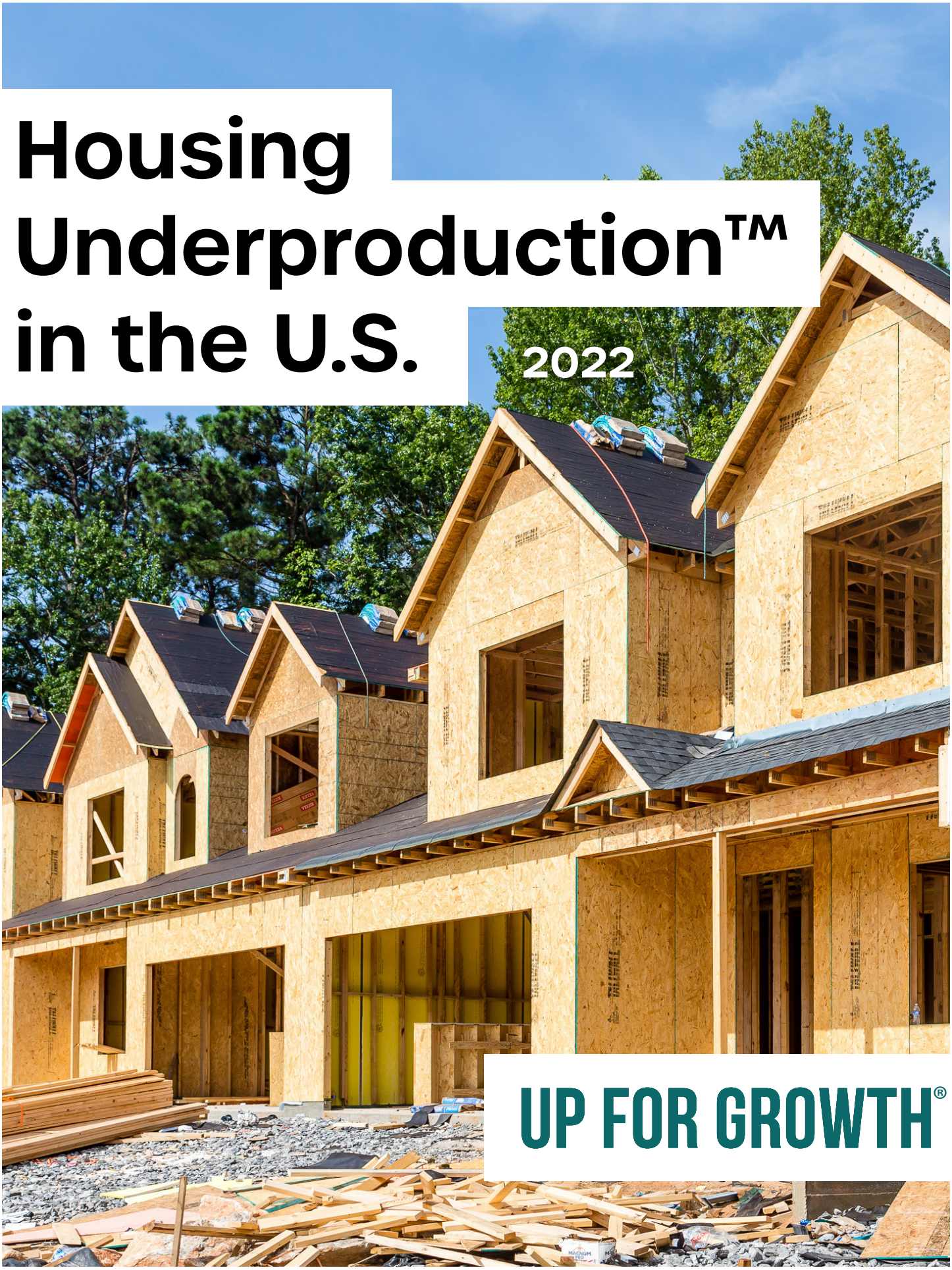
Housing Underproduction™ in the U.S.

2022



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Executive Summary

America is experiencing a housing crisis. As people migrate in search of jobs, education, and economic opportunities, the demand for housing in our most economically productive regions far exceeds the production of new homes. With 3.8 million homes short of meeting housing needs, double the number from 2012, the nation is in an extreme state of **Housing Underproduction™**.

Four years ago, the nation's housing affordability problem appeared to be concentrated along the coasts and in the Southwest. As this report shows, the crisis has deepened and is more widespread, affecting urban, suburban, and rural areas and profoundly impacting residents in nearly every state. Forty-seven states and Washington, DC saw the underproduction of homes rise, and six states that did not have underproduction in 2012 now do. The extent of underproduction varies from state to state: California has the largest deficit of homes at 980,000, while Mississippi is only short 1,000. Only Vermont saw an improvement. From 2012 to 2019, the housing deficit became more severe in 230 metropolitan areas, and only 25 regions saw their housing deficit shrink.

National Housing Underproduction

3.79 million units 2019

1.65 million units 2012

Metro Areas Experiencing Underproduction

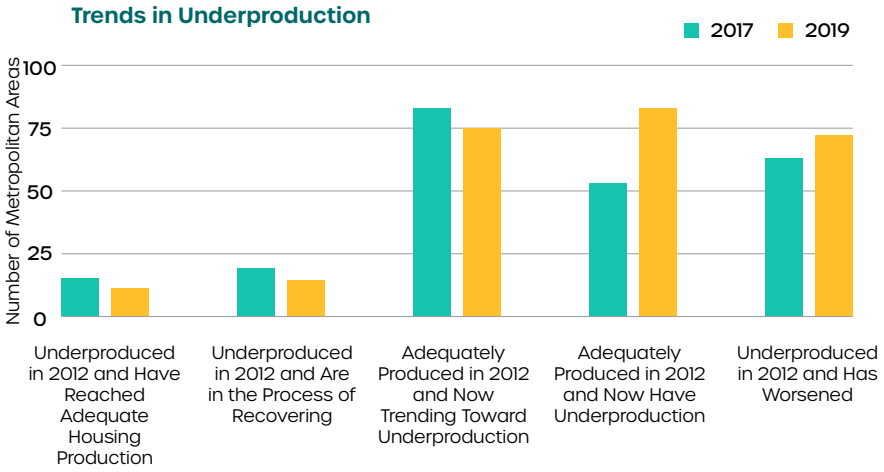
169 2019

100 2012

230 metro areas experienced increased underproduction from 2012 to 2019

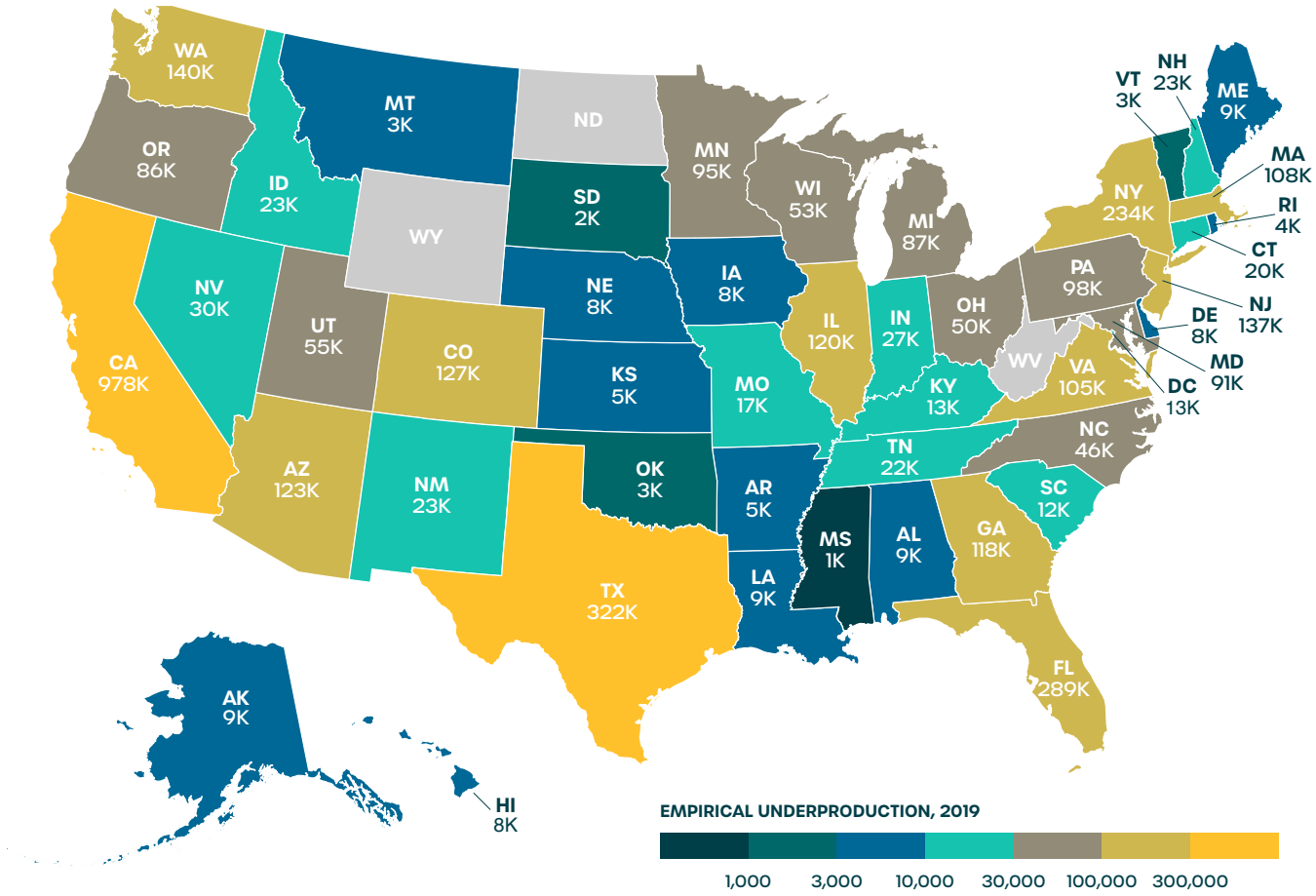
Drivers and Trends in Underproduction

While most locations experiencing underproduction in 2012 are still experiencing it, the drivers of the shortage are often unique to the location. For example, in Detroit, underproduction is driven by uninhabitable units, while in Sacramento, a lack of housing is driving the shortage. In Washington DC, underproduction is fueled by a lack of household formation.



Between the years 2012 and 2019, we observed the following trends:

- 72 markets that had underproduction in 2012 have worsened (23.3% of total)
- 75 markets that adequately produced in 2012 are now trending toward underproduction (24.3%)
- 14 markets that had underproduction in 2012 are in the process of recovering (4.5%)
- 83 markets that adequately produced in 2012 now have underproduction (26.9%)
- 11 markets that had underproduction in 2012 have reached adequate housing production (3.6%)
- 54 markets that adequately produced in 2012 have continued to meet or exceed housing needs through 2019 (17.5%)



In October 2021, nearly one-half (49%) of Americans said the availability and affordability of housing was a significant problem in their local community, up 10 percentage points from 2018 (Schaeffer, 2022). In a ranking of community concerns, housing affordability outpolled drug addiction, the economic and health effects of COVID-19, and crime (Schaeffer, 2022). Indeed, Americans are paying historically high rents and homeownership is increasingly out of reach. When working individuals and families pay a higher percentage of their income for housing, they are more vulnerable to housing instability or houselessness. For many people, limited housing affordability means traveling further to access jobs, education, and services. The additional time spent traveling means not only a decreased quality of life for residents, but also increased stress on our environment in the form of air pollution and congestion on highways, roads, and streets.

