To Live in the Community You Serve

School District Employee Housing in California



Sean Doocy





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Executive Summary

In recent years in California, school district employee housing has emerged as a strategy for recruiting and retaining teachers and staff. Districts leaders have been asking a series of questions about this new typology: Do our employees need or want this rental housing? How do we finance and develop employee housing? What technical hurdles stand in our way? This report helps address those concerns, detailing the current school district employee housing landscape and offering lessons from a study of Berkeley Unified School District (BUSD).

School districts are struggling with retention and recruitment due to high teacher turnover and a dearth of qualified teachers. The resulting teacher shortage has become a key point of concern for district leaders in California and is especially acute in the state's coastal urban areas with rapidly rising housing costs. While housing costs have increased in employment-rich metropolitan regions like the Bay Area, wages for public school teachers and other school district employees have stagnated – the average teacher salary has significantly less purchasing power in the housing market (rental or ownership) than it previously did.

The housing affordability crisis has fueled teacher shortages throughout the state, and school districts have taken bold steps to recruit and retain employees. Employee housing assistance is one prominent approach. Existing strategies range from down payment and closing cost assistance (for homeownership) to the direct provision of housing, the latter driven by either a developer or the district itself. School district employee housing projects have been built across the country, but most focus specifically on teachers, whereas this report considers the opportunities for and potential issues with developing housing that is available to all employees. Recent California legislation from 2016 (SB-1413) and 2017 (AB-1157) has helped incentivize the production of district-owned employee housing by removing Fair Housing barriers to population-restricted units, unlocking more funding resources, and streamlining the process by which districts can use surplus property for employee rental housing. In the wake of these bills, high-profile districts in the Bay Area – from San Francisco to Palo Alto to Mountain View – began to seriously explore the option of developing employee housing on district property. Berkeley Unified School District (BUSD) is one such district. With high (and rising) housing costs in the City of Berkeley, district leaders sought to understand two key questions:

- 1. Do employees need assistance with rental housing?
- 2. Is there an expressed *interest* among employees in district-owned rental housing?

I worked with BUSD to answer these two research questions, primarily by designing and administering a survey of current employees and leveraging an internal HR data set. My findings provide an affirmative answer to both questions: BUSD employees have a clear need for and a demonstrated interest in district-owned employee housing. More specifically, I identified the following key takeaways:

- o BUSD renter employees are experiencing financial pressures due to high housing costs
- o Most BUSD employees do not live in Berkeley, and their travel to work compounds the pressure they are experiencing from their housing situation
- Housing costs and commute may both impact employee ability to stay with BUSD long-term
- o There is significant interest in BUSD employee housing among current renters
- o BUSD employees believe that district-owned housing would help the district recruit and retain employees

Not all California districts will have similar underlying conditions to Berkeley or share the exact same findings, but this BUSD study offers lessons for other districts looking to finance, develop, and implement their own employee housing. Based on my review of the current school district housing landscape in California and my study for BUSD, I identified seven key recommendations for districts pursuing employee housing plans:

- 1. <u>Listen to Employees</u>: Districts must begin by listening to employees and learning about their housing needs and interests to make sure a housing program is necessary and has broad support.
- 2. <u>Understand Scale</u>: It is crucial for districts to determine the scale that will make their project pencil given available funding resources, and that will best suit their goals.

- 3. <u>Critically Assess Surplus Properties</u>: Districts now have more incentive to leverage their own property where possible, which means undertaking a comprehensive assessment of all potential surplus properties.
- 4. <u>Consider the Positive Non-Housing Effects</u>: District leaders should emphasize the positive spillover benefits of school district employee housing such as the environmental impact of reducing commutes.
- 5. <u>Get Creative with Financing: Think Beyond LIHTC</u>: Housing for school district employees is not traditional affordable housing, and as such cannot be financed in quite the same way. It's time to think outside the box.
- 6. <u>Combine with Ownership Assistance</u>: Affordable rental housing offers tenants a prime opportunity to save for a down payment – districts should offer a homeownership assistance program as a complement to rental housing.
- 7. <u>Account for Evaluation</u>: As more school district employee housing projects emerge, districts need to invest in robust, longitudinal evaluation programs.

Taken together, these recommendations urge California school districts – along with local governments, foundations, and developers – to provide creative solutions for school district employee housing and ensure that their employees are able to live in the communities they serve.

I. Introduction

Recent news headlines from across California paint a dire picture of teachers struggling to live in the same place they work: "Teachers struggle with skyrocketing housing costs;" "More teachers can't afford to live where they teach;" "Is Silicon Valley driving teachers out?" "Low pay, high SF housing costs equal 1 homeless math teacher" (Forestieri, 2018; Westervelt, 2016; Mongeau, 2015; Knight, 2017). Districts in San Francisco, Palo Alto, Mountain View, and elsewhere throughout the state are currently developing or exploring the possibility of district housing for their employees. Why, seemingly all of a sudden, is school district employee housing experiencing a surge in momentum?

Housing costs in California have risen dramatically in recent years, particularly in employment-rich coastal urban centers like the Bay Area. Yet wages for public school teachers and other school district employees have remained stagnant, failing to keep pace with rising housing costs for both ownership and rental. This is part of a longer-term trend: there is precious little housing that is affordable to middle-income households in the Bay Area, who typically make 60-120% of Area Median Income (AMI). Most teachers fit squarely within that middle-income range, while many other district employees (e.g., bus drivers, janitorial staff, paraeducators) can be categorized as lower-income, making less than 60% of AMI.

Faced with high turnover and a shortage of qualified teachers, California districts have adopted strategies to recruit and retain teachers and staff. One of those strategies, and the focus of this report, is employee housing assistance – particularly through the direct provision of housing. In California and across the nation, school districts, local governments, state governments, private developers, nonprofits, and foundations have taken up the cause of providing affordable housing for school district employees. Yet this is largely uncharted terrain. School district leaders, along with their development partners, are asking a series of high-level questions as they consider the possibility of school district employee housing:

- 1. Do our district employees need housing assistance and would they be interested in living in district-owned employee housing?
- 2. How do we finance and develop a school district employee housing project?
- 3. What are the most pressing technical hurdles for implementation from legality and employee eligibility to operations and management?

In this report, I review the current school district employee housing landscape and present findings from a study for Berkeley Unified School District (BUSD) which specifically addresses the first overarching question above. I also consider approaches to the other two questions, focusing on the challenges in financing and implementing this emerging typology of school district employee housing.

I begin in Section II by offering context for the overlapping issues of teacher shortages and housing affordability, showing that California districts need more qualified teachers at the same time that high housing costs have put affordable housing out of reach for middle-income teachers as well as lower-income district staff. It is important to note that while this report considers housing for all school district employees, much of the existing literature focuses on teachers as the target population. As such, Section II primarily discusses teachers, with the understanding that similar housing pressures apply to all district employees. In fact, many of the most recent district housing proposals, including BUSD's, are intended to serve the broader population of employees overall. This marks one of my key contributions in subsequent sections of this report: shining a light on the possibilities and limitations of developing housing available to all employees.

Section III provides an overview of housing incentive programs for school district employees: I begin with a discussion of housing assistance (e.g., down payment assistance, closing costs) and then consider programs for direct provision of employee housing (typically new development). Direct provision can be driven by either private developers or the districts themselves; my focus is on the latter, as district-driven housing has become the preferred approach in California, but I review examples of both approaches. While I specifically address the California context – especially because of the high housing costs in Berkeley and other coastal urban areas – I also pull in cases from across the country to show the range of districts considering employee housing and to illustrate different potential strategies. Section IV reviews the legal context in California, detailing legislative efforts from 2016 and 2017 that incentivized districts to develop employee housing and streamline the process. From there, I dive into the study of Berkeley Unified School District. Section V provides context for the BUSD study and outlines my methods and data. I present my findings in Section VI, demonstrating that there is both a need for and significant interest in affordable rental housing for BUSD employees. I conclude in Section VII with key lessons from the BUSD study and use that case, along with my overview of other programs, to provide recommendations for school districts considering their own employee housing programs.

II. Background

Teacher Recruitment & Retention: Trends & Challenges for School Districts

School districts across the country are facing two key challenges related to their teaching workforce: high teacher turnover, which bears monetary and non-monetary costs for the district, and a shortage of qualified teachers. These two factors translate into the twin issues of retention and recruitment, both of which have become top priorities for districts in recent years.

Teacher attrition is not a new phenomenon, but as of 2016 the annual rate of attrition across the US was 8%, compared to only 5% in the 1990s. (One-third of annual teacher attrition is due to retirement.) Additionally, each year another 8% of teachers move schools, so the total turnover rate is actually closer to 16% nationwide (Carver-Thomas and Darling-Hammond, 2017). Of course, this turnover rate varies considerably by region and by subject area. There are more shortages for qualified teachers in Science, Technology, Engineering, and Mathematics (STEM) subjects, foreign languages, English as a second language, and special education. Geographically, rural districts have historically experienced high turnover and large shortages, as have districts "that have lower salaries and less-desirable working conditions. Too often, these conditions exist in schools with more students of color and more students from low-income households" (Carver-Thomas and Darling-Hammond, 2017: 3). There is thus a high degree of variability in terms of turnover, from one district to another and even among different schools within a district.

Across the board, though, this high teacher turnover has real costs for districts and students. The monetary costs for replacement can reach up to \$20,000 per teacher

in a large urban school district (less in a smaller rural district), for a total national cost of approximately \$8.5 billion each year (Podolsky et al., 2016; citing Carroll, 2007). A 2016 report on teacher shortages details the burden of this continual resource and monetary reinvestment:

Such schools must continually pour money into recruitment efforts and professional support for new teachers, many of them untrained, without reaping dividends from these investments. Other teachers, including the few who could serve as mentors, are stretched thin and often feel overburdened by the needs of their colleagues as well as their students. Scarce resources are squandered trying to reteach the basics each year to teachers who come in with few tools and leave before they become skilled. (Sutcher et al., 2016: 41-42)

Beyond the financial costs, this revolving door of teachers can have a dramatic effect on students. In a 2013 study on teacher turnover, researchers found that, after controlling for indicators of individual teacher quality, "teacher turnover has a significant and negative impact on student achievement in both math and ELA [English Language Arts]. Moreover, teacher turnover is particularly harmful to the achievement of students in schools with large populations of low-performing and Black students" (Ronfeldt et al., 2013: 30). Furthermore, the negative effects are not isolated to the students who directly experience the turnover. Rather, these effects extend even into the classrooms of those teachers who have remained with the school, whose students had lower achievement as well. The impact is more than simply a function of teacher quality (i.e., whether the incoming teacher is better than the one who left): "turnover has a broader, harmful influence on student achievement since it can reach beyond just those students of teachers who left or of those that replaced them" (Ronfeldt et al., 2013: 32).

Turnover is an issue of retention: how can schools keep the same teachers in the classroom year after year, establishing continuity in the school environment. But teacher shortages are an issue of both retention and recruitment. Teacher attrition is to some extent a given, but when schools are not able to hire qualified new educators as replacements, that becomes a larger question of attracting the right candidates to the workforce overall and to a particular district. Sutcher et al. (2016) used federal databases to examine teacher supply and demand trends and found evidence of a widespread teacher shortage at the national level. The authors defined a teacher shortage as "the inability to staff vacancies at current wages with individuals qualified

to teach in the fields needed" (Sutcher et al., 2016: 1). They identified four key factors driving the national teacher shortage: a decline in teacher preparation enrollments; efforts to return to lower, pre-recession pupil-teacher ratios; an increase in student enrollment; and high teacher attrition (Sutcher et al., 2016: 1).

While all of these factors may be at play in districts across the country, California faces some of the most severe shortages in the country. In 2016, the Learning Policy Institute surveyed over 200 California school district representatives and found that 75% of districts were facing teacher shortages (Carver-Thomas and Darling-Hammond, 2017). The number of California teaching positions fell dramatically during the recession, but the number of positions, and thus the demand for teachers, has climbed every year from 2011-12 to 2015-16, returning to pre-recession levels. Teacher supply, however, has been on an overall downward trend since 2003-04, as measured by enrollments in teacher preparation programs and the number of new preliminary teaching credentials issued. Preliminary credentials totaled approximately 11,500 in 2015-16, while there were more than 22,300 estimated teacher hires in 2016-17. To address this mismatch and fill the increasing gap, districts have been forced to hire teachers with substandard credentials and permits or rotate through semi-permanent substitutes. Schools have had to increase class sizes or even cancel certain classes due to the dearth of qualified teachers. This is a statewide challenge but has become especially acute in metropolitan areas with rapidly rising housing costs.

Housing Affordability Crisis in California Urban Centers

The twin issues of teacher recruitment and retention present a daunting challenge for individual districts in California. The 2016 report *Solving the Teacher Shortage: How to Attract and Retain Excellent Educators* outlines potential strategies and policy recommendations. These strategies range from teacher pay (increasing salaries in high-cost districts) and preparation (establishing pipelines for hiring and training new teachers) to working conditions (emphasizing teacher support and collaboration) and investment in higher-quality, better-engaged principals. One of the recommendations is to increase teachers' non-salary compensation by providing housing assistance: "Such incentives include money for expenses such as rent, relocation, and down payment assistance, as well as discounted homes and subsidized teacher housing" (Podolsky et al., 2016: viii). Housing assistance has become an attractive strategy because it addresses a key problem that all employees (teachers and other staff) face: how to live in, or at least close to, the community where they work. This is a concern for districts across the country – as I note below in an outline of existing district housing programs, while the current enthusiasm for housing assistance stems from high-cost districts like the Bay Area, housing incentives have a broad appeal for a range of different districts. Many districts are just now beginning to understand and reckon with the pressures that high housing prices or lack of available housing supply place on their employees.

Although housing assistance is but one approach among many to increase recruitment and retention, it has gained momentum in recent years as housing affordability has reached crisis levels in many high-cost urban centers. This is particularly true in California, where housing is more expensive overall than in any other state besides Hawaii. In 2015 a typical home in California cost more than twice the typical US home: \$437,000 compared to \$179,000 (Taylor, 2015). Median monthly rent in California was nearly 50% higher than the national average in 2015. Housing in California has long been more expensive than in the country as a whole: in 1940, average California home prices were 20% higher than the average US home price, but housing prices started to increase at a much faster rate starting around 1970. By 1980, California prices were 80% above US prices, and as of 2015 California homes were 150% higher than (2.5 times) average home prices in the US (Taylor, 2015).

The major driver of high housing costs is a lack of supply, especially in coastal California. For the past decade, significantly fewer new homes have been built each year than would be needed to match the state's growing population, as seen in Figure 1. To keep up with population growth, the state needs 180,000 new homes each year, a mark which was only surpassed on four occasions from 1989 to 2016. In fall 2017 the California legislature passed a package of 15 housing bills that will help address this production shortage, but the total number of new units generated (approximately 14,000 per year) is still projected to fall short of population growth-driven demand by over 65,000 homes (Dillon, 2017).

