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Racial Stratification and School Segregation in the Suburbs: The Case of Los Angeles County

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ABSTRACT

Since the mid-twentieth century, many American suburbs have transformed from lily white enclaves to multiracial milieus. How do advantaged families respond? With residential mobility declining and educational choice increasing, white and Asian suburban families may emulate their core-city counterparts, leveraging school enrollment to buffer their children from disadvantaged minorities living nearby. However, the suburban educational opportunity structure is vastly different, with private, magnet, and charter schools – and transportation options to access them – in much shorter supply. I propose that strong racial preferences spur white and Asian suburban families living amongst Latino and black children to enact them even in unfavorable circumstances: by commuting long distances to send their children to non-assigned schools. Logistic regressions leveraging Los Angeles Family and Neighborhood Survey data on over 2,000 child respondents linked to administrative data reinforce this argument. Higher concentrations of Latino and black students in local public schools predict higher rates of white and Asian Angelenos opting out. More surprisingly, this pattern appears stronger among suburban Angelenos than it does among core-city families, suggesting parental preferences may render school supply a less central factor in driving school segregation than prior studies suggest. Stratification research should expand beyond the traditional focus on city-to-suburb residential flows and educational flows out of core-city traditional public schools, to consider suburban school sorting as an emerging manifestation of minority avoidance. Doing so may reveal that parents' racial preferences are even stronger – and educational opportunity structures more malleable – than often assumed.

INTRODUCTION

For more than a half century, American suburbs have offered an alluring escape hatch to advantaged, white families whose racial anxieties were triggered by urban neighborhoods' rapidly changing demographics (Frey 1979; Massey and Denton 1993; Sugrue 2014; Wilson 1987). Access to highly-resourced and homogenous suburban school districts rendered this residential trajectory particularly appealing to white households with children – especially as upper-class parents' preferences for educational investments, such as access to high-quality schools, strengthened (Kornrich and Furstenberg 2013; Owens 2016; Reardon 2011). Indeed, suburban schools could be considered a linchpin of American segregation.

But suburban schools are not what they used to be. Recent research documents the demographic transformation of American suburbs from lily white enclaves to multiracial "melting pots" (Frey 2001; Timberlake, Howell, and Staight 2011); suburban public schools have followed suit (Fry 2009). Thus, the romanticized suburban ideal espoused by white, upper-class parents of sending their children to rich and white local public schools (Johnson 2014; Lareau 2014; Rhodes and Warkentien 2017) may be less tenable than it once was.

How do racially advantaged parents respond to diverse suburban neighborhoods and schools? In an era of low residential mobility, expanding school choice, and persistent racial biases, school enrollment decisions emerge as a possible pathway by which these parents might buffer their children from disadvantaged minorities living nearby. A growing body of sociological work argues that white and perhaps Asian families exploit liberalizing school enrollment rules and proliferating non-catchment school options (i.e., private, magnet, and charter) to avoid high concentrations of disadvantaged minority children in local schools (Candipan 2019; Fairlie and Resch 2002; Johnston 2015:201; Renzulli and Evans 2005; Saporito and Lareau 1999). These dynamics are thought to promote integrating neighborhoods and segregating schools (Rich, Candipan, and Owens 2019).

However, prevailing minority avoidance accounts rely heavily on theories and data from core-city school districts (Bischoff and Tach 2020; Welsh and Swain 2020), where non-traditional school options and transportation access to them are often plentiful. Suburban parents face a markedly different educational opportunity structure, one in which magnet, charter, and private schools are in much shorter supply. What this school choice set looks like and how advantaged suburban parents navigate it in reaction to race and class diversity remains largely unknown, despite the fact that a plurality of American children attend suburban schools.

In this article, I argue that suburban white and Asian families, like their advantaged core-city counterparts, seek to buffer their children from high concentrations of Latino and black children in local schools. Yet because non-traditional options are scarce, many white and Asian suburbanites send their children long distances to private, charter, or magnet schools – or traditional public schools outside their catchment zone. Using fine-grained data from the Los Angeles Family and Neighborhood Survey, which captures residential and educational sorting outcomes for over 2,000 children ages 5 through 17 during the 2000s, linked to educational administrative data from Los Angeles County and the California Department of Education and ArcGIS geospatial data, I test this argument using two sets of logistic regression models. First, I examine whether white and Asian children, regardless of suburban versus core-city location, are more likely to bypass their locally-assigned public school as the concentration of Latino and black students in the school increases. Second, I gauge whether this minority avoidance effect is stronger among suburban whites and Asians than among similarly-situated core-city families. Whereas prior school sorting studies often rely on ecological (e.g., district-level) data or micro-level administrative data from a single, core-city district, my integrated dataset spans the vast county's core-city school district – Los Angeles Unified School District (LAUSD) – and suburban districts; includes families that opted for traditional public, magnet, charter, and private schools; encompasses four major race-ethnic groups – including

Latinos and Asians; tracks rarely-included racial proxies that may confound observed minority avoidance effects (e.g., value-added estimates of local public school quality and local crime rates); and enables comparisons between children's selected and assigned schools in terms of spatial distance, racial composition, and test score-based performance.

The findings strongly support my core hypotheses. Higher concentrations of Latino and black students within their catchment-assigned public schools predict white and Asian children opting out. Moreover, the minority avoidance pattern is stronger among suburban white and Asian children than it is among similarly-situated core-city (i.e., LAUSD) families, even though the latter group is comparatively flush with non-traditional school options and transportation options to access them. These findings hold even when accounting for assigned schools' socioeconomic composition, test score-based proxies of school quality, crime rates in the surrounding community, and differences in families' plausible school choice sets. I infer that parental racial preferences may trump school supply as a driver of school segregation.

This study both broadens and reshapes our understanding of residential and educational segregation processes. The prevailing portrayal of racially advantaged parents facing a binary choice to realize their racial preferences – either (1) bundling their neighborhoods and schools within affluent suburbs or (2) decoupling the two within the core city via private, magnet, and charter school options – may be too simplistic. This study proposes a third path, in which diverse suburbs and sparse non-traditional school options spur white and Asian families to send their children long distances to more racially advantaged but often poorer-performing public schools. Within and beyond the educational sphere, stratification scholars and policymakers should reconceive opportunity structures as more malleable than often assumed – especially for structurally advantaged households with strong preferences when they are unsatisfied with the options available

SUBURBS, SCHOOLS, AND SEGREGATION

Residential race and class segregation remains a central feature of American society, spurring a vast body of work on the mechanisms that generate and sustain it (Farley and Frey 1994; Logan, Stults, and Farley 2004; Massey and Denton 1993; Reardon and Bischoff 2011). For over fifty years, the "white flight" hypothesis has dominated this line of inquiry. The account holds that large post-war migration flows of blacks from the rural south to northern core-city neighborhoods drove declines in core-city white populations and whites' exodus to the suburbs. Racial antipathy converged with vast increases in suburban housing, highway construction, and job decentralization to fuel these city-to-suburb migration flows. Moreover, structural and institutional mechanisms barred blacks from doing the same. These dynamics fostered a vicious cycle in which core-city neighborhoods became increasingly poor and racially isolated and municipal resources became increasingly scarce, spurring more whites to leave and so on (Farley et al. 1978; Galster 1990; Massey and Denton 1988; Schelling 1971; Sugrue 2014; Taeuber and Taeuber 1965; Wilson 1987).

Schools have long featured prominently in theoretical accounts of segregation, in general, and white flight to the suburbs, in particular. In this view, it is not merely the presence of disadvantaged minority neighbors that drives whites out of the core city but particularly the presence of disadvantaged minority children in the local public schools that exacerbates racial anxieties (Goyette, Iceland, and Weininger 2014). These anxieties, combined with the availability of highly advantaged suburban schools, likely lead white parents to translate their racial preferences into city-to-suburb migration flows (Coleman 1975). Though several scholars have challenged this premise (Farley, Richards, and Wurdock 1980; Pettigrew and Green 1976; Rossell 1975), more recent analyses support it (Baum-Snow and Lutz 2011; Clark 1987; Logan, Zhang, and Oakley 2017; Reardon and Owens 2014; Reber 2005; Welch and Light 1987).

Scholarship on the patterns and drivers of white city-to-suburb residential flows dwarfs research on white households' residential and educational decision-making processes once they arrive in the suburbs. For much of the twentieth century, this blind spot was unproblematic. American suburbs appeared to fulfill their residents' ideals, with high homeownership rates, advantaged schools, and low crime levels (Duany, Plater-Zyberk, and Speck 2010). Demographically, suburban communities and their schools were almost entirely white prior to the 1980s (Frankenberg, Lee, and Orfield 2003; Massey and Tannen 2018), and formidable structural barriers to city-to-suburb mobility for non-whites appeared to preclude change (South and Crowder 1997). Thus, racial dynamics were likely trivial drivers of *intra-suburban* residential and educational decisions.

But today, suburban communities' demographics are radically different. Fueled by higher rates of suburbanization among native-born minorities (Massey and Tannen 2018) and massive flows of immigrants bypassing core-city neighborhoods, American suburbs have experienced a "diversity explosion" (Frey 2001, 2014; see also Massey and Denton 1988; Timberlake et al. 2011). In 2010, the white share of America's suburban population was only 68% (down from 93% in 1970), while the combined black and Latino proportion was nearly 25% (Massey and Tannen 2018). Due, in part, to cohort demographic differences, suburban schools are typically less white than their surrounding communities; the white share of suburban schools stood at 59% in the mid-2000s (Fry 2009; see also Frankenberg and Orfield 2012; Logan 2014). The share is even lower in Sun Belt suburbs. For example, in 2000, white students made up only 18% of students in Long Beach, California – a populous Los Angeles suburb (Frankenberg et al. 2003).

School-Based Minority Avoidance

How do racially advantaged parents navigate diverse suburban neighborhoods and schools? Theories of minority avoidance propose two possible options: (1) residentially relocating to whiter

suburbs or (2) remaining in place but sending their children to whiter suburban schools. A small but growing set of sociological studies considers the first path (Parisi, Lichter, and Taquino 2019; see also Rich 2018), but very few examine the second. This is an important omission because parents' educational and residential decisions are no longer necessarily one and the same, even in the suburbs. Today, non-traditional public school options, such as charter, magnet, and private schools, are numerous, especially in large metropolitan areas. Moreover, many school districts have liberalized school assignment rules, which were historically based strictly on residential catchment zones (Archbald 2004; Berends 2015; Berends, Waddington, and Schoenig 2019; Orfield and Frankenberg 2013). If parents have considerable discretion over school enrollment, perhaps white parents in diverse suburbs disproportionately exercise it to send their children to magnet, charter, or private schools with whiter student bodies.

A burgeoning strand of literature is congruent with minority avoidance school enrollment behaviors, though most related studies are either ecological in nature or focus on micro-level data within core-city rather than suburban school districts. The ecological analyses find that higher concentrations of black residents within districts, Public Use Microdata Areas (i.e., census-based geographic areas with at least 100,000 residents), or school catchment zones predict higher rates of white enrollment in charter schools (Renzulli and Evans 2005) and private schools (Reardon and Yun 2002) and consequently, local public schools containing fewer whites than neighborhood socio-demographics would imply (Bischoff and Tach 2020; Candipan 2019).

Household-level analyses of school sorting, which are also rarely disaggregated by core-city versus suburban location, tell a similar story. A greater proportion of blacks in whites' local residential context and/or residentially-assigned public school is associated with reduced perceptions of school quality (Goyette, Farrie, and Freely 2012) and increased flight to both private schools (Fairlie and Resch 2002; Saporito 2009) and to public schools of choice, such as magnets or charters

(Johnston 2015; Saporito 2003). In multiracial American cities, patterns of black avoidance plausibly apply to Asians, as well as whites (Johnston 2015). These minority avoidance behaviors appear driven not by families using race as a proxy for correlated features such as test scores and crime but instead by race-specific preferences (Billingham and Hunt 2016; Saporito 2003; Saporito and Lareau 1999).