In cities and towns across the country, the prime developable areas have already been consumed, leaving green and open spaces, often away from jobs and city amenities, at risk of being sacrificed for new construction. The cost-per-unit of housing infrastructure, such as extending or creating the roads and access to utilities needed to connect new areas to urban centers, has increased over time. This forces cities and local governments to raise fees to cover the higher costs of installing, operating, and maintaining this infrastructure. Debt is typically used to fund these services, exacerbating the problem.

Housing Underproduction is more than a housing problem. Addressing it is central to resolving the most urgent and important social, economic, and environmental issues of our time.

If we preserve a more of the same approach to policymaking, the nation's housing shortage will continue to worsen. At the local level, exclusionary and discriminatory land-use and zoning policies artificially restrict housing production. A host of policies and practices—too much single-detached zoning, minimum lot size requirements, unpredictable and lengthy permit processes—restrict the availability and affordability of homes in high-opportunity neighborhoods, places that are rich in jobs, transportation, infrastructure, and community assets.

While this affects everyone, it is particularly burdensome for working families, people with low incomes, and people of color. In fact, racial and ethnic discrimination has been embedded in housing policy for over a century. To create access to opportunity and a housing system that serves everyone, policymakers must prioritize racial, ethnic, and economic equity outcomes and actively reverse the nation's history of exclusionary policies.

The good news is that we can choose to adopt a new approach to building homes that addresses not only availability and affordability, but also has positive impacts on equity and inclusion, economic vibrancy, and climate change. We can convert Housing Underproduction into housing opportunity.

In this report, Up for Growth is introducing A Better Foundation™, a new and innovative opportunity mapping approach that cities and towns can use to think about where and what type of housing to build. Highly customizable, our approach layers key data sets to pinpoint places that are the most socially, economically, fiscally, and environmentally beneficial for jurisdictions to create more homes. We have an opportunity to emerge from the Housing Underproduction crisis by reforming the foundation of housing policy, using a framework with the explicit mission of reversing policies that perpetuate housing unaffordability, exacerbate racial disparities, and create inequitable access to economic opportunity.

This report not only shines a light on the depth and breadth of the housing deficit, it also shows a way to produce more affordable homes, grow tax revenues, increase gross regional and gross national product, decrease the amount of land needed for housing and infrastructure, and lower greenhouse emissions, all while making sure that the benefits realized are equally available to people of all communities.

Up for Growth's Housing Underproduction in the U.S. report

A Bold New Vision for Change

This report advances a new underproduction estimate and offers communities a vision for building out of their housing deficits. It not only shares our findings and data, but it also includes essays written by some of the leading thinkers in housing, economics, and climate change. Here is what you'll find in the report.

We introduce A Better Foundation™, Up for Growth's new and innovative approach to converting Housing Underproduction to housing opportunity. It is a resource for cities and towns as they review policy and decide where and what type of housing to build.

We discuss our methodology for measuring Housing Underproduction and share our results. This includes addressing how and why our calculation methods changed from our last report and the many benefits of the update, such as a better understanding of issues of inequity, regional results that better support local action, and annual replicability. It also highlights the racial equity lens we applied to our entire process to understand better how households of color are disproportionately and systematically excluded from access to housing.

We discuss the history of racial inequity in housing policy and practice and the devastating outcomes communities of color continue to experience as they seek available, affordable, and healthy housing.

We discuss housing unaffordability in more detail. We outline the contributors to and consequences of the extreme deficit of homes across the country and share how A Better Foundation can make housing more affordable.

We examine economic and fiscal issues surrounding Housing Underproduction. We will show how adopting a new policy framework can move communities out of economic stagnation and into increased economic vibrancy and resiliency.

We discuss the impacts of Housing Underproduction on climate change. We will show how A Better Foundation helps communities actively work toward their climate policy goals while also addressing the housing shortage.

Housing is foundational to economic mobility, health and wellbeing, inclusion, and livelihood. It is our hope that this report will deliver important tangible data into the hands of advocates and policymakers. A Better Foundation can turn Housing Underproduction into housing opportunity, an opportunity that can be shared equally with everyone.

INTRODUCING UP FOR GROWTH'S

A Better Foundation™

A Better Foundation is a policy framework that seeks to create more homes in areas with high economic mobility, access to jobs, and existing infrastructure. Developed using a racial equity lens, it prioritizes housing that can be built and distributed in ways that elevate housing choice for communities of color. A Better Foundation generates better and more socially equitable outcomes than historical development patterns, which produce unhealthy outcomes among racial and ethnic groups, increase housing unavailability and unaffordability, and lead to economic stagnation.

> *When comparing more of the same to A Better Foundation, it is important to note that both development paths produce the same number of homes and the same types of housing: single-detached, Missing Middle, medium-density, and high-density.*

MORE OF THE SAME

More of the same is a hypothetical growth scenario that assumes housing is developed consistent with past patterns and under existing policies. For example, if 50% of new homes built in a neighborhood (census tract) were single-detached homes from 2010 to 2020, then 50% of new homes will also be single-detached homes in the same neighborhood.

A BETTER FOUNDATION

A Better Foundation optimizes the distribution of these underproduced homes by prioritizing development in high-opportunity neighborhoods—places that are rich in jobs, transportation, infrastructure, and community assets—at a density scaled to fit into the existing neighborhood while increasing housing options.

Intended outcomes of A Better Foundation:

Promote racial equity by:

- Acknowledging current and historical policies that have produced disparate housing outcomes among racial and ethnic groups
- Considering who might benefit or be burdened by a given decision, and what the potential unintended consequences of policy recommendations may be
- Disaggregating data by race and ethnicity when available
- Acknowledging the limitations of our data sources and noting any measures we have taken to overcome those limitations

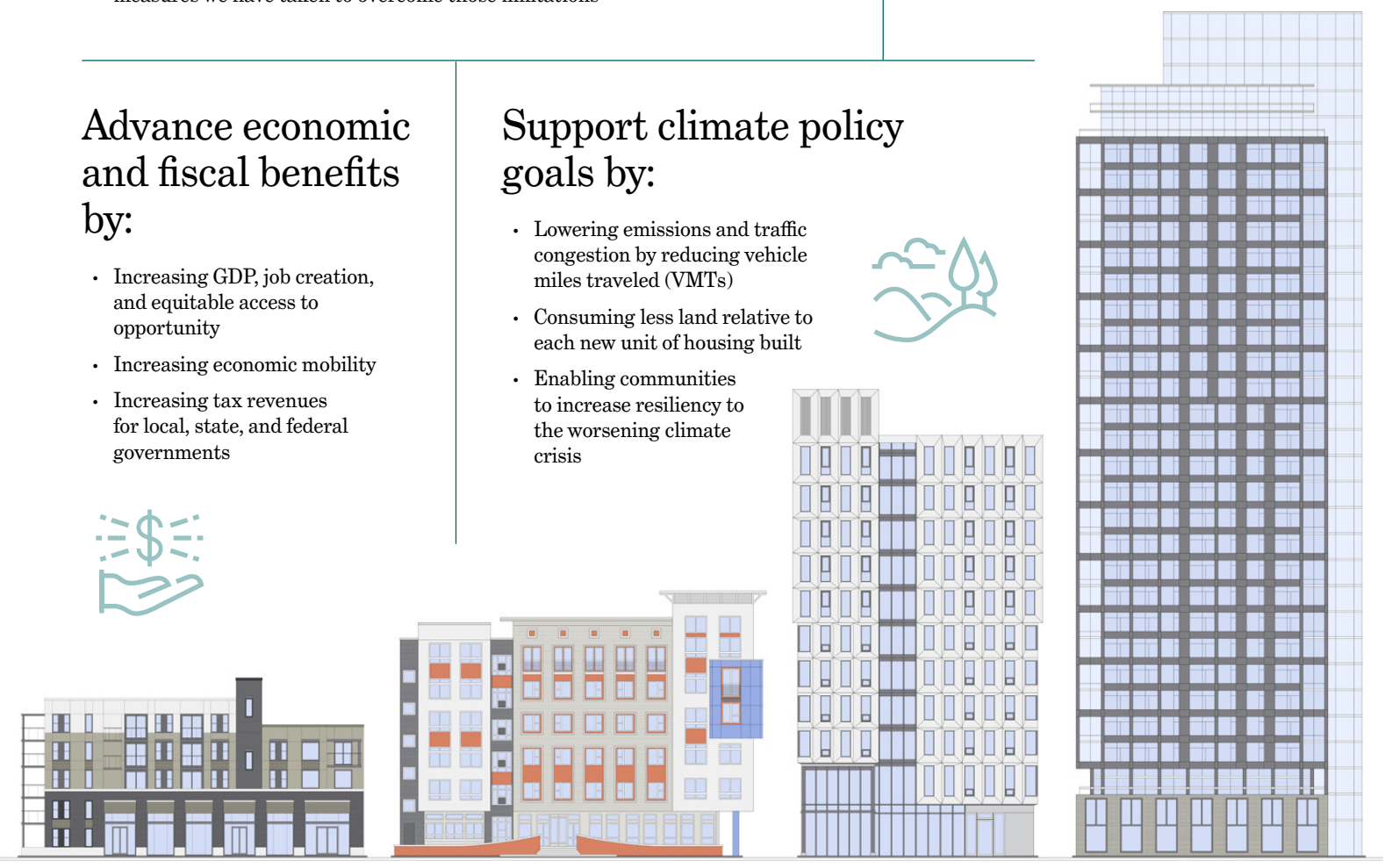
Increase housing availability and affordability

Advance economic and fiscal benefits by:

- Increasing GDP, job creation, and equitable access to opportunity
- Increasing economic mobility
- Increasing tax revenues for local, state, and federal governments

Support climate policy goals by:

- Lowering emissions and traffic congestion by reducing vehicle miles traveled (VMTs)
- Consuming less land relative to each new unit of housing built
- Enabling communities to increase resiliency to the worsening climate crisis



Expansive vs Expensive: A False Choice

Policymakers have choices in how they zone and incentivize (or disincentivize) housing development. Historically, regions with strong demand for housing have grown either expansive—moving outward in sprawling patterns— or expensive—having strong demand for housing but limitations on development due to natural boundaries or policies that artificially limit development (Romem, 2016).

Places like Las Vegas, Boise, Austin, and others demonstrate the limits and consequences associated with *expansive* growth. These cities are experiencing increased traffic congestion and greenhouse gas emissions from longer commutes as people search for affordable housing options on the fringes of the metro area. Neighborhoods home to communities of color have seen disinvestment and blight or gentrification from urban renewal projects. Economic growth is limited as more land is used for housing rather than other resources (Litman, 2015). Importantly, even with a development pattern of expansion, residents in these cities continue to experience housing unavailability and unaffordability.

Places like San Francisco, Seattle, and New York demonstrate the consequences associated with *expensive* growth. With natural boundaries like water and mountains or growth management policies, the area that can be developed for housing is limited, driving up competition and ultimately prices. Residents of these areas face severe shortages of affordable housing options, and many become cost-burdened when they are forced to rent homes more expensive than they can afford. In addition, development can be expensive and face strong opposition, slowing down production.

A Better Foundation offers a solution to the puzzle of expansive versus expensive development by providing a path to increase housing availability while not expanding geographically. This is accomplished through:

- Identifying the best locations to build housing
- Identifying the appropriate increase in density for each location
- Identifying the optimal housing mix in each location

Cities like Las Vegas, Boise, and Austin were able to expand to maintain affordability in the face of population growth from 1990 - 2010. More recently, these sprawling communities still became more expensive.

