



# Solving the Housing Affordability Crisis

How Policy Impacts the Number of Alameda County Households Burdened by Housing Costs

May 2018

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# Executive Summary

Housing affordability in Alameda County has reached a crisis point. With rents and home prices spiraling upward since the Great Recession, there has been no shortage of policy proposals envisioned to alleviate the county's affordability problem. This analysis evaluates these proposals alongside each other using a consistent and comprehensive method to gauge their impact on affordability for individuals and families.

**The housing affordability crisis in the Bay Area is having ripple effects across our economy.** Renters are looking for housing further from economic centers in search of affordability, resulting in long, time-consuming commutes. Businesses across all industries are struggling to attract and retain workers as the cost of living rises. Even existing homeowners are seeing their children and grandchildren pushed out of the region.

**High housing cost burdens fall most heavily on lower-income households.** A recent report by PolicyLink and the USC Program for Environmental and Regional Equity found that a family of two workers, both making minimum wage, can afford the median market rent in just 5% of Bay Area neighborhoods. Of those neighborhoods, 92% are rated as having very low economic opportunity, which further stifles economic mobility and jeopardizes the region's future success.

**This report digs into the policies that would improve or worsen housing affordability for families in Alameda County.** To help policymakers focus on real solutions to the housing crisis, we compile a list of 20 housing-related state and local policies—some that have been implemented and others that have only been considered—and analyze their impacts on net affordability, measured in the number of households that move above or below a 30% housing cost-to-income ratio.

The analysis that follows uses the same methodology employed in our October 2016 report on housing

affordability in San Francisco. The geographies are different, but the conclusions are largely the same:

## 1. Policy does matter.

While demand has been the leading cause of high housing costs in Alameda County, we show that local housing policies also have considerable effects on affordability. In Oakland, reducing parking requirements can move 1,339 households into a more affordable situation. Quicker completion of Oakland's four mega-projects would have an even bigger effect of 2,967 households. On the opposite end of the spectrum, a failure to build on Alameda Point has meant that 1,620 households in the county live unaffordably. Broad rent control across the county would have even further negative effects on overall unit production, prices, and affordability—10,353 households would lose affordability under more strict rent regulation.

## 2. Building all types of housing is still the best way to alleviate housing cost burdens.

In order to truly address the housing affordability crisis, the region needs more housing units overall to both make up for decades of under-production and to meet present and future demand. Of the most positively impactful housing policies that we analyzed, those that focus explicitly on building more rapidly were the most positively impactful. For example, the completion of transit-oriented developments near BART (improves affordability for 7,192 households) and enforcement of

regional housing goals (improves affordability for 4,494 households) would both have significant positive effects on affordability in the county through the provision of more units.

3. Supply alone will not help the most vulnerable households.

Units that are explicitly rented below market rates or that are affordable by design (e.g., micro-units or accessory dwelling units) contribute directly to a lower housing cost burden for the families that reside within them. In addition, the county’s Affordable Housing Trust Fund approved by voters in Measure A1 in 2016 provides \$425 million for below-market-rate housing development, which will move 4,064 households into an affordable housing cost burden.

4. Producing market rate and affordable housing goes hand in hand.

In order to reduce poverty, combat climate change, and improve the quality of life, more housing is needed for people at all levels of income. This is sometimes framed as a zero-sum contest between market rate and affordable housing. But the factors that make market-rate housing more difficult, expensive, and time-consuming to produce are those that have led a door of “affordable” housing costing nearly \$420,000 to produce. The best solutions maximize the production of both market-rate and affordable housing.

5. We’re all in this together.

Solving the housing affordability crisis is not an Oakland issue and it is not a Berkeley issue. It is an every city, every neighborhood issue. This report evaluates policies in Hayward, Union City, Livermore, Fremont and elsewhere that could have a positive or negative affect on affordability. Ultimately, this is a crisis that needs to be addressed at the level of the region (or even the state) with policies that support the creation of housing for people at all income levels in all nine counties. The solution is not going to look the same in Castro Valley as it is in Uptown in Oakland, which makes state, county, and regional policymaking even more important as key ways to lift up the best local policies. Each jurisdiction needs its own plan to help accommodate the region’s growth, but every city also needs to be on board to address this collective challenge.

If all of the positive housing policies analyzed here were enacted, just over 26,000 households would move into an affordable situation (or about 12% of the housing-cost burdened population in Alameda County). While these policies would not fully solve the housing affordability problem in Alameda County, we do find that good policy choices can play a critical role in housing affordability. We have identified policy benefits, trade-offs, and unintended consequences—all of which should be carefully considered as the county and its cities work to address the housing affordability crisis.

Housing Policies and Their Impact on Affordability

Positive Affordability Impact	Mixed Impact
Transit-Oriented Development near BART	Affordable Housing Impact Fees
Strengthening Enforcement of RHNA	
Full Build-Out of Oakland Mega-Projects	Negative Affordability Impact
Countywide Affordable Housing Bond	Strict Regulation on Homesharing
Oakland Parking Lot Conversion	Limiting Development on Underutilized Land
Accessory Dwelling Units & Modular Construction	Reduced Value of LIHTC under New Tax Code
Density Bonuses	Rent Control



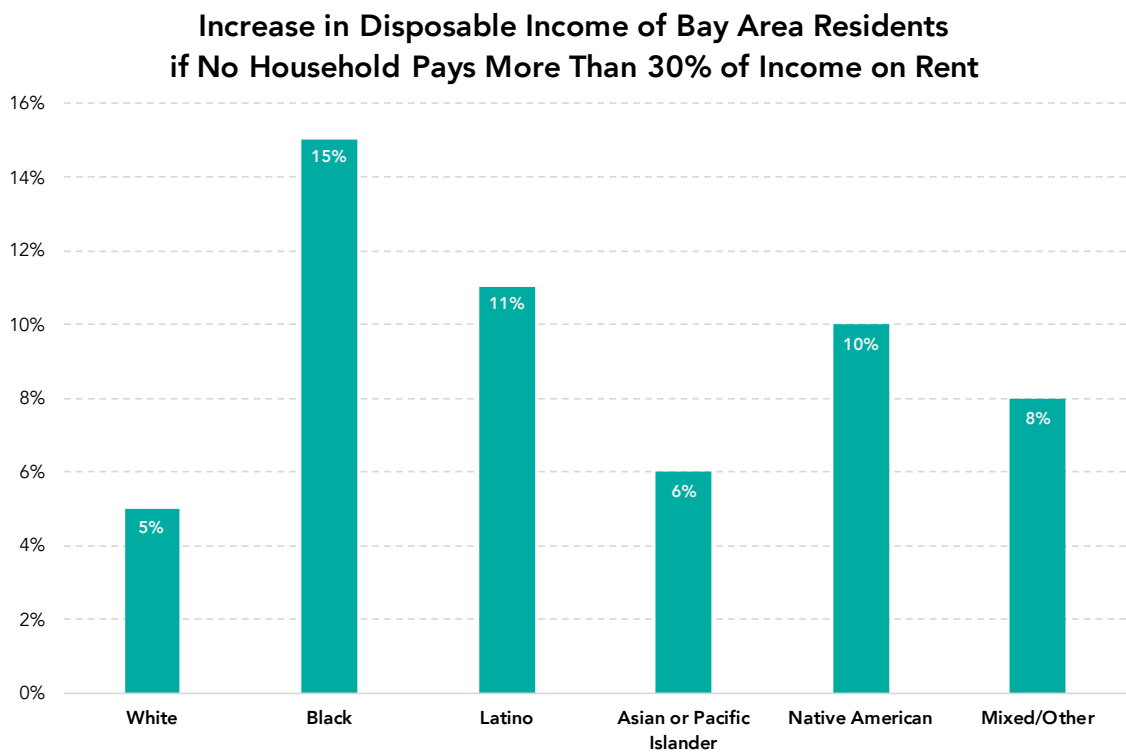
# Introduction

While San Francisco and Silicon Valley have received the national headlines regarding the Bay Area’s housing affordability crisis, no part of the region has been immune. With median sales prices over \$800,000 in early 2018—after growing by almost 50% since 2013—and average monthly rents near \$2,500, Alameda County is experiencing its own affordability crisis.

To tackle this crisis, a vast number of policies have been contemplated or implemented in jurisdictions across Alameda County. All of these policies have the intended goal of lowering housing costs, but their effectiveness should be judged on their ability to create more units and affordability for families. For example, local inclusionary zoning ordinances can impact the amount of overall unit construction by making it financially

infeasible for developers to make investments. These units lost have a direct impact on housing prices<sup>1,2</sup>—counteracting the benefit of the below-market-rate units that are created.

Solving the affordability problem also has ramifications for shared economic prosperity. These effects are depicted below in the amount of disposable income that could be gained if families had access to housing at a cost that was more in line with incomes. While high housing costs are a widely agreed upon problem in Alameda County, no analysis has been done that comprehensively quantifies the impacts of individual policies on housing affordability. In the analysis that follows, we show how policies can impact affordability in Alameda County through the supply of units.



**Note:** Data reflect average rents and incomes between 2011 and 2015.  
**Source:** U.S. Census Bureau, American Community Survey 2015 five-year estimates  
**Analysis:** PolicyLink and USC Program for Environmental & Regional Equity

# Alameda County's Housing Affordability Crisis

**Situated in the center of a regional market for housing, Alameda County's affordability problem is tied to the housing crisis that has spread across the Bay Area.** One of the main attractions to Alameda County is its proximity to job centers in San Francisco, Oakland, San Jose, the Tri-Valley, and along the peninsula. A large percentage of Alameda County residents, 36.5% according to the 2016 American Community Survey, live in the county but commute for work to other parts of the Bay Area.