Overall, the state's rental apartment demand has far outstripped rental supply since the Great Recession (California Housing Partnership Corporation, 2018), in large part because of a shift in housing tenure as the state gained nearly one million renter households from 2005 to 2016 (California Housing Partnership Corporation, 2016; ACS 2016 1-year Estimate, Table B25003).

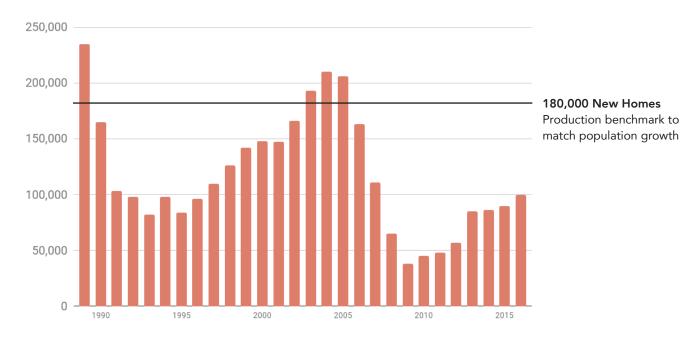


Figure 1: New Homes Built Each Year in California

Graphic recreated from @latimesgraphics (Dillon, 2017) 2017 housing package could add about 14,000 new homes each year Sources: Construction Industry Research Board and California Department of Housing & Community Development

The gap between housing demand and supply, coupled with higher land and building costs – especially in coastal California's job- and amenity-rich urban centers – has led to a dramatic increase in housing prices. Among the country's 17 largest metro areas (for which data is available), coastal California metros experienced by far the largest increases in median home value from 1996 to 2016 (Metcalf, 2018). This is most apparent in the San Francisco-Oakland-Hayward area, where home values increased 168% during that 20-year period; the largest increase in a non-California city was 97%, in Boston-Cambridge-Newton. While home prices took a dip during the Great Recession before accelerating again over the past five-plus years, rental prices remained on an upward trajectory. At the state level, from 2000 to 2014 California's median rent increased 24% while annual median renter income decreased 7% (California Housing Partnership Corporation, 2016). Once again, these increases are even more pronounced in coastal urban areas: in Berkeley, for instance, the median citywide rent for a studio increased 50% from 2008 to 2017 (City of Berkeley Office of Economic Development, 2018).

Housing Affordability: The Harsh Impact on Teachers

Across California, school teachers are feeling the pinch of the housing affordability crisis, above and beyond what comparable workers are experiencing. In 2015, the California Legislative Analyst's Office (LAO) released a report detailing the causes and consequences of the state's expensive housing (Taylor, 2015). The LAO identified five key effects of high housing costs for households:

- 1. Spending a larger share of income on housing
- 2. Postponing or foregoing homeownership
- 3. Living in more crowded housing
- 4. Commuting further to work each day
- 5. Potentially choosing to work and live elsewhere

Many households likely experience more than one of these effects. While housing costs have increased, incomes have stagnated across industries. This is particularly acute for public school teachers, whose wages have diverged from those of comparable workers. From 1996-2015, average weekly wages (adjusted for inflation) for public school teachers actually decreased, from \$1,122 to \$1,092 (Allegretto and Mishel, 2016). Meanwhile, the gap or "pay penalty" for teachers has increased: "For all public-sector teachers, the relative wage gap (adjusted for education, experience, and other factors) has grown substantially since the mid-1990s: It was -1.8 percent in 1994 and grew to a record -17.0 percent in 2015." (Allegretto and Mishel, 2016: 4). That is, the value of teacher pay relative to comparable workers has significantly decreased over the past two decades. Teacher weekly wages are 23% lower than the wages for other college graduates (\$1,416 vs. \$1,092), though when we narrow down to California in particular, that wage gap narrows a bit to 14%. While wages may not tell the full story, there is still an overall compensation penalty for teachers when accounting for non-wage benefits. There was functionally no compensation gap between public school teachers and comparable workers in 1994, but by 2015 the gap was -11.1%.

There is a particular shortage of middle-income housing targeted at households making approximately 60-120% of AMI, and teachers fit firmly within that range, finding it difficult to access affordable rental housing, pay market rents, or save up to buy a home. In 2017, San Francisco ranked as the most unaffordable rental market for teachers among 50 large US cities (Bennet, 2017), with fifth year teachers spending 69% of their income, on average, to afford median rent. Other coastal California cities also populated the top ten least affordable rental markets for teachers: Oakland (46% of income spent on rent), San Jose (43%), and Los Angeles (42%).

The goal of homeownership has also become particularly elusive for many teachers looking to purchase today. A quick note on the available data, though: third-party studies, by the likes of Zillow and Redfin, use average teacher salaries to calculate purchasing power in the ownership market because salary data is more readily available than actual household income. Yet few people, regardless of their industry, can afford a home on a single income, so it's a bit misleading to use salaries as a substitute for total household income. My analysis below, for Berkeley Unified School District, provides a more accurate assessment by including data on household income and household size.

Given that caveat, it is nevertheless helpful to look at how the purchasing power of a teacher salary has declined over time in the ownership market. A 2016 Redfin study found that only 17.4% of homes for purchase in California were affordable on the average teacher salary, down from 30% in 2012 (Marino, 2016). The numbers were dramatically worse for specific high-cost, high-demand counties, such as those in the Bay Area. In Alameda County, for instance, only 1.2% of homes were affordable for the average teacher, down from 14.5% in 2012. In that same time period, Alameda County teacher salaries increased by just 4.6%. Other counties had even lower rates, but saw a less dramatic drop in affordability over time. In San Francisco, 0.2% of homes were affordable to the average teacher in 2016, down from 0.5% in 2012. In both Santa Clara and San Mateo counties, 0.0% of homes were affordable on the average teacher salary in 2016, down from 2.0% and 1.3%, respectively, in 2012.

III. School District Employee Housing Overview

Given the divergence between housing prices (both to rent and own) and district employee wages, school districts in California and beyond have begun to use housing assistance as a tool for recruiting and retaining high-quality teachers and other district employees.¹ Existing approaches to employee housing can take a range of forms, but they can be broadly classified into two main categories:

- o Housing assistance (primarily for down payments and closing costs)
- o Direct provision of housing

I will consider each of these approaches in turn, focusing on the ways in which districts across the country and other entities – local governments, federal programs, nonprofits, private developers – have financed and operationalized these plans.

Housing Assistance

At the federal level, the Department of Housing and Urban Development (HUD) manages the Good Neighbor Next Door program, which is available for teachers

¹ To elaborate on an earlier point: while much of the literature focuses on teacher shortages, teacher wages, and incentives targeted towards teachers, the reality is that many of the more recent district housing proposals are intended to cover all district employees, not simply teachers. As we have seen, the theoretical basis for teacher housing assistance is that it helps with recruitment and retention to address the teacher shortage; the same rationale applies to housing for Classified employees, who have lower wages on average and for whom housing assistance might mean the difference between being able to remain in a high-cost district or having to leave their position for one in a less expensive location. Given the overall wage differences between Certificated employees (teachers) and Classified employees (other staff, including janitorial, cafeteria workers, nurses, bus drivers, and others), the way a district designs and finances housing assistance will affect which employees receive it. This is discussed in greater depth below.

(grades pre-K through 12th grade) as well as firefighters, emergency medical technicians, and law enforcement officers. Workers in these occupations are able to purchase eligible single-family homes in HUD-designated "revitalization areas" across the country at a discount of 50% off the home's listed price. The major limitation, however, is that only HUD real estate owned (REO) foreclosures are eligible, resulting in a limited supply. Teachers who do purchase a property through this program are required to live in the property for at least three years – serving the program's goal of revitalizing targeted areas by establishing community-oriented public service employees as homeowners (Garza, 2015; U.S. Department of Housing and Urban Development, n.d.).

A number of states also have programs that help incentivize and subsidize homeownership for teachers. The Connecticut Housing Finance Authority offers low interest home loans for teachers who live and work in "priority or transitional school districts" (Connecticut Housing Finance Authority, 2018). The intent here is to revitalize specific areas that the state has identified as needing reinvestment and stable homeownership, and whose schools are facing a teacher shortage in a specific subject. Under this Teachers Mortgage Assistance Program, teachers also automatically qualify for a loan to help with their down payment and closing costs. Similar programs exist across the country, with the largest ones in California and Texas. The Mississippi Housing Assistance for Teachers Program – to use an example that is both geographically and politically distinct from Connecticut - has been in place since 1998, with the explicit goal of addressing the shortage of qualified teachers in the state's rural areas. Mississippi teachers working and living in eligible high-need districts with a "critical shortage" of teachers for at least three years can receive home loans as well as grants to cover down payment and closing costs - the latter up to \$6,000 (Mississippi Home Corporation, 2018).

While these state programs are effective, homeownership assistance is most widespread at the local level, particularly in the form of low interest loans or down payment assistance. Many cities have Teacher Next Door programs, based loosely on the HUD Good Neighbor Next Door program (but without the same restrictions on eligible units). San Francisco's Teacher Next Door program, for instance, offers zero interest loans for San Francisco Unified School District teachers purchasing any single-family unit within the city. In San Jose, the Teacher Homebuyer Program also offers zero interest loans (up to \$40,000) for public school teachers as long as they purchase a home in the city.

As an emerging alternative to public programs, the San Francisco-based startup Landed offers an innovative approach to homeownership assistance for educators. Landed uses private capital to provide down payment assistance for educators looking to purchase a home – rather than offering a loan, the company contributes up to 50% of the down payment up front, in exchange for a 25% share of the home's future appreciation. This shared equity model allows homebuyers to hedge the risk associated with homeownership and provides an attractive investment for private capital in high-growth markets where home values are on an upward trajectory and expected to increase. Thus far Landed has targeted their product explicitly towards educators, partnering with school districts in the Bay Area, Los Angeles, and Denver metro regions, but they are currently "hoping to expand to other essential professions" (Eshman, 2018) as well as additional geographic regions. The existence of this model, and its financial backing from the likes of the Chan Zuckerberg Initiative, serves as an indication of the widespread interest in housing educators.

While many cities and states have identified the value in subsidizing homeownership for teachers, especially given efforts to recruit new teachers or revitalize certain neighborhoods, rental assistance poses an altogether different issue. As noted earlier, teachers tend to fall in the moderate-income range, which is poorly served by the current housing market. There are more market rate options available for renters with higher incomes or income-restricted affordable housing for those with lower incomes. Straightforward rental subsidies for district employees (such as rental vouchers) are not common practice, likely in large part because homeownership subsidies include a guaranteed element of longevity – the teacher is investing in property in the district – whereas renters do not offer the same promise of long-term retention (Glassman, 2016). Districts have not ignored the plight of renters, though. Instead, they have tended to invest in the direct provision of rental housing.

Direct Provision of Housing

Faced with acute teacher shortages, high turnover, and a lack of private investment in their housing markets, rural districts were among the first to develop or purchase employee housing. In North Carolina, Hertford County, Dare County, and Hoke County all developed teacher housing projects using loans from the State Employees Credit Union (SECU). Hertford County received a \$2.4 million interest-free, 15-year loan from SECU to build a 24-unit development, completed in 2007. The housing helped reduce the district's overall teacher turnover rates from 18% per year before the development to 13% afterwards, a substantial decrease of five percentage points (Glassman, 2016). The project proved so successful that SECU has financed similar projects throughout the state with other rural county districts, and recently completed a 24-unit development with Asheville City Schools in 2017; another project is in progress with Durham Public Schools.

A number of districts in Colorado have housing programs of their own, predominantly in rural or resort communities. The small Woodlin District owns 14 housing units on the district's campus, nearly all of which were built around 1960. Most employees pay \$70-\$105 per month in rent and the district pays for water and gas (Schimke, 2017). The rural districts Karval and Deer Trail offer similar housing for employees on a small scale. Aspen poses a slightly different problem: as a high-cost resort community, it bears more similarities to California cities that have become too expensive for teachers. The district owns 43 housing units in town, 80-85% of which are leased to teachers (the rest to other district employees) at highly subsidized rates (Schimke, 2017). In 2017, the district announced plans to build up to five additional units on land it has owned since 1998. That represents only an incremental increase, especially when compared with nearby Roaring Fork School District, which intends to develop 45-60 rental units across the three communities that make up the district. Roaring Fork competes directly with Aspen for teachers, and Aspen has higher salaries and its own teacher housing. But housing is still expensive in Roaring Fork, with 40% of teachers indicating in their exit interviews that they left the district due to the high cost of living. Thanks to a \$122 million school construction bond passed in 2015, which includes \$15 million in rental subsidies for teachers, the district may be able to stem the tide of turnover and recruit new teachers by building this housing.

In addition to this rural context, in recent years the fervor for employee housing programs has become more concentrated in high-cost urban districts in California. Yet despite the increased attention and demonstrated need for more employee housing, there are a limited number of completed projects at a large urban scale. Many more are proposed or in progress, especially in the Bay Area. Appendix B provides details on a selected group of example projects. These developments can be further subdivided into two groups:

- o Developer-driven housing
- o District-driven housing on district land

Our main interest here is in the latter, but it's worth focusing briefly on the former and its role in the employee housing ecosystem.

Developer-Driven Housing

The country's most highly publicized developer-driven project is Teachers Village in Newark, New Jersey. This massive mixed-use project, built on former surface parking lots in the city's downtown, features 204 apartments, three charter schools, and 65,000 square feet of retail, all across six buildings and five city blocks. Developer RBH Group envisioned Teachers Village as a mixed-use haven for teachers – with three charter schools and below market rate housing targeted for local teachers (at public, charter, or private schools) – as well as a critical piece in the larger effort to revitalize downtown Newark. 70% of the units are reserved for teachers and priced 10-15% below market rate; the other 30% of units are priced at market rate and open to renters from any occupation (Davis, 2017). The project has received considerable press, due to both its ambitious scale and architectural pedigree: renowned architect Richard Meier designed the complex. Overall the development cost \$150 million, financed by private investment, tax credits, and bonds. The first phases opened in 2013 and the sixth (and final) building opened in February 2017. As of spring 2017, 97% of all units were occupied and some commercial spaces were already open, with plenty more leased and being built out (Hojnicki, 2017). It is not yet clear whether the project is financially successful, but RBH Group already has two smaller follow-up projects in development: Teachers Square in Chicago and Teachers Corner in Hartford, Connecticut.

