PRIVATE SCHOOLS AND "LATINO FLIGHT" FROM BLACK SCHOOLCHILDREN*

ROBERT W. FAIRLIE

Several recent studies provided evidence that white students' choice between private and public schools is influenced by the racial composition of the local student population. None of these studies, however, examined whether Latinos are also fleeing to private schools in response to black schoolchildren. I explore the "Latino-flight" hypothesis using data from the National Educational Longitudinal Study and a recently released confidential data set from the National Center for Educational Statistics. In probit regressions for the probability of Latinos attending private schools, I found a large, positive, and statistically significant coefficient on the black share of the school-age population. The coefficient estimates imply that a 10–percentage point increase in the black share increases the probability of private school attendance by 25.7% to 33.2% among Latino 8th graders and 35.2% to 52.2% among Latino 10th graders. I interpret these results as providing evidence of "Latino flight" from public schools into private schools. I did not find evidence that Latinos respond differently to black schoolchildren than do whites.

Critics of tuition vouchers for private schools contend that vouchers will lead to more racial segregation in the nation's schools. Perhaps contributing to these concerns, several recent studies have provided evidence that white students' choice between private and public schools is influenced by the racial composition of the local student population. For example, Andrews (2002); Conlon and Kimenyi (1991); Fairlie and Resch (2002); Lankford, Lee, and Wyckoff (1995); and Lankford and Wyckoff (1992, 1997) presented evidence of "white flight" from minorities or blacks, supporting the findings of earlier studies, such as Clotfelter's (1976) and Coleman, Hoffer, and Kilgore's (1982). Although there is little direct evidence on causes, these studies have generally speculated that white flight is due to prejudice, assumptions about the preferences of black schoolchildren and their parents, and the use of the racial composition of a school as a signal of academic quality.

However, no consensus has been reached in the literature on the existence of white flight. Buddin, Cordes, and Kirby (1998) and Figlio and Stone (1999) found that the probability of attending private school among all students is insensitive to the minority share of the population. In addition, Lankford and Wyckoff (1992) found that white children are more likely to attend public high schools when these schools have larger concentrations of black students.[1]

Perhaps the attention drawn to this question in recent years is not surprising, given the threat to school integration posed by white flight from minority or black schoolchildren into private schools.[2] What has been overlooked, however, is that flight by other

*Robert W. Fairlie, Department of Economics, University of California, Santa Cruz, CA 95604; E-mail: rfairlie@cats.ucsc.edu. This research was funded by grants from the Spencer Foundation and the University of California Institute for Mexico and the United States. The data presented, the statements made, and the views expressed are solely the responsibility of the author. He would like to thank Manuel Pastor for his helpful comments. Bill Koch and Garima Vasishtha provided excellent research assistance.

1. They found a negative relationship, however, for public elementary students.

2. Additional threats to school integration include residential flight from blacks (Clotfelter 2001; Crowder 2000) and flight to charter schools (Weiher and Tedin 2002).

ethnic and racial groups to private schools also may be detrimental to integration efforts. In particular, an important question is whether Latinos, who represent a rapidly growing proportion of the school-age population, are fleeing to private schools in response to black schoolchildren. The share of the school-age population that is Latino is expected to grow from 11.9% in 1990 to 21.5% by 2020, whereas the white, non-Latino share is projected to decline from 69.3% to 55.1% (U.S. Bureau of the Census 1996). Previous studies, however, have not explored whether the racial composition of the local student population influences Latino schoolchildren to choose private schools.

Although there is evidence that black schoolchildren have similarly small or nonexistent effects on the academic achievement of white and Latino public school students (Hanushek, Kain, and Rivkin 2001), several other factors suggest that Latinos may respond differently from whites to the presence of black schoolchildren. First, Latino schoolchildren have a higher likelihood of interacting with black schoolchildren than do white schoolchildren. Part of this likelihood is driven by patterns of geographic segregation, with lower levels of segregation between blacks and Latinos than between blacks and whites.[3] With regard to school attendance, the average Latino student attends a school that is 11.8% black, and the average white student attends a school that is 8.6% black (Orfield and Yun 1999). In this article, I provide additional evidence of higher levels of integration between Latinos and blacks than between whites and blacks even after the racial composition of the metropolitan area is controlled. Although this comparison suggests that the conditions for flight differ between Latinos and whites, it does not provide any indication of whether Latinos are more likely or less likely than whites to respond to black schoolchildren.

Related to the issue of segregation, the contact hypothesis posits that close and sustained contact between ethnic and racial groups promotes tolerance by eliminating negative stereotypes (Allport 1954; Jackman and Crane 1986; Powers and Ellison 1995; Sigelman and Welch 1993; Stephan 1987). At a first pass, this hypothesis suggests that the higher levels of integration between Latinos and blacks than between whites and blacks should lead to more racial tolerance. This interpretation, however, depends on the assumption that Latinos and whites have the same underlying level of tolerance, which may or may not be the case.

Comparisons between whites' and Latinos' reported attitudes toward blacks have yielded mixed results. For example, whites and Latinos have reported similarly low levels of objections to residential integration with blacks (Bobo and Zubrinsky 1996), but Latinos more often than whites have noted that blacks were "hard to get along with" relative to their own group (Massagli 2000). An examination of whether racial similarity is an important factor in school choice is also unrevealing. Few students have indicated that racial similarity is an important factor in school choice (Schneider et al. 1998; Weiher and Tedin 2002). Weiher and Tedin (2002), however, found that race is a powerful predictor of which charter schools are actually attended. In the end, it is difficult to compare reported racial attitudes of Latinos and whites because of the social stigma of expressing intolerant views and the subjectivity of questions, but differences between the two groups in economic competition, school and residential integration, and historical relationships with blacks suggest that differences in racial attitudes may exist.

White and Latino schoolchildren also may differ in their ability to attend private schools because of high tuition costs or proximity. The average yearly tuition is $2,138 for private elementary schools and $4,578 for private secondary schools (U.S. Department of Education 2000). Low levels of income are likely to limit the opportunities of

3. The black/Latino dissimilarity index is more than 10 percentage points lower than the black/white dissimilarity index, and the average Latino lives in a neighborhood in which blacks make up 10.8% of the population compared with 6.7% for whites (Logan 2001).

many Latino schoolchildren to attend private schools relative to white schoolchildren.[4] The median family income of Latino families in 1989 was $25,064, compared with $37,628 for white, non-Latino families (U.S. Bureau of the Census 1993). Working in the opposite direction, however, I provide evidence that Latino schoolchildren live closer to private schools on average than do white schoolchildren.

Finally, Latinos and whites may have different attitudes about private school. For example, Latinos are more likely to support tuition vouchers for private schools than are non-Latinos. Surveys conducted by the Public Policy Institute of California before the November 2000 California ballot indicated that Latinos were less likely to oppose Proposition 38, the "school vouchers" initiative, than were non-Latinos (Baldassare 2000). In addition, a national poll by the Joint Center for Political and Economic Studies (JCPES 1997) indicated that 65% of Latinos supported tuition vouchers for private schools, compared with 48% of whites. Taken together, these dissimilarities suggest that inferences about the existence and/or magnitude of Latino flight cannot be inferred from the findings for white flight.

