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# Public School Choice and Racial Sorting: An Examination of Charter Schools in Indianapolis

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There has been a long-standing concern among education researchers and policy makers that public school choice may lead to increased racial isolation. Improving on aggregate comparisons, I examine the sorting of students into charter schools by tracking individual students from their charter school of enrollment back to the school they were enrolled in immediately prior to the switch to a charter school, allowing for a direct comparison of school racial demographics between the two sectors. I find evidence that the process of charter school choice in Indianapolis leads to higher degrees of racial isolation and less diversity within schools than is present in the underlying process of student school transfers in the public school district from which a majority of these students came.

## Introduction

Many of the heated debates surrounding school choice in general and charter schools specifically have been around the types of students who will choose to leave their regular or traditional public school in favor of enrolling in a charter public school and the possible effects on the schools that they are leaving behind (Henig 1994; Schneider et al. 2000). As Witte and Thorn (1996) have noted, these issues form one of the most important sets of research questions in relation to public school choice: “Who chooses and why?” This question set is important because, as many have noted, there is a persistent fear, especially among opponents of public school choice, that expanded public school choice may lead to an increase in school segregation along racial/ethnic and socioeconomic lines (e.g., Henig 1994, 1998; Kleitz et al. 2000; Orfield and Frankenberg 2013; Weiher and Tedin 2002), exasperate inequities based on special needs (e.g.,

Electronically published May 15, 2015

*American Journal of Education* 121 (August 2015)

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0195-6744/2015/12104-0005\$10.00

Lacireno-Paquet et al. 2002) and English language learner status (e.g., Frankenberg et al. 2010b), or lead to “cream skimming,” whereby charter schools attract or target higher-performing students from traditional public schools (e.g., Dee and Fu 2004). Recent reports and studies have highlighted a concern that charter schools are “accelerating the segregation of public schools” (Miron et al. 2010, 3) and are a “civil rights failure” (Frankenberg et al. 2010b, 1).

Given this, it is important for us to understand what kinds of students choose to leave their current schools in favor of enrolling in charter schools, so that researchers and policy makers can make more informed opinions on the effect of charter schools for parents, students, and the public school districts within which they are located. This is especially true with the increasing prominence of public school choice and charter schools in federal policy statements such as the Obama administration’s *Blueprint for Reform* (US Department of Education 2010) on the reauthorization of the Elementary and Secondary Schools Act.

Using a data set of charter schools in Indianapolis, Indiana, I look at the sorting of students into charter schools by tracking switchers from their charter school of enrollment back to the school they were enrolled in immediately prior to the switch to a charter school. This tracking allows for a direct comparison of school racial demographics and overcomes many problems in the extant literature on racial sorting and charter schools. Further, since charter schools are very local implementations of policy, focusing on Indianapolis charter schools allows for a degree of contextualization not possible in studies at the national or state level. The overarching question framing this study is, “Is there evidence that charter schools have led to increased racial isolation of students in Indianapolis?” To investigate this question, I address the following specific research questions: What are the racial characteristics of students who choose to switch to a mayoral charter public school in Indianapolis? How do the previous schools of Indianapolis charter school students compare to their currently enrolled charter school in terms of racial demographics and diversity? How have charter school racial demographics changed over time?

The following article begins with a brief review of school choice theory and the extant literature on racial sorting and charter schools. Next, it presents a discussion of the Indianapolis context in terms of desegregation and school choice, followed by sections on the data and method employed in the study and a presentation of findings. The article concludes with a discussion of the conclusions and policy implications of the findings.

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## School Choice Theory

An educational reform that has gained traction and popularity over the past decade is the idea of public school choice, meaning that parents and students should have more choices in the types of schools children attend. Over the past 10–15 years, the ideas of public school choice have come increasingly to mean the creation of charter schools. From 1991, when Minnesota enacted the first charter school law, the number of charter schools in the United States has increased to over 6,000 schools, operating in 42 states and the District of Columbia and serving approximately 2.5 million students during the 2013–14 school year (National Alliance for Public Charter Schools 2014). Charter schools, broadly speaking, are publicly funded schools that are granted some measure of independence from state and district regulations in exchange for accountability to increase student achievement (Kolderie 1990). It is in part due to this broad definition that charter schools have wide appeal across divergent philosophical and ideological sectors of American society, with charter school proponents ranging across the liberal-conservative spectrum (Murphy and Shiffman 2002).

Proponents of charter schools point to an overly bureaucratic educational system that stifles teacher innovation and limits the ability of teachers to provide high-quality instruction (Chubb and Moe 1990; Murphy and Shiffman 2002). By creating a charter school that is freed from state and district regulations in such areas as curricula and the hiring of teachers, it is believed that these schools can operate more efficiently than regular public schools, both financially and instructionally. Charter proponents also state that the current public education system is a monopoly and as such has no incentive to change because it faces no threat of competition. If parents had multiple school options for their children, it is thought that public schools would be forced to reform themselves and their practices and increase student achievement in order to compete with charters to retain students and the moneys tied to those students (Betts 2009; Bulkley and Fidler 2003; Chubb and Moe 1990; Murphy and Shiffman 2002).

Embedded within the market metaphor of school choice and charter school theory is the idea that parents and students will be able to become active consumers of an educational product, and as such they will be able to make school choices that best fit their educational and social needs. The underlying assumption of this market metaphor is that when given a wider choice of schools in which to enroll their children, parents will “shop around” (Schneider et al. 1998)—weighing all available evidence and information on curricula, missions, services, and so forth, available from different schools. Parents will then make an informed decision as to which school best fits with their own educational beliefs and needs and thereby will increase the likelihood of positive educational outcomes such as increased achievement and graduation. This is both a supply-

side and a demand-side argument. From the supply side, proponents argue that in order to remain in business, charter schools must be responsive to the needs and wants of the market and their consumers. On the demand side, parents and students, by exercising choice, signal charter schools and the market on their preferences and desires for schools and education, whether in terms of curricula (e.g., “back to basics,” Afrocentric, science and technology) or other tangible and intangible characteristics.

School choice theory has largely been confined to the benefits side of the equation in terms of the consequences for allowing for more autonomy of parents in choosing the schools and schooling for their children. The market metaphor of school choice as often posited is largely silent on the issue of the potential segregating effects of choice, in part due to its focus on the individual benefits potentially derived from choice (Orfield and Frankenberg 2013). While some have expressed fears of negative consequences stemming from choice, few have delved into theorizing about how or why these negative or unintended consequences (increased racial isolation) may in fact be expected consequences of wider public school choice in a highly stratified society. As I discuss below, much of the extant research has focused on explaining the effects of choice on racial sorting a posteriori rather than theorizing on its expectation a priori.

### Parental Preferences and Racial Sorting in School Choice

The racial segregation of students has been a persistent problem and concern for American schools and school systems. Integration has been looked on as both an important goal of education in and of itself (Gill 2005) and as a potentially important lever for reducing academic achievement and attainment (educational and occupational) gaps between white and black students (Berends and Penaloza 2010; Wells and Crain 1994). Although the research literature on the effects of racial composition of schools on student achievement in the short term is largely inconclusive or contradictory (see Hanushek et al. [2009], Rivkin [2000], and Rumberger and Palardy [2005] for reviews and examples), there may be longer-term positive effects for minority students on postsecondary educational and occupational attainment, as well as a higher likelihood to be situated in integrated contexts professionally and socially from exposure to desegregated schools (Wells and Crain 1994).