Considering Displacement

We do not model housing production in census tracts identified by the U.S. Centers for Disease Control and Prevention as areas experiencing social vulnerability. These areas have high levels of poverty and unemployment, decreased access to education and transportation, and other challenges that negatively impact their ability to survive and thrive when confronted by stressors. In essence, these places are the opposite of high opportunity, due in large part to poor policy choices across an array of sectors.

While we do not include socially vulnerable communities in our new policy framework, that in no way suggests we believe these neighborhoods don't warrant new investment. Instead, due to decades of underinvestment, these communities require more targeted interventions, considered in hyper-local contexts, to avoid potentially negative development outcomes such as further displacement.

Where to Build

Because it aims to open exclusionary neighborhoods to all people, A Better Foundation uses opportunity mapping to determine the best locations for new homes.

Locations selected for A Better Foundation must meet one or more of the following conditions:

High Economic Mobility

In the top 20% of economic mobility based on data from the Opportunity Atlas

Job-Rich, Housing-Poor

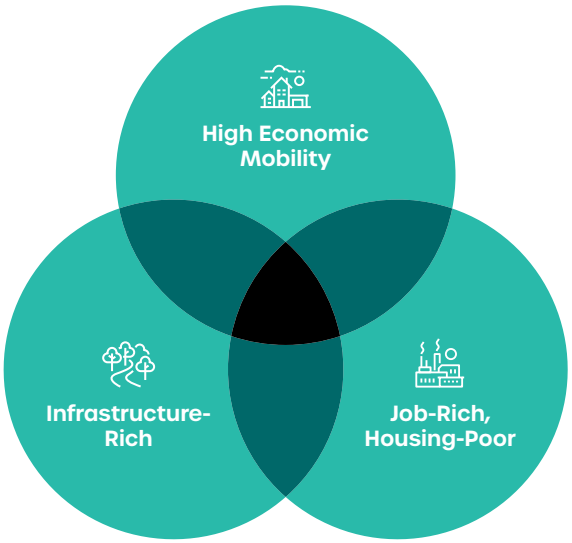
Have a minimum of two jobs per housing unit using data from U.S. Census and the Bureau of Labor Statistics

Infrastructure-Rich

Located within one-half mile of high-frequency transit station areas or within the top 20% of walkable places based on data from the U.S. Environmental Protection Agency's National Walkability Index

We identify optimal locations for new housing distribution based on how many conditions are met.

52,320 Census Tracts Have Underproduction
(70.1% of the 73,766 nationwide total)



Tier 1
Census tracts that meet all **three** conditions
1,067 are designated Tier 1
(2.0% of underproduced tracts)

Tier 2
Census tracts that meet any two conditions
7,230 are designated Tier 2
(13.8% of underproduced tracts)

Tier 3
Census tracts that meet only one condition
17,800 are designated Tier 3
(34.0% of underproduced tracts)

26,223 (50.1% of underproduced tracts) are not high-opportunity neighborhoods.

How Much to Build

We allocate new homes based on existing density in a neighborhood. After identifying high-opportunity neighborhoods, A Better Foundation allocates new housing according to a proportional increase in density. Tier 1 tracts have sufficient infrastructure, access to jobs, and economic mobility; to maximize those conditions, they receive the largest increase in units.

Tier 1 40% increase in homes

Tier 2 35% increase in homes

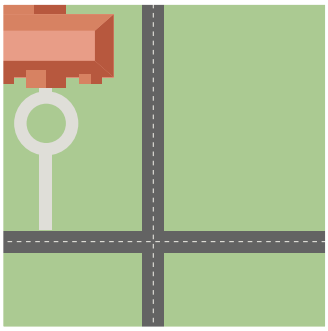
Tier 3 30% increase in homes

We increase density beginning with the lowest density first and then move in ascending order. For example, if we increase Tier 1 census tracts by 40% and the region still has a deficit of homes, we allocate housing to Tier 2, then Tier 3, beginning with the lowest density places.

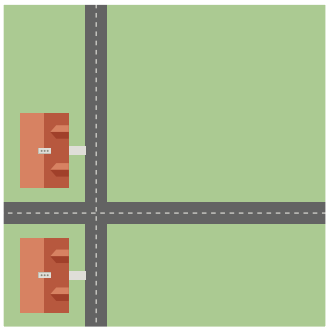
This methodology promotes infill through Missing Middle and medium-density development, allowing for gentle increases in density. It also opens historically exclusionary neighborhoods to a wider diversity of residents. These walkable neighborhoods have demonstrated economic mobility and feature access to jobs, transit, community assets. Creating more homes in high-opportunity areas enables a greater number and diversity of people to flourish.

If the existing community conta

High Opportunity
+ >0.5 homes per acre

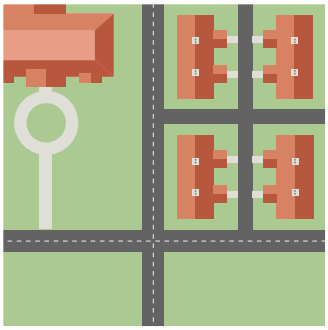


0.5 – 2 homes per acre

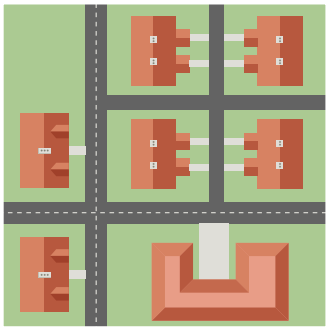


A Better Foundation™ recomme

100% Missing Middle

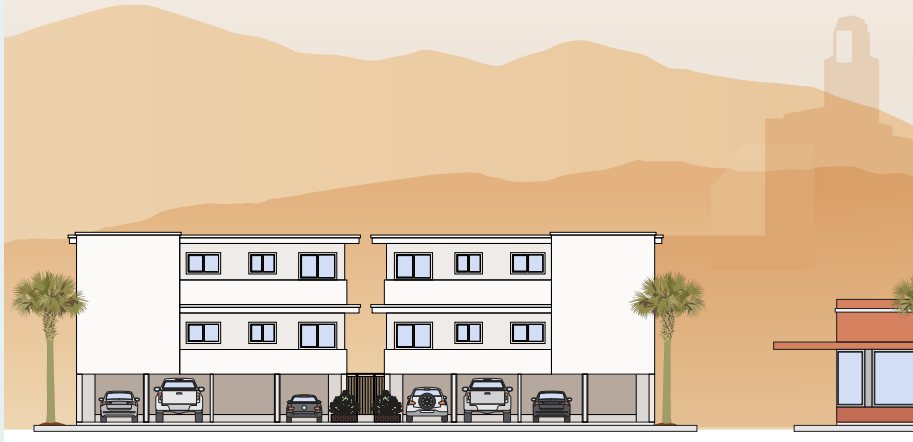


25% Medium Density
75% Missing Middle



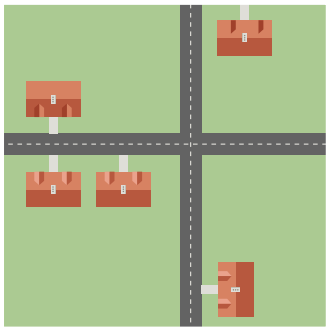
What Kind to Build

A Better Foundation makes recommendations on the type of new homes best suited to a given area based, in part, on the character of the existing community. For example, we know that building a high-rise in an area with primarily single-detached homes is impractical and infeasible. Instead, we aim to feather-in density gradually based on existing infrastructure and the character of the neighborhood.

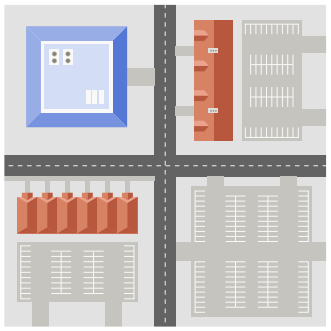


ins

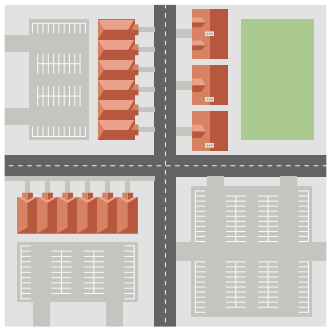
2 – 5 homes per acre



5 – 12 homes per acre

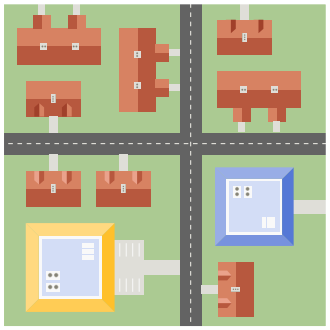


>12 homes per acre

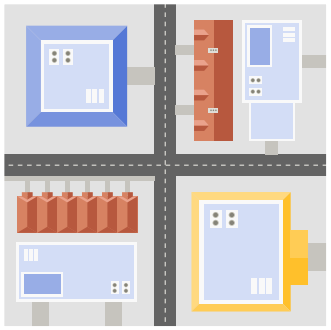


ends

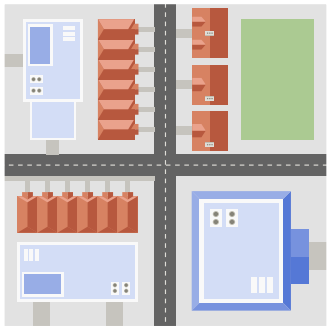
50% Medium Density
50% Missing Middle



100% Medium Density

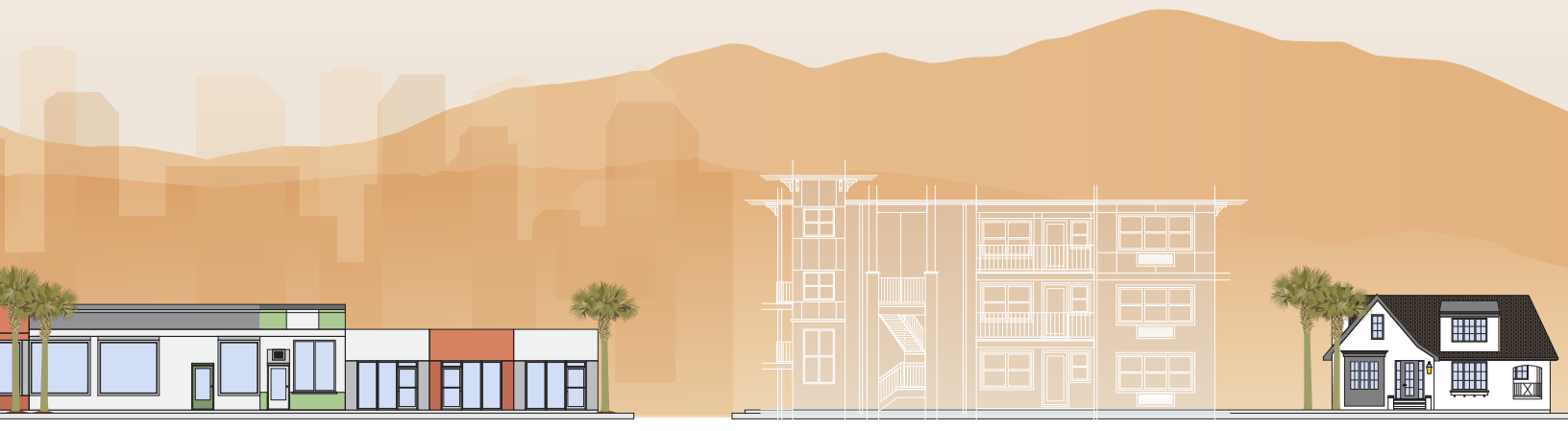


100% High Density



When deciding where, how much, and what kind of homes to build, regional-level data is critical. By quantifying Housing Underproduction on a regional level across the country, this report provides a view of the complex state of housing need and informs policy choices that optimize distribution of underproduced homes.