**Alameda County was relatively slow to recover in employment following the recession, but its affordability when compared to San Francisco and Silicon Valley made it attractive for both households and businesses that felt price pressures across the bay in recent years.** The county has added nearly 125,000 jobs since the beginning of 2012, but it has permitted only 27,505 housing units over that same time period.<sup>3</sup> The supply of homes available for purchase now falls so short of demand that in September 2017 the median home spent just 13 days on the real estate market before it was purchased.<sup>4</sup>

**A fast-growing economy is one reason why prices have climbed so fast, but a deeper cause of the housing affordability crisis stems from an inability to build units—both for renters and owners—at a rate that matches demand.** This slow growth in the housing supply is not a new phenomenon. The Legislative Analyst's Office estimates that Alameda County needed to build 18,190 housing units annually between 1980 and 2010 in order for home prices to have grown at the national average over that time. Actual average housing production in Alameda County was well below this mark at 4,598 units per year.<sup>5</sup>

**Housing costs for 40% of households in Alameda County are above recognized affordability thresholds.**

Housing expenditures that exceed 30% of income have historically been viewed as an indicator of an affordability problem (i.e., housing cost burden).<sup>6</sup> According to the 2016 American Community Survey five-year estimates, 223,460 households in Alameda County are considered cost burdened (39.6% of all households), spending over 30% of their income on housing. Households earning less than \$75,000 make up 76% of the households with a housing cost burden in Alameda County. As such, housing cost burdens are an issue that disproportionately impact low- and middle-income families.

**Restricted housing affordability is tied to regional and megaregional issues such as rapid population growth outside of the region's inner core and heavily congested transportation systems.** Due to the interconnectedness of the housing and employment markets across the Northern California megaregion, longer commute times and crowded highways are increasing, especially in Alameda County's key gateway corridor—I-580 in the Tri-Valley and across the Altamont Pass. As Bay Area residents look for more affordable housing options in neighboring San Joaquin County, which experienced net in-migration from the nine-counties of 3,426 households during 2016,<sup>7</sup> traffic congestion on I-580 has increased, leading to higher carbon dioxide production, reduced worker productivity, and an overall lower quality of life for families that endure long commutes. On I-580 westbound, average daily vehicle hours of delay topped 5,000 hours during 2017, up from just under 4,000 hours during 2012.<sup>8</sup>

# Overview of Methodology

This report is a follow-up to the Economic Institute's previous publication, "Solving the Housing Affordability Crisis," an analysis of San Francisco housing policies published in October 2016. In this report, we analyze 20 key housing policy proposals, from cities within the county, from Alameda County itself, and from the state.

Of the analyses that have considered the impact of policy on housing prices, many take into account how zoning, fees, or other requirements impact the cost of the units that are actually built. This misses the fact that many projects are never constructed due to fees, local opposition, or other factors. We analyze how policies can impact broad affordability in Alameda County through the supply of units. For example, local zoning regulations can impact overall unit construction by making it financially feasible or infeasible for developers to make investments. The gain or loss of these units affects housing affordability, as a lack of housing production has been directly connected to high prices.

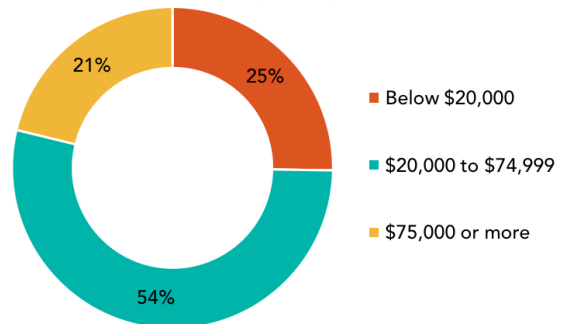
This analysis scales the impacts of different policy interventions on net affordability of housing within Alameda County by projecting the change in unit production that each policy causes and the accompanying change in price for housing. Consistent with the literature, we define housing as all owner-occupied and rental units within the county.

We have created a static model that divides Alameda County into four sub-regions. We isolate each sub-region in order to exclude the possibility of induced demand changes brought on by lower or higher prices—meaning that a housing policy enacted in Livermore has no effect on affordability in Berkeley.

As our net affordability metric, we use the conventional measure of the percent of income spent on housing. Housing expenditures that exceed 30% of income

have historically been viewed as an indicator of an affordability problem. According to the 2016 American Community Survey five-year estimates, 39.6% of all Alameda County households (or 223,460 households) are considered housing cost burdened at the 30% cost-to-income threshold.

**Income of Alameda County Households Burdened by Housing Costs (2016)**



**Data Source:** U.S. Census Bureau, American Community Survey, five-year estimate  
**Analysis:** Bay Area Council Economic Institute

We focus the analysis on three main channels through which housing policies can affect affordability and move households either above or below the 30% threshold:

- 1. Policies may restrict or expand housing supply, changing the market price of housing within a sub-region**
- 2. Policies may provide access to below-market-rate housing for a subset of the population that would otherwise be burdened by costs**
- 3. Policies may augment or suppress income generating opportunities for residents**

**To quantify the first channel, supply,** we approximate the number of market-rate units that a particular policy will remove from or add to the housing market in each Alameda County sub-region. An established estimate of the elasticity of housing demand and supply converts this quantity change to a price effect. Then, we assume that this price change affects all households in the sub-region uniformly along the cost-to-income distribution to assess the change in the number of housing-cost-burdened households. This assumption helps to simplify complicated housing market economics, and it is also consistent with the fact that the run-up in housing costs has been felt across the entire income distribution.

To determine the elasticity of housing demand and housing supply—and the effect of a change in supply on price—we leverage the framework created by San Francisco Controller’s Office of Economic Analysis in its September 2015 report, “Potential Effects of Limiting Market-Rate Housing in the Mission.”

The Controller’s Office equation presents the impact of a supply change on price as a function of the price elasticities of supply and demand (shown below).

$$\left(\frac{\Delta p}{p}\right) = \frac{\left(\frac{\Delta Q_s}{Q_s}\right)}{\epsilon_s - \frac{1}{\sigma_d}}$$

From the Controller’s report: “The price effect is therefore a function of the percentage reduction in the city’s housing stock, the price elasticity of supply (0.02), and the inverse elasticity of demand (-1.41). The price effect—the final percentage change in housing prices—equals the percentage change in housing supply, divided by  $0.02 - (1/-1.41)$ , or 0.73.”

To adjust this equation for Alameda County, we first use the elasticity of supply estimate found by Trulia in its analysis of housing construction across 100 metropolitan areas between 1996 and 2006.<sup>9</sup> The study found

Oakland’s elasticity of supply to be .08. The higher number than San Francisco means developers are more responsive to market dynamics, which we believe to be true given the slowdown in building in Oakland during the recent recession and the subsequent building boom that has occurred recently as rents have grown.

For elasticity of demand, we use a statewide estimate from the Legislative Analyst’s Office as no Alameda County-specific estimates could be found. The LAO found statewide elasticity of demand for housing to be -0.83, which is in line with the -0.80 national average for elasticity of demand utilized in academic studies.<sup>10,11</sup> This means that the equation that yields a percentage change in price based off a change in the quantity supply has a denominator of:  $0.8 - (1/-1.205)$ , or 0.91.

This supply-demand equation shows that for equal changes in supply in San Francisco and Alameda County, we project that San Francisco will have a bigger change in price. This makes sense when thinking about substitutes for the housing markets in each area. San Francisco has a unique culture and is the city of choice for those looking to move into the region. Households that want to be in San Francisco are likely to already live there, so a change in supply will have a more minimal impact on the quantity demanded. As for Alameda County, its neighboring counties share many of the same characteristics, creating easy substitutes for housing. This means that supply changes will have a less substantial impact on price as households move across a broader area to find affordability.

Because we analyze percentage changes in housing stock based on the number of household units reported in the American Community Survey for each sub-region, the effects outlined for each policy should be considered as if their entire impact was felt today. Alternatively, the impacts could also reflect the results of a policy being in place for the previous 20 years with their effects analyzed using today’s market characteristics.



