

HOW MUCH HOUSING DO WE NEED?

Sonoma County's Housing Shortfall and Future Need

MAY 2021



INTRODUCTION

Sonoma County's housing affordability has been a barrier for thousands of local households who have struggled to make rent or purchase a home over the last two decades and, especially, in the last ten years.

In this report, we estimate that Sonoma County has a twenty-year housing deficit of roughly 38,000 homes that should have been built to accommodate population growth, but were not. The large majority of the deficit in homes we see today, 73 percent, has disproportionately impacted lower-income households who have been unable to secure affordable housing.

The average annual rate of production in the last 20 years is considerably lower than prior decades and the last decade post Great Recession has been the worst decade for homebuilding in modern Sonoma County history. Sonoma County built only a fifth the average annual rate of homes in the 2010s compared to the 1980s. As a consequence of the lack of adequate housing supply, we've seen rental vacancy rates plummet, median rents skyrocket, and overcrowding increase year after year.

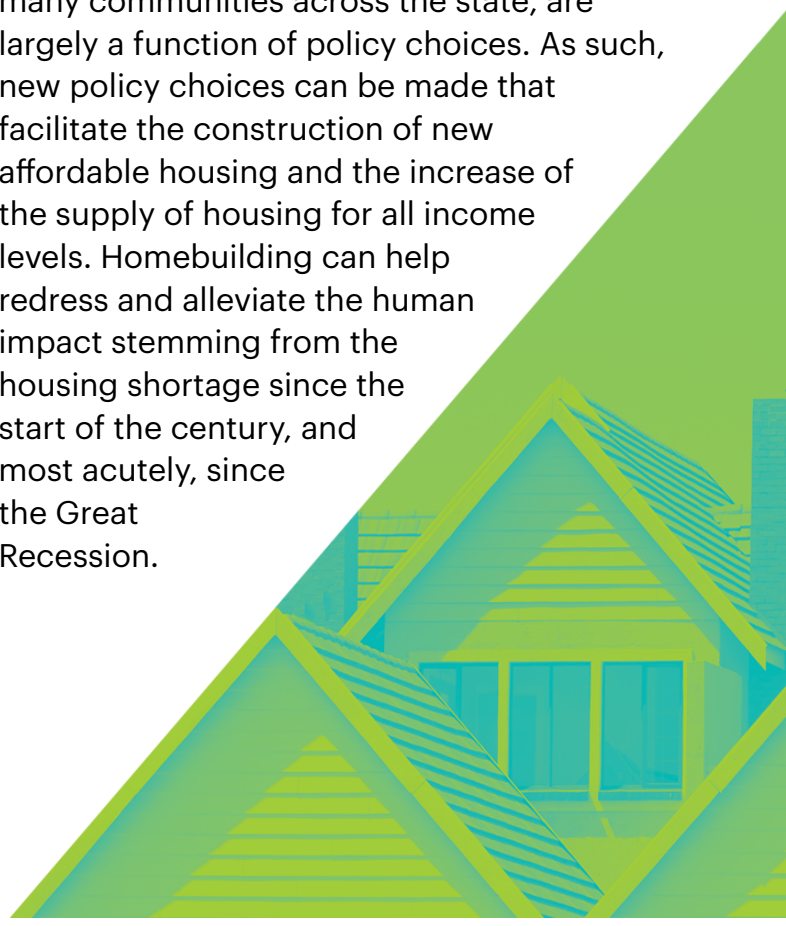
Based on model estimates, nearly 20,000 homes will be needed by 2030 based on future growth projections. Combined with the accumulated housing deficit, Sonoma County needs more than 58,000 homes to meet both the accrued deficit and future need.

How Much Housing Do We Need?

Key Findings

- Sonoma County has accrued a housing shortfall of more than 38,000 homes over the last two decades.
- About 73 percent of the housing deficit has been borne by lower income households due to the insufficient supply of affordable homes.
- Projecting to 2030, Sonoma County will need nearly 20,000 more homes.
- In total, Sonoma County has a housing deficit combined with future need of roughly 58,000 homes.