Miller's Court, in Baltimore, Maryland, is another prominent developer-led teacher housing project. Seawall Development converted a former tin can manufacturing building, which had laid dormant for 30 years, into 40 affordable apartments for educators as well as 35,000 square feet of office space occupied by Teach for America and other local nonprofits (Enterprise, 2015). The units are not restricted solely to teachers, but teachers who work in K-12 in the Baltimore area receive a \$300-\$600 monthly discount on rent. The developers leveraged Historic Tax Credit equity and New Markets Tax Credits, but they notably did not use the Low Income Housing Tax Credit (LIHTC) because it would have capped rents at 60% of AMI and salaries for Baltimore teachers were all above that limit, which would have precluded them from living there. Based on the success of Miller's Court, Seawall employed a similar strategy in developing 56 units of teacher-oriented housing at Union Mill, another historic mill in Baltimore, as well as co-developing Oxford Mills, 114 units of teacher and market rate housing in a former dye factory in Philadelphia (Davis, 2017). Teachers Village and the Seawall developments have been successful as purely developer-driven projects, built without coordination from the public school districts themselves – and most crucially, built on property owned by the developer. However, one of the key advantages for school districts in developing employee housing projects is precisely the fact that they already own property, often surplus property. This puts districts at an advantage as they do not need to acquire land as part of their development process.

District-Driven Housing

The most commonly cited district-driven employee housing development is "Casa del Maestro" in Santa Clara, CA. Recognizing that housing had become a major issue in Silicon Valley and was affecting teacher turnover, in the early 2000s Santa Clara Unified School District (SCUSD) developed a plan to build teacher housing on district land – specifically on a former middle school property. The district partnered with residential developer Thompson | Dorfman Partners, LLC, which started a nonprofit arm, Education Housing Partners, for the express purpose of developing employee housing. SCUSD retains ownership of the project (the land, the buildings, the debt) through the Santa Clara Teacher Housing Foundation (Urban Land Institute, 2012). Phase 1 was completed in 2002, with 40 units (all one- or two-bedroom rentals) built on 2.16 acres of land. After the success of Phase 1, which reduced teacher turnover for those living in the units, the district again worked with Education Housing Partners to add 30 more units in Phase 2, completed in 2009, for a total of 3.5 acres of development. Housing is restricted to teachers who have worked with the district for fewer than 10 years and have household incomes below \$136,000. All units are set at 60% of market rent, and SCUSD has full control over rental amounts because it did not finance the project using any tax credits (Davis, 2017). Instead, the district financed the development through Certificates of Participation (COP), an innovative approach that protected the district's General Fund from too much liability. Rents cover operating expenses, reserves, and interest-only debt service on the COPs.

The resident tenure limit was initially set at five years but later increased to seven years; most teachers remain there for the full term. Another innovative element of SCUSD's employee housing plan was the combination of physical housing, in Casa del Maestro, with a Teacher Mortgage Assistance Program (TMAP) that helped with down payments on homes in the district. The TMAP program has been discontinued, but it proved successful while it was in place: nearly one quarter of the residents who lived in Phase 1 went on to purchase a home in the district with the help of TMAP. Overall, Casa del Maestro had a notable positive effect on teacher turnover: in 2005, three years after the first phase opened, turnover for the district as a whole was 24% but turnover for teachers living in these units was a third of that, only 8% (Davis, 2017).

If Casa del Maestro is seen as an exemplary model for district-developed employee housing, then the Los Angeles Unified School District's (LAUSD) Sage Park development is best viewed as a cautionary tale. In 2008, the district undertook a Workforce Housing Initiative with the stated intention to "provide housing to help the District attain and retain teachers and staff; maximize the value of underutilized assets and generate revenue; create campus and community amenities" (Los Angeles Unified School District Board of Education, 2014). With these goals in mind, the district identified a 3.5-acre site on the Gardena High School campus and partnered with nonprofit developer BRIDGE Housing in a joint venture to build 89 units (one, two, and three bedrooms). The district retains ownership of the land and provides it to BRIDGE on a below market rate 66-year ground lease.

There were a couple of prominent roadblocks, however, owing to the project's financing. BRIDGE used tax credit equity (9% LIHTC) as well as funding from LAUSD, the Los Angeles Housing Department, California Community Reinvestment Corporation, New Generation Fund, and the Federal Home Loan Bank of Atlanta (U.S. Department of Housing and Urban Development, 2017; Davis, 2017). Tax credit equity was the tricky part. Because the project used federal dollars, it had to meet federal Fair Housing regulations, which meant that units could not be restricted to district employees but rather available to the public. LAUSD amended the city's Consolidated Plan in order to offer preference to LAUSD employees who worked within a three-mile radius of the site, as well as district employees overall (Kimura, 2015). But the project had to be marketed to – and accept applications from – the general public. The district received over 7,200 applications for the 89 units (Davis, 2017), more than half of whom were LAUSD employees (HUD, 2017). Applicants were chosen from a lottery, which took into account the preferences noted above, and ultimately all but a few units were leased to LAUSD staff.

The tax credit financing presented another major hurdle: in leveraging LIHTC, the district had to restrict eligibility to households making 30-60% of AMI, yet even the lowest paid, entry-level LAUSD teachers make more than 60% AMI and thus did not qualify for these units. All of the units are occupied by staff who make less than teachers – nurses, special education teaching assistants, cafeteria workers, janitorial

staff, bus drivers, and others. The Sage Park development is a tremendous asset, providing much-needed affordable housing for district employees – it just does not address any of the need for middle-income workforce housing for teachers, and thereby misses the mark on the district's goal of attracting and retaining teachers.

Local media was highly critical of the gap between LAUSD's intended outcomes and the actual finished development (Barragan, 2016; Phillips, 2016), especially given high teacher turnover rates, but the district has gone ahead and built two more employee housing projects through similar public-private partnerships using tax credit financing. The 66-unit Selma Community Workforce Housing Project, developed with Abode Communities, opened in 2016, and the 29-unit Norwood Learning Village, with Thomas Safran & Associates, opened in 2017. Both faced the same income limits and Fair Housing restrictions as Sage Park, though the passage of SB-1413 in 2016 allowed future developments to restrict eligibility to only district employees (as detailed below). The key point of caution from LAUSD's experience, which has given pause to some other high-cost urban districts looking to build large-scale housing projects, is that it is difficult to provide housing that targets both lower-income district staff and moderate-income teachers. In particular, traditional affordable housing development using LIHTC can only target the lower-income end, so districts that want to reach both target groups will need to come up with private capital, public money (e.g., bonds), or other innovative financing strategies.

IV. Legal Context

One of the key concerns for California school district leaders has to do with the legal barriers to district employee housing. Is it possible to develop housing restricted to a targeted population – in this case teachers and other school district employees? How has the law evolved to accommodate the increased demand for this specialized housing? In this section I provide context for recent California legislation and describe its impact on the state's school district employee housing landscape.

Overview of Recent California Legislation

As school district housing has grown in prominence since 2015, the California legislature has brought forward a series of bills that help incentivize the production of district-owned employee housing projects. The first of these bills was partly in response to Fair Housing issues, as in the case of LAUSD's Sage Park apartments. Fair Housing law limits the extent to which a project can restrict housing to a favored subgroup or occupation if it receives tax credits. SB-1413, the Teacher Housing Act of 2016, overrides that restriction. The bill, authored by Mark Leno, permits school districts to use federal tax credits or state/local funds to develop affordable rental housing on district-owned land that is restricted to school district employees (as long as the housing does not violate other applicable laws). (Note that this includes all school district employees, not just teachers, despite the name of the bill.) In permitting this district-specific housing, the bill was intended to facilitate the acquisition, construction, rehabilitation, and preservation of affordable rental housing for school district employees, "to allow teachers or school district employees to access and maintain housing stability" (Sen. Bill 1413).

In addition to its legal utility, SB-1413 also put the issue of school district employee housing on the political agenda in California, a symbolic win for districts and

developers. Section 1 of the bill provides evidence for why school employees should be granted special status as a class: stable housing for school employees "is critical to the overall success and stability of each school in California" (Sen. Bill 1413), especially in light of statewide teacher shortages and turnover. There were two other key points included as contextual information. First, students as well as the wider community benefit from teachers residing in the community where they work: "It ensures stability, community involvement, and stronger ties between teachers, their students, and their families" (Sen. Bill 1413). Second, from an environmental perspective, the creation of affordable housing options for teachers near (or in many cases on) school sites would reduce vehicle miles traveled (VMT) and commute times. These are both elements that help further the bill's goals of retaining quality teachers, reducing staff replacement costs, and fostering a sense of community (DCG Strategies, 2017).

SB-1413 was signed into law in September 2016, but it was considered a starting point, not a solution. The bill encouraged districts to implement housing programs that do any of the following:

- o Leverage federal, state, and local public, private, and nonprofit programs and fiscal resources available to housing developers
- o Promote public and private partnerships
- o Foster innovative financing opportunities

Despite SB-1413's encouragement of district housing, the existing laws governing how districts use their property made it difficult to operationalize new innovative programs. Enter AB-1157 (Mullin). Introduced in February 2017 and signed into law in October 2017, AB-1157 helps make it easier for school districts to use their property for housing. School boards are typically required to appoint a district advisory committee ("7-11 committee") to use or dispose of any surplus school property or buildings not needed for school purposes, but this bill offers a waiver for that laborious (and time-intensive) requirement in the case of "the sale, lease, or rental of excess real property to be used for teacher or school district employee housing" (Assem. Bill 1157). It also authorizes districts to invest funds from surplus property into the development of district workforce housing, and grants a property tax exemption for any school district property that is used to provide rental housing for employees. These measures help streamline the surplus property process, making it simpler and more attractive for districts to identify and declare surplus property that can be developed into employee rental housing.

However, as the law currently stands, this streamlining process would not apply to the use of surplus property in a public-private partnership – such a partnership could be structured in a number of ways, but most likely some of the housing would be open to non-district employees at market rents to help subsidize the more affordable units. It's worth noting that this law is so new that it has not really been tested, so it's possible that the state would grant waivers for the surplus property provision in the case of a public-private partnership. That remains to be seen.

Also in 2017, Assemblymember Tony Thurmond introduced AB-45 – functionally a redux of AB-2200 from 2015-16, which was introduced in the Assembly but not acted upon - to provide financial assistance to districts for pre-development and development of district-owned employee housing. It would have allowed qualified school districts and developers to apply for financial assistance when creating affordable rental housing for school employees. Although the bill passed both houses, Governor Brown ultimately vetoed it, stating: "Rather than creating a new program at this time, I encourage the author to work with the local governments in his district and collaborate with the California Housing Financing Authority to maximize the funding in SB 2" (Brown, 2017). SB 2 is a 2017 housing bill, passed as part of the broader housing package, that provides local governments with ongoing funding for housing, including a 15% carve-out after the first year for workforce housing administered through the California Housing Finance Authority. The workforce housing allotment from SB 2 should be substantial, but AB-45 would have been a huge boon to local districts if it had been signed into law, earmarking significant funds for school district employee housing to incentivize more projects across the state. Assemblymember Thurmond has since reintroduced another comparable educator housing bill, AB-2788, in early 2018.

The Current Wave of District Employee Housing Proposals

Although AB-45 did not get signed into law, the other two school district housing bills – SB-1413 and AB-1157 – appear to have precipitated a new wave of California districts looking to develop their own housing. Especially in the wake of SB-1413 in 2016, a number of Bay Area districts began to investigate project feasibility or hasten already gestating plans. Districts in Palo Alto, San Jose, and Mountain View have all recently announced their interest in developing employee housing and are currently conducting studies to that purpose. San Francisco Unified is further along: they have a site in the Outer Sunset neighborhood, a developer selected (MidPen Housing), and a proposed financing package that leverages LIHTC for low-income units and public funds from the city for moderate-income units.

It should be noted that there is a lack of robust literature on how effective these existing employee housing developments have been. Some districts have kept track of turnover rates, but many of these programs are so new, and the approaches have varied so widely, that there is almost no systematic, comprehensive evaluation of whether the programs have accomplished their initial goals.

V. Context & Methods

I now turn to the case of Berkeley Unified School District (BUSD). The district is illustrative of the housing affordability crisis facing teachers and other school district employees in California. In February 2018, the Berkeley Office of Economic Development reported: "Over the past decade, housing costs in Berkeley have, on average, continued to rise for renters, and ownership prices have followed a general upward trend since 2012. Ownership prices reached an all-time high in 2016 (\$1.2M in Quarter 2), mostly driven by a strong overall economy and limited housing inventory" (City of Berkeley, 2018: 12). Rental prices are also at an all-time high and have continued to climb: the median citywide rent was \$1,750 for a studio as of Q2 2017, up 3% from the year before and an increase of nearly 50% from 2008.

The underlying conditions of housing affordability in Berkeley are emblematic of those in coastal urban centers throughout California, and as such, district leaders began asking the overarching questions about school district employee housing that I outlined earlier regarding employee housing needs, finance and development, and technical challenges. In late 2016, after the passage of SB-1413, the district (like many comparable districts) started to seriously consider the possibility of developing employee housing. The School Board discussed the issue in March 2017, at which point they directed staff to conduct a preliminary analysis, including identification of potential district-owned sites and an outline of financial and operational feasibility. At the August 2017 School Board meeting, district staff presented the results of this preliminary analysis, concluding that:

"The District owned four potential sites on which significant housing units could be built without a need for a zoning adjustment. The number of units that could be built varied from 50 to 200 and the cost ranged from \$32 million to \$74 million. The sites were just for illustrative purposes and no

recommendation to pursue a site was made or discussed.²

- o It was legally feasible for the District to finance and build rental units but not units for employees to own.
- The financing options worth exploring further included state tax credits, the Alameda County Affordable Housing Bond (Measure A1, 2016), the City of Berkeley Housing Trust Fund, and a possible BUSD Housing Bond.
- A survey was recommended to determine whether there was a need among employees for low-rent housing units and to provide further information regarding the nature of the need, if any" (Berkeley Unified School District, 2017).

At that time, the School Board directed staff to conduct a survey of district employees and share those results, along with potential financing options that would not affect the General Fund, at the December 2017 Board meeting, with the purpose of determining whether the district should move forward with a plan to provide employee housing. I worked with the district as a consultant through the UC Berkeley Center for Cities + Schools. I conducted a study of employee housing and presented the following findings at the December 2017 meeting to inform the district's plans.

We established two research questions at the outset of the study:

- 1. Do employees need assistance with rental housing?
- 2. Is there an expressed *interest* among employees in district-owned rental housing?

My study therefore directly addresses the first major overarching consideration for school district employee housing and serves as a lesson for other districts grappling with how to understand whether employee housing is suitable and desirable in their specific local context.

Methods & Data

This study uses predominantly quantitative methods to analyze the feasibility of employee housing in BUSD, relying primarily on an employee survey. Because of BUSD's concerns over employee privacy, I was not able to speak with any individual employees or follow-up after they completed the survey. Additionally, all qualitative

² See Appendix A for the district's full description of each potential site.

comments in the survey were anonymous. I use some of these qualitative comments throughout the analysis; while I did not code and conduct a textual analysis of all comments, the ones I highlight are broadly representative of key themes that employees expressed.