These findings have fueled recent studies examining what contextual factors amplify, or attenuate, minority avoidance behaviors. Both ecological and household-level studies are converging on geographically proximate *school supply* as a key moderator. Concretely, a higher concentration of proximate non-traditional school options (e.g., private, magnet, charter schools) appears to strengthen the effect of local disadvantaged minority concentration on the white and perhaps Asian families' propensity to exit their residentially-assigned public schools (Bischoff and Tach 2018, 2020; Candipan 2019, 2020; Rich et al. 2019; Saporito and Sohoni 2006). The logical policy implication emerging from these studies is that constraining the supply of non-traditional school options may reduce minority avoidance behaviors.

Minority Avoidance in the Suburbs?

However, applying this framework to the suburbs produces a puzzle. If suburbs are diversifying and suburban white and Asian parents espouse strong racial preferences – but school supply is a crucial ingredient of minority avoidance – the comparatively sparse concentration of non-traditional school options and transportation infrastructure in the suburbs may stymie its enactment. Beyond supply constraints, minority avoidance dynamics may be attenuated in the suburbs for normative reasons: the idealized vision of a "package deal" (Rhodes and Warkentien 2017) of neighborhoods and local public schools likely remains particularly alluring for suburban parents (Holme 2002; Johnson 2014; Johnson and Shapiro 2004; Lareau and Goyette 2014) compared to core-city parents. Based on these

assumptions, we might expect minority avoidance school enrollment patterns to be weaker in the suburbs than in core-cities.

However, I argue that these assumptions may be flawed and that the predicted core-city versus suburban pattern may, in fact, be reversed. First, race-based preferences may be stronger among suburban white and Asian families than among core-city white and Asian families. At some earlier point in time, most suburbanites selected to reside within a less racially diverse neighborhood context than most core-city families did – indirect evidence of racial bias. Second, prior studies may not properly conceptualize and operationalize school supply, especially when strong preferences for non-traditional school options and relatively unconstrained resources (e.g., in the form of transportation and private school tuition) are in play.

Regarding the latter point, several recent studies operationalize non-traditional school supply as the concentration of private, magnet, and charter schools within a fixed radius of a child's home (e.g., Candipan 2020; Denice and Gross 2016 use a two-mile radius). School supply moderation effects based on these measures may be misleading for two key reasons. First, highly motivated parents in low density (i.e., suburban) neighborhoods may be willing to drive much further than two miles to access a more desirable school, especially in Sun Belt metropolitan areas where long commutes are the norm (Kneebone and Holmes 2015). Second, a nontrivial portion of white and Asian families may engage in minority avoidance not via charters, magnets, or privates but by enrolling in traditional public schools outside of their residential catchment zone, or even outside of their school district.

Intradistrict and interdistrict open enrollment programs facilitate the latter. Intradistrict transfers entail formally requesting a waiver for a child to attend a non-assigned traditional public school within the residentially-assigned district, while interdistrict transfers entail requesting permission to send a child to a public school in another district (Wixom 2017; see also Brunner,

Cho, and Reback 2012; Carlson, Lavery, and Witte 2011; Lavery and Carlson 2015; Reback 2008; Wells 1993). Valid reasons for such requests might include a recent move, transportation necessities, employment proximity, or over-enrollment in the assigned public school. Racial preferences may lurk beneath the surface of these inter- and intradistrict requests, yet empirical evidence bearing on these behaviors is relatively scarce. A non-legal pathway to neighborhood-school decoupling is also plausible. In *Cutting School: The Segrenomics of American Education,* Rooks (2017) documents the pervasiveness of parental cheating to ensure their children attend a more desirable (often whiter) public school. Faking residential addresses (e.g., using a relative's address) is a common strategy.

In sum, extant studies suggest minority avoidance-based school sorting patterns among white and Asian families when pooled across core-city and suburbs. The literature's strong focus on hyper-local non-traditional school supply (e.g., density within two miles of one's home) as a moderator of these patterns might imply weaker minority avoidance patterns in neighborhoods where charters, magnets, and privates are scarcer. As such, minority avoidance patterns would be expected to be attenuated in the suburbs than the core-city. However, I argue that suburban white and Asian families may in fact exhibit stronger minority avoidance school sorting patterns due to stronger racial preferences and weaker transportation, resource, and policy constraints than scholars typically appreciate. These insights yield the following two concrete hypotheses:

1.) *Higher concentrations of Latino and black students in a residentially-assigned public school spur white and Asian students – but not Latino and black students – to opt-out of the school at a higher rate.*

2.) *The effect of Latino and black student concentration on white and Asian children's likelihood of bypassing the catchment school is stronger among suburban children than it is among core-city children, despite higher densities of non-traditional school options available to the latter group.*

THE PRESENT STUDY

Rigorously testing the first hypothesis and especially the second poses stringent data requirements that few prior studies meet. Most related research employs ecological data, examines neighborhood

and school sorting outcomes separately, rather than both simultaneously (Lareau and Goyette 2014), or operationalizes neighborhood at a much larger spatial scale (e.g., school district or public use microdata areas) than residential and school sorting theories imply. An appropriate dataset ideally tracks children's census tract locations and school enrollment outcomes, leveraging geocoded public school catchment boundaries to determine whether children attended their assigned school and how far children traveled to get there. Although administrative school enrollment data – disproportionately from core-city school districts – is increasingly used, this study's theoretical framework requires enrollment data for suburban children and for private school attendees. Inclusion of private school attendance is crucial to prevent biased estimates of disadvantaged minority concentration effects on school enrollment outcomes.

Given the centrality of school supply to theoretical expectations regarding minority avoidance, properly conceptualizing and operationalizing differences in plausible school choice sets across households within a dataset is also important. An ideal dataset would not use a pre-defined mile radius to capture the density of non-traditional school options, given that school-related preferences and commuting norms may vary sharply across the suburban versus core-city divide and even among suburbs of various densities. Instead, empirical data on the home-to-school commuting patterns should be leveraged to ensure the choice set accurately captures the likely school options households are considering within a given metropolitan area and permits variation in this choice set across various types of communities. Lastly, school enrollment data is ideally linked to administrative data on the socio-demographic composition and school quality proxies (e.g., test scores) of the selected and assigned school characteristics to enable analyses of the trade-offs households are making by opting out of the locally-assigned school.

As detailed below, I construct a dataset that fulfills all of these requirements. I track the schools of enrollment and census tracts of residence for over 2,000 Los Angeles County children

during the 2000s and link these data to administrative data on neighborhood crime rates, school catchment zones, and school type, value-added quality proxies, and socio-demographics. My analytic sample encompasses all four major racial/ethnic groups – including Latinos and Asians – and spans both the core-city district of LAUSD, as well as nearly fifty suburban school districts in the county.

RESEARCH DESIGN AND METHODS

To test the hypotheses above, I leverage data at the school, neighborhood, household, and child levels. Micro-level data are drawn from the Los Angeles Family and Neighborhood Survey (L.A.FANS), a longitudinal study that explores the multilevel sources of inequality and wellbeing within Los Angeles County. Wave 1 data collection was conducted in 2000-2002, with a probability sample of 65 county neighborhoods (operationalized as census tracts). Within each tract, a sample of blocks was selected, and within selected blocks, a sample of households was selected. Within these households, researchers attempted to interview one randomly selected adult (RSA) and, if present, one randomly selected child (RSC) under age 18. They also interviewed the primary caregiver (PCG) of the child (who might or might not be the RSA but was almost always the child's mother) and a randomly selected sibling of the RSC (SIB). Ultimately, 2,306 RSCs, 1,378 SIBs, and 1,957 PCGs overseeing these children were included in wave 1 data collection. Follow-up interviews were conducted with wave 1 respondents between 2006 and 2008 if they still resided within L.A. County and were deemed eligible (wave 2 response rate: 63%). A supplementary replenishment sample of respondents who did not participate in wave 1 were added to wave 2 data collection to ensure a sample that was large and representative of the county. This replenishment sample contained 246 RSCs and 141 SIBs. For more details on the L.A.FANS design, see Sastry et al. (2006).

Because this study centers on K-12 school sorting processes, I specify my sample to include child-wave combinations in which the RSC or SIB were aged 5 to 17, enrolled in neither college nor special education, and for whom a complete L.A.FANS child survey was available. This initial specification yields 3,180 child-wave combinations consisting of 2,539 unique child respondents nested within 1,910 unique primary caregivers/households. 2,906 (91%) of these eligible child-wave combinations contain valid school enrollment information and census tract geocodes (using 2000 census tract boundaries). I then exclude 5% of these remaining child-wave combinations (N=137) which lacked valid data for some subset of the core independent variables described below. 2,769 child-wave combinations, 2,252 child respondents, and 1,687 primary caregivers/households remain.

I link the L.A.FANS-provided school identification codes and geocoded census tracts for this sample to Los Angeles County administrative data on traditional public schools' catchment zones as of 2002. These boundaries determine the school(s) to which each respondent was assigned, and they are relatively stable over time. I also apply MABLE GeoCorr geographic crosswalks based on households' census tract of residence to generate school district identifiers. About half of the unweighted observations resided within LAUSD boundaries (core-city subsample) and half were distributed across nearly fifty outlying districts (suburban subsample). To describe trends in LAUSD and suburban district schools' demographic compositions and non-traditional school availability during the 2000s, I use administrative data from the California Department of Education's Academic Performance Index reporting system.

School Sorting as an Outcome

My primary outcome is a binary measure of *neighborhood-school decoupling*, which indicates whether an L.A.FANS child respondent was enrolled in her residentially-assigned public school ("0") or opted for an alternative option of any kind ("1"). L.A.FANS-provided data linked to state administrative

data reveal whether each child attended a private school, a charter school, or a traditional public school. For children reported by L.A.FANS to attend a private or charter school in a given wave, school catchment boundaries are not relevant, and I mark the child-year as "1", indicating their school and neighborhood are decoupled.

The remaining children in my analytic sample attended either a magnet school or a traditional public school. My data sources do not easily identify which students fall into which of these two categories because many magnet schools share a campus with a traditional public school and therefore do not receive a unique school identification code from the state. However, the state's school directory does indicate whether a given school campus contains a co-resident magnet school. If (1) a child attended a public school containing a co-resident magnet program and if (2) the primary caregiver of a child within this group indicated her child attended a magnet program during the wave in question, I mark the child as "1", indicating she is a magnet student and a neighborhood-school decoupler.

For all remaining children (i.e., those deemed to attend a traditional public school), I leverage ArcGIS to construct a spatial overlay of their household census tracts' boundaries and the county's catchment boundaries (as of 2002) for either elementary, middle, or high schools depending on the child's age. If the child's census tract intersects her reported school's catchment boundaries during a given wave of data collection, then she is deemed to attend her locally-assigned school and marked "0." If, on the other hand, the child's census tract of residence does *not* intersect the catchment boundaries of the school she is reported to attend, then I assume she enrolled in a non-assigned traditional public school (perhaps via an intra- or interdistrict transfer program) and mark her as a neighborhood-school decoupler ("1"). See Methodological Appendix for more details on the school sorting outcome's construction.

Because catchment boundaries may vary year-to-year and therefore introduce potential measurement error when determining whether the residentially-assigned school was selected within a given year, I run sensitivity checks that reclassify children who attended a traditional public school but whose public school catchment zones *do not* intersect their census tract of residence from decouplers to non-decouplers if their school enrollment was located within 2- or 4-mile of their home census tract. These more conservative operationalizations of neighborhood-school decoupling generate nearly identical results, which are available in Appendix Table A3.

