Parental Perceptions of Charter Schools: Evidence from Two Nationally Representative Surveys of U. S. Parents

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Abstract

This first report of charter school parents' perceptions based on nationally representative samples finds that charter parents, as compared with parents from district schools, are less likely to see serious problems at their children's school, report more extensive communications with the school, and are more satisfied with most aspects of the school. Charter parents are less satisfied than private-school parents, but report more communications with the school. The variation of parental perceptions within the private sector is less than in other sectors. Results are obtained from The Parent and Family Involvement in Education Survey of 2012, administered by the National Center of Education Statistics, and the 2016 Education Next Survey, designed by the Harvard Program on Education Policy and Governance.

Keywords: parents, public charter schools, public opinion

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Charter schools differ from both private schools and those operated by the nearly 14,000 school districts that educate 84 percent of children in K-12 schools in the United States. Like district schools, charters receive most of their funding from public sources and are subject to state-imposed regulations. Further, charters may not charge tuition and must admit all students who apply unless they are oversubscribed, in which case they must use a lottery to choose among applicants. But like private schools, which serve approximately 10 percent of the student population, charter schools are not operated by a government agency, and students attend only if their family selects the school. In contrast, 89 percent of children attending district schools are assigned to their school based on their residential location; just 11 percent attend schools that their parents chose (U.S. Department of Education 2016a, 2016b).¹

First established in 1991, charter schools have steadily increased in number so that, according to the U.S. Department of Education (2016a), nearly 6,500 charters served approximately 2.5 million students, about 5 percent of the U.S. school-age population, during the 2013-2014 school year. As the charter sector has grown in size, charter school formation has become an increasingly contentious political issue. The views of parents, among the most important stakeholders in each sector, may well affect the course of this controversy. Yet no results from a nationally representative survey of charter parents' opinions have been reported.² Are charter parents, on average, more or less satisfied than parents in other sectors with teacher quality, discipline, and other school characteristics? Do they perceive more or less fighting, truancy, and other problems than other parents, and more or less communications between

parents and schools? How varied are parents' perceptions of these issues among the schools within each sector?

Initial answers to these questions are now available from two nationally representative surveys: (1) The Parent and Family Involvement Survey of 2012, conducted by the National Center for Education Statistics (hereinafter referred to as NCES2012), and (2) the 2016 *Education Next* survey designed by the Harvard Program on Education Policy and Governance (hereinafter referred to as EdNext2016). Taken together, these surveys indicate that charter parents are generally less satisfied than private-school parents, have roughly the same level of satisfaction as parents of students in chosen-district schools, and are more satisfied than parents of children who attend assigned-district schools.³ Charter parents are less likely to perceive serious problems at their child's school than are parents of district schools, and report more extensive communications with their child's school than parents in other school sectors.

Meanwhile, the dispersion of opinions is lowest within the private sector.

Prior Research

Researchers have studied citizens' satisfaction with public services in numerous contexts. While there is mixed evidence that satisfaction levels are related to service performance, such measures are increasingly being used to evaluate public agencies, including schools. Further, citizens' perceptions and satisfaction have significant implications for their choices and their political behavior. Yet despite the importance of parents' views, no analysis of data from a representative national survey of charter school parents has to date been reported.

Evaluating Institutional Performance

While profits are a widely accepted indicator of firm performance in competitive markets, the performance of public agencies that do not charge for their services is more difficult

to measure. The outputs of many public services are varied and multidimensional, existing metrics often fail to capture all of the aspects of a service that users value, and measurement error abounds (Hatry, 2007; Kisida & Wolf, 2015; Poister, Aristigueta, & Hall, 2014).

Consequently, user surveys are increasingly being employed to measure the performance of public agencies (Bouckaert, Van de Walle, & Kampen, 2005; Dalehite, 2008; Miller, Kobayashi, & Hayden, 2008; Morgeson, 2014; Van Ryzin, 2013). Evidence concerning the validity of satisfaction measures is generally mixed. While there is some evidence that citizens' responses to surveys do, in some contexts, reflect actual service performance (Van Ryzin, Immerwahr, & Altman, 2008), other studies have found the relationship between user opinion and objective performance indicators to be quite weak (Kelly, 2003; Parks, 1984; Stipak, 1979).

In education, parent evaluations have captured increasing attention as policymakers have sought to broaden accountability systems to encompass performance metrics other than test scores. Numerous school districts now include the results of parent satisfaction surveys in school report cards and grading systems. This practice could become more widespread with the implementation of the 2015 federal law, the Every Student Succeeds Act (ESSA), which requires that states incorporate at least one metric of "school quality of student success" other than test-score performance into their school accountability systems.

Several recent studies have indicated that parents do accurately assess school outcomes. Using nationally representative data, Chingos, Henderson, and West (2012) find that citizens' perceptions of the quality of specific public schools are correlated with the level of academic achievement in those schools as measured by state tests. They also demonstrate that the grades assigned schools by state accountability systems have a causal effect on citizens' perceptions of school quality. Favero and Meier (2013), using satisfaction measures, likewise report that parents

are able to evaluate school quality accurately. Finally, at the level of individual teachers, a survey administered to parents of students attending district and charter schools found stable correlations between parents' assessments of the same teacher from one year to the next, as well as significant relationships with both observational assessments and value-added measures of student performance (Master, 2013).

Variations in parent perceptions across school sectors, therefore, may capture differences in underlying realities. Regardless, parents' views are likely to prove increasingly consequential as they are incorporated into school accountability and performance management systems.

School Choices and Political Behavior

Parents' perceptions and satisfaction levels also provide useful information about the pressure that this important set of stakeholders can be expect to bring to bear on schools. There are broadly two mechanisms through which parents may influence schools: via their school choices, and by voicing their concerns to school leaders, politicians, or other decision makers in the public school system (Hirschman 1970). Several studies show that the perceived quality of a public service affects the choice of provider (James, 2009; Lyons & Lowry, 1989). In education, parents' satisfaction with schools has been found to influence where they choose to send their children (Cheng, Trivitt, & Wolf, 2016; Hanushek et al., 2007; Trivitt & Wolf, 2010). Cowen et al. (2012) have also examined the aspects of the school environment, such as school safety, to which parents attribute plans to switch between school sectors.

Not every parent, of course, is able to select their desired provider. Laws restrict the number and size of charter and chosen-district schools, and access to private schools depends on one's ability to pay tuition or obtain a scholarship. Particularly when choices are constrained, dissatisfied citizens may use their voices to try to persuade elected officials to make desired

reforms (Chingos, Henderson, & West, 2012; Conaway, Scafidi, & Stephenson, 2016; Corcoran & Stoddard, 2011; Dowding & John, 2012; 2008; James & Mosely, 2014; Lyons, Lowry, & DeHoog 1992; Stewart & Wolf, 2014). Thus, understanding how perceptions and satisfaction vary across school sectors can shed light on the different pressures that these sectors are likely to face.

Perceptions of Charter Schools

A recent analysis by Oberfield (2016) employed nationally representative survey data to examine differences between the perceptions of teachers in charter schools and traditional public schools. Oberfield found that teachers in charter schools report greater autonomy than teachers in traditional public schools, but that there were no differences in perceptions of accountability across these different school types. With respect to examining parent perceptions and satisfaction, however, researchers have to date considered only specific subpopulations from particular locales or with particular demographic characteristics, rather than a nationally representative sample.

Examining variation in parental satisfaction, Buckley and Schneider (2006) conducted a four-wave survey of charter parents in Washington, D.C. Parents initially rated their schools more favorably than their counterparts in district schools, but differences faded over time, suggesting that the charter-school advantage may not persist. Gleason et al. (2010) found higher satisfaction levels and fewer perceived problems among charter parents as compared to those who applied but failed to win a lottery to attend thirty-six selected middle schools in fifteen U.S. states. Cheng, Tuchman, & Wolf (2012) estimated satisfaction levels of a nationally representative sample of parents who use special-education services. They found that parents in

charter schools are more satisfied than are parents in district and Catholic private schools but less satisfied than parents in other private schools.

These results cannot be generalized to all parents nationwide, however. Further, the distribution of opinion within each sector nationally, not just the level of satisfaction, could have political implications. If there is substantial heterogeneity in satisfaction among charter school parents, for example, it may be more difficult to sustain political support for charter schools. Indeed, evaluations of charter schools often underscore the wide variation in charter-school quality (Betts & Tang, 2011; Cheng et al., forthcoming; Clark et al., 2015; CREDO, 2009; 2013; Hanushek et al., 2007; Malkus, 2016). Studies have yet to report whether this variation in quality translates into greater dispersion in parental satisfaction within the charter sector than within other sectors.

Data

NCES has released satisfaction results from the NCES2012 survey for parents attending private religious, private non-religious, assigned-district, and public schools students attend by choice, but its report does not distinguish charter schools from schools of choice operated by districts (U. S. Department of Education, 2016). The original NCES2012 data set, however, includes an indicator that allows for the identification of those with a child in a charter school. We make use of that indicator in this publicly available data set. We also make use of parental assessments of charter schools in the EdNext2016 survey.

NCES2012

NCES2012 obtains its information by mailing a questionnaire to households who had indicated they had a school-age child. If more than one such child lives in the household, one of them is randomly chosen to be the subject of the questionnaire. 17,166 questionnaires were completed, yielding a response rate of 58 percent.⁴

Parents identified the sector in which their child's school was located. If parents said the child was attending a district school, they were asked whether the school is their regularly assigned school. If parents responded "yes," the child is classified as having attended a school in the assigned-district sector. If they said "no," the child is placed in the chosen-district sector unless the parent indicated the child was attending a charter school. Of the 17,166 subjects in the survey, 12,978 (75 percent) attend an assigned-district school; 1,500 (9 percent) attend a chosen-district school, 1,733 (10 percent) attend a private school, and 955 (6 percent) attend a charter school.

