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# School Choice, Socioeconomic Status, and Stratified Enrollment in Urban Districts: Evidence From Detroit



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Researchers and policymakers have often debated whether urban schools of choice enroll students who are relatively advantaged compared to their traditional public school peers. Existing research has not adequately answered this question due to a reliance on inadequate quantitative measures of socioeconomic status and an emphasis on differences between racial or class groups rather than within them. This mixed-methods study contributes new evidence based on novel survey data and interviews with parents and educational leaders in Detroit. Detroit charter schools enroll significantly fewer students living in deep poverty than neighborhood schools, and selective schools enroll a distinctly advantaged population. These stratified enrollment patterns result from differences in geographic constraints, the influence of social networks, school type reputations, and school practices.

Keywords: school choice, social stratification, urban education, race, poverty, educational policy

In urban districts and other high-poverty and racially isolated contexts, do schools of choice enroll a relatively advantaged group of students? This question has been a persistent part of school choice politics and research (Henig, 2008), and the answer is fundamental to understanding issues of school choice access, equity, and effectiveness. School choice policies (especially charter schools) have largely targeted low-income and racially minoritized students with the rationale that choice and competition can provide better educational opportunities for historically disadvantaged communities (Jabbar et al., 2022; Scott & Holme, 2016). Critics of school choice have long suggested that schools of choice can avoid enrolling the harder-to-educate students, including those with the greatest socioeconomic disadvantages (Archbald, 2000; Wells et al., 2019). Supporters have responded that schools of choice serve low-income and racially minoritized students that are comparable to their traditional public school peers—"nonselective groups of poor, Black students," as one commentator recently put it (Chait, 2021).

To date, however, there is very little evidence about school choice and stratified enrollment among low-income and racially minoritized students. The social and economic circumstances of low-income and racially minoritized students can differ meaningfully (Brady & Parolin, 2020; Parolin et al., 2023). Yet, educational policy research tends to group these students together as similarly disadvantaged and overlook distinctions among them (Cheng & Peterson, 2021). For school choice specifically, quantitative research relies on binary measures of socioeconomic status (SES) that do not capture differences among low-income students (Hamlin, 2018). Consequently, debates over whether schools of choice serve a relatively advantaged student population remain empirically unresolved. In addition, qualitative school choice research has mostly focused on differences between rather than within racial or class groups (Pattillo, 2015), and popular narratives tend to depict low-income and racially minoritized students homogeneously (Dumas, 2013; Jabbar et al., 2022; J.Singer, 2024). Ultimately, research cannot adequately

represent the educational experiences, opportunities, and outcomes of low-income and racially minoritized students without attention to differences among them.

In this study, I present new evidence on school choice and stratified enrollment among lowincome and racially minoritized students. The context for my study is Detroit, where over 80% of students are Black, over 90% are identified as "economically disadvantaged," and only around 20% attend their assigned neighborhood school. Prior studies on Detroit focused on school choice or differences by school sector have highlighted the limitations of inadequate SES measures in available administrative data (e.g., Hamlin, 2017, 2018; Lenhoff & Pogodzinski, 2018; J.Singer, 2020), highlighting the need for alternative data sources with more nuanced SES measures to examine school choice and stratification. With a unique set of survey data and subsequent interviews with parents and educational leaders, I describe the extent to which Detroit students are stratified by SES across different school types and identify factors that explain those stratified enrollment patterns. My research questions are:

- 1. To what extent are Detroit students socioeconomically stratified between neighborhood public schools, charter schools, and selective (application/exam) public schools?
- 2. What family, school, and contextual factors explain socioeconomic stratification among Detroit students?

I find that charter schools in the survey sample enrolled students with higher average family incomes than neighborhood schools, driven by significantly fewer students living in deep poverty and that selective schools enrolled a student population that is distinctly advantaged along multiple dimensions of SES (e.g., income, parental education, parental occupation). The constraining role of geography, the centrality of social networks, differences in school-type reputations, and school and district behavior help explain these stratified enrollment patterns. My findings have implications for evaluating school choice effects in urban education and the design and implementation of school choice policies.

#### Literature Review

Limitations in Measuring SES Differences Among Low-Income Students

SES is broadly defined as one's access to economic, social, and cultural resources and is typically operationalized by three main components: family income, parental educational attainment, and parental occupational status (Cowan et al., 2012). While these components are often correlated, they represent conceptually distinct dimensions of student SES (Harwell, 2019). Family income represents economic resources, whereas parental education and occupation are proxies for elements of social and cultural capital, such as the strength and efficacy of one's social network, specific cultural knowledge, or relative social status (Bourdieu, 1986). In addition, school-level and neighborhood-level measures help capture the contextual dimensions of student SES (Cowan et al., 2012).

While SES is a widely used concept in educational policy research, it is often inadequately operationalized (Long & Renbarger, 2023). Researchers have long relied on free- or reducedprice lunch eligibility (FRPL) as a proxy for SES because it indicates whether a student lives in a relatively low-income household income, and it is readily accessible in administrative datasets. FRPL is especially problematic for differentiating among low-income students because it does not capture variation in income among FRPL recipients (Fazlul et al., 2021). FRPL also only directly represents the income dimension of SES (Harwell & LeBeau, 2010; Spiegel et al., 2024), whereas other dimensions of SES that are associated with student outcomes may distinguish lowincome families from one another (Lubienski & Crane, 2010).

Other approaches to measuring SES with administrative data improve FRPL in some ways but remain limited for differentiating among low-income students. States are increasingly replacing FRPL with new indicators of economic disadvantage that identify low-income students based on their families' participation in other social services (Greenberg et al., 2019). Since these are also binary indicators, they similarly do not capture income variation among low-income families (Harwell, 2019). Michelmore and Dynarski (2017) developed a

longitudinal measure that differentiates students who are always identified as "economically disadvantaged" from those who are only sometimes identified as "economically disadvantaged." Michelmore and Rich (2023) built on this with a continuous "duration of economic disadvantage" measure. These longitudinal approaches improve upon binary measures by somewhat distinguishing among low-income students, but they are still limited in their ability to capture income differences among the lowest-income families, who are often persistently disadvantaged. In addition, none of these alternative measures formally capture elements of SES other than income (Harwell, 2019).

Thus, measures of student SES in administrative data are largely inadequate to examine socioeconomic differences among low-income students. The consequence is often insufficiently theorized or operationalized examinations of the relationship between poverty and educational opportunities or outcomes, especially for lowincome and racially minoritized students (Milner, 2013). For school choice, inadequate measures of SES have limited researchers from systematically studying stratification within high-poverty and racially isolated school choice systems, with implications for understanding whether school choice systems provide equitable access to disadvantaged students and the effects of school choice on those students' outcomes (Hamlin, 2018).

# School Choice and Stratification Among Low-Income and Racially Minoritized Students

There is a large body of research on school choice and stratification in the United States and globally that describes stratified enrollment patterns in school choice systems and identifies a number of factors that lead to stratification and segregation (Archbald, 2000; Lubienski et al., 2021). Only a handful of studies, however, address SES differences and stratified enrollment among low-income and racially minoritized students.

Two quantitative studies describe school choices and SES differences among low-income and racially minoritized students. Using a combination of educational and social services data from one urban district, Clark (2019) identified

kindergarten students whose families had experienced a child welfare investigation. She distinguished these students as lower-SES than other low-income students. Clark found that these lower-SES students are around half as likely to enroll in a magnet or charter school rather than their neighborhood public school, whereas other low-income students are only 10% to 20% less likely to enroll in those schools of choice. Fleming et al. (2015) used survey data to compare Milwaukee voucher users with Milwaukee public school students. Milwaukee's voucher program is targeted toward low-income families, and over 90% of voucher users in the study year were Black or Hispanic. The authors found that families with higher parental education levels were more likely to use vouchers and that families at the lowest income and education levels were least likely to use vouchers.