Operationalizing Minority Avoidance in a Multiracial Metro

The three primary predictors posited by my theoretical framework are: (1) whether the child resides in the *suburbs* (versus the core city); (2) the child's *race/ethnicity* (white, black, Latino/Hispanic, Asian/Pacific Islander, or multiracial/other); and (3) the *racial composition* of the local public schools whose catchment zones intersect the child's neighborhood (census tract) of residence. Predictors (1) and (2) are used to stratify the sample into four quadrants: racially advantaged child in the suburbs (versus core city) and racially disadvantaged child in the suburbs (versus core city). Assignment into the suburban versus core-city quadrants is determined based on whether the child's home census tract is located within LAUSD boundaries (core-city) or outside of them (suburban). This district-based operationalization is not only parsimonious but also consistent with prior school-oriented sociological analyses and likely highly salient to parents (Owens 2016). LAUSD has long served as an archetypal disadvantaged and underperforming school district. Perceptions of it likely shape residential and educational sorting processes.

Within the core-city and suburban categories, I cluster families into racially advantaged and disadvantaged strata. Although the minority avoidance literature traditionally employs a white-black binary, Los Angeles' multiracial composition calls for a more nuanced classification. I categorize all

white and Asian children as advantaged racial groups and all black, Latino, or other/multiracial children as disadvantaged. This division reflects theoretical arguments that contemporary racial hierarchies operate on a continuum of "blackness" (Bell, Marquardt, and Berry 2014) and that the "model minority" myth may buoy perceptions of Asian Americans (Wong et al. 1998). Also note that in Los Angeles, Latinos far outnumber blacks and their presence may be more symbolically salient in the county's neighborhoods. Moreover, Asian Angelenos resemble whites more than blacks and Latinos in terms of socioeconomic status and neighborhood attainment (Sampson, Schachner, and Mare 2017).

With the four subsamples specified, I generate a tract-level estimate of disadvantaged minority concentration within a child's catchment-assigned public school. Because L.A.FANS does not provide precise addresses of households' residential locations, I cannot definitively confirm the precise catchment zone in which they reside and thus which public school's racial demographics should be used. Thus, I construct a spatially-weighted average of the *percentage of students who are black or Latino* within all schools whose catchment zones intersect the child's census tract of residence based on data from 2000-2001 for wave 1 child-year observations and 2006-2007 for wave 2 child-year observations. For descriptive results, I convert the percentage-based measure into a categorical variable with three values to facilitate interpretation. Low concentration of disadvantaged minorities is defined as local public school composition < 50% black or Latino, medium is 50 – 74.99%, and high is 75%+. These particular thresholds ensure sufficient child observations across the four subsample quadrants described above. For more details on how I estimate the spatially-weighted average of disadvantaged minority concentration in local public schools, see Methodological Appendix.

Child, Parent, and Household Controls

I supplement the key predictors described above with several potential child-, parent-, and household-level confounders. Since rates and drivers of neighborhood-school decoupling likely vary by age and school level, I create a set of age-based fixed effects indicating whether a child is of elementary school age (5-10), middle/junior high age (11-13), or high school age (14- 17) at the time of data collection. I also use categorical variables to control for child *sex* (reference: male), whether or not the primary caregiver is a *first-generation immigrant*, and the child's *household income (logged).* The latter is wave-specific, encompassing all income sources reported by the head of household at wave 1 or 2. This estimate is standardized to year 1999 dollars and then logged. For most missing income values, L.A.FANS provides estimated imputed values (Peterson et al. 2012).

I include two additional time-varying socio-demographic variables that are often absent from school sorting analyses, especially those drawn from administrative data sources: a binary measure of whether the child resides in a home that is *owned* (reference: rented), a common proxy for wealth, which may be especially important in predicting private school enrollment and a set of categorical variables to gauge the primary caregiver's *educational attainment.* The latter variables indicate whether the primary caregiver reported having not completed any college (reference), some college, or a bachelor's degree at the time of data collection. I also include household structure proxies, including whether the primary caregiver is *married* (reference: single and/or cohabiting) and a continuous measure of the *number of children* in the household, given that household transportation resources are critical to attending non-assigned schools far from home, but they are likely strained among single-parent households with many children.

Spatial Control Variables

A common critique of minority avoidance studies is that the patterns they capture may reflect not racial prejudice or out-group hostility, per se, but rather perceived status differences, given that disadvantaged minority concentration is highly correlated with reduced financial resources, teacher quality, student achievement, and student safety (Lareau and Goyette 2014). What might appear to be race-based sorting may in fact be quality-based sorting (i.e., *racial proxy*). To address this issue, I control for an academic quality proxy that is widely-disseminated via the *Los Angeles Times* and online resources – the *Similar Schools Ranking* – of the local public schools whose catchment zones intersect the child's census tract. This ranking (1 – 10) gauges average levels of student test scores by school, compared to demographically-similar schools within the same grade level (i.e., elementary, middle/junior, high). Thus, the ranking is analogous to a value-added measure. For more details on how this measure is constructed, see California Department of Education (2012). I also account for the possibility that class-based sorting underlies race-based sorting by including a control capturing the percentage of students qualifying for *free or reduced-price lunch* for all local public schools. These two controls are drawn from California Department of Education Academic Performance Index data, and spatially weighted to reflect the proportion of each respondent's census tract that is covered by each local public school's catchment zones. I supplement these spatial controls with a neighborhood-level proxy for local crime – the *three-year average homicide count (logged)* – procured from the *Los Angeles Times* and based on the Mapping L.A.-designated neighborhood, rather than census tract, in which the child's household was located at the time of data collection. All three of the spatial controls listed above are time-varying based on the wave of data collection from which the child-year observation is drawn: 2001 if wave 1, 2007 if wave 2.

Another important concern that could generate biased estimates is that the choice set of plausible school options likely varies greatly across geographic areas within large metros. Spatial

proximity shapes which school options parents consider and choose (Bell 2009a; Bell 2009b; Corcoran 2018; Denice and Gross 2016). Given that neighborhoods with higher concentrations of proximate private and non-traditional public school options may also contain higher concentrations of black and Latino residents, what appears to be minority avoidance-based school sorting may merely reflect differences in parents' plausible school options. To account for this possibility, I include spatial fixed effects capturing which of the eight *county regions* in which the child's census tract is located. Over 90% of children attend public or private schools within their county region of residence. School districts are slightly more porous, with 86% of children attending a public or private school within their district's boundaries. Moreover, intraclass correlation estimates based on unconditional hierarchical linear models suggest that only ~30% of the variation in public school racial composition resides *within* rather than *between* L.A. County school district (see also Owens, Reardon, and Jencks 2016). As a result, district fixed effects would obscure variation in disadvantaged minority concentration that I need to identify minority avoidance behaviors among households facing similar school choice sets. On the other hand, ~60% of the variation in public school racial composition resides within rather than between county regions. For more details on the construction of, and rationale for using, the spatial controls and county region fixed effects described above, see Appendix Table A1 and Methodological Appendix.

ANALYTIC STRATEGY

My multivariate analyses begin by predicting the binary outcome of whether a child attends a school other than her catchment-assigned option using logistic regression models. I estimate the equation below, separately by sample quadrant (Equation 1):

$$log\left(\frac{pj}{1-pj}\right) = \beta_0 + \beta_1 x_{1j} + \beta_2 x_{2j} + \delta_{12} x_{2j} x_{1j} \ldots$$

p_j is the probability of a given child-year *j* entailing the child attending a non-catchment school, whether public or private. This outcome's log odds are predicted as a function of the child-, parent-, household-, and tract-level variables (x_{kj}) described above. My core predictor within each subsample is the tract-level estimate of the percentage of students who are Latino or black within the local catchment public schools for every given child-year combination *j* (x_{1j}). Thus, the key parameter is β_1, the coefficient gauging the estimated effect of this racial composition on the log odds that a child attends a non-catchment school. A positive coefficient value would indicate that higher concentrations of disadvantaged minorities predict a higher likelihood of opt-out (minority avoidance); a negative value would suggest the opposite.

The minority avoidance account stipulates not only that disadvantaged minorities in local schools propel whites and Asians into alternative school options (Hypothesis #1) but that this disadvantaged minority concentration effect is significantly stronger for whites and Asians than it is for children who are Latino, black, or other/multiracial. To test this stronger variant of Hypothesis #1, I include a set of interaction terms, represented by $x_{2j}x_{1j}$, which multiplies the local public school disadvantaged minority concentration with a categorical variable indicating whether the child is in the advantaged (i.e., white or Asian) racial stratum. The key parameter here, δ_{12}, indicates whether the concentration of disadvantaged minorities in the local public schools exerts a significantly stronger effect on white and Asian children's likelihood of opting out of their catchment-assigned school than on black, Latino, and other/multiracial children's likelihood of doing the same. If the interaction is not significant, then Hypothesis #1 is not strongly supported.

I employ a similar approach to test Hypothesis #2 regarding differences in minority avoidance patterns by core-city versus suburban residence. I specify the analytic sample to only include white and Asian children and then interact the disadvantaged minority student concentration predictor with a dummy variable indicating residence within a suburban (i.e., non-LAUSD) census

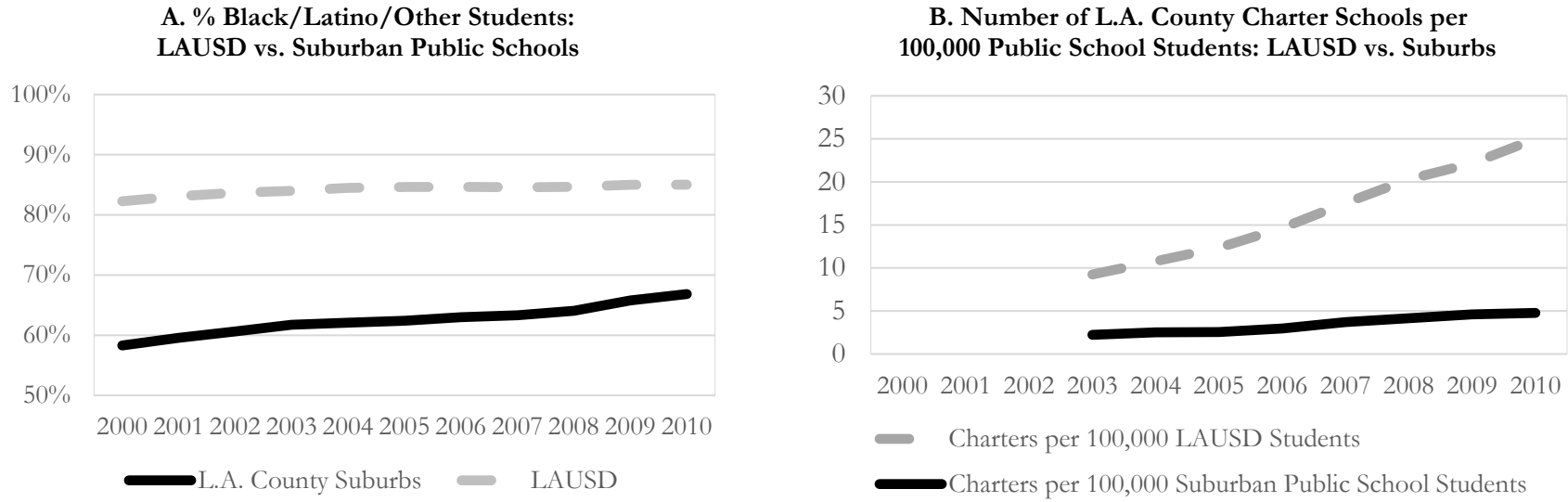
tract. The coefficient on this interaction term indicates whether disadvantaged minority concentration exerts a significantly stronger effect on school sorting patterns among suburban versus core-city white and Asian children, as I expect. The logistic regression models rely on maximum likelihood estimation to generate coefficient estimates. Across all models, I cluster standard errors by the child's county region of residence.

DESCRIPTIVE RESULTS

A key assumption underlying my hypotheses is that suburbs, which were historically homogenous, are now racially diverse. As a result, racially advantaged suburban families may be tempted to bypass their residentially-assigned schools. Educational administrative data on school demographics and school types in during the 2000s confirm this intuition. Figure 1, Panel A shows that although suburban public schools within Los Angeles County contained about 25% lower concentrations of disadvantaged minorities, on average, than did LAUSD schools, suburban schools experienced steeper growth in this proportion over timeframe. By decade's end, the average suburban public school was nearly 70% Latino or black – far from the lily-white enclave of yesteryear. Thus, advantaged suburban parents with strong racial preferences were likely highly motivated to engage in race-based school sorting.