Even though segregation based on law has been prohibited since the landmark Supreme Court ruling of *Brown v. Board of Education* in 1954, de facto segregation has remained and may in fact be on the rise. Using school-level demographic data from the National Center for Education Statistics (NCES) Common Core of Data (CCD) from the late 1960s to 2006, Orfield and Lee (2007) note that in 2006 the average white student attends a school that is 77%

white majority, while the average black student attends a school that is 52% black and only 30% white. Seventy-three percent of black students are enrolled in American schools that are more than 50% minority, a level of segregation approaching that found in 1968 (77%). Further, 38% of black students attend schools that can be categorized as intensely segregated, those schools that enroll a greater than 90% minority population.

Given the apparent rise in the resegregation of American schools, it is important to consider the role that public school choice programs may have in exacerbating the problem. As Bifulco and Ladd (2006) note: “Opponents of expanding school choice are concerned that, in the absence of provisions carefully designed to counter [resegregation] trends, the more motivated and advantaged students will sort into high-quality schools with students largely like themselves, leaving the less-advantaged students even more concentrated in lower-quality educational environments than otherwise would be the case” (31).

The underlying fear is that parents, especially low-income and less-educated parents, will not choose schools based on educational quality; rather, they will base their choices on “noneducational” criteria—where friends go to school or simple proximity (Moe 2001, 28). As Schneider and Buckley (2002) state, the fear remains “if white and wealthier parents select schools on the basis of racial makeup regardless of a school’s instructional quality or curriculum, the end result could be highly segregated schools chosen on the basis of race and not academic achievement” (134).

Key to understanding this issue are questions about how parents learn about choice and charter schools, their access to information about charter schools, and the types and quality of information that is used to make enrollment decisions. Research on these types of questions indicates that most parents restrict their choice of schools to a small handful of all available choice options (Bell 2007, 2009b; Mavrogordato and Stein 2014; Schneider et al. 2000; Teske et al. 2007). It is also apparent that parents rely on their social networks and “word of mouth” information about school options and that these informants and the information gained from them is highly valued (Bell 2009a; Mavrogordato and Stein 2014; Teske et al. 2007). Social networks exhibit high levels of homophily across many sociodemographic characteristics, perhaps most acutely along race and income (McPherson et al. 2001). Research has shown that educational networks can also exhibit high levels of stratification across lines of income and race, whereby, as Schneider et al. (1997) note, “Dyadic discussions about education are highly segregated: Blacks speak mostly to Blacks, Latinos to Latinos, and Whites to Whites” (1219). To the extent that these processes are operant in how parents learn about and ultimately choose schools, we might expect schools of choice to exhibit high levels of same-race concentration in enrollments.

Empirical evidence of parental school preferences comes generally from two different sources. First, many studies have used surveys of parents to gauge the

importance of various school characteristics (e.g., academic quality and racial composition) on their choices. Most of these surveys show that all parents, regardless of race/ethnicity or socioeconomic status, tend to indicate that the academic quality of schools is at the top of their list of important characteristics (e.g., Armor and Peiser 1998; Kleitz et al. 2000; Schneider and Buckley 2002; Smrekar 2009; Stein et al. 2011). Very few of these studies have explicitly asked about the importance of racial composition in choosing a school. Schneider et al. (1998), who did explicitly ask about racial composition, found that the racial similarity of a school student body to the parent's own race/ethnicity was rarely reported as important. In terms of racial diversity, they found that white and college-educated parents were more likely to indicate this factor as more important than minority and less-educated parents.

Weiher and Tedin (2002) clearly state the problem with many of these studies: "A common weakness of this research into the ethnic and racial implications of choice for choosers themselves is that the linkage between respondents' stated preferences and actual racial and ethnic patterns in choice schools tend to be tenuous" (81). One obvious reason for this is the social undesirability of expressing racial or ethnic reasons for choosing a school. Even if it were a response option on a survey, it is highly unlikely that parents would be willing to choose this response, even if racial concerns were driving their decisions and choices in schools.

To address the concerns raised about parent survey responses, some researchers have compared the actual racial and income level of the enrolled student populations of schools of choice and traditional public schools at different levels of aggregation from the national, state, or district level. Unfortunately, as some have noted, the level of aggregation that is used for these comparisons may lead to imprecise and faulty conclusions (Garcia 2008; Gill et al. 2007) and may not be able to adequately account for local contexts that may lead to racial isolation in schools (Renzulli and Evans 2005). Studies that only look at charter schools in the aggregate (at the national, state, or district level) are missing significant variation in student body demographics at the individual school level and may not be able to adequately shed light on individual charter schools and the changes in the racial composition of peers when students switch into charter schools (Bifulco and Ladd 2006; Renzulli 2006). Further, as Garcia (2008) notes, "Studies [of charter schools and segregation] fall short of providing insight into how charter school choice affects racial segregation because either the unit of analysis is specified imprecisely or the methods fail to compare charter schools with the precise set of district schools from which students exited" (807).

This problem of looking at the wrong level of aggregation is most clearly seen in an exchange between the authors of a report on segregation and charter schools from the Civil Rights Project (CRP) (Frankenberg et al. 2010a,

2010b) and critiques of that report in the journals *Education Next* and the *Journal of School Choice* (*Education Next* 2010; Hill and Lake 2010; Ritter et al. 2010) that used a lower level of aggregation. Although both groups found higher levels of racial isolation among charter schools than traditional public schools in the aggregate, they differed in their estimation of the degree and magnitude of that isolation, which in turn likely influenced the disparate language used (e.g., charters as “Apartheid schools” vs. charters being caught in a “Catch-22,” respectively) and inferences drawn from the estimates.

In order to investigate the effects of school choice on individual schools and students, it is necessary to have longitudinal student-level data that allow the tracking of students from their school of enrollment prior to making a switch to a school of choice (Zimmer et al. 2009). Owing in part to the difficulty in obtaining such data, only a handful of research studies to date have been able to approach the question of segregation and charter schools in this way. In a study of California and Texas charter school students, Booker et al. (2005) found that in both states it appears that charter schools are not “cream skimming” the best students, as many opponents of charters fear; rather, they appear to be targeting lower-achieving or more at-risk students. Further, the authors found that charter schools in both states are having an effect on the racial sorting of students; specifically, “black students in particular tend to move to charter schools that have a higher percentage of black students and are more racially concentrated than the public schools they leave” (22).