Two qualitative studies describe factors that might explain stratified enrollment patterns among low-income and racially minoritized students. Hamlin (2018) conducted interviews with Detroit parents and teachers at 15 nonselective public schools, 2 selective (application- or exam-based) public schools, and 16 charter schools. He found that families at charter schools and selective schools had several socioeconomic advantages: better access to transportation, more experience navigating the school choice landscape, more efficacious social networks, a higher capacity for parental involvement, and a greater degree of home stability. Hamlin concludes that "within-group differences may confer a selfselection advantage to schools of choice in challenging settings" (p. 70). Pattillo (2015) also presents evidence about socioeconomic differences and the school choice process, based on interviews with 77 low-income Black families in Chicago—28 with children in a neighborhood public high school and 49 with children in a charter high school. Pattillo notes that the families at the traditional public high school with whom she spoke had lower average education levels, a lower median income level, and higher unemployment rates compared to the charter parents. Neighborhood and charter families who engaged in school choosing similarly relied on personal and professional relationships, were interested in academic quality and safety, and juggled time and financial constraints and familial obligations. Yet, differences also emerged, for example, in how charter and neighborhood school parents defined school quality, perceived existing school options, and navigated barriers to access. Pattillo also found that district and school leaders played a role in facilitating or obstructing families' efforts to choose schools.

Finally, three ethnographic studies capture some evidence related to school choice and socioeconomic stratification among low-income and racially minoritized families. In Philadelphia, McWilliams (2017) identified a growing sense of shame or stigma associated with attending a neighborhood school, connected to a view that neighborhood schools were becoming "holding ponds for the kids nobody wants" (p. 221). In New York City, Pondiscio (2019) observed that at the Success Academy charter schools, parents whose children win the enrollment lottery encounter strict enrollment requirements and behavioral expectations that prevent or dissuade many students from enrolling. Finally, in Chile, Carrasco et al. (2021) identify differences in social and cultural capital (along with other cultural influences) among low-income parents, which lead some parents to seek school choices that will segregate their children from other lowincome students.

Taken together, these few studies offer some evidence of SES stratification among lowincome and racially minoritized students in highpoverty and racially segregated contexts and some insight into how SES differences among them lead to stratified enrollment patterns. Still, the existing research is limited in some notable ways. In terms of describing SES heterogeneity and stratified enrollment patterns, the quantitative studies either only capture one dimension of SES heterogeneity or only examine participation in one school policy rather than describing system-wide enrollment patterns (Clark, 2019; Fleming et al., 2015). In this study, I aim to both capture heterogeneity among Detroit students across a range of different SES dimensions and examine enrollment across multiple different avenues for school choice.

In terms of identifying mechanisms of stratification among low-income and racially minoritized students, the qualitative studies primarily focus on the characteristics of parents (Hamlin, 2018; Pattillo, 2015). On the other hand, popular

and academic debates have typically focused on whether schools of choice "selectively recruit, screen, and exclude students" (Wells et al., 2019, p. 479). These approaches do not capture the complex dynamics of stratification in school choice systems (Archbald, 2000). Families choose schools, and schools compete for students in "landscapes of choice" (Bowe et al., 1994), which are structured by the design and implementation of school choice policies and the local social, cultural, economic, spatial, and policy contexts (Bulkley et al., 2021; Scott & Holme, 2016; Yoon & Lubienski, 2017). Families engage in school choice with different preferences and perceptions and unequal resources (Jabbar & Lenhoff, 2019), and schools enact a range of competitive strategies to enroll students (Jabbar, 2015), which together shape enrollment patterns. In this study, I describe stratified enrollment among Detroit students with attention to the dynamic relationship between family and school behavior and to the contextual factors that structure those dynamics.

# Methodology

I used a sequential explanatory mixed-methods research design (Hewitt & Mansfield, 2020). I started with a representative survey to more robustly measure SES among Detroit students and describe enrollment patterns by SES across different school types. In doing so, I offer suggestive evidence of the extent to which Detroit students are stratified by SES across school types—an educational issue that has been empirically under-investigated (Loeb et al., 2017; Stage, 2007). Then, I used semi-structured interviews with parents or guardians and with school and district leaders to identify factors that help explain the patterns observed in the quantitative analysis.

### Quantitative Data and Analysis

Survey Methodology. I conducted a representative survey of students in the Detroit Public Schools Community District (DPSCD) and participating Detroit charter schools in January 2022. I considered three types of schools: DPSCD neighborhood schools, DPSCD selective schools (i.e., application- or exam-based

TABLE 1
Survey Population and Sample Size by School Type

School type	Definition	Survey population	Minimum sample required <sup>a</sup>	Unweighted N respondents	Weighted % respondents
DPSCD neighborhood school	A DPSCD school to which DPSCD students are assigned based on residential address and school attendance zones. Students living outside of attendance zones can also enroll.	25,396	378	627	53%
DPSCD application/ exam school	A DPSCD school with no school attendance zone that requires an application or examination for enrollment.	10,436	371	455	22%
Charter school	A school located in the city of Detroit with no school attendance zones, authorized by a public institution and run by a private charter management organization.	12,231	372	667	25%

Note. DPSCD=Detroit Public Schools Community District.

schools), and charter schools (Table 1). I defined the study population as all K-12 students enrolled in these types of schools. I included all DPSCD schools and about 40% of Detroit charter schools.<sup>2</sup> (The remaining charter schools declined to participate in the study.)

To recruit a representative sample of students, I received complete school rosters directly from participating districts. These rosters were provided after Michigan's fall 2021 "count day"the date on which districts report official roster information that the state uses to verify enrollment and allocate funding (Office of Financial Management, 2021). The rosters indicated the school in which students were enrolled, student demographics, and residential addresses. I excluded students for whom no parent phone number or email address was available since I distributed the survey via text message and email. While parent contact information was available for almost every charter school student, it was missing for a large share of DPSCD studentsalmost 30% of students in neighborhood schools and about 15% of students in application/exam schools. (See Supplemental Appendix A for a comparison of characteristics for included and excluded students.)

After removing students who had no available parent contact information, I conducted a stratified random sample by school type (Kalsbeek, 2008). Participants were offered a \$15 gift card for completing the survey. I recruited participants (i.e., parents or guardians of sampled students) and collected data between January 18 and January 24, 2022. In total, I received 627 complete responses from neighborhood students (14% response rate), 455 from application/exam students (17% response rate), and 667 from charter students (24% response rate). While these response rates are somewhat low, they are consistent with contemporaneous survey research in Detroit (Gerber & Morenoff, 2021).

Survey Limitations and Interpretation. Before describing my data and analysis, it is important to address the limitations of the survey—in particular, those related to the sample population. Around 60% of charter schools in the city declined to participate in the study. The population of these charter schools differs somewhat from those included: More of their students were Black, fewer were identified as "economically disadvantaged," and more were "commuter" schools with farther home-to-school distances

<sup>&</sup>lt;sup>a</sup>Minimum sample is based on a 95% confidence level and 95% confidence interval.

(Supplemental Appendix A). In addition, the study does not include traditional public schools or charter schools in the Detroit suburbs, which enroll around a quarter of all Detroit resident students (J. Singer, 2020). In the discussion, I consider how the findings with this subset of charter schools may generalize for the charter sector in Detroit as a whole, as well as for Detroit-serving schools located in the suburbs. For the purposes of this study, however, the survey findings should be understood as generalizable for those schools that participated. Thus, wherever I present findings related to charter schools or charter school students, I am specifically referring to "participating" charter schools-those that agreed to participate in the study and thus were included in the survey.

The survey also faces some limitations related to the number of DPSCD students excluded from the analysis due to missing contact information. Since this information is likely not missing at random, it suggests some selection bias. A reasonable assumption is that families with missing contact information are more likely to systematically lower SES (Bolland et al., 2017). Thus, if the exclusion of some DPSCD students biases the findings, then the bias is more likely to understate the relative SES disadvantages of DPSCD students. Without a complete survey sample, however, the consequence of these exclusions cannot be tested and thus should be noted as a threat to generalizability.

Finally, the timing of the survey—during the COVID-19 pandemic—also imposes some limitations. Detroit families experienced major economic disruptions during the COVID-19 pandemic, with persistent impacts. In a survey of Detroit residents in November and December 2021—fielded at nearly the same time as my survey-28% of Detroit parents reported being in a worse financial situation than a year ago (Wileden & Benson, 2022), and unemployment rates for parents remained twice their pre-pandemic levels, at around 23% (Detroit Metro Area Communities Study, 2022). The December 2021 poll of Detroit residents offers some external validity since my survey found similar levels of overall unemployment. Still, single-year measures of income or employment can be biased since they may miss fluctuations over time (Michelmore & Dynarski, 2017), and this

problem was likely even greater given the impact of the pandemic. While the pandemic would not necessarily distort SES differences by school type, this cannot be directly tested without survey data from different time periods. Thus, the timing of the survey should be noted as another limitation for generalizing the findings.

