INTRODUCTION

Everyone knows the old real estate adage that the three most important factors in determining the value of a given property are location, location, and location. This is to say that place matters; a neighborhood confers a bundle of amenities to its residents that are specific to that geography. This bundle can include proximity to parks, small-scale retail offerings, high quality schools, and a variety of transportation options, as well as low crime rates and clean air. These amenities are arranged in a variety of configurations across space, and most households determine which aspects are most important to them, and then choose their neighborhood accordingly.

However, neighborhood choice is much more limited for lower-income households who live in publicly subsidized housing. A wealth of scholarship has examined the historical pattern of concentrating subsidized housing in locations that have largely been isolated from amenity-rich areas. Policy decisions and financial constraints have contributed to this pattern, and while a variety of federal and local programs have been implemented to offer expanded neighborhood choice to lower-income households reliant on housing assistance, the bulk of subsidized affordable housing remains unevenly distributed across different types of neighborhoods. In this data brief, we look at how these patterns play out in the nine-county Bay Area of Northern California, focusing here on the relative locations of subsidized housing and high quality schools.

SCHOOL QUALITY AND AFFORDABLE HOUSING IN THE BAY AREA

High quality schools prepare all students for long-term success. “Quality,” though, can be measured in a variety of ways. This analysis uses the Academic Performance Index (API) as a proxy for school quality. The API is a single number reflecting a school’s performance level based on the results of statewide testing, and is calculated by converting a student’s performance on statewide assessments across multiple content areas into points on the API scale, and then averaging across all students and tests. Here, we’ve included API scores only from elementary and middle schools, assuming that a student is more likely to attend his or her neighborhood school in the early grades.

than during high school years. Thus, the location of one's home relative to high and low performing schools is of critical importance, particularly in early, formative years of education. High quality neighborhood schools can serve as a local community asset in additional ways, fostering social capital by hosting community meetings, after-school or summer programming, public use playgrounds and sports fields, and other non-school activities.

In the first stage of the analysis, we overlay API data with data on the location of subsidized housing units. Figure 1 displays the geographic distribution of schools scoring across API quintiles, and Figure 2 layers on subsidized housing data, including public housing complexes, Low Income Housing Tax Credit properties, and other deed restricted units. The results show the uneven distribution of high quality schools as well as subsidized housing in the Bay Area, and reveal stark patterns in the overlap of low performing schools and subsidized housing units. Within the region, neighborhoods with high quality schools tend to be located in the more suburban and wealthier neighborhoods of Contra Costa, Santa Clara, and Marin Counties. These neighborhoods do not, however, contain a similar share of the region’s subsidized housing. Instead, subsidized housing tends to be located in neighborhoods with underperforming schools. To put this in numeric terms, just over 60 percent of affordable housing developments are located in census tracts where schools rank in the bottom two quintiles of school performance, with API scores well below the state’s performance target of 800, whereas just under 10 percent of developments are located near schools that rank in the highest quintile of school performance. (Table 1) Proximity is not, of course, the sole factor determining school attendance patterns; school district boundary lines and school assignment policies influence which students attend which schools. Still, these patterns are of considerable significance in assessing likely educational opportunities for the current generation of low-income students moving through the public school system in the Bay Area.

<table>
<thead>
<tr>
<th>2009 API Range (Elementary and Middle Schools only)</th>
<th>Number/Percent of Subsidized Housing Developments</th>
<th>Number/Percent of Subsidized Housing Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quintile 1</td>
<td><strong>Below 732</strong></td>
<td>507</td>
</tr>
<tr>
<td>Quintile 2</td>
<td>733-780</td>
<td>482</td>
</tr>
<tr>
<td>Quintile 3</td>
<td>781-824</td>
<td>302</td>
</tr>
<tr>
<td>Quintile 4</td>
<td>825-882</td>
<td>196</td>
</tr>
<tr>
<td>Quintile 5</td>
<td>883-998</td>
<td>142</td>
</tr>
</tbody>
</table>