To address the two research questions above, I used data from two main proprietary sources – an employee survey and internal district data – as well as from additional publicly available geographic data. I cleaned and analyzed all data using Python.

Employee Survey

I collaborated with a working group of key stakeholders – including the Superintendent, district staff, and union representatives for both the Certificated (teacher) and Classified (district staff: nurses, bus drivers, paraeducators, etc.) employee unions – to design a survey to be administered to all employees. The survey was administered digitally throughout the month of October 2017 (sent via email from the Superintendent to all employees on two occasions) and also made available to Classified employees as a paper questionnaire to be filled out by hand during a professional development day for all Classified employees. We received 810 responses, a response rate of nearly 60% of total BUSD employees.

Internal Data

The district provided access to their own internal Human Resources data set on current employees, which covers the full universe of employees and complements the survey data. I filtered and cleaned this data set, removing seasonal summer employees and minimal part-time employees to more closely match the universe of employees in the employee survey data, thereby allowing for consistent comparisons across these two data sets.

Geographic Data

I accessed the Google Maps API to geocode locations from address data and used the California Department of Education's (CDE) publicly-available 2017 public school and district data files, which include spatial data for all schools in the state, to map school locations. To connect those school locations with employee residential locations from the internal data set, I modeled transit and pedestrian network accessibility using the UrbanAccess tool from UrbanSim.

VI. Findings

Employee Characteristics

To frame the discussion of employee housing needs, it is helpful to provide an overall sense of the BUSD employee population makeup. Given our focus on rental housing, and thus on the renter population, it's important to begin by noting that 42% of employees own their residence and 58% are renters. For the purposes of this study, the "renter" category includes all non-owners: anyone who rents their residence, rents or sub-rents a room, lives with family and does not currently pay rent, or has another living arrangement in which they are not an owner.



Table 1 below shows a series of summary characteristics for all employees, as well as for owners and renters specifically. We can see that 66% of all employees are Certificated (teachers) while 34% are Classified (other district staff). On a more granular scale, the percentage of Certificated employees is greater for owners (76%) than for renters (58%). There is little variation between owners and renters in terms of hourly status and gender identity. Unsurprisingly, renters skew younger than owners, with 29% of renters under 35 years old compared to only 8% of owners.

| Table 1: Overvi | ew of BUSD | Employee | Characteristics |
|-----------------|------------|----------|-----------------|
|-----------------|------------|----------|-----------------|

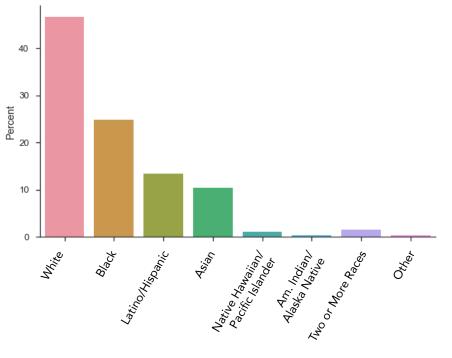
| Category | | All | Owner | Renter | |
|----------------------------------|--|-------|-------|----------|--|
| tus | Certificated | 65.4% | 76.1% | 57.8%*** | |
| sn Certificated by Classified | | 33.9% | 23.2% | 41.5%*** | |
| Hours | မ္ Full-time | | 82.3% | 83.3% | |
| ਤੀ Part-time | | 17.1% | 17.7% | 16.7% | |
| ţ | Male | 26.5% | 28.6% | 24.9% | |
| ldent | Female Non-binary | | 67.2% | 69.9% | |
| ender | | | 0.6% | 1.2% | |
| ق Prefer not to say | | 3.8% | 3.6% | 4.0% | |
| | Under 35 years old | 20.3% | 7.8% | 29.3%*** | |
| Age | er Stevens of Stevens of Stevens of Stevens St | | 66.6% | 54.2%** | |
| 55 years old and above | | 20.2% | 25.6% | 16.4%*** | |

Source: BUSD Employee Housing Survey, 2017

Universe: All respondents; All: N=774; Owner: N=324; Renter: N=449; * p < .05; ** p < .01; *** p < .001

Figure 2 below shows employee composition by race or ethnicity. Nearly 50% of employees are White, the largest single group, followed by 25% Black or African American, 15% Latino or Hispanic, and 10% Asian.





Source: BUSD Employee Data Set, 2017 Universe: All non-seasonal employees working more than 5 hrs/week); N=1,377

Race/Ethnicity

Where do employees live?

Only 30% of BUSD employees actually live in Berkeley, a strikingly low figure which falls to 26% when we look at renters specifically. I will examine employee home locations (and commutes to work) in greater depth later, but it is important to note at the outset that employees overwhelmingly do not live in Berkeley.

With whom do employees live?

Owners are more likely to live with either a partner/spouse or dependents than are renters. 67% of owners live with a partner or spouse (vs. 43% of renters) and 54% of owners live with at least one dependent (vs. 43% of renters). 16% of renters live with at least one roommate (i.e., non-family housemates), a figure which nearly doubles to 31% when looking specifically at younger renters (i.e., those under 35 years old).

Employee Pay & Household Income

Figure 3 visualizes the distribution of salaries for all employees as a univariate distribution, overlaid with a normal curve. With a normal distribution we would expect a spike in the histogram around \$50,000 to \$60,000, yet the actual jump comes closer to the \$80,000 to \$90,000 range, indicating that employee salaries are skewed slightly towards the higher end of the distribution.

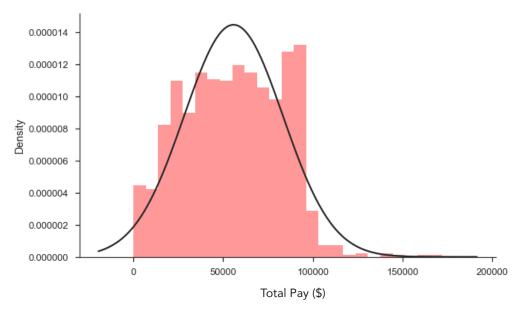
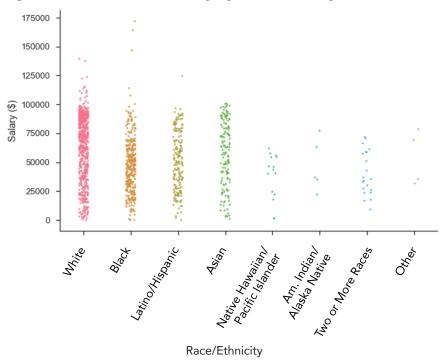


Figure 3: Distribution of Employee Pay

Source: BUSD Employee Data Set, 2017 Universe: All non-seasonal employees working more than 5 hrs/week); N=1,377

To provide additional depth to that overall salary distribution, Figure 4 displays the distribution of salaries by race using scatter plots for each category in order to communicate the range of each distribution as well as the highly clustered salary points. We can see that salaries for White employees are heavily concentrated in the \$75,000 to \$100,000 range, whereas salaries for Black employees are more scattered (less prevalent) above approximately \$75,000, with the exception of the few very top salaries in the district. The clustering of some salaries closer to zero dollars represents the 17% of employees who work part-time for the district (compared to 83% who work full-time).





While this salary data is helpful as an overview of employee earnings, it's worth noting that more substantive data on income comes from employee household income (as reported in the survey) since the household rather than individual scale is more relevant for housing issues such as Area Median Income (AMI), cost burden, and more. I now turn to more detailed household income data.

To determine where employees fall within certain defined income bands based on household income, I used local Area Median Income (AMI) limits set by HUD and

Source: BUSD Employee Data Set, 2017 Universe: All non-seasonal employees working more than 5 hrs/week); N=1,377

the California Department of Housing and Community Development (HCD).³ Table 2 shows the AMI distribution for all employees; owners and renters; and Certificated and Classified employees.

| Income Category (% AMI) | All | Owner | Renter | Certificated | Classified |
|-------------------------------|--------|--------|----------|--------------|------------|
| Extremely Low (30% and below) | 7.8% | 2.2% | 11.9%*** | 3.7% | 14.7%*** |
| Very Low (31% - 50%) | 11.1% | 2.2% | 17.6%*** | 4.6% | 22.0%*** |
| Low (51% - 80%) | 17.7% | 8.3% | 24.5%*** | 13.7% | 24.5%*** |
| Moderate (81% - 120%) | 26.7% | 27.2% | 26.4% | 32.0% | 17.8%*** |
| Above Moderate (above 120%) | 36.7% | 60.2% | 19.6%*** | 46.1% | 21.0%*** |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Table 2: Distribution of Employees by Household Income

Source: BUSD Employee Housing Survey, 2017

Universe: All respondents; All: N=774; Owner: N=324; Renter: N=449; Certificated: N=483; Classified: N=250 Asterisks indicate statistically significant difference from the adjacent comparison category (Renter vs. Owner, Classified vs. Certificated); * p < .05; ** p < .01; *** p < .001

Focusing specifically on owners and renters, we can see that 87% of owners fall into the Moderate or Above Moderate categories, while only 46% of renters are in either category. In other words, 54% of renters qualify as Low, Very Low, or Extremely Low income – four times the rate of owners, at 13%. We can also see the distribution for Certificated and Classified employees, with 46% of Certificated employees in the Above Moderate range compared to only 21% of Classified employees.

Housing Costs

In Table 3 below, we can see the distribution of monthly base housing costs for owners and renters. On the whole, owners have higher housing costs, but renters are more exposed to housing price increases in the local market. Part of this is due simply to the nature of their tenure type: rising rents affect renters, not owners. But part of the exposure for renter employees comes down to how much they are paying for rent,

³ Every employee survey respondent was placed into an AMI band based on household size and household income range.

and how much a rent increase may affect them. 69% of renters pay less than \$2,000 per month, and among that group, over half experienced a monthly increase of \$100 to \$399 in the past three years (2014-2017). \$100 to \$399 represents a sizeable percentage increase given the rents these employees currently pay, and may be enough to precipitate a move.

| Monthly Base Housing Costs | Owner | Renter |
|----------------------------|--------|----------|
| Less than \$1,000 | 7.4% | 16.2%*** |
| \$1,000 - \$1,499 | 10.5% | 25.8%*** |
| \$1,500 - \$1,999 | 20.1% | 26.7%* |
| \$2,000 - \$2,499 | 20.1% | 18.0% |
| \$2,500 - \$2,999 | 16.7% | 7.1%*** |
| \$3,000 or more | 25.2% | 5.8%*** |
| | 100.0% | 100.0% |

Table 3: Monthly Base Housing Costs by Ownership Type

Source: BUSD Employee Housing Survey, 2017

Universe: All respondents; All: N=774; Owner: N=324; Renter: N=449

* p < .05; ** p < .01; *** p < .001

On the owner side, it is notable that 39% did not see their housing costs increase at all during the period from 2014 to 2017 – nearly four times the rate of renters (10%) who had no cost increase. I had initially expected a much larger percentage of renters to have had no rent increase, given the robust rent control in Berkeley, but this points in part to the fact that so few renter employees actually live in Berkeley and are able to benefit from that rent control.

Among owners who did experience cost increases, many were in the range of a \$1,000 or more increase (17% of owners), an indication that they likely transitioned from renting to owning during that period and thus saw a large jump in their monthly base housing costs.

How much of their household income do employees spend on housing costs? Based on housing costs and income, I was able to estimate each employee's housing cost burden. Since respondents indicated ranges for both monthly housing costs and annual household income, I calculated the midpoints for each range and then divided costs by income to get a percentage for how much of a household's income goes towards housing.

Figure 5 depicts the distribution of housing cost burden for renters and owners. We can see that the densest concentration of owners is in the 10-30% range, with only a scattered few paying more than 40% of their income on housing. For renters, however, there is a large cluster in the 30-40% band as well as an extremely dense clustering right at 60%, a notably high figure.





Source: BUSD Employee Housing Survey, 2017 Universe: All respondents; All: N=774; Rent: N=449; Own: N=324

Overall, renters spend a greater percentage of their total income on housing than owners do. Table 4 shows the percentage of employees who meet the HUD standards for cost burden (spend more than 30% of their income on rent) and severe cost burden (spend more than 50% of their income on rent). Based on my estimates, more than half of all renters are cost burdened and 20% are severely cost burdened. While these numbers track relatively closely with overall figures for Bay Area renters, it's telling that there is such a gap between renters and owners in terms of amount spent on housing as a share of income, exposing renters to greater risks associated with housing cost increases, including the potential threat of displacement. Table 4: Distribution of Employees by Household Income

| Category (% of income spent on housing) | All | Owner | Renter |
|---|-------|-------|----------|
| Cost Burdened (more than 30%) | 42.7% | 26.2% | 53.1%*** |
| Severely Cost Burdened (more than 50%) | 14.3% | 5.8% | 20.5%*** |

Source: BUSD Employee Housing Survey, 2017

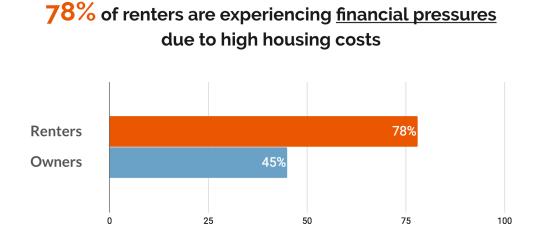
Universe: All respondents; All: N=774; Owner: N=324; Renter: N=449

* p < .05; ** p < .01; *** p < .001

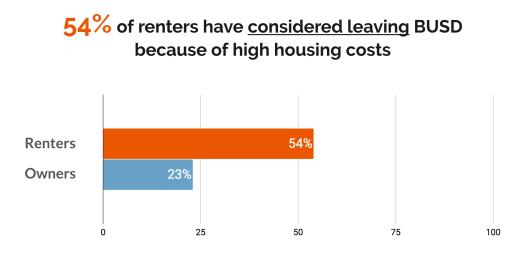
Housing Pressures: Experience with High Housing Costs

Cost burden, as detailed above, is one way of understanding the potential financial strain associated with housing. To dig deeper, though, we asked employees a series of questions that help capture different components of their experiences with housing pressures. In comparing renters and owners, a series of key points emerged, as captured in Figure 6: renters are experiencing financial pressures due to the cost of housing – greater pressures than those facing owners – which may affect their ability to remain with the district long-term.