In this article, I explore the Latino-flight hypothesis using data from the National Educational Longitudinal Study (NELS) and a recently released confidential data set from the National Center for Educational Statistics (NCES). This special release, unlike the standard restricted-use version of NELS, allows one to identify the exact residential location of all respondents to NELS. NELS is an exceptionally rich data source that provides information on many characteristics of students and parents, including detailed geographic location, religious affiliation, school characteristics, and racial attitudes, that are not available in other sources, such as the census or the Current Population Survey. Furthermore, NELS oversampled Latino students.

I used these data first to compare levels of exposure to black schoolchildren among Latinos and whites attending public schools. I then compared income levels, racial attitudes, and distances to private schools. I also documented racial differences in rates of private school attendance and examined how these patterns contribute to the racial composition of the private and public school systems. To explore the Latino-flight hypothesis, I examined whether Latinos choose to attend private schools in response to the presence of black schoolchildren in the public schools. I also compared levels of white flight from black schoolchildren.

DATA

I used data from NELS and a recently released confidential data set from NCES. NELS has followed a national sample of American youths who were enrolled in the eighth grade in 1988 at two-year intervals (see Huang et al. 1996 for more details on NELS). In my analysis, I used data from the 1988 base year and the 1990 first follow-up. These two years of data allowed me to examine the determinants of attending private school at both the 8th- and 10th-grade levels.

The data included detailed information on the student and his or her family. In addition to measures of family income and parental education, I used information on religion and racial attitudes, which are not available in most other national data sources. I also appended school and community characteristics from various sources to these individual-level data. As I noted earlier, the restricted-use version of NELS that has been available for several years does not allow one to identify the residential location of respondents below the state level. Although it identifies the public schools attended by NELS respondents, it does not identify private schools. This information, however, would be less useful because

4. Using 1990 census data, Betts and Fairlie (2001) found that ethnic/racial differences in household income explain roughly 30% to 35% of the gap in the rates of private school attendance between native-born whites and all minorities.

many private school students are likely to attend schools outside their immediate residential areas.

To identify residential locations, I used a recently released data set from NCES that contains demographic data from the 1990 census at the zip-code level for each NELS respondent. This data set, however, does not identify actual zip codes. With permission from NCES, I used data from the 1990 census STF 3B files to match to this data set and thus identified each student's zip code and used the zip codes to calculate distances to private schools and to identify each student's county of residence.[5] After identifying the county of residence, I identified the student's primary metropolitan statistical area (PMSA) by using the county-based definitions of PMSAs provided on the 1994 USA Counties CD-ROM.

In the main analytic sample, I included only Latino children who were currently enrolled in school. The categories for race/ethnicity in NELS are mutually exclusive. Thus, there are separate responses for "Hispanic" and "white, non-Hispanic." In most of the analyses, I did not differentiate among Catholic, other religious, and secular private schools because of the small sample sizes. I also did not differentiate between religious and secular private schools: both are alternatives to public schools, and the key question in this study is whether Latino children choose to opt out of the public school system in response to large concentrations of black schoolchildren. I was motivated by how this type of flight affects the resulting racial composition of the public schools and was less concerned with the type of private school these students attend.

INTERACTION WITH BLACK SCHOOLCHILDREN

Before I present my analysis of the Latino-flight hypothesis, it is useful to compare levels of racial interaction in the public schools. Within the public school system, are levels of Latino-black segregation higher than levels of white-black segregation? And do Latino schoolchildren have a higher likelihood of interacting with black schoolchildren than do white schoolchildren? The level of interaction with black schoolchildren may have implications for the existence and level of flight to private schools among Latinos and whites.

To explore these issues, I compared the racial composition of public schools attended by Latinos and by whites. The racial composition of a school must be measured relative to the racial composition of the surrounding area. For example, a school in the Washington, DC, metropolitan area with the same percentage of black students as a school in the Minneapolis metropolitan area would have a different level of segregation. Therefore, I used the difference between the black share of the student's school and the black share of the student's PMSA as a measure of school segregation.[6] I calculated this measure for Latino and white 8th- and 10th-grade students (see Figures 1 and 2).

The results presented in Figures 1 and 2 paint a clear picture: Latino schoolchildren are more likely to interact with black schoolchildren than are white schoolchildren. For example, 9.9% to 12.3% of Latinos attend public schools that have substantially larger concentrations of blacks than their PMSAs (defined as having black shares that are at least 15 percentage points greater than the share of blacks in the PMSA). In contrast, only 4.2% to 4.9% of white public school students attend schools with this level of interaction

5. Identifying counties from zip codes, however, is not straightforward because many zip codes cross county boundaries. I therefore used the following algorithm to identify the county of residence. First, I eliminated counties in which the zip codes capture only nonresidential parts of the counties. This step allowed me to assign a unique county of residence to approximately 90% of the total sample. Second, for the remaining public school students, I used the county of the student's school. Third, for the remaining private school students, I used the county that represents the largest fraction of the total population for that zip code.

6. Previous studies argued that racial integration should be measured at the class level because of the presence of tracking (see, for example, Chubb and Moe 1996; Greene 1999). I did not follow this approach because of small sample sizes for blacks and Latinos.

Figure 1. Racial Composition of Public Schools Attended by Latino and White Students: NELS, 8th Grade

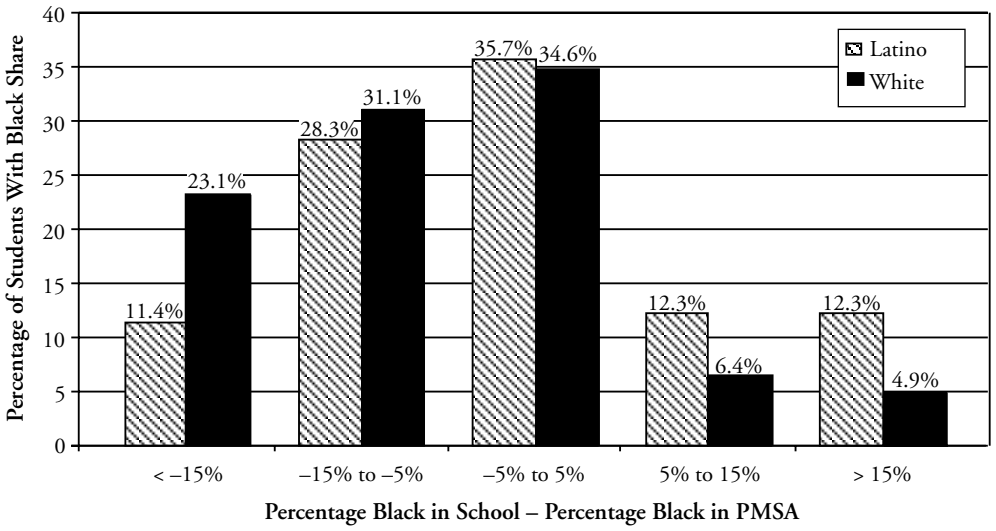
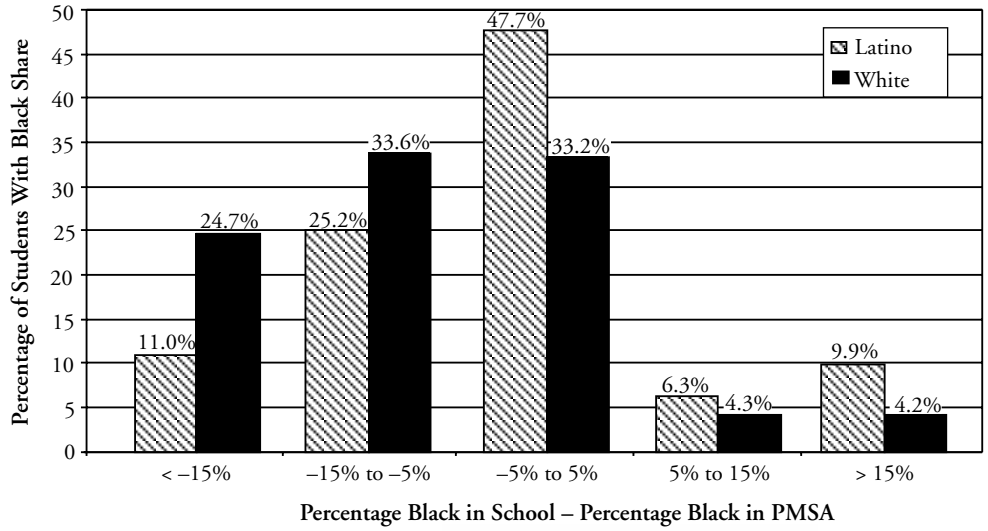