In a similar investigation of segregation in North Carolina charter schools, Bifulco and Ladd (2006) also found results of student sorting based on race/ethnicity and concluded that “charter schools in North Carolina clearly increase the extent to which students are racially segregated” (40). Evidence for this conclusion came from comparing the changes in racial composition of schools for students who transferred to charter schools from traditional public schools. Using school-level data from the CCD for the 2001–2 school year, the authors found that students enrolled in a charter school are “two and a half times more likely to be enrolled in a racially unbalanced school” than if they were in a traditional public school (37).<sup>1</sup> Noting that aggregate data may mask important variation, Bifulco and Ladd (2006) compared changes in the peer environment for a sample of 6,480 students who transferred to a charter school from a traditional public school between 1996 and 2000. They found that “students who choose to enroll in North Carolina charter schools tend to end up in schools and grades with higher percentages of students who look more like themselves racially and in terms of family background (parental education) than was the case in their traditional public schools” (40). Black students attended charter schools that were 18.6% more black and white students enrolled in charter schools that were 10.7% less black. Further, black “switchers” moved to charter schools whose average achievement in mathematics and reading on North

Carolina end-of-grade testing was markedly lower than the school from which they came, while white students tended to enroll in charter schools that had higher average mathematics and reading achievement than the traditional public schools they left.

Garcia (2008), in a study of charter school choosers in Arizona from 1997 to 2000 using student-level data, found that both elementary and high school choosers left more integrated traditional public schools for more segregated charter schools. White elementary switchers on average attended charter schools that were 10% more white than the traditional public school that they left, while black elementary school switchers attended charter schools that were 29% more black than the traditional public school that they formerly attended.

Zimmer et al. (2009) looked at switching patterns of traditional public school students who had switched to a charter school in seven sites compared to non-switchers from the same districts and states.<sup>2</sup> In terms of the racial distribution of students, they found that, across the seven sites, charter school switchers were moving to charter schools that had racial distributions similar to the traditional public schools that they left. Comparisons across racial groups found that black switchers moved to a charter school with a concentration of black students that was 3.8 percentage points higher than that of their previous traditional public school. White students transferred to a charter school with 1.3 percentage points higher white enrollment, and Latino students switched to a charter school with 5.9 percentage points fewer Latino students than their previous traditional public school. The authors concluded that there was no systematic evidence across the seven sites to indicate that charter schools “dramatically affect the racial mix of school for transferring students” (Zimmer et al. 2009, 19). However, like Bifulco and Ladd’s (2006) study in North Carolina, the authors concluded that there was some evidence that black switchers were more likely to move to a charter school with higher percentages of students of their own race.

The findings across these four studies (Bifulco and Ladd 2006; Booker et al. 2005; Garcia 2008; Zimmer et al. 2009) highlight the importance of local contexts in considering the potential of charter schools to play a role in the racial sorting of students; in some localities there is some evidence of preferences among charter school switchers for schools that enroll higher proportions of students of the same race/ethnicity, while in other localities there is little or no evidence of such preferences.

### Indianapolis in Context

At the time of this study, 11 public school districts were operating within Indianapolis,<sup>3</sup> enrolling a total of 131,972 students in the 2008–9 school year



(National Center for Education Statistics 2010). Indianapolis Public Schools (IPS) is the largest district, serving 34,050 students, and it serves as the main focus of this investigation. Like many urban school districts, IPS has seen a steady decline in enrollments since the 1960s (IPS's enrollment in 1968 was approximately 108,000 students [Nichols and Hooper 2004]). The remaining 10 districts include eight Township Metropolitan School Districts (Decatur, Franklin, Lawrence, Perry, Pike, Warren, Washington, and Wayne) and two city/town school districts (Beech Grove and Speedway).

### *Desegregation*

Desegregation of IPS has been an ongoing issue from the late 1960s and continues today.<sup>4</sup> In an initial ruling, Judge S. Hugh Dillin found in 1971 that IPS was guilty of de jure segregation due in part to district practices in drawing school attendance boundaries that led to segregated schools. In late 1973, Dillin ordered that black IPS students be transferred to school districts in Marion and other surrounding counties and that IPS desegregate schools within its own boundaries. With the *Milliken v. Bradley*, 418 U.S. 717 (1974) decision that limited the busing of students across district lines in efforts to desegregate, a further desegregation order was issued restricting IPS student transfers only to township schools within Marion County. In 1980, IPS submitted a final plan, which took effect in 1981, that consisted of intradistrict busing of students, redrawing of attendance boundaries, the transfer of black students to six township districts (Decatur, Franklin, Lawrence, Perry, Warren and Wayne), and the closure of 11 schools. In 1993, under the Select Schools Plan, parents and students were allowed limited choice among schools within the district; however, ultimate decisions on school assignment remained with the district and were constrained by racial distribution goals that the percentage enrollment of black students at every school should remain within 15 percentage points of the district-wide enrollment. Although the federal desegregation order remains in effect for IPS, in 1998 IPS and the six township districts settled on an agreement that would phase out the interdistrict transfers of black students out of IPS. The agreement kept current transfer students in the township districts, stopped transfers of new kindergarten students to township districts whose population was at least 20% black, and set a goal that all transfers of new students would end in the fall of 2004 for township districts that did not meet the 20% black population threshold. By many accounts, the desegregation of IPS appears to have been largely successful (Nichols and Hooper 2004). Fife (1997) found that the level of black segregation in IPS and surrounding school districts in Marion County declined from 1979 to 1996.

*Charter Schools*

Indiana passed initial legislation authorizing charter schools in the state in 2001, with revisions to the law added in 2005. By many charter school advocates and advocacy groups, the Indiana charter law is considered one of the “strongest” or most “friendly” to the creation of charter schools (Center for Education Reform 2012; National Alliance for Public Charter Schools 2012). The “strong” designation stems from provisions in the Indiana charter law that provide for multiple authorizers, funding formulas on par with traditional public schools, and the presence of automatic waivers from state and district regulations and policies. Indiana charter law is largely silent on the issue of racial sorting, except for a provision that any charter school proposal must include a “plan for compliance with any applicable desegregation order” (Indiana Code § 20-24-3-4(b)(3)(Q). <http://www.in.gov/legislative/ic/code/title20/ar24/ch3.html>). Guidance from the mayor’s office in its charter school application packet notes that charter schools that are proposed near or within transfer areas “must provide a compliance plan that demonstrates that the proposed charter school will not adversely affect desegregation efforts in Marion County” (City of Indianapolis, Office of the Mayor 2009).

The Indiana charter school law is unique in that it is the only law in the United States that has given a mayor the power to authorize charter schools. Then-Mayor Bart Peterson brought both attention and funding to the Indianapolis charter initiative. The mayor’s office received direct funding from the Annie E. Casey foundation and other local and national foundations for the development of a school selection and authorizing process as well as a system of accountability and monitoring. In 2006, the mayor’s office received the Innovations in American Government Award from Harvard University Kennedy School of Government (Skinner 2007). The mayor’s office continues to provide support and authorization authority under Mayor Greg Ballard, who succeeded Bart Peterson in November of 2007. Beginning with three charter schools that opened in the fall of 2002, by the time of this study, the Indianapolis mayor’s office had chartered a total of 25 schools; one financially troubled school was closed in the fall of 2009. Besides ongoing and continued support from the mayor’s office, charter schools in Indianapolis have also benefited from the support of local and national nonprofit organizations and philanthropic charities.

Parents in Indianapolis who consider enrolling their children in a mayoral charter school have a variety of options available to them, including schools that focus on a “back-to-basics” curriculum of math and reading, the arts or technology, a college preparatory curriculum, and experiential learning. Some charter schools are run by national networks, such as the Knowledge Is Power

Program (KIPP), or are associated with school reform groups, such as the Big Picture Company, while most of the schools are locally developed. For example, a number of the charter schools were developed by local philanthropists and community groups with particular emphases, such as serving at-risk populations or students with limited English or infusing technology in school.