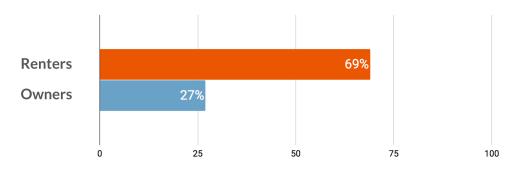
Figure 6: Housing Pressures for BUSD Employee Renters⁴



 $^{^4}$ p < .001 for all differences between renters and owners in Figure 6



69% of renters think the high cost of housing <u>negatively impacts</u> their long-term ability to stay at BUSD



Source: BUSD Employee Housing Survey, 2017 Universe: All respondents; All: N=774; Renter: N=449; Owner: N=324

As seen above, over half of all renters have considered leaving the district themselves due to high housing costs. Additionally, 50% of all respondents reported that they know an employee who has left BUSD due to housing costs. As one employee wrote, "I have heard from many excellent, highly trained, energetic young teaching professionals that they cannot afford to teach in Berkeley or anywhere else in the Bay Area specifically because of the lack of affordable housing." Others echoed this same point: "I can't count how many people have had to leave BUSD because they can't afford housing." Among a strong outpouring of stories and comments, one theme presented itself – the employees decamping from the district due to housing costs are often those "who are getting married and/or about to have kids, who need to find larger, safer places." When a major life event happens and employees look to "settle down," in many cases the housing cost calculus no longer pencils out and they find it exceedingly difficult to stay close enough to continue working with the district.

Housing Pressures: Travel to Work

Given the housing concerns noted above, it was also important to understand where employees live and how their home locations and commutes to work might contribute to the housing pressures they are experiencing. Commute times loom large for many employees – as one employee succinctly put it, "Commuting is stressful and expensive." And on the whole, commuting is disproportionately more burdensome for renters. Figure 7 shows the disparity in commute times between renters and owners, with 55% of owners commuting less than 20 minutes to their work site compared to less than 38% of renters who have such a short commute to work.⁵

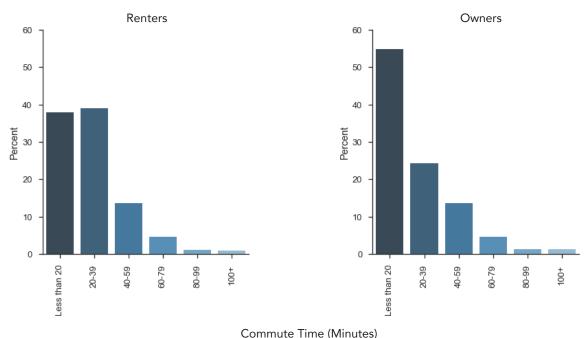


Figure 7: Commute Times to Work

Source: BUSD Employee Housing Survey, 2017

Universe: All respondents; All: N=774; Rent: N=449; Own: N=324

On the whole, renters are not happy with their commute situations: 59% of renters would like to live closer to work, compared to 39% of owners.⁶ One renter stated, "I don't want to have to commute from great distances (i.e., Fairfield, Moraga) for cheaper housing only to have to spend that extra money on transportation or a car." This comment highlights the double bind in which many renters find themselves – a situation, to be clear, that persists across occupations in the Bay Area, though it may be especially acute for school district employees. As renters are pushed to the outer fringes of the Bay Area in search of more affordable housing, their transportation

costs inevitably increase. The Housing + Transportation (H+T) Affordability Index, produced by the Center for Neighborhood Technology (CNT), is a widely used measure of housing affordability that accounts for transportation costs as well.⁷ Within a region, cities with differential housing costs tend to converge on the H+T Index after accounting for transportation costs. Areas with higher housing costs, often located closer to the urban core, typically have lower transportation costs – those housing costs account for their high degree of access. The reverse is also true, as areas with lower housing costs tend to have higher transportation costs, necessitating a longer drive to get to job centers and other amenities.

This is also more than a cost issue, as one employee makes clear: "If I lived in Berkeley, it would cut down the cost of commuting. It would also save time in my daily commute to and from work. I would likely participate in more evening/weekend events at my school if I lived closer." Other employees echoed this sentiment, describing how the commute consumes so much time that it prevents them from fully engaging with the life of the school and the lives of their students through after-school events or one-on-one meetings with parents. Transportation is thus inextricably related to housing, so a full understanding of employee housing pressures must take into account where employees live. As noted earlier, only 30% of the district's total employees – and 26% of renters – actually live in Berkeley, though many do live in adjacent cities – especially Oakland, which is home to 27% of all employees. Table 5 shows the breakdown of home cities for all BUSD employees.

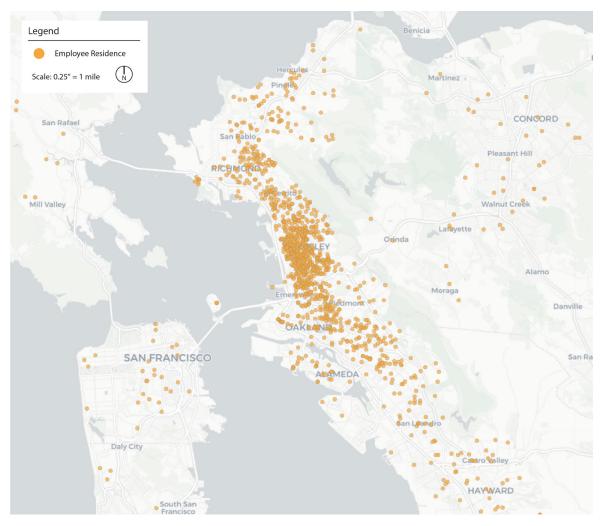
| City of Residence | % | Ν |
|-------------------|--------|-----|
| Berkeley | 29.8% | 231 |
| Oakland | 27.0% | 209 |
| Richmond | 9.0% | 70 |
| El Cerrito | 4.0% | 31 |
| Albany | 3.6% | 28 |
| Other | 26.6% | 205 |
| | 100.0% | 774 |

Table 5: Employee Residential Locations by City

Source: BUSD Employee Housing Survey, 2017 Universe: All respondents; All: N=774; Owner: N=324; Renter: N=449

⁷ In the San Francisco-Oakland-Hayward core-based statistical area, which includes Berkeley and much of BUSD's commute shed, households spend 48% of their income on housing and transportation, according to the H+T Index (CNT, 2018).

We can also visualize these residential locations geographically. Figure 8 shows all employee residential locations. We can see that employees live throughout the greater Bay Area, with the largest concentration in the East Bay stretching from Richmond down south through San Leandro. As we know from Table 5, Berkeley and Oakland together are home to more than half of all employees, but there's a significant amount of scattering among farther flung locations, from Vallejo in the north and Antioch in the east to Fremont in the south and San Francisco to the west.





Source: BUSD Employee Data Set, 2017 Universe: All non-seasonal employees working more than 5 hrs/week); N=1,377

Figure 9 depicts the same set of employee home locations as in Figure 8, but visually differentiated by race/ethnicity: dark green points indicate White employees while light green points signify non-White employees. Given this specific lens, we can see that White employees are highly concentrated within Berkeley, Albany, the Oakland hills, and in Orinda, Lafayette, and Walnut Creek, whereas more non-White employees tend to live north of Berkeley (from Richmond to Hercules) or southeast (from East Oakland to Fremont) – generally farther distances from the city and district itself.

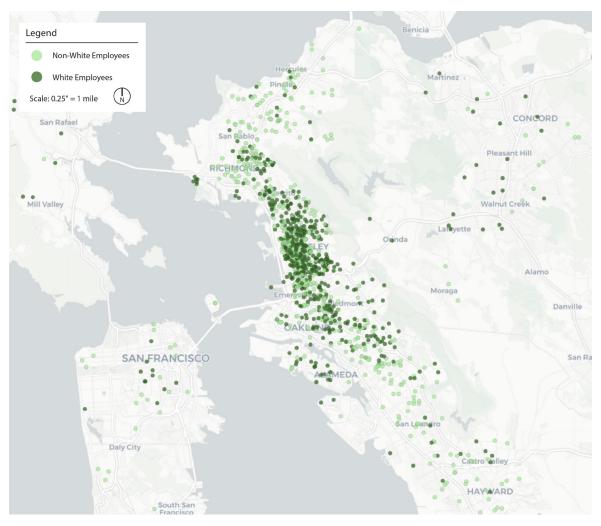


Figure 9: Employee Residential Locations by Race/Ethnicity: Non-White/White

Source: BUSD Employee Data Set, 2017 Universe: All non-seasonal employees working more than 5 hrs/week); N=1,377

Accessibility to School Sites

Another way of looking at where employees live is how they get to work, and whether it is viable for them to take alternate modes of transportation which could reduce their travel costs and the district's overall vehicle miles traveled (VMT), thereby lowering its greenhouse gas emissions and carbon footprint – one of the stated goals of SB-1413. Figure 10 shows the primary travel mode that employees use to get to work. Employees overwhelmingly drive themselves: just under 80% for both renters and owners. The most notable differences are in the fact that 5% of renters take the bus as their primary travel mode compared to nearly 0% percent of owners,⁸ and that owners are slightly more likely than renters to commute via bike or walking – an indication that they live relatively close to work, as we saw in Figure 7.

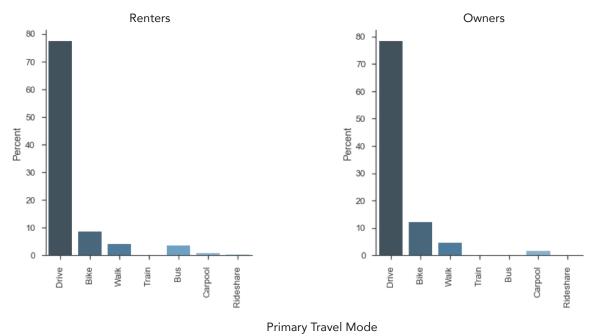
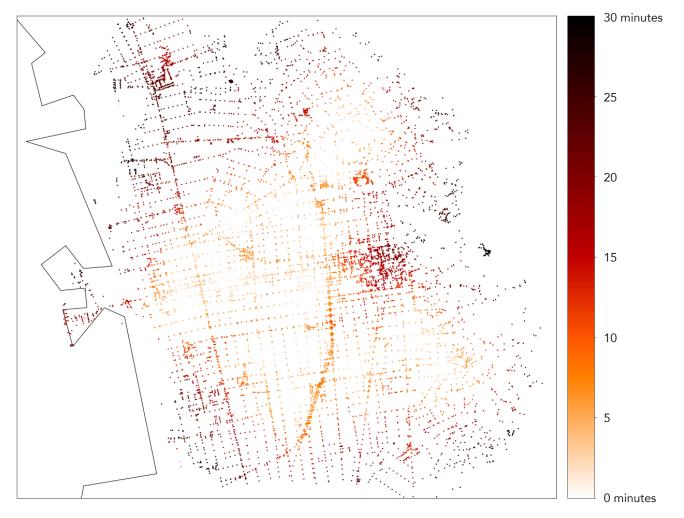


Figure 10: Primary Travel Mode to Work

Source: BUSD Employee Housing Survey, 2017 Universe: All respondents; All: N=774; Rent: N=449; Own: N=324

While nearly 80% of employees commute by car, district employee housing in Berkeley would likely allow some of those employees to mode-shift away from car as the school sites would become more accessible via alternate modes of travel. To visualize this, I modeled the accessibility of the district's schools via public transit and pedestrian routes. Figure 11 depicts the level of accessibility from any one node (depicted as points) to the two closest BUSD public school sites using public transit and pedestrian networks. This accessibility model uses commute data from 6am to 8am to capture a typical morning commute. (The two closest school sites serve as a proxy for exact work location, but since it's likely that many employees don't actually work at one of the two school sites closest to their home, this output may in fact be overly optimistic.) The color gradient indicates the amount of travel time up to 30 minutes. We can see that from nearly any point in Berkeley, an employee could travel to a school site in under 30 minutes using only public transit and pedestrian networks. Thus we would expect a school district employee housing development to unlock new possibilities for more sustainable (and less expensive) travel to work.

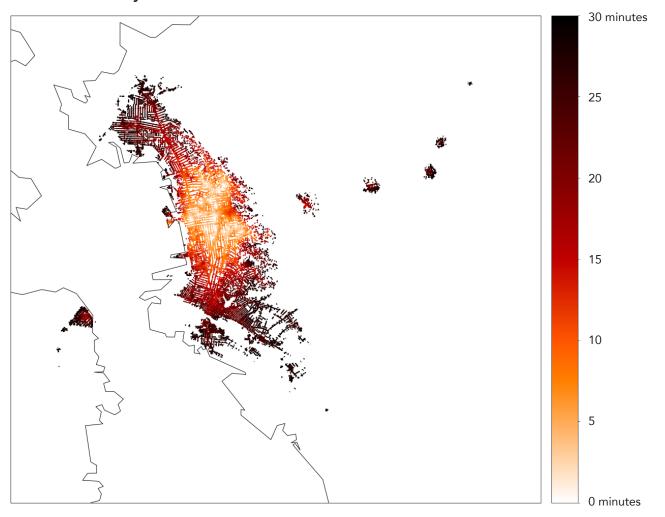




Sources: BUSD Employee Data Set, 2017; CA CDE School File, 2017; GTFS Transit Feed; OSM Pedestrian Network; UrbanAccess

Figure 12 zooms out to take a look at the East Bay overall. The concentration of points in San Francisco and the increasingly smaller islands of accessibility spreading northeast signify the reach of BART, such that employees living in close proximity to any of those BART stations still have access to Berkeley schools within the 30-minute accessibility threshold. While much of Oakland, Albany, El Cerrito, and Richmond are somewhat accessible, it's significant that the farthest reaching tendrils of accessibility don't nearly approach the large concentrations of employees living north towards Hercules, Vallejo, and Fairfield, south towards Hayward and Fremont, and east out to Pittsburg and Antioch, per my earlier observations in Figure 8. This mismatch provides a glimpse into the difficulties many employees experience in using transit to reach their school site, which forces many residents in more affordable outlying areas to invest significant time and money into travel, most often in a single-occupancy vehicle.

Figure 12: Accessibility to Berkeley Public Schools by Transit & Pedestrian Networks: East Bay Overall



Sources: BUSD Employee Data Set, 2017; CA CDE School File, 2017; GTFS Transit Feed; OSM Pedestrian Network; UrbanAccess

Interest in BUSD-Owned Employee Housing

Returning now to our second research question – whether employees were interested in the proposed housing⁹ – we asked a series of questions to gauge interest. My findings show that there is significant interest in low-rent BUSD-owned employee housing among renters, and that both renters and owners agree that district housing would help with recruitment and retention.

7496 of renters would be interested in living in BUSD-owned employee housing

74% of renters would be interested in living in BUSD-owned employee housing and 67% of renters think the option of BUSD housing would increase the likelihood that they continue to work in the district. As one employee succinctly put it, "I would consider staying with the district if low cost housing was available." Employees offered a range of reasons why they would be interested in this housing, from reduced commute to increased camaraderie with coworkers to housing that is higher quality and allows them to save on rent. The latter was a key point, as I found that on the whole, employees did not see BUSD housing as an alternative to homeownership but rather as a potential avenue to homeownership. "If there was low cost temporary housing, I could actually save for a down payment on a home," noted one employee. "This could change everything for my family." Another employee stated, "I'm interested in affordable housing options because that would allow me the opportunity to save up money towards buying a home close to where I work... and thus continue to live in the community I serve."