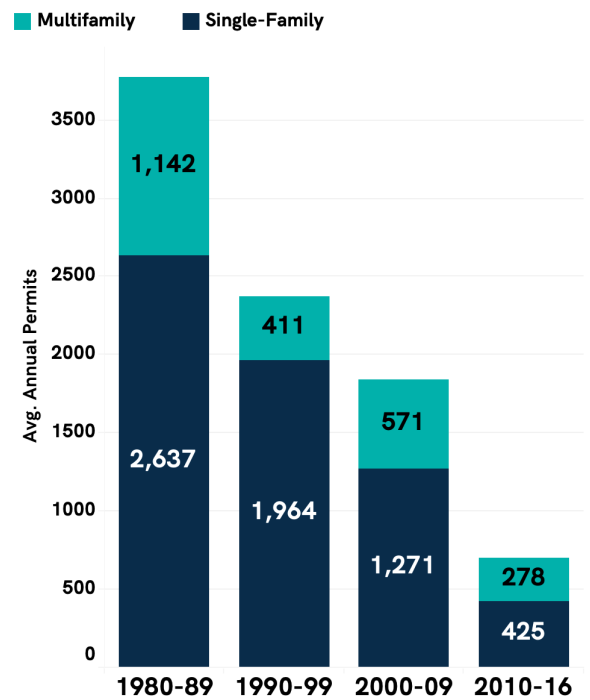
The present housing challenges, shared by many communities across the state, are largely a function of policy choices. As such, new policy choices can be made that facilitate the construction of new affordable housing and the increase of the supply of housing for all income levels. Homebuilding can help redress and alleviate the human impact stemming from the housing shortage since the start of the century, and most acutely, since the Great Recession.



Housing Production

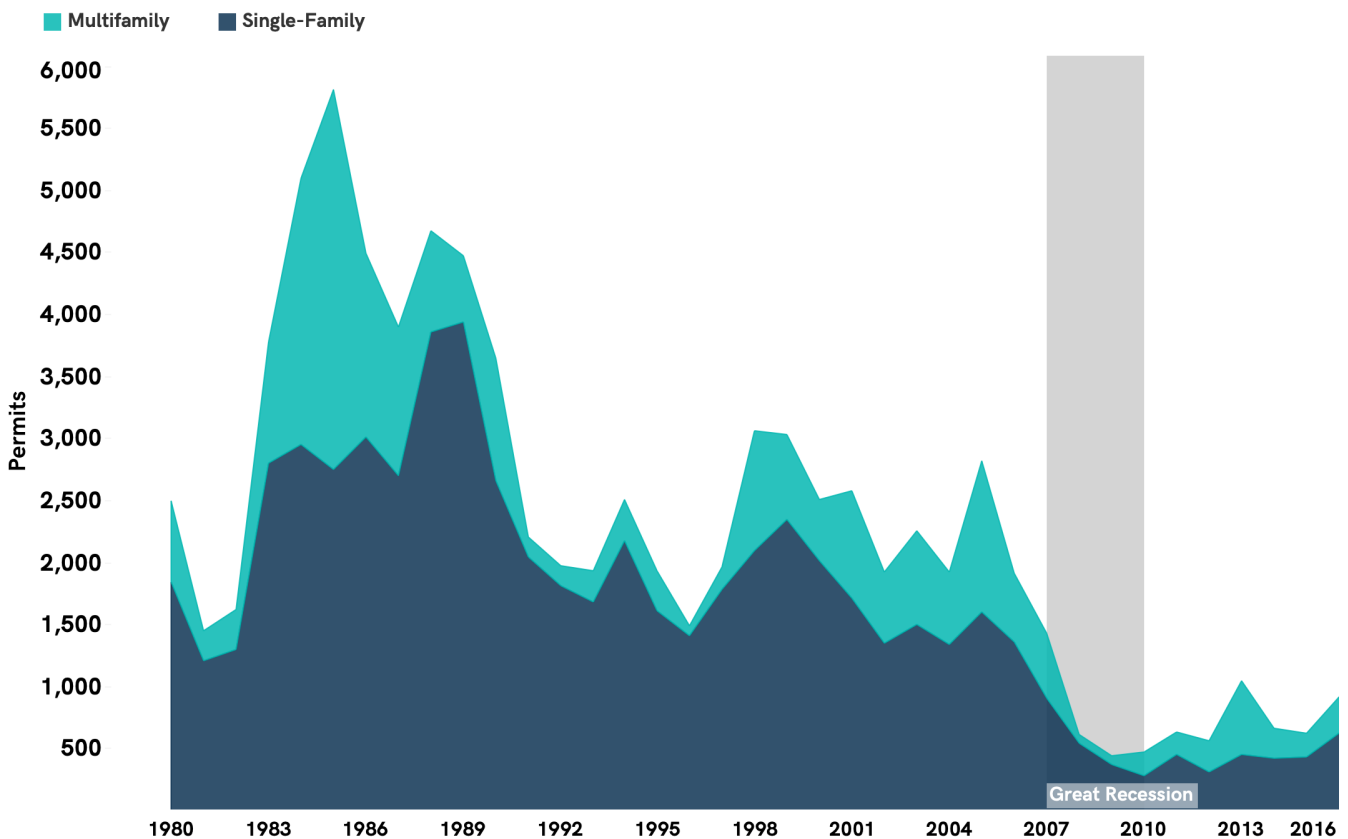
Homebuilding in Sonoma County spanning forty years has dramatically changed, both in terms of quantity and type. As Figure 1 shows, homebuilding was at its peak in the middle of the 1980's with nearly 6,000 homes built in 1985 — more than half of which were multifamily homes. Despite the next two decades having comparatively lower building rates, homebuilding continued above or near 2,000 units in the '90s and '00s. The Great Recession, however, was a crucial point that significantly impacted housing production. Average annual homebuilding in the 2010s was less than half what it once was only a decade prior, as Figure 2 shows, and yet the 2000s average annual permit rate was half that of the 1980s.