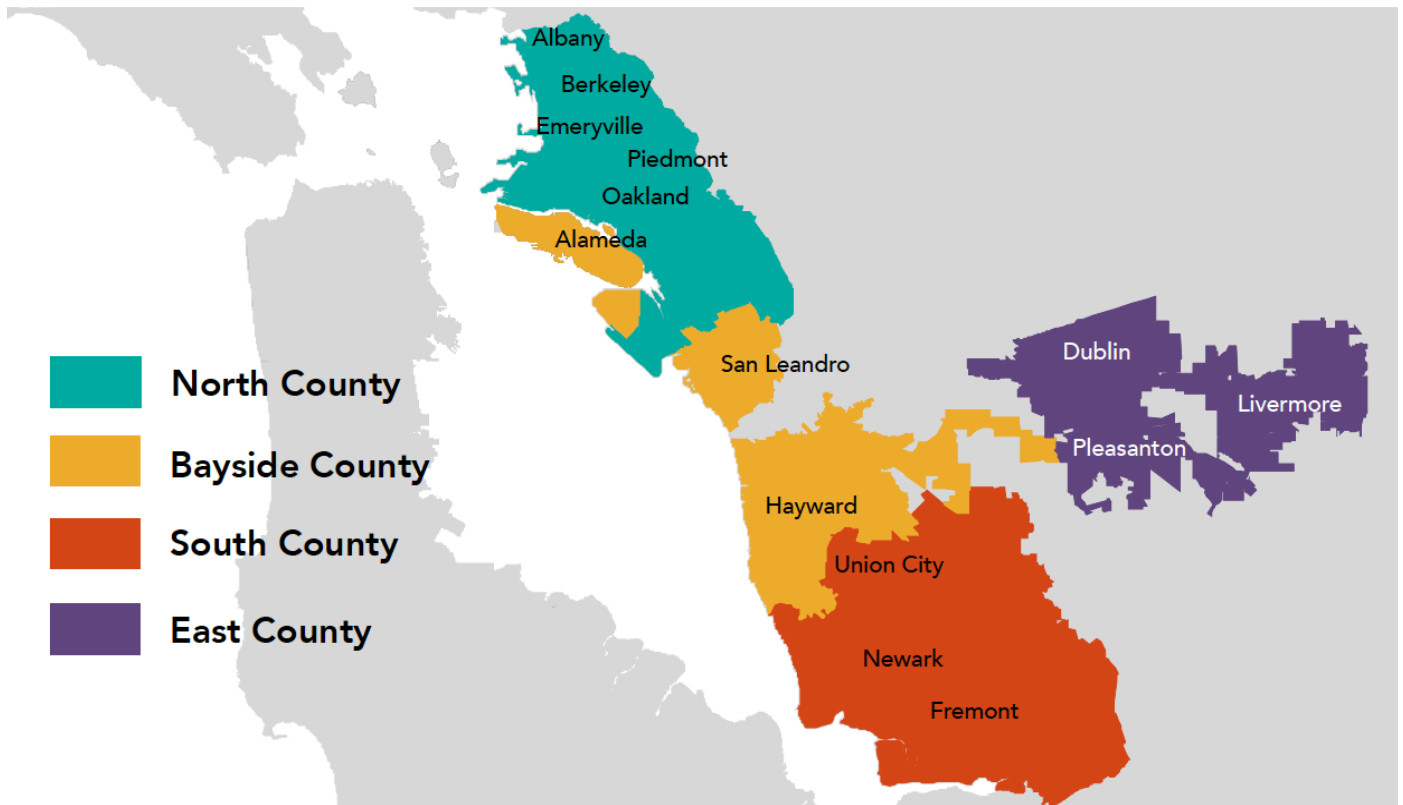
For our analysis, we divided Alameda County into four sub-regions according to their geographical proximity and housing market similarities. We identify the North County sub-region as encompassing the cities of Berkeley, Albany, Oakland, Emeryville, and Piedmont; the Bayside County sub-region includes San Leandro, Alameda, and the unincorporated areas of Castro Valley, San Lorenzo, and Ashland; the South County sub-region includes Union City, Newark, and Fremont; lastly, the East County sub-region includes Livermore, Pleasanton, and Dublin.

**To quantify the second channel, access to below market-rate housing,** we approximate the number of people benefiting from the addition or subtraction of below-market-rate housing—defined as subsidized units available only to households with incomes below certain area median income thresholds. We assume that all of the beneficiaries of below-market-rate housing would

be cost-burdened if not for this access. For housing policies that result in a change in overall housing production, we assume that the percentage of the new or reduced housing stock that would have been set aside for below-market-rate housing is equivalent to the city's percentage inclusionary zoning requirements.

**To quantify the third channel, income,** an important channel for home-sharing and accessory dwelling unit ("ADU") regulation, we estimate the number of existing households impacted by the policy and their average annual income from home-sharing or ADU rental. Given limited data availability, we assume the homeowners that are involved in the home-sharing market or that would construct an ADU are evenly distributed across income brackets. Then, we randomly assign this income change across the distribution to calculate the mean change in the number of burdened households.

## Alameda County Subregions



# Twenty Policies Impacting Housing Affordability in Alameda County

The following list organizes proposed or enacted housing policies into groups to show the types of policies that have the largest net impact on affordability, and those that have a net negative effect. Each policy's effects are divided into the three channels (where applicable) to arrive at a total change in the number of households able to affordably live within Alameda County. Those policies that produce the largest positive effect on affordability (i.e., moving the most people below the 30% housing cost-to-income threshold) are listed first, policies with minimal effects are found toward the middle of the list, and those policies that are most detrimental to affordability are listed last.

## TRANSIT-ORIENTED DEVELOPMENT NEAR BART

### 1. BART Extension & Isabel Neighborhood Plan – Livermore

**2,987:** Additional households able to afford to live in Alameda County

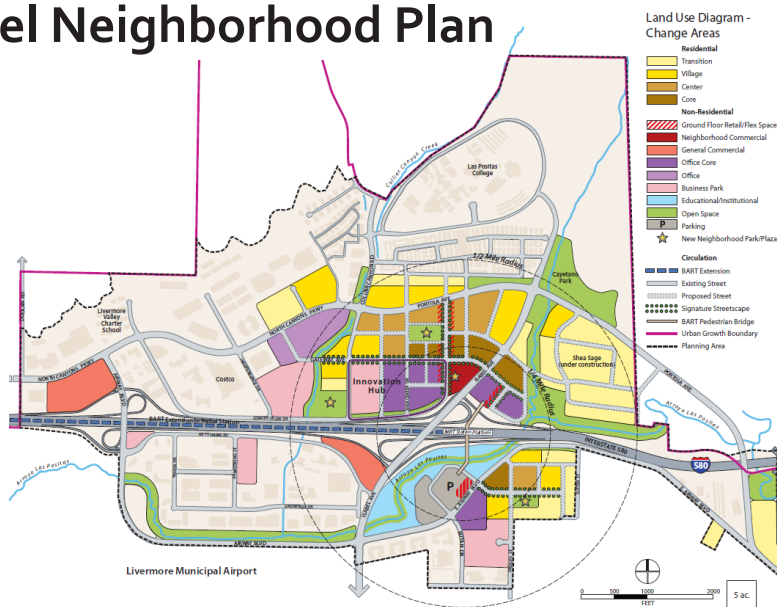
**POLICY:** Plans to extend the BART Dublin/Pleasanton line to Livermore have long been a topic of discussion in the Tri-Valley. To date, \$533 million has been dedicated to planning and construction of the extension via Alameda County Measure BB, bridge tolls, and City of Livermore impact fees. Potential extension projects recently studied by BART include transit expansions 5.5 miles east to Isabel Avenue in Livermore along the I-580 corridor. Conventional BART trains, diesel or electric multiple units, and enhanced bus service/bus rapid transit (BRT) were among the alternatives studied.

The Tri-Valley San Joaquin Valley Rail Authority has also begun planning for a connection between the Altamont Corridor Express (ACE) trains and BART in the Tri-Valley. Depending on the ultimate resolution of a BART extension, the authority will plan for and construct a connection between BART and ACE.

**SUPPLY CHANNEL:** In conjunction with these transportation planning efforts, the City of Livermore is in the process of completing the Isabel Neighborhood Plan, which proposes transit-oriented multi-use developments covering approximately 1,132 acres surrounding a potential BART terminus. The plan proposes to create 4,290 housing units in the neighborhood surrounding the planned BART extension to Livermore, providing residents with easy access to transportation.<sup>12</sup> While the city can plan for these units, their construction is reliant on a transit stop nearby.

The Isabel Neighborhood Plan will add 3,861 market rate units to the City of Livermore. This influx of housing units will reduce housing costs for residents in the East Alameda County sub-region by 6.3%, increasing affordability for 2,558 households in the region.

## Isabel Neighborhood Plan



### ACCESS CHANNEL:

The City of Livermore requires new housing developments to dedicate at least 10% of new units as below-market-rate housing. We estimate that the Isabel Neighborhood Plan, when fully developed, will create 429 below-market-rate units—providing affordability to 429 households in the East County sub-region.

## 2. Warm Springs BART Station Area Plan – Fremont

**2,821:** Additional households able to afford to live in Alameda County

**POLICY:** Fremont is a key part of the Silicon Valley innovation ecosystem, as it is a hub for high-tech manufacturing and a host to many companies—most notably, Tesla. The recent opening of Fremont’s second BART station, located in the South Fremont/Warm Springs neighborhood, provides a significant opportunity to build new transit-oriented development around the station. The City of Fremont adopted a Community Plan in 2014 that calls for the development of a vibrant, mixed-use, innovative community in the 879 acres surrounding the Warm Springs station, which now is largely vacant parcels and industrial buildings. The Community Plan includes up to 4,000 units in multi-family buildings, and multiple developers have already had their master plans for developments approved.<sup>13</sup>

**SUPPLY CHANNEL:** Lennar has a master plan proposal for 111 acres west of the station that includes 2,214 new housing units, commercial space,

and R&D facilities. Toll Brothers has completed a similar master plan for the area east of the station and adjacent to I-680 that plans for 1,001 new units. We assume that there will be 4,000 new housing units developed over time as estimated by the Community Plan. Of these units, we assume 90% will be at market-rate pricing, introducing 3,600 new units to the South sub-region of Alameda County. The new units are estimated to reduce housing costs for the region by 4.25%, increasing affordability for 2,421 households.

**ACCESS CHANNEL:** The City of Fremont has a density bonus in place to incentivize developers to build. Developers can make 10% of new units built available to low-income households. For this study, we assume that of the 4,000 units planned near the Warm Springs BART station, 10% will be allocated for below-market-rate housing. This will create 400 units available at below-market-rate cost, and bring affordability to 400 households in the South county sub-region.

### 3. Transit-Oriented Development Legislation – SB 680

**1,384:** Additional households able to afford to live in Alameda County

**POLICY:** Senate Bill 680 was signed by Governor Brown in July 2017. Prior to its passage, BART was able to pursue transit-oriented development ("TOD") projects, which often include the benefits of additional density and streamlined approvals, within one-quarter mile of its stations. SB 680 extends that radius to a half mile for residential, commercial, and mixed-use projects. Within that radius, BART may be able to partner with other public agencies that hold underutilized land. In the current legislative session, Assembly Bill 2923 would require the BART board to adopt new TOD zoning guidelines for BART-owned properties that would supercede local zoning. BART estimates that its station areas have the potential to add over 16,000 housing units to the Bay Area housing supply over 20 years.