Overall, these limitations mean that the survey findings may not be generalizable to all Detroit schools. They should be understood as a snapshot of DPSCD and a large share of Detroit charter schools during the 2021 to 2022 school year. Further research, with more complete data, is necessary to confirm whether the patterns of stratification I observe for these schools are generalizable to the full Detroit school system. For the participating schools, however, the survey (along with the subsequent interviews) provides useful insight into SES differences among lowincome and racially minoritized students and their role in stratification by school type.

Survey Data and Weighting. The survey data included detailed questions about parent or guardian demographics, household composition, family SES, housing status, car ownership, and receipt of social services. I merged these data with the student demographic, residential, and school-type data from district rosters. With the survey data, I constructed variables to capture multiple dimensions of SES, informed by the literature on the primary aspects of SES in education research (Cowan et al., 2012). (See Supplemental Appendix B for survey questions and additional details about SES measures.)

For income, I asked respondents to indicate their total household income in 2021—the income earned that year by all members of the household, including from jobs, stimulus checks, unemployment insurance, and government benefits. Using total household income and the total number of people in the household, I also constructed a variable measuring the family's income-to-poverty ratio, which presents the family's income as a percentage of the federal poverty level income specified for a given household size. For example, in 2021, the federal government set the poverty line at \$26,500 for a family of four (Office of the Assistant Secretary for Planning and Evaluation, 2021), meaning that a family of four with a total household income of \$26,500 would have an income-to-poverty ratio of 100%. Income-to-poverty below 100% indicates the family is below the poverty line, and income-to-poverty above 100% indicates the family is above the poverty line. The Census Bureau defines deep poverty as income-to-poverty below 50%.

For parental education, I asked respondents to categorically indicate their own highest level of education, and that of their spouse or partner when they indicated that they were married or living with a significant other. Respondents could indicate one of the following categories: less than high school, some high school but without a diploma, a high school diploma or high school equivalency (e.g., GED), a vocational trades program, some college but no degree, an associate's degree, a bachelor's degree, some graduate or professional school but no degree, or a graduate or professional degree (e.g., PhD, MBA, MD, JD). I asked a follow-up about the highest grade level completed for respondents who indicated that they did not earn a high school degree, and I asked a follow-up about the number of years in college for respondents who indicated that they completed some college without a degree, some graduate school without a degree, or graduate school with a degree. With these data, I constructed categorical variables indicating the highest level of education for the respondent (and their partner when applicable). I also constructed continuous measures of the number of years of education, assuming 13 years for a high school degree or a technical or vocational program, 15 years for an associate's degree, and 17 years for a bachelor's degree, and calculating a precise number of years for respondents who indicated their highest grade level in high school or total number of years in college or graduate school when applicable. I then created a variable indicating the students' highest parental level of education—the respondent's years of education if the respondent was single, or the higher of the respondent's years of education and their partner's years of education if the respondent was married or living with a significant other.

To capture occupational data, I open-endedly asked respondents what their job is typically called or how they would describe their job (and, when applicable, their partner's job). I qualitatively coded these open-ended responses to correspond with the Census Bureau's (2021)

industry and occupation codes. Another researcher at my university separately coded the responses, and I reviewed and resolved any conflicting codes. From these qualitative codes, I matched respondents with industry and occupation codes and collapsed the responses into four major job categories: professional, administrative, manual labor, and service. I also matched specific job codes with occupational prestige scores from the General Social Survey-scores that reflect the average perception of prestige for specific jobs from a nationally representative sample of respondents (Smith & Son, 2014). With these data, I created variables to indicate whether students had any parent with a job in the major job categories and students' highest parental occupational prestige score (the higher of the respondent's score and, if applicable, their partner's score). I also asked employment questions. I asked respondents to answer for themselves and, when applicable, their partners. I asked respondents to indicate, when accounting for all jobs that they work, whether they work full-time (35 hr or more), part-time (less than 35 hr), or do not work a job for pay. With these data, I created dummy indicators of whether a student had any parent who was employed and any parent who was employed full-time.

I also collected data on additional dimensions of household and contextual SES. For neighborhood SES, I used Census data to construct an index developed by J. N. Miles et al. (2016), which combines tract-level measures of household income, individual poverty, adult educational attainment, unemployment, and household composition. I also collected data related to housing and transportation and created dummy variables to indicate homelessness status and car ownership. While I focused my analysis primarily on the income, education, and occupation components of SES, I included these housing and transportation measures since they capture specific family resources or circumstances and, more generally, provide additional evidence related to stratified enrollment by school type.

I also created a standardized SES index measure to represent a student's overall SES. I created this index by adding the standardized values of four SES measures: income-to-poverty, highest parental education in years, highest parental occupational prestige score, and neighborhood SES. Importantly, since some of the respondents

had missing information for one of the four SES variables, I used imputed values where necessary when constructing the SES index. This ensured that no observations had a missing value for the SES index.

Finally, I created an indicator of students' "economic disadvantage" status in alignment with the state's definition—a student who is eligible for FRPL who is in a household receiving benefits from the Supplemental Nutrition Program (SNAP), **Temporary** Assistance Assistance for Needy Families (TANF), or Medicaid, or who is homeless, migrant, or in foster care (Center for Educational Performance and Information, 2021). I used the "economic disadvantage" measure to examine differences when measuring SES with more robust data compared to this binary measure.

Before analyzing these data, I constructed analytic survey weights through "raking" (Cohen, 2008). Raking is an algorithmic technique that adjusts survey weights to align a sample with population totals across multiple observed characteristics. This approach is useful for weighting stratified random samples since the pooled sample is designed to disproportionately overrepresent some groups compared to the population. For this study, I intentionally recruited a representative sample of each school type, which created a disproportionate share of respondents in the participating charter schools and in application/exam schools (see Supplemental Appendix C for the characteristics of the population, unweighted sample, and weighted sample). I used raking to construct analytic weights that would align the data with the survey population totals based on school type and other demographic characteristics. I used the "ipfraking" command in Stata (Kolenikov, 2017). As parameters for the raking algorithm, I used survey population statistics for student gender, race or ethnicity, grade level, district enrollment (to ensure proportional representation by enrollment among the charters), and school-type enrollment (to ensure proportional representation by enrollment among the different school types).<sup>3</sup>

Descriptive Analysis. With these survey data, I described enrollment by SES and school type. I used analysis of variance (ANOVA) to test the statistical significance of mean differences for

each SES measure in the survey data by school type to show the extent to which each school type enrolled relatively higher- and lower-SES students on average along multiple dimensions of SES. I compared these measures to the binary "economic disadvantage" indicator to highlight how much heterogeneity this standard measure fails to capture.<sup>4</sup>

For the income-to-poverty ratio and the overall SES index, I created categorical variables to further illustrate the stratified enrollment patterns. I focus on these measures because (as discussed below) they reflect the findings related to stratification by school type. For income-to-poverty, informed by definitions of poverty from the Census Bureau (2021) and "economic disadvantage" from the state of Michigan (Center for Educational Performance and Information. 2021), I placed students into four categories: "deep poverty" (0%–49% of the federal poverty line), "below the poverty line" (50%–99%), "above the poverty line" (100%-184%), and "not classified as 'economically disadvantaged' based on Michigan's official definition" (185% and above). For the SES index, I placed students into quintiles. Again, I compared the distribution of these measures to the "economic disadvantage" measure by school type. I used the findings from those results to inform my qualitative research design.

#### Qualitative Data and Analysis

After identifying SES heterogeneity and stratified enrollment among Detroit students, I sought to describe the landscape of school choice in Detroit and identify factors that explained those enrollment patterns. To do so, I conducted a set of interviews with parents who responded to the survey and with school and district leaders from their schools.<sup>5</sup>

I sorted the parents into the same four categories based on the income-to-poverty data. My findings on SES stratification by school type (discussed below) informed my use of these income categories, though I treated each parent as a case, recruiting additional families from each category until I felt I had reached saturation (Small, 2009a). For recruitment, I randomly sorted the list of students for each category and contacted parents by text message and email.