Despite the fact that owners are not interested in district-owned housing for themselves, they recognize how important it could be for other employees and the district as a whole. To that end, both renters and owners strongly agree on the following two points:

⁹ Note that the housing would have a fixed time limit in order to allow both current and future employees to benefit. We communicated this to employees on the survey, but the district had not determined an official time limit. Most other districts have set five or seven year limits. The district also had not determined a typical rental rate or subsidy; we used the term "low-rent" housing in the survey.

- High housing costs negatively impact the district's ability to retain current employees (79% of renters, 73% of owners)¹⁰
- o The option of BUSD housing would increase the district's ability to recruit employees (86% of renters, 78% of owners)¹¹

These two points help emphasize the fact that housing would function as both an incentive to stay with BUSD and as a recruitment tool. As one employee put it: "Right now, I know that many newer teachers do not have a choice but to live outside of the Berkeley community. Thank you for considering this option for us. I know that it will help to recruit and retain teachers, especially teachers of color."

Another key finding was that interest in BUSD-owned employee housing varies by employment status and income level. Table 6 displays the gap between Certificated and Classified employees in terms of household income, focusing specifically on renters who expressed interest in BUSD housing – so those individuals most likely to move into such housing in the future. We can see that among Certificated renters, 60% of those interested are in the Low to Moderate income categories (another 23.3% are Above Moderate), whereas the income distribution for interested Classified renters skews much lower: 53.7% are in the Extremely Low or Very Low income categories.

| | Certificated Renter in BUSD Ho | | Classified Renters Interested in BUSD Housing | | |
|-------------------------------|-----------------------------------|-----|--|-----|--|
| Income Category (% AMI) | % | Ν | % | Ν | |
| Extremely Low (30% and below) | 6.7% | 12 | 21.5% | 32 | |
| Very Low (31% - 50%) | 10.0% | 18 | 32.2% | 48 | |
| Low (51% - 80%) | 22.2% | 40 | 28.2% | 42 | |
| Moderate (81% - 120%) | 37.8% | 68 | 12.1% | 18 | |
| Above Moderate (above 120%) | 23.3% | 42 | 6.0% | 9 | |
| | 100.0% | 180 | 100.0% | 149 | |

Table 6: Income for Renters Interested in BUSD Housing, Certificated & Classified

Source: BUSD Employee Housing Survey, 2017

Universe: Renters interested in BUSD housing; Certificated: N=180; Classified: N=149

¹⁰ No statistically significant difference between renters and owners

 $^{^{\}rm 11}$ Statistically significant difference between renters and owners (p < .05), but substantively there is very close agreement between the two

The findings in Table 6 may not be especially surprising, but they help inform the development structure of a public-private partnership that aims to provide affordable housing for both teachers and Classified staff, given the widely publicized LAUSD case discussed earlier. In BUSD, both the teachers and Classified unions specifically sought to ensure that any employee housing would not favor one population over the other, with major implications for financing. This issue of how to target both populations, given their divergent household incomes, is at the heart of financing and developing school district employee housing.

Spotlight: Employee Tenure and Age

Finally, I want to shine a light on key employee subgroups that help inform our understanding of recruitment and retention issues: employees who are new to the district and younger employees. Figure 13 shows the distribution of employee tenure with BUSD in years, with nearly 30% of employees new to the district within the past three years and noticeable drop-offs after the 10-year and 20-year marks.

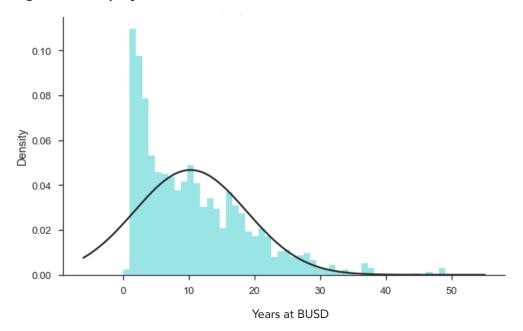


Figure 13: Employee Tenure with BUSD

Source: BUSD Employee Data Set, 2017 Universe: All non-seasonal employees working more than 5 hrs/week); N=1,377

Qualitative employee comments indicated that those employees who have been in the district longer were more likely to have purchased (or started renting) a home in Berkeley before housing prices reached their current peak level, allowing them to live in Berkeley while newer employees may be forced to live farther afield towards the urban fringe due to Berkeley's high housing costs.

Figure 14 confirms such comments, displaying employee residential locations differentiated by how long the employee has worked at the district. The highest concentration of longer-tenured employees (dark blue dots, more than 10 years with the district) is within Berkeley and the immediate surrounding communities, while newer district employees (light blue dots, up to and including 10 years with the district) are much more evenly spread around the Bay Area, with many in Oakland and further south to Fremont as well as a cluster eastward towards Concord.

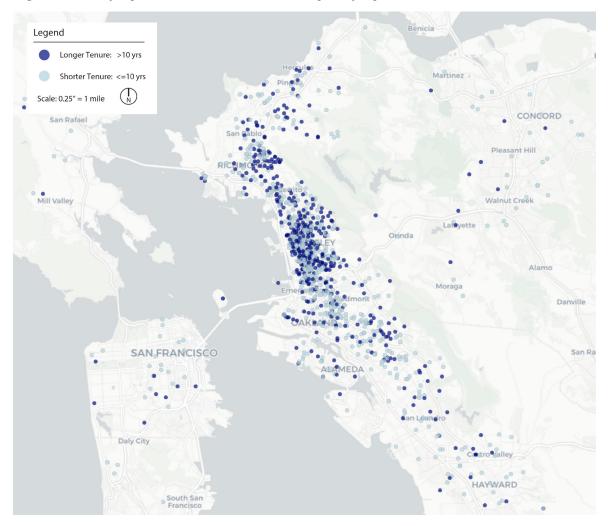
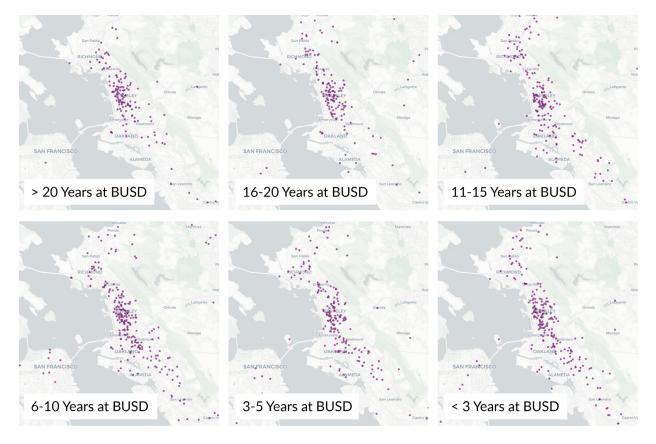


Figure 14: Employee Residential Locations by Employee Tenure with BUSD

Source: BUSD Employee Data Set, 2017 Universe: All non-seasonal employees working more than 5 hrs/week); N=1,377 Figure 15 provides a more detailed visualization of this same data, offering a six-part time series showing where employees currently live based on the year they were hired by the district. As the maps progress from longer-tenured employees (more than 20 years with the district) to the most recently hired employees, we can see that the distribution of home locations continues to expand outwards from predominantly Berkeley and North Oakland to encompass the entirety of the region. This has clear implications for recruitment and retention of new employees, potentially imperiling the district's ability to attract and keep those employees as other nearby districts compete for them as well.

Figure 15: Employee Residential Locations by Employee Tenure with BUSD: Time Series



Source: BUSD Employee Data Set, 2017

Universe: All non-seasonal employees working more than 5 hrs/week); N=1,377

Housing pressures are particularly acute for younger employees – under 35 years old – who make up one-fifth of the district's workforce. (Not all employees who are new to the district are young, but many of them are.) 84% of young employees are renters, compared to 58% of employees overall,¹² and 31% of young employees live with at least one roommate (compared to 16% overall).¹³ Young renters are especially likely to think the high cost of housing negatively impacts their long-term ability to stay in BUSD: 79% of young renters vs. 69% of all renters.¹⁴



8396 of **young renters** would be interested in living in BUSD-owned employee housing

Given this context, it is not surprising to find that young renters had an especially strong positive response to the option of BUSD-owned housing: 83% would be interested in living in employee housing (compared to 74% of all renters).¹⁵ This population is key to overall district retention efforts, and also provides a benchmark for the way many younger incoming employees may feel about their ability to work in BUSD while living affordably (and long-term) in the Bay Area.

¹² p < .001 ¹³ p < .001 ¹⁴ p < .05

VII. Discussion & Learnings

To return to our initial framing considerations from the start of this report, other districts across the state are now asking the same questions as BUSD: Do we need to provide employee housing and are employees interested? How do we tackle financing and development? What other technical challenges do we need to address? With few precedent projects in California but increasingly fervent interest from districts whose employees are feeling the pinch of the affordable housing crisis, district leaders can draw lessons from BUSD.

My findings specifically address the first overarching question: as seen in the data presented above, BUSD employees have both a clear need for and a demonstrated interest in low-cost rental housing. The following key takeaways emerged from this study of BUSD employee housing:

- o BUSD renter employees are experiencing financial pressures due to high housing costs
- o Most BUSD employees do not live in Berkeley, and their travel to work compounds the pressure they are experiencing from their housing situation
- Housing costs and commute may both impact employee ability to stay with BUSD long-term
- o There is significant interest in BUSD employee housing among renters
- o BUSD employees believe that district-owned housing would help the district recruit and retain employees

These takeaways speak to the current housing plight of BUSD employees and the widely acknowledged need for housing assistance. Such learnings are not likely to be the same in every district, though. And while my study does not offer comprehensive strategies to address the questions of financing, development, and technical

challenges – in part because the district is currently in the process of grappling with those questions – I have begun to show how districts might approach these complex issues as they consider their own employee housing projects.¹⁶

The magnitude of housing unaffordability for school district employees may be especially pronounced in Berkeley, but comparable situations exist throughout the Bay Area and much of coastal California – thus the urgent push for solutions by the state legislature, private developers, nonprofits, and districts themselves. As I discussed, in the past two years California has cleared some of the largest legal hurdles standing in the way of school district employee housing projects. The package of state housing bills passed in September 2017 will also help to incentivize affordable housing production moving forward.

As other districts enter the fray, the BUSD case offers some important lessons. Based on my review of the current school district housing landscape in California and my study for BUSD, I have identified seven key recommendations for districts pursuing employee housing plans.

1. Listen to Employees

A crucial early step for any district housing plan is to understand current employee housing situations and their attitudes toward potential housing assistance. It may be tempting for the school board or district leadership to develop a plan as a response to other districts undertaking their own projects, but districts should be wary of taking a top-down approach. It is important to hear from employees, in a variety of forums: during the public comment period at board meetings, in a survey like the one we conducted, and through the conduit of their unions. In Berkeley, the district brought the unions (both teachers and Classified) onboard early in the process and they played a central role in shaping the research questions and survey design. As part of a larger group of key stakeholders, the unions helped tailor our approach to best capture and respond to their members' needs, and their support was crucial in driving our high survey response rate.

Some districts have seen pushback against their proposed housing programs because development of employee rental housing is seen as a high-cost endeavor that benefits

¹⁶ See Appendix A: Postscript for more details about the December 2017 School Board meeting where I presented my findings.

only a small percentage of all employees. Labor groups have argued that the money could be better spent on wage increases – which are badly needed, as I noted earlier. Yet wage increases and employee housing are different approaches with different goals, and it's important to communicate their respective benefits to employees and their unions. I would like to see increased wages for teachers and district employees across the board, full stop. It is arguably one of the key issues driving the current teacher shortage. But I also know that a raise alone (of, say, 5%) is not likely to drastically change an employee's ability to afford rent in Berkeley without additional changes to housing supply or subsidy. Some BUSD employees understood this logic themselves, appreciative of efforts to raise wages but aware of housing costs as a central stressor in their lives: "The 'bottom line' of my cost of living and quality of life are in dire straits. Affordable housing, quite simply, would make ALL the difference." This serves to underline my point: begin by listening to employees and learning about their housing needs and interests to make sure an employee housing program is necessary and has broad support.

2. Understand Scale

As districts rush to enter the fray with a proposal of their own, it is important to understand the potential impact of a single project for their employees. At what scale will the project have the largest impact? In rural counties, a 24-unit complex might be a game-changer, capable of housing a sizeable portion of total employees. Yet in a large city like San Francisco, the district has already received criticism that its 100 to 150 units of employee housing will not move the needle for a teacher population alone of nearly 4,000. In the latter case, SFUSD hopes to use this first project partly as a proof of concept, with the goal of adding future projects to help address the vast need for affordable housing. But it is crucial for districts to determine the scale that will make their project pencil given available funding resources and that will best suit their goals to provide housing assistance for as many employees as possible.

There is of course the possibility that direct housing provision is not the most costeffective way for a district to make an impact. Depending on the amount of assistance needed – and whether it should be targeted to renters or homebuyers – it might be more effective to offer rental subsidy, down payment assistance, child care services, or other housing incentives.

3. Critically Assess Surplus Properties

Districts looking to build their own housing must first undertake a comprehensive assessment of all their properties to determine whether any properties can be (1) designated as surplus and (2) developed into multifamily affordable housing. There is no guarantee that a district will have appropriate surplus property for this purpose, but many districts have been able to identify shuttered school buildings, underutilized plots of land, or expansive surface parking lots that offer opportunities for development. With the streamlined surplus process instituted as part of AB-1157, California districts now have more incentive to leverage their own property wherever possible.

Historic school buildings may even lend themselves to adaptive reuse. In St. Louis the student population has decreased dramatically since the middle of the twentieth century, forcing dozens of schools to close. St. Louis Public Schools has been selling off the empty schools to developers, who have converted them into apartments, artist studios, lofts, condos, and offices (Davis, 2017). The district is now tackling a project to turn the empty Wilkinson School into teacher housing, with the goal of using historic tax credits as a major part of the financing. While historic tax credit requirements can be burdensome and restrictive for some developments, in a case like this, the building's historic status – and the desire to preserve its physical character – lend the project to an historically centered approach. (Seawall Development has also leveraged historic tax credits in their Baltimore and Philadelphia projects, though those were adaptive reuses of mills, rather than district-owned property.) Adaptive reuse projects are likely neither appropriate nor viable for most districts, but they exemplify a creative approach to utilizing surplus property that will serve districts well as they look to develop their own projects.