Artist's rendition of how applying A Better Foundation principles would improve housing supply in Santa Monica, CA.



Benefits of a New Approach and Methodol

The approach and methodology used to quantify Housing Underproduction in this report differs from our 2018 report in important ways.

It uses a racial equity lens to ensure that our proposed policy solutions can reduce disparity.

A Better Foundation applies a racial equity lens to understand better how households of color are disproportionately and systematically excluded from access to opportunity, and to ensure our proposed policy framework works to reduce this disparity. One way we are working to understand and advance racial equity is through better data analysis. Disaggregated race and ethnicity data are essential to understand and articulate the drivers and effects of underproduction in communities of color.

It provides regional results for finer granularity and a more precise picture of localized Housing Underproduction.

Housing policy choices are local in nature. While families may choose where to live within a city, housing markets are regional and very few states have statewide housing planning efforts. Individual cities and counties differ widely on housing production attitudes and outcomes.

This report quantifies Housing Underproduction estimates for all 309 Metropolitan Statistical Areas (MSAs) in the country. It also estimates results for 505 non-metro regions using census geographies called Public Use Microdata Areas (PUMAs). These areas contain about 100,000 people and generally orient along county boundaries.

Estimating underproduction at the regional, rather than the state, level allows users to see variation within a state. In many cases, housing is underproduced in one part of a state but balanced in other parts. In this analysis, if any region within a state underproduced housing, that state is considered to have underproduction.

It overcomes known challenges of quantifying changes in the housing market by isolating root causes and measuring four distinct components that influence Housing Underproduction totals.

> **Missing households:** Households that may not have formed due to lack of availability and affordability. For example, households with children over 18 still living with their parents or individuals or couples living together as roommates at levels exceeding historical norms.

DUCTION™

ogy

Up for Growth conducted multiple rounds of review to yield a more reliable, precise, and nuanced picture of the housing landscape.

Insufficient availability: A lack of housing adequate to support a balanced housing market, and that cannot absorb market fluctuations and demand preferences.

Units not occupied by renters or owners: Generally, homes that are used as a second residence or vacation home. This is an important issue in many smaller towns and cities that draw tourists and recreational visitors.

Uninhabitable units: Housing units that lack complete kitchen or plumbing facilities and are vacant.

It allows for annual replicability.

To be effective, practitioners, policymakers, and advocates need quick access to reliable data. To ensure this report better supports local action, we grounded the analysis in publicly available data sources that are updated annually. Using the Housing Underproduction report and accompanying data will enable policymakers to act quickly if housing needs intensify and will enable them to observe and replicate successful remedies to Housing Underproduction more easily.

$$\text{Housing Underproduction} = \underbrace{[\text{Households} + \text{Missing Households}] \times 1.05}_{\text{TARGET NUMBER OF HOUSING UNITS}} - \underbrace{[\text{Total Housing Units} - \text{2nd and Vacation Homes} - \text{Uninhabitable Units}]}_{\text{UNITS THAT ARE RENTER OR OWNER OCCUPIED}}$$

(1+ Target Vacancy Rate)

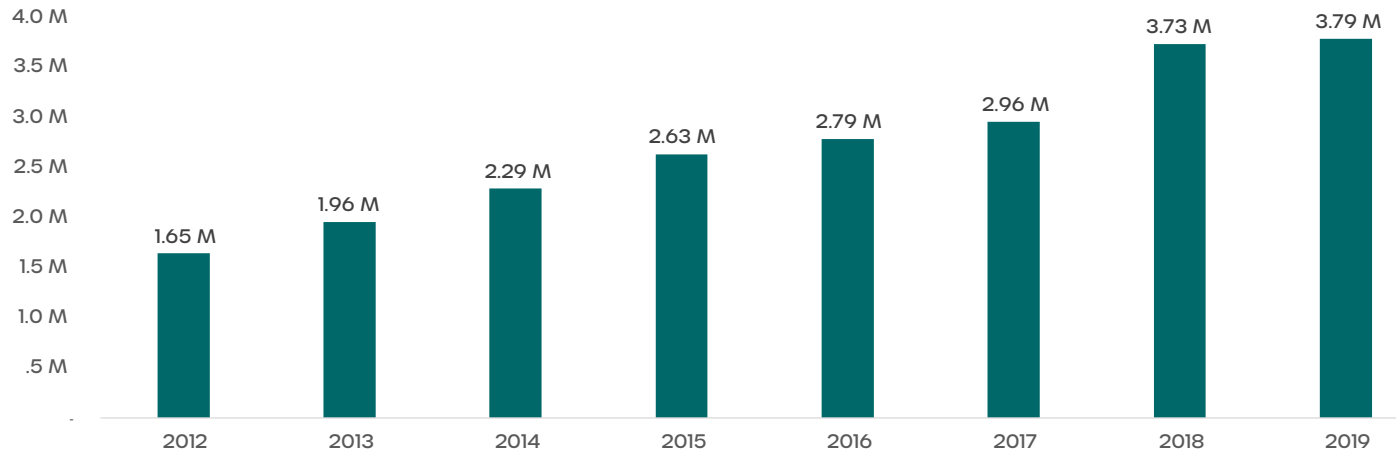
More on Trends in Housing Underproduction

While Housing Underproduction is found all over the country—from rural communities to urban centers, from coast to coast, in communities large and small—the levels of underproduction and how it is trending vary. Nearly 75% of U.S. metropolitan areas are experiencing worsening levels of Housing Underproduction. Of the 309 metro areas in the U.S., 169 are underproduced, and 75 are trending toward underproduction. Being able to identify trends in underproduction has important advantages for policymakers and advocates. An early warning system, the data identifies metros where underproduction is at risk of worsening, allowing for quick action. It also enables peer-to-peer comparisons between and among cities, highlighting policy reforms that are alleviating underproduction and those that are contributing to its worsening. Metros without an underproduction problem can provide lessons for policymakers as examples of places that have kept Housing Underproduction at bay.

Underproduction in some metro areas has worsened since 2012. In Philadelphia, Pennsylvania, for example, Housing Underproduction saw an 11-fold increase between 2012 and 2019, going from 7,512 (0.3% of total units) underproduced in 2012 to 89,949 (3.6% of total units) underproduced in 2019. The Austin, Texas metro area also experienced a worsening of Housing Underproduction, going from 8,716 (1.3% of total units) underproduced in 2012 to 33,238 (4.0% of total units) in 2019—a 3-fold increase.

Other metro areas had adequate housing in 2012 but are now experiencing underproduction. For example, Phoenix,

U.S Housing Underproduction by Year



Arizona went from adequate production in 2012 to having 108,564 (5.8% of total units) underproduced in 2019. Atlanta, Georgia also saw underproduction take hold, going from no underproduction in 2012 to 97,538 (4.4% of total units) underproduced in 2019.

There are also metro areas that had adequate housing in 2012 but are now at risk of underproduction. Jacksonville, Florida, for example, has gone from -30,168 (-5.3% of total units) underproduced in 2012 to -270 (0.0% of total units) underproduced in 2019, a 99% increase. Oklahoma City, Oklahoma is also at risk of underproduction, going from -14,127 (-3.0% of total units) underproduced in 2012 to -769 (-0.2% of total units) in 2019, a 94% increase.

Some metros are experiencing an improvement in Housing Underproduction. Nashville, Tennessee, for example, has seen a 51.4% reduction in underproduction, going from 3,475 (0.6% of total units) underproduced in 2012 to 1,689 (0.3% of total units) in 2019. Anchorage, Alaska, has also seen improvement, moving from 3,566 (3.2% of total units) underproduced in 2012 to 157 (0.1% of total units) in 2019, a 95.6% reduction.

Still other metros have recovered from a state of underproduction. Iowa City, Iowa went from 3,010 (5.3% of total units) underproduced in 2012 to having adequate housing in 2019. Similarly, Eau Claire, Wisconsin moved from 1,815 (2.9% of total units) underproduced in 2012 to having adequate housing in 2019.

Finally, some metros across the nation had adequate housing in both 2012 and 2019, such as Rochester, New York and Tulsa, Oklahoma.

More on Drivers of Housing Underproduction

Although metro areas across the nation, including many of those listed here, share severe underproduction, the reasons for the housing deficit vary from place to place. Our analysis has isolated three primary drivers of Housing Underproduction.

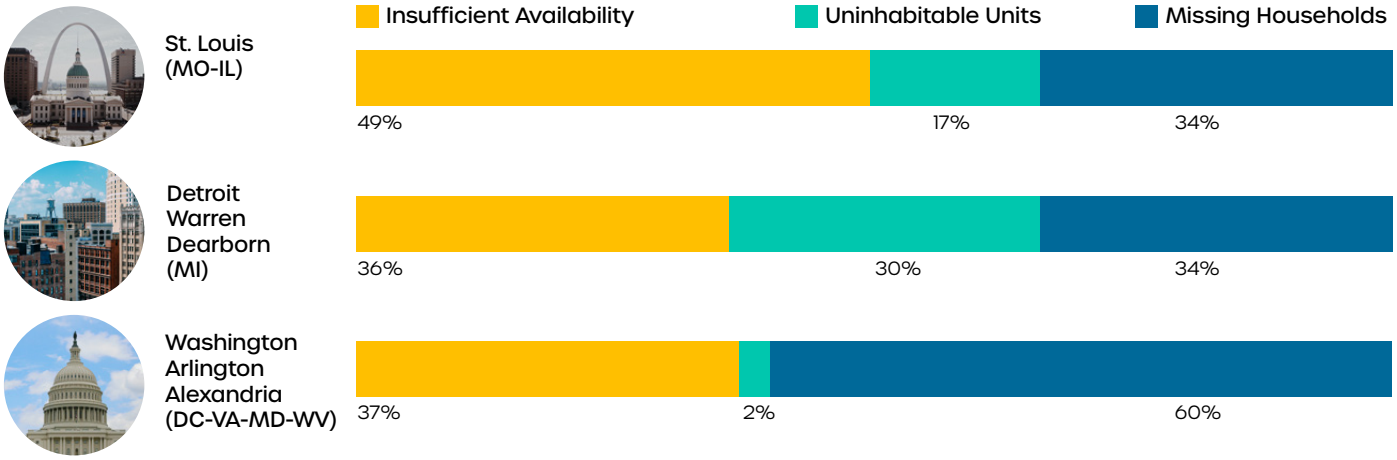
Missing Households: Because buying or renting a home has become so expensive, new households are failing to form. Instead, more unrelated people are choosing to share a single residence. Due to high housing costs, and a high percentage of entry-level professionals, 60% of housing underproduction in Washington, DC is attributable to missing households.

Insufficient Availability: Lack of available housing for purchase or rent is often the result of exclusionary zoning. More than half of underproduction in St. Louis, Missouri, for example, is a result of discriminatory policies such as exclusionary zoning codes stemming directly from the redlining maps of the city from the 1930s.

Uninhabitable Units: In Detroit, Michigan, chronic disinvestment, structural changes in industry, and bankruptcy have resulted in more than 60,000 uninhabitable units. These units are the main driver of Housing Underproduction in this region.

Housing Underproduction looks different from city to city and region to region. Its consequences are also experienced differently by different communities and individuals. Communities of color and their residents are disproportionately impacted by the housing crisis. Simply building more housing will not address Housing Underproduction in America. Policymakers must prioritize equity and actively reverse the nation's history of exclusionary policies.