Figure 2. Racial Composition of Public Schools Attended by Latino and White Students: NELS, 10th Grade



with black schoolchildren. At the other end of the distribution, Latinos are much less likely than whites to attend public schools with relatively low percentages of black students. Only 11.0% to 11.4% of Latinos attend public schools that have a black-share difference of less than 15 percentage points, whereas 23.1% to 24.7% of whites attend these types of schools.

Overall, these results indicate that Latinos are more likely than whites to interact with blacks in the public school system when the racial composition of the PMSA is held constant. Although these results do not suggest whether Latinos are more likely or less likely to respond to blacks than are whites, they indicate the possibility that Latinos may respond differently to black schoolchildren than may whites. Of course, there may be many other factors that differ between Latinos and whites and that have an important effect on the racially motivated flight to private schools. I examine a few relevant factors next.

LATINO/WHITE DIFFERENCES IN INCOME, PROXIMITY TO PRIVATE SCHOOLS, AND RACIAL ATTITUDES

Latinos may have fewer opportunities to flee to private schools than may whites. Perhaps the most important constraint is that Latinos have lower levels of family income than do whites. Table 1 presents estimates of family income in 1987–1988 for Latino and white 8th graders.

The results clearly indicate that Latino schoolchildren live in families with substantially lower levels of income. For example, 37.5% of Latino schoolchildren have family incomes of less than $15,000, whereas only 14.1% of white schoolchildren have family incomes at this level. Furthermore, whites are more than 2.5 times as likely to have family incomes of at least $50,000 than are Latinos and are nearly 4 times as likely as Latinos to have family incomes of at least $100,000. The lower levels of family income may limit racially motivated flight to private schools among Latinos.

Another potential constraint to flight to private schools is that private schools are less likely to be located in the geographic areas in which Latinos live. Concerns about the accessibility of private schools across different racial groups have been important in debates over tuition vouchers for private schools. Table 1 shows the average distance to the closest school for both Latinos and whites. I created this variable by first identifying the longitude and latitude of all zip codes in the United States. For each NELS respondent, I then calculated the distance to every private school with at least 100 students.[7] To my surprise, I found that Latinos live closer to private schools on average than do whites. They live an average of 5.3 kilometers away from the closest private school, which is nearly half the average distance for whites. Therefore, racially motivated flight to private schools by Latino schoolchildren should not be limited by the children's lack of proximity to private schools.

Previous studies speculated that one of the underlying causes of white flight may be personal prejudice against black or minority schoolchildren (Conlon and Kimenyi 1991; Lankford and Wycoff 1997).[8] Latinos and whites may differ in their levels of personal prejudice toward black schoolchildren. NELS contains a variable that provides some suggestive evidence related to this hypothesis. Students were asked the following question on the 10th-grade survey: "How often do you feel it is 'OK' for you to make racist

7. I thank Todd Elder for providing a Matlab program that calculates the distance between any two points, given their longitude and latitude. A FORTRAN version of the program is available at the National Oceanic and Atmospheric Administration, National Geodetic Survey web page: ftp://ftp.ngs.noaa.gov/pub/pcsoft/for_inv.3d/source/inverse.for. I obtained a special list of the zip codes for private schools from original records of the 1989–90 Private School Survey from Steve Broughman at NCES.

8. Fairlie and Resch (2002) examined whether racially motivated flight to private schools is stronger among white children who "feel it's OK to make racist remarks" than among other white children. All their estimates, however, are statistically insignificant at conventional levels.

Table 1. Selected Characteristics of Latino and White Schoolchildren

	Latinos	Whites
Family Income Level (%)		
$0–$15,000	37.5	14.1
$15,000–$25,000	23.6	17.4
$25,000–$35,000	15.9	20.0
$35,000–$50,000	13.5	23.5
$50,000–$100,000	8.3	20.7
$100,000+	1.2	4.4
Sample size	2,603	14,667
Average Distance to Closest Private School (km)	5.3	10.3
"How often do you feel it is 'OK' for you to make racist remarks?" (%)		
Often	1.1	2.2
Sometimes	2.8	3.1
Rarely	8.6	11.2
Never	87.5	83.6
Sample size	1,940	11,657

Note: All estimates are calculated using sample weights provided by the NELS.

remarks?"[9] The respondents chose one of the following responses: (1) "Often," (2) "Sometimes," (3) "Rarely," and (4) "Never." I report estimates of the percentages of Latinos and whites who provided each of these possible responses (see Table 1). It is interesting that Latino and white 10th graders did not differ substantially in their responses to this question. Slightly more white schoolchildren than Latino schoolchildren reported feeling that it is OK to make racist remarks "often," "sometimes," or "rarely." Although the "racist remarks" question in the NELS is subjective and much caution is warranted in interpreting these results, the results do not provide evidence to suggest that Latino and white schoolchildren have different racial attitudes. In the end, however, it is difficult to make comparisons because Latinos and whites may differ in how they view what constitutes a racist remark and how they react to the social stigma of the question.

PRIVATE SCHOOL ENROLLMENT RATES BY RACE

In Table 2, I report rates of enrollment in private schools by race for 8th-grade students in 1987–1988 and 10th-grade students in 1989–1990. By using sample weights provided by NELS, I ensured that the estimates are representative of the U.S. population of 8th and 10th graders in 1987–1988 and 1989–1990, respectively. The estimates indicate that Latino schoolchildren are less likely to attend private schools than are white schoolchildren, but are more likely to attend private schools than are black schoolchildren.[10] During

9. The parents were likely to make the school-sector choice, but I expected that a child's response to this question partly reflected his or her parents' attitudes toward race.

10. The relative patterns are similar for estimates of rates of attendance at primary and secondary private schools for an urban sample from the 1990 census as reported in Betts and Fairlie (2001).

Table 2. Private School Enrollment Rates by the Race of the Students and the Racial Composition of Public and Private Schools

	8th Grade (1987–1988)		10th Grade (1989–1990)	
	%	*N*	%	*N*
Private School Enrollment Rates				
White, non-Latino	13.2	16,317	11.2	11,537
Black	7.1	3,009	6.9	1,517
Latino	9.5	3,171	8.4	1,901
Public School Enrollment Shares				
White, non-Latino	70.6	12,343	73.7	9,676
Black	14.0	2,565	12.5	1,370
Latino	10.7	2,772	9.6	1,759
Private School Enrollment Shares				
White, non-Latino	78.4	3,974	78.7	1,861
Black	7.7	444	7.8	147
Latino	8.2	399	7.4	142
Catholic School Enrollment Shares				
White, non-Latino	74.5	1,832	74.1	697
Black	9.9	294	11.3	92
Latino	10.8	309	9.3	98

Note: Estimates were calculated using sample weights provided by NELS.

this period, 9.5% and 8.4% of Latino 8th and 10th graders, respectively, attended private schools. In contrast, only 7.1% of black 8th graders and 6.9% of black 10th graders attended private schools. Slightly more than 13% of white 8th graders and 11% of white 10th graders attended private schools.