Figure 2: Building Permits by Decade



Source: U.S. Housing and Urban Development (HUD), Generation Housing

Figure 1: Building Permits for Sonoma County Since 1980



Source: U.S. Housing and Urban Development (HUD), Generation Housing

How Much Housing Do We Need?

Median Rents and Vacancy Rates

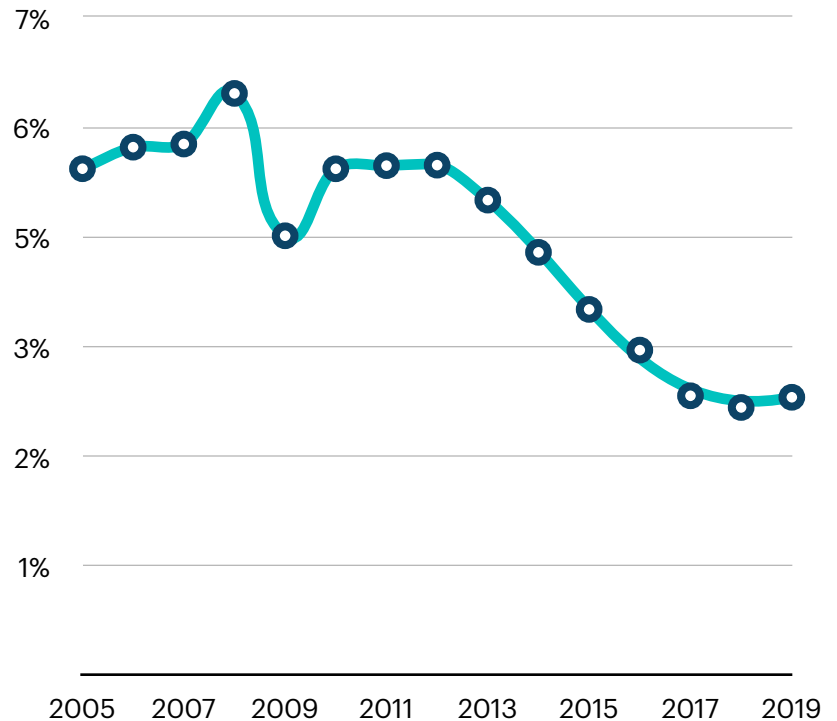
Since the end of the Great Recession, a similar pattern emerged as rental vacancy rates mirrored the downturn in housing production.