Parents indicated their level of satisfaction with the school that their child attended, the teachers their child had that year, academic standards, order and discipline, and the way the school staff interacted and communicated with parents. Respondents chose from among four response categories: very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied. Exact wording for the items asked in the NCES survey can be found in the online supplementary files for this article. Higher values indicate a greater degree of satisfaction.

EdNext2016

EdNext2016, designed by the Harvard Program on Education Policy and Governance, was administered by the polling firm Knowledge Networks (KN), which maintains a national probability panel of some 40,000 adults who agree to participate in a number of online surveys. Members of this panel are recruited through address-based sampling from a frame of residential addresses covering approximately 97% of U.S. households.⁵ The parent component of the survey was administered to a randomly-selected subset of the KN panel consisting of about 1,500 parents identified in the panel as currently having school-age children (ages 6 through 18) living in their household. After verifying the presence of school-age children in the household, respondents

were asked how many of these children currently attend schools in three sectors: charter, district, and private. Respondents were classified as (1) charter school parents if they currently had a child in a charter school even if their children also attended other school types; (2) private-school parents if they had a child in a private school but not in a charter school; or (3) district-school parents if they had a child in a district school but not in either a charter or private school. This process yielded a sample with 774 district-school parents, 428 private-school parents, and 317 charter school parents.

Respondents were asked to rate their satisfaction with eight different aspects of their child's school: teacher quality, school discipline, expectations for student achievement, safety of their child, school location, instruction in character or values, and school building and facilities. Parents were also asked to rate on a three-point scale the seriousness of the following problems at their school: destruction of school property, students missing class, students fighting, racial conflict, students using drugs, and lack of extracurricular activities such as sports, arts and music. Finally, parents were asked how many times in the current school year they have spoken with someone at their child's school about the following topics: their child's achievements and accomplishments, their child's schoolwork or homework, volunteering to work in the school, their child's behavioral problems at school, quality of teaching, and behavior of other students at the school.

When responding to questions about their satisfaction with school life, parents were invited to choose among five categories that ranged from very dissatisfied to very satisfied. The five categories included a middle category (neither satisfied nor dissatisfied) which was not available to NCES2012 respondents. The three response categories for the problems questions were "very serious," "somewhat serious," and "not serious." Response options for the

participation question ranged from none to "five or more times." Satisfaction and participation items are coded with higher values indicating a more favorable rating; for school problems items a higher rating indicates the problem is more serious.

Advantages and Limitations of NCES2012 and EdNext2016

The two datasets we employ in our analysis have complementary strengths and limitations. NCES2012 allows us to differentiate among the charter, chosen-district, and assigned-district sectors. Its large sample size makes it possible to estimate sector differences in parental satisfaction among demographic subgroups. The EdNext2016 sample is too small to examine subgroups and does not distinguish between chosen- and assigned-district parents. However, it provides a more recent snapshot of parental opinion in 2016, when the rapidly growing charter-sector enrollment was 30 percent larger than it had been in 2012 (National Alliance for Public Charter Schools, 2016). The survey asks about satisfaction with more aspects of a school than does NCES2012. It also inquires about the seriousness of various problems at the school and about school-home communications, thereby providing a broader account of parent perceptions regarding their schools. Ultimately, the consistency of results across two surveys provides evidence for the reliability and validity of each.

Summary Statistics

As shown in Table 1, charter schools enroll a disproportionately large share of African-American and Hispanic students, while private schools enroll a disproportionately large share of white students. Household incomes are lower and homeownership is less common among charter school parents than among either district-school parents or private-school parents. Educational attainment is higher among private-school parents than either charter or district-school parents.

As compared to the other sectors, charters and chosen-district schools serve a disproportionately large share of students living in urban areas.

The demographic composition of the two surveys differs in some respects. The proportion of charter parents in Ednext2016 who are Hispanic is 36 percent, as compared to just 27 percent in NCES2012, and the percentage of charter parents living in the West is 39 percent in EdNext2016, as compared to only 32 percent in NCES2012. Increases between 2012 and 2016 in charter enrollment in western states, which have higher proportions of Hispanic individuals, may account for these differences.

INSERT TABLE 1 HERE.

Analytic Strategy

Our analyses estimate differences in the perceptions of charter parents and parents in other sectors as well as sector differences in the dispersion of perceptions. We also report sector differences among subgroups of parents for items included in the NCES2012 survey.

Sector Differences

We estimate a series of ordered logistic regression models that use an indicator variable for each school sector to predict parent responses. In all models, variables are included to adjust for parents' race, educational attainment, household income, and homeowner status as well as urbanicity and the census region in which the parent resides. Inclusion of these variables controls for observable differences in the social composition of each sector, but it does not provide a causal estimate of the effects of using a given school sector parental satisfaction levels. All models are fitted with sampling weights to approximate a nationally representative sample.

We present our main results graphically in a series of figures that report differences in the probability that parents of students in a given school sector, relative to parents of students in charter

schools, report that they are "very satisfied" with a particular aspect of their child's school. These probabilities are the estimated marginal effect coefficients derived from ordered logistic regressions based upon the full distribution of all possible parent responses. We also plot 95 percent confidence intervals for these differences in estimated probabilities. Confidence intervals for a given school sector that do not intersect the horizontal axis indicate statistically significant differences in the probability of reporting "very satisfied" at the 0.05 significance level. Full regression results are available in the online supplementary materials.

Within-Sector Heterogeneity

To examine within-sector heterogeneity for the four sectors, we compute a measure of the degree of dispersion for ordinal data known as Leik's D (Leik 1966). Values for this measure range from 0 to 1. When there is no dispersion, the measure has a value equal to zero. In the case of parental ratings, a Leik's's D of 0 indicates perfect consensus over a given aspect of the school. Conversely, a Leik's D equal to 1 suggests a complete lack of consensus, meaning that half of the sample took one extreme position while the other half took the opposite extreme position.

Leik's D is obtained first by calculating the cumulative proportion, c_k , of observations in the kth ordinal category for, in our case, all K possible parental response categories. Defining

$$d_k = \begin{cases} c_k \text{ if } c_k \le 0.5\\ 1 - c_k \text{ if } c_k > 0.5 \end{cases}, \text{ for all values } k = 1, ..., K,$$

then, Leik's D is then equal to

$$D = 2 \sum_{k=1}^{K} \frac{d_k}{K-1}.$$

Results

We first report differences in satisfaction levels observed in the NCES2012. We then turn to the differences in satisfaction, problem seriousness, and school-parent communication observed in EdNext2016. Finally, we look at the dispersion of parental perceptions within each sector.

Parental Satisfaction in NCES2012

A clear majority of parents in all four sectors are satisfied with most aspects of their child's school. No more than 20 percent of the parents, regardless of sector, indicate that they are dissatisfied with any given aspect of their school. But even though dissatisfaction levels are low in all four sectors, the percentage of parents who are "very satisfied" differs significantly across them.

As shown in Figure 1, charter school parents are more likely to be very satisfied with their children's schools than are parents with children in assigned-district schools. Satisfaction levels among charter parents are indistinguishable from those among chosen-school parents and significantly lower than among private-school parents. The probability that a parent of a child will be very satisfied with his or her school is 9 percentage points higher if the child is in a charter school rather than an assigned-district school. In contrast, that probability is 14 percentage points lower for the charter parent as compared to one with a child in a private school.

INSERT FIGURE 1 HERE.

Differences across sectors for the other satisfaction items are similar. Relative to parents in assigned-district schools, charter school parents are more likely to be very satisfied with their child's teachers, the school's academic standards, the order and discipline at the school, and their interactions and communications with school staff. Meanwhile, private-school parents are more

likely to be very satisfied with these aspects of their school than are charter school parents.

Parents in chosen-district and charter schools express similar levels of satisfaction with all four of these characteristics of the school.

These patterns also generally hold when comparing school satisfaction levels among parents of various demographic subgroups. Though some differences are no longer statistically significant due to smaller sample sizes, the point estimates are similar. Figure 2 plots differences among parents with children in elementary, middle, or high school. Private-school parents across all three school levels provide more favorable ratings than parents in other schools, with differences being more pronounced among older children. Similarly, charter school parents tend to provide more favorable ratings than parents of children attending assigned-district schools. The difference is both larger and more consistently significant statistically for parents of high school students. Charter parents of students in middle and high schools also provide ratings that are usually more favorable than those provided by students at chosen-district schools, but only in three instances are the differences statistically significant. At the elementary school level estimates were essentially the same for charter and chosen-district parents.

INSERT FIGURE 2 HERE.

Broadly similar patterns are observed when we estimate differences in satisfaction across sectors for parents from different income and racial backgrounds and for those living in more or less urban communities. For all subgroups, charter schools are typically viewed less favorably than private schools and more favorably than assigned-district schools. Differences between charter and chosen-district schools do not differ significantly. Results for these subgroups are reported in Figures 3 through 5.

INSERT FIGURE 3 HERE.

INSERT FIGURE 4 HERE.

INSERT FIGURE 5 HERE.

Parental Satisfaction in EdNext2016

Even though the charter sector expanded by 30 percent between 2012 and 2016, patterns in parental satisfaction did not change materially. As can be seen in Figure 6, results observed in EdNext2016 generally comport with those observed in NCES2012. Compared to district parents, charter parents are more likely to be very satisfied with the quality of their child's teachers, the school's academic standards, and the order and discipline at the school. The probabilities of being very satisfied range between eight and fifteen percentage points higher for charter parents across these three categories. Charter parents seem to be less satisfied with these aspects of the school than are private-school parents, though the differences are not statistically significant at the 0.05 level.