Comparison of Regional Drivers of Underproduction



ADDRESSING

Racial Equity

Racial discrimination has been embedded in housing policy for over a century and is one of the main drivers of the nation's housing shortage. While current data show that disparities exist in access to housing and affordability, they do not explain the important history of inequity, the outcomes of which continue to impact communities of color.

To deepen our understanding, we conducted a historical analysis that focused on the policies, practices, and patterns that have actively created racial inequities in housing access. These policies and practices include discriminatory government grants and programs, widespread exclusionary zoning policies designed with racial segregation in mind, racially restrictive covenants written into home deeds from the 1910s to the 1940s, redlining practices limiting access to capital investments to prospective homeowners of color, and urban renewal projects that caused displacement and gentrification.

Historical Context of Racial Inequities in Land-Use and Housing Policy

Historical Context of Racial Inequities in Land-Use and Housing Policy

All states and cities across the United States have a complicated and shameful history of racial inequality in providing access to land and housing. Some policies were place-specific, while others were variations that were adopted from city to city such as too much single-family zoning, an exclusionary practice that continues. From white colonialism in the 1800s to today, communities of color have systematically faced not only individual discrimination, but also discriminatory laws and policies, displacement, and uneven access to opportunities in housing and land ownership. The U.S. government has consistently given early European settlers and eventually white citizens priority for land and housing access, even financially subsidizing them in their path to homeownership.

The various Land and Homestead Acts of the 1800s, which gave away hundreds of acres of free land to almost exclusively white

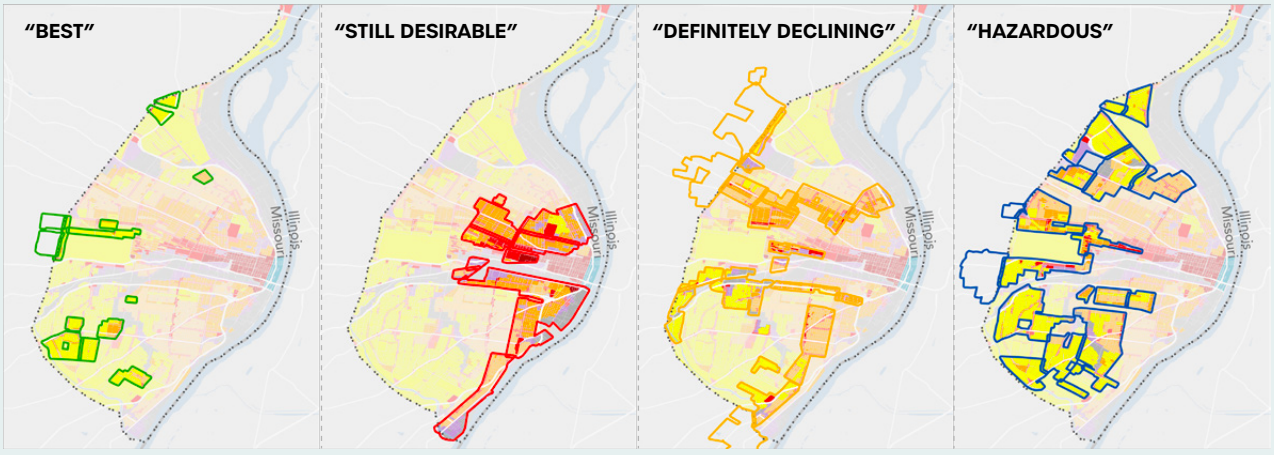
families, brought millions of people to the American frontier, further displacing Indigenous communities already decimated by the 1830 Indian Removal Act. The enormous westward resettlement of European Americans laid a foundation for the next 100 years of local, state, and national policies and practices that channeled wealth and opportunities to white families at the expense of others. Government homeownership subsidies like the GI Bill, for example, aimed at helping returning World War II veterans get a college education and an affordable home mortgage, were awarded almost exclusively to returning white soldiers. While these white households experienced homeownership as a way to generate wealth for themselves and their families, Black households were excluded from these opportunities (Laws, 2020).

These policies, in addition to exclusionary zoning, racially restrictive covenants, redlining, and urban renewal, have created numerous obstacles that have systemically limited access to housing and homeownership for people of color.

"Segregation in housing is the way you can accomplish segregation in every aspect of life. Housing segregation means that certain jobs are located in certain communities, that certain grocery stores are located in certain communities; it determines where parks are located, if streets are repaired, if toxic dump sites are built nearby. Segregation accomplishes so many other inequalities because you effectively contain a population to a geographic area and suddenly all the other civil rights law don't matter."

Nikole Hannah Jones
Interview with Vox Media (Illing, 2017)

Zoning Has Codified Segregation, Allowing White Neighborhoods to Hoard Opportunity at the Expense of Black and Brown People



Home Owners Loan Corporation (HOLC) Residential Security Maps for St. Louis, Missouri

More than 90 years on, redlining still determines where people of color are able to live within their own communities. In 1918, just one year after the federal government outlawed explicit racial discrimination in housing, St. Louis, Missouri created residential zoning in hopes of preserving the existing racial divide in the city. Zoning laws, while not explicitly discriminatory, enabled city officials to deem certain majority Black neighborhoods as "Declining" or "Hazardous." In turn, the Federal Housing Administration, provider of most mortgage loans at the time, refused to guarantee loans in areas that were redlined. This resulted in extremely low homeownership rates in neighborhoods of color, creating a stubborn generations-long barrier to wealth-building.

Exclusionary Zoning

While there are some valid justifications for zoning, such as separating industrial uses from residential neighborhoods, zoning laws have largely been explicitly used to discriminate against people of color and encourage or maintain racial and ethnic segregation (Hirt, 2015). Zoning laws that restrict the types of homes that can be built in certain areas, such as those that require minimum lot size and/or square footage, prohibit multifamily homes, and limit building height, can be implicitly or explicitly exclusionary by preventing multifamily units from being built (Rouse et al., 2021). Multifamily housing is generally more affordable and has historically housed more people of color. Initially, exclusionary zoning was used by city planners as a part of overt racial discrimination to ensure racial segregation. The 1917 case of *Buchanan v. Warley*, which went all the way to the U.S. Supreme Court, was the first in a series of cases and actions by the federal government that limited legal housing discrimination and culminated in the 1968 Fair Housing Act (Rigsby, 2016). Prior to this case, it was common for city zoning ordinances across the country to legally forbid people of color to occupy blocks with a majority of white residents.

Racially Restrictive Covenants

In addition to zoning, many cities in the United States used racially restrictive covenants to prohibit people of certain races or ethnic backgrounds from owning or occupying homes. These restrictions resulted in segregation and low homeownership rates for people of color, issues that persist. A growing body of research is documenting the existence and location of restrictive covenants in cities across the country.

Racially and ethnically restrictive covenants were bolstered in 1933 when the U.S. Congress approved the Home Owners Loan Corporation (HOLC) and again in 1934, when the National Housing Act created the U.S. Federal Housing Administration (FHA). These programs were designed to address housing affordability issues by creating loan products that allowed for 15- to 30-year pay-off terms, and by offering insurance on those loans to reduce monthly mortgage payments. While these programs made it possible for millions of Americans to buy their own homes, they were available almost exclusively to white households. Of the $120 billion that the federal government spent to back home loans between 1934 and 1962, more than 98% went to white households. Of the 350,000 homes built with federal financing in Northern California between 1946 and 1960, fewer than 100 went to Black households (Adelman, 2003).

Redlining

Part of the reason that non-white households were excluded from accessing federal financing for homeownership was due to the practice of redlining. Redlining was a neighborhood-level appraisal system where the government specified whether neighborhoods were "fit" for investment based on the income and race of the area residents. Black and racially or ethnically diverse areas were marked in red on physical maps as hazardous or declining and, therefore, undesirable for investment. White neighborhoods were marked in blue, indicating desirability for investment. Reasons were bold, simple, and discriminatory. For example, the Central District of Seattle—a historically Black neighborhood—was designated as hazardous because it was the "Negro area of Seattle" (Nelson et al., 2020).

The maps on the preceding page combine the HOLC redlined maps in St. Louis, Missouri with groundbreaking research from Opportunity Insights that demonstrates the economic mobility and future earnings potential embedded in different neighborhoods. The maps demonstrate the lasting negative impact of redlining. Neighborhoods that were redlined 50+ years ago have lower economic mobility and earnings potential for children from low-income households today than do surrounding neighborhoods, exacerbating the racial wealth gap.

Urban Renewal

From the 1950s through the 1970s, "urban renewal" was a common practice in the U.S. Urban renewal allowed local jurisdictions to use federal dollars to improve areas they had deemed "blighted." Due to redlining, there had been a major lack of investment in neighborhoods of color, which meant that redlined areas were more likely to be marked as blighted and slated for renewal. Urban renewal projects often hurt existing residents and business owners of color, who were forced to leave, or later displaced due to the gentrification that accompanied increased property values from the new investments (Mehdipanah et al., 2018).

By highlighting these historical, structural, and systemic drivers of inequitable outcomes, A Better Foundation is targeted to ensure that policymakers are equipped with the context necessary to adopt interventions that redress harm, promote equitable outcomes, and shrink the wealth and opportunity gap between white and non-white Americans. A Better Foundation focuses on dismantling exclusionary zoning and building gradual density in neighborhoods that have economic mobility, the presence of jobs, and suitable, walkable infrastructure. A Better Foundation opens up neighborhoods and creates more affordable housing opportunities for all residents.

Housing Underproduction: A Risk to Latino Homeownership and the U.S. Economy

Noerena Limón
Executive Vice President
Public Policy and Industry Relations
National Association of Hispanic
Real Estate Professionals

Housing Underproduction has exacerbated U.S. wealth disparities, creating a bifurcated economy: one for those who have reaped the benefits of home equity appreciation, and another for those whose dreams of homeownership have become increasingly out of reach. While Housing Underproduction has been widespread, no demographic has been more disproportionately affected by the low supply of housing than Latinos. Today, over 51 million Latinos live in a market experiencing Housing Underproduction, 92% of Latinos living in the Metropolitan Statistical Areas (MSAs) studied in this report (U.S. Census, CPS ASEC, 2021). This should sound the alarm to anyone who has any interest in long-term U.S. economic prosperity.

The future of America's economy is directly tied to the growing U.S. Latino population. According to the National Association of Hispanic Real Estate Professionals® (NAHREP®) State of Hispanic Homeownership Report, the Latino youth community and their role in America's demographic trajectory trigger a closer look at how Latinos overall are navigating the existing perils of the housing market (2022). With a median age of 30, Latinos are 14 years younger than the non-Hispanic white population and many are in their prime homebuying years. Nearly 2 in 3 Latinos today are aged 40 or younger (U.S. Census, CPS ASEC, 2021). Between 2010 and 2020, Latinos accounted for over half (51%) of the nation's population growth (U.S. Census, Decennial Census, 2021, pp. 94-171) and were responsible for the overwhelming majority (80.8%) of labor force growth (Bureau of Labor Statistics, 2021). Projections indicate that these trends will continue. The U.S. Department of Labor projects that Latinos will comprise 78% of net new workers between 2020 and 2030 (Dubina, 2021). Additionally, the Urban Institute predicts Latinos will account for more than half (53.1%) of new household formations between 2020 and 2040, while non-Hispanic white household formation will decline over the same timeframe. All these factors form the basis for the Urban Institute's projection that 70% of homeownership growth over the next 20 years will come from the Latino community (Goodman & Zhu, 2021).