In the mid 2000s, Sonoma County had a rental vacancy rate hovering between 5 to 6 percent. The trend shifted downward soon after the Great Recession as homebuilding rates plummeted. In the last several years, the rate has been closer to 2-3 percent, about half what it once was about 10 years ago (Figure 3).

A tight and unhealthy rental market means fewer homes. Without a commensurate response in new construction, which there hasn't been, rent increases are often the most common result. A healthy vacancy rate is closer to 7-8 percent, which requires significantly more home building than current rates.

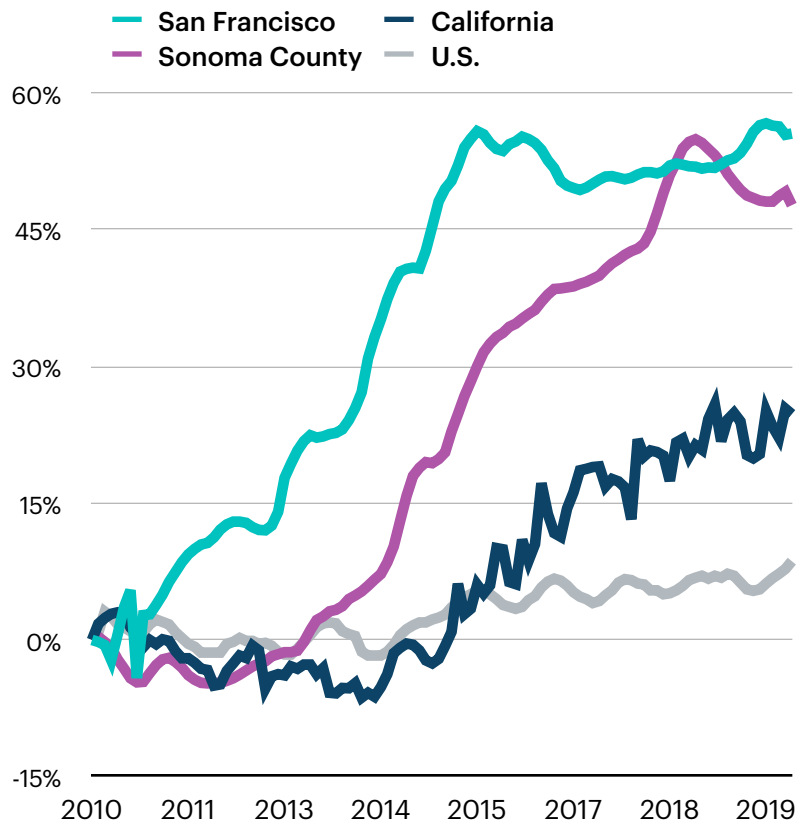
As construction and vacancy rates have tumbled in the last decade, median rents have skyrocketed during that time. The percentage growth in median rents since 2010 has increased by almost fifty percent in Sonoma County over the last decade, tracking close to that of San Francisco's rate, and well above the rest of California and the nation.