FIGURE 1

School Socio-demographics and Charter School Supply in LAUSD and Los Angeles County Suburban Districts



Notes

[a] Estimates in Panel A and Panel B are based on annual California Academic Performance Index (API) reports of students within each school who took standardized tests. Panel B also incorporates information on total number of charter schools from annual California Department of Education school directories. Data in Panel B are missing for years 2000 – 2002 because the California API was missing total student counts for nearly half of all Los Angeles County schools.

However, these racial preferences would collide with the suburbs' school opportunity structure. Several studies implicate charter school availability as a key driver of advantaged parents buffering their children from racially disadvantaged local public schools. Yet, as expected, suburban charter school options were remarkably scarce during the 2000s and barely exceeded fifty by 2010. Figure 1B reveals that, on a population-adjusted basis, there were about two suburban charter schools per 100,000 suburban public school students and about ten LAUSD charter schools per 100,000 in 2003. While this ratio grew to 25 within LAUSD by 2010, in the suburbs the ratio never exceeded 5. For more details on the population-adjusted availability of charter and magnet schools, disaggregated across all eight county regions, see Table A2.

Lacking this common escape hatch, white and Asian suburban parents with racial preferences faced a dilemma. They could invest sizable sums in sending their children to a private school, or they could send their children to a non-assigned traditional public school. Table 1's descriptive statistics confirm that these two forms of neighborhood-school decoupling were both quite common among white and Asian suburban children within the analytic sample. The top rows of the table present school enrollment patterns, with estimates weighted to account for L.A.FANS's sampling and attrition procedures and disaggregated by subsample quadrant.

TABLE 1

Descriptive Statistics for L.A.FANS Child Sample, Waves 1 and 2

Sample	Suburban White & Asian Children		LAUSD White & Asian Children		Suburban Non-White & Non-Asian Children		LAUSD Non-White & Non-Asian Children	
Variables	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
School type								
Traditional Public, Catchment	0.61	0.49	0.25	0.43	0.66	0.47	0.61	0.49
Traditional Public, Non-Catchment	0.20	0.40	0.14	0.34	0.25	0.43	0.25	0.43
Magnet	0.02	0.14	0.03	0.16	0.01	0.11	0.03	0.18
Charter	0.02	0.12	0.15	0.36	0.00	0.06	0.07	0.25
Private	0.15	0.36	0.44	0.50	0.08	0.27	0.05	0.21
Child attributes								
Elementary school (ages 5 – 10)	0.43	0.50	0.53	0.50	0.48	0.50	0.52	0.50
Middle/junior high school (ages 11 – 13)	0.26	0.44	0.23	0.42	0.25	0.43	0.21	0.41
High school (ages 14 – 17)	0.31	0.46	0.23	0.42	0.27	0.44	0.27	0.44
Female	0.54	0.50	0.47	0.50	0.50	0.50	0.48	0.50
White	0.77	0.42	0.63	0.48				
Asian	0.23	0.42	0.37	0.48				
Black					0.14	0.34	0.11	0.31
Latino					0.65	0.48	0.85	0.36
Other/Multiracial					0.21	0.41	0.04	0.20
Parent/household attributes								
PCG first-generation immigrant	0.35	0.48	0.54	0.50	0.43	0.50	0.67	0.47
Household income (logged)	10.86	1.16	11.05	1.23	10.43	0.98	10.02	0.80
Homeowner	0.72	0.45	0.56	0.50	0.49	0.50	0.25	0.44
PCG no college	0.28	0.45	0.20	0.40	0.56	0.50	0.78	0.41
PCG completed some college	0.37	0.48	0.30	0.46	0.33	0.47	0.18	0.39
PCG bachelor's degree+	0.35	0.48	0.50	0.50	0.11	0.32	0.03	0.18
PCG married	0.81	0.40	0.83	0.38	0.66	0.47	0.62	0.48
Number of children in household	2.05	0.89	2.21	0.94	2.64	1.18	2.71	1.30
Neighborhood attributes								
% Latino/black in local schools	44.45	20.40	68.50	16.31	69.60	19.66	91.62	10.12
N households	270		143		602		718	
N children	348		183		807		965	
N child-years	409		226		955		1,179	

Notes

[a] All means are weighted to adjust for L.A.FANS sampling design and attrition (the latter for wave 2 observations only.

[b] 62% of child-year observations are based on wave 1 data, and 38% are based on wave 2 data.

Despite the widely-reported allure of suburbanites' idealized neighborhood-school package, a surprisingly high percentage of racially advantaged suburban children (39%) attend a non-neighborhood public or private school. This figure is very similar to the analogous PSID-based estimate that combines core-city and suburban children of all races (Candipan 2020). Note that as the school-level descriptives in Figure 1 suggested, nearly 90% of white and Asian suburban neighborhood-school decouplers were enrolled in neither magnet nor charter schools – despite existing literature's heavy emphasis on these school types – but instead in a private or non-assigned traditional public school. Of the 20% enrolled in the latter, about a third attended a school located outside of their home district's boundaries, and two-thirds attended a non-assigned traditional public school within their home district.

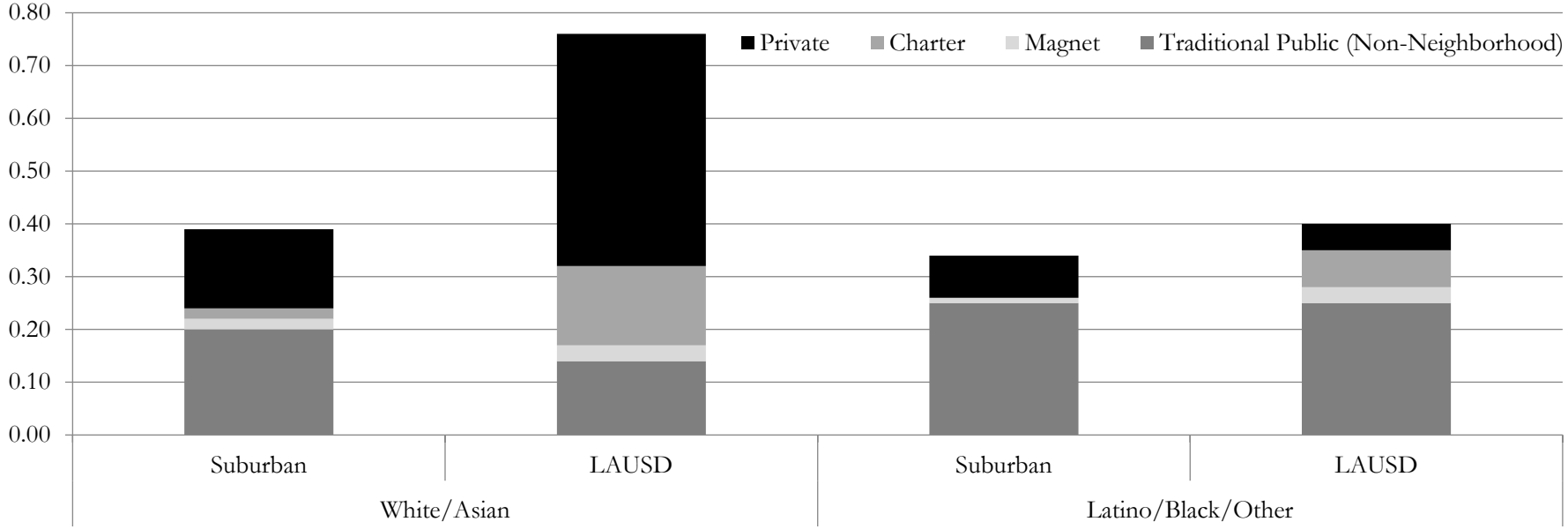
Shifting from the suburbs to the core city, white and Asian children residing within LAUSD are twice as likely to engage in neighborhood-school decoupling than are suburban children of the same racial background: a remarkable ~75%. This disparity reinforces education research's focus on decoupling within core-city districts. Compared to advantaged suburban decouplers, enrollment in charter and private schools is much more common among racially advantaged LAUSD children, while enrollment in non-catchment traditional public schools is considerably less so. Compared to the advantaged subgroups, disadvantaged minority children decoupling rates are lower overall – although school choice policies were ostensibly specifically intended for them. Moreover, the levels do not vary sharply by suburban versus core-city residence.

The descriptive racial and spatial disparities in neighborhood-school decoupling just described are visualized in Figure 2, Panel A. Panel B provides additional detail by showing mean home-to-school network distance (i.e., road length, in miles) for child-years within each sample quadrant, stratified by non-assigned school type (i.e., non-catchment traditional public, magnet/charter, and private). As I proposed in the theoretical framework section, racially

advantaged suburban children are sent very far from home to attend non-assigned public schools of choice. The average distance reaches seven miles for non-assigned traditional public schools attendees and almost eleven miles for magnet or charter schools attendees. These distances far exceed the traditional two-mile threshold employed by recent school sorting studies (Candipan 2020; Denice and Gross 2016) and suggest school supply constraints may be largely ineffectual in preventing highly-motivated parents from enacting their preferences.

FIGURE 2
Descriptive Patterns of School Enrollment

A. School Type by Race/Ethnicity and Core-City vs. Suburban Residence



B. Home-to-School Network Distance (in Miles), By Race/Ethnicity, Core-City vs. Suburban Residence, and School Type

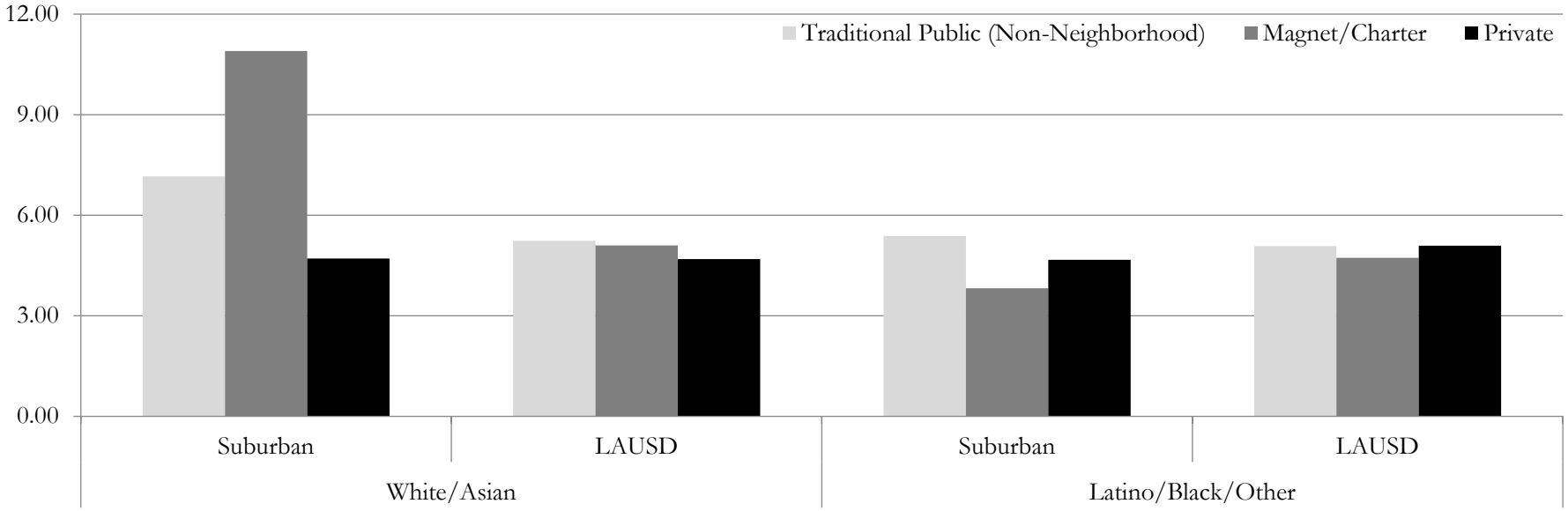
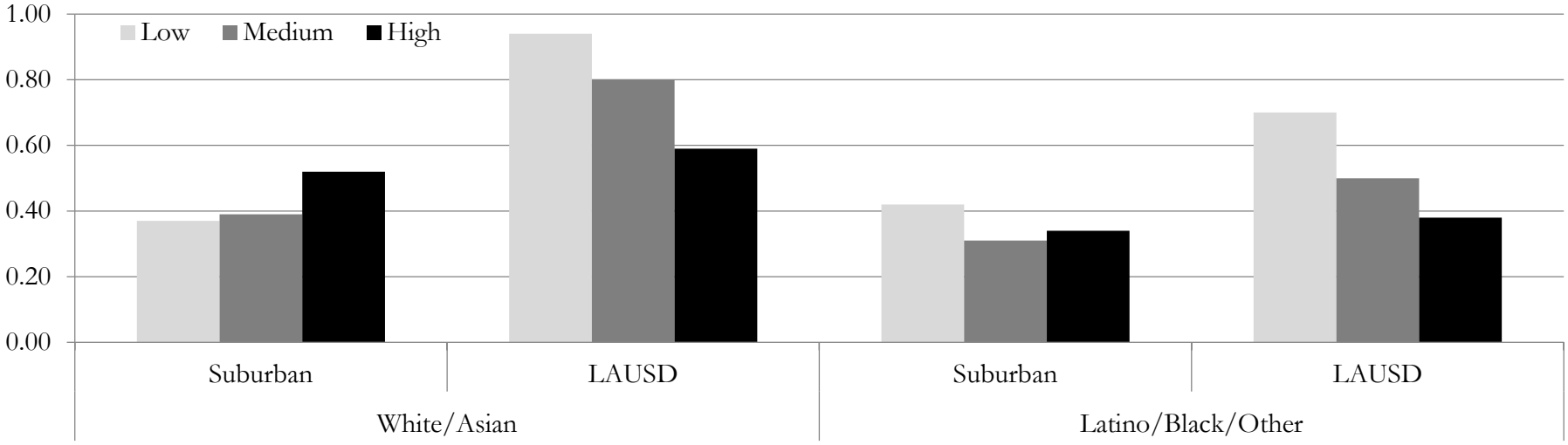


