Exploring Variations in the Ethnic Compositions of Public Schools and the Neighborhoods They Reside In

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Abstract

Recent court ordered releases of mandated desegregation plans and increased efforts in installing school choice policies have sparked emotional debate around the concept of student diversity within schools. Neighborhood school advocates promote localized school enrollment in order to sustain community social capital. Those arguing for explicit initiatives in curbing segregation patterns in schools promote methods that draw children from different neighborhoods. School choice backers argue that families should have the right to select where their children will attend school, regardless of school district diversity needs. With the confluence of recent demographic changes and the diffusion of controversial school policies, the relation between the racial distribution at school and residential levels is ambiguous. As a first step to eliminate this ambiguity and to measure the possible disconnect between school and neighborhood diversity, this study compares levels of residential and public school racial composition and segregation in California, a state where many of these diversity debates and demographic shifts take place. The study offers a descriptive mapping of how many and which regions in California contain public schools in which the predominant race in the neighborhood is either under or over represented. It then measures and locates differences in segregation levels between school and neigborhood. Finally, it explores the kinds of students that live in regions of equal or constrasting school and neighborhood diversity.

Introduction

The nineteenth-century educator Horace Mann believed that the function of American public schools is to shape individuals into economically self sufficient, productive and informed citizens. In this view schools are supposed to offer students the tools they need to improve their status. This aligns with the beliefs of Benjamin Franklin, for whom *the Encouragements to Learning are... great...[because] a poor Man's Son has a chance, if he studies hard, to rise...to gainful Offices or Benefices.* Franklin's sentiments convey the common belief that for children residing in lower socioeconomic rungs, public education is meant to level the economic playing field.

Public schools are the only institutions in the country charged with the responsibility of educating children regardless of their cultural, social or economic status. Access to public education in the United States is complete, universal, and compulsory (Tyack, 1980). By 1918, all states enacted school attendance compulsory laws that required children to attend schools until age 17. Since private schools, home schooling, magnet schools and other pay based or group affiliated schooling institutions denied access to children based on socioeconomic status, religion and academic achievement, public schools were left with the burden of creating an educated, productive work force from a diverse and challenged population. Mann further believed that *the children of all classes, rich and poor, should partake as equally as possible in the privileges* of public education. He and other public education advocates firmly believed that public schools was necessary to bind a people from diverse backgrounds and religions. Children should attend diverse schools, especially for those whose neighborhoods are largely segregated.

In 1954, Brown v Board declared school segregation as unlawful. Following the decision, districts were court mandated to diversify their student populations, typically through bussing and other diversity enhancing policies. Recently, lower courts have released numerous school districts from their desegregation plans. School boards planning to eliminate diversity policies cite the need and desire to create and sustain neighborhood schools, allowing students to attend schools closer to home, regardless of the socioeconomic makeup of the student body. Neighborhood school advocates believe that public schools are local community institutions that should reflect and serve

populations living within reasonable walking distance.

Other recent demographic, economic and political forces have muddied the relation between neighborhood and school racial composition. Changes in immigration patterns have left schools catering to students of diverse cultural and language backgrounds. A movement amongst minority middle class families demanding more academic accountability in the schools their children attend has led to increased minority cross district and private schools transfers. School choice, in the form of vouchers, district transfers, charter schools, home schooling and open enrollments, has witnessed increased advocacy since the 1990's. These measures give parents the opportunity to choose the school their children attend. In a market based school system, choosing households tend to be of higher socioeconomic status than non choosing households. Competition within this system causes schools to cream students, that is siphon off high achievers. Opponents of school choice fear that these demand and supply side dynamics may lead to higher rates of segregation.

Emerging from this confluence of recent changes within public education are contrasting ideologies of who public schools should serve. Mann and similar thinkers believe that public education should cater to all students regardless of group affiliation to prepare them for the work force and develop the type of social intelligence that breeds open mindedness and informed civic engagement. They support diversity enhancing policies, believing that segregation leads to a funneling of resources to a few privileged schools. School choice advocates believe that families should have the right to choose which school their children attend, regardless of whether their decisions enhance or erode diversity. Neighborhood school advocates believe that schools should cater to families living nearby, bridging the social networks created at home and school.