BART estimates that 1,347 units of TOD housing are being planned for in Alameda County, with 35% of them being made available at below-market rates. For our analysis, we distribute these planned units across the four sub-regions according to the distribution of future development as described by BART's TOD Guidelines.<sup>14</sup>

#### SUB-REGIONAL IMPACTS:

##### North County – 539 households gain affordability

We estimate that approximately 45% of the new housing generated by BART's TOD activity will be in the Northern Alameda County sub-region, or 606 new housing units. Of those, 394 will be market-rate units. These new units are expected to lower housing costs by 0.21% in the North Alameda County sub-region, moving 327 households below the 30% affordability threshold. Our analysis finds that BART's planned TOD activity will add 212 below-market-rate units to the sub-region—with each unit housing one family that moves into a more positive housing cost burden.

##### Bayside County – 401 households gain affordability

Using BART's distribution of future and in-planning housing units in Alameda County we calculate that 29% of planned housing will be developed in the Bayside Alameda County region. We estimate that 254 new market-rate units will be built in the surrounding areas of the San Leandro, Bay Fair, Castro Valley, Hayward, and South Hayward BART stations. These new units decrease housing costs for the sub-region by 0.20%, allowing 265 households to be able to afford to live in the region. Given BART TOD's target of 35% affordable housing units, we estimate that 136 units developed will be made available at below-market-rate costs.

##### South County – 238 households gain affordability

We estimate that 13% of BART's TOD housing production will be generated in the Southern Alameda County sub-region, totaling 173 units. Of these, 113 will be market-rate units. The increased supply in housing will reduce housing costs for the region by 0.13%. Subsequently, 178 households will be able to afford to live in the region.<sup>15</sup> Of the total TOD development potential, an additional 60 affordable units could be developed in the Southern Alameda County sub-region.

##### East County – 206 households gain affordability

The remaining 13%, or 173, of new housing units generated by BART's TOD plans will be developed in the Eastern Alameda County region. We calculate that 113 of such units will be made available at market-rate value, decreasing prices for the region by 0.18%. As a result, 146 households in the region will gain access to housing affordability. The Eastern Alameda County region's affordable housing supply will increase by 60 units according to our calculations, if BART's TOD potential is fully realized over 20 years.

## REFORM HOUSING PLANNING PROCESSES AT THE STATE AND REGIONAL LEVELS

### 4. Strengthen Enforcement of the Regional Housing Needs Allocation ("RHNA")

**7,052:** Additional households able to afford to live in Alameda County

**POLICY:** Since 1969, California has required that all local governments adequately plan to meet their current and future housing needs. Local governments meet this requirement by adopting "Housing Elements" as part of their general plans. These housing elements are informed by the Regional Housing Needs Allocation ("RHNA"), which is a state-mandated process designed to identify and quantify the housing need at the regional level. Regional housing needs—across various levels of affordability—are developed collaboratively by the state and regional councils of government for eight-year planning periods. In the Bay Area, the Association of Bay Area Governments then distributes the regional need across local jurisdictions, which include these numbers in their housing elements.

The most recent full RHNA cycle in the Bay Area covered the years between 2007 and 2014. Given that this period includes a recession, no county in the Bay Area met its RHNA targets, while only a few cities did. Collectively, the cities of Alameda County needed to approve 44,937 new housing units over the eight years to meet RHNA targets. However, the cities approved only 19,615 permits, or 44% of the goal, and fell particularly short in approving permits for below-market-rate housing. These shortfalls cannot entirely be blamed on the recession, as only one of nine counties hit RHNA targets in the previous cycle from 1999 to 2006.

Given that RHNA is the one housing production target that does exist for cities, policymakers have recently looked for ways to make its targets more enforceable. Currently, there are no penalties or incentives attached to achieving RHNA goals. However, in 2017, two bills were passed with the goal of providing more teeth to RHNA. Senate Bill 166 (Skinner) restricts the ability of a jurisdiction to reduce density on projects unless it can identify enough sites in its housing element to meet its RHNA allocation. Senate Bill 35 (Wiener) streamlines housing unit approvals—for projects that meet certain affordability and density standards—in cities that do not meet RHNA goals.

In 2018, Senate Bill 828 (Wiener) looks to further strengthen RHNA by requiring the state to do a one-time unmet need assessment for every California region. This process will take into account the lack of construction that has occurred over decades and add it to future RHNA allocations. Additionally, SB 828 will require rollovers of RHNA deficits from cycle to cycle so that jurisdictions that do not build in one cycle are held accountable in future cycles. Lastly, the bill requires that city housing elements zone for 200% of their housing obligations, as compared to the current 100% target.

We analyze how stronger RHNA compliance in the most recent full reporting period would have impacted housing construction and affordability across Alameda



County. Between 2007 and 2014, the Bay Area as a whole met 57% of its RHNA goal. These units were spread across the market-rate category (defined by RHNA as having prices affordable for households making more than 120% of area median income) and the below-market-rate category (affordable for households making less than 120% of area median income). The Bay Area permitted 99% of its market-rate need, but just 28% of its below-market-rate need.

In the analysis below, we show how unit construction in Alameda County would have been different if cities built to the Bay Area average under each category. Market-rate units constitute the supply channel, and below-market-rate units make up the access channel. For those cities that built above the regional average in a category between 2007 and 2014, we assign no additional units in that category.

## **SUB-REGIONAL IMPACTS:**

### **North County – 3,367 households gain affordability**

If cities in the North County sub-region approved market-rate building permits at the same rate as the whole Bay Area between 2007 and 2014, an additional 5,153 market-rate units would have entered the region's housing market. Adding these many units to the region would decrease prices by 2.77%, moving an additional 3,019 households above the affordability threshold. In the 2007-2014 RHNA cycle, the North County sub-region approved permits for 2,238 below-market-rate units, reaching only 24% of the goals set forth by RHNA. If the region built to the Bay Area average during this period of time, 28%, an additional 348 below-market-rate housing units would have been created.

### **Bayside County – 854 households gain affordability**

According to RHNA targets, the Bayside sub-region of Alameda County should have approved building permits for 7,069 housing units between 2007 and 2014. However, the region reached 27% of this goal, approving building permits for only 1,882 units. If the region approved enough permits to reach the Bay Area's average rate, it would increase the housing supply by 1,244 market-rate units. The new units would increase affordability for 854 households and would decrease prices for the region by 0.98%. The Bayside sub-region permitted below-market-rate units at a higher rate than the Bay Area average, thus we assign no additional access channel affordability gain.

### **South County – 657 households gain affordability**

The South County sub-region permitted an above average number of market-rate units during the 2007 to 2014 RHNA cycle. Union City and Fremont both exceeded 100% of their need. On the below-market-rate side, South County cities issued only 15% of their target for affordable units. If they had met the Bay Area average, an additional 657 below-market-rate units would have been built, providing affordability to 657 families in the South County sub-region.

### **East County – 2,174 households gain affordability**

Similar to the South County sub-region, the East County sub-region also met its RHNA goals in terms of market-rate housing permitting. Specifically, Dublin exceeded targets by more than three times. However, below-market-rate unit permitting was very limited at just 11% of the target. If the sub-region had built to the regional average, 2,174 new affordable units would have been built—each helping one Alameda County family attain an affordable housing burden under our model.

## FULL BUILD-OUT OF PROJECTS ALREADY IN PIPELINE

### 5. Completion of Existing Mega-Projects in Oakland

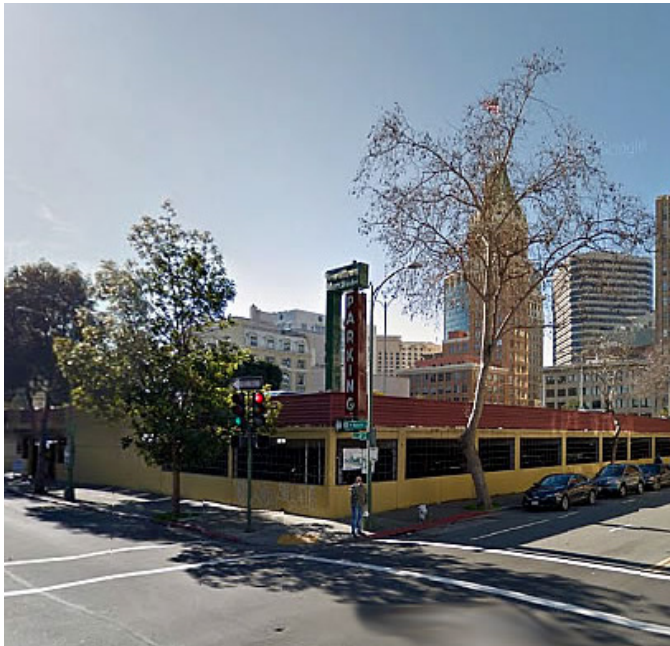
**2,967:** Additional households able to afford to live in Alameda County

**POLICY:** The City of Oakland has four major housing developments in construction or in the pipeline, amounting to 5,477 additional housing units. These projects include the Brooklyn Basin development with plans to build 3,100 units; the planned construction of 918 market-rate townhomes at the former Oak Knoll Naval Hospital adjacent to I-580; a mixed-use apartment and retail development with 634 units at 1314 Franklin St. that recently broke ground in downtown Oakland; a 423-unit development at 3093 Broadway; and a 402-unit development adjacent to the MacArthur BART station.