These estimates imply that black schoolchildren are underrepresented in the private school system relative to the public school system. Table 3 reports aggregate racial compositions in public and private schools. As expected from the patterns of private school rates, the black share of all private schoolchildren is much smaller than the black share of all public schoolchildren. Blacks constitute 12.5% to 14.0% of all public schools students, but only 7.7% to 7.8% of all private school students. Latinos also make up a lower percentage of all private school students than of public school students, but the difference is not as large.

With regard to the racial composition of Catholic schools, 83.1% to 88.6% of Latinos who attended private schools during this period attended Catholic schools. Blacks were underrepresented in Catholic schools relative to public schools, although the difference is not as large as for all private schools. Latinos made up 10.8% and 9.3% of all 8th- and 10th-grade Catholic school students, respectively. These shares of all Catholic school students are similar to those for all public school students.

At the aggregate level, there appears to be a high level of racial sorting into the private and public school systems. From these patterns, one might suspect that if Latino flight from black schoolchildren occurred, it should be, on average, from public schools into private schools.

Table 3. Probit Regressions for the Probability of Latinos' Attending Private Schools

	Specification			
	PMSA Level		County Level	
Variable	8th Grade (1)	10th Grade (2)	8th Grade (3)	10th Grade (4)
Female	0.0448	–0.0188	0.0659	–0.0025
	(0.0647)	(0.1646)	(0.0545)	(0.1229)
Number of Siblings	–0.0622	–0.0179	–0.0756	–0.0311
	(0.0218)	(0.0316)	(0.0235)	(0.0321)
Born Abroad	–0.2355	–0.1738	–0.2204	–0.1389
	(0.1483)	(0.1802)	(0.1409)	(0.1858)
Catholic	0.3663	–0.0679	0.4047	–0.1136
	(0.1845)	(0.2571)	(0.1931)	(0.2438)
Other Christian	0.1348	–0.4336	0.1553	–0.4118
	(0.1426)	(0.2520)	(0.1646)	(0.2298)
Mother Graduated From High School	0.0840	0.2125	0.1162	0.2113
	(0.1304)	(0.1396)	(0.1007)	(0.1567)
Mother Has Some College	0.2578	0.2665	0.3022	0.3161
	(0.1566)	(0.1511)	(0.1220)	(0.1572)
Mother Graduated From College	0.4753	0.5506	0.5196	0.5356
	(0.1234)	(0.1578)	(0.1155)	(0.1572)
Father Graduated From High School	0.2637	0.3068	0.2923	0.3402
	(0.0828)	(0.1601)	(0.0982)	(0.1376)
Father Has Some College	0.3422	0.4338	0.3671	0.3918
	(0.0945)	(0.1338)	(0.0972)	(0.1448)
Father Graduated From College	0.6620	0.5170	0.7024	0.5537
	(0.1164)	(0.2143)	(0.1114)	(0.1797)
Family Income				
$15,00–$25,000	0.0362	–0.2284	0.0358	–0.1160
	(0.1241)	(0.2336)	(0.1101)	(0.2020)
$25,000–$35,000	0.2346	0.2442	0.2386	0.3154
	(0.1429)	(0.2207)	(0.1420)	(0.2002)
$35,000–$50,000	0.2041	0.2530	0.2138	0.3072
	(0.2027)	(0.2386)	(0.1541)	(0.2172)
$50,000–$100,000	0.4834	0.7627	0.5218	0.8201
	(0.2212)	(0.2228)	(0.2221)	(0.2172)
> $100,000	0.8367	0.7971	0.7767	0.9573
	(0.2922)	(0.3550)	(0.2996)	(0.4005)
Public School Student-to-Teacher Ratio	–0.0659	0.0191	0.0453	0.0280
	(0.0554)	(0.0760)	(0.0519)	(0.0535)
Public School Expenditures per Pupil (in thousands)	0.3797	0.1734	0.1921	0.1585
	(0.1083)	(0.1486)	(0.0807)	(0.0691)

(continued)

(Table 3, continued)

	Specification			
	PMSA Level		County Level	
Variable	8th Grade (1)	10th Grade (2)	8th Grade (3)	10th Grade (4)
Public School Graduation Rate	1.9568	0.9095	0.7058	0.7565
	(1.9711)	(1.3270)	(1.7754)	(1.4529)
Private School Student-to-Teacher Ratio	0.2497	0.1674	0.1822	0.0967
	(0.0891)	(0.1028)	(0.0734)	(0.0778)
Serious Crime Rate	–8.4936	–0.8720	–1.4113	3.3332
	(3.9046)	(5.6029)	(4.1950)	(3.9605)
Poverty Rate (Ages 5–17)	0.0595	–3.4377	–0.3020	–1.4258
	(1.2533)	(1.8194)	(0.9230)	(1.1545)
Distance to Closest Private School (km)	–0.0178	–0.0564	–0.0062	–0.0030
	(0.0252)	(0.0314)	(0.0106)	(0.0153)
Distance Squared / 100	0.0227	0.1075	0.0039	–0.0008
	(0.0628)	(0.0760)	(0.0079)	(0.0111)
Black Share of Population (Ages 5–18)	2.6349	3.9555	1.9989	2.5790
	(0.9944)	(1.3288)	(0.7387)	(0.9354)
Mean of Dependent Variable	0.1117	0.0994	0.1003	0.0884
Average Derivative Adjustment Factor	0.1406	0.1312	0.1297	0.1208
Sample Size	2,553	1,462	2,870	1,697

Notes: The sample consists of Latino schoolchildren. Standard errors are reported in parentheses and are adjusted for including multiple observations per PMSA or county. All estimates were adjusted for the oversampling of private school students. In addition to the reported variables, all specifications include a constant, region controls, and dummy variables for age, and missing mother's education, father's education, religion, birthplace, and family income. The average derivative (or marginal effect) is equal to the adjustment factor multiplied by the coefficient. See the text for more details.

FLIGHT TO PRIVATE SCHOOLS BY LATINOS

To test the Latino-flight hypothesis, I first created and estimated a reduced-form equation for private school attendance. I assumed that private school is determined by an unobserved latent variable,

$$Y_i^* = X_i'\beta + \varepsilon_i, \tag{1}$$

where X_i includes characteristics of students, parents, schools, and geographic areas and is the disturbance term. Only the dichotomous variable, Y_i, is observed, however; it equals 1 if $Y_i^* \geq 0$ (denoting private school attendance) and equals 0 otherwise (denoting public school attendance). If one takes ε_i to be normally distributed, the assumptions imply that the data are described by a probit model. Although the normality assumption should be taken only as an approximation, the probit model provides a useful descriptive model for the binary event that a student attends private school.