Two studies to date have looked at the possible effects of charter schools on student academic achievement gains in Indianapolis. Using student fixed effects models that compared the achievement gains that students experienced in charter schools to the achievement gains that the same students experienced in their prior school, Nicotera et al. (2011) found that Indianapolis charter school switchers experienced higher gains in mathematics in charter schools compared to when they were enrolled in traditional public schools. Gains in reading achievement were found to be similar in charter schools and prior traditional public schools. Using the same methodology, the oft-cited national report on charter school performance conducted by the Center for Educational Outcomes (CREDO 2013) at Stanford University estimated that Indianapolis charter school students' growth in mathematics and reading was significantly greater than a matched virtual control group of traditional public students (CREDO 2012).

## Data and Sample

To investigate the actual behavior of charter school switchers, I used data from the Northwest Evaluation Association's (NWEA) Growth Research Database (GRD) of student testing records that has been linked to school demographic data from the National Center for Education Statistics Core of Common Data (CCD). NWEA is a nonprofit student achievement testing company that tests students in grades 2–10 in mathematics, reading, and language arts. From the 2002–3 to the 2005–6 school year, the Indianapolis Public Schools and many other metropolitan public school districts located within Marion County, Indiana, contracted with NWEA to provide testing in both the fall and spring semesters. Also during this time period, all but one of the mayoral charter schools contracted with NWEA for testing.

Of the 16 mayoral charter schools in operation in 2006–7, one school was excluded because it serves a unique population of students that are recovering from drug and alcohol dependency. A second mayoral charter school in its first year of operation did not contract with NWEA for testing and therefore cannot be located in the data set. Finally, there was only one other charter school in operation in Marion County in the 2006–7 school year that was not sponsored by the mayor's office. This school is included in the analysis for two reasons:

its inclusion more fully captures all options available to Indianapolis parents, and in the spring of 2009 the school changed authorizers from the Ball State University Office of Charter Schools to the Mayor's Office of Indianapolis, thereby becoming a mayoral charter school.

The sample of switchers in these data was constructed in the following manner. First, I identified all students in grades 3–10 who took an NWEA test in one of the 15 charter schools during the 2006–7 school year ( $n = 2,408$ ). Students in grades kindergarten, 1, 11, and 12 are not a part of this frame due to a lack of testing records in those grades. The second grade is excluded from this frame as these students cannot be tracked into a previous school as there are no NWEA testing records for the first grade from which to identify them as switchers. Next, I identified students who switched into a charter school between 2002–3 and 2006–7 by locating a testing record in a previous school prior to switching to the charter school.

With this strategy I identified 1,022 students in the data set, representing 42% of all test takers in 2006–7, as having switched to a charter school from some other type of school. Approximately 73% ( $n = 742$ ) of the switchers identified were previously enrolled in a school within the Indianapolis Public School (IPS) district. A further 18% ( $n = 186$ ) came from a traditional public school that was located in a public school district other than IPS. Finally, 9% ( $n = 94$ ) of the sample was previously enrolled in a different charter school from their currently enrolled charter school. To understand to what extent this sample is representative of the actual number of switchers, I compare my sample to that of Akey et al. (2008), which used state transfer data that allowed tracking of students from both public and private schools in all grades K–12 to investigate migration patterns into and out of charter schools within the IPS boundary (13 schools). This study provides the best estimate of the expected number of switchers from which to gauge the achieved sample in this study.

Akey reports that of the total charter school enrollment in 2006–7 ( $n = 3,747$ ), 67.3% ( $n = 2,522$ ) had valid information on a prior school of enrollment. These students were then further broken out by type of prior school. Table 1 presents a comparison of Akey's sample and this study's sample across types of students. Both samples identify a similar percentage of students as having previously enrolled in an IPS traditional public school (Akey = 33%,  $n = 1,249$ ; current study = 31%,  $n = 742$ ). Akey identifies 16% coming from traditional public schools other than IPS, while the current sample only identifies 8%. Similarly the current sample underidentifies students from other charter schools and nonpublic schools (see table 1). The underidentification of switchers from schools other than IPS is a function of utilizing NWEA data. Whereas IPS is fully represented in the data, there are no private or other nonpublic schools represented in the NWEA data; therefore these switchers

TABLE 1

*Comparison between Akey et al. (2008) and the Current Study across Previous School Type of Identified Switchers*

Type of Previous School	Akey et al. (2008)	Current Study
Indianapolis public schools	1,249 (33.3)	742 (30.8)
Other traditional public school	595 (15.9)	186 (7.7)
Other charter school	484 (12.9)	94 (3.9)
Nonpublic school	194 (5.2)	0 (.0)
Students without prior school information	1,225 (32.7)	1,386 (57.6)
Total <i>n</i>	3,747	2,408

NOTE.—Cell column percentages are in parentheses.

can never be observed. Given the full representation of charter schools in Marion County across the time period in the data, there is no straightforward explanation for the underrepresentation of students who switch from a different charter. The underrepresentation may stem from the censoring of the data below third grade and students switching from charter schools outside of Marion County that are not present in the data set. Finally, the underrepresentation of switchers from traditional public schools other than IPS is due to coverage differences in the two data sets—Akey was able to use complete statewide data to identify switchers for all grades, whereas the NWEA data only allow identification of switchers from schools that contracted with NWEA and were tested in grades 3–10.

Given my ability to identify students who switched from IPS to a charter in this sample and the focus of charter schools and charter school policies on traditionally underserved populations of students in large urban districts, charter switchers who came from the IPS will serve as the analytic sample that will be presented in the remainder of this article.<sup>5</sup> In terms of race/ethnicity, the majority of charter school switchers in the analytic sample were black ( $n = 442$ , 60%). White students represented 31% of the analytic sample ( $n = 228$ ) and Latino students 7% ( $n = 51$ ). Other race/ethnicity students (Asian, Native American, etc.) are the least represented at 3% ( $n = 21$ ). The racial distribution in the analytic sample was reflective of the racial composition of the Indianapolis Public Schools. Based on CCD data (see table 2), IPS's student

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TABLE 2

*Analytic Sample Racial Demographics Compared to Common Core of Data*

Student Race	Analytic Sample	CCD
Black	442 (59.6)	16,525 (58.5)
White	228 (30.7)	7,428 (26.3)
Latino	51 (6.9)	4,125 (14.6)
Other	21 (2.8)	152 (.5)
Total	742	28,230

NOTE.—Cell column percentages are in parentheses. IPS = Indianapolis Public Schools, CCD = National Center for Education Statistics Common Core of Data 2006–7.  $\chi^2$ -test is of the null hypothesis that the sample proportion is equal to the CCD proportion.

\*  $p < .10$ .

\*\*  $p < .05$ .