**SUPPLY CHANNEL:** Of the 5,477 units in the pipeline, we estimate 4,867 will be market-rate

units. Adding this amount of new housing to the City of Oakland will decrease prices in the North County sub-region by 2.1%, increasing affordability for 2,357 households in the region.

**ACCESS CHANNEL:** Oakland's inclusionary zoning ordinance mandates at least 10% of new housing units to be below-market-rate and the Brooklyn Basin development has confirmed the inclusion of 15% of such units. We estimate that these mega-projects will move 610 households throughout the region below the 30% cost-to-income ratio via access to below-market-rate housing.



Previous parking structure at 1314 Franklin St. in Oakland  
Source: SocketSite



Rendering of 634-unit, mixed-use building at 1314 Franklin St.  
Source: Carmel Partners



## 6. Dublin Crossing Specific Plan

**1,533:** Additional households able to afford to live in Alameda County

**POLICY:** Dublin has been one of the few Alameda County cities that has successfully planned for housing that has then been built by developers. The Dublin Crossing Specific Plan was passed as a resolution in October 2013 and amended in June 2015 in which the City of Dublin developed a plan to utilize 189 acres in the center of the city. The project site is located on a portion of the 2,485-acre Camp Park Reserve Forces Training Area, and the Specific Plan addresses the development of residential units, commercial uses, parks and open spaces, and a school. The Specific Plan allows for the creation of up to 1,995 new units in the city.

**SUPPLY CHANNEL:** The Dublin Crossing development is expected to add 1,745 market-rate housing units to the housing supply in Dublin. These units will help reduce housing costs for the East County sub-region by 2.84%, allowing 1,283 households to move below the 30% cost-to-income ratio.

**ACCESS CHANNEL:** The City of Dublin's Inclusionary Zoning Ordinance requires new developments with 20 units or more to include at least 12.5% units at below-market rates. We estimate that the Dublin Crossing development will include 250 of such units, thereby moving 250 households into affordability.



Rendering of Boulevard Development at Dublin Crossing

Source: Brookfield Residential and CalAtlantic Homes

## DEDICATED FUNDING FOR AFFORDABLE HOUSING

### 7. Countywide Affordable Housing Trust Fund – Measure A1

**4,067:** Additional households able to afford to live in Alameda County

**POLICY:** In the 2016 election, Alameda County passed Measure A1, a county-wide measure for a \$580 million bond to expand and preserve affordable housing options for renters and homeowners. The bond includes expenditures for down payment assistance, housing preservation loans, homeowner development programs, and the development of new affordable housing. The measure has particular focus on seniors, veterans, people with disabilities, the homeless, and workers, who are the most affected by rising home prices in the region.<sup>16</sup>

**ACCESS CHANNEL:** We model only how the affordable housing development funds (\$425 million of the total bond amount) will impact the number of homes built in Alameda County over the next 20 years. While the cost to build one unit of affordable housing varies depending on the type of unit built, an analysis by the State of California between 2011 and 2015 showed

the average cost to build a below-market-rate housing unit in Alameda County was \$418,000. The Measure A1 bond funding stipulates that bond proceeds cannot exceed 25% of an individual project's cost (\$104,500 on average), thus we estimate that 4,067 units will be created over 20 years.

Because only below-market-rate units are constructed using bond proceeds, we only model changes to affordability through the access channel. To distribute the 4,067 units across the county, we use the 2015-2023 Regional Housing Needs Allocation to find the percentage of the county's new housing projected for each sub-region. Our findings are highlighted below:

**North County (46.4% of RHNA projection) – 1,887**

**Bayside County (18.8%) – 765**

**South County (18.1%) – 734**

**East County (16.8%) – 681**



Rendering of a 497-unit senior housing development in Fremont

Source: City of Fremont

## RE-THINKING PARKING IN OAKLAND

### 8. Reduce Oakland Parking Requirements

**1,339:** Additional households able to afford to live in Alameda County

**POLICY:** In 2016, Oakland significantly reduced its parking requirements for new residential and commercial developments. The changes reduce the amount of parking required in new buildings across the city, with the largest reductions concentrated in areas close to major transit hubs, such as in the downtown area or adjacent to BART stations. In those areas, the new regulations reduce the required parking to zero and instead set a cap on the maximum amount of parking allowed. The regulations also provide incentives for housing developers to offer car-sharing spaces or AC Transit bus passes to tenants. Previously, one parking space was required per unit for most residential developments downtown.

Given that the city estimates that each underground parking space in the city costs approximately \$80,000 to construct, this change significantly reduces the cost to build.<sup>17</sup> Reducing parking requirements also can lead to greater transit use, which has the potential to reduce congestion and greenhouse gas emissions in the downtown area.

**SUPPLY CHANNEL:** To calculate how reduced parking requirements can lead to a greater amount of housing construction in downtown Oakland, we rely on a model created by UC Berkeley's Turner Center for Housing Innovation. This model uses the existing pipeline of housing developments in Oakland

and allows users to adjust various governmental, cost, and financial variables to better understand the probability that a planned development is actually built. We use this model to reduce parking requirements uniformly across Oakland by 10%. The model results in a net increase in housing production of 615 units.

Because this only takes into account units currently in the pipeline, we scale this number by 3.3 (the number of times we assume that the pipeline recycles over a 20-year period) to arrive at 2,048 total new units. Of those, 1,843 are projected to be market-rate units, which will lower prices in Oakland by 0.99%. This price movement will push 1,134 households below the 30% cost-to-income threshold.

**ACCESS CHANNEL:** We assume that 10% of all future units produced will be below-market rate given the city's current affordable housing impact fee. The 205 below-market rate units will provide affordability to 205 Alameda County households.



## 9. Downtown Oakland Surface Parking Lot Conversion

**461:** Additional households able to afford to live in Alameda County

**POLICY:** According to the 2016 Downtown Oakland Parking Study, the downtown area has more than 20,000 parking spaces. At the peak hour of demand, capacity reaches 79%, but more than 2,000 spaces remain vacant. Downtown Oakland currently has over 30 parking structures and 35 privately-owned parking lots. While parking is critical for some commuters and even during non-work hours, many cities have looked for better uses for parking lots in the downtown center—both as a way to shift drivers to other forms of transportation and as a tool for development.

In the last year, both Philadelphia and Spokane have proposed higher taxes on receipts from privately-owned parking operations while also providing tax exemptions for residential and commercial buildings built on surface parking lots (the land itself is still taxed). If a similar system was enacted in downtown Oakland, we conservatively model the housing production that could occur if 20% of the privately-owned parking lots were converted into residential structures.

**SUPPLY CHANNEL:** For our analysis, we selected the seven largest privately-owned parking lots in the downtown Oakland area, which amount to a total of 6.08 acres of developable space. Using Oakland's 2015-2023 Housing Element and its list of approved housing opportunity sites, we can estimate the potential housing unit density that can be created by surface parking lot conversion. The Housing Element lists numerous downtown parking lots as opportunity sites, and assigns a minimum density of 150 units per acre to them. Using the 6.08 acres calculated earlier, we estimate that 912 housing units can be developed on land that is currently used for parking. With 821 of these units projected as market-rate units, we show a

decrease in prices of 0.44% across the North County region—moving 370 households above the affordability threshold.

**ACCESS CHANNEL:** Assuming that at least 10% of this new housing is set aside for below-market-rate housing, we estimate that new developments resulting from policy adjustments for surface parking lots will add 91 below-market-rate units in the downtown area.



Oakland parking lots shaded in blue

Source: City of Oakland / Nelson Nygaard Consulting

## ALTERNATIVE BUILDING DESIGNS

### 10. Accessory Dwelling Units in Berkeley

#### 604: Additional households able to afford to live in Alameda County

**POLICY:** The City of Berkeley has a long history of facilitating the development of accessory dwelling units (ADUs) as a means to generate increases in its housing stock. ADUs can be detached secondary housing units on single-family lots or conversions of existing home space into an additional attached full unit.

To encourage homeowners to build ADUs across the state, Senate Bill 1069 and Assembly Bill 2299 remove local restrictions around building new housing. Taking effect in January 2017, the legislation removes parking requirements for ADUs located within ½ mile of public transit and prohibits cities from requiring new utility connection fees.<sup>18</sup> New legislation introduced in 2018, Senate Bill 831, will further facilitate ADU construction by removing other impact fees and streamlining the local approval process.

**SUPPLY CHANNEL:** It is difficult to account for all existing ADUs in Alameda County given that no comprehensive housing type survey has been completed. It is also difficult to estimate how many parcels across the county may be eligible for an ADU. However, a 2012 study by UC Berkeley's Center for Community Innovation estimated that 3,628 single-family housing units in Berkeley would be eligible for ADUs under existing zoning.<sup>19,20</sup>

To understand how many of those single-family residences might actually build an ADU over 20 years, we rely on a survey administered by the Bay Area Council in 2017, which found that 25% of Bay Area homeowners would consider building an ADU on their

properties. We use this number to calculate that of the 3,628 housing units in Berkeley that are eligible an ADU, 907 would actually build one over the course of the next 20 years. If 907 new market rate ADUs entered the Berkeley housing stock, prices in the North County region would decrease by 0.49%, consequently increasing affordability for 482 households in the region.

**INCOME CHANNEL:** Homeowners that decide to build ADUs will gain additional income from renting the units each month. A survey of Seattle, Vancouver, and Portland ADU owners found average monthly rents of \$1,300 per unit.<sup>21</sup> With Berkeley rents for one-bedroom apartments roughly 1.36 times higher than the collective median for the three comparable cities, we conservatively estimate average ADU rents in Berkeley at \$1,779 per month, or \$21,348 annually.