A complication arises, however, in the use of a standard probit regression because NELS included an oversample of private school students. To correct for this problem, I used a choice-based sampling maximum likelihood estimator (see Amemiya 1985 for

more details). The likelihood function for this estimator is weighted to account for the oversample of ones for the dependent variable. Observations in which $Y = 0$ and $Y = 1$ are given weights of P^W / P^U and $(1 - P^W) / (1 - P^U)$, respectively, where P^W is the private school rate calculated using sample weights provided by NELS, and P^U is the unweighted private school rate.

I estimated several choice-based sample-corrected probit regressions for the probability of attending private school using a sample of Latino students. In addition to measures of the characteristics of students, parents, schools, and geographic areas, I included the black share of the school-age population. The coefficient on this variable provides evidence of whether the private/public school choices of Latino schoolchildren are sensitive to the presence of black schoolchildren.

I measured the black share of the population at both the county and PMSA levels. The main advantage of using the county-level measure is that it captures a smaller geographic area and thus is less likely to suffer from problems associated with aggregating heterogeneous areas. There are a few disadvantages, however. There is one particularly important disadvantage. Suppose that Latinos respond to high concentrations of blacks not by enrolling their children in private schools but by moving to other neighborhoods where the public schools have fewer black students. This response may cause an upward bias in the coefficient estimate for the black proportion of the population if one focuses on narrow geographic areas, such as counties. Specifically, any movement from high-black school districts to low-black school districts increases the private school rate in the sending district and decreases the private school rate in the receiving district, thus implying a larger positive correlation between the private school rate and the minority share. In contrast, the use of PMSAs as the unit of analysis greatly reduces this problem because these areas typically encompass many neighborhoods.[11]

A second but related rationale for using PMSAs concerns the endogeneity of the locations of households more generally. Families are more likely to move between districts or counties within a PMSA as a result of variations in the quality of schools than to move between PMSAs. Moves between PMSAs are likely to be influenced mainly by factors apart from schooling, such as the availability of jobs or the presence of family members. Thus the simultaneity of location decisions and school-sector choices poses less of a problem when the unit of analysis is the PMSA than when it is a smaller geographic area, such as a county.

The third justification for using PMSAs as the unit of analysis is that they more accurately represent markets for private schools than do counties or school districts. Certainly, many families send their children across county lines to private schools.

Taking these arguments into consideration, I estimated separate regressions using PMSA and county-level measures of the black share of the school-age population.[12] I first discuss the results for the PMSA-level measures (reported in Specifications 1 and 2 of Table 3). I estimated separate regressions for the samples of 8th- and 10th-grade students. In addition to the black-share variable, I included controls for age, sex, country of birth, number of siblings, religion, parental education, family income, distance to the closest

11. It would also be interesting to examine whether Latino families move to alternative school districts or counties in response to black schoolchildren. However, it is difficult to distinguish whether the locational choices of Latinos are determined by the presence of blacks in the public schools or by the presence of blacks in the neighborhood. These issues are beyond the scope of this article.

12. The NELS sample of Latino 8th graders resided in 155 different PMSAs and 333 different counties in the United States. The Latino 10th graders resided in 132 different PMSAs and 272 different counties. These observations are fairly spread out across PMSAs and counties: roughly 75% and 85% of the PMSAs and counties represented in the sample contained 10 or fewer observations, respectively.

private school, the quality of private and public schools, the poverty rate, and crime.[13] The coefficients on the individual-level variables generally have the expected signs. The probability of attending private school increases sharply with the mother's and father's educational levels and family income. The main exception is that religion appears to have little effect on the probability of attending private school. The coefficient on the dummy variable for Catholic religion is statistically insignificant in both specifications. The coefficient estimates on the school and geographic-area variables are generally statistically insignificant. The standard errors on these variables are adjusted for including multiple observations per PMSA. This adjustment is important in an individual-level equation that includes aggregate market variables because the downward bias in ordinary least-squares standard errors can be extremely large (Moulton 1986). I estimated Huber-White corrected standard errors.

I now turn to the results for the black share of the school-age population.[14] In both specifications, the coefficient estimate is positive and statistically significant. The estimates also imply fairly large effects. Among Latino 8th graders, a 10–percentage point increase in the black share increases the probability of private school attendance by 0.037, which represents 33.2% of the Latino private school rate.[15] The effect among Latino 10th graders is even larger. A 10–percentage point increase in the black share increases the private school rate by .052, or 52.2%. These results are consistent with the flight of Latinos to private schools in response to large concentrations of black schoolchildren.

I also estimated probit regressions that included county-level measures of the black share of the population, public school student-to-teacher ratio, public school expenditures per pupil, public school graduation rate, poverty rate, and crime rate (reported in Specifications 3 and 4). The number of observations used in these regressions is larger because many NELS respondents lived in counties that are located outside PMSAs. The coefficient estimates on the controls do not differ substantially from the PMSA-level regressions. More important, however, the coefficient estimates on the black share are large, positive, and highly significant.[16] The coefficients using the county-level measures imply that a 10–percentage point increase in the black share increases the probability of attending private school by 0.026 (25.7%) among 8th graders and 0.031 (35.2%) among 10th graders. Thus, the county-level regressions provide additional evidence of the Latino flight from black schoolchildren.

As a check of the robustness of these results, I estimated three additional sets of probit regressions. Table 4 reports the results for the black-share coefficients.[17] First, I

13. Means are reported in Appendix Table A1. The variables for the public school student-to-teacher ratio, expenditures per pupil, and graduation rate are from the Common Core of Data (CCD). The variable for the state-level private student-to-teacher ratio is from the 1989–90 Private School Survey, reported in the U.S. Department of Education (1993). The serious crime rates for 1987 and 1989 are from the 1994 USA Counties CD-ROM.

14. This variable was obtained from the Census STF 3C files. I defined the school-age population as ages 5–18 in both specifications. I also estimated probit regressions in which I measured the black share for ages 5–14 using the 8th-grade sample and the black share for ages 14–18 using the 10th-grade sample. The coefficient estimates are similar to the reported estimates (because of the high degree of collinearity between the measures). I argue that the entire age range is a more appropriate measure because Latino parents may simply use the race of all children in the local area to make inferences about the racial composition of the public schools.

15. These estimates were calculated by multiplying the coefficient estimate by the average derivative adjustment factor reported at the bottom of Table 4. The average derivative adjustment factor is $\Sigma\beta_s\varphi(X_i'\beta)/N$, where β_s is the coefficient on the minority share and φ is the normal probability density function. The effect of a one-unit increase in any of the independent variables on the probability of attending private school can be estimated by multiplying the coefficient on that variable by the average derivative adjustment factor.

16. These estimates and those using the PMSA-level measure are not sensitive to outliers. I removed all observations in which the black share was less than .01 and greater than .50 (which represents 9% to 27% of the original samples) and found similar coefficient estimates.

