Journal of Policy Analysis and Management*, 23 (2), 225-250.
- Howell, W. G., Wolf, P. J., Campbell, D. E., & Peterson, P. E. (2002). School vouchers and academic performance: Results from three randomized field trials. *Journal of Policy Analysis and Management*, 21 (2), 191-217.
- Lankford, H., & Wyckoff, J. (1992). Primary and secondary school choice among public and religious alternatives. *Economics of Education Review*, 11, 317-337.
- Lankford, H., & Wyckoff, J. (2001). Who would be left behind by enhanced private school choice? *Journal of Urban Economics*, 50, 288-312.
- Long, J. E., & Toma, E. F. (1988). The determinants of private school attendance, 1970-1980. *Review of Economics and Statistics*, 351-357.
- Peterson, P. E., Howell, W. G., & Greene, J. P. (1999). *An evaluation of the Cleveland voucher program after two years*. Harvard University Program on Education Policy and Governance.

- Rouse, C. E. (1998). Private school vouchers and student achievement: An evaluation of the Milwaukee Parental Choice Program. *Quarterly Journal of Economics*, 113 (2), 553-602.
- Witte, J. F. (2000). *The market approach to education; An analysis of america's first voucher program*. Princeton, NJ: Princeton University Press.
- Witte, J. F., & Thorn, C. A. (1996). Who chooses? Voucher and interdistrict choice programs in Milwaukee. *American Journal of Education*, 104 (3), 186-217.
- Witte, J. F., Wolf, P. J., Cowen, J. M., Fleming, D. J., & Lucas-McLean, J. (2008). *MPCP longitudinal educational growth study: Baseline report*. University of Arkansas Education Working Paper Archive.
- Witte, J. F., Wolf, P. J., Cowen, J. M., Fleming, D. J., & Lucas-McLean, J. (2009). *MPCP longitudinal educational growth study: Second year report*. University of Arkansas, Department of Education Reform. http://www.uaedreform.org/SCDP/Milwaukee_Eval/Report_10.pdf.
- Witte, J. F., Wolf, P. J., Cowen, J. M., Fleming, D. J., & Lucas-McLean, J. (2010). *MPCP longitudinal educational growth study: Third year report*. University of Arkansas School Choice Demonstration Project.
- Wolf, P., Gutmann, B., Eissa, N., & Puma, M. (2005). *Evaluation of the DC Opportunity Scholarship Program: First year report on participation*. Washington, DC: U.S. Department of Education Institute for Education Sciences.
- Wolf, P., Gutmann, B., Puma, M., Kisida, B., Rizzo, L., & Eissa, N. (2009). *Evaluation of the DC Opportunity Scholarship Program: Impacts After Three Years*. Washington, DC: U.S. Department of Education Institute of Education Sciences.

APPENDIX

**Table A-1: Comparison of switcher designation (from student records)
and parental survey indicating a new school**

		Student records indicate child switched schools		Total
		Yes	No	
Parent indicates child switched schools	Yes	578 (75.9)	130 (7.1)	708 (27.3)
	No	184 (24.2)	1,698 (92.9)	1,882 (72.7)
Total	Total	762 (100.0)	1,828 (100.0)	2,590 (100.0)

Note: Parent data come from the 2008 parental survey. Switcher variable from administrative records measures if student switched from 2006-07 to 2007-08.

School and Sector Switching in Milwaukee

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