To factor in building costs, we again rely on the same survey of Seattle, Vancouver, and Portland ADU owners, which found the average price of ADU construction to be \$156,000 in those cities. We boost our estimate to \$200,000 per ADU in Berkeley given the high cost of construction materials and labor in California. When amortizing the initial cost over 20 years at 3.85% interest, annual payments total \$14,431.

We take the difference between annual rent receipts and amortization payments to arrive at an average net income of \$6,917 per year per ADU owner. When we randomly distribute this income across 907 households in Berkeley, we find that the additional income moves 202 households below the 30% affordability threshold.

## 11. Extend Micro-Unit Construction to All Studios in Berkeley

### 335: Additional households able to afford to live in Alameda County

**POLICY:** The Berkeley City Council voted in February 2017 to explore the possibility of constructing 100 stackable micro units for the homeless and those with very low incomes. The template they used for a micro unit is 160 square feet and would cost \$1,000 per month to rent. The council solicited proposals to build the units and is planning on fast-tracking the required permits. The rent would likely be covered by combined payments from the city, tenants, and a nonprofit that will operate the units.<sup>22</sup>

While the Berkeley model focuses exclusively on the homeless and very-low-income individuals, micro units can provide a more expansive solution to Alameda County's housing affordability crisis. In San Francisco in 2011, the Board of Supervisors passed legislation enabling the construction of micro units, or efficiency dwelling units. The legislation allows for units as small as 220 square feet comprised of 150 square feet of living space, plus a bathroom and kitchen.

Other high-demand housing markets, including New York, Boston, Portland, and Seattle, have also made zoning changes to allow for micro-unit development. Allowable sizes average approximately 350 square feet. Micro units generally rent for about 20% to 30% less than a regularly-sized unit, although they rent at a higher rate on a per-square-foot basis, making them viable investments for developers.<sup>23</sup>

**SUPPLY CHANNEL:** To calculate the effect that expanding micro-unit construction could have

on housing supply in Berkeley, we assume that all future studio apartments (at 650 square feet) were instead constructed as micro units (at 325 square feet). According to the 2015 American Community Survey, 8.3% of Berkeley's existing housing stock has no bedrooms (i.e., studio apartments). We assume that this same proportion can be applied to new housing development.

Housing permitting reports from the Association of Bay Area Governments show Berkeley has built an average of 179 housing units annually over the last 17 years. If the proportion of those units that we assume to be studios (approximately 15 units) were instead built as micro units, Berkeley would produce 15 more units annually, or an additional 300 over 20 years.

Given a 20% affordability requirement in new-unit construction in Berkeley, we estimate that 240 of these units will be made available at market-rate costs. They will decrease housing costs for the region by 0.13% and allow 275 households to affordably live in Alameda County.

**ACCESS CHANNEL:** Although micro-units are less costly than single and multi-family housing units, Berkeley's inclusionary zoning ordinance requires new developments with over five units to either pay a fee or to make at least 20% of the new developed units affordable. We assume that 20% of the total new micro units developed will be made available at below-market-rate costs, generating a total of 60 affordable units.

## UTILIZING LAND IN A MORE EFFICIENT MANNER

### 12. Density Bonus in Alameda

**538:** Additional households able to afford to live in Alameda County

**POLICY:** The voters of the City of Alameda passed Measure A in 1973, which limited the allowable density of new housing projects and effectively capped the amount of multi-family housing construction that could take place in the city. The city permitted just 94 units in multi-family building between 1990 and 2009, while permitting nearly 1,500 single-family units in that time.

In 2012, the City of Alameda passed a Density Bonus Ordinance that re-zoned specific sites and provided more leeway for multi-family units. This density bonus is designed to ensure a certain percentage of affordable units for senior households and households with low incomes. With these policies in place, Alameda is expected to exceed its RHNA obligation in the next decade by over 1,800 units.<sup>24</sup> Between 2010 and 2015, the 430 units that the city permitted were split evenly between single-family and multi-family units.

**SUPPLY CHANNEL:** According to data from the Association of Bay Area Governments, the City

of Alameda permitted 1,236 units between 1999 and 2015, 84% of which were in single-family structures. If annual production going forward matches previous building trends and is split evenly between single-family and multi-family development, the city will approve an additional 46 units per year on average.

With an additional 920 permitted units over 20 years, the multi-family zoning changes in the City of Alameda would increase the housing supply in the Alameda County Bayside sub-region by 782 market-rate units. Consequently, the ordinance would decrease housing-costs for the region by 0.62%, pushing 400 households below the 30% affordability threshold.

**ACCESS CHANNEL:** The changes in zoning mandate 15% of the new units to charge rents that are below-market rate. We estimate that the change will generate 138 below-market-rate units in the Bayside sub-region, providing affordability to 138 Alameda County households.

### 13. Conversion of Vacant Units

**353:** Additional households able to afford to live in Alameda County

**POLICY:** According to the 2016 American Community Survey, there were 10,717 vacant housing units across Oakland. This number includes properties for sale or rent, unoccupied units, homes used for

occasional use, blighted properties, and those held in probate or under renovation. Vacant homes provide one potential way to utilize the existing housing stock in a more efficient way. In high-cost cities—such as Paris and Vancouver—where a sizable number of homes are



purchased as investment properties, but not occupied, vacancy taxes have been implemented to push these homes back onto the market for occupancy.

In Oakland, the issue of vacant housing is more related to rental properties that sit empty after years of under investment. Data from 2016 shows that 1,058 Oakland housing units were either sold or rented but unoccupied (this accounts for approximately 10% of the total number of vacant units). To begin to address this issue, the city sold 26 tax-defaulted properties in 2017 to a non-profit group that plans to remodel existing homes and build new units on empty lots with the goal of selling or renting as below-market-rate housing.

The city could expand on this type of program with a vacant property tax. Such a tax may incentivize owners to make property investments or sell the property. Receipts from this type of tax could go into a fund that helps non-profit groups remodel the properties that default on the payment.

**SUPPLY CHANNEL:** For our analysis, we implement a hypothetical underutilized property tax on vacant units and blighted properties with the goal of incentivizing owners to make investments or sell the units. We assume that 20% of owners will return their units to the rental market over 20 years. We estimate that an additional 212 units can be occupied in the North County sub-region as a result of the tax. This would reduce housing costs by 0.11%, allowing an additional 247 households to move into a housing cost-to-income ratio deemed affordable.

**ACCESS CHANNEL:** For those properties that default on the tax, we model the continuation of the city's program to sell tax-defaulted properties to non-profit affordable housing providers. If just 10% of the units/properties are converted to below-market-rate housing over time, the city can add 106 affordable units to its housing stock, creating housing affordability for 106 households in the North County sub-region.



A vacant building at Martin Luther King Jr. Way and 28th Street

Source: Connor Radnovich / San Francisco Chronicle



## USING IMPACT FEES TO FUND AFFORDABLE HOUSING

### 14. Affordable Housing Impact Fees in Oakland

**243:** Additional households able to afford to live in Alameda County

**POLICY:** When local redevelopment agencies were dissolved in 2012, cities were left to search for ways to fill the nearly \$1 billion below-market-rate housing financing void that had been created. One response that has been prevalent across numerous California jurisdictions is the use of affordable housing impact fees. These fees are often set on a per unit or per square foot basis for new residential construction projects over a certain size. Collected funds are then placed into affordable housing trust funds to be used for future below-market-rate projects.

In April 2016, the Oakland City Council voted to impose impact fees on new developments to fund transportation improvements, capital expenditures, and affordable housing. To implement the fees, City Council members divided Oakland into three geographic zones. Developers in downtown pay \$7,000 per market-rate unit built in a multi-family building, increasing to \$24,000 by July 2018. In West Oakland and parts of North Oakland, impact fees start at \$5,550 per market-rate unit, increasing to \$19,250 in July 2018. In the area stretching from east of 23rd Avenue and including Coliseum City, fees will start at \$750 and increase to \$13,000 per market-rate unit by 2020. Though the exact amount varies, 80-90% of these fees are dedicated to affordable housing preservation and construction.

**SUPPLY CHANNEL:** Our calculation to quantify the effect on the supply of market-rate housing starts with the assumption that the majority of Oakland's future new housing stock will be constructed in and around the downtown area, which is covered by the

highest impact fee. Using the average square footage of Oakland housing units—711 square feet in multi-family buildings and 1,280 in single-family units—we can convert the fees into a per square foot measure. Using these figures, which reached \$33.75 per square foot for multi-family units and \$21.88 in single-family units in 2018, we extrapolate over 20 years and apply the coefficient for square footage lost due to \$1 of impact fees for central cities, 1,202, found by Burge and Ihlanfeldt in their study of Florida cities.<sup>25</sup>

This calculation yields a reduction of 735,400 square feet of multi-family construction, or 1,034 units, and 477,500 square feet of single-family construction, or 373 units. Taken together, the impact fees will reduce residential construction in Oakland by 1,407 units over 20 years. Using our equation that converts a change in units constructed into a price, the North County sub-region will see a price increase of 0.76% due to the impact fees. This price movement causes 902 households to move into an unaffordable situation.

**ACCESS CHANNEL:** Given that approximately 85% of all fees collected will go back into affordable housing conservation and production, we are able to assess the increase in below-market-rate unit construction attributable to the impact fee via the access channel. Using permitting data back to 1999, Oakland has permitted an average of 771 units per year. Over 20 years, that level of permit activity would yield 15,416 total new units. This number coincides with a projected need of between 14,400 and 20,000 units that the city identified.