17. Although not reported, I also checked the sensitivity of the results to outliers.

Table 4. Additional Probit Regressions for the Probability of Latinos' Attending Private School

	Specification			
	PMSA Level		County Level	
Variable	8th Grade (1)	10th Grade (2)	8th Grade (3)	10th Grade (4)
1. Excludes Distance Variable				
Black share of the population (ages 5–18)	2.6893	3.9309	2.0230	2.5835
	(0.9770)	(1.3546)	(0.7308)	(0.9400)
Mean of dependent variable	0.1117	0.0994	0.1003	0.0884
Average derivative adjustment factor	0.1407	0.1320	0.1297	0.1208
Sample size	2,553	1,462	2,870	1,697
2. Removes Missing Observations				
Black share of the population (ages 5–18)	2.1667	3.7622	2.4593	3.5441
	(1.1358)	(1.4465)	(0.7527)	(0.9337)
Mean of dependent variable	0.1031	0.0895	0.0915	0.0786
Average derivative adjustment factor	0.1353	0.1191	0.1242	0.1084
Sample size	1,958	1,188	2,230	1,397
3. Includes 8th-Grade Test Scores				
Black share of the population (ages 5–18)		4.6478		2.8247
		(1.3711)		(0.9703)
Mean of dependent variable		0.0987		0.0874
Average derivative adjustment factor		0.1261		0.1164
Sample size		1,394		1,626

Notes: See notes to Table 3. All the specifications include the same control variables as those included in the specifications reported in Table 3. The specifications in Panel 2 do not include missing birthplace, religion, and family income.

estimated regressions that do not include the distance variables because of the potential endogeneity issues associated with this variable. The estimates for the black-share coefficients are similar. They remain statistically significant and range from 2.0230 to 3.9309.

Second, as I noted earlier, many values for religion and family income variables are missing for the NELS sample. In the main specifications, I included dummy variables for these missing values to increase the sample size. As a check for robustness, I estimated a set of probit regressions that exclude these observations. Although the sample sizes decline by 18% to 23%, the coefficients do not change appreciably, and three of the four remain statistically significant at conventional levels. The coefficients range from 2.1667 to 3.7622.

Finally, I estimated 10th-grade regressions that include 8th-grade test scores. The coefficient on the PMSA-level black share is 4.6478, and the coefficient on the county-level black share is 2.8247. Both these coefficients are statistically significant and larger than in the main specification.

To summarize, I found that the black share of the school-age population, measured at both the PMSA and county levels, has a positive and statistically significant effect on the

probability of Latino schoolchildren attending private schools. These results are robust to alternative specifications and samples and provide evidence that Latino students enroll in private schools in response to large concentrations of black students.

As with any cross-sectional analysis, however, these results are potentially biased because of omitted variables. Although I included a long list of individual and family characteristics, geographic controls, school-quality measures, and local-area characteristics, there may be additional factors that are correlated with both the black share of the population and the private/public school choices of Latinos. In particular, my regressions may not have completely controlled for differences in the quality of schools. The main concern is the possibility that Latinos are simply trying to avoid low-quality school systems that blacks may disproportionately attend. I included several measures of school quality, such as the student-to-teacher ratio, expenditures per pupil, and the high school completion rate, but these measures may not have been enough. In particular, a measure of average changes in test scores in public schools would be useful. Unfortunately, no national standard test scores were available in 1990. NELS included a standardized test score, but only for individual students in the sample. NELS did not provide information on average test scores for students' schools.

Transitions From Private to Public School

Another empirical approach to examining the Latino-flight hypothesis is to identify the determinants of transitions between the private and public school systems. In particular, the finding that increases in the black share increases the probability that a student will switch from a public to a private school or decreases the probability that a student will switch from a private to a public school is consistent with the Latino-flight hypothesis. NELS contains observations for the same students in both the 8th and 10th grades. I examined whether the black share of the school-age population affects the probability that a student will switch from a private school in the 8th grade to a public school in the 10th grade. I would also have liked to examine the determinants of transitions from public school in the 8th grade to private school in the 10th grade, but only 8 out of 1,628 8th graders in public schools made this transition. The sample sizes for the transition from private school to public school are higher (52 out of 185) but remain relatively small.

I estimated several probits for the probability of a transition from private to public school. The dependent variable in these probit regressions equals 1 if the student switched from a private school in the 8th grade to a public school in the 10th grade and equals 0 if the student remained in a private school in both grades. As expected, many of the coefficients have the opposite sign as those reported in Table 3. For example, the estimates indicate that the probability of a transition from private to public school decreases with family income and father's education. This finding is consistent with the positive coefficients found in the cross-sectional regressions.

Turning to the results for the black share of the school-age population, I found negative point estimates for the black share in both the PMSA-level and county-level specifications. However, the coefficient in the county-level specification is not statistically significant, and the coefficient in the PMSA-level specification is not robust to alternative specifications.[18] With the standard set of controls, the coefficient in the PMSA-level specification equals –14.3673. After the high school completion rate, crime rate, and poverty rate are removed, it drops to –5.3672. The sensitivity of this estimate may have to do with the small sample sizes and the high level of correlation between these measures and the black share.

18. The black-share coefficient in the county-level probit regression is –1.936 with a standard error of 2.808. The point estimate implies that a 10–percentage point increase in the black share decreases the probability of the transition from a private to a public school (mean = .279) by .046.

Although these results are only suggestive, they are useful in checking the robustness of the signs of my cross-sectional estimates. For both levels of analysis, the point estimates are negative, which is consistent with the positive coefficients found earlier and with the Latino-flight hypothesis.

Comparison With Estimates of White Flight

As I noted earlier, several recent studies have provided evidence of white flight from black schoolchildren (see, for example, Andrews 2002; Conlon and Kimenyi 1991; Fairlie and Resch 2002; Lankford et al. 1995; Lankford and Wyckoff 1992, 1997). Using data from NELS, I estimated several choice-based sample-corrected probit regressions for the probability of attending private school among a pooled sample of non-Latino white, black, and Latino students. I included an interaction between white race and the black share to examine whether Latinos and whites differ in how they respond to black schoolchildren. Panel 1 of Table 5 reports the estimates. For brevity, I report estimates only for the dummy variables for race, the black share, and race/black share interactions, although all the controls are included.

I generally found large positive and statistically significant coefficients on the dummy variable for white race. White children are more likely to attend private school, even after parental education, family income, school quality, and other characteristics are controlled. The main effect, represented by the black-share coefficient, remains large, positive, and statistically significant in all the specifications. Therefore, the pooled estimates do not change the conclusions regarding the effect of the black share on the private/public school choices of Latinos.

Of most interest, however, are the white race/black share interaction coefficients. The coefficients provide an estimate of the difference between the effect of the black share on the probability of whites and Latinos attending private schools. In all the specifications, the white/black share interaction coefficient is statistically insignificant. Furthermore, the point estimates are positive in two specifications and negative in two specifications. Overall, these estimates do not provide evidence that Latinos and whites respond differently to large concentrations of black schoolchildren.

The probit regressions reported in Panel 1 of Table 5 also include a black race and black race/black share interaction variable. The interaction coefficient is large and negative in all the specifications, but is statistically insignificant. The lack of statistical significance makes these results difficult to interpret. The large and negative point estimates may suggest that blacks are less likely to respond to the black school-age population than are Latinos, which is consistent with Latino flight being partly driven by prejudice. On the other hand, the sum of the main effect and black interaction point estimates remains positive in all specifications, suggesting that other factors may be partly responsible for flight. The total effect for blacks, however, is not statistically different from zero in any of the specifications. Overall, these findings are interesting, but unfortunately do not shed light on the existence or causes of Latino flight.