Figure 3: Rental Vacancy Rate



Source: American Community Survey, Generation Housing

Figure 4: Percentage Growth in Median Rents



Source: Author's analysis of Zillow data

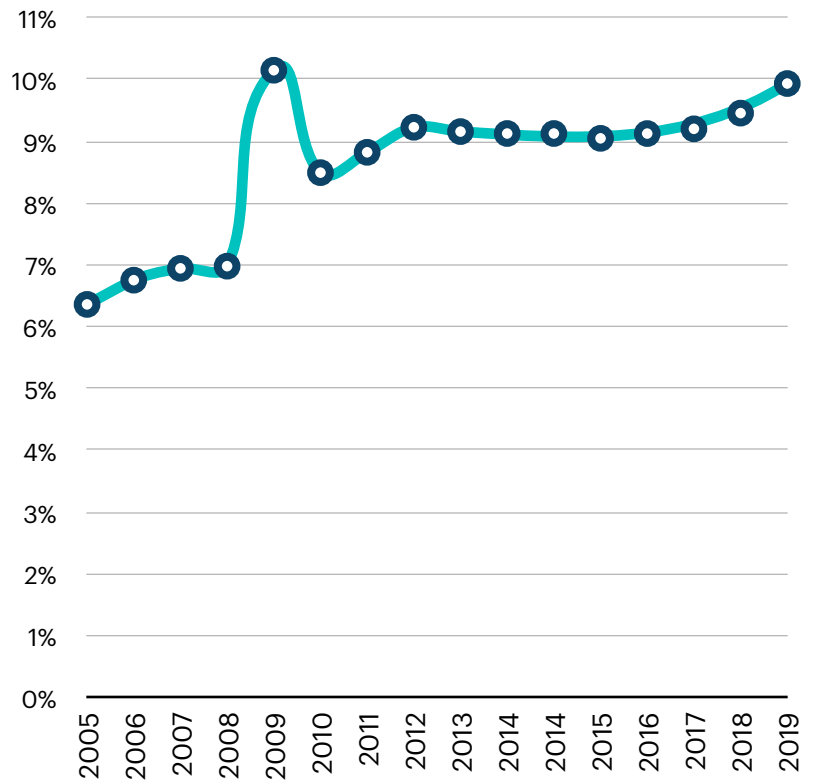
Overcrowding

As construction has slowed, the share of homes available on the market for rent have been slashed in half, and as rents have soared, the share of local households in crowded homes has steadily increased. The definition of a household is based on the U.S. Census, which consists of all the people who occupy a housing unit. Figure 5 shows the share of *crowded households*, which the California Department of Public Health defines as more than 1 person per room. Over the last 15 years, Sonoma County renters have seen an increase in the share of crowded households from about 6 percent in 2005 to nearly 10 percent in 2019.

According to the Urban Institute, California has the unfortunate distinction of having the largest share of renter households living in crowded conditions.¹ At 13.3 percent, that's more 5 times the rate than the lowest ranking state, Ohio, which has 2.4 percent of households living in crowded conditions. Across California, homebuilding has lagged behind the rest of the country. Improving housing and alleviating crowding is imperative, as research shows that children and adolescents growing up in crowded households are at greater risk of failing to graduate high school and achieve lower educational attainment by age 25.²

1. Claudia D Salori, "America's Housing is Getting Crowded: How Will That. Affect Children," Urban Institute, April 24, 2019.
2. Leonard M Lapoo and Andrew S London, "Household Crowding During Childhood and Long-Term Educational Outcomes," Demography, 2016

Figure 5: Percent of Crowded Renter Households Since 2005 in Sonoma County



Source: American Community Survey, Generation Housing

HOUSING SHORTFALL

Over the last twenty years, housing affordability has worsened as housing costs have increasingly consumed larger and larger shares of households' incomes. As noted earlier, housing production rates have attenuated over the last twenty years with the sharpest decline happening in the last ten. We are interested in determining the amount of housing we should have built to keep pace with demand but did not build during the last twenty years.

The model used includes the following steps with our findings reporting in Table 1. A full methodology is provided in the appendix.

- The model leverages average annual population growth rates from 2000 to 2018, which enables an estimate for how many households Sonoma County should have formed compared to the number of current households by income level.
- Projected growth includes in its inputs job growth, city boundaries, environmental assets, among other relevant factors that impact housing.