TABLE 2
Parent Interviews

	Deep poverty		Below poverty line		Above poverty line		Not "econ. disadvantaged"		
School Type	Black	Hispanic	Black	Hispanic	Black	Hispanic	Black	Hispanic	Total
Neighborhood	5	1	3	3	8	1	1	1	23
Charter	3	3	3	1	4	2	1	_	17
Application/Exam	_	1	2	_	2	1	5	3	14
Total	8	5	8	4	14	4	7	4	54
Avg. income	\$9	,077	\$24	4,375	\$38	8,103	\$97	7,500	
Avg. income-to-poverty	0	.31	0	.78	1	.43	3	.15	_

*Note.* Though my study focused on multiple dimensions of socioeconomic status, I sampled students based on income-to-poverty categories. This decision was informed by the quantitative analysis; income-based differences emerged as the most salient form of stratification between neighborhood schools and participating charter schools.

I offered participants a \$15 gift card for completing the interview. I conducted semi-structured interviews to understand why and how Detroit students were stratified by SES between school types. All interviews took place over the phone. I asked parents detailed questions about their socioeconomic circumstances, the schools they have chosen for their children, their choice process, and their views of education in Detroit overall (see Supplemental Appendix D for interview questions). After each interview, I conducted an initial analysis through reflective memos. These memos helped me identify initial themes and determine when I reached saturation. I interviewed 54 parents, who, in total, represented 130 Detroit students attending 57 different schools (Table 2). Most of the interview participants were mothers, though a few were fathers or other guardians (e.g., a grandparent).

After interviewing parents, I recruited principals and district and charter management organization (CMO) leaders from schools that the parents' children attended. I reached out to leaders by email and phone to arrange interviews, and all interviews took place over the phone or via Zoom. I asked detailed questions about leaders' perceptions of the competitive landscape and their recruitment, enrollment, and retention practices (Supplemental Appendix D). In total, I interviewed 22 school leaders and 8 district- or CMO-level leaders (Table 3).

I conducted my qualitative analysis in five phases (Figure 1). I coded the data in three rounds (Saldaña, 2015). I started with holistic coding to

TABLE 3
School and District Interviews

Interview type	N
School leaders	
DPSCD neighborhood	9
DPSCD application/exam	4
Charter	9
District or CMO leaders	
DPSCD	2
Charter	6
Total	30

Note. CMO=charter management organization; DPSCD= Detroit Public Schools Community District.

categorize excerpts from the interview transcripts into broad topic areas (e.g., family resources). Next, I used descriptive coding to specify the topics of each excerpt (e.g., social capital). Finally, I conducted a round of sub-coding to add detail by elaborating on the content of each excerpt (e.g., social network as a source of influence and information). At the conclusion of this process, I had over 1,000 excerpts that detailed the dynamics of school choice in Detroit. I then wrote two rounds of analytic memos (M. B.Miles et al., 2014). I first used memos to construct a clear picture of the social and institutional arrangements of school choice in Detroit. I started by summarizing findings for each subcode and organized those summaries into five thematic categories, synthesizing the findings

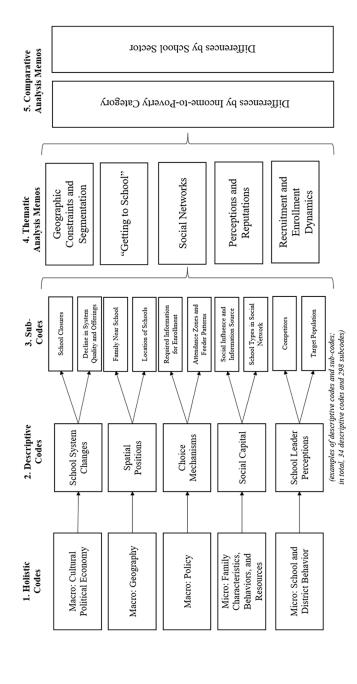


FIGURE 1. Overview of qualitative analysis.

from each of the categories to distill themes. Second, I used a matrix to conduct a comparative analysis—filtering and reanalyzing excerpts in each major findings category by subgroup. For students, I defined these subgroups by their income-to-poverty category; for schools, I defined the subgroups by school type (i.e., neighborhood, charter, and application/exam). I compared these subgroups to identify similarities and differences, from which I developed explanations for the stratified enrollment patterns I observed in the survey data.

# A Note on Terminology

Throughout this paper (e.g., in the literature review above and the findings below), I use terms like advantaged and disadvantaged or lower-SES and higher-SES to refer to students with relatively higher or lower levels of income, parental education, parental employment, or occupational prestige, and so on. I rely on these terms because they speak to relative (rather than absolute) SES positions. My emphasis is on relative SES differences within a student population that faces a great degree of racial and socioeconomic inequality. In addition, while I categorized students and their families based on household income levels for the study and refer to these categories when presenting my findings (e.g., "deep poverty," "below the poverty line," and "above the poverty line"), I recognize the shortcomings of this terminology. Categorizing and describing families and students first and foremost by their low-income or low-SES status risks presenting them in a deficit-based and one-dimensional way while obscuring their assets and agency (Tuck, 2009). My use of these terms is not meant to displace an emphasis on structural and systemic factors that create conditions of inequality and marginalization, nor are they intended to obscure the assets and agency of the families and students who navigate these unequal contexts. My hope is that by illuminating SES differences among lowincome and racially minoritized students in Detroit, this study helps broaden rather than narrow our understanding of the conditions that shape education and ultimately inform the ways that researchers and policymakers intervene in those conditions.

## **Findings**

School choice in Detroit is shaped by geographic constraints and the centrality of social networks, and to some extent, school-type reputations and school and district practices. For DPSCD and participating charter schools, SES does not entirely determine where a student will enroll. Still, measuring differences in social and economic resources reveals a meaningful degree of stratification by school type. Specifically, charter schools enrolled fewer students living in deep poverty and slightly more students living above the poverty line, and application/exam schools enrolled a disproportionately large share of the highest-SES students.

# Describing Stratification by SES in Detroit

Using fine-grained SES data from the survey, I found that charter schools enrolled higher-SES students compared to neighborhood schools and that application/exam schools enrolled a distinctly higher-SES population. Table 4 shows ANOVA results for each SES measure. Compared to neighborhood schools, charters enrolled a higher-SES population in terms of income. The charter students had an average household income of about \$29,000 and an average income-to-poverty ratio of 100% (i.e., at the federal poverty line). By contrast, the average neighborhood school student's household income was about \$22,000 and their average income-to-poverty ratio was 76% of the federal poverty line—both about 25% lower than the average student in charter schools. The charter students also had parents with somewhat higher rates of employment, though these employment differences do not appear to be significant when controlling for income and other SES variables, suggesting that these differences are not as meaningful as differences in income (Supplemental Appendix E). Finally, charter school students were relatively more advantaged in terms of housing stability and access to a car in the household.

Detroit's application/exam schools enrolled a disproportionately large share of the highest-SES students. This is reflected in the SES index measure—which is significantly higher on average than for neighborhood and charter schools—as

TABLE 4
SES Variables by School Type

SES Variable	DPSCD neighborhood	DPSCD app/exam	Charter
SES index (standardized)	-0.18	0.45***	0.00***
Household composition			
Household size (number of people)	4.70	4.43*	4.57
Single-parent household	58%	42%***	45%***
Household income			
Income (\$)	21,733.23	47,513.79***	28,757.21***
Income-to-poverty ratio	0.76	1.74***	1.00***
Parent education (highest)			
Some high schools or less	17%	10%**	16%
High school graduate	48%	23%***	40%**
Some college	22%	21%	24%
Associate's degree	7%	12%**	10%
Bachelor's degree or more	7%	34%***	9%
Years of education	13.50	15.46***	13.72
Parent employment and occupation			
Any employed	78%	89%***	83%*
Any full-time	57%	72%***	68%***
Highest occupational prestige score	30.34	40.12***	33.44**
Any with professional job	11%	36%***	18%**
Any with administrative job	15%	16%	13%
Any with manual labor job	26%	27%	34%**
Any with service job	35%	26%**	31%
Neighborhood SES index	10.66	11.60***	10.88
Housing			
Homeless	10%	3%***	6%*
Evicted in 2021	10%	4%**	6%*
Transportation			
Car in household	61%	82%***	72%***
Binary SES indicator			
"Economically disadvantaged"	96%	73%***	93%

Note. Asterisks indicate statistical significance of difference from DPSCD neighborhood students. DPSCD=Detroit Public Schools Community District; SES=socioeconomic status.

well as each major dimension of SES individually. Application/exam students, on average, had substantially higher household incomes and income-to-poverty ratios well above the federal poverty line. A third of application/exam students had a parent with a bachelor's degree, compared to fewer than 10% for neighborhood and charter schools. Their parents also had higher rates of employment (though the rate of full-time employment is similar to the rate for charter schools) and higher average occupational prestige scores, driven by a substantially higher share

of professional-class jobs. Finally, they lived in higher-SES neighborhoods, had lower rates of housing instability, and had greater access to a car.

