The Impacts of Residential Integration on School Race and Ethnic Composition

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Extended abstract

Introduction

Stable racial residential integration within census tracts has emerged in, around, and beyond major metropolises across the nation (Logan and Zhang 2010; Lumley-Sapanski and Fowler 2017; Maly 2005; Nyden et al. 1998; Zhang and Logan 2016). These neighborhoods have maintained stable racial and ethnic compositions for decades and offer spaces of new social relations that do not adhere to standard models of "white flight." While stable residential integration itself is an understudied phenomenon, we know less about the potential downstream impacts of residential integration on institutional integration such as in education, healthcare, or employment. From a Civil Rights framework, residential integration is the supposed remedy to the inequitable distribution of resources across race and ethnic groups. If this is the case, then residential integration will translate to other forms of social integration.

The current study specifically focuses on the relationship between residential and school integration, as segregation in these domains are closely tied. I wish to investigate if young people residing in the same integrated places are attending schools together. Typically desegregation triggers residential white flight to whiter neighboring school districts (Kruse 2005) or school-level white flight to private and charter schools (Clotfelter 2011). Furthermore, the race and ethnic composition of school districts affects overall metropolitan residential segregation (Logan, Oakley, and Stowell 2008). Given the ties between schools and residence, schools provide excellent grounds for understanding the relationship between residential and social integration. Within stably-integrated multiethnic environments, it is possible that schools in these zones may also sustain integration. Furthermore, focusing on schools may provide a point of departure for future research that investigates how residential integration potentially improves the life chances of people of color via educational attainment.

Research question: I ask whether places that maintain stable racial residential integration also show patterns of integration at different geographic levels: 1) within schools directly serving integrated places; 2) between schools within school districts, separating out public, private, and charter schools. By varying these social-spatial scales, my intent is to first understand whether whites choose to send their children to schools with students of color in integrated places, that is, to understand whether schools are integrated in residentially integrated environments. Second, I expand beyond the within-school environment to investigate whether whites still disproportionately send their children to nearby schools with greater shares of whites, mirroring standard patterns of school segregation. Lastly, I examine entire metropolitan areas to investigate how clusters of residential integration may alter between-district racial and ethnic compositions.

Hypothesis: I expect that public schools in integrated places will show higher levels of diversity compared to those in non-integrated places. However, given the history of white flight, I anticipate that these public schools will still contain disproportionately low shares of whites,

where some whites will choose to send their children to same-place private or charter schools, or whiter public schools in adjacent places. Furthermore, I anticipate that metropolitan segregation will be disproportionately attributed to between-district segregation compared to within-district segregation.

Data

Metropolitan census places serve as the unit to identify residential integration. In using places rather than neighborhoods, the current study engages a political economy of place perspective. This perspective posits that places, as legal and economic entities, take actions to include or exclude populations of color (Lichter, Parisi, and Taquino 2015). Places are well-suited to downstream outcomes of integration also because they are recognizable by name and reputation, potentially flagging school quality and racially-motivated reasons for in- or out-migration (Bader and Krysan 2015; Krysan and Bader 2007). The Census Bureau divides places into two subcategories: incorporated places, which are established to provide governmental functions for a concentration of people; and designated places, which "are delineated to provide data for settled concentrations of population that are identifiable by name but are not legally incorporated under the laws of the state in which they are located" (U.S. Census Bureau 2005).

Residential racial and ethnic composition comes from the 2000 and 2010 Decennial censuses. I focus on Latinx and non-Latinx blacks, Asians, and whites. I identify racially-integrated places using a common measure of spatial evenness, the information theory index (H)[1], which assesses multigroup distributions within a place (Reardon and Firebaugh 2002). H compares the diversity (entropy) of a place to the diversity of each constituent subunit, in this instance, blocks. A place is maximally integrated when each block mirrors the overall diversity of the place and maximally segregated when each block contains only one group (i.e., no diversity). H ranges from 0 to 1: 0 indicates maximum integration, while 1 indicates maximum segregation. I consider places to be integrated if they display substantively low H scores (H<0.15). For context, in 2010, highly-segregated cities of Chicago and Atlanta had H values of 0.57 and 0.52, respectively (author's calculations). Because H is a comparative measure, it is independent of overall racial and ethnic composition—a place can be integrated according to H, even if it is 95% white if the remainder is evenly distributed throughout the place. However, I consider places dominated by one group to be segregated and only consider places to be integrated if they are substantively diverse, which I define as a maximum of 80% one race or ethnic group.

