Introduction

- Schools are a fundamental context for youth, but sorting due to residential and school segregation results in vastly different contexts for youth from different socioeconomic backgrounds.

- A wide body of literature has found that school contexts are associated with student achievement, in that students who attend schools with fewer disadvantaged peers have greater academic achievement than their peers in schools with more students in poverty (Coleman et al. 1966; Konstantopoulos & Borren 2010; Lauzen and Goodell, 2010; Raudenbush & Bryk 1966; Sørensen and Morgan 2006).

- Neighborhood context may also be associated with student achievement and attainment. In particular, students who live in neighborhoods with greater socioeconomic resources or have less exposure to poverty have greater likelihood of earning a bachelor’s degree, greater cognitive ability, and higher high school graduation rates. (Owens 2010; Sharkey & Elwert 2011; Wodtke, Harding, & Elwert 2011)

- Relatively few studies estimate the effects of schools and neighborhoods on achievement simultaneously (Carlson & Cowen 2015; Cook et al 2002; Owens 2000).

![Diagram of School and Neighborhood Contexts]

In a large urban school district that offers school choice, a significant proportion of students enroll in schools that are not located in their neighborhoods. As a result, their school and neighborhood contexts may be significantly different from one another.

School and neighborhood contextual alignment may matter for academic outcomes because the alignment may reinforce inequality (e.g., economically disadvantaged student in a high-poverty school AND high-poverty neighborhood) or reduce inequality (e.g., economically disadvantaged student in a low-poverty school BUT high-poverty neighborhood).

Student alignment with the school and neighborhood may matter because of potential frog pond effects – that is, it is better to be a big fish in a small pond rather than a small fish in a big pond (Owens 2009; Davis 1996).

![Data and Measures]

- District-level data from large urban school district, which includes student demographic data, student achievement data, and data regarding school-level characteristics (school years 2013/14 and 2014/15)
- Harris County Appraisal District (HCAD) 2015 tax assessor data
- American Community Survey 2014 for Census tract level data

Sample
- 4th-8th grade students in a large urban school district with valid demographic data, school-level data, and standardized reading test scores
- Omitted students identified as race/ethnicity other than White, Black, Hispanic, Asian, or multi-ethnic
- N=49,446

Measures
- Student: economic disadvantage (includes qualification for free/reduced price lunch and/or federal means-tested assistance programs); race/ethnicity; LEAP: attended non-county high school, standardized reading test score (for current and previous year)
- School: high poverty (>75% of students qualify for FRPL) vs. not high poverty (>75%) (NCES, 2010)
- Neighborhood: high poverty (>40% of residents in Census tract in poverty) vs. not high poverty (>40%) (Largenbary, 2014)

Results

<table>
<thead>
<tr>
<th>Student characteristics</th>
<th>All Students</th>
<th>Economically Disadvantaged</th>
<th>Non-Economically Disadvantaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean or proportion SD</td>
<td>Mean or proportion SD</td>
<td>Mean or proportion SD</td>
<td></td>
</tr>
<tr>
<td>Average student STAR® reading scale score</td>
<td>134.895</td>
<td>134.657</td>
<td>133.099</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>0.063</td>
<td>0.276</td>
<td>0.163</td>
</tr>
<tr>
<td>Black</td>
<td>0.334</td>
<td>0.459</td>
<td>0.241</td>
</tr>
<tr>
<td>Hispanic</td>
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<td>0.480</td>
<td>0.170</td>
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<tr>
<td>Asian</td>
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<td>0.082</td>
<td>0.085</td>
</tr>
<tr>
<td>Multi</td>
<td>0.005</td>
<td>0.090</td>
<td>0.093</td>
</tr>
</tbody>
</table>

Main findings

- In this school choice district, a majority of students experience school and neighborhood contexts that do not align.
- Aligning school and neighborhood contexts is associated with greater reading scores; but vary by whether these contexts align because they are both high poverty settings or both not.
- Students who attend high poverty schools and live in high poverty neighborhoods have the lowest average reading score, regardless of student economic status.
- School poverty is associated with lower test scores to a greater extent than neighborhood poverty, for all students

Future directions

- Examine racial/ethnic school and neighborhood contexts
- Examine additional educational outcomes (ex. retention)
- Examine whether changing contexts is associated with positive or negative student educational outcomes

Acknowledgements

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References available upon request.