Past data shows that 75% of all permit activity was for market-rate units, meaning that we can project a total of 11,562 market-rate units over 20 years in absence of any fees. Data collected by the Metropolitan Transportation Commission shows that 86.4% (9,990 units) of those units would be in multi-family structures and the rest in single-family homes (1,572). By subtracting the number of units lost due to the new fees from these numbers, we can find a new projection for 20-year production.

Given the new impact fees, Oakland will see production of 10,154 market-rate units over the next 20 years. Each of these units will produce a fee that is set aside for affordable housing. Taking the average fee over 20 years for affordable housing, we calculate that over \$191 million will be produced. Assuming that 40% of each unit's total cost is covered by the city at an average cost of \$418,000, 1,145 below-market-rate units will be constructed—each housing one family that would otherwise fall into an unaffordable housing cost burden.

## 15. Affordable Housing Impact Fees in Hayward

### 58: New households that cannot live affordably in Alameda County

**POLICY:** In November 2017, the Hayward city council voted to expand its affordable housing impact fee to apply to developers of two or more units, a change from previous application to buildings with 20 or more units. Developers that choose not to build on-site below-market-rate units (10% for for-sale units, 7.5% for condominiums, and 6% for rental units) will be charged an impact fee of between \$15.00 and \$18.18 per square foot. This is a four-fold increase from the previous impact fee between \$3.63 and \$4.61 per square foot.

**SUPPLY CHANNEL:** Given that increased fees on development will strain the feasibility of each residential project, we first calculate the number of market-rate units that could be lost over 20 years. To arrive at this number, we rely on a 2006 analysis that isolates the effects of impact fees on the construction of multi-family housing in Florida cities.<sup>26</sup> That analysis found that for every \$1 in fees, there was a reduction in building of 3,770 square feet across cities listed as inner suburbs (we view Hayward as an inner suburb).

Using the projected 2% annual rise in impact fees, we find that Hayward will lose 582,000 square feet of development over 20 years. With an average apartment

size in Hayward of 818 square feet, we find that 711 units will never be built. This change results in a 0.56% price increase in the Bayside sub-region that will force 433 households into an unaffordable cost situation.

**ACCESS CHANNEL:** To calculate the number of units that will benefit from the impact fee, we analyze Hayward's historical rate of permitting market-rate units using the Regional Housing Needs Allocation. Since 1999—incorporating multiple building cycles—Hayward permitted an average of 209 market-rate units per year. Assuming past trends continue, we can extrapolate this number out to 20 years, yielding a future expectation for 4,181 units of housing (if no fees were implemented).

Subtracting the 711 market-rate units that are lost due to the fee results in an expectation for 3,470 units. At 818 square feet per average unit, the affordable housing impact fee will produce over \$62 million for the city over 20 years. We assume that these dollars will be used to fund at least 40% of future projects—with the remainder coming from federal, state, and other local subsidies. With below-market-rate units in Alameda County costing \$418,000 to build, an additional 375 below-market-rate units will be funded because of the fee.

## 16. Affordable Housing Impact Fees in Union City

### 229: New households that cannot live affordably in Alameda County

**POLICY:** In April 2017, the Union City council deliberated on a proposal for a new affordable housing impact fee on rental housing and revisions on requirements for existing market-rate housing. Originally, for-sale developers would either set aside 15% of all units as affordable or compensate with an in-lieu fee.<sup>27</sup> The new proposal offered to replace these options with a single fee of \$20 per square feet, which would rise to \$22 in the following year. Rental units would become subject to a fee of \$10 per square foot, rising to \$14 per square foot over two years, with future adjustments based on inflation. Previously, no affordable housing fee was attached to rental unit construction.

**SUPPLY CHANNEL:** To find the impact on supply, we focus our analysis on the construction of rental units only (between 2010 and 2015, the vast majority of residential building in Union City was multi-family). We use a similar methodology as employed previously for impact fees in Hayward; however, we choose a smaller amount of square footage lost per dollar of impact fee due to the higher average rents in Union City (\$2,366 per month) when compared to Hayward (\$1,982). The higher rental prices mean that developers can more easily absorb an additional fee,

as we assume that construction costs are similar across the two cities. In Union City, we estimate that each additional dollar of impact fee will reduce housing construction by 1,317 square feet per year.<sup>28</sup>

Given the estimated ramp up of fees over 20 years, we estimate that nearly 424,000 square feet of residential construction will be lost. This equates to 543 market-rate units lost, at an average of 781 square feet per unit. Without these units, prices in the South County sub-region will be 0.64% higher, moving 413 housing above the 30% cost-to-income affordability threshold.

**ACCESS CHANNEL:** According to data from the Association of Bay Area Governments, annual market-rate construction in Union City has averaged 150 units since 1999. Extrapolating this number over 20 years yields a projected rate of construction of 2,992 market-rate units. Subtracting units lost due to the affordable housing impact fee brings us to an estimate of 2,449 units built. With a unit averaging 781 square feet, Union City will generate over \$30 million over 20 years to build below-market-rate housing. If this funding is used for 40% of the financing needed to build a unit (at a price of \$418,000 to construct), we estimate that 184 units of below-market-rate housing will be built.

**Affordable housing impact fees are a fundamentally flawed source of housing funding as they add to the cost of construction.** If the fee is set too high, fewer units are constructed, a lower fee is generated, and overall affordability is negatively impacted. Impact fees are also static—they do not adjust for market conditions—so even a well-designed fee in today's market will put greater strain on real estate economics when the housing market becomes less favorable for builders.

## STRICTER REGULATIONS ON HOMESHARING

### 17. Blanket Ban on Homesharing in Oakland

**231:** New households that cannot live affordably in Alameda County

**POLICY:** Homesharing, and the platforms that enable it such as Airbnb, VRBO, and HomeAway, has become a controversial subject around the Bay Area as the housing affordability crisis has escalated. Like in many cities across the U.S., the Oakland City Council has considered taxes on short-term rentals, registering all short-term rentals, and other measures that are designed to keep homesharing from taking potential rental units off of the traditional market.<sup>29</sup> Other jurisdictions, such as Santa Monica, Berlin, and New York State, have passed an outright ban on the practice.

Although no similar proposal has been considered in the City of Oakland, we will analyze what the potential effects of a homesharing ban would look like, as it is the most restrictive potential outcome. As of November 2017, Oakland has 1,718 units listed on Airbnb, providing income for a number of Oakland residents.<sup>30</sup>

**SUPPLY CHANNEL:** Many supporters of a blanket ban on homesharing in Oakland believe it would have the effect of pushing entire home short-term rentals back onto the traditional long-term market. While it would have that effect in certain instances, many entire-home listings are only available for a weekend or short-period of time while the primary occupants are away.

In Oakland, 961 of its short-term rental listings on Airbnb are for entire homes. Of total listings in Oakland,

26% are listed for more than six months per year, according to data provider Airdna. Thus, we believe that 250 units act effectively as full-time short-term rentals that could move back into the traditional market with a blanket ban. Making these units available for long-term rental would decrease housing costs by 0.13% in the North County sub-region, allowing 194 households to afford to live in the region.

**INCOME CHANNEL:** A blanket ban on homesharing would negatively impact hosts who rely on the income produced by short-term rentals to pay for their own mortgages or rental payments. Using data collected by Inside Airbnb, we find that 1,236 short-term rental listings in Oakland are from single listing hosts. Assuming all single-listing hosts lose their entire revenue stream from homesharing—average annual income for a single short-term rental is \$7,932 according to Inside Airbnb—we estimate that nearly \$10 million in annual revenue will be lost by Oakland residents if a blanket ban were put in place.

Assuming that the 1,236 hosts that are losing income are randomly distributed among the population of Oakland, we find that 425 households would become housing-cost burdened without their income from homesharing.



## LIMITING DEVELOPMENT IN AVAILABLE SPACES

### 18. Failed Revitalization at Alameda Point (Measure B, 2010)

**1,620:** New households that cannot live affordably in Alameda County

**POLICY:** The 1,400-acre Alameda Point Naval Station ceased operations in 1997, however much of the land has remained vacant as the city has been unable to come to terms with a master developer until recently.

In 2010, city voters had an opportunity to approve a development at the Alameda Point Naval Station via Measure B, which would have allowed for multi-family housing construction. Voters overwhelmingly rejected the measure, which would have created up to 4,345 new housing units. This level of development would have significantly expanded the housing supply in Alameda.<sup>31</sup>

In 2015, the city council did approve a plan to build 1,425 housing units and more than 5.5 million square feet of commercial space. While the plan has set in motion the long-idled development of Alameda Point, its housing production is minimal in comparison to what had been envisioned in 2010.

**SUPPLY CHANNEL:** If Measure B had passed, the city would be planning for an additional 2,920 units. The 2010 development plans for the area expected market-rate unit production at a rate of 85% of total construction (3,693 units), while the planned project is near 75% (1,060 units). The inability to build these 2,633 units has caused prices in the Bayside sub-region to be 2.08% higher. This price increase moves 1,324 households above the affordability threshold.

**ACCESS CHANNEL:** An estimated 25% of units (or 356 units) are being developed as below-market-rate units at Alameda Point (as estimated from initial planning documentation), compared to the 15% envisioned under Measure B (or 652 units). This means that 296 below-market-rate units will go un-built in Alameda. Each of these 296 units would have moved one household across the affordability threshold.



Existing conditions at the former Alameda Point Naval Station

Source: Calthorpe Associates



## CHANGES TO THE FEDERAL TAX CODE

### 19. Low Income Housing Tax Credits have Reduced Value Under New Federal Tax Code

**5,559:** New households that cannot live affordably in Alameda County

**POLICY:** The overhaul to the tax code for 2018 retained the affordable housing financing programs that had been on the chopping block, including the Low-Income Housing Tax Credit (“LIHTC”) and Private Activity Bonds. However, federal funding for below-market-rate housing construction, much of which is provided through tax credits, is projected to fall significantly given the decrease in the corporate tax rate from 35% to 21%. With the lower tax rate, investors will have a reduced need or incentive to purchase the tax credits that are allocated to affordable housing developers—thus lowering the overall amount of tax credit equity available for below-market-rate housing construction.