Figure 2 shows the distribution of income-topoverty and the SES index by school type, as well as the standard measure used to capture "economic disadvantage." These distributions clarify the extent of SES stratification by school type. The average difference between neighborhood and charter students is driven in particular by neighborhood schools' concentration of

<sup>\*</sup>p < .05. \*\*p < .01. \*\*\*p < .001.

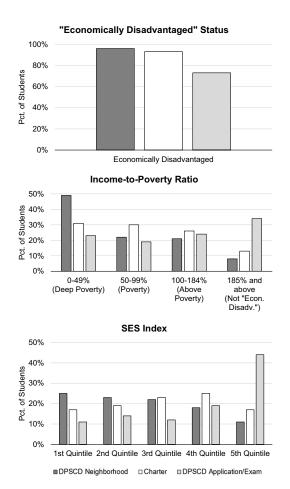


FIGURE 2. Distribution of SES variables by school type. Note. SES=socioeconomic status.

students living in deep poverty (i.e., below 50% of the federal poverty line). In neighborhood schools, nearly half of students were living in deep poverty, whereas about 30% of students in charter schools were living in deep poverty. (Overall, 71% of students in neighborhood schools lived below the poverty line, compared to 61% in the charter schools.) Likewise, the charter schools enrolled fewer students in the two lowest-SES quintiles (i.e., the lowest-SES levels) than neighborhood schools. For application/exam schools, about 45% of their students were in the highest quintile of SES (i.e., the highest-SES level), compared to only 11% of neighborhood students and 17% of charter school students. The majority of application exam students (63%) were in the top two SES quintiles.

In addition to revealing socioeconomically stratified enrollment patterns among Detroit

students, these results reinforce the limitations of the binary "economic disadvantage" measure, which does not adequately capture SES heterogeneity. Ninety-six percent of neighborhood school students were "economically disadvantaged," compared to 93% of the charter students in the study—a practically small and statistically insignificant difference (Table 4). Since this measure fails to distinguish among low-income students, it does not identify that the charter schools enrolled fewer students living below the poverty line and especially fewer students living in deep poverty (Figure 2). Likewise, the "economic disadvantage" data significantly understates the degree and nature of application/exam school students' SES advantages. Application/ exam schools did enroll fewer "economically disadvantaged" students, but this modest difference does not fully capture the average

household income difference between charter schools (nearly \$19,000 more) and neighborhood schools (nearly \$26,000 more). In addition, it does not capture the significant SES advantages of application/exam students in terms of parental education, employment, and occupation (Table 4). In the following section, I turn to the qualitative analysis to explain how these SES differences translate into stratified enrollment by school type.

## Explaining Stratified Enrollment Patterns in Detroit

Why did charter schools in the study enroll fewer students who live in deep poverty and slightly fewer students living below the poverty line in general? Why did application/exam schools enroll a distinctly higher-SES student population? My interviews highlight geographic constraints and social networks in shaping these somewhat stratified enrollment patterns. Relatively lower-SES families tended to have greater geographic constraints. Relatively higher-SES families often had a strong interest in charter or application/exam schools and had fewer geographic constraints to accessing them. Finally, to a lesser extent, school and district practices that limit access could play a stratifying role.

Lower-SES Families Have Greater Geographic Constraints. The lowest-SES parents I interviewed faced the most significant geographic constraints; they often felt they could not choose any school but the closest one because they did not have a car themselves or could not rely on others to help them with transportation to or from school. For example, one parent experiencing deep poverty initially enrolled her children in a nearby charter school. A few years later, she was offered a low-income housing unit, so she and her children moved. She explained that she did not have a car-"wherever I have to go, even if it's just grocery shopping, I have to find a ride" and could not get help from her otherwise supportive extended family because "the majority of my family, they don't have vehicles." She wanted to keep her children in the charter school but switched them to the neighborhood school near her new home. The school offered bus transportation, which she relies on to get her children to

and from school every day, and she also prefers sending her children to a closer school "just in case I needed to get up there . . . I'm able to walk up to [the neighborhood school] quicker than I could walk to [the old charter school]." Other parents—especially those experiencing deep poverty—expressed similar limitations.

The higher-SES parents whom I interviewed were also interested in schools close to home, and getting to school was also a challenge given their socioeconomic circumstances (see also Lenhoff et al. [2022]). Yet, their access to greater social and economic resources often enabled them to choose among nearby schools rather than constraining them to the closest option. For example, I spoke with one parent who sends her children to a school several miles from home. When discussing how she gets them to and from school, she explained that "most of my income does go to babysitting and gas": she works fulltime and usually drives her children to school herself, but "usually pay[s] somebody to pick them up" and watch them after school while she's working. In addition, she sometimes relies on her mother, who lives nearby for babysitting, and also is able to borrow her mom's car if she is having car problems. Similar to this example, other higher-SES parents tended to have family or friends who could help them with getting to school, or more reliable access to a car or monetary resources. Thus, higher-SES families in Detroit may still struggle with getting their children to and from school, but their relative social and economic advantages provide them with relatively greater access to school choices.

The highest-SES parents with whom I spoke had the fewest geographic constraints and were most willing to choose their preferred school regardless of the distance. For example, one high-SES parent enrolled her children in an application/exam school in her neighborhood. She explained that while she wanted to find "the best school for them, and try to stay in my area," she would choose a school farther away: "If I found that it was a school that was better than any of them in my area . . . if I have to drive somewhere else and it's better for the kids, then that's what I'll have to do."

Importantly, not all parents experiencing deep poverty are constrained to their closest school, and some higher-SES parents are highly constrained geographically. For example, another parent experiencing deep poverty originally chose a charter school that was in her neighborhood but has now moved several miles away. Her children are sometimes absent on days when she can't afford gas, and she can't rely on any friends or family to lend her a car or provide a ride for them on those days. Still, she explained that because "I always have my own vehicle," she was able to keep them enrolled in a farther-away school. By contrast, one parent working remotely full-time explained that she enrolled her children in the closest neighborhood school because of her work schedule: "My [work] breaks were very limited . . . I had to make sure they were somewhere where I can get there and back within 15 minutes." Thus, while parents with the least social and economic resources are often those with the greatest geographic constraints, the particular circumstances vary even among higher-SES families.

Thus, while not wholly determinative, lower-SES families are more geographically constrained in general. As the examples above show, to the extent that parents are interested in choosing a charter school or application/exam, those lowest-SES families are least able to act on that interest.

Socioeconomically Stratified Social Networks Influence School-Type Preferences. Social networks also have a significant influence on the schools that parents choose for their children. Most parents I interviewed did not have a strong initial preference for a specific school, nor did they express a strong preference for specific school types. As one relatively higher-SES parent put it, "I know the difference between a charter school and a public school. I know the difference, but like actually looking at the two types of schools, I really don't see the difference." To the extent that parents did express a preference, however, they were often the result of influence from their social networks.