INSERT FIGURE 6 HERE.

Parents were asked about their satisfaction with four other aspects of school life. The largest differential across sectors has to do with "instruction in character or values." The probability of being very satisfied is about 15 percentage points higher for charter parents than district parents and about the same amount lower for charter parents as compared to private-school parents. Charter parents are more likely to be satisfied with their child's safety in school than district parents, but for this variable the difference between charter and private-school parents is not statistically significant. Finally, parent satisfaction with school facilities and with the school's location resemble one another so closely they cannot be statistically distinguished across sectors.

Perceptions of Serious Problems

EdNext2016 also inquired about perceptions of the seriousness of certain potential problems at their child's school. Results of cross-sector comparisons for these items are reported in Figure 7a. Charter school parents regard all but one potential problem as less serious than do district-school parents. Differences in parent perceptions between the two sectors are statistically significant at the 0.1 level for six problems—fighting, using drugs, property destruction, missing classes, racial conflict, and students with different abilities put in the same classroom—but are significant at the 0.05 level for only the first two problems. Meanwhile, private-school parents are less likely than charter school parents to perceive each problem as serious, but this difference is only statistically significant at the 0.1 level for fighting.

There is one important exception to this pattern. Charter parents are more likely to identify a lack of extra-curricular activities such as sports, arts, and music as a serious problem than are either private-school or district-school parents. This finding is consistent with the concerns expressed both by critics who say charter schools are too sharply focused on the core curriculum and by charter supporters who deplore a lack of funding to obtain suitable facilities. Our data do not reveal the sources of these differences in parental perceptions.

School Communications

EdNext2016 asked parents the frequency with which parents communicated with the school about a series of topics. As shown in Figure 7b, charter parents are more likely than district-school parents to report engaging frequently with their children's schools about their child's achievements and volunteering at the school. However, no statistically significant differences between the two sectors were observed with respect to communication about schoolwork, their child's behavior, the quality of teaching, or the behavior of other students at the school. Differences in school communications are similar for charter- and private-school

parents, but charter parents communicate with their schools more frequently than private-school parents about their child's school work.

INSERT FIGURE 7 HERE.

Within-Sector Heterogeneity in Satisfaction

This is the first study to use data from nationally representative surveys to examine sector differences in the heterogeneity of parental satisfaction levels. In Figure 8a, the NCES2012 survey reveals more homogeneity within the private than the charter sector, as indicated by the lower Leik's D values for private schools. Except for satisfaction with school-to-home communication and expectations for student achievement, there appears to be more homogeneity of opinion within the charter sector than within the assigned-district sector. No significant differences are detected between the charter and the chosen-district sector. Results with respect to heterogeneity in table form are found in the online supplementary materials.

A similar analysis of EdNext2016 data also reveals greater homogeneity within the private sector than the charter sector, but differences are statistically significant at the 0.05 level in only two instances—child safety and character instruction (see Figure 8b). Also, dispersion in the charter sector is now found to be greater in the charter than the district sector with respect to two items—school location and teacher quality.

INSERT FIGURE 8 HERE.

Taken altogether, we conclude that the private sector is more homogeneous than the other sectors, but no consistent distinctions can be made among the charter, assigned-district, and chosen-district sectors. However, there is some indication that parental perceptions within the charter sector became more varied between 2012 and 2016. For the items that are most similar across the two surveys—satisfaction with teacher quality, school discipline, and expectations for

student achievement—the charter sector is found to be significantly more homogenous than the assigned district sector in 2012 but less homogeneous than the entire district sector in 2016 (though not all differences are statistically significant in the latter year).

Within-Sector Heterogeneity in Perceptions of Problems

Our results concerning variation in the seriousness of potential problems at their child's school as perceived by parents tell a very clear story (see Figure 9). The private sector is easily the most homogeneous of the three sectors. Viewed in combination with the very low levels of problems reported by private-school parents, this result may imply that a tuition-charging school in which parents perceive serious problems is unlikely to remain viable. Meanwhile, the heterogeneity of parents' perceptions in the district and charter schools cannot be distinguished from one another.

Within-Sector Heterogeneity in Communication

When it comes to discussions of the child's achievements, the behavior of other students at the school, and volunteering at school, we do not find significant variation in the dispersion of parental perceptions across sectors (see Figure 9). However, there is greater variation in the reported frequency of discussions of schoolwork or homework in the charter than the district sector. This is also greater variation in the charter than the private sector in discussions of the child's behavior and in discussions about teacher quality.

INSERT FIGURE 9 HERE

Discussion

Parents of children attending charter schools express higher levels of satisfaction than parents of children attending assigned-district schools but lower levels of satisfaction parents of children attending private schools. The satisfaction levels of charter parents are similar to those

who select chosen-district schools. We also find that parents report less social disruption at charter schools than at district schools. Although private schools seem to have less social disruption than charter schools, the differences are usually not statistically significant. Charter school parents report the most extensive communication with school officials but lament the paucity of extra-curricular activities at their child's school. The dispersion of opinion within the private sector is lower than in the other sectors. Differences in the dispersion of opinion within the charter, assigned-district, and chosen-district sectors are inconsistent and often insignificant. However, there is some indication that the charter sector has become more heterogeneous relative to the district sector between 2012 and 2016.

These results are neither causal estimates of the effects of school sector on parental satisfaction nor direct indicators of school performance. We are not reporting experimental evidence as to the impact of attendance at schools in one sector rather than another. Parents have exercised choice in selecting a school in the charter, chosen-district, or private sector rather than the school assigned to them by their local district. Even though we have adjusted for family background and locational factors, it is impossible to say—without random assignment to school sector—whether sector differences caused these parental perceptions. Nor are satisfaction levels necessarily accurate indicators of school performance, as many factors other than the performance of the school itself can affect parental perceptions.

Even so, the differences in satisfaction across sectors that we have documented may have political consequences. The EdNext2016 survey asked respondents the following: "Do you support or oppose the formation of charter schools?" Parents respond to this item on a five-point scale, ranging from "completely support" to "completely oppose". The relationship between opinions about charter school formation to levels of satisfaction among charter parents with their

own school is estimated by models that include an index which sums the number of times parents indicate being "very satisfied" with the eight aspects of the school about which EdNext2016 inquired. Our preferred model includes the control variables employed in the other logistic regression models, as described above. Results are shown in Table 2. Satisfaction is positively correlated with support for charter formation among charter school parents whether or not controls are used in the estimation. For private and district-school parents, however, there is no statistically significant relationship between support satisfaction and support for charter school formation. Apparently, one can be dissatisfied with one's private or district school options without seeing the charter-school alternative to provide recourse.

INSERT TABLE 2 HERE.

We also examined whether there is a relationship between satisfaction and support for school vouchers. In Table 3, we observe that private-school parents who are more satisfied with their child's school are less likely to support school vouchers. It is not surprising that more satisfied private-school parents are particularly keen to leave private schools unchanged in this respect. There is no statistically significant relationship between the satisfaction of charter or district-school parents and their support for school vouchers.

INSERT TABLE 3 HERE.

Taken as a whole, our results suggest parents are quite rational when thinking about their children's schools. It is hardly surprising to learn that parents who pay tuition so their child can attend a private school are more likely to find their experience satisfying than parents whose children attend a school assigned to them. We would be shocked to learn otherwise. Similarly, chosen schools, whether run by districts or charter boards, are likely to have more satisfied parents simply because dissatisfied ones can return to their assigned district school. From this

perspective, some of the null and negative results in the paper are among the more interesting findings. Differences between chosen-district and charter schools tend to be modest and, for the most part, statistically insignificant. Parents place their child in charter schools despite the fact that they identify as a more serious problem the lack of extra-curricular activities (sports, art, and music). Furthermore, parents are selecting charters even when they find the location and facilities no more satisfactory than those who use the assigned district schools. Private-school parents are less likely to communicate with the school than charter parents. Conversely, the aspects of a school that generate the greatest differences in satisfaction levels between charter and district schools are expectations for student achievement, discipline, safety, and character instruction. These results all shed light on what could be—and what likely is not—driving parental demand for charter schools.

Do parents choose charter schools because they expect to be more satisfied with the teachers, the discipline, the instruction in character and values, and other aspects of the school? Or are they satisfied with such schools simply because they chose them? Some might interpret the similarity in the levels of satisfaction with chosen-district and charter schools as evidence that choice itself yields all of the differences in satisfaction we observe. Before reaching that conclusion, one needs to consider the characteristics of magnet schools, which constitute two-thirds of all chosen-district schools (U.S. Department of Education, 2016a). Magnet schools were originally formed to attract black and white families into integrated educational settings and therefore designed to be special. According to the most recent Schools and Staffing Survey administered by the U.S. Department of Education (2013), 45 percent of magnet schools have programs that especially emphasize the performing arts, math and sciences or foreign languages, while only 14 percent of charters have such programs. Twenty-eight percent of magnets give

admission preferences to academically gifted students but only 9 percent of charters do. Given district efforts to make these schools magnetic, it is likely that the higher satisfaction with chosen-district than assigned-district schools is due at least in part to their special offerings or their restrictive admissions criteria. But even if choice itself accounts for all the satisfaction differentials across sectors that we have observed, that would, by itself, suggest the political demand for charters and other forms of school choice is unlikely to disappear.