2 See Methodology notes for source details
FIGURE 1: DISTRIBUTION OF SCHOOL QUALITY IN THE BAY AREA

Legend

2009 API Score (Quintiles)
- Orange: 372 - 732
- Yellow: 733 - 780
- Green: 781 - 824 (800 is state target)
- Light Blue: 825 - 884
- Blue: 885 - 998
FIGURE 2: DISTRIBUTION OF SUBSIDIZED HOUSING RELATIVE TO SCHOOL QUALITY
These patterns are of additional significance in light of the processes that are currently taking place to shape future growth patterns in the region. FOCUS, the Bay Area’s regional development and land conservation strategy, aims to promote the development of “complete, livable communities” in areas served by transit, while at the same time conserving open space. Through FOCUS, the Association of Bay Area Governments and the Metropolitan Transportation Commission, in partnership with a number of other regional and local agencies, have encouraged jurisdictions to designate specific geographies, termed Priority Development Areas (PDAs), for future infill development. In order to promote compact growth in the future, these areas must be within an existing community, near existing or planned fixed transit or served by comparable bus service, and planned for more housing. Regional agencies will support local governments’ commitment to more compact growth by offering incentives such as capital infrastructure funds, planning grants, and technical assistance to PDAs. Future population and employment growth is expected to align with PDAs, and for this reason, it is important to understand the characteristics of these areas relative to the rest of the region and their capacity to support sustainable, inclusive community growth.

A recent report published by the Center for City and Schools at the University of California, Berkeley, argues that a key metric of community completeness is school quality. “If regional leaders want to accommodate not only new growth but also retain the talent of young families and have them choose residential locations that support the FOCUS growth goals,” note the authors, “then addressing the questions of schools and high quality education is critical to the region’s vibrancy and resiliency.”

The report analyzes the performance of schools within, nearby, and outside of PDA boundaries, and shows that schools in and outside of PDA boundaries are markedly different. Schools within PDAs enroll proportionally more non-white students than those outside the boundaries, and also enroll a greater percentage of students qualifying for free and reduced priced meals, as well as a greater percentage of English Language Learners, than non-PDA schools. Schools within PDAs are also much less likely

3 Center for City and Schools (2011). “Growth & Opportunity: Aligning High-Quality Public Education & Sustainable Communities Planning in the Bay Area. A Framing Paper for the San Francisco Bay Area FOCUS Initiative,” Center for City and Schools at the University of California, Berkeley.
to have high API scores. For the 2009-2010 school year, schools within PDAs scored 720 on average, whereas their non-PDA counterparts scored 815.  

These disparities in educational outcomes within PDAs have implications for the siting of additional units of affordable housing. Already, a greater share of affordable housing is located in the PDAs with the lowest performing schools. Figure 3 shows how PDA boundaries line up against neighborhood API scores and subsidized housing developments in the cities that have the highest proportion of subsidized housing in the Bay Area: San Francisco, Oakland, and San Jose. The maps paint a stark picture of the differences in the current characteristics of areas designated as PDAs in these cities versus those that are not, with PDAs encircling significant portions of both subsidized housing as well as neighborhoods with underperforming schools. Regionally, nearly 70 percent of subsidized housing within PDAs is situated in census tracts where schools score in the bottom two quintiles of school performance, whereas just 6 percent of is located near schools that rank in the highest quintile of performance (Table 2). If housing development – and particularly affordable housing development – is going to continue to be directed to PDAs, it will be critical to understand and address the factors contributing to school underperformance in these geographies. Conversely, these results may point to the need to reassess the incentives that will direct future residential growth patterns and the location of new affordable housing developments.

### TABLE 2: SCHOOL QUALITY AND SUBSIDIZED HOUSING WITHIN PDAS

<table>
<thead>
<tr>
<th>2009 API Range (Elementary and Middle Schools only) Within PDA boundaries</th>
<th>Number/Percent of Subsidized Housing Developments Within PDA Boundaries</th>
<th>Number/Percent of Subsidized Housing Units Within PDA Boundaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quintile 1</td>
<td>Below 732</td>
<td>326</td>
</tr>
<tr>
<td>Quintile 2</td>
<td>733-780</td>
<td>236</td>
</tr>
<tr>
<td>Quintile 3</td>
<td>781-824</td>
<td>146</td>
</tr>
<tr>
<td>Quintile 4</td>
<td>825-882</td>
<td>67</td>
</tr>
<tr>
<td>Quintile 5</td>
<td>883-998</td>
<td>53</td>
</tr>
</tbody>
</table>

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4 Ibid.