While these projections offer a glimpse into the promise of the Latino community, they also underscore the risk associated with severe levels of Housing Underproduction. As of 2021, the annual national Latino homeownership rate is 48.4%, which continues to fall significantly below the overall U.S. homeownership rate of 65.5% (U.S. Census Bureau, Table 6, 2022). Housing market trends following the Great Recession offer a glimpse into the role Latinos have historically played in carrying the housing market, but also the shift that has occurred as a result of the housing shortage. In the ten years leading up to the COVID-19 pandemic, Latinos accounted for the majority of U.S. homeownership growth. However, the share of new homeowners attributed to Latinos decreased from its peak of 68% in 2015 to just 18.1% in 2021 (U.S. Census Bureau, Table 6, 2022). This pendulum shift occurred as the market saw historic dips in housing inventory and historic home price appreciation.

According to Freddie Mac, the U.S. is short 3.8 million homes relative to demand (2021). Housing Underproduction, particularly entry-level, owner-occupied housing, is the biggest barrier Latinos face in bridging the homeownership gap, despite Latinos being more mortgage-

Metro Name	Latino Population Share	Housing Underproduction as a Share of Total Housing Stock
Gainesville, GA	29%	11.6%
Oxnard-Thousand Oaks-Ventura, CA	43%	10.9%
Riverside-San Bernardino-Ontario, CA	52%	10.4%
Salem, OR	27%	10.3%
Laredo, TX	95%	9.9%
Merced, CA	61%	8.7%
Brownsville-Harlingen, TX	90%	8.6%
Los Angeles-Long Beach-Anaheim, CA	45%	8.4%
Bend, OR	8%	8.2%
Miami-Fort Lauderdale-Pompano Beach, FL	46%	8.1%

ready than ever. Freddie Mac defines "mortgage ready" as a group of potential future borrowers ages 45 and younger, who exhibit the following characteristics to qualify for a mortgage: Credit score equal to or greater than 661, a debt-to-income ratio equal to or less than 25%, no foreclosures or bankruptcies in the past 84 months, and no severe delinquencies in the past 12 months. There are currently 8.3 million Latinos who are mortgage-ready and have qualifying credit characteristics but are not currently mortgage holders—a number that has more than doubled since 2015.

Rising price points have pushed homeownership out of reach for many first-time buyers across the country, particularly in Latino-dense markets. Housing prices have increased in every state across the country, but the states with the highest appreciation are those with high Latino populations. Arizona and Florida, home to a combined 12.7% of the U.S. Latino population, saw the highest home price appreciation in the country at 28.6% and 25.6%, respectively (Boesel, 2022). Affordability challenges for Latinos were most pronounced in metros with the largest discrepancy between median Latino household income and median-priced home. In the greater New York metro, a market that requires a six-figure income ($119,974) to afford to purchase a median-priced home, the median Latino household income is $49,900. Likewise, in Los Angeles, the household income required to afford a median-priced home ($144,330) is more than double the median Latino household income of $66,700 (HSH, 2022). Only 15.2% of Latino households in the Greater Los Angeles MSA have an income above $150,000 (U.S. Census Bureau, CPS ASEC).

The data featured throughout this report underscores an important reality: Latinos are concentrated in areas exhibiting the highest rates of underproduction.

Latinos Live in States with the Highest Rates of Underproduction

According to the Housing Underproduction analysis by Up for Growth, California, Texas, and Florida have the highest Housing Underproduction—more than 1.6 million units. These are also three of the most populous Latino states in the U.S., home to 32.7 million Latinos, more than half of the nation's Latino population.

California is the most populous Latino state in the nation and has also experienced some of the most acute housing shortages, resulting in the greatest decrease in Latino net migration in 2021, at a loss of 22,029 Latino households.

The Texas market has offered critical affordable homeownership opportunities during the past decade, making Texas an important state for future Latino homeownership growth. But the levels of underproduction in Texas pose a threat to future Latino homeownership growth because Latinos are moving to the state in search of those opportunities. Texas has seen the highest inbound migration of Latinos in the nation, adding 17,226 Latinos in 2021. In partnership with Freddie Mac, NAHREP® identified the top 25 opportunity markets for mortgage-ready Latinos ranked by share of those who can afford median-priced homes. Texas is home to the top four markets and makes up nearly one-third of the entire list.

Housing Underproduction: A Risk to Latino Homeownership (cont.)

Latinos Are Concentrated in Metropolitan Areas with the Highest Rates of Underproduction

A breakdown of underproduction by MSA indicates that nine of the top ten MSAs exhibiting the highest rate of underproduction have a Latino population above the national average, and seven out of ten have a Latino population above 40%.

> The Riverside-San Bernardino-Ontario, CA market, colloquially known as the Inland Empire, ranks third in the country for its share of Housing Underproduction. This is alarming since it is one of the most important markets for Latino homeownership in the nation. Between 2019 and 2021, the Inland Empire produced the most new Latino homeowners, adding a total of over 88,000 new Latino-owner households. Today, the Inland Empire has a Housing Underproduction share of 10.4%, more than triple what it was in 2012 and the third-highest share in the nation.

> Underproduction is occurring in the top 10 most populous Latino markets. Not only is there currently Housing Underproduction in all of the top 10 MSAs with the largest Latino populations in the country, but between 2012 and 2019, the crisis worsened in each of these markets. The most pronounced shift can be seen in the Phoenix-Mesa-Chandler, AZ market, which prior to 2012 was not experiencing Housing Underproduction, but now has a Housing Underproduction share of 5.8% relative to its current housing stock. Out of 140 MSAs that were found to be producing enough housing in 2019, only 16 of them, or 11%, had a Latino population at or above the national average.

Metro Name	Latino Population Share	Housing Underproduction as a Share of Total Housing Stock
Los Angeles-Long Beach-Anaheim, CA	45%	8.4%
New York-Newark-Jersey City, NY-NJ-PA	25%	4.5%
Miami-Fort Lauderdale-Pompano Beach, FL	46%	8.1%
Houston-The Woodlands-Sugar Land, TX	38%	2.8%
Riverside-San Bernardino-Ontario, CA	52%	10.4%
Dallas-Fort Worth-Arlington, TX	29%	3.0%
Chicago-Naperville-Elgin, IL-IN-WI	23%	3.4%
Phoenix-Mesa-Chandler, AZ	31%	5.8%
San Antonio-New Braunfels, TX	57%	7.8%
San Diego-Chula Vista-Carlsbad, CA	34%	5.6%

Conclusion

In the U.S., homeownership has historically been the most important tool for building wealth from one generation to the next. Housing Underproduction has become the biggest threat to Latino homeownership growth and in turn, Latino wealth creation. As of 2019, Latino homeowners have 28 times the wealth as Latino renters, underscoring the multiplier potential homeownership can provide in bridging the wealth gap. A failure to address the housing supply crisis could result in a steep decline in the overall homeownership rate and could have a devastating impact on the nation's GDP and economic well-being.

Noerena Limón

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Solve Underproduction First: Closing the White vs. Black Wealth Gap

Bryan Greene
Vice President
Policy Advocacy
National Association of
REALTORS® (NAR)

More than a half-century ago, President Lyndon Johnson signed into law the landmark federal Fair Housing Act. Today the gap between Black and white homeownership rates is even larger than it was in the year of the law's passage. While discrimination persists, it is not the principal culprit of the homeownership gap we witness today. Past discriminatory practices, which include decades of institutionalized housing and lending discrimination, are a greater factor. Indeed, the racial wealth gap resulting from these practices makes it harder for families of color to qualify for loans and raise the up-front costs of buying a home, whether a buyer experiences unlawful discrimination or not.

The greatest obstacle to closing the homeownership gap at this moment is the shortage of housing for purchase in this country. We can't get more people into the homes of their dreams if there are no homes for them to buy. This problem preempts all our other efforts to promote equal housing opportunity. While Housing Underproduction in this country has many causes, local zoning and land-use restrictions have, for decades, proved to be one of the greatest barriers to housing construction, affordable housing, and diverse communities.

Policymakers must continue to combat unlawful housing discrimination and its enduring impact on the economic prospects of people of color, but the housing shortage and the affordability crisis it has created threaten to exacerbate inequality further.

The current demand for the limited supply of homes for sale drives prices out of reach for many Americans, particularly for people of color. In February 2022, the National Association of REALTORS® (NAR) issued its "Double Trouble" report, which found that record-low inventory and record-high prices meant about half the homes on the market for sale would require a household income of $100,000 or more to purchase. This places those homes out of reach for a majority of Americans, with 65% of white people, 75% of Hispanic people, 80% of Black people, and 50% of Asian people earning insufficient income to buy these homes. Raising mortgage rates can halt the rise of home prices, but it will do nothing to increase housing supply. The nation has fallen millions of homes short of meeting housing needs. Based on this and other research, the deficit is so large it would take more than a decade to build our way out of, even with accelerated new construction.

Many have understandably prioritized efforts that will help homebuyers, especially first-generation homebuyers, purchase homes in the current market. Working on what is often called the "demand" side of the problem certainly has its merits. We need to be careful, however, that the immediate housing crisis not so cloud our sight that we stop working to repair the harm caused by racially restrictive covenants, redlining, unfairly devalued communities, and other officially sanctioned discrimination that both prevented many qualified people of color from buying homes and accumulating family wealth, and held down the property values of those who

Solve Underproduction (cont.)

were able to purchase homes. This legacy has contributed in large part to the median Black family having one-eighth the net worth of the median white family.

Today, Black Americans are less than half as likely as white Americans to be able to count on the sale of an existing home, a family inheritance, or help from family for a down payment. They also tend to be more cost-burdened overall, with over half of Black Americans not only paying more than 30% of their income for housing, but also twice as likely as white Americans to have outstanding student loan debt, often significantly more of it. These legacies mean that many well-qualified Americans, particularly people of color, cannot access mortgage credit because of an antiquated system that does not provide a complete picture of a potential borrower's creditworthiness. Black Americans are more than twice as likely as white Americans to be rejected for a mortgage. A more comprehensive, more predictive view of credit performance can increase opportunities for homeownership among people of color.

Fortunately, there are several proposals circulating in Washington that could help. Down-payment grants and tax credits have the potential to help millions of households achieve homeownership, especially people of color, millennials, and middle-income families. NAR is on the steering committee of the Black Homeownership Collaborative, a group of industry and advocacy organizations advancing these recommendations to policymakers. Also, in May of 2022, NAR and the Urban Institute jointly hosted a forum at the National Press Club in Washington to advance the best ideas on how to make the housing finance system more equitable, recognizing that any significant growth in homeownership overall will have to come from increases in homeownership among people of color.

Efforts like expanding down-payment assistance will have little impact, however, if housing inventory remains near record lows. Such assistance becomes moot in a bidding war where the final sale price exceeds the initial asking price by 30% (Orton, 2022). Clearly, the question of how to increase housing inventory must be addressed before all others. Increased housing production has been the focus of NAR's advocacy the past couple years, and these efforts are beginning to bear fruit.

During NAR's legislative meetings in May 2022, thousands of REALTORS® delivered to Congress comprehensive talking points around policies and actions to improve access to homeownership, especially for people of color, with an emphasis on efforts to increase housing inventory.

In April 2022, I joined Gene Sperling, American Rescue Plan Coordinator and Senior Advisor to President Biden, and Erika Poethig, Special Assistant to the President for Housing and Urban Policy, for an event with Third Way to discuss how to solve the housing crisis. We discussed the need for a plan that includes zoning reforms, investment in new construction, expansion of financing, and tax incentives to spur investment in housing and convert unused commercial space to residential, all important steps in addressing not only housing supply, but housing equity as well.