- ¹ Families are able to choose their assigned district school by moving to the neighborhood of that school's catchment area. However, we limit the use of the term *chosen-district* to refer to district schools in cases where respondents said their child did not attend a school that had been regularly assigned to them. Magnet schools and open enrollment district schools are examples of chosen-district schools.
- ² Differences in satisfaction levels between public and private sectors and between the chosen (including charters) public sector and assigned-district sector have been reported in previous studies (NCES, 2016). See discussion below.
- ³ Charters, chosen-district, and assigned-district schools all claim to be public schools; to avoid confusion, we avoid that term and identify each sector by more specific terms.
- ⁴ An additional 397 families of homeschooled children, who are not included in this analysis, also took part in the survey.
- ⁵ For more information about the survey methodology employed by Knowledge Networks see http://www.knowledgenetworks.com/knpanel/docs/knowledgepanel(R)-design-summary-description.pdf
- ⁶ In the EdNext2016 sample, we are unable to differentiate between parents in assigned and non-assigned district schools. We henceforth refer to parents belonging to either of these two groups simply as those in district schools when referring to the EdNext2016 sample.
- ⁷ Presenting results in terms of marginal effects as we have or as ordered logistic regression coefficients does not change statistical inference.
- ⁸ We estimate standard errors by bootstrapping. One thousand bootstrap samples with size equal to the original sample size were created by drawing (with replacement) observations stratified by sector. In each bootstrap sample, Leik's D statistics for each sector and differences in Leik's D

between charter schools and other types of schools were calculated. The bounds of the 95 percent confidence interval were obtained from the 2.5th and 97.5th percentile of the ordered vector of differences.

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Table 1. Summary Statistics

	NCES2012				EdNext2016		
	Charter	Private	Assigned- District	Chosen- District	Charter	Private	District
Years Education	13	16	14	14	13	15	13
Income (\$1,000s)	53	95	66	68	61	101	75
Homeowner	57	79	61	61	59	85	70
Black	23	10	14	17	21	13	10
Hispanic	27	12	20	24	36	13	25
White	37	69	58	50	39	63	57
Urban	44	34	27	44	46	28	26
West	32	21	24	37	39	16	25
Midwest	19	24	22	21	12	21	22
Northeast	13	23	18	11	13	25	17
South	36	32	37	31	36	38	36
N	951	1,733	12,978	1,500	317	428	774

Note: All statistics, except for income, are percentages. Household income is measured in 1000s of dollars.

Table 2. Relationship between School Satisfaction and Support for Charter Schools, by Sector

	Charter		Private		District	
Satisfaction Index	0.14** (0.06)	0.13* (0.07)	0.03 (0.04)	0.04 (0.05)	-0.01 (0.04)	-0.001 (0.04)
Years		0.04		-0.04		0.02
Education		(0.07)		(0.06)		(0.05)
Income		0.001		0.01***		0.004
		(0.01)		(0.00)		(0.00)
Homeowner		0.23		-0.25		-0.27
		(0.36)		(0.37)		(0.21)
Black		-0.03		0.16		-0.17
		(0.40)		(0.39)		(0.43)
Hispanic		0.49		0.21		0.29
		(0.45)		(0.41)		(0.24)
Urban		-0.18		0.25		0.47**
		(0.33)		(0.26)		(0.21)
Missing Urban		-1.07*		0.65		-0.14
		(0.65)		(0.87)		(0.37)
West		0.29		-0.18		-0.3
		(0.37)		(0.31)		(0.22)
Midwest		-0.33		-0.26		-0.35
		(0.38)		(0.26)		(0.24)
Northeast		0.05		-0.18		-0.23
		(0.49)		(0.47)		(0.27)
Long Question	0.75***	0.75***	0.40*	0.32	0.26	0.26
Wording	(0.28)	(0.28)	(0.23)	(0.24)	(0.18)	(0.19)
N	313	313	420	420	761	761

Note: *p < 0.1, **p < 0.05, ***p < 0.01. Respondents were first randomly assigned to informed: "As you may know, many states permit the formation of charter schools, which are publicly funded but are not managed by the local school board. These schools are expected to meet promised objectives, but are exempt from many state regulations." Respondents were then asked: "Do you support or oppose the formation of charter schools?" We pool responses from both question wordings. Long Question Wording is an indicator variable equal to 1 if the respondent was presented with the long wording. Satisfaction Index is the sum of the number of times the respondent indicates being "very satisfied" across all seven satisfaction questions. Missing Urban is an indicator variable equal to 1 if the data on the residential location of a respondent was missing and 0 otherwise. Three percent of the sample had such missing data.

Table 3. Relationship between School Satisfaction and Support for Vouchers, by Sector

Table 3. Kelation	Charter		Drivete				
-	Cna	arter	Private		District		
Satisfaction	0.02	0.04	-0.18***	-0.18***	-0.09*	-0.06	
Index	(0.08)	(0.08)	(0.06)	(0.07)	(0.04)	(0.06)	
Years		-0.09		-0.05		-0.11**	
Education		(0.08)		(0.09)		(0.05)	
Income		-0.01**		-0.004		-0.01**	
		(0.01)		(0.01)		(0.00)	
Homeowner		0.91**		-0.44		-0.36	
		(0.46)		(0.48)		(0.30)	
Black		0.88*		0.07		1.4**	
		(0.52)		(0.58)		(0.61)	
Hispanic		0.92*		0.14		0.98***	
		(0.50)		(0.47)		(0.34)	
Urban		0.2		0.16		0.05	
		(0.45)		(0.39)		(0.31)	
Missing Urban		3.43**		-0.01		0.2	
		(1.62)		(1.22)		(0.92)	
West		0.19		-0.53		0.13	
		(0.41)		(0.41)		(0.33)	
Midwest		0.13		-0.7*		0.43	
		(0.57)		(0.41)		(0.33)	
Northeast		-0.78		-0.35		0.55	
		(0.89)		(0.52)		(0.39)	
Long Question	0.56	0.44	0.31	0.27	1.04***	1.01***	
Wording	(0.37)	(0.40)	(0.32)	(0.33)	(0.24)	(0.24)	
N	151	151	221	221	402	402	

Notes: *p < 0.1, **p < 0.05, ***p < 0.01. Respondents were randomly assigned to be asked either "A proposal has been made that would use government funds to pay the tuition of all students who choose to attend private schools. Would you favor or oppose this proposal?" or "A proposal has been made that would give all families with children in public schools a wider choice, by allowing them to enroll their children in private schools instead, with government helping to pay the tuition. Would you favor or oppose this proposal?" We pool responses from both question wordings. Long Question Wording is an indicator variable equal to 1 if the respondent was presented with the long wording. Satisfaction Index is the sum of the number of times the respondent indicates being "very satisfied" across all seven satisfaction questions. Missing Urban is an indicator variable equal to 1 if the data on the residential location of a respondent was missing and 0 otherwise. Three percent of the sample had such missing data.

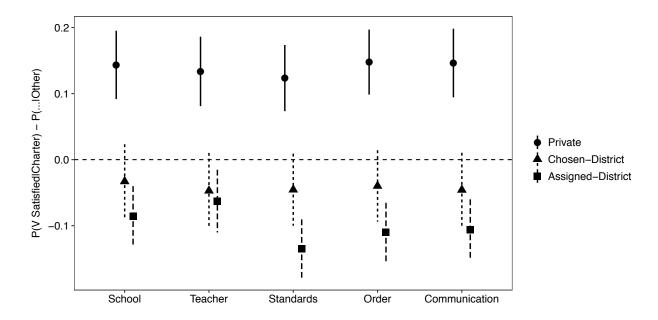


Figure 1. Satisfaction differences between charter and other parents (NCES2012). Estimated differences in the probability that a parent with a child in a given school sector is very satisfied with a particular aspect of the school, relative to charter school parents; 95 percent confidence intervals displayed.

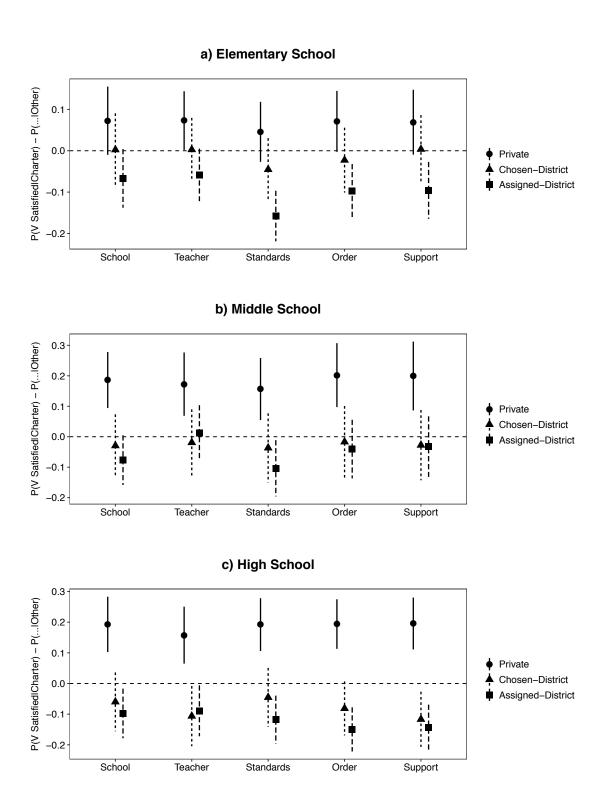


Figure 2. Satisfaction differences among parents at different schools (NCES2012). Estimated differences in the probability that a parent with a child in a given school sector is very satisfied with a particular aspect of the school, relative to charter school parents; 95 percent confidence intervals displayed.