Latino Flight Among More Advantaged Students

Do more-advantaged Latinos respond differently to black schoolchildren than do their less-advantaged counterparts? Similar to the motivation for comparing levels of white flight to Latino flight, these groups may differ in their response to black schoolchildren in the public schools. In particular, advantaged and disadvantaged Latinos may have different racial attitudes toward blacks owing to differences in levels of integration and perceived competition with blacks. The estimates reported earlier indicate that higher levels of family income and parental education have a strong positive effect on the probability of Latinos attending private schools. These estimates, however, do not tell us whether advantaged Latinos respond more to large concentrations of black schoolchildren than do

Table 5. Interaction Probit Regressions for the Probability of Attending Private School

	Specification			
	PMSA Level		County Level	
Variable	8th Grade (1)	10th Grade (2)	8th Grade (3)	10th Grade (4)
1. Race Interactions				
White	0.5012	0.3443	0.2869	0.1317
	(0.1963)	(0.1722)	(0.1374)	(0.1450)
Black	0.1877	0.3069	0.3140	0.4037
	(0.2572)	(0.2667)	(0.2203)	(0.2637)
Black share of the population (ages 5–18)	2.8504	3.0049	1.6941	1.8943
	(0.9346)	(0.8801)	(0.5167)	(0.7484)
Black share × white	–1.1000	–0.3765	0.5138	1.0836
	(0.9223)	(0.7238)	(0.4790)	(0.7081)
Black share × black	–0.8782	–1.1026	–1.0844	–1.2714
	(1.0027)	(1.0986)	(0.7274)	(0.8653)
Mean of dependent variable	0.1530	0.1371	0.1227	0.1052
Average derivative adjustment factor	0.1849	0.1669	0.1497	0.1270
Sample size	16,386	10,313	20,870	13,727
2. Family Income Interaction				
Black share of the population (ages 5–18)	2.4944	2.9768	2.4435	2.7477
	(1.2977)	(1.4053)	(0.7504)	(1.0087)
Black share × family income ($35,000+)	–1.3449	1.2312	–0.1528	1.5905
	(1.7202)	(1.1916)	(0.7831)	(0.8963)
Mean of dependent variable	0.1014	0.0888	0.0901	0.0781
Average derivative adjustment factor	0.1356	0.1215	0.1243	0.1099
Sample size	2,094	1,260	2,382	1,478
3. Parental Education Interaction				
Black share of the population (ages 5–18)	2.5176	3.9775	1.9510	2.4275
	(1.0264)	(1.4416)	(0.7281)	(0.9635)
Black share × college-educated parents	0.3534	–0.0555	0.1488	0.4071
	(0.7199)	(1.4454)	(0.5602)	(0.8477)
Mean of dependent variable	0.1117	0.0994	0.1003	0.0884
Average derivative adjustment factor	0.1405	0.1312	0.1296	0.1206
Sample size	2,553	1,462	2,870	1,697

Notes: The sample consists of Latino, black, and white schoolchildren in Panel 1 and Latino schoolchildren in Panels 2 and 3. See the notes to Table 3. All the specifications include the same control variables as those included in the specifications reported in Table 3.

disadvantaged Latinos. Socioeconomic differences in the flight of Latinos may be especially troubling for public school administrators and teachers in large urban school districts. If the most advantaged Latino students, along with white students, increasingly opt

to attend private schools, then the remaining schoolchildren may be denied important opportunities for positive peer-group effects. In addition, public support for these schools may erode, resulting in fewer resources.

I examined this hypothesis by interacting the black share of the school-age population variable with the student's family income and parents' education levels. The results are reported in Panels 2 and 3 of Table 5. I first discuss the results, in which I included an interaction between the black share and a dummy variable for family income of $35,000 or more. I found positive coefficients in two of the specifications and negative coefficients in the remaining specifications. None of the coefficients, however, is statistically significant. Therefore, the estimates do not provide evidence that Latino flight differs by family income.

In Panel 2 of Table 5, I also included an interaction between the black share and a dummy variable indicating whether the student had at least one college-educated parent. Similar to the results for family income, none of the interaction coefficients is statistically significant. Apparently, Latinos who have college-educated parents do not respond more to large concentrations of black schoolchildren than do those with parents who are not college educated.

The coefficient estimates on the family income and parental education interactions are statistically insignificant in all cases and small in magnitude in most cases. The signs on these coefficients are also inconsistent. Therefore, the estimates do not provide evidence that advantaged and disadvantaged Latinos differ in their response to black schoolchildren.

CONCLUSIONS

Using data from NELS and a recently released confidential data set from NCES, I explored the Latino-flight hypothesis. I found a large, positive, and statistically significant coefficient on the black share of the school-age population in probit regressions for the probability of Latinos attending private schools. The coefficient estimates imply that a 10–percentage point increase in the black share increases the probability of private school attendance by 25.7% to 33.2% among Latino 8th graders and 35.2% to 52.2% among Latino 10th graders. I also estimated probit regressions using a sample of non-Latino whites. I did not find evidence that Latinos respond differently to black schoolchildren than do whites.

I interpreted these results as providing evidence of the flight of Latinos from public schools into private schools. Although the results are fairly robust to alternative specifications and samples, they are potentially biased because of omitted variables. In particular, it is difficult to control completely for differences in the quality of schools. The regressions include several of the measures of school quality used in the literature, but the positive estimates may be partially due to Latinos avoiding low-quality school systems that blacks may disproportionately attend. Further research using alternative methodologies and data may shed light on this possibility and is needed before a definitive conclusion can be reached.

Although several previous studies focused on whether white students' choice between private and public schools is influenced by the racial composition of the local student population, similar choices by Latino students also pose a threat to school integration. This issue is especially important in light of the rapidly growing share of the school-age population represented by Latinos and the higher likelihood of Latinos than whites interacting with blacks in the nation's public schools. Furthermore, Latinos show strong support for voucher programs, which suggests that the flight of Latinos into private schools may increase substantially if these programs become widespread. Assuming that the results of this study are due to race (i.e., racism, peer-group effects) and are not due to a spurious correlation, they provide suggestive evidence that the introduction of private

school vouchers may lead to increased segregation as families have greater opportunities to enroll their children in homogeneous schools. The impact of private school vouchers on segregation is an especially important concern, given that in *Zelman v. Simmons-Harris* (2002), the Supreme Court ruled that tuition vouchers for private schools can be used in religious schools. In the end, however, a definitive answer to whether private school vouchers will increase or decrease racial and specifically Latino/black segregation in the nation's schools will be possible only after several large-scale and long-term experimental programs are implemented and evaluated.

Appendix Table A1. Means of Selected Variables

	Specification			
	PMSA Level		County Level	
Variable	8th Grade (1)	10th Grade (2)	8th Grade (3)	10th Grade (4)
Female	0.5256	0.5195	0.5096	0.5077
Number of Siblings	2.8139	2.7369	2.7920	2.7048
Born Abroad	0.1215	0.1231	0.1254	0.1223
Catholic	0.5970	0.6556	0.5965	0.6459
Other Christian	0.1858	0.1778	0.1953	0.1914
Mother Graduated From High School	0.2009	0.2055	0.2002	0.1988
Mother Has Some College	0.2881	0.2815	0.2937	0.2917
Mother Graduated From College	0.0733	0.0808	0.0664	0.0730
Father Graduated From High School	0.1690	0.1633	0.1745	0.1686
Father Has Some College	0.2368	0.2541	0.2461	0.2573
Father Graduated From College	0.1222	0.1261	0.1087	0.1096
Family Income				
$15,000–$25,000	0.1913	0.1980	0.1977	0.2075
$25,000–$35,000	0.1364	0.1569	0.1377	0.1588
$35,000 –$50,000	0.1216	0.1298	0.1159	0.1208
$50,000–$100,000	0.0798	0.0966	0.0737	0.0839
> $100,000	0.0121	0.0147	0.0111	0.0134
Public School Student–Teacher Ratio	19.3323	19.2087	19.2429	19.0260
Public School Expenditures per Pupil	5.3212	5.2330	5.1822	5.0928
Public School Graduation Rate	0.9364	0.9572	0.9367	0.9551
Private School Student–Teacher Ratio	14.5817	14.5295	14.4760	14.4267
Serious Crime Rate	0.0712	0.0756	0.0686	0.0710
Poverty Rate (Ages 5–17)	0.2254	0.2316	0.2450	0.2458
Distance to Closest Private School (km)	2.3935	2.5528	5.3410	6.5620
Distance Squared / 100	0.3377	0.3322	3.3560	4.5496
Black Share	0.1336	0.1228	0.1265	0.1093
Sample Size	2,553	1,462	2,870	1,697

Note: The samples are the same as those used in Table 3.