- Sonoma County was projected to increase to roughly 235,000 households by 2018, which would have netted 64,000 new households. In actuality, Sonoma County had about 189,000 households in 2018, or an increase of only 17,000.
- The number of homes built during this period are summarized, both market-rate (21,495) and deed-restricted affordable homes (4,167) and adjusted by discounting the total by the current occupancy rate (91%) as not all homes were owner or renter occupied after completion.
- The net difference between the number of homes constructed relative to the growth projections for this period result in a housing shortfall estimate of 38,360.

The largest contributing factor limiting household growth was the absence of sufficient homes to accommodate new household formation. The deficit reflects household formation that did not occur. This may include: young people who stayed at home, seniors who moved in with their children, families who were forced into overcrowded conditions, residents who were displaced, homelessness, or in-migration that was foregone.

Table 1: Housing Shortfall, 2000 to 2018

	2000 Households	Projected Households in 2018	Projected Net Growth	Actual Households in 2018	Units Produced	Unit Shortfall
Below Area Median Income	85,656	118,395	32,125	94,650	4,167	27,958
Above Area Median Income	86,270	117,553	31,897	94,671	21,495	10,402
Total	171,926	235,948	64,022	189,321	25,662	38,360

Author's calculations of Integrated Public Microdata Series (IPUMS), U.S. Housing and Urban Development.

Accrued Deficit

The gap in new household formation, more than 38,000, can largely be attributed to the prohibitive housing costs stemming from a lack of sufficient housing inventory affordable to local households.

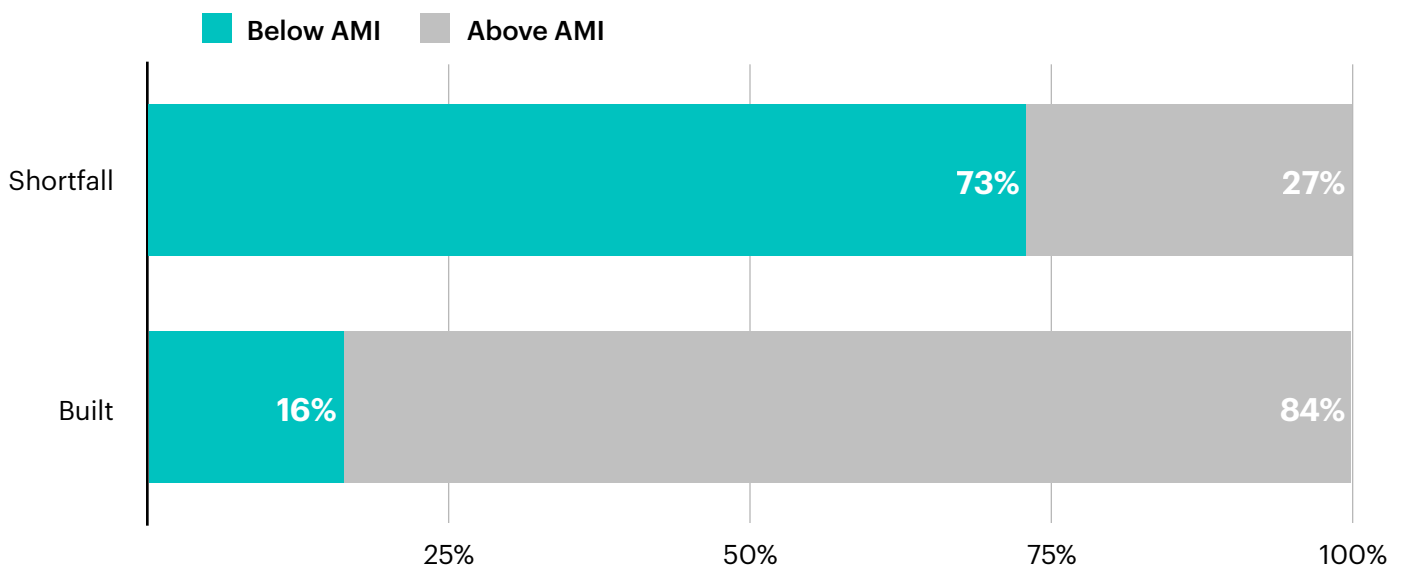
Figure 6 shows the percentage of the total unit deficit along with units built by income level since 2000. **We find that 73% of the 38,360 unit shortfall originates from a shortage of affordable homes not built during this period for lower income households.**

During the last two decades, Sonoma County built 25,662 housing units, of which 4,167 were deed-restricted affordable homes available to lower incomes households, or about 16 percent of the total homes produced.