School

Teacher

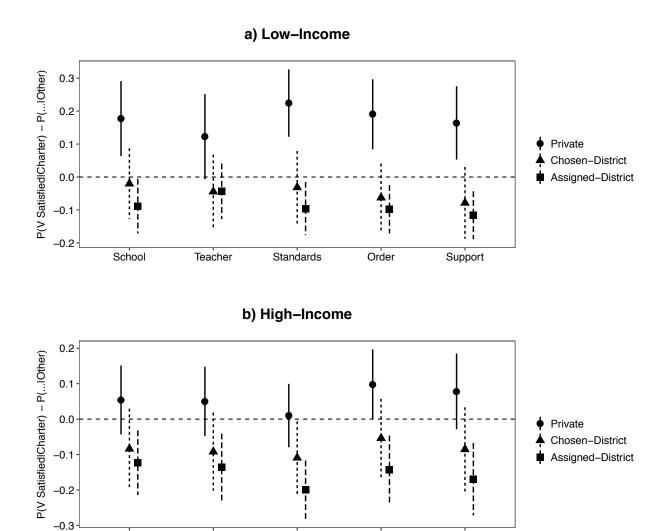


Figure 3. Satisfaction differences among low- and high-income parents (NCES2012). Estimated differences in the probability that a parent with a child in a given school sector is very satisfied with a particular aspect of the school, relative to charter school parents; 95 percent confidence intervals displayed.

Order

Support

Standards

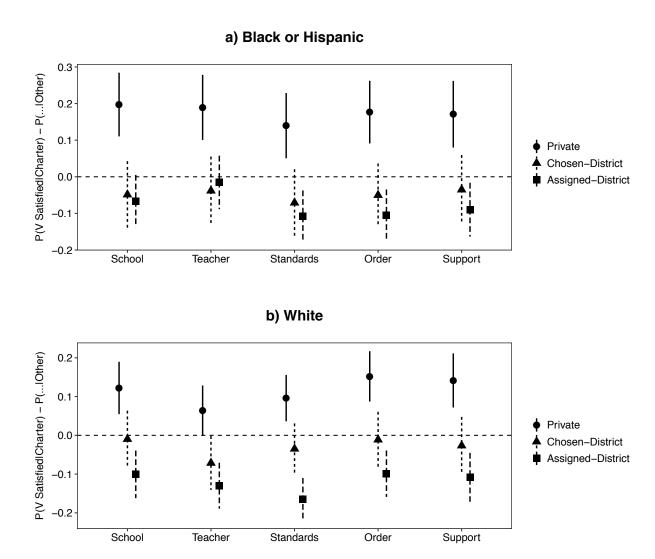


Figure 4. Satisfaction differences among minority and white parents (NCES2012). Estimated differences in the probability that a parent with a child in a given school sector is very satisfied with a particular aspect of the school, relative to charter school parents; 95 percent confidence intervals displayed.

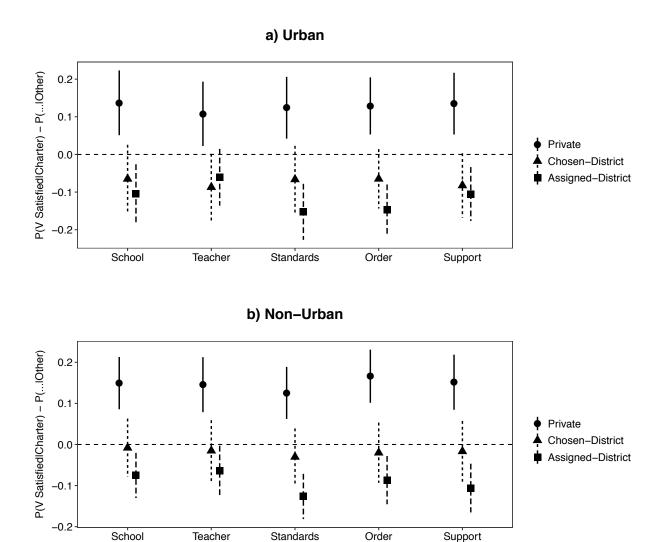


Figure 5. Satisfaction differences among urban and non-urban parents (NCES2012). Estimated differences in the probability that a parent with a child in a given school sector is very satisfied with a particular aspect of the school, relative to charter school parents; 95 percent confidence intervals displayed.

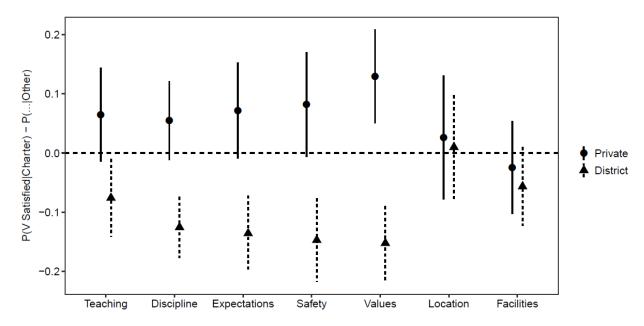
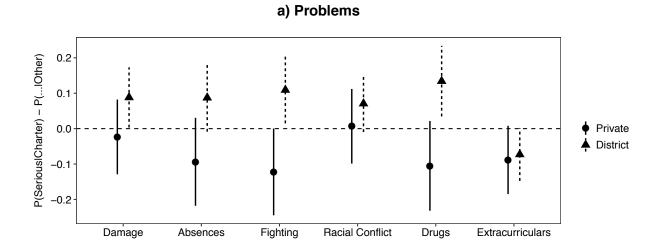


Figure 6. Satisfaction differences between charter and other parents (EdNext2016). Estimated differences in the probability that a parent with a child in a given school sector is very satisfied with a particular aspect of the school, relative to charter school parents; 95 percent confidence intervals displayed.



b) Communications

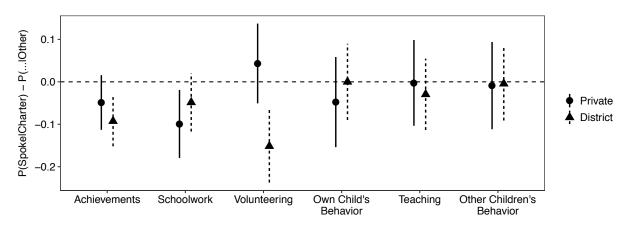
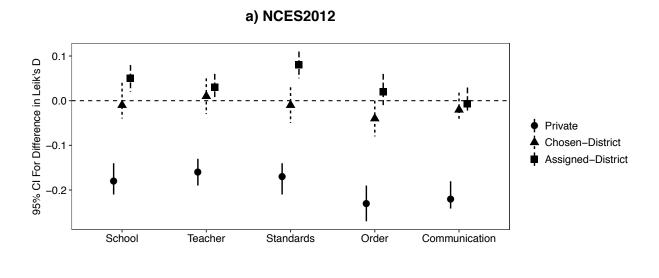


Figure 7. Differences in perceptions of problems and school-home communication (EdNext2016). Plot (a) displays estimates of differences in the probability that a parent with a child in a given school sector indicated that a particular problem at the school was serious, relative to charter school parents. Plot (b) displays estimates of differences in the probability that a parent with a child in a given school sector spoke to school staff regarding a particular issue, relative to charter school parents. 95 percent confidence intervals displayed.



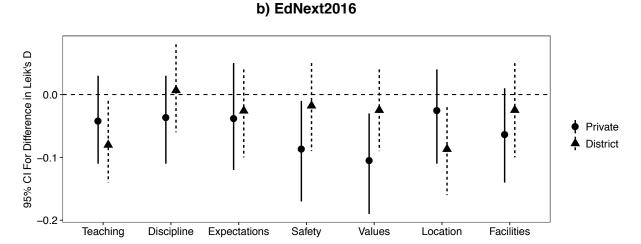
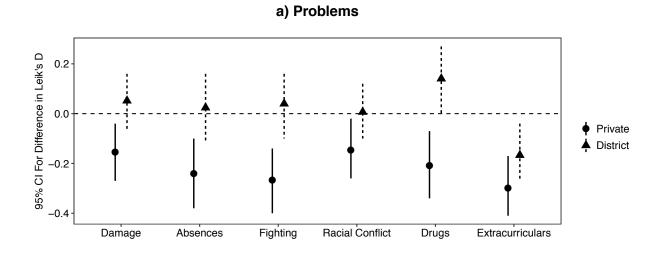


Figure 8. Dispersion of satisfaction (NCES2012, EdNext2016). Estimates of the difference in Leik's D between parents in a given school sector and the charter school sector; bootstrapped 95 percent confidence intervals displayed.



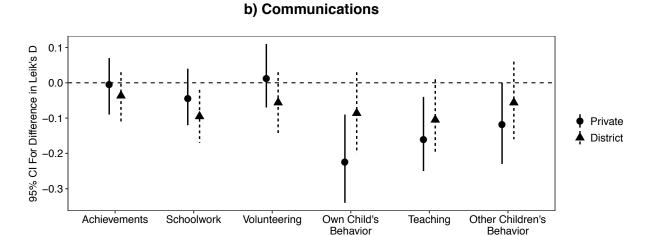


Figure 9. Dispersion of perceived problems and school-home communication (EdNext2016). Estimates of the difference in Leik's D between parents in a given school sector and the charter school sector; bootstrapped 95 percent confidence intervals displayed.

Online Appendix A: Survey Items

Table A1. Survey Items

NCES Items

How satisfied or dissatisfied are you with each of the following? (Answer options: Very satisfied, Somewhat satisfied, Somewhat dissatisfied, Very dissatisfied)

- 1. The school this child attends this year?
- 2. The teachers this child has this year?
- 3. The academic standards of the school?
- 4. The order and discipline at the school?
- 5. The way that school staff interacts with parents?