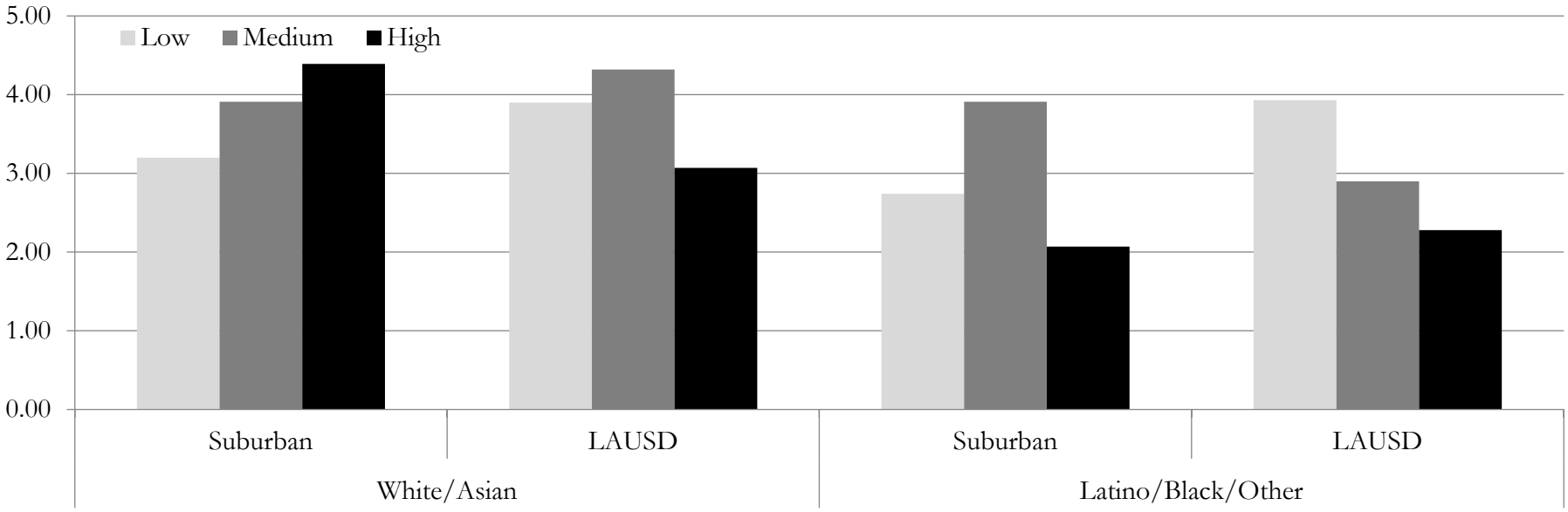
FIGURE 3

Descriptive Patterns of School Enrollment by Race, Core-City vs. Suburban Residence, and Disadvantaged Minority Concentration in Local Schools

A. Enrollment in Any Type of Non-Neighborhood School (whether Traditional Public, Magnet, Charter, or Private)



B. Home-to-School Network Distance in Miles



Notes

[a] Low disadvantaged minority concentration is defined as < 50% Latino or black in local public schools; medium: 50 – 74.99%, high: 75%+

Figure 3, Panel A stratifies decoupling rates not only by racial stratum and suburban versus core-city residence, but also by the theoretically central predictor: the concentration of disadvantaged minorities within respondents' local public schools. Despite the literature's heavy emphasis on minority avoidance within core-city districts, suburban white and Asian children are the only ones who exhibit the predicted minority avoidance pattern based on descriptive data. More than half of suburban white and Asian children assigned to public schools with high (i.e., 75%+) concentrations of Latino and black students opt out. Surprisingly, urban white and Asian children exhibit the opposite pattern: higher levels of disadvantaged minority concentration in local public schools predict *lower* rates of neighborhood-school decoupling – a pattern replicated by disadvantaged minority children regardless of suburban or core-city residence.

Panel B uses the same stratification but displays the average home-to-school network distance in miles for all children for whom the measure is available. Once again the predicted minority avoidance pattern is evident only in the suburbs; white and Asian suburban children are sent further from home, on average, when their neighborhoods include public schools with higher concentrations of Latinos and blacks. The same is not true for white and Asian core-city children.

MULTIVARIATE MODELS

The descriptive results reported above are congruent with Hypotheses #1 and #2 but multivariate model results that account for potential confounding explanations, including differences in household resources, plausible school choice sets, and racial proxy factors are required to generate stronger evidence. To this end, I run four logistic regression models that predict the binary outcome of a child enrolling in a non-assigned school, whether public or private (Table 2).

Model 1 emulates prior minority avoidance studies by pooling together all white and Asian children in the analytic sample, regardless of suburban versus core-city residence. The results provide a key data point supporting this literature's core proposition: a higher concentration of disadvantaged minorities in white and Asian children's local public schools significantly predicts a higher propensity to opt for an alternative school ($\beta = 0.025$, $p < 0.01$). This pattern holds when controlling for differences in families' plausible school choice sets (i.e., fixed effects capturing Los Angeles' eight county regions) and a wide range of covariates – including household income, homeownership, household structure, and whether the primary caregiver holds a bachelor's degree. The latter exerts the expected positive effect on neighborhood-school decoupling. The estimated magnitude of the minority avoidance effect for the pooled white and Asian sample is visualized in Figure 4, Panel A. A 20 percentage point increase in local public schools' disadvantaged minority composition is associated with a 10 percentage point increase in the likelihood of a white or Asian child attending a non-assigned school, whether public or private.

TABLE 2

Effects of Child, Parent, Household, and Local School Characteristics on Probability of Attending a Non-Catchment School, Logit Models

Race/Ethnic Group	Model 1: White/Asian		Model 2: Latino/Black/Other		Model 3: All Races		Model 4: White/Asian		Model 5: White/Asian		Model 6: White/Asian	
Suburban vs. Core-City Residence	*Pooled*		*Pooled*		*Pooled*		*Suburban Only*		*LAUSD Only*		*Pooled*	
Variables	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
% Latino/black in local schools	0.025**	0.006	0.003	0.010	0.004	0.008	0.018**	0.006	-0.008	0.015	-0.038**	0.013
% Latino/black X White/Asian					0.016**	0.006						
% Latino/black X Suburban											0.057**	0.015
Suburban (non-LAUSD) residence											-5.377**	0.963
Child attributes												
White or Asian					-0.673	0.447						
Female	-0.277	0.190	-0.081	0.114	-0.123	0.076	-0.241	0.242	-0.725**	0.260	-0.322	0.189
Parent/household attributes												
PCG first generation immigrant	-0.332	0.178	-0.748**	0.213	-0.603**	0.170	-0.304	0.352	-0.041	0.267	-0.348	0.236
Household income (log)	0.132	0.091	-0.036	0.071	0.061	0.074	0.014	0.041	0.424**	0.114	0.099	0.071
Homeowner	1.115	0.522	0.234	0.121	0.411*	0.160	0.928	0.543	1.613**	0.437	0.990*	0.479
PCG completed some college	0.556	0.559	-0.053	0.243	0.079	0.169	0.532	0.566	0.453	1.062	0.514	0.543
PCG Bachelor's degree+	1.182*	0.519	0.667**	0.189	0.858**	0.173	1.362**	0.476	0.460	0.676	1.218**	0.457
PCG marital status: married	0.212	0.433	-0.390**	0.052	-0.318**	0.096	0.150	0.516	0.720	0.676	0.200	0.441
Number of children in hhld.	-0.011	0.120	0.006	0.044	0.025	0.021	-0.046	0.120	0.225	0.440	-0.026	0.107
Constant	-5.237**	1.289	-0.642	1.089	-2.236	1.182	-3.473**	0.379	-3.667	2.170	0.904	1.615
Household *N*	409		1,283		1,687		270		143		409	
Child *N*	526		1,726		2,252		348		183		526	
Child-Year *N*	635		2,134		2,769		409		226		635	

Notes

[a] All models contain the following fixed effects: county region of residence, wave of data collection (2006-08) and school level (middle/junior high, high).

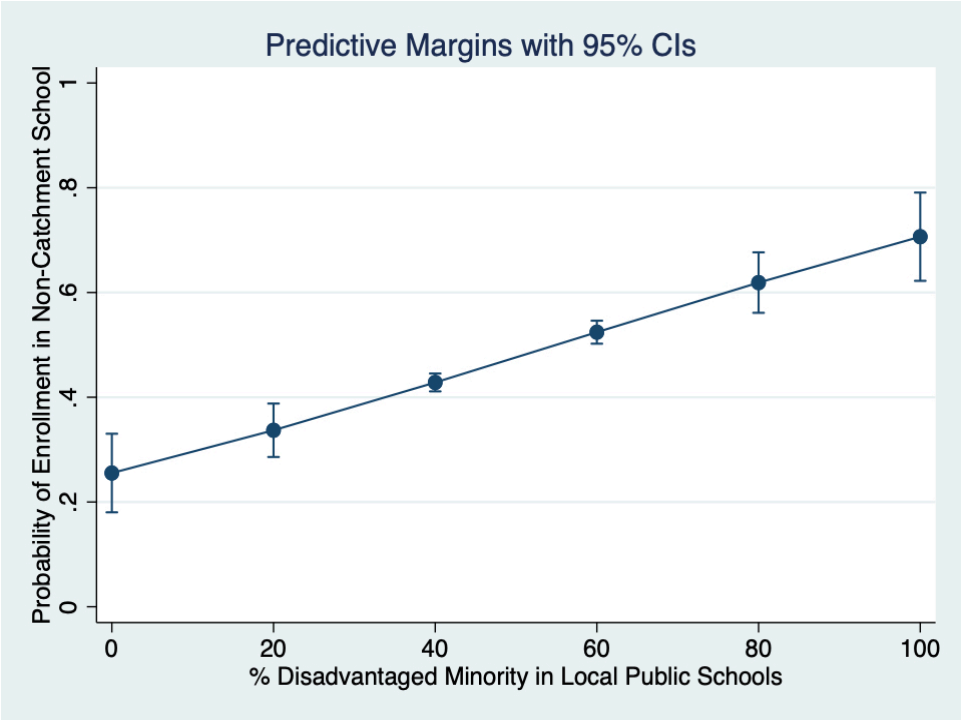
[b] Standard errors are clustered by county region of residence.