Though market-rate housing, which generally serves households above the area median income, was produced at about 5 times the rate of affordable housing, supply did not keep up with demand as about 10,402 more homes were required to fill projected need, or about 27 percent of the total shortfall.

The loss of public funds available through California's redevelopment agencies occurred during this time period, which played a role in the ability of localities to fund new affordable housing. Further financial support for affordable housing has been needed from the State and Federal government. Additionally, local regulatory policies have contributed to the challenge with a greater need for zoning reform and permit streamlining to accommodate more homebuilding.

Figure 6: Housing Shortfall, 2000 to 2018



Author's calculations of Integrated Public Microdata Series (IPUMS), U.S. Housing and Urban Development.

FUTURE NEED

Population projections and annual growth rates from the California Department of Finance are used to approximate the amount of housing Sonoma County will need over the next decade. The growth rate used is about half that of the last twenty years, as population growth is expected to slowly decrease over the next few decades.

Household distribution and area median income of 2018 are used and projected forward to 2030 using annual average growth rates. Once the data is adjusted to account for the occupancy rate of homes, the results approximate that Sonoma County will need almost 20,000 homes by 2030.

When the two figures are combined, both the existing housing shortfall — the 38,000 units that Sonoma County should've built over the last two decades but weren't

realized — with the future projected need by 2030 of nearly 20,000 homes, **Sonoma County will need to build about 58,000 new homes.**

The future need estimate largely tracks with the Regional Housing Needs Allocation (RHNA) sixth cycle allocation for Sonoma County when measured on an average annual basis. RHNA is the state's baseline zoning capacity for housing, allocated to cities and counties. Though on different time horizons (model estimates: 2018-2030 vs. RHNA: 2023-2031), both the model's estimate and the sixth cycle RHNA figures average an annual of 1,700 to 1,800 new homes. The key difference, however, is that RHNA does not fully account for prior cycle underproduction, which in the model's findings constitute the largest share of the total housing need. Importantly, RHNA should be treated as a floor or minimum, rather than a goal or a ceiling, so that cities and the county may address both future needs and the chronic underproduction of the last twenty years.

Table 2: Housing Target for 2030

	2018 Households	Forecast for 2030	Homes Needed to Meet Growth	Combined Target
Below Area Median Income	94,671	104,147	10,352	38,360
Above Area Median Income	94,650	104,170	9,499	19,901
Total	189,321	208,317	19,851	58,261

Author's calculations of Integrated Public Microdata Series (IPUMS), U.S. Housing and Urban Development.

CAPACITY AND CONSTRAINTS

In this section, the potential capacity and constraints are examined as they may modulate the ability of local jurisdictions to achieve their respective housing targets.

The general plan build out (GPBO) is a capacity estimate based on land and infrastructure supply and permitted development types. Using the Sonoma County Transportation Authority's (SCTA) most recent estimates for GPBO, which were assembled using data based on each city's general plan, housing elements, and specific/area plans, they find that nearly 52,000 homes could be accommodated in potential future growth given existing plans.

Importantly, the cities and county are currently undergoing updates to their general plans and housing elements. As we approach the sixth RHNA cycle, these documents will be updated to reflect new housing goals from the State. As such, one may reasonably anticipate that the updated planning documents that must accommodate higher housing goals than prior years will likely increase the amount of GPBO, which could reach or surpass the combined housing target identified in this report.

The key factor in using these figures is that water, sewage, and other city and urban services are already accounted and planned for allowing us to confidently say that the combined housing shortfall and future need could be accommodated given the latest GPBO estimates along with marginal increases from the 6th RHNA cycle updates.