PEPG Items

How satisfied are you with each of the following aspects of this child's private/traditional charter/public school? (Answer options: Very satisfied, Satisfied, Neither satisfied nor dissatisfied, Dissatisfied, Very dissatisfied)

- 1. Teacher quality
- 2. School discipline
- 3. Expectations for student achievement
- 4. Safety of your child
- 5. School location
- 6. Instruction in character or values
- 7. School building and facilities

Still thinking about this same child's school, how serious are the following problems at this child's school? (Answer options: Not serious, Somewhat serious, Very serious)

- 1. Students destroying property
- 2. Lack of extracurricular activities such as sports, arts and music
- 3. Students missing class
- 4. Students fighting
- 5. Racial conflict
- 6. Students using drugs

Still thinking about this child, how many times during this school year have you spoken to someone at this child's school about: (Answer options: Five or more times, Three or four times, One or two times, None)

- 1. This child's achievements and accomplishments
- 2. This child's schoolwork or homework
- 3. Volunteering to work in the school (for example, in class, on a class trip, at lunch time, in an office, or some similar activity)
- 4. This child's behavioral problems at school
- 5. Quality of teaching
- 6. Behavior of other students at this school

Online Appendix B: Ordered Logistic Regression Models

Table B1. Satisfaction Results among Full Sample (NCES2012)

	(1)	(2)	(3)	(4)	(5)
Private	0.73***	0.65***	0.67***	0.80***	0.67***
	(0.13)	(0.13)	(0.14)	(0.13)	(0.12)
Assigned-District	-0.36***	-0.26**	-0.58***	-0.47***	-0.43***
	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)
Chosen-District	-0.14	-0.20	-0.20	-0.18	-0.19
	(0.12)	(0.12)	(0.13)	(0.12)	(0.12)
Years Education	-0.00	0.00	-0.00	0.01	0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Income	0.00***	0.00	0.00***	0.00***	0.00***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Homeowner	0.08	0.03	0.01	-0.05	0.00
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Black	-0.33***	-0.22***	-0.31***	-0.17**	-0.09
	(0.08)	(0.08)	(0.07)	(0.08)	(0.08)
Hispanic	0.07	0.08	0.06	0.21***	0.09
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Urban	-0.03	0.00	-0.06	-0.05	0.00
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
West	-0.05	-0.00	-0.14**	-0.10	-0.02
	(0.07)	(0.06)	(0.06)	(0.07)	(0.07)
Midwest	0.06	0.12**	0.05	-0.02	0.16***
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Northeast	0.00	0.15**	-0.00	0.02	0.09
	(0.07)	(0.06)	(0.07)	(0.07)	(0.06)
N	17,166	17,166	17,166	17,166	17,166

Table B2. Satisfaction Results among Parents of Elementary School Students (NCES2012)

Table B2. Satisfaction Results an	(1)	(2)	(3)	(4)	(5)
Private	0.40*	0.47**	0.29	0.45*	0.37*
111,000	(0.23)	(0.23)	(0.24)	(0.23)	(0.21)
Assigned-District	-0.32*	-0.31*	-0.77***	-0.48***	-0.43**
22 8 11 21	(0.18)	(0.18)	(0.18)	(0.18)	(0.17)
Chosen-District	0.01	0.02	-0.25	-0.12	0.02
	(0.23)	(0.22)	(0.22)	(0.22)	(0.21)
Years Education	-0.04*	-0.04*	-0.03	-0.00	-0.04**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Income	0.00***	0.00***	0.00	0.00***	0.00***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Homeowner	0.25**	0.10	0.11	0.04	0.11
	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)
Black	-0.26*	-0.23	-0.38***	-0.21	-0.12
	(0.16)	(0.15)	(0.14)	(0.16)	(0.15)
Hispanic	-0.15	-0.09	-0.07	0.08	-0.15
-	(0.12)	(0.13)	(0.13)	(0.12)	(0.13)
Urban	0.06	-0.05	-0.04	-0.03	-0.07
	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)
West	-0.11	-0.01	-0.35***	-0.28**	-0.12
	(0.13)	(0.13)	(0.12)	(0.13)	(0.12)
Midwest	0.06	0.03	-0.00	-0.05	0.07
	(0.13)	(0.13)	(0.13)	(0.13)	(0.12)
Northeast	-0.06	-0.00	-0.16	-0.14	0.01
	(0.12)	(0.13)	(0.12)	(0.13)	(0.12)
N	5,109	5,109	5,109	5,109	5,109

Table B3. Satisfaction Results among Parents of Middle School Students (NCES2012)

	(1)	(2)	(3)	(4)	(5)
Private	0.99***	0.79***	0.82***	1.03***	0.88***
	(0.25)	(0.24)	(0.26)	(0.26)	(0.25)
Assigned-District	-0.32*	0.05	-0.43**	-0.17	-0.13
	(0.18)	(0.19)	(0.21)	(0.21)	(0.20)
Chosen-District	-0.13	-0.08	-0.16	-0.07	-0.11
	(0.23)	(0.23)	(0.25)	(0.25)	(0.24)
Years Education	0.00	0.02	0.02	0.03	0.01
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Income	0.00*	0.00	0.00	0.00*	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Homeowner	-0.13	-0.16	-0.13	-0.21*	-0.14
	(0.12)	(0.11)	(0.11)	(0.11)	(0.11)
Black	-0.50***	-0.47***	-0.40***	-0.27*	-0.35***
	(0.14)	(0.14)	(0.15)	(0.14)	(0.13)
Hispanic	0.07	0.05	0.07	0.22*	0.03
	(0.13)	(0.13)	(0.13)	(0.13)	(0.12)
Urban	-0.21**	-0.10	-0.16	-0.19*	-0.00
	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)
West	-0.05	-0.00	-0.09	0.06	0.10
	(0.12)	(0.12)	(0.12)	(0.12)	(0.12)
Midwest	0.12	0.30**	-0.06	0.02	0.23*
	(0.12)	(0.12)	(0.12)	(0.12)	(0.12)
Northeast	-0.11	0.13	-0.17	-0.01	0.07
	(0.13)	(0.12)	(0.13)	(0.13)	(0.12)
N	3,765	3,765	3,765	3,765	3,765

Table B4. Satisfaction Results among Parents of High School Students (NCES2012)

	(1)	(2)	(3)	(4)	(5)
Private	0.88***	0.66***	0.95***	0.95***	0.83***
	(0.21)	(0.20)	(0.21)	(0.20)	(0.18)
Assigned-District	-0.39**	-0.36**	-0.48***	-0.61***	-0.59***
	(0.17)	(0.17)	(0.17)	(0.15)	(0.15)
Chosen-District	-0.24	-0.43**	-0.19	-0.33*	-0.48**
	(0.20)	(0.20)	(0.20)	(0.18)	(0.19)
Years Education	0.00	-0.01	-0.00	-0.01	0.01
	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)
Income	0.00***	0.00	0.00***	0.00***	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Homeowner	0.21**	0.28***	0.16*	0.12	0.18**
	(0.08)	(0.08)	(0.09)	(0.08)	(0.08)
Black	-0.30***	-0.03	-0.17	-0.04	0.08
	(0.10)	(0.11)	(0.10)	(0.10)	(0.11)
Hispanic	0.18*	0.13	0.12	0.23**	0.21*
	(0.11)	(0.10)	(0.11)	(0.11)	(0.11)
Urban	0.03	0.13	-0.01	0.02	0.07
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
West	-0.02	0.03	0.01	-0.04	0.02
	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
Midwest	0.08	0.22**	0.20**	0.02	0.28***
	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
Northeast	0.09	0.30***	0.23**	0.12	0.13
	(0.10)	(0.09)	(0.09)	(0.09)	(0.09)
N	7,535	7,535	7,535	7,535	7,535

Table B5. Satisfaction Results among Low-Income Parents (NCES2012)

	(1)	(2)	(3)	(4)	(5)
Private	0.86***	0.56*	1.17***	0.97***	0.75***
	(0.30)	(0.31)	(0.30)	(0.31)	(0.28)
Assigned-District	-0.36**	-0.18	-0.39**	-0.40**	-0.47***
	(0.18)	(0.18)	(0.17)	(0.16)	(0.15)
Chosen-District	-0.08	-0.18	-0.13	-0.26	-0.32
	(0.23)	(0.24)	(0.23)	(0.22)	(0.23)
Years Education	-0.09***	-0.05**	-0.05**	-0.02	-0.05***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Income	0.00	-0.00*	0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Homeowner	0.19**	0.18**	0.00	0.04	0.06
	(0.08)	(0.09)	(0.09)	(0.08)	(0.08)
Black	-0.23*	-0.16	-0.26**	-0.22*	-0.09
	(0.12)	(0.12)	(0.12)	(0.12)	(0.11)
Hispanic	0.10	0.18	0.17	0.26**	0.18
_	(0.12)	(0.12)	(0.12)	(0.11)	(0.11)
Urban	-0.00	0.00	-0.01	-0.00	0.05
	(0.10)	(0.10)	(0.10)	(0.10)	(0.09)
West	0.05	0.10	-0.02	-0.09	0.11
	(0.12)	(0.12)	(0.12)	(0.12)	(0.12)
Midwest	0.05	0.03	-0.10	-0.15	0.08
	(0.14)	(0.14)	(0.14)	(0.14)	(0.13)
Northeast	-0.21	0.02	-0.22*	-0.36***	-0.11
	(0.13)	(0.14)	(0.12)	(0.13)	(0.13)
N	4,622	4,622	4,622	4,622	4,622

Table B6. Satisfaction Results among High-Income Parents (NCES2012)