4. Consider the Positive Non-Housing Effects

Housing is not an isolated issue. It is also a transportation issue, an environmental issue, a community issue. Districts should emphasize that employee housing provides more than simply a place to stay with reduced rent. The additional benefits are significant: employees will feel a closer connection with the school community by living where they work, teachers will have more time to dedicate to after-school activities, and the housing will also provide a shared space to provide employees with social connections, support, and professional development.

From a transportation standpoint, I illustrated that in BUSD, most employees do not live in Berkeley and cannot readily access the district's school sites using public transit and pedestrian networks. The lengthy commutes that accompany life in distant, less expensive municipalities constitute large contributions to carbon emissions. This is clear in the text of SB-1413: "By creating affordable housing options for teachers near or on schoolsites, it also reduces vehicle miles traveled and time away from teachers' homes, thereby reducing or eliminating commute time" (Sen. Bill 1413). Districts should lean on these additional, non-housing spillover benefits to drive the conversation about employee housing.

5. Get Creative with Financing: Think Beyond LIHTC

It is understandable that developers would fall back on reliable, tried-and-true financing mechanisms, but district employee housing is not traditional affordable housing. While SB-1413 now allows developers to use tax credits on projects restricted to school district employees, LIHTC comes with a clear tradeoff. As we saw in the LAUSD example, a project financed entirely with LIHTC is unlikely to provide housing for both district staff and teachers, as in most cities the latter group will make significantly more than the low-income cap.

San Francisco may offer an ideal case: SFUSD plans to use LIHTC to cover 40% of the units, which will be for para-educators making up to 60% of AMI, and will use public funds from the City of San Francisco to finance the other 60% of units, which will be reserved for teachers making anywhere from 60% to 130% of AMI. Of course, few (if any) other districts can rely on robust public financing of the sort that San Francisco can provide. If establishing a public-private partnership, districts should spur their developer partners to get creative with financing. The state is on record as wanting to "promote public and private partnerships" and "foster innovative financing opportunities" (Sen. Bill 1413), so even if a specific approach has not been tried out or tested legally, the state appears to be amenable to creative strategies.

It is important to be clear about your goals and restrictions from the outset. For instance, the BUSD Board was clear that it would only consider options with no significant impact on the General Fund. The district knows that Berkeley voters have a strong track record of supporting bond measures, and thus funding through a school facilities bond became not only a viable option but the preferred path forward.

6. Combine with Ownership Assistance

As I noted in my analysis of the BUSD case, many employees view the district's rental housing as a stepping stone towards the ultimate goal of homeownership. That goal currently appears to be out of reach for many district employees, especially those who are younger and newer, but affordable rental housing (for a fixed period of potentially five to seven years) offers a prime opportunity to save for a down payment. Districts would be remiss not to offer a homeownership assistance program as a natural extension of their rental programs. Patterson Joint Unified School District, in Stanislaus County, California, has one such program. The district owns townhouses in a new development in Patterson and rents those units below market rate to employees; nearly half of the employee's monthly rent gets deposited into a savings account used exclusively for the purchase of a home in the district. Employees who do not live in the rental housing can also participate, putting \$300 into a mortgage assistance account per month, which the district will match up to \$10,800 for any home in the district's boundaries. (Santa Clara Unified also had a down payment assistance component as part of its housing plan but ended the down payment program in order to focus entirely on providing rental housing.)

Smaller or more rural districts like Patterson may have to create their own programs from scratch, but many larger urban districts may be able to plug into existing programs. Many cities and states already have down payment assistance programs in place for teachers, often as part of a broader initiative to incentivize homeownership among public employees. Districts should take advantage of these existing programs, where applicable, and connect their own employee rental housing projects with ownership assistance in any form – including financial advising, down payment assistance, and closing cost assistance.

7. Account for Evaluation

The first few waves of school district employee housing projects have been widely viewed as successful, yet there have been no significant, robust evaluations to analyze their impacts. The academic literature has thus far focused primarily on the question of "Why district housing?" – offering theoretical and empirical underpinnings that support this emerging typology. The dearth of evaluations may simply be a function of how few projects currently exist, but as more of these projects come to fruition, districts need to invest in robust, longitudinal evaluation programs that follow

residents and track their outcomes. Employee rental housing holds great promise as a tool for recruitment and retention in districts with teacher shortages and high housing costs. The need and interest are well-established; now the current wave of projects must account for evaluation in order to inform future developments and drive evidence-based policies that enable school district employees to live in the communities they serve.

Appendix A

Potential Sites

As part of its feasibility analysis in August 2017, BUSD identified four district-owned properties with large enough parcel sizes and appropriate zoning to allow for multifamily housing development. Staff presented the following options to the Board:

West Campus: 1222 University Avenue

Lot Size: Approximately 40,000 Sq Ft Zoning: General Commercial (C-1) part of University Ave Plan Overlay area. Restricted Multifamily Residential (R-2A) Development Capacity: Three Stories at 35 Feet. Potential of fourth story up to 50 feet if density bonus is included. Potential Yield: 150-200 units. Unit Mix: Studio, 1, 2 & 3 bedroom apartments Estimated Cost17: \$48 - \$64 Million

Oregon/Russell St Maintenance Facility: 1720 Oregon/1707 Russell Street

Lot Size: Approximately 60,000 Sq Ft Zoning: Restricted Two Family Residential (R-2) on Oregon St frontage Restricted Multifamily Residential (R-2A) on Russell St frontage Development Capacity: Three Stories at 35 feet Potential Yield: 50-60 units Unit Mix: 1,2 & 3 bedroom apartments Estimated Cost: \$32 Million

¹⁷ All estimated costs for these sites are preliminary; each site would require more detailed, specific capacity studies for proposed development.

Berkeley Adult School Parking Lot: 1701 San Pablo Avenue

Lot Size: Approximately 35,000 Sq Ft Zoning: General Commercial (C-1) Capacity: Four Stories at 50 feet Potential Yield: 100-150 units Unit Mix: Studio, 1, 2 & 3 bedroom apartments Estimated Cost: \$42 - \$56 Million

Berkeley High School Tennis Courts: 2309 Milvia Street

Lot Size: Approximately 37,000 Sq Ft Zoning: Commercial-Downtown Mixed Use (C-DMU) Buffer Capacity: Five Stories at 60 feet Potential Yield: 50-100 units Unit Mix: Studio 1, 2 bedroom apartments Estimated Cost: \$59 - \$74 Million

Postscript: Outcome of December 2017 BUSD School Board Meeting

I presented my findings to the BUSD School Board at the December 2017 meeting, along with Executive Director of Facilities Tim White, who presented four options for next steps:

- o **Option 1A**: Pursue a (District or City) bond measure in 2018
 - o If District bond, would entail a one-time increased cost to the General Fund of up to \$50,000 for polling and additional bond preparation
- o Option 1B: Pursue a bond measure in 2020
 - o No anticipated increase in costs to the General Fund
- o **Option 2**: Pursue a public-private partnership
 - Would entail a one-time increased cost to the General Fund of up to \$15,000 for an RFP process to find a development partner
- o **Option 3**: Decline to move forward

The Board decided not to pursue a 2018 bond, largely out of concern over the accelerated timeline to prepare for a bond in less than a year and the fact that the district already planned to go to the voters for approval of a 2020 facilities bond. (Berkeley voters tend to strongly support the district's bond measures, but a 2018

measure, especially on the heels of the City's 2016 affordable housing bond, might exhaust their willingness to do so.) The Board opted to pursue a weakened version of Option 1B, directing staff to consider employee housing as a possible element in its 2020 facilities bond measure. District staff will continue to discuss the issue as part of preparation for that 2020 bond, but as of now there is no guarantee that housing will be part of the bond.

While the Board appeared convinced that housing is a critical issue for employees and intrigued by the possibility of developing employee housing, it was hesitant to commit to a single path forward without further consideration of funding sources. The Board did not completely foreclose the option of a public-private partnership, and there may be value in soliciting innovative financing approaches from developers through an RFP process. However, Board members expressed serious concern that a public-private partnership could properly provide affordable housing for both teachers and Classified staff, given the widely publicized LAUSD case as well as pressure from both unions to ensure that any housing serves both populations. That concern helps explain the Board's decision to pursue the 2020 facilities bond approach, in order to provide the district with more control over setting rent limits and serving a variety of employees.

Doocy School District Employee Housing

Appendix B

School District Employee Housing Projects: Select Examples

| Project | Completed | Type | Units | Population | Cost | Financing |
|---|---------------------------------|--|---|---|--|---|
| District-Driven | | | | | | |
| Santa Clara Unified School District (SCUSD) Casa del Maestro Santa Clara, CA | Phase I: 2002 Phase II: 2009 | District property Developer Education Housing Partners, LLC | Phase I: 40 units Phase II: 30 units 1-2 BR All rents set at 60% of market rent | Teachers with less than 10 years tenure with SCUSD and household income below \$136,000 | Phase I: Phase II: \$6.5 million | Certificates of Participation |
| Los Angeles Unified School District (LAUSD) Sage Park Apartments Los Angeles, CA | 2015 | District property; limited partnership with ground lease Developer BRIDGE Housing | 90 units 1-3 BR All units 30-60% AMI | Open to public, but preference given to LAUSD employees; AMI limits too low for teachers to qualify | \$28 million | LIHTC equity; LAUSD; LA Housing & Community Investment Department; CA Community Reinvestment Corporation; New Generation Fund; Federal Home Loan Bank of Atlanta |
| Los Angeles Unified School District (LAUSD) Selma Community Housing Los Angeles, CA | 2016 | District property; limited partnership with ground lease Developer Abode Communities | 66 units 1-3 BR All units 30-60% AMI | Open to public, but preference given to LAUSD employees; AMI limits too low for teachers to qualify | \$32.9 million | LIHTC equity; CA Community Foundation; Abode Communities Housing Fund; CA HCD TOD Housing Program; LA Housing & Community Investment Department; Dignity Health; Federal Home Loan Bank of San Francisco |

| San Francisco Unified School District (SFUSD) Francis Scott Key Annex San Francisco, CA | Proposed | District property Developer Mid-Pen | 100-150 units 1-3 BR LIHTC units: 60% AMI Teacher units: 60-130% AMI | 40% of units are for low-income para- educators (no term limits); 60% of units for middle-income teachers (7 year limit) | TBD At least \$44 million from City of San Francisco | LIHTC equity; City of San Francisco public funds |
|--|------------------|---|---|---|--|--|
| Palo Alto Unified School District (PAUSD) Palo Alto, CA | Initial Analysis | County-owned property Developer TBD | 60-120 units All units 80-120% AMI | Employees of PAUSD, Mountain View Whisman, Mountain View Los Altos, Los Altos, Foothill-De Anza Community College | | TBD: partially Measure A housing funds |
| Developer-Driven | | | | | | |
| Miller's Court Baltimore, MD | 2009 | Developer-driven Developer Seawall Development | 40 units 1-3 BR Teachers receive \$300-600 monthly rent discount | Open to public, but teachers in Baltimore area are incentivized via monthly rent discount | \$21.1 million | New Markets Tax Credit equity; Historic Tax Credit equity; MD State Loan; Baltimore City Loan; Bank Loan (SunTrust); Enterprise Community Partners |
| Union Mill Baltimore, MD | 2012 | Developer-driven Developer Seawall Development | 56 units 1-2 BR Teachers receive \$300-600 monthly rent discount | Open to public, but teachers in Baltimore area are incentivized via monthly rent discount | \$23 million | New Markets Tax Credit equity; Historic Tax Credit equity |
| Oxford Mills Philadelphia, PA | 2014 | Developer-driven Developer D3 Real Estate & Seawall Development | 114 units 1-2 BR 40% of units market rate 60% of units 25% below market rate | 60% of units reserved for teachers 40% of units open to public | \$36 million | New Markets Tax Credit equity; Historic Tax Credit equity; Philadelphia Industrial Development Corporation; National Trust Community Investment Corporation; Enterprise Community Partners |
| Silverbrick Lofts Springfield, MA | 2015 | Developer-driven Developer SilverBrick Group | 265 units Studios-2 BR 25 of the units offered to teachers at 10-20% below market rate | 25 units restricted to Springfield Public Schools teachers; a local nonprofit master leased all 25 units | \$15 million | Information not available |

| Teachers Village Newark Newark. NJ | 2017 | Developer-driven | 204 units Studios-3 BR | 70% of units reserved for Newark teachers | \$150 million | New Markets Tax Credit equity: Qualified School |
|---------------------------------------|--------------|-------------------------|---------------------------|--|----------------|--|
| | | Developer | 70% of units 10-15% | 30% of units to public | | Construction Bonds; |
| | | RBH Group | below market rate | | | Redevelopment Area |
| | | | 30% of units market | | | Bonds; New Jersey Urban |
| | | | rate | | | Transit Hub Tax Credits; |
| | | | | | | Private Investments |
| | | | | | | (Berggruen Holdings, |
| | | | | | | Goldman Sachs, TD Bank, Prudential) |
| Renaissance Village | Under | Public-private | 30 units | First priority for | \$7.5-\$8 | Federal and state low |
| McDowell County, WV | construction | partnership: | | teachers, but open to | million | interest loans; Private |
| | | Reconnecting | | public as well | | grants (TBD) |
| | | McDowell (landowner) | | | | |
| St. Paul on Fourth Street | Under | Developer-driven | 10 units | 9 units reserved for any | \$17.2 million | CDFI loans to purchase |
| Washington, DC | construction | | Studios-2 BR | teachers working in | | property (including |
| | | Developer | 20-40% below | Washington DC (not | | charter school space): |
| | | Nonprofit St. Paul | market rate | restricted to teachers | | Building Hope, |
| | | on Fourth Street | Development | at the adjoining charter | | Reinvestment Fund, Low |
| | | | includes 2 charter | schools) | | Income Investment Fund, |
| | | | schools | | | Capital Impact Partners |
| Wilkinson School | Proposed | Developer Smith | 44 units | Restricted to teachers | N/A | New Markets Tax Credit |
| St. Louis, MO | | NMTC Associates | Rents likely 20% | in the city of St. Louis | | equity; Historic Tax Credit |
| | | purchased the | below market rate | | | equity (federal and state) |
| | | building from St. | | | | |
| | | Louis Public Schools | | | | |
| Teachers Square | Proposed | Local nonprofit | 87 apartment units | Preferential marketing | N/A | New Markets Tax Credit |
| Chicago, IL | | IFF purchased | (+30 market rate | for teachers and | | equity |
| | | land from | lofts) | discount for teachers, | | |
| | | Chicago Public | 28% at 50% AMI | but open to public | | |
| | | Schools; | 24% at 80-120% | | | |
| | | | AMI | | | |
| | | developer RBH | 48% at market rate | | | |
| | | Group | | | | |

Appendix C

Regression Analysis

As an additional layer of analysis, I sought to understand some of the key inputs (independent variables) that might drive an employee to answer that they were interested in living in BUSD housing (dependent variable). To begin with, I plotted correlations between a series of key variables in order to identify multicollinearity between individual independent variables, as seen in Figure 16. (I restricted my model to only the renter employee population, since renting has an almost perfect correlation with an employee's interest in this housing.)