[c] $*p < .05$, $**p < .01$ (two-tailed test).

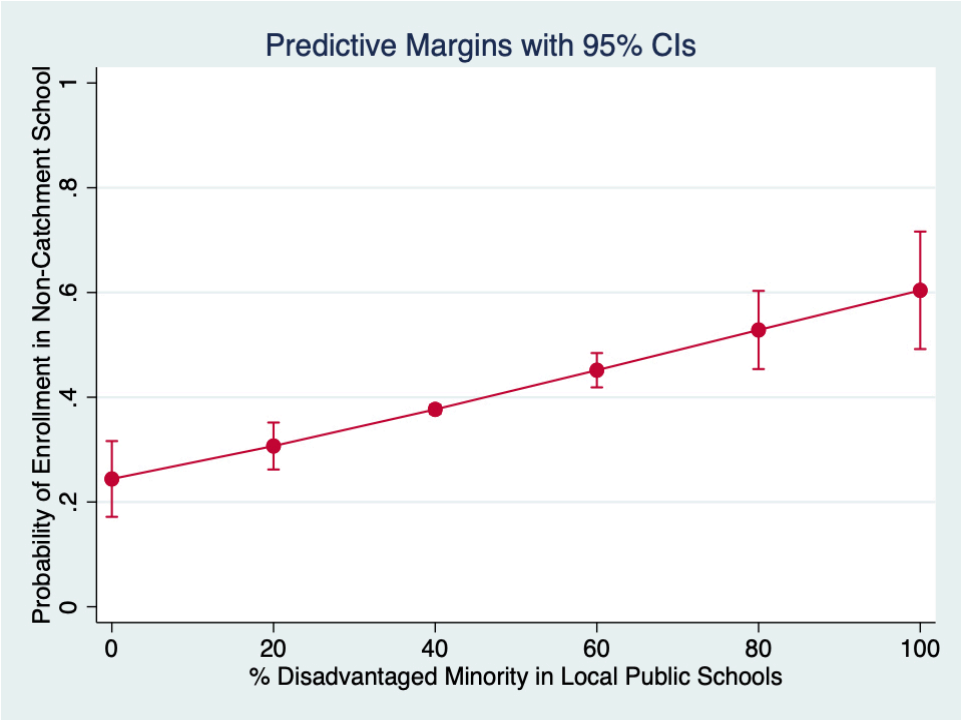
FIGURE 4

Estimated Effect of Disadvantaged Minority Concentration in Local Public Schools on Non-Catchment School Enrollment, Holding all Other Covariates at their Means

A. All White & Asian Children (Child-Year *N* = 633)



B. Suburban White & Asian Children Only (Child-Year *N* = 409)



Notes

[a] Panel A predicted probabilities are based on Table 2, Model 1.

[b] Panel B predicted probabilities are based on Table 2, Model 4.

As a falsification check, I run an identical model for the pooled racially disadvantaged sample. If the percentage of Latino and black students in local public schools also predicts neighborhood-school decoupling for this group, then the minority avoidance effect evinced by Model 1 is likely spurious. However, a clear minority avoidance pattern is not evident within this group. Model 3 goes a step further in ensuring that Model 1's results are not spurious by pooling children of all racial groups and residential locations together and including an interaction of White/Asian race with local public school disadvantaged minority concentration. This interaction term should be significant and positive, indicating that advantaged racial groups' school sorting patterns are more sensitive to concentrations of disadvantaged students in the local public school than are disadvantaged racial groups. Indeed this is the case ($\beta = 0.016, p < 0.01$). The three models taken together provide strong support in favor of Hypothesis #1.

The next model deviates from extant literature by examining minority avoidance school enrollment patterns only among a rarely considered group: racially advantaged suburban parents. Hypothesis #2 implies that these parents engage in minority avoidance, as other studies have argued core-city parents do. Model 4 reinforces this contention. A higher concentration of disadvantaged minorities in suburban white and Asian children's local public school predicts them opting out of the school ($\beta = 0.018, p < 0.01$). Figure 4 Panel B visualizes the estimated magnitude of the marginal effect of disadvantaged minority concentration on racially advantaged suburbanites' propensity to opt out. Based on prior literature emphasizing the importance of non-traditional school supply (e.g., charter, private school density), a more attenuated relationship between disadvantaged minority concentration in local suburban public schools and neighborhood-school decoupling might be expected among suburbanites compared to the pooled sample. But Panel B reveals an estimated marginal effect that is nearly identical to that produced by Model 1.

Importantly, the same model specification when applied to the subsample traditionally scrutinized in the literature – racially advantaged core-city families districts – shows no evidence of minority avoidance (Model 5). In fact, this model generates a negative, though nonsignificant, coefficient on local public school disadvantaged minority concentration. The common assertion that minority avoidance school decision-making patterns are disproportionately evident in core-city neighborhoods is not supported by this analysis.

Model 6 provides the most rigorous test of suburban versus core-city disparities in minority avoidance-based school enrollment by pooling all white and Asian children together and interacting an indicator for suburban (i.e. non-LAUSD) residence with the local public school percentage Latino or black variable. Congruent with Hypothesis #2, the interaction is positive and statistically significant ($\beta = 0.057$, $p < 0.01$), suggesting that, all else equal, minority avoidance patterns of school enrollment are stronger among racially advantaged suburbanites compared to core-city families.

RACIAL PROXY AND OTHER ROBUSTNESS CHECKS

A proponent of the racial proxy hypothesis could counter that advantaged suburban families opt out of diverse local public schools not because of their racial composition, per se, but because of correlated factors, such as their socioeconomic composition, test score-based performance measures, and neighborhood crime rates (Lareau and Goyette 2014). Relatively few studies directly examine this racial proxy hypothesis due to data constraints, but I leverage administrative data to directly control for these three potentially confounding explanations of minority avoidance in general (Hypothesis #1), and particularly in the suburbs (Hypothesis #2).

Table 3, Models 1 – 3 bear on Hypothesis #1 by replicating Table 2, Model 3 – which pooled all racial groups together and included an interaction term testing the heterogeneous effects

of local public disadvantaged minority concentration by racial stratum – and sequentially adding in my three racial proxy factors, interacted with the white/Asian dummy variable, one at a time. Partial output for these models shows that across all of them, the new interaction terms are not predictive but the core interaction term – white/Asian X % Latino/black in local public schools – remains positive and statistically significant ($\beta = 0.02$, $p < 0.01$). What appears to be minority avoidance-based school decision-making does not appear to be explained by socioeconomic-based, crime-based, or academic performance-based decision-making, strengthening support for Hypothesis #1.

Models 4 – 6 replicate Table 2, Model 6 which is specified only on white and Asian children. The key interaction term here is suburban residence X % Latino/black in local public schools, and once again the three racial proxy factors, interacted with the white/Asian dummy variable, are sequentially added in one at a time. Here, too, the key interaction term – suburban X Latino/black – remains positive and significant ($\beta = 0.06 – 0.07$, $p < 0.01$) across all models – despite the inclusion of the racial proxy interactions, strengthening support for Hypothesis #2.

The key parameters discussed thus far are interaction terms included in logistic regression models. However, recent work suggests seemingly significant interaction effects generated by logistic regression models should be interpreted cautiously (Mize 2019). Thus, I replicate all of Table 3's using a linear probability (i.e., OLS) specification, which is not subject to the same concerns, in Table 4. All six models generate significant ($p < 0.05$) or marginally significant ($p < 0.10$) coefficients on the interaction terms central to Hypothesis #1 (Models 1 – 3) and to Hypothesis #2 (Models 4 – 6), even when including racial proxy controls.

TABLE 3

Effects of Neighborhood Characteristics on Non-Catchment School Enrollment with Racial Proxies Included, Logit Models (Partial Output)

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Sample	**All Children (Child-Year *N* = 2,769)**						**All White & Asian Children (Child-Year *N* = 635)**					
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
White or Asian Child	-0.618	0.393	-0.739	0.411	-0.669	0.420						
Suburban (i.e., non-LAUSD)							-4.670**	0.643	-2.672	1.484	-5.365**	1.102
Local Public School Racial Composition												
% Latino/black	0.011	0.014	0.002	0.005	0.004	0.006	-0.029	0.020	-0.038**	0.011	-0.038	0.019
% Latino/black X White/Asian	0.015**	0.006	0.017**	0.006	0.016**	0.006						
% Latino/black X Suburban							0.067*	0.027	0.055**	0.011	0.061**	0.020
Local Public School SES Composition												
% FRPL eligible	-0.008	0.010					-0.002	0.016				
% FRPL eligible X White/Asian	0.001	0.004										
% Latino/black X Suburban							-0.020	0.021				
Local Public School Value-Added Score												
Similar Score Ranking			-0.014	0.057					0.225	0.163		
Similar Score X White/Asian			-0.028	0.071								
Similar Score X Suburban									-0.417*	0.204		
Neighborhood Crime												
Homicides (3-year avg. logged)					0.135	0.074					-0.172	0.628
Homicides X White/Asian					0.047	0.066						
Homicides X Suburban											-0.159	0.631

Notes

[a] All models contain the following fixed effects: county region of residence and wave of data collection (2006-08) and school level (middle/junior high, high).

[b] Standard errors are clustered by county region of residence.

[c] Covariates included in the above models, other than those displayed, are identical to Table 2's models. Full model output is available upon request.

[d] *$p < .05$, **$p < .01$ (two-tailed test).

TABLE 4

Effects of Neighborhood Characteristics on Non-Catchment School Enrollment with Racial Proxies Included, OLS Models (Partial Output)

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Sample	**All Children (Child-Year *N* = 2,769)**						**All White & Asian Children (Child-Year *N* = 635)**					
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
White or Asian Child	-0.142	0.087	-0.170	0.092	-0.153	0.091						
Suburban (i.e., non-LAUSD)							-0.626**	0.132	-0.351	0.193	-0.736**	0.184
Local Public School Racial Composition												
% Latino/black	0.002	0.003	0.000	0.001	0.001	0.001	-0.002	0.003	-0.004	0.002	-0.004	0.003
% Latino/black X White/Asian	0.003*	0.001	0.004*	0.001	0.004*	0.001						
% Latino/black X Suburban							0.010+	0.005	0.008*	0.002	0.009*	0.004
Local Public School SES Composition												
% FRPL eligible	-0.002	0.002					-0.001	0.003				
% FRPL eligible X White/Asian	0.000	0.001										
% Latino/black X Suburban							-0.004	0.003				
Local Public School Value-Added Score												
Similar Score Ranking			-0.003	0.012					0.032	0.016		
Similar Score X White/Asian			-0.006	0.015								
Similar Score X Suburban									-0.070*	0.028		
Neighborhood Crime												
Homicides (3-year avg. logged)					0.029	0.015					-0.005	0.098
Homicides X White/Asian					0.010	0.014						
Homicides X Suburban											-0.059	0.102

Notes

[a] All models contain the following fixed effects: county region of residence and wave of data collection (2006-08) and school level (middle/junior high, high).

[b] Standard errors are clustered by county region of residence.

[c] Covariates included in the above models, other than those displayed, are identical to Table 2's models. Full model output is available upon request.

[d] $+p < .10$, $*p < .05$, $**p < .01$ (two-tailed test).

SUPPLEMENTARY ANALYSES

To further assess whether racial bias truly undergirds white and Asian public school students' decoupling behaviors, in general, and particularly among suburbanites, I conduct a final set of descriptive analyses that compares the racial composition and value-added proxy for school quality (the Similar Schools Ranking) of the school *actually* attended by neighborhood-school decouplers to the same features of their catchment-assigned public school. Because these data are only available for public school and not private school attendees, they paint only a partial picture of potential causes and consequences of neighborhood-school decoupling.