\*\*\*  $p < .01$ .

composition in the 2006–7 school year was 59% black, 26% white, 15% Latino, and approximately 1% other race/ethnicity. None of the differences in racial proportions between the analytic sample and IPS were statistically significant.<sup>6</sup>

## Method

The purpose of this study is to investigate the change in racial enrollments students experience when they move to charter schools from traditional public schools in a large urban district. As mentioned above, one way to do this is to descriptively compare the relative mix of races/ethnicities in students' previous schools to their currently enrolled charter school. These descriptive comparisons were both made in the aggregate for all IPS to charter school switchers and broken out separately for each racial group. As a point of comparison, the changes in racial demographics for students who switched from one IPS school to another IPS school during the same time period under study was also calculated.

To assess the degree of racial diversity in switchers' previous schools and their current charter schools, I calculate a *diversity index* (DI) for each school that indexes the probability that any two students selected at random from a school's

population of students will be from different race/ethnicities (Meyer and McIntosh 1992). In these data, the DI is created in the following form:

$$DI = 1 - (B^2 + W^2 + H^2 + O^2), \quad (1)$$

where the sum of the squared percentages (expressed as a proportion) of ethnic groups (black, white, Latino, and other) represented in a school's enrollment is subtracted from one. This represents the probability that a student in a given school, picked at random, will encounter another student in the same school from a different ethnicity than his or her own. It is important to note that this measure is not a measure of segregation of one racial group from another racial group more commonly used in the sociological literature (e.g., James and Taeuber 1985; Massey and Denton 1988b); rather it is a measure of the extent of the racial diversity across racial groups exhibited in the enrollment of a given school that is commonly used in the demographic literature (Johnson and Lichter 2010) and in studies of campus diversity in higher education (Bowman and Denson 2012; Tam and Bassett 2004; Umbach and Kuh 2006).

To aid in clarity of interpretation, consider the following two examples. Consider a school that enrolled equal proportions of the four ethnic groups such that each group represented 25% of the total school enrollment. The DI for this school would equal 0.75.<sup>7</sup> The interpretation of this value is that if you were to randomly select two students from this school, then three out of four times the two students would not be from the same racial group. As a second example, consider a school that has a black enrollment of 95% and a white enrollment of 5%. In this case, the DI is 0.095, meaning that in only 1 out of 10 random selections would the two students be from different racial groups. In this application with four racial categories, the DI takes a minimum value of 0.0 in the case of only one racial group and a maximum value of 0.75 in the case of equal proportions of all four racial groups.

In the analysis that follows, I compare the DI in the traditional public school in which students were enrolled immediately prior to enrolling in a charter school with the DI of that charter school in the year of enrollment. This switch to the charter school could occur in any of the four prior school years from 2002–3 to 2005–6 (2002–3 is the first year of charter enrollment in Indianapolis). For example, the DI for a student who enrolled in a charter in the fall of 2003 would be generated by comparing the racial demographics of the traditional public school for 2002–3 school year to the charter school racial demographics for the 2003–4 school year. By comparing the DI for previous and current schools across racial groups, we will be able to see if students are moving to more or less diverse school environments. If charter schools are leading to increased isolation by race, then we would expect to see the DI for the charter schools to be closer to zero than the DI for the previous school.

To extend the work of Fife (1997) that looked at the extent of segregation in Indianapolis from 1979 to 1996 through 2009, I also calculated an index of dissimilarity (D) that represents the proportion of black students that would have to be reassigned to other schools in order to achieve the same proportion of black students at each school as found in the district; this can be considered a measure of evenness (Massey and Denton 1988b). In order to maintain comparability with Fife's (1997) earlier work, D is calculated here as

$$D_t = \left( \frac{\sum | \frac{b_i}{b_t} - \frac{w_i}{w_t} |}{2} \right) \times 100, \quad (2)$$

where  $b_i$  and  $w_i$  index the number of black and white students in school  $i$  and  $b_t$  and  $w_t$  index the total number of black and white students in district  $t$ . The summation is across all schools in a given district. This is then multiplied by 100, so that D ranges from 0 (perfect racial balance in all schools) to 100 (perfect imbalance; all black students must be reassigned).<sup>8</sup> Conventionally, values above 60 indicate possible high levels of segregation, values from 30–59 moderate segregation, and values below 30 low segregation (Massey and Denton 1988a). It should be acknowledged that segregation in a multidimensional construct and the index of dissimilarity is but one of many possible measures (see Massey and Denton [1988b] for an extensive discussion). The use of the index of dissimilarity over other available measures was because, as a measure of evenness, it is conceptually congruent with the racial distribution goals of the Select Schools Plan mentioned earlier. As a way of comparing the racial distribution in charter schools to the Indianapolis Public Schools, I also calculated the index of dissimilarity separately for charter schools from 2003 to 2009.

## Results

How do the previous schools of Indianapolis charter school students compare to their currently enrolled charter schools in terms of racial demographics? As previously noted, critics of charter schools are concerned that parents and students will choose schools that enroll more students like themselves in terms of race, thereby leading to further racial isolation and decreased racial diversity among school peers.

In the aggregate (see the "All" row of the first panel in table 3), switchers are moving to charter schools that are not much different in terms of the racial composition of black and white students than their previous schools. Students appear to be moving to schools that are on average only about 1 percentage point more black, 2 percentage points more white, and 5 percentage points



TABLE 3

*Descriptive Comparison of Students' Previous School's Racial Composition to Current Charter School's Racial Composition*

STUDENT RACE	N	PERCENT BLACK			PERCENT WHITE			PERCENT LATINO		
		Sending	Receiving	Difference	Sending	Receiving	Difference	Sending	Receiving	Difference
IPS to charter switchers:										
All	742	60.0	61.3	1.3	30.6	32.4	1.8*	8.9	3.9	-5.0***
Black	442	72.7	81.9	9.2***	19.4	13.8	-5.6***	7.4	2.0	-5.4***
White	228	40.5	27.5	-13.1***	50.1	64.0	13.9***	8.9	6.3	-2.6***
Latino	51	39.1	40.3	1.2	38.1	47.3	9.2**	22.2	9.3	-13.0***
Other	21	57.0	45.4	-11.6*	35.6	47.0	11.4*	6.8	5.7	-1.1
IPS to IPS noncharter switchers:										
All	9,622	58.9	61.1	2.2***	30.1	29.0	-1.1***	10.5	9.4	-1.1***
Black	5,983	68.4	70.0	1.6***	22.7	21.5	-1.2***	8.5	8.0	-.5***
White	2,429	41.3	42.6	1.3**	47.8	47.1	-.7	10.4	9.7	-.7**
Latino	844	42.9	52.4	9.5***	31.4	29.0	-2.4***	24.9	17.9	-7.0***
Other	366	57.8	59.1	1.3	30.7	30.6	-.1	10.9	9.6	-1.3

NOTE.—Sending = student's previous school of enrollment; receiving = student's current charter school; difference = receiving minus sending percentage; IPS = Indianapolis Public Schools. Dependent sample repeated measures *t*-test used to estimate statistical significance of difference.

\*  $p < .10$ .

\*\*  $p < .05$ .

\*\*\*  $p < .01$ .

less Latino. The change in Latino enrollments, while appearing small, represents a large reduction in proportional terms relative to the base rate of Latino enrollment.