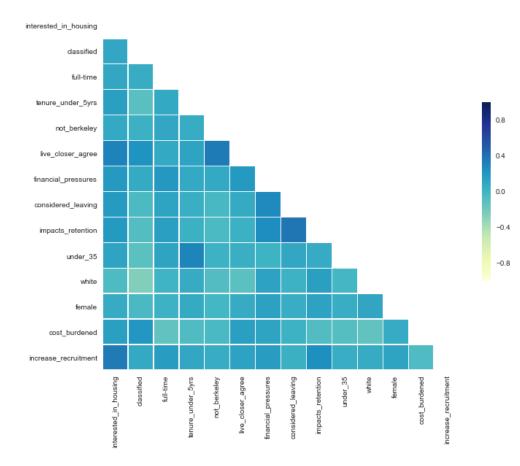


Figure 16: Correlation Plot of Variables

I then ran a series of logit regressions with key variables from the above correlation plot, with the final output seen in Figure 17 and the odds ratios for each independent variable in Figure 18. The independent variables are all dummy variables, and they include the following: employment status as Classified; not living in Berkeley; being cost burdened (spending over 30% of income on rent); experiencing financial pressures due to the cost of housing; having considered leaving the district due to housing costs; whether they think housing costs impact retention; and under 35 years old. We can see that each of the independent variables is statistically significant at the 95% confidence level except for "financial pressures."

| | | | | | | === |
|---------------------|---------------|-----------|--------------------------|-------------|--------|--------|
| Dep. Variable: | interested_in | n_housing | No. Observat | ions: | | 449 |
| Model: | _ | Logit | Df Residuals | : | | 441 |
| Method: | | MLE | Df Model: | | | 7 |
| Date: | Mon, 11 | Dec 2017 | Pseudo R-squ | l .: | 0.1 | 043 |
| Time: | | 12:39:45 | Log-Likeliho | od: | -230 | .70 |
| converged: | | True | LL-Null: | | -257 | .57 |
| 5 | | | LLR p-value: | | 2.644e | -09 |
| | coef | std err | =================== Z | P> z | [0.025 | 0.975] |
| Intercept | -1.2351 | 0.365 | -3.386 | 0.001 | -1.950 | -0.520 |
| classified | 0.5306 | 0.249 | 2.127 | 0.033 | 0.042 | 1.019 |
| not_berkeley | 0.5263 | 0.255 | 2.060 | 0.039 | 0.026 | 1.027 |
| cost burdened | 0.7147 | 0.239 | 2.992 | 0.003 | 0.247 | 1.183 |
| financial pressures | s 0.4480 | 0.275 | 1.628 | 0.103 | -0.091 | 0.987 |
| considered leaving | 0.4995 | 0.255 | 1.961 | 0.050 | 0.000 | 0.999 |
| impacts retention | 0.7837 | 0.285 | 2.753 | 0.006 | 0.226 | 1.342 |
| under_35 | 0.7324 | 0.279 | 2.621 | 0.009 | 0.185 | 1.280 |
| | | | | | | |

From the odds ratios, we can see that if an employee fits any of those independent variable dummies (therefore a one-unit increase in the variable), then the likelihood that the employee is interested in living in BUSD housing increases. The highest odds ratios are for those who are cost burdened, who believe housing costs impact employee retention, and who are under 35 years old – isolating all other variables, a 1-unit increase in any of these three independent variables at least doubles the likelihood that the employee will express interest in living in BUSD employee housing.

Figure 18: Logit Regression Odds Ratios: Interest in Living in BUSD Housing

| Variable | Odds Ratio |
|----------------------------------|------------|
| Classified | 1.70 |
| Not in Berkeley | 1.69 |
| Cost burdened | 2.04 |
| Experiencing financial pressures | 1.57 |
| Considered leaving BUSD | 1.65 |
| Housing impacts retention | 2.19 |
| Under 35 years old | 2.08 |

Bibliography

- Allegretto, S., & Mishel, L. (2016). The teacher pay gap is wider than ever: Teachers' pay continues to fall further behind pay of comparable workers. Washington, DC: Economic Policy Institute.
- Asmis, J. (2018, February 16). The impact of down payment assistance. Retrieved from https://blog.landed.com/the-impact-of-down-payment-assistance/
- Assem. Bill 1157, 2017 Reg. Sess., Ch. 717, 2017 Cal. Stat. https://leginfo.legislature. ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB1157
- Barragan, B. (2016, October 20). LAUSD built affordable housing for teachers who earn 'too much' to live there. *Curbed Los Angeles*. Retrieved from https:// la.curbed.com/2016/10/20/13346688/lausd-affordable-housing-teachers-workers
- Bennet, S. (2017, April 18). Even Experienced Teachers Can't Afford to Live Where They Work. Retrieved from https://www.apartmentlist.com/rentonomics/teachersalaries-rental-affordability/
- Berkeley Unified School District. (2017, August 23). School Board Meeting [Public meeting minutes]. Retrieved from http://agendaonline.net/public/Meeting. aspx?AgencyID=232&MeetingID=46943&AgencyTypeID=1&IsArchived=False
- Brown, E. (2017, October 15). Assembly Bill 45 Veto Message. Retrieved from https:// www.gov.ca.gov/wp-content/uploads/2017/11/AB_45_Veto_Message_2017.pdf
- California Housing Partnership Corporation. (2018). California's Housing Emergency: State Leaders Must Immediately Reinvest in Affordable Homes. Retrieved from https://1p08d91kd0c03rlxhmhtydpr-wpengine.netdna-ssl.com/wp-content/ uploads/2018/03/CHPC-State-Housing-Need-Report-2018-Web.pdf
- California Housing Partnership Corporation. (2016). Confronting California's Rent and Poverty Crisis: A Call for State Reinvestment in Affordable Homes. Retrieved from https://1p08d91kd0c03rlxhmhtydpr-wpengine.netdna-ssl.com/wp-content/ uploads/2016/04/State-Housing-Need-2016.pdf
- Carroll, T.G. (2007). *Policy Brief: The High Cost of Teacher Turnover*. Washington, DC: National Commission on Teaching and America's Future.
- Carver-Thomas, D. & Darling-Hammond, L. (2017). *Teacher turnover: Why it matters* and what we can do about it. Palo Alto, CA: Learning Policy Institute.

- Center for Neighborhood Technology. (2018). *H+T Affordability Index*. Retrieved from https://htaindex.cnt.org/map/
- Christopher, B. (2017, March 6). To attract teachers, pricey Bay Area school districts are becoming their landlords. *The Mercury News*. Retrieved from https://www. mercurynews.com/2017/03/06/to-attract-teachers-pricey-bay-area-school-districtsare-becoming-their-landlords/
- City of Berkeley Office of Economic Development. (2018, February). Economic Dashboard [Powerpoint slides]. Retrieved from https://www.cityofberkeley.info/ uploadedFiles/Manager/Economic_Development/Citywide%20Economic%20 Dashboard_feb2018.pdf
- Connecticut Housing Finance Authority. (2018). Teachers Mortgage Assistance Program. Retrieved from https://www.chfa.org/homebuyers/teacher-programs/
- Davis, P. (2017). Affordable Housing Solutions for Educators (Donnell-Kay Foundation Report). Retrieved from http://dkfoundation.org/assets/img/DK-021-Affordable-Housing-Solutions-for-Educators_FA.pdf
- DCG Strategies. (2017, February). Everything you need to know about SB-1413 Teacher Housing Act of 2016. Retrieved from https://dcgstrategies.com/blog/dcgblog/everything-need-know-sb-1413-teacher-housing-act-2016/
- Dillon, L. (2017, September 29). Gov. Brown just signed 15 housing bills. Here's how they're supposed to help the affordability crisis. *Los Angeles Times*, retrieved from http://www.latimes.com
- Enterprise Community Partners. (2015). *Miller's Court Impact Case Study*. Retrieved from https://www.enterprisecommunity.org/download?fid=452&nid=3926
- Eshman, E. (2018, January 17). Finding the right fit: An overview of common homeownership assistance programs. Retrieved from https://blog.landed.com/finding-the-right-fit-an-overview-of-the-most-common-homeownership-assistance-programs/
- Forestieri, K. (2018, February 6). Teachers struggle with skyrocketing housing costs. *Mountain View Voice*. Retrieved from https://www.mv-voice.com/news/2018/04/06/ teachers-struggle-with-skyrocketing-housing-costs
- Galley, M. (2001). For Sale: Affordable Housing for Teachers. (cover story). *Education Week*, 20(25), 1.
- Garza, R. (2015). Indianapolis Teacher Housing Program Report (Indianapolis Plan 2020 Report). Retrieved from http://plan2020.com/wp-content/uploads/2016/12/ IndianapolisTeacherHousingProgramReport.pdf
- Glassman, K. (2016). Housing to Retain Teachers: Policy Options to Expand Housing Access for Teachers in California's High Cost School Districts (UC Berkeley Goldman School of Public Policy Advanced Policy Analysis).
- Guarino, C. M., Santibañez, L., & Daley, G. A. (2006). Teacher Recruitment and

Retention: A Review of the Recent Empirical Literature. *Review of Educational Research*, 76(2), 173–208.

- High-rent school districts build homes for teachers. (n.d.). USA Today. Retrieved January 9, 2018, from https://www.usatoday.com/story/news/2016/03/21/schooldistricts-build-teacher-housing/81583792/
- Hojnicki, C. (2017, February 15). Richard Meier's revolutionary new project aims to give Newark a boost. *Architectural Digest*. Retrieved from https://www. architecturaldigest.com/story/richard-meiers-revolutionary-new-project-aims-togive-newark-a-boost
- Kimura, D. (2015, July 13). Sage Park helps meet the housing needs of L.A. school employees. *Affordable Housing Finance*. Retrieved from http://www. housingfinance.com/developments/sage-park-helps-meet-the-housing-needs-of-laschool-employees_o
- Knight, H. (2017, May 9). Low pay, high SF housing costs equal 1 homeless math teacher. San Francisco Chronicle. Retrieved January 9, 2018, from http:// www.sfchronicle.com/news/article/Low-pay-high-SF-housing-costs-equal-1homeless-11130936.php
- Loewus, L. (2018, January 24). Does It Make Sense to Offer Housing Perks for Teachers? *Education Week*. Retrieved from https://www.edweek.org/ew/ articles/2018/01/24/does-it-make-sense-to-offer-housing.html
- Los Angeles Unified School District Board of Education: Budget, Facilities and Audit Committee. (2014, May 22). Affordable Housing Update [Powerpoint slides]. Retrieved from http://www.laschoolboard.org/sites/default/files/05-22-14BFAFacilitiesAffordable%20Housing%20Update_0.pdf
- Lowy, N. (2017, June 1). When does building teacher housing make sense? Retrieved from http://blog.landed.com/when-does-building-teacher-housing-make-sense/
- Marino, J. (2016, September 20). California Fails the Affordability Test for Teachers. Retrieved from https://www.redfin.com/blog/2016/09/california-housingaffordability-for-teachers.html
- Metcalf, G. (2018). Sand Castles Before the Tide? Affordable Housing in Expensive Cities. *Journal of Economic Perspectives*, 32(1), 59–80.
- Mississippi Home Corporation. (2018). Housing Assistance for Teachers. Retrieved from https://www.mshomecorp.com/programs/housing-assistance-for-teachers/
- Mongeau, L. (2015, July 21). Is Silicon Valley Driving Teachers Out? *The Atlantic*. Retrieved from https://www.theatlantic.com/education/archive/2015/07/silicon-valley-housing-tough-on-teachers/399071/
- Phillips, A. (2016, October 19). LAUSD teachers earn too much to live in the affordable housing apartments build for them. *Los Angeles Times*. Retrieved from http://www.latimes.com/local/education/la-me-edu-teacher-housing-20161019-snap-story.html

- Podolsky, A. and Sutcher, L. (2016). *California Teacher Shortages: A Persistent Problem* (brief). Palo Alto, CA: Learning Policy Institute.
- Podolsky, A., Kini, T., Bishop, J., & Darling-Hammond, L. (2016). Solving the Teacher Shortage: How to Attract and Retain Excellent Educators. Palo Alto, CA: Learning Policy Institute.
- Ronfeldt, M., Loeb, S., & Wyckoff, J. (2013). How teacher turnover harms student achievement. *American Educational Research Journal*, 50(1), 4-36.
- Schimke, A. (2017, January 9). Why school districts are operating as landlords. CityLab. Retrieved from https://www.citylab.com/equity/2017/01/why-school-districts-areoperating-as-landlords/512477/
- Sen. Bill 1413, 2016 Reg. Sess., Ch. 732, 2016 Cal. Stat. Teacher Housing Act of 2016. https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_ id=201520160SB1413
- Sisson, P. (2017, September 12). Can teacher housing entice educators to work in expensive cities? *Curbed*. Retrieved January 9, 2018, from https://www.curbed.com/2017/9/12/16294628/teacher-housing-real-estate-low-income-teachers-village
- Stoltzfus, K. (2018, January 24). From Teacher Villages to Tiny Homes: Housing Benefits for Educators. Education Week. Retrieved from https://www.edweek.org/ ew/articles/2018/01/24/from-teacher-villages-to-tiny-homes-housing.html
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). A coming crisis in teaching? Teacher supply, demand, and shortages in the U.S. Palo Alto, CA: Learning Policy Institute.
- Taylor, M. (2015). California's High Housing Costs: Causes and Consequences (Legislative Analyst's Office Report). Retrieved from http://www.lao.ca.gov/ reports/2015/finance/housing-costs/housing-costs.pdf
- U.S. Department of Housing and Urban Development. (n.d.). Good Neighbor Next Door. Retrieved from https://www.hud.gov/program_offices/housing/sfh/reo/ goodn/gnndabot
- U.S. Department of Housing and Urban Development. (2017, March 6). The Los Angeles Unified School District provides employee housing in Sage Park Apartments. *PD&R Edge*. Retrieved from https://www.huduser.gov/portal/ pdredge/pdr-edge-inpractice-030617.html
- Urban Land Institute. (2012). One-Pager: Casa del Maestro Phase II (Jack Kemp Workforce Housing Models of Excellence Awards). Retrieved from http://americas. uli.org/wp-content/uploads/sites/125/2012/06/One-Pager-Casa-del-Maestro.pdf
- Westervelt, E. (2016, March 24). More teachers can't afford to live where they teach. *NPR Digital Media*. Retrieved from https://www.npr.org/sections/ed/2016/03/24/470710747/more-teachers-cant-afford-to-live-where-they-teach

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