	(1)	(2)	(3)	(4)	(5)
Private	0.31	0.27	0.06	0.60**	0.39
	(0.27)	(0.26)	(0.28)	(0.28)	(0.26)
Assigned-District	-0.57**	-0.61**	-0.97***	-0.65***	-0.71***
	(0.24)	(0.24)	(0.25)	(0.25)	(0.24)
Chosen-District	-0.40	-0.43	-0.57**	-0.27	-0.37
	(0.29)	(0.27)	(0.29)	(0.29)	(0.27)
Years Education	0.05**	0.05**	0.04*	0.05***	0.05**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Income	0.00	-0.00	0.00	0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Homeowner	0.12	0.10	-0.07	-0.10	-0.11
	(0.19)	(0.16)	(0.18)	(0.18)	(0.16)
Black	-0.55***	-0.20	-0.33*	-0.33*	-0.41**
	(0.20)	(0.18)	(0.19)	(0.19)	(0.20)
Hispanic	0.36*	0.29	0.28	0.38**	0.07
	(0.19)	(0.20)	(0.20)	(0.18)	(0.18)
Urban	0.24**	0.15	0.16	0.06	0.15
	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)
West	-0.01	0.02	-0.07	-0.10	-0.05
	(0.12)	(0.11)	(0.13)	(0.13)	(0.12)
Midwest	0.42***	0.36***	0.35***	0.31**	0.34***
	(0.13)	(0.12)	(0.13)	(0.12)	(0.12)
Northeast	0.23*	0.33***	0.30**	0.34***	0.23**
	(0.13)	(0.11)	(0.12)	(0.12)	(0.11)
N	4,389	4,389	4,389	4,389	4,389

Table B7. Satisfaction Results among Black and Hispanic Parents (NCES2012)

	(1)	(2)	(3)	(4)	(5)
Private	0.96***	0.88***	0.68***	0.96***	0.77***
	(0.22)	(0.22)	(0.23)	(0.25)	(0.21)
Assigned-District	-0.27*	-0.06	-0.44***	-0.44***	-0.36**
	(0.15)	(0.15)	(0.15)	(0.16)	(0.15)
Chosen-District	-0.20	-0.16	-0.30	-0.22	-0.14
	(0.19)	(0.19)	(0.20)	(0.19)	(0.20)
Years Education	-0.06***	-0.04**	-0.03	-0.04**	-0.04**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Income	0.00***	0.00	0.00**	0.00***	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Homeowner	0.00	0.05	-0.03	-0.08	0.04
	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
Urban	-0.12	0.03	-0.06	-0.08	-0.05
	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
West	-0.12	-0.04	-0.25**	-0.23*	-0.09
	(0.12)	(0.12)	(0.11)	(0.12)	(0.12)
Midwest	-0.14	-0.02	-0.14	-0.33**	-0.05
	(0.14)	(0.14)	(0.15)	(0.14)	(0.14)
Northeast	-0.04	0.14	-0.02	-0.11	0.10
	(0.12)	(0.12)	(0.12)	(0.12)	(0.12)
N	5,355	5,355	5,355	5,355	5,355

Table B8. Satisfaction Results among White Parents (NCES2012)

	(1)	(2)	(3)	(4)	(5)
Private	0.66***	0.34*	0.58***	0.82***	0.66***
	(0.18)	(0.17)	(0.18)	(0.17)	(0.16)
Assigned-District	-0.44***	-0.57***	-0.74***	-0.42***	-0.44***
	(0.14)	(0.15)	(0.14)	(0.14)	(0.13)
Chosen-District	-0.04	-0.33*	-0.17	-0.05	-0.11
	(0.17)	(0.17)	(0.17)	(0.17)	(0.16)
Years Education	0.06***	0.04***	0.03**	0.05***	0.04***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Income	0.00*	0.00	0.00	0.00***	0.00**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Homeowner	0.12	0.01	0.05	-0.04	-0.01
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
Urban	-0.06	-0.05	-0.05	-0.02	0.01
	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)
West	0.02	0.05	-0.05	0.01	0.07
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
Midwest	0.15**	0.20***	0.16**	0.13*	0.25***
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Northeast	0.07	0.21***	0.07	0.14*	0.12
	(0.09)	(0.08)	(0.08)	(0.08)	(0.08)
N	10,572	10,572	10,572	10,572	10,572

Table B9. Satisfaction Results among Parents of Urban Locales (NCES2012)

	(1)	(2)	(3)	(4)	(5)
Private	0.69***	0.51**	0.66***	0.70***	0.61***
	(0.21)	(0.20)	(0.21)	(0.21)	(0.19)
Assigned-District	-0.43**	-0.25	-0.64***	-0.62***	-0.43***
	(0.17)	(0.17)	(0.17)	(0.16)	(0.15)
Chosen-District	-0.28	-0.36*	-0.29	-0.29	-0.33*
	(0.20)	(0.19)	(0.20)	(0.18)	(0.18)
Years Education	-0.03	-0.01	-0.01	-0.03	-0.00
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Income	0.00***	0.00*	0.00*	0.00**	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Homeowner	0.21**	0.08	0.21**	0.13	0.08
	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
Black	-0.43***	-0.26**	-0.34***	-0.22*	-0.15
	(0.12)	(0.12)	(0.12)	(0.12)	(0.12)
Hispanic	-0.03	0.18	0.05	0.03	0.06
-	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)
West	-0.10	-0.04	-0.21*	-0.27***	-0.06
	(0.11)	(0.11)	(0.11)	(0.10)	(0.11)
Midwest	-0.17	0.01	-0.27**	-0.44***	0.03
	(0.12)	(0.12)	(0.13)	(0.13)	(0.12)
Northeast	-0.17	0.03	-0.18	-0.21*	0.05
	(0.13)	(0.13)	(0.12)	(0.12)	(0.12)
N	5,106	5,106	5,106	5,106	5,106

Table B10. Satisfaction Results among Parents from Non-Urban Locales (NCES2012)

	(1)	(2)	(3)	(4)	(5)
Private	0.76***	0.72***	0.69***	0.89***	0.70***
	(0.16)	(0.16)	(0.17)	(0.17)	(0.15)
Assigned-District	-0.32***	-0.27**	-0.55***	-0.37***	-0.43***
	(0.12)	(0.13)	(0.13)	(0.13)	(0.13)
Chosen-District	-0.04	-0.06	-0.14	-0.09	-0.07
	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)
Years Education	0.01	0.01	0.00	0.03**	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Income	0.00***	0.00	0.00**	0.00***	0.00**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Homeowner	0.02	-0.01	-0.08	-0.13*	-0.04
	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)
Black	-0.23**	-0.15	-0.25***	-0.15	-0.05
	(0.11)	(0.10)	(0.10)	(0.10)	(0.10)
Hispanic	0.10	0.02	0.05	0.29***	0.09
	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
West	-0.05	0.01	-0.13*	-0.05	-0.01
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
Midwest	0.15**	0.18**	0.17**	0.12*	0.21***
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Northeast	0.09	0.22***	0.08	0.10	0.12*
	(0.08)	(0.08)	(0.08)	(0.08)	(0.07)
N	12,060	12,060	12,060	12,060	12,060

Table B11. Satisfaction Results among Full Sample (EdNext2016)

Table D11. Satisfaction Re	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Private	0.35	0.35	0.37*	0.40*	0.69***	0.11	-0.12
Tivate	(0.22)	(0.21)	(0.21)	(0.22)	(0.21)	(0.23)	(0.20)
District	-0.41**	-0.80***	-0.69***	-0.71***	-0.82***	0.23)	-0.28
District	(0.19)	(0.18)	(0.17)	(0.18)	(0.18)	(0.19)	(0.17)
Years Education	0.19)	0.18)	0.17)	0.13)	-0.02	0.02	-0.04
Tears Education	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Incomo	0.03)	` /	0.04)	0.04)	0.04)	0.04)	0.04)
Income		0.00					
11	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Homeowner	0.11	0.40*	0.09	0.20	0.06	0.01	0.14
	(0.20)	(0.22)	(0.20)	(0.22)	(0.22)	(0.20)	(0.20)
Black	-0.56**	-0.33	-0.34	-0.56*	-0.43	-0.31	-0.64*
	(0.27)	(0.24)	(0.27)	(0.32)	(0.30)	(0.28)	(0.33)
Hispanic	-0.11	-0.17	-0.10	-0.44**	-0.20	-0.31	-0.16
	(0.22)	(0.22)	(0.21)	(0.21)	(0.20)	(0.23)	(0.20)
Urban	-0.34*	-0.18	-0.19	-0.38*	-0.17	-0.08	-0.25
	(0.20)	(0.20)	(0.20)	(0.20)	(0.20)	(0.22)	(0.20)
Missing Urban	-0.20	-0.51**	-0.41*	-0.12	-0.11	-0.05	-0.08
_	(0.20)	(0.21)	(0.21)	(0.21)	(0.20)	(0.19)	(0.21)
West	-0.26	-0.33	-0.32	-0.19	-0.09	-0.35	-0.03
	(0.22)	(0.23)	(0.23)	(0.24)	(0.23)	(0.23)	(0.24)
Midwest	-0.24	-0.09	-0.42**	-0.27	-0.17	-0.33*	-0.34**
	(0.17)	(0.16)	(0.16)	(0.17)	(0.17)	(0.18)	(0.16)
Northeast	0.48	1.01*	0.73	0.93	0.76	0.77	0.58
	(0.57)	(0.56)	(0.52)	(0.58)	(0.54)	(0.51)	(0.45)
N	1,515	1,516	1,516	1,517	1,516	1,515	1,518

Notes: *p < 0.1, **p < 0.05, ***p < 0.01. Missing Urban is an indicator variable equal to 1 if the data on the urbanicity for a respondent was missing and 0 otherwise. Three percent of the sample had such missing data. Respondents were asked: How satisfied are you with each of the following aspects of this child's school: (1) Teacher quality? (2) School discipline? (3) Expectations for student achievement? (4) Safety of your child? (5) Instruction in character or values? (6) School location? (7) School building and facilities? Responses were on a five-point scale: Very dissatisfied, Dissatisfied, Neither satisfied nor dissatisfied, Satisfied, Very satisfied.