While in the aggregate it appears that students are switching to schools of similar racial composition, when disaggregated by the student's own race, a different pattern begins to emerge, and this illustrates the inherent problem of examining racial sorting at higher levels of aggregation. The "Black" and "White" rows of the first panel in table 3 indicate that both black and white students are switching to charter schools that enroll higher percentages of their own race than did their previous school. For example, black students switched from IPS traditional public schools to charter schools that were about 9% more black on average (receiving of 81.9%, sending of 72.7%, with a difference of 9.2%), about 6% less white, and approximately 5% less Latino on average than their previous school. The average white student is switching from a traditional public school to a charter school that enrolls almost 14% more white students (receiving of 64.0%, sending of 50.1%, with a difference of 13.9%), 13% less black, and approximately 3% less Latino on average than their previous school. Latino students in the analytic sample are moving to charter schools that are much less Latino in composition (approximately 13% less), more white (9.2%), and essentially unchanged in terms of black enrollments. The large decrease in Latino enrollments for Latino students is likely driven by the relative underrepresentation of Latino students in these charter schools (5.4%, table 2) compared to IPS (14.6%, table 2).

A natural question of these results is this: "Are they different from changes in racial demographics when students switch between IPS traditional public schools?" The bottom panel of table 3 shows the changes in racial demographics for students who switch from one IPS traditional public school to another IPS traditional public school during the same time period under study, which can serve as a baseline for comparison. For all students who switch within the IPS traditional system, the change in racial demographics is marginal, with a slight increase of 2 percentage points in black enrollment and 1 percentage point decrease in white enrollment. Comparing black and white students who switch to charter schools (top panel) with students who switch from one IPS traditional public school to another IPS tradition public school (bottom panel) of the same race, we see that in both cases charter school switchers are moving to new schools that have higher same-race enrollments and lower opposite-race enrollments. Within the IPS system, black students are switching to schools that are slightly more black (1.6 percentage points higher) and slightly less white (1.2 percentage points lower) higher in black enrollments. For white students, the difference becomes much more pronounced in comparison to their peers who switch schools within the IPS system; they move to schools that are much less black

(−13.1 percentage points vs. 1.3 percentage points) and much more white (13.9 percentage points vs. −0.7 percentage points).

What is the effect of sorting on the overall diversity of schools that students experience? Overall, students are moving to charter schools that are less diverse than their previous schools. On average, for all students in the analytic sample, sorting into charter schools results in a decrease in the diversity index of 0.10 (table 4). In general terms, this means that students moved from schools where, on average, in 4 out of 10 random draws two students of different races would be selected to a charter school where this is the case in 3 out of 10 draws. A decrease in the diversity index is evident across all racial groups, with the exception of “other” students. The estimated decrease was largest for black students (−0.127).

These decreases in diversity become more salient when they are compared to changes in school diversity for students who switch from one IPS traditional public school to another IPS traditional public school (see the bottom panel of table 4). On average, these students do not experience a change in racial diversity from the sending to the receiving school. Black students who switch schools within the IPS system over the same time period experience no change,

TABLE 4

*Comparison of Diversity Index by Switcher Type and Race*

Switcher Type	<i>N</i>	Sending School DI	Receiving School DI	Difference
IPS to charter school switchers (student race):				
All	742	.400	.300	−.100***
Black	442	.356	.228	−.127***
White	228	.460	.410	−.051***
Latino	51	.515	.440	−.075**
Other	21	.409	.352	−.057
IPS to IPS noncharter switchers (student race):				
All	9,622	.417	.418	.001
Black	5,983	.379	.382	.003
White	2,429	.465	.477	.012***
Latino	844	.541	.499	−.042***
Other	366	.428	.433	.004

NOTE.—DI = diversity index; IPS = Indianapolis Public Schools. Dependent sample repeated measures *t*-test used to estimate statistical significance of difference.

\*  $p < .10$ .

\*\*  $p < .05$ .

\*\*\*  $p < .01$ .

on average, in the racial diversity of the school, whereas white and Latino students experience a statistically significant slight increase in diversity.

This trend in moving to less racially diverse schools is also reflected in the plot of the index of dissimilarity (D) for charter schools presented in figure 1. This figure plots the D values for IPS from Fife (1997) from 1979 to 1996. I have extended this to 2009 for both IPS and charter schools with data from the CCD using the same formula for D. The level of segregation in IPS declined rapidly from the beginning of the period (1979;  $D = 46.1$ ) and stabilized in the low 20s for much of the 1980s and 1990s after implementation of the 1981 desegregation plan. Another trend that is evident in figure 1 is the general upward trend that is apparent from an initial jump in 1998 ( $D = 34.2$ ) to 2009 ( $D = 55.5$ ). A partial explanation for the apparent trend toward higher levels of segregation in IPS is the sensitivity of the D measure to changes in the racial composition of the district, which has experienced a decline in its white enrollments over time. However, the trend is also suggestive of a steady resegregation of the district that appears to be coincident with the gradual phase out of the desegregation plan beginning in 1998. The D values for mayoral charters

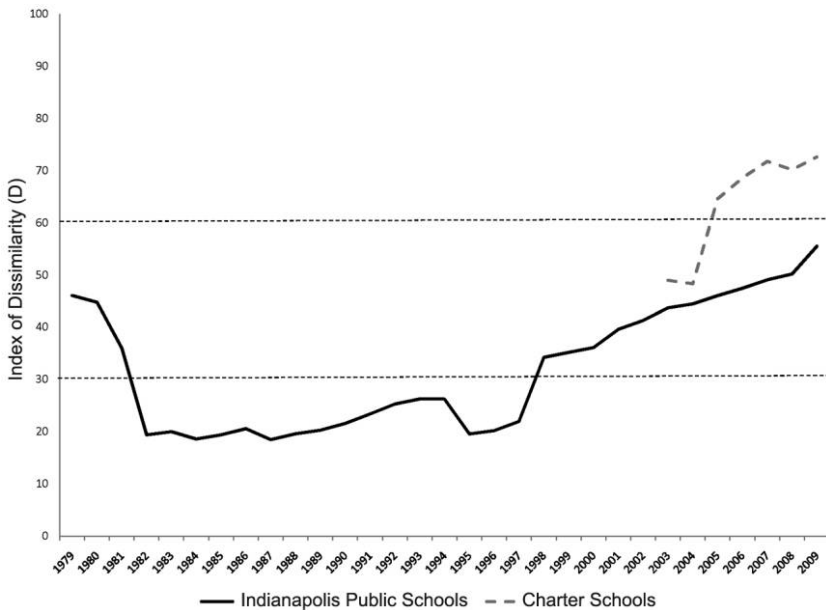


FIG. 1.—Index of dissimilarity of the Indianapolis Public Schools and Charter Schools, 1979–2009.

and IPS exhibit a moderately high zero-order correlation ( $r = 0.80$ ) over time from 2003 to 2009. The D value for mayoral charter schools rose from 48.98 in 2003 to 72.61 in 2009, meaning that roughly 73% of all black students would have to be reassigned to other charter schools in order for each charter school to reflect the proportion of black students across all charter schools. This rise in racial isolation mirrored a similar trend, albeit visually less steep, that is evident in IPS over the same time period as well as prior to the creation of charter schools.