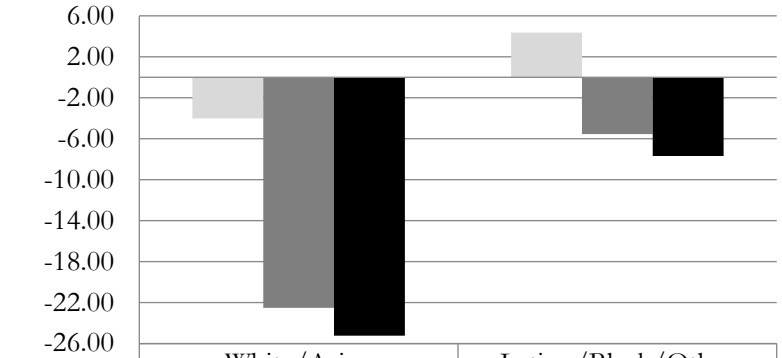
Figure 5, Panel A shows that White and Asian children who reside within neighborhoods of medium or high disadvantaged minority concentrations and attend a non-assigned public school (whether magnet, charter, or traditional) reduce their exposure to black and Latino peers by about 25 percentage points, on average. The analogous drop is about a quarter of the magnitude for black and Latino children who reside within demographically similar neighborhoods. Shifting from racial composition to test score-based value-added measures, white and Asian children residing within high disadvantaged minority concentration neighborhoods who opt for a non-assigned public school enter schools that rank a decile and a half lower than their assigned school on the Similar Schools Ranking. Black, Latino, and other children see only minor differences. These descriptive statistics suggest white and Asian public school attendees trade off value-added school quality for large reductions in disadvantaged minority exposure. I interpret this evidence as providing additional support for racially-motivated school sorting patterns among racially advantaged families (Hypothesis #1).

FIGURE 5

Difference in Selected Characteristics of Enrolled Public School vs. Assigned Public Catchment School for Non-Catchment Public Attendees, by Local Public Schools' Concentration of Disadvantaged Minorities

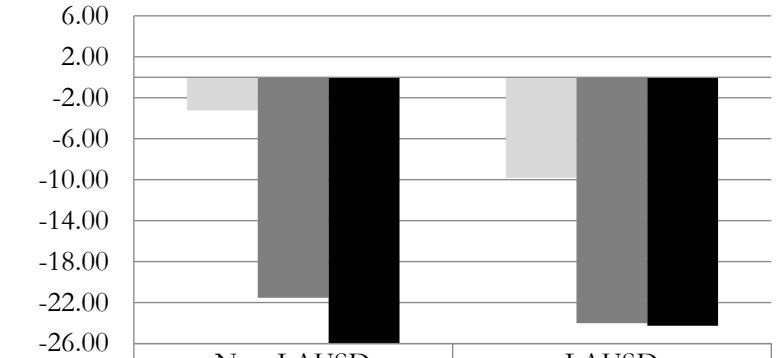
A. Mean Difference in Percentage of Students who are Black or Latino (Selected – Assigned)

Public School Attendees of All Races



	White/Asian	Latino/Black/Other
Low	-4.02	4.36
Medium	-22.51	-5.54
High	-25.22	-7.68

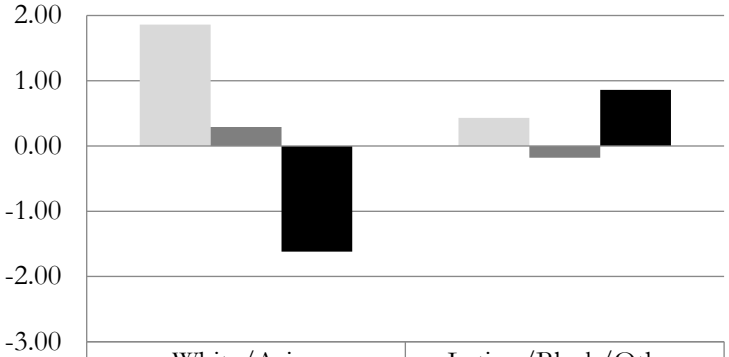
White & Asian Public School Attendees



	Non-LAUSD	LAUSD
Low	-3.24	-9.82
Medium	-21.53	-24.01
High	-25.98	-24.26

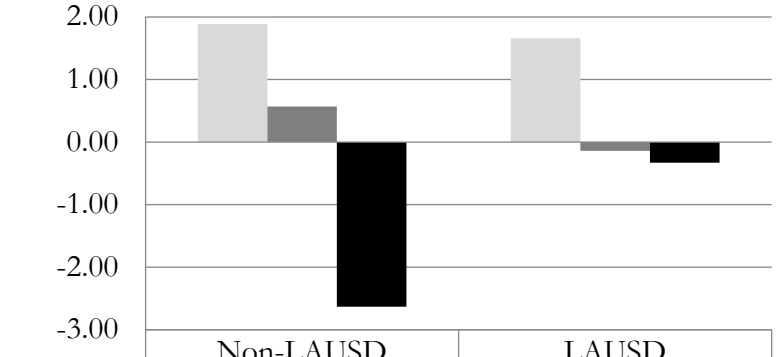
B. Mean Difference in Similar Schools Ranking (Selected – Assigned)

Public School Attendees of All Races



	White/Asian	Latino/Black/Other
Low	1.86	0.43
Medium	0.29	-0.18
High	-1.62	0.86

White & Asian Public School Attendees



	Non-LAUSD	LAUSD
Low	1.89	1.66
Medium	0.57	-0.14
High	-2.63	-0.33

Notes [a] Low disadvantaged minority concentration is defined as < 50% Latino or black in local public schools; medium: 50 – 74.99%, high: 75%+.

Do the descriptive school sorting patterns diverge not only between races but also on the basis of suburban versus core-city residence? Yes, but perhaps less strikingly. Figure 5B shows that White and Asian children who reside within suburban neighborhoods of medium or high disadvantaged minority concentrations and attend a non-assigned public school reduce their exposure to black and Latino peers by nearly 25 percentage points; the analogous figure is nearly identical among LAUSD white and Asian children residing near racially similar public schools. However, suburban white and Asian decouplers who reside near the most racially disadvantaged schools sacrifice an average of over 2.5 deciles in the school value-added distribution in order to gain exposure to more advantaged school racial composition. Core-city white and Asian decouplers in racially similar neighborhoods sacrifice virtually no value-added quality differences, on average, to achieve similar school racial composition changes. Thus, suburban white and Asian decouplers appear to pay a steeper price for more advantaged racial school settings.

DISCUSSION & CONCLUSION

Homogenous suburban public schools have long served as a linchpin of American segregation, but racially advantaged families who fled core cities to access them increasingly see black and brown children in their local schools. How do they respond? A small but growing literature examines minority avoidance-driven residential flows between suburbs and a burgeoning literature examines minority-avoidance school selection within core-city districts. However, few studies, if any, probe families' educational decisions specifically within the suburbs, even though a plurality of school-aged Americans are educated in suburban schools, and the suburb versus core-city comparison offers a theoretically-strategic opportunity to examine school supply's hypothesized moderating role on minority avoidance.

Logistic regression models predicting school enrollment outcomes for over 2,000 Los Angeles County children during the 2000s show that, all else equal, higher concentrations of Latino and black students in residentially-assigned public schools spur white and Asian children – but not similarly-situated Latino, black, and other/multiracial children – to opt out. This minority avoidance school enrollment pattern is indeed stronger among white and Asian suburban families who lack easy access to alternative school options than it is among core-city families. Descriptive data suggest racially advantaged suburbanites travel long distances to send their children to non-assigned schools and sacrifice considerable degrees of value-added quality to access schools that contain much lower concentrations of disadvantaged minorities.

These findings have implications for research on residential and educational segregation processes and stratification, writ large. The sociology literature has traditionally focused on two key mechanisms reproducing segregation: (1) residential flows from diverse urban to homogenous suburban communities, enabling advantaged parents to bundle highly-resourced neighborhoods and schools (2) educational flows of advantaged core-city dwellers from traditional public schools to charter, magnet, and private schools. Future studies should probe the third path I propose, one in which white and Asian suburbanites' racial preferences are so strong that they will forego the idealized neighborhood-school suburban package and overcome considerable school supply constraints to send their children to private schools and more racially advantaged, even if poorer-performing, public schools up to ten miles away from home. Future research should conduct simulations that estimate aggregate neighborhood and school segregation levels under plausible assumptions regarding the frequency of each of these three paths.

This study also suggests the broader stratification literature should rethink the common conceptualization of opportunity structures as fixed and rigid. An important educational opportunity structure – a family's plausible choice set of schools – appears more malleable than prior studies

portray, especially for structurally advantaged parents. White and Asian families do not need a high concentration of non-traditional public schools to exit their residentially-assigned public school. Strong racial preferences combined with considerable transportation and financial resources and institutional navigation skills enable them to access schools would typically not be considered to be in their choice set (e.g., schools nearly ten miles away from their homes). Thus, educational policies aimed at merely constraining the supply of charter, magnet, and private schools are unlikely to root out minority avoidance behaviors.

Future educational research should pivot to probe not only differences in school supply constraints but also differences in families' racial preferences as potential drivers of minority avoidance-based school decisions. Scholars know relatively little about why certain white and Asian families may exhibit higher or lower degrees of racial preferences when it comes to schools. This study suggests but does not confirm that suburban families in these racial groups may exhibit stronger racial preferences than do core-city families. But future research, especially qualitative studies, should test this possibility further and propose other axes of variation in racial preferences.

These insights apply not only to race-based educational decision-making but to other choice-making processes with implications for inequality (e.g., job and housing searches). Stratification scholars tend to disproportionately emphasize constraints rather than preferences across social domains. But preferences, which are structurally shaped (Bell 2020) but not structurally determined, vary across and within groups and likely play a key role in explaining residential, educational, and occupational segregation patterns. Future stratification studies should consider that strongly-held preferences may lead certain individuals/households to select neighborhood, school, housing, and job options outside of their traditionally-conceived choice sets. They should probe what characteristics mark these individuals/households within each domain, what particular preferences appear to drive them out of their traditional choice sets, and how they overcome

formidable constraints to do so. This line of inquiry would not only provide theoretical leverage by casting constraints as potentially endogenous to preferences. It would also yield more realistic expectations regarding the effectiveness of policy interventions aimed at amplifying or attenuating various types of constraints.

I note several important limitations of this study. Although Los Angeles County is remarkably large, populous, and diverse, it is only one ecology examined during one period. Whether the findings here, based on a relatively small sample size, generalize to other parts of the country during other eras is unknown. Future studies would ideally leverage administrative data on core-city *and* suburban children who attend both private and public schools and track their residential histories. Large-scale multilevel datasets of this sort, especially if longitudinally tracked over the entirety of children's K-12 careers, could also help generate more plausibly causal effects of disadvantaged minority proximity on advantaged children's school enrollment patterns than my study could. I attempted to mitigate validity concerns by incorporating a wider set of controls than many similar studies have – including local schools' socioeconomic composition, test score-based quality measure of local school, and crime rates – and by accounting for spatial differences in the plausible school choice sets available. However, the cross-sectional nature of my data constrains causal interpretation. Longitudinal data would permit inclusion of household-level fixed effects; temporal changes in local public schools' demographics could be leveraged to determine whether these shifts predict child opt-out, net of time invariant household characteristics. Another strategy might entail using spatial discontinuities to determine whether similarly situated white and Asian households on a more disadvantaged side of a catchment boundary than those on the other are more likely to opt out of their local school.

