Diversity Characteristics under Different Models of K–5 Assignment

Moonhawk Kim, Ph.D., and Norma Ming, Ph.D.
Research, Planning, and Assessment (RPA)
Motivation

Explore simpler school assignment models that increase diversity.

• Moral imperative:
  • Stop concentrating minority students in high-poverty schools
  • Diversity is powerful lever for school improvement

• Robust body of research demonstrates benefits for ALL students
  • academic, cognitive, social
Overview

- Compare diversity under current and neighborhood models
- Lessons from other districts’ student assignment policies
Analysis of Diversity Patterns
Questions

• How might diversity—broadly defined—change under different models for assigning students in K5 schools?
  • Ethnicity
  • Socio-economic status
  • Academic
  • Travel distance
• What are additional considerations?
  • Capacity, policy transition time, and program constraints
Methodology

• Create a **hypothetical** student composition of schools with the assumption that everyone attends their **attendance area** ("neighborhood") schools

• Compare diversity between hypothetical and actual compositions
  
  • Ethnic composition, percentage receiving free-or-reduced price lunch (FRL), proficiency in SBAC, and school commute distance

• Modify the assumption of complete neighborhood school attendance
Data

• **Kindergarten through 5th grade** enrollment in ’14-15, ’15-16, and ’16-17 school years

  • Inter-district transfer and charter school students excluded
  
  • City-wide schools excluded (no attendance areas)

• Between ~21,200 and ~24,500 students at **58 schools**
Diversity in Ethnic Composition
There are fewer racially-isolated schools under the neighborhood model (6 vs. 14).
The size of ethnic majorities at schools is smaller under the neighborhood model.

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Current</th>
<th>Neighborhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>49</td>
<td>37</td>
</tr>
<tr>
<td>Asian</td>
<td>52</td>
<td>48</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>54</td>
<td>48</td>
</tr>
<tr>
<td>White</td>
<td>44</td>
<td>42</td>
</tr>
</tbody>
</table>
Some African-American majority schools become less racially isolated, others more so.
Diversity in Socioeconomic Status
Socioeconomic segregation is very similar under the neighborhood model.

<table>
<thead>
<tr>
<th>Percentage on FRL</th>
<th>Current</th>
<th>Neighborhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum</td>
<td>89</td>
<td>89</td>
</tr>
<tr>
<td>Average</td>
<td>58</td>
<td>52</td>
</tr>
<tr>
<td>Minimum</td>
<td>14</td>
<td>11</td>
</tr>
</tbody>
</table>
Diversity in Academic Performance
Average SBAC ELA proficiency at schools increases under the neighborhood model.
Most schools’ SBAC proficiency levels increase under the neighborhood model.
Commut e Distance
Average commuting distance decreases under the neighborhood model.

<table>
<thead>
<tr>
<th>Distance between Home and School (mi)</th>
<th>Current</th>
<th>Neighborhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum</td>
<td>9.27</td>
<td>6.25</td>
</tr>
<tr>
<td>Average</td>
<td>1.36</td>
<td>0.42</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.01</td>
<td>0.01</td>
</tr>
</tbody>
</table>
The neighborhood model reduces the ethnic difference in average distance between home and school.

### Analysis > Commute Distance

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Current Mean</th>
<th>Neighborhood Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>2.3</td>
<td>0.5</td>
</tr>
<tr>
<td>Asian</td>
<td>1.8</td>
<td>0.5</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>1.7</td>
<td>0.5</td>
</tr>
<tr>
<td>White</td>
<td>1.6</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Average Distance between Home and School (miles)

- **Current**
  - 75th Percentile: 2.3
  - Mean: 1.8
  - 25th Percentile: 1.7

- **Neighborhood**
  - 75th Percentile: 0.5
  - Mean: 0.6
  - 25th Percentile: 0.5
Challenges
This neighborhood model will far exceed current capacity at numerous school sites.
During the first year of the transition, the reduction in the number of racially-isolated schools is limited.
If language programs maintain locations, more schools are racially isolated.

### Dominant Ethnic Group (60%+)

<table>
<thead>
<tr>
<th>Dominant Ethnic Group</th>
<th>Neighborhood</th>
<th>Neighborhood w/ Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic/Latino</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dominant Ethnic Group</th>
<th>Neighborhood</th>
<th>Neighborhood w/Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic/Latino</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Asian</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>White</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>None</td>
<td>52</td>
<td>50</td>
</tr>
</tbody>
</table>
Language programs affect schools both with and without programs.
Summary of Findings
Empirical Findings: Summary

• The current assignment system exacerbates racial segregation significantly and socioeconomic segregation slightly.