REFERENCES

Allport, G.W. 1954. *The Nature of Prejudice*. Boston: Beacon Press.

Amemiya, T. 1985. *Advanced Econometrics*. Cambridge, MA: Harvard University Press.

Andrews, K.T. 2002. "Movement-Countermovement Dynamics and the Emergence of New Institutions: The Case of 'White Flight' Schools in Mississippi." *Social Forces* 80:911–36.

Baldassare, M. 2000. *PPIC Statewide Survey: Californians and Their Government*. San Francisco: Public Policy Institute of California.

Betts, J.R. and R.W. Fairlie. 2001. "Explaining Ethnic, Racial, and Immigrant Differences in Private School Attendance." *Journal of Urban Economics* 50:26–51.

Bobo, L. and C.L. Zubrinsky. 1996. "Attitudes on Residential Integration: Perceived Status Differences, Mere In-Group Preference, or Racial Prejudice?" *Social Forces* 74:883–909.

Buddin, R.J., J.J. Cordes, and S. Nataraj Kirby. 1998. "School Choice in California: Who Chooses Private Schools?" *Journal of Urban Economics* 44:110–34.

Chubb, J.E. and T.M. Moe. 1996. "Politics, Markets and Equality in Schools." In *Reducing Poverty in America,* edited by M.R. Darby. Thousand Oaks, CA: Sage Publications.

Clotfelter, C.T. 1976. "School Desegregation, 'Tipping,' and Private School Enrollment." *Journal of Human Resources* 22:29–50.

———. 2001. "Are Whites Still Fleeing? Racial Patterns and Enrollment Shifts in Urban Public Schools, 1987–1996." *Journal of Policy Analysis and Management* 20:199–221.

Coleman, J.S., T. Hoffer, and S. Kilgore. 1982. *High School Achievement: Public, Catholic, and Private Schools Compared*. New York: Basic Books.

Conlon, J.R. and M.S. Kimenyi. 1991. "Attitudes Towards Race and Poverty in the Demand for Private Education: The Case of Mississippi." *Review of Black Political Economy* 20:5–22.

Crowder, K. 2000. "The Racial Context of White Mobility: An Individual-Level Assessment of the White Flight Hypothesis." *Social Science Research* 29:223–57.

Fairlie, R.W. and A.M. Resch. 2002. "Is There White Flight Into Private Schools? Evidence From the National Educational Longitudinal Survey." *Review of Economics and Statistics* 84:21–33.

Figlio, D.N. and J.A. Stone. 1999. "Can Public Policy Affect Private-School Cream Skimming?" Working paper, Department of Economics, University of Florida and University of Oregon.

Greene, J.P. 1999. "The Racial, Economic, and Religious Context of Parental Choice in Cleveland." Paper prepared for the 1999 meetings of the Association for Public Policy Analysis and Management, November 5.

Hanushek, E.A., J.F. Kain, and S.G. Rivkin. 2001. "New Evidence About *Brown v. Board of Education*: The Complex Effects of School Racial Composition on Achievement." Working paper, Hoover Institution, Stanford University.

Huang, G., S. Salvucci, S. Peng, and J. Owings. 1996. "National Education Longitudinal Study of 1988 (NELS:88) Research Framework and Issues." Working Paper No. 96-03. Washington, DC: National Center for Education Statistics.

Jackman, M.R. and M. Crane. 1986. "'Some of My Best Friends Are Black': Interracial Friendship and Whites' Racial Attitudes." *Public Opinion Quarterly* 50:459–86.

Joint Center for Political and Economic Studies. 1997. "1997 National Opinion Poll—Children's Issues." Washington, DC: Joint Center for Political and Economic Studies.

Lankford, H., E.S. Lee, and J. Wyckoff. 1995. "An Analysis of Elementary and Secondary School Choice." *Journal of Urban Economics* 38:236–51.

Lankford, H. and J. Wyckoff. 1992. "Primary and Secondary School Choice Among Public and Religious Alternatives." *Economics of Education Review* 11:317–37.

———. 1997. "The Effect of School Choice and Residential Location on the Racial Segregation of Elementary Students." Working paper, Department of Economics, State University of New York–Albany.

Logan, J. 2001. "Ethnic Diversity Grows, Neighborhood Integration Lags Behind." Albany, NY: Lewis Mumford Center, University of Albany.

Massagli, M. 2000. "What Do Boston-Area Residents Think of One Other?" Pp. 144–64 in *The Boston Renaissance: Race, Space, and Economic Change in an American Metropolis,* edited by B. Bluestone and M. Huff Stevenson. New York: Russell Sage Foundation.

Moulton, B.R. 1986. "Random Group Effects and the Precision of Regression Estimates." *Journal of Econometrics* 32:385–97.

Orfield, G. and J.T. Yun. 1999. "Resegregation in American Schools." Cambridge, MA: Civil Rights Project, Harvard University.

Powers, D.A. and C.G. Ellison. 1995. "Interracial Contact and Black Racial Attitudes: The Contact Hypothesis and Selectivity Bias." *Social Forces* 74:205–26.

Schneider, M., M. Marschall, P. Teske, and C. Roch. 1998. "School Choice and Culture Wars in the Classroom: What Different Parents Seek From Education." *Social Science Quarterly* 79:489–501.

Sigelman, L. and S. Welch. 1993. "The Contact Hypothesis Revisited: Interracial Contact and Positive Racial Attitudes." *Social Forces* 71:781–95.

Stephan, W.G. 1987. "The Contact Hypothesis in Intergroup Relations." Pp. 13–40 in *Group Processes and Intergroup Relations,* edited by C. Hendrick. Newbury Park, CA: Sage.

U.S. Bureau of the Census. 1993. *1990 Census of Population, Social and Economic Characteristics, United States.* No. CP-2-1. Washington, DC: U.S. Government Printing Office.

———. 1996. *Current Population Reports: Population Projections of the United States by Age, Sex, Race, and Hispanic Origin: 1995 to 2050.* Series P-25, No. 1130. Washington, DC: U.S. Government Printing Office.

U.S. Department of Education. 1993. *Digest of Education Statistics—1993.* National Center for Education Statistics, Washington, DC: U.S. Government Printing Office.

———. 2000. *Digest of Education Statistics—2000.* National Center for Education Statistics, Washington, DC: U.S. Government Printing Office.

Weiher, G.T. and K.L. Tedin. 2002. "Does Choice Lead to Racially Distinctive Schools? Charter Schools and Household Preferences." *Journal of Policy Analysis and Management* 21:79–92.