For the highest-SES families, social and reputational factors pull them toward application/ exam schools. These schools are prominent in the highest-SES families' social networks: each of the highest-SES parents I interviewed mentioned them, and many considered them the only acceptable options. The way the highest-SES

parents described these schools illustrates the strength of their reputations in higher-SES social networks. For example, one high-SES parent wanted her daughter (currently in middle school) to go to Cass Tech, an application/exam high school: "Detroit in general, they just, you know, like put Cass on like a pedestal . . . Just, yeah, like Detroit, just the whole city . . . And I'm not from here. So hearing that you're like, 'Oh, okay. Cass, okay." Another high-SES parent explained she wanted her daughter to go to an application/ exam high school because her daughter "wants to go to the University of Michigan and they have a higher acceptance rate to U of M than any other high school in Detroit." District leaders also pointed out this emphasis on application/exam schools among the highest-SES families. As one DPSCD enrollment administrator put it, "When I talk to families that are trying to get into our selective schools, there is still the perception that they have to get into our selective schools because our neighborhood schools are not good . . . it's application or bust."

In addition, other relatively higher-SES parents I interviewed were more often interested in choosing charter schools. Most parents relied on their social networks to inform their school choices, but higher-SES parents were more often recommended charter schools by their friends, family, and other social connections. For example, one parent living "above the poverty line" explained that she wanted to avoid neighborhood schools based on advice from her uncle, who was a DPSCD teacher at the time. Her uncle initially recommended a DPSCD application/exam school, but when her daughter wasn't accepted, she chose a nearby charter school instead of her assigned neighborhood school:

Everybody's like, "No, [your neighborhood school] is not a good school." Everybody I asked, like my family. Like I said, my uncle was a schoolteacher. So he had the inside scoop on some of the schools. There was also [another neighborhood school], right? [That school] is not far. And I heard [that school] wasn't good. I heard that [my neighborhood school] wasn't good. I'm like, well, [the charter school] has gotta be better than [the neighborhood schools]. So I'm gonna try this place.

Similarly, another parent living "above the poverty line" chose her children's school based

on recommendations from her coworkers. When I asked which schools her coworker had recommended, she explained, "I can't remember the name of them. They were [all] charter schools." As a third example, another higher-SES parent explained that she chose a particular charter school for her daughter because "I've heard nothing but good things [from] parents whose kids already go there . . . They're parents who are on the cheer team with my daughter." These examples highlight how higher-SES parents could be pushed to choose charter schools via their social networks.

Transportation Resources and Geographic Constraints Mediate School-Type Preferences. In some cases, lower-SES families also expressed preferences for charter schools or application/exam schools over neighborhood public schools. Yet, given the geographically constrained context, parents with greater social and economic resources were more often able to act on their preference for a particular type of school. For example, one parent experiencing deep poverty described a strong preference for charter schools:

The charter schools, the teachers are more in tune with the kids' education, and they actually care more about the kids, not just learning it, but grasping onto stuff and understanding it. And they don't just move you based off of your grade level, they move you based off of you and what you have learned . . . Even with them not having like special education classes, they still give you a lot of one-on-ones when you're struggling, they have tutoring. And DPS, they like, you just throw your kids to the wolves basically and just hoping that they learn what they can while they

Yet, for the first several years of her children's education, she chose neighborhood public schools. She had heard good things about one charter network "for a long time," but never lived close enough to one of the schools until moving to another part of the city: "It was just that there was never [one] in my neighborhood for me to be able to say, 'Hey, I'm going to send my kid to one of those schools."

As another example, a lower-SES parent explained that her daughter passed the entrance exam for an application/exam high school, but because of transportation problems, she ultimately wasn't able to enroll: "We had transportation issues . . . and we didn't have any other mode of transportation. So, [she] ended up going to [the neighborhood high school]." Thus, to the extent that a parent wants to choose a charter school or application/exam school, the lowest-SES families are less likely to have the necessary social and economic resources to do so.

School and District Practices Could Exacerbate Stratification. In addition to differences in geographic constraints and social influence among Detroit students, the school types are somewhat distinct in their specific practices related to school choice (e.g., services, recruitment, enrollment, and retention). Unlike the role of geography, social networks, and school-type preferences, the role of these types of school and district practices in SES stratification was less clear. Still, I address them because of their significance in existing school choice research and discourse (e.g., Jabbar, 2015). Further, even if exclusionary practices only played a modest role in exacerbating stratification by SES, the absence of practices to proactively reduce stratification (e.g., intentional recruitment, providing transportation resources) is also consequential (Hashim & Sattin-Bajaj, 2023). My findings suggest some ways that school and district policies and practices, to the extent they create additional barriers to access or influence school choices, may have exacerbated the stratified enrollment patterns that emerge from geographic constraints and the influence of social networks.

Application/exam schools mostly clearly enact practices that could limit access and stratify enrollment. First, students must pass tests or have their application accepted to enroll, and this can be a substantial barrier for lower-SES students (Sattin-Bajaj, 2014). Indeed, some lower-SES families I interviewed explained that they preferred these schools, but their children were not able to meet the enrollment requirements. Second, elementary and middle application/exam schools provide no school-based transportation. As one application/exam school leader put it, "Parents have to provide their own transportation to come here." The high schools provide public bus passes, but many parents and students

are concerned about safety and thus avoid public transportation (Lenhoff et al., 2022). Given the significance of geographic constraints that Detroit families face (discussed above), the lack of school-based transportation makes these schools much less accessible. Third, application/ exam schools engage in very low levels of recruitment, given their strong reputations. As one application/exam principal put it, "A lot of parents seek out our school initially on their own to apply." Less recruitment may translate into less awareness about these school options among lower-SES families (Jabbar, 2015). Finally, application/exam schools sometimes impose academic requirements for students to remain enrolled. One principal described their school's requirements this way: "When report cards come out, we may give them a probation letter . . . we are gonna place you on academic probation. And here's the things that you need to do . . . or here are the [other school] options." These policies could disproportionately push-out lower-SES students. In sum, application/exam schools create greater barriers to access, which likely exacerbates the high concentration of Detroit's highest-SES families in these schools.

Charter school and neighborhood school leaders described less exclusionary practices than application/exam schools overall and more similar practices to each other. Thus, social, economic, and spatial factors are certainly more important for explaining SES stratification between charters and neighborhood schools. Still, some charter schools differ from neighborhood schools in ways that may contribute to the SES stratification between the school types.

First, the charter leaders I interviewed—particularly leaders of "commuter" charters, which enroll students from farther away (Hamlin, 2017; J.Singer, 2020)—described targeting a wider geographic area for recruitment. For example, one CMO enrollment leader explained:

So, we have got a circle around five miles [of the school] and then ten miles . . . the ten-mile radius that would be mainly for the high school, because we know the high school people would be okay to travel a little more to come to a good high school. But for kindergarten through eighth grade, parents are always looking to be close to home, you know, so it is like a five- to six-mile radius.

A 5-mile radius for K-8 and a 10-mile radius for high school indicates a large area to target since the average student in Detroit travels 2 or 3 miles to get to school, and even the typical student who goes to school in the suburbs travels less than 5 miles (J.Singer & Lenhoff, 2022). This larger recruitment radius contrasts with neighborhood DPSCD schools as well as "neighborhood" charters, whose principals focus on smaller geographic areas, even though schools in DPSCD can enroll students who do not live in their attendance boundaries via intra-district choice (J. Singer, 2020). As one neighborhood DPSCD principal put it, "We are communitybased . . . most of our kids are from the neighborhood, from the community." Likewise, a principal at a "neighborhood" charter explained that their students "mostly come from right in the neighborhood."

Charters also extend recruitment efforts beyond their own geographic area based on where their students live or how their current bus routes were mapped out. For example, one CMO enrollment administrator explained, "We're able to do a ZIP code analysis and see where our kids come from. And so, we, of course, target those areas . . . 50 different ZIP codes." Likewise, when I asked a leader for a different CMO whether they target recruitment mostly in their neighborhood or citywide, she replied: "Both. So we focus based on our bus routes . . . we have almost like, five subway lines going across Detroit, we will focus on events that are along those already existing bus routes." In this way, geographic patterns of enrollment and recruitment efforts are self-reinforcing, especially for "commuter" charters. With students enrolling in these schools from farther away, the schools continue to focus their recruitment efforts farther away, whereas neighborhood school leaders continue to confine their efforts to smaller geographic areas around their schools.