The bulk of academic research on ethnic segregation with regard to youths, however, continues to ignore the daily variation in the spatial separation of groups, focusing instead on segregation effects at either the neighborhood or school level. Despite recent school and residential initiatives to either eliminate or support diversity enhancing policies, the differences between school and neighborhood compositions by geographic location remains under researched. More importantly, scholars have yet to determine the differences in experiences and outcomes between children who attend racially mixed schools but live in largely segregated neighborhoods and vice versa. A child's school peers may come from diverse cultural and socioeconomic backgrounds, but the children and adults he encounters in his neighborhood may act and think uniformly. Conversely, a child living in a diverse neighborhood may be bussed to a more segregated school because of academic reasons. An exclusive focus on the residential geographies of racial groups erases the presence of others who go to school in those neighborhoods. Not only does this analytical orientation create a false impression of a city's racialized spaces as invariant, but it also misleadingly characterizes a child's exposure to others within one domain exclusive of the other.

Differences in the experiences of segregation at school and neighborhood may have long term academic and social effects on children. Additionally, if the differences in diversity between school and neighborhood affect student outcomes, city planners and district officials may need to work together to create diversity plans that cross school and neighborhood boundaries.

The objective of this paper is to explore the differences in racial composition between schools and neighborhoods. Specifically, I weigh the extent of tract level residential and school segregation by exploring the following questions: How common is reduced exposure to one's own ethnic group when comparing residence to school? How does the degree of segregation by school compare to that by tract of residence? Are groups that are relatively more segregated by residence also more

segregated by school? To answer these questions, I use census tract and school level data from California. California's population is diverse compared to most areas within the United States. With wide regional differences in ethnic population proportions, a strong school choice following and a reasonable number of diversity enhancing policies, California is an ideal state for exploring variations in the racial distributions between neighborhood and school.

The first section of this paper reviews the literature linking neighborhood and school segregation and their effects on student outcomes. The next section I explore neighborhood and school differences in own group exposure. Specifically, I identify and map regions and schools by the magnitude of their differences in the composition of specific racial groups. I then replicate these analyses in the next section, but use segregation indices rather than individual racial group proportions. Finally, I descriptively model individual, neighborhood and school level variables to determine the types of students typically found in high and low segregation

The following analyses are meant to be purely descriptive and a means of developing a more nuance perspective on segregation interactions between residence and school.

Data and Methods

I use 2007 data from the California Department of Education to calculate all school level analyses, including school population composition and academic performance. I define neighborhood at the census tract level. Although district boundaries are meant to define the student enrollment catchment area for a school, district boundaries are not necessarily the best indicator of one's residential neighborhood. The people students see on a day to day basis outside of school likely cuts across district boundary lines. Additionally, several districts (e.g. Los Angeles Unified) encompass areas too large to define as one's local neighborhood. Finally, school choice initiatives have led to relatively large interdistrict transfers, further widening any possible differences in the composition of schools and the local neighborhoods they reside in. In several smaller regions, the district maps directly with the census tract. However, in larger districts, several census tracts make up a single district. Measuring neighborhood at a more refined level also allows us to gauge within district segregation, which occurs when parents opt to send their children to a better school within the district despite transportation costs.

The analysis is categorized into three sections

Differences in Schools and Neighborhoods by Race

The best way to begin is to compare census tract and school composition by racial group. Specifically, I calculate the ratio of the group's percentage of the school population to the groups percentage of the school's neighborhood population. Quotients greater than one indicate overrepresentation in the school, whereas those less than one mean underrepresentation in the school. Unity means a group's representation in the school population aligns with the regional population. The ethnic groups I consider are white, Black, Asian and Latino. The results from this analysis will provide a general view of how many and which regions in California contain public schools in which the predominant race in the neighborhood is either under or over represented.

Differences in Schools and Neighborhood by Segregation Level

Looking at school and neighborhood differences by race tells us whether a student encounters the same proportion of individuals of his or her race at school and neighborhood. But, it doesn't tell us about the overall ethnic distribution, in particular differences in segregation between the two spheres of interest. Using the Dissimilarity Index to measure school and neighborhood level segregation, I identify school and neighborhoods by four segregation categories defined in Table 1. I map these schools according to these four types and use nearest neighbor techniques to identify point clusters. Finally, I provide demographic and academic performance summary statistics of schools aggregated by the four categories. I compare these statistics over time.

Table 1: Neighborhood and School Segregation Interactions.

	Neighborhood	School
Residential Segregation	Y	N
School Segregation	N	Y
Both Segregated	N	N
Both Diverse	N	N

The Determinants of Attending Schools and Living in Residences by Segregation Categories

The final step is to build models that describe what kinds of students live in the different regions outlined in Table 1. I use regression models where the dependent variable is the transformed difference between dissimilarity index scores of schools and neighborhoods and the independent variables are a set of individual level student and family characteristics with school and regional fixed effects to control for unobserved heterogeneity that may affect residential and school location choices. Although treated only as a descriptive tool, the results stemming from the regression model will provide background on which student level characteristics correlate with higher levels of segregation differences between school and neighborhood.