Already, the value of LIHTC equity has dipped as investors priced-in the change in tax code. During 2016, LIHTC equity was priced at approximately \$1.05 per credit on average (the price above \$1.00 is attributable to high demand for LIHTC investments given banks’ Community Reinvestment Act requirements). In December 2017, the price for \$1.00 of LIHTC credit fell to \$0.89, a reduction of 15%.<sup>32</sup> In California, LIHTC financed the construction of 24,317 below-market-rate units statewide in 2016 as some projects can cover up to 70% of costs with tax credit equity. With the change in the program, the state’s LIHTC allocation will generate fewer funds.

**ACCESS CHANNEL:** We calculate that of the 24,317 below-market units financed by LIHTC in California in 2016, Alameda County’s share was approximately 1,853 units. We used the U.S. Census Building Permits Survey to find Alameda County’s total number of units permitted in 2017 (8,636) and compared it to the total number of units permitted in the state (113,320). We found that Alameda County’s share of permit activity was 7.62% of the state’s total, and we applied that same share to the state’s usage of LIHTC.

With the reduction in the equity value of LIHTC projected at 15%, we estimate that a similar percentage of LIHTC-financed units will not be built in Alameda County each year. Instead of constructing an average of 1,853 below-market-rate units annually with LIHTC funding, Alameda County will instead be able to build 1,575 affordable units per year. Extrapolating this loss of 278 units over 20 years yields a reduction in the below-market-rate housing stock of 5,559 units. Because each one of these units would have moved a household into an affordable housing cost burden, we conclude that the 2018 tax overhaul will negatively impact affordability for 5,559 households in Alameda County over 20 years.

## RENT CONTROL

### 20. Countywide Strict Rent Regulation

**10,353:** New households that cannot live affordably in Alameda County

**POLICY:** According to the California Department of Consumer Affairs, 15 cities in California currently have some form of rent control. In Alameda County, Berkeley, Oakland, Hayward, and Fremont have varying degrees of rent control ordinances. At the stricter end of the spectrum, Berkeley limits annual rent increases for existing tenants with leases in multi-family structures. Providing a looser example of rent control, the City of Fremont has a residential rent increase dispute resolution ordinance, which provides tenants and owners with mediation to resolve rent increase disputes.

With rental costs growing across the Bay Area, more cities have begun exploring rent regulations as a way to keep existing residents in their homes. This has happened even though nearly all economists agree that rent controls limit the amount of new residential construction; lead to less investment in existing units; distort housing markets as tenants are likely to remain in rent-controlled for longer periods of time; and benefit wealthier households that are able to secure rent-controlled properties.<sup>33</sup>

In November 2016, nine rent regulation measures were on the ballot in California. In Alameda County, the City of Alameda voted down a measure that would limit rent increases, but passed a mediation program for large rent increases. In Oakland, voters passed an extension of existing rent control laws to cover buildings occupied before 1996. More recently, the Fremont city council decided not to pursue rent control in mid-2017.

At the state level, a movement has grown to repeal the 1995 Costa-Hawkins Rental Housing Act, which says rent control cannot apply to certain types of housing, including all housing built after 1995, single-family homes, condos, and duplexes. While potential legislation to repeal Costa-Hawkins was rejected by state legislators in early 2018, signatures are being collected to place a measure on the November 2018 ballot. If Costa-Hawkins is repealed, cities would have significantly more freedom to create additional rent regulations in the future.

#### SUB-REGIONAL IMPACTS:

By adding an artificial cap on the amount that landlords can charge in rent, the market is likely to deliver a lower supply of rental housing. A recent study of rent control in San Francisco by economists at Stanford University confirms this conclusion.<sup>34</sup> Their study used San Francisco's 1994 ballot initiative to test the effects of rent regulation in the city, which limited rental increases within a single tenancy but allowed landlords to reset to market-rate rents for each new tenant.

Researchers found that beneficiaries of rent control were between 10% and 20% more likely to remain in their 1994 address versus a control group whose rent was not regulated. While this shows some benefit to existing tenants, the research also showed a 25% reduction in residents living in rent-controlled apartments—meaning that landlords had converted units into condos, moved into them as owners, or removed them from the market

altogether. With this reduction in the rental supply, the research finds that rent control led to a city-wide rent increase of 5.1%, effectively shifting the cost burden to future renters and widening income inequality in the city in the long term.

To model the impact of stricter rent control across Alameda County, we first assume that any added layers of rent control place a cap on upward rental price movements for all units—existing and constructed in the future. While the San Francisco study did analyze overall market price changes for housing, it did not analyze the change in unit construction. To analyze this effect, we rely on a study from Ontario, Canada, where strict rent control went into effect in 1975.<sup>35</sup> The study found that in the 12 years after rent control was implemented, housing starts decreased by 46.06% in comparison to the years prior. We use this level of construction reduction to model a rent control ordinance that would cover all of Alameda County.

#### **North County – 3,300 households lose affordability**

To quantify the effects of rent control in each of the defined sub-regions, we first extrapolate the amount of market-rate housing that would have been built over 20 years. We do this by taking past data from the Regional Housing Needs Allocation for each jurisdiction. Assuming that average annual rates of permitting since 1999 can be extended into the future, we estimate that North County cities would produce 11,109 market-rate units. If 46.06% of these units go unbuilt due to rent control, 5,117 units would be lost. This shock to the market would cause prices to rise by 2.75% over 20 years and push 3,300 households in the North County sub-region across the affordability threshold.

#### **Bayside County – 1,567 households lose affordability**

We show that Bayside County is projected to build 5,681 market-rate units over the next 20 years. Using Ontario's experience as a proxy, 2,617 market-rate units would go unbuilt with prevalent rent controls. With construction down due to rent regulations, Bayside County will see prices rise by 2.07%, resulting in 1,567 households moving above the affordability threshold.

#### **South County – 1,800 households lose affordability**

In South County, Regional Housing Needs Allocation data shows that 5,811 market-rate units can be built over 20 years. Under a strict rent control system, our model projects that 2,677 market-rate units would never see construction. We project that this will push prices up by 3.16% in the South County sub-region, and 1,800 households will no longer be able to afford to live in Alameda County.

#### **East County – 3,686 households lose affordability**

East County has seen significant growth in housing and population since 1999. If those trends continue into the future, we project that 11,106 market-rate units would be built over 20 years in absence of rent control. If rent controls are put in place across Alameda County, East County would lose 5,115 units. The biggest price impact would be felt in the East County sub-region, where building has recently accelerated and any slow down in construction will significantly alter the market. With a price impact of 8.34%, 3,686 East County households will find themselves in an unaffordable cost-to-income scenario.

# Technical Appendix

A key feature of this analysis is the conversion of housing price shifts to a change in the number of households able to affordably live in Alameda County.

To calculate this change, we utilized the publicly-available 2016 sample of the American Community Survey, focusing on households in Alameda County that paid for housing in that year. To identify households burdened with unaffordable housing, we constructed a measure of monthly housing costs ( $hc$ ), which equaled gross rent for renters and owner costs for homeowners, and used this variable to generate a new measure ( $h$ ) of the burden of housing costs as a proportion of household income ( $m$ ):

$$h = \frac{hc}{m}$$

Households that do not pay for housing (e.g., outright owners, renters with non-cash rent, homeless) and households with negative or unavailable income were dropped. This sample was also truncated at  $h = 1$ .

Using the definition of housing affordability as housing costs that are 30% or less of income, we found that 40.2% of households in the remaining sample, representing 141,420 households, have unaffordable housing ( $Q_{NA} = \# \text{ households where } h > 0.3$ ).

To quantify the impacts of the various policies on the affordability of housing on Alameda County households, we took the estimated proportion change in housing prices due to each policy ( $p$ ) and adjusted housing costs for all households in the sample to calculate a post-policy housing cost-to-income ratio,  $h'$ .

$$h' = \frac{hc(1 + p)}{m}$$

Using this new cost-to-income ratio, we found the number of households cost burdened after the policy ( $Q'_{NA} = \# \text{ households where } h' > 0.3$ ) and calculated the number of households acquiring or losing affordable housing as a result of the policy:  $\Delta = Q_{NA} - Q'_{NA}$ .

Some policies include an explicit provision for a number of below-market-rate housing units. Assuming that families in need of affordable housing all sort into these below-market-rate units, we determine the number of households acquiring or losing affordable housing through this quantity channel.

A select number of policies have implications not only for the price of housing countywide, but also the income for households that are affected by said policies (e.g. allowing rentals via accessory dwelling units). In these cases, the housing cost-to-income ratio was recalculated by adjusting household income. To this end, we randomly assigned the average monthly income from an income-generating policy ( $m_p$ ) to the proportion of households expected to earn income from that policy and recalculated the housing cost-to-income ratio:

$$\hat{h} = \frac{hc}{m + m_p}$$

Using  $\hat{h}$  we can determine how many households had unaffordable housing after the income-generating policy ( $(Q^{\wedge}_{NA}) = \# \text{ households where } \hat{h} > 0.3$ ). Since this exercise involved random assignment of income, we repeated it 10,000 times and took the average of the results to generate an estimate of the post-policy number of households with unaffordable housing. By comparing the base number of households with unaffordable housing to the post-policy number, we forecasted the number of households acquiring or losing affordable housing ( $\Delta = Q_{NA} - Q^{\wedge}_{NA}$ ).



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