We are pleased that in May 2022, the White House released a comprehensive Housing Supply Action Plan designed to ease the burden of housing costs by boosting the supply of housing in every community (White House Briefing Room, 2022). Most significantly, the Administration announced it would use its bully pulpit to provide incentives for communities to reform their zoning and land-use policies to make them more housing and development friendly.

For too long, land-use restrictions have driven up the cost of housing in many

communities. NAR supports policies encouraging states and localities receiving federal dollars to explore high-density zoning and other land-use rules that open up opportunities to house more families. We also support the Administration's proposal of new grant programs for localities to enact pro-housing policies. We advocate for creative incentives in the tax code to promote zoning and land-use changes, such as tax credits or other support to localities that ease zoning rules that limit the supply of homes, like minimum lot sizes, parking requirements, and bans on multi-family housing.

While we've come a long way from the zoning ordinances of the early 1900s that explicitly mandated community segregation by race, we know that even in the 21st century, many "race-neutral" zoning and land-use restrictions have continued to have that effect. Myron Orfield at the University of Minnesota wrote, "[B]y [promoting] the development of housing that only the better-off can afford, these local policies effectively exclude the poor and people of color from the places that erect those policy fences" (Orfield & Mcardle, 2006). In 2010, Jonathan Rothwell and Douglas Massey found that suburbs that restricted density of residential construction between 1990 and 2000 produced more socioeconomic segregation in the metropolitan area than those with more permissive density zoning regimes. "This arrangement," they said, "perpetuates and exacerbates racial and class inequality in the United States" (2010).

In fact, the notion that suburban land-use restrictions would produce housing shortages in metropolitan areas and limit the housing prospects of people of color has been a feature of housing policy discussions for decades, all the way back to the time of the Fair Housing Act's passage in 1968 (Waters et al., 2022).

In *Affirmatively Furthering Fair Housing: The Rule is Back, but Can It Make a Difference?*, Alexander van Hoffman at Harvard's Joint Center for Policy Studies wrote:

> When Congress discussed the fair housing legislation, Senator William Proxmire (D-WI) and Edward Rutledge, executive director of the National Committee Against Discrimination in Housing, doubted that simply prohibiting discrimination would do the job. They pointed to suburban land-use restrictions, such as zoning ordinances and building codes, that prevented the development of small houses and multi-family apartment buildings, and thereby excluded low-income people, many of whom were Black. (2021)

Today, Proxmire's home state of Wisconsin has a Black homeownership rate of 25%, one of the lowest in the country. This is nearly 50 percentage points lower than the rate for white Wisconsinites (NAR Research Group, 2022). The Milwaukee metropolitan area, where the majority of Wisconsin Black Americans live, is the most segregated metropolitan area in the country (Frey, 2018).

For more than a half-century we've witnessed how land-use decisions can limit housing development, affordability, and equity. We cannot stand by and lament this lack of progress. Now, it is time to act.

Bryan Greene

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IMPROVING

Housing Affor

Overview and Findings

An Expanding National Crisis

Once a regional issue, about one half (49%) of Americans now say housing affordability is a major problem in their local community—up 10 percentage points from 2018 (Schaeffer, 2022). Almost two-thirds of urban residents and more than half of Black, Hispanic, and Asian survey respondents express significant concern about local housing affordability.

Public concerns are highest in the West (69%) and Northeast (49%) but are on the rise in the South and Midwest, increasing from 32% to 44% and from 25% to 33% from 2018 to 2022 respectively (Schaeffer, 2022). Adults under age 50 and women are more likely to say affordability is a major problem. Concerns about housing costs now outrank concerns about drug addiction, the economic and health consequences of the COVID-19 pandemic, and crime (Schaeffer, 2022).

The Evolution of the Crisis: Out of the Great Recession and into a Pandemic

The affordability crisis has roots in long-standing underproduction that was exacerbated during the sharp decline in economic activity experienced in the U.S. from 2007 to 2009 and the ensuing global recession. Privately-owned housing-starts dropped 60% in 2009 and recovered slowly during the 2010s. The uneven economic recovery started with higher earners who

rdability

supported demand for high-end homes and apartments. Low- and middle-earners saw strong earnings gains only in the final two to three years of the recovery, spurring the development of more moderately priced housing (Zandi, 2021). But, over the decade, an inequitable economic recovery led to a concentration of the affordability challenge at the low- and middle-ends of the market.

The crisis was, and continues to be, especially acute for renting households. During the 2010s, about half of renters were cost-burdened—that is, they spent more than 30% of their income on housing costs (National Equity Atlas). In 2019, cost-burdened rates were eight percentage points higher for households headed by a person of color than for households headed by a white person (53% vs. 45%).

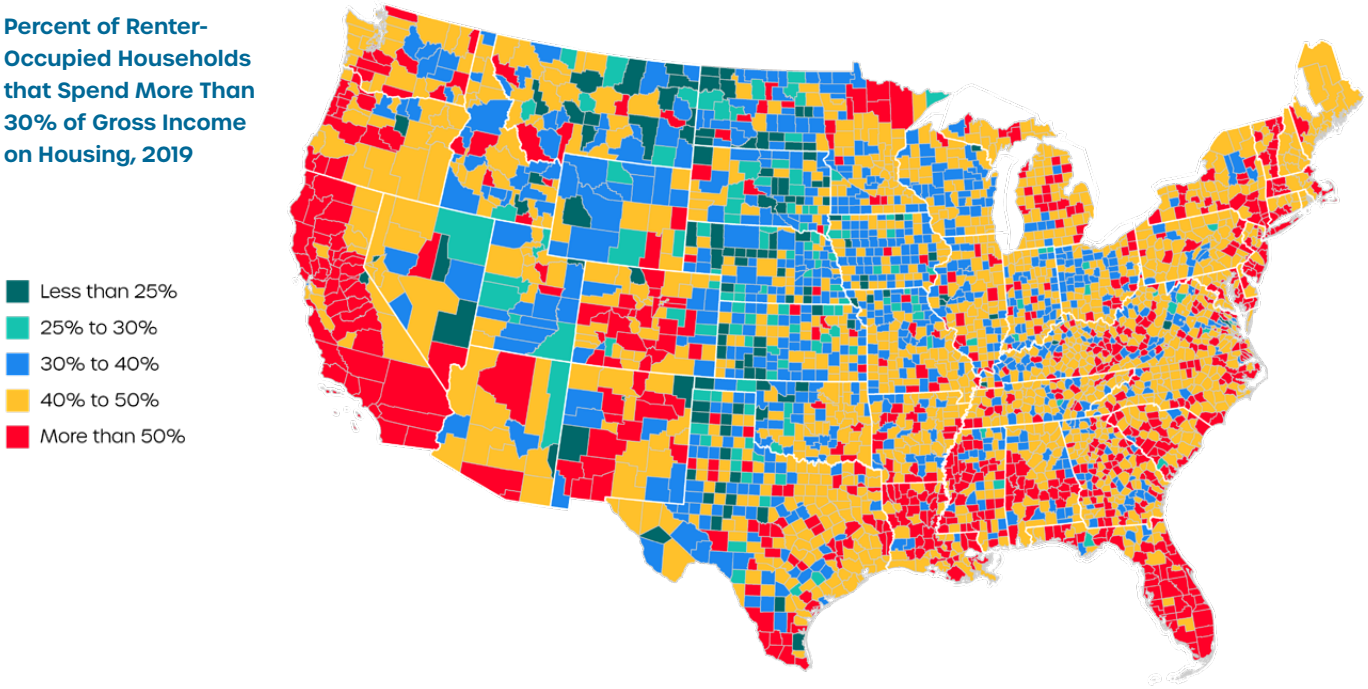
The pandemic and measures taken in response, such as lockdowns and work-from-home requirements, shocked housing markets. Home sales initially froze and then, as remote work patterns took hold, workers migrated out of the nation's highest-priced markets to smaller, natural amenity-rich cities and towns. Elsewhere, people tended to move out of dense urban centers to suburbs and the fringes of metropolitan areas. The migration brought the affordability challenge to previously affordable regions while easing, only temporarily, conditions in the highest-priced markets.

A surge in housing demand during 2021 collided with tight supply and produced the highest run-up in housing costs in a generation. The S&P/Case-Shiller National Home Price Index increased 20% from April 2021 through April 2022. The Federal Reserve estimates homeowner equity increased by $6 trillion during 2020-2022 (Badger & Bui, 2022).

The Consequences of Unaffordable Housing

High housing costs generate a range of adverse outcomes that are most severe for low-income households. When a cost-burdened renter is spending more than 30% of their income on housing, they must constrain spending on other basic needs. Cost-burdened low-income households with children spend 13% less on food, 40% less on healthcare, and 23% less on transportation than families with similar incomes living in affordable housing (Joint Center for Housing Studies, 2019, p. 32). Unsurprisingly, the budget tradeoffs grow worse as the cost of housing rises; severely cost-burdened households with

Percent of Renter-Occupied Households that Spend More Than 30% of Gross Income on Housing, 2019



children spend 77% less on healthcare than peers in affordable housing. The difficulty of balancing budgets for basic needs means little income is left over for savings. The typical renter, regardless of cost-burdened status, saves less than $500 annually, which leaves them unprepared for emergencies or retirement.

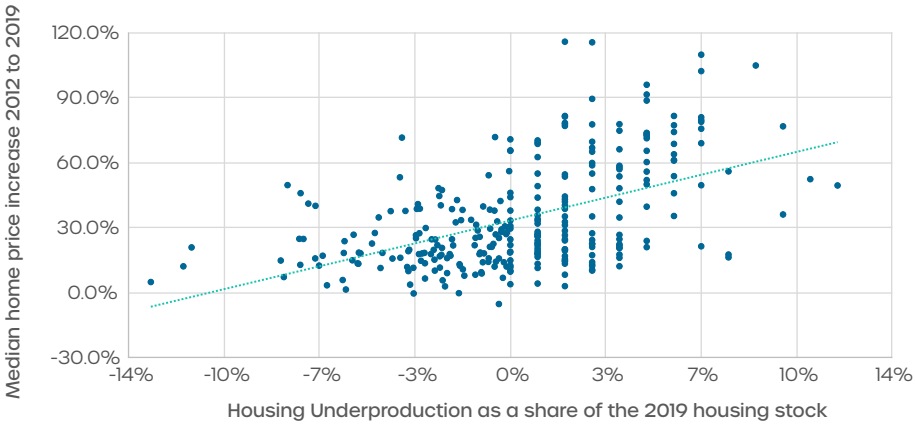
In the nation's most expensive housing markets, the affordability crisis has contributed to high rates of houselessness. In 2019, a U.S. Government Accountability Office (GAO) study calculated that a $100 increase in the median rental price was associated with a 9% increase in houselessness (2020, p. 30). Correspondingly, the nation's highest rates of houselessness are in the Washington DC-Boston corridor, the West Coast, and Hawaii, all areas with high-priced, supply-constrained housing markets (GAO, 2020, p. 31).

Elevated prices also put homeownership, a key asset-building opportunity, out of reach for renters. The recent $6 trillion run-up in equity, mentioned on the previous page, was a boon for current owners but put ownership opportunity further out of reach for renters, who are disproportionately people of color. Consequently, the market dynamics widened the already sizable racial wealth gap.