Table B12. School Problems Results (EdNext2016)

	(1)	(2)	(3)	(4)	(5)	(7)
Private	-0.13	-0.43	-0.58*	0.04	-0.45	-0.41*
	(0.31)	(0.29)	(0.30)	(0.31)	(0.28)	(0.23)
District	0.5**	0.4*	0.52**	0.41*	0.57***	-0.33*
	(0.24)	(0.22)	(0.22)	(0.23)	(0.21)	(0.18)
Years Education	-0.17***	-0.14***	-0.16***	-0.08*	-0.14***	-0.06
	(0.05)	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)
Income	-0.002	-0.001	-0.003	-0.003	0.0004	-0.01*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Homeowner	-0.12	0.05	-0.12	-0.03	0.32	-0.14
	(0.25)	(0.22)	(0.24)	(0.26)	(0.24)	(0.24)
Black	0.44	0.24	0.68*	0.57	-0.26	-0.1
	(0.37)	(0.32)	(0.37)	(0.35)	(0.38)	(0.34)
Hispanic	0.6**	0.86***	0.65***	1.04***	0.48**	0.62***
	(0.25)	(0.22)	(0.23)	(0.24)	(0.23)	(0.22)
Urban	0.002	0.01	-0.16	0.06	0.17	0.25
	(0.27)	(0.25)	(0.26)	(0.27)	(0.24)	(0.23)
Missing Urban	-0.11	0.23	0.08	-0.13	-0.06	0.15
	(0.28)	(0.24)	(0.26)	(0.28)	(0.23)	(0.25)
West	-0.51	-0.33	0.003	-0.55*	-0.14	-0.08
	(0.35)	(0.27)	(0.26)	(0.30)	(0.24)	(0.28)
Midwest	0.04	0.05	0.39*	-0.07	-0.05	0.08
	(0.25)	(0.21)	(0.21)	(0.23)	(0.21)	(0.21)
Northeast	-0.27	0.38	0.27	0.4	0.06	-0.24
	(0.69)	(0.59)	(0.49)	(0.51)	(0.59)	(0.52)
N	1,512	1,514	1,513	1,513	1,513	1,513

Notes: *p < 0.1, **p < 0.05, ***p < 0.01. Missing Urban is an indicator variable equal to 1 if the data on the urbanicity for a respondent was missing and 0 otherwise. Three percent of the sample had such missing data. Respondents were asked: How serious are the following problems at this child's school: (1) Students destroying property? (2) Students missing class? (3) Students fighting? (4) Racial conflict? (5) Students using drugs? (6) Lack of extracurricular activities such as sports, arts, and music? Responses were on a three-point scale: Not serious, Somewhat serious, Very serious.

Table B13. School-Home Communications Results (EdNext2016)

	(1)	(2)	(3)	(4)	(5)	(6)
Private	-0.30	-0.51**	0.17	-0.20	-0.01	-0.04
	(0.20)	(0.21)	(0.19)	(0.22)	(0.21)	(0.22)
District	-0.57***	-0.25	-0.61***	-0.00	-0.12	-0.02
	(0.18)	(0.18)	(0.17)	(0.19)	(0.18)	(0.18)
Years Education	0.07**	0.01	0.09***	-0.02	0.005	0.01
	(0.03)	(0.04)	(0.04)	(0.05)	(0.05)	(0.04)
Income	-0.00	-0.00	0.00	-0.01**	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Homeowner	-0.11	-0.25	-0.16	-0.2	-0.32	-0.38*
	(0.18)	(0.20)	(0.19)	(0.23)	(0.21)	(0.23)
Black	0.17	0.36	0.06	0.51*	0.34	0.22
	(0.28)	(0.27)	(0.29)	(0.26)	(0.29)	(0.31)
Hispanic	0.61***	0.49**	0.2	0.32	0.91***	0.27
	(0.20)	(0.20)	(0.22)	(0.23)	(0.22)	(0.22)
Urban	0.02	-0.05	0.14	0.24	0.17	0.16
	(0.20)	(0.19)	(0.22)	(0.23)	(0.22)	(0.21)
Missing Urban	0.05	0.09	0.002	0.33	0.14	0.12
	(0.20)	(0.21)	(0.20)	(0.22)	(0.23)	(0.23)
West	-0.21	-0.26	-0.03	0.05	-0.1	0.1
	(0.22)	(0.22)	(0.22)	(0.27)	(0.27)	(0.27)
Midwest	-0.22	-0.32*	-0.09	-0.05	-0.12	-0.09
	(0.18)	(0.17)	(0.18)	(0.19)	(0.19)	(0.19)
Northeast	-0.52	-0.76	-0.83**	-0.6	-0.77	-0.44
	(0.61)	(0.50)	(0.41)	(0.49)	(0.47)	(0.56)
N	1,513	1,513	1,514	1,515	1,513	1,512

Notes: *p < 0.1, **p < 0.05, ***p < 0.01. Missing Urban is an indicator variable equal to 1 if the data on the urbanicity for a respondent was missing and 0 otherwise. Three percent of the sample had such missing data. Respondents were asked: How many times during this school year have you spoken to someone at this child's school about: (1) This child's achievements? (2) This child's schoolwork or homework? (3) Volunteering to work in the school (for example, in class, on a class trip, at lunchtime, in an office, or some similar activity)? (4) This child's behavioral problems at school? (5) Quality of teaching? (6) Behavior of other students at this school? Responses were on a four-point scale: None, One or two times, Three or four times, Five or more times.

Online Appendix C: Leik's D Analysis

Table C1. Sector Differences in Satisfaction Dispersion (NCES2012)

	Leik's D				95% CI for Difference in Leik's D			
	Charter	Private	Assigned	Chosen	Private – Charter	Assigned – Charter	Chosen – Charter	
School	0.35	0.17	0.40	0.34	(-0.21, -0.14)	(0.02, 0.08)	(-0.04, 0.04)	
Teacher quality	0.36	0.20	0.39	0.37	(-0.19, -0.13)	(0.00, 0.06)	(-0.03, 0.05)	
School discipline	0.31	0.14	0.39	0.30	(-0.21, -0.14)	(0.05, 0.11)	(-0.05, 0.03)	
Expectations for student achievement	0.39	0.16	0.41	0.35	(-0.27, -0.19)	(-0.01, 0.06)	(-0.08, 0.00)	
Communication with Parents	0.45	0.23	0.44	0.42	(-0.24, -0.18)	(-0.02, 0.03)	(-0.05, 0.02)	

Table C2. Sector Differences in Satisfaction Dispersion (EdNext2016)

		Leik's D		95% CI for difference in Leik's D		
_	Charter	Private	District	Private – Charter	District – Charter	
Teacher quality	0.40	0.36	0.32	(-0.11, 0.03)	(-0.14, -0.01)	
School discipline	0.41	0.37	0.42	(-0.11, 0.03)	(-0.06, 0.08)	
Expectations for student achievement	0.39	0.35	0.37	(-0.12, 0.05)	(-0.1, 0.04)	
Safety of your child	0.37	0.29	0.36	(-0.17, -0.01)	(-0.09, 0.05)	
Instruction in character or values	0.43	0.32	0.40	(-0.19, -0.03)	(-0.09, 0.04)	
School location	0.42	0.40	0.33	(-0.11, 0.04)	(-0.16, -0.02)	
School building and facilities	0.40	0.33	0.37	(-0.14, 0.01)	(-0.1, 0.05)	

Table C3. Sector Differences in Dispersion of Perception of Problems (EdNext2016)

	Leik's D			95% CI for difference in Leik's D		
	Charter	Private	District	Private - Charter	District - Charter	
Students destroying property	0.34	0.19	0.39	(-0.27, -0.04)	(-0.07, 0.16)	
Students missing class	0.47	0.23	0.49	(-0.38, -0.1)	(-0.11, 0.16)	
Students fighting	0.45	0.19	0.49	(-0.4, -0.14)	(-0.1, 0.16)	
Racial conflict	0.36	0.21	0.36	(-0.26, -0.02)	(-0.1, 0.12)	
Students using drugs	0.46	0.25	0.60	(-0.34, -0.07)	(0, 0.27)	
Lack of extracurricular activities such as sports, arts, and music	0.62	0.32	0.45	(-0.41, -0.17)	(-0.27, -0.04)	

Table C4. Sector Differences in Dispersion of School-Home Communication (EdNext2016)

	Leik's D			95% CI for difference in Leik's D		
_	Charter	Private	District	Private - Charter	District - Charter	
This child's achievements and						
accomplishments	0.56	0.55	0.52	(-0.09, 0.07)	(-0.11, 0.03)	
This child's schoolwork or						
homework	0.62	0.57	0.52	(-0.12, 0.04)	(-0.17, -0.02)	
Volunteering to work in the						
school	0.59	0.60	0.53	(-0.07, 0.11)	(-0.15, 0.03)	
This child's behavioral problems						
at school	0.53	0.30	0.44	(-0.34, -0.09)	(-0.2, 0.03)	
Quality of teaching						
Quality of teaching	0.53	0.37	0.43	(-0.25, -0.04)	(-0.2, 0.01)	
Behavior of other students at this						
school	0.48	0.36	0.42	(-0.23, 0)	(-0.16, 0.06)	