I link racially-integrated places to residential school districts using the School Attendance Boundary Information System (SABINS) made available through the National Historical

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[1] Entropy (E) is defined as $E = -\sum_{r=1}^{N} \pi_r \log(\pi_r)$ where π_r is the place's share of race or ethnic group r. H compares E and E_i and is defined as $H = \sum_{i=1}^{M} \frac{t_i(E-E_i)}{ET}$ where t_i is the population count in block i, T is the population count of the place.

Geographic Information System (NHGIS) (Manson et al. 2017). I link these data to individual public school race and ethnic composition data using the Public Elementary/Secondary School Universe Survey and the Local Educational Agency Universe Survey in the Common Core of Data collected by the National Center for Education Statistics (NCES) (Chen et al. 2012). Private school data come from the Private School Survey also collected by the NCES (Broughman et al. 2012). Figures 1 and 2 show maps of unified school districts (light purple) in greater Washington, DC and Los Angeles with racially integrated places (purple) and high school locations (red). I present maps of these two metropolitan areas as they show unusually large clusters of residentially integrated space.

Analysis plan

As a first step to answer the question regarding school integration vs. residential integration, I begin with exploratory analyses comparing the diversity (i.e., entropy) of public schools within integrated places against the associated place-level diversity. I will then expand by comparing the diversity of public schools versus private schools within integrated places to assess whether whites disproportionately situate their children in private schools while living in integrated residential areas. I will then extend the analyses to compare school diversity in integrated places against those in non-integrated places within each metropolitan area.

As a final stage of the analysis, I will conduct a multilevel, spatial model with school-level diversity as the dependent variable. Explanatory variables will include indicators for private/public/charter schools, place integrated status, place racial and ethnic composition of school-aged young people (e.g., substantial presence of Latinx, non-Latinx black, Asians, and/or whites), school district evenness (H) scores, metropolitan school district fragmentation, metropolitan area evenness (H) scores, as well as other place- and metropolitan characteristics associated with place racial and ethnic diversity like new housing stock, rental units, and geographic region. This analysis will control for spatial autocorrelation by assessing how racial and ethnic compositions spatially cluster across neighboring schools, thereby asking whether integrated schools locate near whiter schools or more people-of-color schools. Again, I hypothesize that residential integration will facilitate higher levels of school diversity compared to non-integrated places; however, simultaneously, diverse schools may tend to have whiter neighbors from "white flight."

Figures

Figure 1: Maps of greater DC (top) and Los Angeles* (bottom) by Unified School District (light blue) with racially-integrated places (purple) and high school locations (red dots).
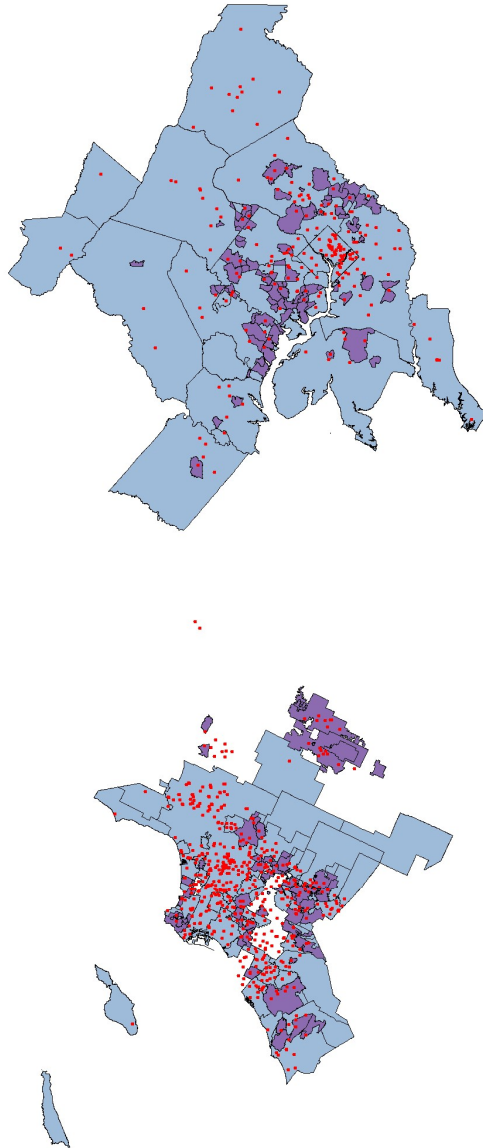
*Greater Los Angeles includes elementary and secondary school districts beyond unified school districts. These districts were excluded in this extended abstract but will be included in the formal analysis.

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