How has the racial distribution of students changed over time within charter schools? This question is important to consider because up to this point we have only considered aggregate changes in the racial distribution of students across all charter schools, which could potentially obscure school-to-school variation in demographics and changes in those demographics over time. Comparing the percentage of black, white and Latino enrollments in table 5, we can discern a number of apparent trends. In the first panel, we see four schools that have experienced increases in their black enrollments and a steady decline in white enrollments.<sup>9</sup> All of these schools opened with black enrollments that were higher than IPS in the same year, and by the end of the 2008–9 school year they had experienced gains in black enrollment from 5.8% to 28.8%. White enrollments in these schools declined over the same time period from roughly 12%–19%. Using the racial guidelines of the 1993 Select Schools Plan that set a value on keeping individual school enrollments within plus or minus 15 percentage points of IPS's black enrollment as a guide to put the enrollment numbers in perspective, we can see that three of the four schools in this group met this criterion in the opening year; however, by 2009 none of the schools technically met this criterion.

In the middle panel of table 5 are six charter schools for which black and white enrollments have remained essentially constant from their first year until 2009. Four of the six can be categorized as intensely isolated black schools, with black students representing at or over 95% of enrollment in 2009; one school can be categorized as intensely isolated white (89.8% white enrollment in 2009); and the final school's enrollment appears much more evenly mixed between black and white students (although in comparison to the district the school is much more white and much less black in composition). None of the schools in this group met the racial guidelines of the 1993 Select Schools Plan in any year from opening to 2009.

The third panel of table 5 presents five charters that have seen a decline in black enrollments from their opening year to 2009. Two of these schools (Mitchell and Grubbs) had very low black enrollments in their opening year and have had steady, high white enrollments over the period. These schools also exhibit generally larger increases in their Latino enrollments than the other two groups of schools. Two schools saw significant decreases

TABLE 5

*Change in Racial Enrollments from Year of Opening to 2008–9*

SCHOOL	Year Opened	PERCENT BLACK ENROLLMENT			PERCENT WHITE ENROLLMENT			PERCENT LATINO ENROLLMENT					
		Open	2009	Open – 2009	Open	2009	Open – 2009	Open	2009	Open – 2009			
Henderson <sup>a</sup>	2003	65.0	91.2	26.2	34.5	24.8	5.4	–19.4	–17.6	1.7	1.4	–3	–13.5
Newcomb	2004	81.5	89.3	7.8	32.6	16.5	4.2	–12.2	–18.8	1.8	5.6	3.8	–9.4
Sudder #2 <sup>a,b</sup>	2005	60.8	73.1	12.3	16.4	33.3	20.8	–12.6	–2.3	3.9	1.8	–2.1	–13.2
Sudder #1 <sup>a,b</sup>	2005	59.2	73.1	13.9	16.4	34.7	20.8	–13.9	–2.3	4.1	1.8	–2.3	–13.2
McCready	2003	100.0	100.0	.0	43.3	.0	.0	.0	–23.0	.0	.0	.0	–14.9
West	2005	100.0	96.8	–3.2	40.1	.0	.5	.5	–22.5	.0	.5	.5	–14.4
Coulon	2005	96.4	95.8	–.6	39.1	3.6	.0	–3.6	–23.0	.0	.4	.4	–14.5
Wallace	2006	6.2	4.8	–1.3	–51.9	88.7	89.2	.6	66.2	3.1	1.6	–1.5	–13.3
Maxwell	2007	96.9	99.5	2.6	42.8	.8	.3	–.5	–22.8	.0	.0	.0	–14.9
Caven	2007	37.8	38.7	1.0	–18.0	50.0	48.9	–1.1	25.9	7.1	4.8	–2.3	–10.1
McCauley <sup>a</sup>	2003	65.2	21.9	–43.3	–34.9	24.8	38.7	13.9	15.7	9.6	28.6	19.0	13.7
Mitchell	2003	15.3	8.6	–6.7	–48.2	84.7	81.7	–3.0	58.7	.0	3.6	3.6	–11.4
Grubbs	2005	11.3	5.5	–5.8	–51.2	85.2	70.2	–15.0	47.2	3.5	15.3	11.8	0.4
McMaster	2006	33.1	6.8	–26.3	–49.9	61.3	80.1	18.8	57.1	5.6	10.2	4.6	–4.7
Denny <sup>a,c</sup>	2006	64.3	51.5	–12.8	–5.2	32.3	35.8	3.5	12.8	1.7	5.3	3.6	–9.7

NOTE.—Open = enrollment percentage in schools opening year. 2009 = enrollment percentage in the 2008–9 school year. Open – 2009 = change in enrollment percentage from opening year to 2008–9 school year. 2009 – IPS = difference in enrollment between school and IPS in 2008–9 school year. Data on enrollments come from the National Center on Education Statistics Common Core of Data. All school names are pseudonyms.

<sup>a</sup> Charter school opened with a black enrollment that was within plus or minus 15 percentage points of IPS's black enrollment in the same year consistent with the 1993 Select Schools Plan targets.

<sup>b</sup> Sudder #1 and Sudder #2 merged into one school at the beginning of the 2007–8 school year. In prior years, the schools were treated administratively as two distinct schools.

<sup>c</sup> Charter school with a black enrollment in 2008–9 school year that was within plus or minus 15 percentage points of IPS's black enrollment in 2008–9 consistent with the 1993 Select Schools Plan targets.

in the percentage of black students and concomitant increases in white enrollments, which led to one school becoming an increasingly isolated white school (McMaster). In the other charter school, McCauly, the loss of black enrollment did not lead to a more isolated white school. Rather the school increased its Latino population such that by 2009 the school was 21.6% black, 38.5% white, and 28.8% Latino. The last charter in the third panel, Denny, is the only charter to have met the 15% criterion for black enrollment in comparison to IPS set out in the 1993 Select Schools Plan in every year of operation, despite an overall decrease of approximately 13 percentage points in its black enrollment.

## Discussion

The analyses in this article show that in Indianapolis, Indiana, there is a high degree of sorting of students from IPS traditional public schools into charter schools that appears to be potentially based on an individual student's race and the racial composition of the charter school chosen by the student. Although it appears that charter schools in Indianapolis, as a group, are attracting students from across racial groups that are in proportion to the overall distribution of these groups enrolled in the Indianapolis Public School system, students appear to be selecting into charter schools that enroll more students of their own race/ethnicity. In absolute percentage terms, this pattern is stronger for white students than for black students. The average white student in the analytic sample chose a charter school that enrolled 13.9 percentage points more white students and 13.1 percentage points fewer black students than their previously enrolled school. Concomitantly, black students chose to enroll in charters with enrollments that were 9.2% more black and 5.6% less white than their former schools. This finding differs from past research in other localities that has found this self-isolating tendency to be stronger for black students than for white students in Texas, California, and North Carolina (Bifulco and Ladd 2006; Booker et al. 2005). Although it is important not to overgeneralize from this difference, it may indicate that there are different processes involved in self-selection into charters based on race in Indianapolis and potentially the Midwest than in other sections of the country (i.e., the South and the West).