Key Findings

- General Plan Buildout from the cities, towns, and the county together can accommodate 51,890 in potential growth with additional updates forthcoming that will likely increase that potential capacity.
- Neighborhoods with a larger share of higher density homes and homes that are located in priority development areas (PDAs) show a significantly lower rate of water consumption.
- Plan Bay Area 2050 Blueprint estimates a region-wide 8 percent decline by 2050 relative to 2017 in water consumption based on retrofit strategies to our existing residential building stock.

The GPBO estimates function within the existing land use constraints requiring new development to be within urban growth boundaries and urban service areas.

In particular, we emphasize that density and multifamily housing will be a crucial component of lowering water consumption, which is of particular importance given the threat of present and future drought. As SCTA found in their recent analysis of the housing pipeline and capacity in Sonoma County, residential water consumption is lower in areas with higher densities and priority development areas. A more climate-friendly future rests on building at greater densities.

APPENDIX: NOTES AND METHODOLOGY

Housing Shortfall

Data Sources:

- Decennial Census for 2000 (5%) and 5-year Sample for the American Community Survey for 2018 via Integrated Public Use Microdata Series (IPUMS)
- Department of Housing and Urban Development's Low-Income Housing Tax Credits Database
- Department of Housing and Urban Development's Building Permit Database

We calculate the household distribution and median household income from the 2000 to benchmark the share of below and moderate income households for that year in Sonoma County using the IPUMS dataset. Households were then forecast to 2018 by using population growth rates from John D. Landis and Michael Reilly at the Institute of Urban and Regional Development at UC Berkeley. We use an average annual growth rate of 1.68% from 2000 to 2018 for Sonoma County, which Landis and Reilly derive from the California Department of Finance.

Housing production was tabulated using HUD's LIHTC and building permit databases. We correct for vacancies in housing by adjusting our estimates using current occupancy rates of 91%. The housing deficit was calculated by measuring the difference between the forecast number of households over that time period adjusted for the number of homes built with the remainder being the shortage in homes that were not produced.

The reason we benchmark at 2018 is due to data availability from HUD, which has available records on housing production through 2018.

Future Need

We use a similar approach for future projections to 2030 as the housing shortfall. The growth rates used for the current decade, however, were about half that of the two prior decades as the Department of Finance has projected slower growth. Instead, we use the state's projected population of 0.8 percent annual growth rates, as noted in the Public Policy Institute of California's report on population growth. We apply these growth rates to the 2018 household distribution with households split by area median income for that year.

We make similar occupancy rate adjustments to estimate the amount of housing units need to supply these households.

Citations:

- John D. Landis and Michael Reilly, "How Will We Grow: Baseline Projections of the Growth of California's Urban Footprint through the Year 2100," 2003, UC Berkeley.
- Public Policy Institute of California, "California's Future: Population," 2018, <https://www.ppic.org/wp-content/uploads/r-118hj2r.pdf>.
- "General Plan Buildout," Sonoma County Transportation Authority, Planning Advisory Committee, August 20, 2020.
- "Analyzing Housing Capacity in Sonoma County," Sonoma County Transportation Authority, August 16, 2018.
- Plan Bay Area 2050, <https://www.planbayarea.org>

Data Citation:

Steven Ruggles, Sarah Flood, Ronald Goeken, Josiah Grover, Erin Meyer, Jose Pacas and Matthew Sobek. IPUMS USA: Version 10.0 [2000 Decennial 5% and 2018 ACS 5%]. Minneapolis, MN: IPUMS, 2020. <https://doi.org/10.18128/D010.V10.0>

About Generation Housing:

Generation Housing is a nonprofit housing advocacy organization based in Sonoma County whose mission it is to increase the supply, diversity, and affordability of housing in Sonoma County.

About the Author

Jesús Guzmán is the Policy and Advocacy Director for Generation Housing. His past experience includes policy and research analysis with PolicyLink. He is a graduate of the Goldman School of Public Policy at UC Berkeley where he specialized in housing policy and quantitative analysis.

Acknowledgments

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