At the same time that some charters recruit from a broader geographic area, they offer limited school-based transportation. A plurality of charter schools in the city offer no school-based transportation at all, and many of those who do offer pick-ups on a pre-set route rather than setting bus stops near students' homes

(Lenhoff et al., 2022). As one CMO enrollment administrator explained, "We looked into it a few times . . . [but] somehow or another our parents are making it here." DPSCD's transportation policies also exclude a large number of students from school bus eligibility (Lenhoff et al., 2022), but to the extent that families are enticed to choose a charter school farther away, transportation policies further limit the lowest-SES parents' ability to do so.

In addition to the geographic component of their recruitment, charters more often targeted organizations that may serve higher-SES families—such as daycares (in particular private daycares), churches, and, in some cases major employers. For example, one CMO leader explained, "There's a lot of community groups near our school, whether that's church organizations, community councils, things like that . . . our school is already very active in that we try to use [those] as recruitment locations and hubs." Even though parents mostly described family, friends, and neighbors as key sources of information, some did describe learning about charter schools through these organizationally mediated social networks. For example, one higher-SES parent described choosing a charter school after learning about it through her children's pre-K: "When my kids were in pre-K . . . I met the person who opened the [elementary charter] school, [the founder] . . . I thought it was a really good idea to go to [that charter school] because of what he was offering to the kids." Thus, targeting organizations that serve higher-SES families for recruitment may contribute to stratified enrollment.

Finally, charters may enact more exclusionary practices related to student retention. Several charter school leaders described a similar formal re-enrollment process: students receive intent-to-return paperwork in the spring that their parents must fill out to secure a spot in the school for the next year. I collected some evidence that the re-enrollment process creates burdens that exclude students and provides school leaders with additional discretion over enrollment. One charter leader, for example, explained that students who did not officially re-enroll have sometimes lost their spots to new enrollees: "It's a chance that if you don't re-enroll and we get some people, like maybe a kindergarten's coming, but they have a

fifth-grade sibling, we will take that sibling [and that will fill up the grade level]. So I wouldn't say it's common, but it has happened before." In this scenario, the administrative burden of paperwork could prevent a student from re-enrolling. The process also provides charters with some discretion to encourage (or not) students to reenroll. For example, a CMO enrollment administrator shared, "If there's a student that you know is a great and wonderful family, we'll make sure they know . . . If it's a family that is kind of a pain, we may not give 'em a call . . . It has happened, but not too often." These practices may contribute to stratified enrollment, but this isn't clear from the data I collected, especially since such exclusionary incidents are relatively rare (as emphasized in both of these quotes). Indeed, none of the parents I interviewed described being pushed out by re-enrollment.

In addition, charter schools may enact attendance and behavior practices that push-out students. I asked school leaders about their standard for disenrolling students based on absenteeism, and charter school leaders tended to share lower thresholds for doing so (e.g., 10 consecutive absences, compared to DPSCD's policy of 20 consecutive absences). I also asked school leaders about school discipline and found some evidence that charter schools may suspend students based on slightly stricter behavioral expectations or may "counsel out" students based on ongoing behavioral issues. As one principal put it, "We did have a couple [students] this year where it just was not working out." Still, neighborhood school leaders also described enacting these kinds of practices; as one neighborhood school principal shared, "[parents] don't want to go down that road [to expulsion] and they'll remove the student instead of going through the process." In addition, both parents and school leaders described these forms of push-out as relatively infrequent. Thus, social, economic, and spatial factors are likely more significant drivers of SES stratification between charters and neighborhood schools.

#### Discussion

There are measurable SES differences among low-income and racially minoritized students, which are meaningful for students' educational opportunities and outcomes (Cheng & Peterson, 2021; Cookson & Darling-Hammond, 2022; Hamlin, 2018; Lubienski & Crane, 2010). For Detroit students, Michigan's "economically disadvantaged" measure fails to capture these differences. Nearly every Detroit student is identified as "economically disadvantaged," and the measure neither differentiates by income among those who are "economically disadvantaged" nor captures other dimensions of SES besides income. While Detroit is a unique context with particular social, economic, geographic, and policy arrangements, this issue is broadly relevant for urban education in the United States. In about half of the largest American cities, over 80% of Black and Hispanic students attend schools where 75% or more students are FRPLeligible (Boschma & Brownstein, 2016). In these urban districts, as in Detroit, relying on measures such as FRPL likely masks meaningful differences among high-poverty and racially segregated schools.

Using more granular income data and other measures of SES, I show that Detroit students in application/exam schools and participating charter schools are, in fact, socioeconomically different from their neighborhood school peers in some notable ways. The charter schools that participated in the study enrolled significantly fewer students living in deep poverty, and more students living above the poverty line, and selective schools enrolled significantly more of the city's highest-SES students. Through interviews with parents at different income levels, I show that these patterns of stratification are shaped by geographic constraints and social networks, and differences in school-type reputations and schools' strategic behavior also play a role. These findings reinforce the need to differentiate among low-income and racially minoritized families by SES when it comes to understanding their capacity and constraints for choosing schools.

How likely is it that these findings would generalize for the full Detroit school system? This would include charter schools that declined to participate in the study as well as suburban traditional public and charter schools that enroll Detroit students. In light of the findings in this study, the characteristics of the excluded schools do suggest that these patterns of SES stratification may be found throughout the whole Detroit

school system. Non-participating Detroit charters had lower rates of "economically disadvantaged" students, and students in non-participating charter schools travel much farther to get to school on average (Supplemental Appendix A). Similarly, Detroit students attending a school in the suburbs travel significantly farther on average to get to school than their peers who remain in the city (Edwards, 2021; Lenhoff et al., 2022). Given the findings on the role of geographic constraints in stratifying students by SES, the nonparticipating charter schools and suburban schools are also likely to enroll Detroit students with relative SES advantages on average compared to neighborhood schools. Without a survey sample that represents all Detroit students, however, I cannot make any definitive conclusions beyond the schools included in this student.

Likewise, are similar patterns of stratification among low-income and racially minoritized students likely in other urban districts? Cities differ in terms of their racial and SES demographics, the distribution of families and schools across space, their school and public transportation infrastructure, and levels of school choice and combinations of choice policies. In the context of different social and institutional arrangements, family and school behavior might mitigate or further exacerbate stratification. In New Orleans and New York City, for example, requirements for schools to provide transportation might mitigate geographic constraints for lower-SES families (Sattin-Bajaj, 2022), yet the high degrees of market competition might foster even more intense exclusionary school behavior (Jabbar, 2015; Pondiscio, 2019). To the extent that social, economic, and geographic inequalities exist in other high-poverty and racially isolated districts, low-income and racially minoritized students are likely to be stratified by SES to some degree.

The ways that low-income and racially minoritized students are characterized in school choice research and popular discourse do not account for SES differences among them (J. Singer, 2024), and may even further obscure those differences. As Henig (2008) notes, critics of school choice have long argued that urban charters enroll students with "unobserved differences, relating to motivation and values, that [give] choice families built-in advantages" while supporters have dismissed the importance of

"speculative unobservable factors" (pp. 105–106). Researchers have also largely emphasized "unobservables" (e.g., motivation, ability) as the primary issue in evaluating the effects of school choice (Hoxby & Murarka, 2008). Yet, the average SES differences I describe between Detroit students in different school types are not unobservable—they have simply gone unobserved due to a lack of adequate measures of SES. My findings show that rather than (or at least in addition to) differences in such unobservable characteristics, structural constraints, and social and economic inequalities are drivers of stratification among low-income and racially minoritized students.

## Implications for Research

My findings also suggest that when studying the impact of educational policies in high-poverty and racially isolated contexts, current measures of disadvantage may be insufficient (Greenberg et al., 2019; Michelmore & Rich, 2023). For school choice, these unobserved SES differences among low-income and racially minoritized students create threats to validity in school choice evaluations (Hamlin, 2018). Studies based on randomized enrollment lotteries have strong internal validity (Chabrier et al., 2016). Yet, without considering SES differences among low-income and racially minoritized students who enter into charter lotteries, researchers may not identify heterogeneous effects for relatively higher- or lower-SES students within lowincome and racially minoritized populations (Cheng & Peterson, 2021). In addition, systematic SES differences between students who do and do not participate in charter lotteries in the first place threaten the external validity of results (Baker, 2012; Cowen, 2010). Since most charters are not oversubscribed, most studies of urban charters rely on matching public and charter students based on observable covariates (Ackerman & Egalite, 2017). If there are systematic SES differences between low-income and racially minoritized students in schools of choice and their traditional public school peers, common SES measures used in matching studies (e.g., FRPL) may not capture those differences, leading to mismatched students and biased findings (Hamlin, 2018).