It is interesting to note that while both black and white students move to charters that are less racially diverse, the decrease in the relative diversity of a student's peers is smaller for white switchers than for black switchers. In the average charter school attended by a black switcher, only about one out of every five random draws of two students would produce students from different races, whereas among white switchers, the probability would be about two out of every five. Part of this may be driven by the fact that black students are

moving in many cases to intensely isolated schools (> 90% black enrollment) from schools that also exhibit high levels of racial isolation. Thus, there is an upper limit to the increase in the percentage black enrollment that a black switcher could experience. Further as the black enrollment approaches 100%, there are fewer students of other races present, and the likelihood that one racial group is not represented is also increased. The effect of these two likely outcomes is a larger decrease in the estimated diversity experienced by the average black switcher in this sample.

Comparisons between charter switchers and students who switch between traditional public schools in the Indianapolis Public School system illustrate that the racial sorting evidenced among charter school switchers is not present among traditional public school switchers. The process of charter school choice in Indianapolis may lead to higher degrees of racial isolation and less diversity within schools than is present in underlying process of student school transfers in the public school district from which a majority of these students came. Furthermore, although both the Indianapolis Public School system and charter schools in this sample exhibit a trend over time toward more segregated schools, the extent of that segregation is much higher in charter schools than in traditional public schools.

Finally, in looking at the racial demographics of the individual schools, there is a general trend for schools to become more racially isolated over time or to have maintained racially isolated demographics from their opening year. With the exception of one school, none of the charters met the 1993 Select Schools Plan target of having plus or minus 15 percentage point black enrollment in comparison to Indianapolis Public Schools in the 2008–9 school year, while five of the schools did so in their opening year. The clearest implication is that, assuming a continuation in these trends, there will be an increased consolidation of schools into racially isolated groups: a group of racially isolated black schools and a group of racially isolated white schools. In between will be those schools whose missions value racial diversity and whose enrollment procedures and strategies are designed to enroll a diverse student population.

It is important to consider that although the evidence presented here indicates that parents are self-selecting into charter schools with higher proportions of students that are of the same race/ethnicity, with the effect that charter schools exhibit less diversity than the traditional public schools that students are leaving, these conclusions are drawn under the implicit assumption that the choice set of parents includes all available charters and that parents are operating under perfect information about those charters with which to make the best decisions for their children. As Bifulco and Ladd (2006) note, “We can infer the preferences of black [and white] families vis-à-vis the racial mix of charter schools only if the choice sets for a sufficiently large number of black [and white]



charter school students are not restricted to charter schools that are racially segregated” (48).

As discussed previously, homophily of social networks may be an important driver of the information and decision-making processes of parents in school choice (Schneider et al. 1997). To the extent that homophily of social networks exists in Indianapolis (see Mavrogordato and Stein 2014), it is not inconceivable that charter schools could exhibit higher levels of racial isolation compared to traditional public schools. The motivations and reasons behind self-selection into racially isolated school environments may operate not only within school choice but within traditional public schools as well due to neighborhood schools and residential segregation (Wells 2009). This underlying tendency may then be exacerbated by racial stratification in information networks whereby parents rely on same-race informants to learn about and choose from a relatively small number of schools that are already attended by students of the same race. This is certainly one plausible explanation for the pattern shown in figure 1 of a higher degree of segregation among charter schools compared to traditional public schools, mirroring an underlying trend in resegregation among traditional public schools.

The fact that charter schools in Indianapolis appear to exhibit a high degree of racial sorting is potentially instructive to our understanding of the racial implications of school choice. The charter schools in Indianapolis have enjoyed the patronage of two successive mayors and support from a wide array of local and national philanthropic and community organizations. The authorization and chartering processes in place in Indianapolis have been hailed as among the most innovative, marked by a high level of accountability, technical assistance, and public transparency. Moreover, there is some evidence of an expansion of civic capacity in Indianapolis as a result of the work of Mayor Peterson to bring many local stakeholders together around charter schools and education in the city (Smrekar 2009).

Like any study, the research presented here is not without its limitations. Ultimately this study is unable to answer definitively the overarching policy question that most are interested in: “Do charter schools lead to the increased racial isolation of students?” The analyses presented here more clearly speak to a statement that charters are not leading to racial diversity in enrollments; however, this is not the same as the quasi-causal statement that charters lead to racial isolation. The existence of an upswing in segregation in the traditional public schools (after the end of the desegregation orders but before the introduction of charter schools) indicates that the process of increased racial isolation is likely part of broader racial dynamics that are independent of charters. Further, this study is unable to speak to other important aspects of charter schools that are likely contributors to the sorting of students into racially iso-

lated schools, such as how and where charters choose to locate within cities, their missions, and targeted constituencies.

Yet, given all of this, charter schools in the city are, to a large degree, stratified by race. The civic capacity created by school choice and the high visibility of the mayor's office should be leveraged to ensure that parents across all racial groups have more information about all available options than may currently be available in parent social networks. As parents themselves have indicated (Teske et al. 2007), the creation of community or school-based choice counselors who could provide objective and reliable information on all school choice options may be a fruitful avenue to expanding choice sets among parents beyond current choice sets that may be constrained to racially isolated options. This may also help to bridge the digital divide that may prevent some low-income and minority parents from accessing the rich source of information beyond their social networks about charter schools that can be found on the mayor's office and state department of education websites (National Telecommunications and Information Administration 2010). Technical assistance can also be provided to charter schools in broadening their own recruitment of students beyond what they may see as their natural constituencies to a wider range of parents and students. At a minimum, charter school authorizers should be more active in monitoring racial sorting and should make public the extent of racial isolation within their system of charter schools.

## Notes

This article was supported by the National Center on School Choice, which was funded by a grant from the US Department of Education's Institute of Education Sciences (IES; R305A040043) and a grant from IES to Vanderbilt University's ExpERT program for doctoral training (R305B080025).

1. A "racially unbalanced school" is defined as a school in which the black enrollment is 20 percentage points higher or lower than the percent black enrollment in the district in which the school is located.

2. Chicago, Denver, Milwaukee, Philadelphia, San Diego, Ohio, and Texas.

3. Indianapolis and Marion County, Indiana, are governed under a unitary structure known as Unigov.

4. The summary of desegregation history in Marion County presented here leans heavily on the history of desegregation in Indianapolis and Marion County presented in Fife (1997) and a news article from the *Indianapolis Star* (Nichols and Hooper 2004). The citations appear here rather than in the text of the narrative for ease of presentation.

5. Separate analyses of the two excluded groups of students did not reveal substantive differences from the analytic sample and for the sake of brevity are not presented in the main narrative but are available from the author upon request.

6.  $\chi^2$ -test of the null hypothesis that the sample proportion is equal to the CCD proportion

7.  $DI = 1 - (0.25^2 + 0.25^2 + 0.25^2 + 0.25^2) = 1 - 0.25 = 0.75$ .

8. This scaling is done so that my calculations of D for 1997–2009 are consistent with those presented by Fife (1997) for 1979–96. I could have just as easily have divided Fife’s calculations by 100 to conform to the expression of D found in Massey and Denton (1988a, 596).

9. Scudder #1 and #2 merged into one school at the beginning of the 2007–8 school year. In prior years the schools were treated administratively as two distinct schools. These schools are treated as two distinct schools in counts and table 5.

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