• The socioeconomic segregation coincides very closely with academic segregation.

• The simple neighborhood model still has meaningful racial segregation and considerable socioeconomic segregation.

• This simple neighborhood model cannot be deployed as is, because of the mismatch between assignment and actual capacity.
Review of Other Assignment
Policy Options
What can we learn from how other districts pursue integration using SES?

Two Ways to Use Attendance Areas for Integration

<table>
<thead>
<tr>
<th>Heterogeneous</th>
<th>Homogeneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draw each zone to contain diverse populations</td>
<td>Draw distinct blocks that capture segregated housing patterns</td>
</tr>
<tr>
<td>Mix students across different parts of zone</td>
<td>Higher preference for residents in disadvantaged blocks</td>
</tr>
</tbody>
</table>

Challenges

- Must readjust boundaries as demographics, housing patterns shift
- Census data updated infrequently
- Often politically contentious
Mix across and prioritize within zones

From http://www.berkeleyschools.net/information-on-berkeley-unifieds-student-assignment-plan/
Controlled choice: How?

- Supply
  - Invest in new programming to attract more diverse student body.
  - Different populations may value different types of school programming.
Controlled choice: How?

• Demand
  • Information about choice
    • Devote resources to recruitment and family engagement.
    • Target low-income families and others w/ less access to information.
    • Monitor diversity during application phase; adjust recruitment strategies.
  • Ability to act on choice
    • Coordinate w/ housing, transportation
Controlled choice: How?

- **Mechanism for assignment**
  - Include explicit consideration of diversity (*since choice alone usually increases segregation*).
  - Reserve spots at popular choices for low-SES entrants mid-year.
Establish concrete, measurable aim for racial and/or socioeconomic diversity

• By school diversity:
  • each school within 10% or 15% of district average
    • For %FRL
    • For disadvantaged students (FRL, EL, or in low-income housing)

• By student population:
  • >30% of minority students attend reduced-isolation schools
  • accommodate >80% of students wishing to attend reduced-isolation schools
# Defining and Measuring Diversity & Disadvantage

<table>
<thead>
<tr>
<th>Individual</th>
<th>Geographic Proxy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free- and reduced-price lunch (FRL) status</td>
<td>• Average household income</td>
</tr>
<tr>
<td>Eligibility for other public assistance:</td>
<td>• % home ownership</td>
</tr>
<tr>
<td>• Homeless or migrant programs</td>
<td>• % single-parent homes</td>
</tr>
<tr>
<td>• Foster care</td>
<td>• % white residents</td>
</tr>
<tr>
<td>• Temporary Assistance for Needy Families (TANF)</td>
<td>• Average adult educational attainment</td>
</tr>
<tr>
<td>• Supplemental Nutrition Assistance Program (SNAP)</td>
<td>• School performance</td>
</tr>
<tr>
<td>• Public housing</td>
<td></td>
</tr>
<tr>
<td>• Head Start</td>
<td></td>
</tr>
<tr>
<td>English language learner (EL) status</td>
<td>• % households speaking language other than English</td>
</tr>
</tbody>
</table>

Cambridge, Champaign IL, DC, NYC                                           Berkeley, Chicago, Dallas, Jefferson County MO
Other questions to address

• How does demand for specific schools compare to projected enrollment and actual capacity?

• What are the patterns in how SFUSD families participate in and exercise their choice options?

• How can assignment models maintain / improve diversity while meeting students’ needs in language pathways and special education programs?

• How do other districts use choice equitably and effectively?
Cautions and Concerns

- Diversity in school assignment is not enough.
  - Integrated school climate
  - Equitable discipline
  - Culturally responsive curriculum and pedagogy
  - Diversity and desegregation among teachers
  - Within-school integration: Detracking
Summary

• Current model is less diverse than neighborhood model.

• Neighborhood model is still racially, socioeconomically, and academically segregated.

• Other districts design attendance areas and controlled choice with concrete aims and measures to achieve greater diversity.

• Additional analyses of choice, language pathways, and special education programs are still needed.

• Integration and equity are more than student diversity.
Questions and Comments