5 See Methodology notes for source details
FIGURE 3: DISTRIBUTION OF SUBSIDIZED HOUSING RELATIVE TO SCHOOL QUALITY AND PDAS IN SAN FRANCISCO, OAKLAND, AND SAN JOSE

Legend
- Subsidized Housing
- PDA Boundaries

2009 API Score (Quintiles)
- 372 - 732
- 733 - 780
- 781 - 824 (800 is state target)
- 825 - 884
- 885 - 998
A wide variety of interventions can be utilized to help “level the playing field” with regard to educational opportunity; improving a low-income child’s access to higher quality schools can include mobility strategies or efforts to enhance teaching practices, curriculum, and/or supplementary offerings within that child’s local school. A range of confounding factors come into play here, not least of which is the issue of state and local funding for education – this is of particular salience in California, where K-12 education has seen significant cuts in recent years. On the whole, schools in California are struggling to educate students; while reading and math proficiency rates have been improving in recent years, still 40 percent of all students are not proficient in English and math. Additionally, there are significant proficiency gaps between whites and both Latino and economically disadvantaged students.6

While more research is needed to determine the most efficient and effective pathways of improving access to higher quality schools, particularly for lower-income students, it is clear that housing location shapes educational opportunities for lower-income families, and that education is central to long-term economic prospects. In recognition of this, efforts are underway at the federal level to foster collaboration and alignment between the Department of Housing and Urban Development and the U.S. Department of Education. In addition, though, access to quality educational resources should be more integrally considered in the wide range of federal, state, regional, and local mechanisms that will be used to determine future patterns of affordable housing distribution, as well as those that direct resources to the revitalization and preservation of existing affordable units.

There is no single dataset offering a complete inventory of affordable housing, which is generally developed using various configurations of federal, state, and local financing mechanisms. As such, a variety of sources were used to assemble as complete an inventory as possible of publicly subsidized housing developments in the nine-county Bay Area. These sources include the California Housing Finance Agency, the State of

California’s Department of Housing and Community Development, the California Tax Credit Allocation Committee, as well as HUD data accessed via the The Reinvestment Fund’s PolicyMap application, a web-based Geographic Information System housing a variety of public and proprietary indicators. This includes data from HUD’s Low Income Housing Tax Credit Database, the Multifamily Assistance and Section 8 Contracts Database, the Real Estate Assessment Center, and data from “A Picture of Subsidized Households: 2008”. These data were compiled and cleaned, leaving a total of 1,662 subsidized housing developments; we were able to geocode 98 percent of these developments against a 2010 streetfile of California. The data varied widely in comprehensiveness – for instance, only 77 percent included information on the number of units in the development. As such, the figures in the tables above showing numbers of subsidized units across API quintiles reflect the units in only 77 percent of the developments in our dataset.

Data on school quality were obtained from the California State Department of Education. School performance was measured using the established Academic Performance Index (API). The API is a single number, ranging from a low of 200 to a high of 1,000, which reflects a school’s performance level based on the results of statewide testing. The API is calculated by converting a student’s performance on statewide assessments across multiple content areas into points on the API scale. These points are then averaged across all students and all tests. The data used here are from the 2009 testing year, and are available at http://www.cde.ca.gov/ta/ac/ap/apidatafiles.asp. California has set an API score of 800 as its achievement target for all schools. To obtain school addresses, data from California’s Public School database http://www.cde.ca.gov/ds/si/ds/fspubschs.asp were merged with the above data files. These schools were then geocoded against a 2010 streetfile of California.

To create “neighborhood” API scores, a spatial join was conducted between census tracts and the geocoded point data. For a census tract in which there were multiple schools, the mean API of those schools were assigned to that tract. For tracts in which there were no schools, the API data from the nearest school or cluster of schools were assigned to that tract. Data were then broken into quintiles, and assigned scores of 1-5 accordingly.