Further, unobserved SES differences among low-income and racially minoritized students raise questions about how to interpret positive school choice effects. Researchers have identified some distinct practices, typically associated with the "no excuses" model, that may explain why charter lottery winners have higher test scores and rates of college enrollment than lottery losers (Cohodes & Parham, 2021). If schools of choice serve higher-SES, low-income, and racially minoritized students, however, then there are at least three other ways to interpret these effects other than school effectiveness. First, higher-SES students may be better positioned to benefit from the specific practices used by these schools rather than those practices being universally more effective (Bruhn, 2020). Second, enrolling a higher-SES student body might enable schools of choice to build the capacity and organizational coherence necessary to implement such practices effectively (Spillane et al., 2022). Third, attending school with higher-SES or lower-SES peers may translate to more positive or negative peer effects (Sacerdote, 2011). For example, Clark (2019) finds that students in school grades with a higher concentration of the lowest-SES peers had greater odds of being suspended, highlighting the ways in which concentrated disadvantage may influence student behavior and ultimately create a more negative learning environment.

Thus, even if the composition of traditional public schools and schools of choice overlap substantially (as found in this study), different concentrations of the lowest-SES students may have significant consequences for student experiences and outcomes. These three possible explanations for school choice effects—wherein a school's socioeconomic composition and organizational effectiveness are dynamically interdependent—are important to consider if there are systematic SES differences between students in schools of choice and their traditional public school peers.

## Implications for Policy

My findings also have implications for the sorts of policies that might make access to schools of choice more equitable. Researchers and policymakers alike have put substantial effort into nudging families to make different school choices through tweaks to the "choice architecture" (Glazerman et al., 2020), for example, by providing more and different information, centralizing and simplifying enrollment systems, or optimizing school assignment algorithms. Prior studies on such policy interventions suggest marginal impacts on school choices at most (Avery & Pathak, 2022; Cohodes et al., 2022; Honey & Carrasco, 2022; Monarrez & Chien, 2021). My findings affirm that such efforts are unlikely to have a major impact on stratified enrollment patterns, even among low-income and racially minoritized families. Instead, policies that would make the most difference are those that would meaningfully respond to the social and material constraints families face when choosing schools—such as investments in school siting, school capacity, and school transportation (Edwards, 2021; Green et al., 2019; Lenhoff et al., 2022; Lincove et al., 2018; Trajkovski et al., 2021). The challenge with these kinds of policies is that they are expensive: new construction, additional personnel, and expanded transportation systems are much costlier than technical and informational interventions. They would thus demand substantially more public investment than is accounted for in the premise of school choice.

## Directions for Future Research

There are three ways that subsequent research should build on these findings. First, this kind of descriptive, mixed-methods work should be replicated in different cities. Comparative studies would enable us to identify how differences in local conditions might mediate or exacerbate stratification among low-income and SES racially minoritized students. Second, further research can consider quantitatively measuring other dimensions of SES that might distinguish low-income students, such as duration of poverty (Michelmore & Dynarski, 2017), strength and efficacy of social connections (Small, 2009b), and adverse childhood experiences (Clark, 2019; Nerenberg, 2021); and qualitatively examining social and cultural differences that are associated with SES differences as well (Carrasco et al., 2021; Pattillo, 2015). Third, research should also examine how other factors that shape school

choices—such as parent preferences and access to information, school-type reputations, and features of the local policy context (e.g., transportation, enrollment systems) might mediate the role of social and economic resources. Capturing these factors in surveys along with more precise measures of SES would help demonstrate their magnitude and significance as mediators or moderators of the socioeconomic stratification I observed (Saatcioglu & Snethen, 2023).

There is also an emerging causal literature on the segregating impact of school choice. These studies examine changes in racial and socioeconomic segregation in districts or counties as the level of school choice increases. These studies show that charter schools mostly maintain or modestly increase racial and socioeconomic segregation (Marcotte & Dalane, 2019; Monarrez et al., 2022). Since they rely on blunt and binary SES proxies, they are not able to study the extent to which the growth in school choice policies has led to further stratification among low-income and racially minoritized students. My own study is limited: it described the current state of SES stratification between neighborhood schools, charter schools, and selective schools in Detroit but did not demonstrate that Detroit would be less stratified in the absence of school choice policies (Archbald, 2000). If more granular measures of SES become available in state administrative data, studying the stratifying effects of school choice among low-income and racially minoritized students would be a good next step for this literature.

Finally, while my study identifies that SES stratification among low-income and racially minoritized students in Detroit exists, it does not demonstrate the consequences of those stratified enrollment patterns. Quantitatively, research can use better measures of SES to identify the extent to which SES differences among low-income and racially minoritized students explain student and school outcomes, including school choice effects. Qualitatively, researchers can use ethnographic methods to capture the ways that different concentrations of relatively lower- or higher-SES students influence student experiences and school organization in high-poverty and racially isolated contexts. Such research would offer a fuller understanding of differences among low-income and racially minoritized students and their consequences for the dynamics of school choice and other educational policies.

State policymakers can enable researchers to study SES differences among low-income students by linking state education data with other existing state-level administrative datasets. While some dimensions of SES (e.g., parental education and parental occupation) may be more difficult to capture, states already collect detailed income data on an annual basis through tax returns. Thus, at least for the income dimension of SES, tax-education data linkages could make finer-grained measures of family income and income-to-poverty available to researchers. New attention to the limitations of existing SES measures in educational administrative data surrounding the implementation of the community eligibility provision for federal school meals and state-level universal meal policies (e.g., Greenberg et al., 2019) presents a window of opportunity for policymakers to put better SES measures in place.

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#### Notes

- 1. Given the conceptual and empirical limitations of the available administrative data on student SES and space limitations, I do not include an analysis of school choice and stratified enrollment with the administrative data in this paper.
- 2. My target population excluded students enrolled in alternative schools that provide students with flexible participation arrangements, center-based schools serving students with intensive disabilities and exceptional needs, and strict discipline academies that serve students who are expelled or who are enrolled there by court order.
- 3. The survey also intentionally oversampled students in kindergarten and first grade, which was done in support of another research project. Raking offered an effective approach to constructing survey weights in order to adjust for this oversampling.
- 4. This descriptive analysis only aims to capture SES heterogeneity and describe the average SES differences by school type. The goal of the quantitative analysis is not to model the role of SES in shaping school choices relative to other factors (e.g., information access, preferences, school admissions criteria) or at particular decision points (e.g., going from middle school to high school). I did also use multinomial logistic regression to predict the probability a student would enroll in each school-type conditional on SES. The model was based on this equation:

$$\ln \left\{ p \left[ \text{School Type}_i \right] / 1 - \left[ \text{School Type}_i \right] \right\}$$
$$= \beta_0 + \beta_1 \left( \text{SES} \right)_i + Z\alpha + \varepsilon_i.$$

The outcome was the probability that a student i will attend one of three school types (neighborhood school, application/exam school, or charter school). SES $_i$  indicates the measure(s) of SES, and  $Z_i$  indicates a vector of student characteristics (race or ethnicity, gender, student grade level, SPED status, and whether the student lives in a single-parent household). Those results are available in Supplemental Appendix E. Since the regression-adjusted results essentially mirrored the simpler descriptive analysis, I did not include them in the main text.

- 5. I conducted all of the interviews of parents/guardians in English. In two instances, I spoke with a parent/guardian who primarily spoke Spanish and was not fluent or confident in English. For those interviews, another family member joined the interview and served as a translator.
- 6. Part of the broader study examined differences in school choice and stratified enrollment by SES between Black and Hispanic families in Detroit. Thus, I sampled both Black and Hispanic students in each income-to-poverty category for interviews. There is insufficient space to include my full analysis of differences between Black and Hispanic students, so in this paper, I focus on how SES differences among Black and Hispanic families alike shaped their school choices. More generally, further research could benefit from a closer interrogation of the heterogeneous influence of SES on lower-income and racially minoritized families' engagement in school choice by race or ethnicity to account for the interconnected role of economic and cultural characteristics more clearly (Lareau, 2011).

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