Despite these limitations, this study documents an emerging mechanism of school segregation in the suburbs that most prior studies have missed. Because suburban schools educate a

growing plurality of the nation's school children, understanding stratification processes here is particularly important. Optimism that the suburbs' increasing residential diversity would spill into increasing educational diversity must be tempered by evidence of racially-stratified school sorting processes that prevent meaningful integration. That suburban minority avoidance appears to operate despite nontrivial school supply constraints suggest the minority avoidance preferences may be even stronger than we expected, and the behavior may be particularly difficult to reduce. Although researchers and policymakers often blame private, magnet, and charter schools for exacerbating race-based school sorting, this study provides a sobering counterpoint: the minority avoidance impulse is so strong that advantaged parents may enact their racial preferences even in the absence of easily accessible schools of choice.

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APPENDIX
TABLE A1
County Region of Residence and School of Enrollment, Full Sample

	County Region of Residence							
County Region of School	Antelope Valley	Central Los Angeles	Gateway Cities	San Fernando Valley	San Gabriel Valley	Santa Clarita Valley	South Bay	Westside Cities
Antelope Valley	**100%**	0%	0%	0%	0%	0%	0%	0%
Central Los Angeles	0%	**76%**	1%	3%	2%	0%	2%	15%
Gateway Cities	0%	1%	**90%**	0%	2%	0%	8%	0%
San Fernando Valley	0%	10%	0%	**95%**	1%	10%	0%	10%
San Gabriel Valley	0%	6%	6%	1%	**96%**	3%	0%	2%
Santa Clarita Valley	0%	0%	0%	0%	0%	**87%**	0%	0%
South Bay	0%	0%	3%	0%	0%	0%	**88%**	0%
Westside Cities	0%	8%	0%	1%	0%	0%	2%	**74%**
Total Child-Year *N*	**189**	**174**	**801**	**279**	**573**	**117**	**294**	**100**

Notes
[a] Estimates are weighted using L.A.FANS-provided analytic weights to account for the original sampling design and for attrition between waves 1 2 (for wave 2 child-years).
[b] 91% of the analytic sample for whom school geographic data is available (*N*=2,526) attends a school within the same *county region* they live in. 86% attend a school within the same *school district* they live in (detailed breakdown of inter-district sorting patterns is available upon request).

TABLE A2

Descriptive Statistics: Los Angeles County Region Populations and School Supply as of 2000 – 2002

County Region of School	*N* Total Population (Census 2000)	*N* Total Population within LAUSD	*N* Total Population outside LAUSD	*N* Public Schools (as of 2002)	*N* Public Schools that are Charter (% of Public Schools)	*N* Public Schools with Magnet programs (% of Public Schools)	Charter Schools per 100,000 County Region Residents	Magnet Schools per 100,000 County Region Residents
Antelope Valley	304,218	0	304,218	113	15	5	4.931	1.644
Central Los Angeles	1,045,887	1,045,887	0	267	87	26	8.318	2.486
Gateway Cities	2,109,255	450,334	1,658,921	517	45	49	2.133	2.323
San Fernando Valley	1,777,953	1,410,757	367,196	359	98	52	5.512	2.925
San Gabriel Valley	2,123,798	373,158	1,750,640	525	44	28	2.072	1.318
Santa Clarita Valley	202,379	1,043	201,336	60	4	0	1.976	0.000
South Bay	1,228,298	609,279	619,019	312	46	28	3.745	2.280
Westside Cities	727,550	552,354	175,196	109	25	19	3.436	2.612
Total	**9,519,338**	**4,442,812**	**5,076,526**	**2,262**	**364**	**207**		

Notes

[a] *N* Public Schools counts the number of all schools with: valid California Department of Education identifier codes deemed to be within Los Angeles County and designated by the state as being an Elementary, Intermediate/Middle/Junior High, High School, or Elementary-High Combination (Adult, Preschools, and Unknown school types are excluded), as of 2002. Only public schools with an address/location that yielded a geocoded census tract information are counted.

TABLE A3

Effects of Child and Local School Characteristics on Non-Catchment School Enrollment at Various Distance Thresholds, OLS Models - Partial Output

A. Non-Catchment Definition: 2+ Miles Away from Home	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Sample	**All Children (Child-Year *N* = 2,769)**						**All White & Asian Children (Child-Year *N* = 635)**					
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
White or Asian Child	-0.161	0.085	-0.176+	0.092	-0.168	0.090						
Suburban (i.e., non-LAUSD)							-0.673**	0.141	-0.417+	0.211	-0.788**	0.197
Local Public School Racial Composition												
% Latino/black	0.002	0.003	-0.000	0.001	0.000	0.001	-0.003	0.004	-0.005+	0.002	-0.005	0.003
% Latino/black X White/Asian	0.004*	0.001	0.004*	0.001	0.004*	0.001						
% Latino/black X Suburban							0.011+	0.005	0.008*	0.003	0.009+	0.004
Controls (*Direct effect + interactive effect with White/Asian for Models 1 – 3; direct effect + interactive effect with Suburban for Models 4 – 6*)												
% FRPL eligible	X						X					
Similar Score Ranking			X						X			
Homicides (3-year avg. logged)					X						X	

B. Non-Catchment Definition: 4+ Miles Away from Home	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Sample	**All Children (Child-Year *N* = 2,769)**						**All White & Asian Children (Child-Year *N* = 635)**					
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
White or Asian Child	-0.188**	0.045	-0.199**	0.045	-0.193**	0.047						
Suburban (i.e., non-LAUSD)							-0.779**	0.123	-0.564*	0.192	-0.892**	0.180
Local Public School Racial Composition												
% Latino/black	0.001	0.002	-0.000	0.001	0.000	0.001	-0.003	0.003	-0.006*	0.002	-0.005	0.003
% Latino/black X White/Asian	0.005**	0.001	0.005**	0.001	0.005**	0.001						
% Latino/black X Suburban							0.012*	0.004	0.010**	0.003	0.010*	0.004
Controls (*Direct effect + interactive effect with White/Asian for Models 1 – 3; direct effect + interactive effect with Suburban for Models 4 – 6*)												
% FRPL eligible	X						X					
Similar Score Ranking			X						X			
Homicides (3-year avg. logged)					X						X	

Notes

[a] All models contain the following fixed effects: county region of residence and wave of data collection (2006-08) and school level (middle/junior high, high).

[b] Standard errors are clustered by county region of residence.

[c] Covariates included in the above models, other than those displayed, are identical to Table 2's models. Full model output is available upon request.

[d] +$p < .10$, *$p < .05$, **$p < .01$ (two-tailed test).

METHODOLOGICAL APPENDIX

Calculating Tract-level Estimates of Local Public School Racial Composition

A key predictor I use to assess minority avoidance school enrollment patterns is the *percentage of students who are black or Latino* within each child's local public schools. Because my data do not definitively identify each child's catchment-assigned public school, I develop a tract-level estimate of % black/Latino students in the traditional public schools whose catchment boundaries intersect the tract. This estimate is based on census tract boundaries, Los Angeles County-provided school catchment boundaries, and demographic data from the California Department of Education's Academic Performance Index (API) reporting system, which tracks demographic and test score data for every public school campus with eleven or more valid scores, every year between 1998 and 2013.

I aggregate local public schools' racial composition from API reports (2001 data for analytic sample child-years drawn from wave 1, 2007 data for child-years drawn from wave 2), reflecting all valid student data, up to the neighborhood level by overlaying school catchment boundaries provided by Los Angeles County in 2002 with 2000 census tract boundaries via a GIS spatial merge. Given that catchment boundaries do not perfectly align with 2000 census tract boundaries, I estimate the spatial portion of each tract that is covered by each school's catchment boundaries that intersect the tract, which generates a relative weight for each school's test scores. Then, separately for all elementary, middle, and high schools, I generate a spatially-weighted tract-level measure of local public schools' % black and Latino composition. Finally, I calculate a simple average of the separate elementary, middle, and high school-based disadvantaged minority composition tract-level measures to create an aggregate measure for each Los Angeles County census tract.

Calculating Tract-level Estimates of Socioeconomic Composition and Test Scores

I employ the same data sources and procedures described above to generate a tract-level estimate for the percentage of students who qualify for free or reduced-price lunch and test score-based performance of each analytic sample child's local public schools. The free or reduced-price lunch measure is straightforward and drawn directly from API reports (2001 data for wave 1 child-years and 2007 data for wave 2 child-years) for each school whose catchment boundaries intersect a child's census tract of residence. As noted above, each school's free or reduced-price lunch eligibility percentage is spatially weighted separately by elementary, middle, and high school and then averaged across these three school levels to generate one tract-level proxy for local public schools' socioeconomic composition.

The tract-level measure of local public schools' test score performance uses the same spatial weighting system described above but leverages the API reporting system's Similar Schools Ranking rather than the sociodemographic data. The foundation of the Similar Schools Ranking was the API score assigned to every public school campus with eleven or more valid test scores, every year between 1998 and 2013. A schoolwide API score, ranging from a low of 200 to a high of 1000, was generated based on all students' *levels* of performance on standardized tests (aggregated across reading, math, and other subjects). The California Department of Education reported this score as an "absolute" measure and also generated two types of statewide "relative" rankings based on it: (1) API Statewide Rank and (2) API Similar Schools Ranking. The API Statewide Rank merely ranked all schools of the same level (e.g., elementary, middle/junior, high) in the entire state and assigned each school a decile (1-10) based on this ranking, with 10 indicating the school scored in the top 10% of all state schools. Instead of ranking all schools in the entire state relative to each other, the API Similar Schools Ranking attempted to only rank the API scores of schools relative to other schools with *similar socio-demographic characteristics*. Although the methodology for calculating the peer

group against which each school would be ranked for its 1-10 Similar Schools Ranking is complex, the main intuition is that this ranking operated as a kind of value-added measure that attempted to isolate school performance from the influence of race and class composition differences across campuses that could explain why some schools performed better than others. See the 2011-12 Academic Performance Index Reports Information Guide (California Department of Education 2012) for more details on the methodology underlying the Similar Schools Ranking

I use this score as my core proxy for local public school academic quality rather than raw API score (200 – 1000) or the Statewide Schools Ranking because its decile construction is more intuitively interpretable than the former and because it is, by design, less highly correlated with schools' racial composition than either of the other two rankings. This latter feature reduces multicollinearity concerns associated with including local public schools' racial composition and academic quality proxy in the same model. Also note that the Similar Schools Ranking, like the other two measures, is publicly disclosed via the Internet and newspapers, rendering them accessible to parents and the public. For savvy parents seeking to maximize academic quality it is this particular value-added type ranking that should, in theory, drive their school enrollment decisions.

Spatial Fixed Effects Capturing School Choice Sets

Several school sorting studies address the potential confounding effect of school supply differences by controlling for the density of non-traditional public school options (e.g., magnets, charters, and privates) within a short radius of the home (e.g., 2 miles) (e.g., Candipan 2020). I opt for a different tack for two key reasons. First, a core premise of my theoretical framework is that advantaged suburban parents disproportionately opt for *traditional* public schools outside of their catchment zone. Thus, the availability of non-traditional school options may not be relevant to their decision.

Second, it is very difficult to establish an appropriate distance threshold to capture plausible school choice sets in this vast and varied county. In the densest portions of the county, parents are only likely to enroll their students in schools within a mile or two of their homes; in the sparsest portions, it is customary to send students ten miles away.

I choose instead to include spatial fixed effects capturing which of the eight *county regions* the child's census tract is located within: Central Los Angeles, San Fernando Valley, San Gabriel Valley, Gateway Cities, South Bay, Westside Cities, Santa Clarita Valley, and Antelope Valley. These regions are geocoded based on schematic maps from various Los Angeles County government agencies and of the crowd-sourced Mapping L.A. project overseen by the *Los Angeles Times*. They are widely recognized as distinct sectors among locals, and Angelenos are likely to have a greater degree of familiarity with schools within their region of residence than in other regions of the sprawling county (Bruch and Swait 2018; Schachner and Sampson 2020). Descriptive analyses gauging whether analytic sample children were sent to schools within their county region of residence or to another county region reinforce this intuition. Over 90% of children attend public or private schools *within* their county region of residence, suggesting the county region accurately capture the plausible school choice sets parents consider.