Black vs. White Homeownership Rate

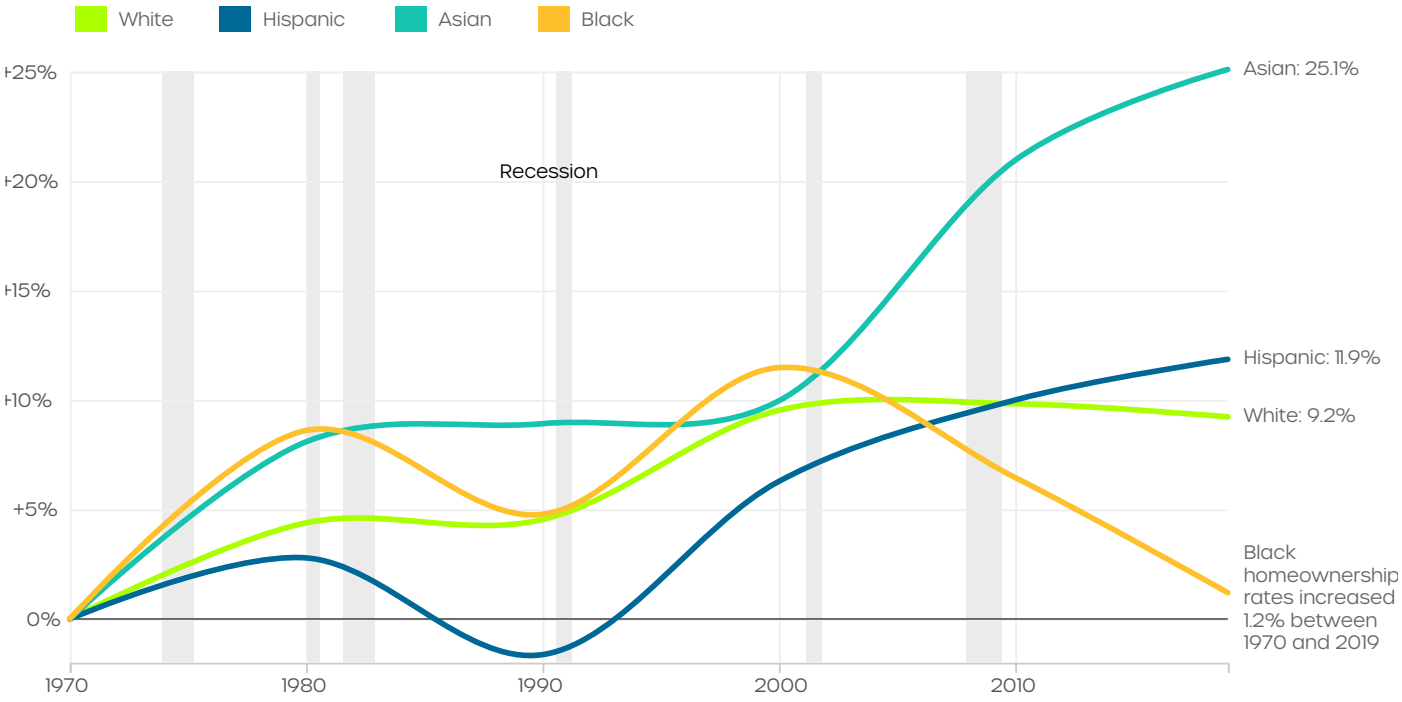
The gap between Black and white homeownership, housing affordability, and cost-burdening persists. The history of implicit and explicit discriminatory housing policies and practices have exacerbated these housing disparities. In the 1960s, white homeownership was 65% while Black homeownership was 38%, a 27-point gap. Today, this gap is even wider, with white homeownership at 72.1% and Black homeownership at 43.4%. The Urban Institute reports that across the 100 cities with the greatest population of Black households, not one city has a "Black homeownership rate close to the white homeownership rate. Even in the places where Black households are a majority, like Albany, Georgia, the gap persists" (McCargo & Strochack, 2018). This unyielding disparity reflects the severity of impact of past and present exclusionary housing practices and policies. Homeownership is one of the main ways that generational wealth accumulates. Without equal access to affordable housing, these unjust disparities will negatively affect future generations of people of color.

Metro Underproduction (share of stock) vs. Median Price Change 2012 to 2019



Black Homeownership Rates Have Barely Risen Since 1970

In 1970, two years after the Fair Housing Act passed, the national homeownership rate for Black households was 41.8%. By 2019, it was 42.3% — a net increase of 1.2% from the 1970 rate.



Notes: Data is every 10 years between 1970 and 2010, ending in 2019. Source: NPR analysis of Urban Institute data. Vertical gray bars in chart indicate a recession. Recession dates are from the National Bureau of Economic Research. Credit: Ruth Talbot/NPR

A Better Foundation™ Creates More Affordable Housing Choices

Solving Housing Underproduction, generally, would rebalance supply and demand, helping contain home price appreciation and rental cost increases. For example, if California closed its housing gap, home prices and rents would grow 20% more slowly than if the status quo continued unchecked.

There are two additional ways A Better Foundation would further deepen affordability. First, this framework recommends more Missing Middle and moderate-density housing than more of the same. These units cost less to build than traditional single-detached homes, translating into lower sale and rental prices and increased affordability.

Second, because A Better Foundation prioritizes building more homes with better access to jobs, transit, and community assets, households would be less burdened by the cost of commuting. While these savings are not captured in this report, they would be substantial, particularly when the cost of gas is high.

After 20 years, A Better Foundation would help the average household save about **$3,000 per year.**

At a Housing Crossroads, Boise Can Lead the Way

Christopher Ptomey, J.D.
Executive Director of
Urban Land Institute's (ULI)
Terwilliger Center for Housing

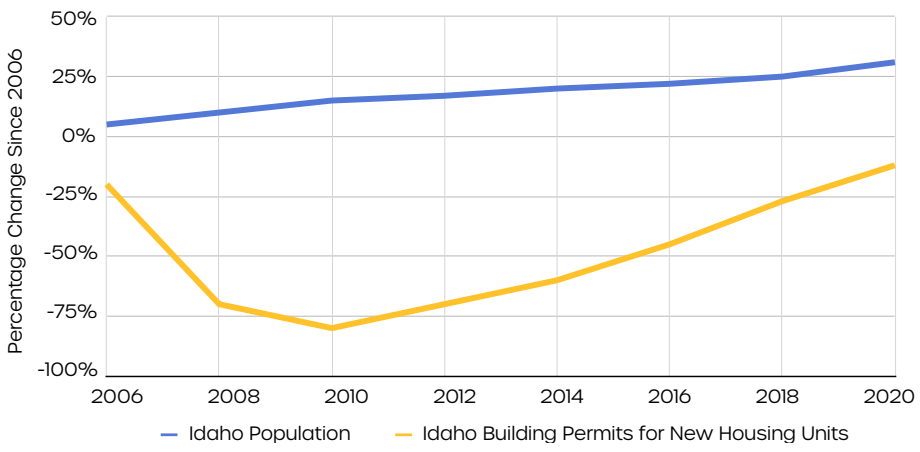
"Boise at a Crossroads" is how a recent Urban Land Institute (ULI) panel of experts characterized the housing challenges Boise, Idaho faces and the planning and policy choices required to ensure future development meets the city's needs, particularly for households earning less than the median income. The rapid deterioration of housing affordability in the Boise region is an object lesson in how Housing Underproduction inevitably leads to higher housing costs. Unaffordable housing has negative consequences on multiple fronts but is particularly challenging for moderate- and lower-income residents, households critical to local businesses and economies. The housing attainability challenge in Boise has become so dire, in fact, that both the city's core values and the qualities that have made Boise so attractive to new residents—its commitments to environmental sustainability and climate resilience, as well as access to open space—are increasingly at risk. The lack of available and affordable housing in Boise represents a major threat to the overall quality of life there.

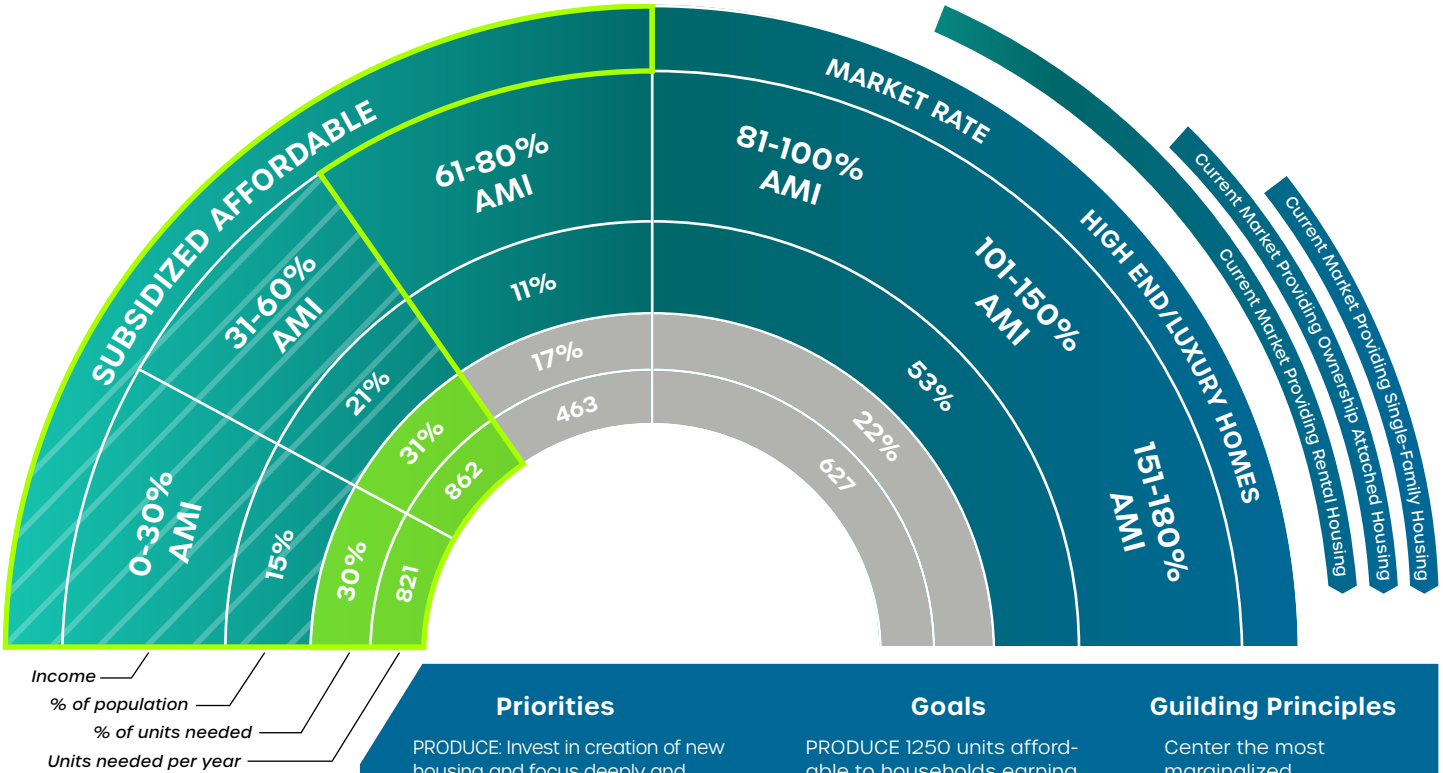
In the wake of unprecedented population growth and rapidly increased housing costs, the City of Boise engaged ULI Idaho and ULI's Terwilliger Center for Housing to recommend strategies for residential development that will enable the city to meet current and future housing needs in ways that reflect the community's values and preserve and enhance the qualities that have made it attractive to so many residents and businesses. The ULI panel noted that current strategies and policies are resulting in sprawling development that is consuming prized farmland and open space, endangering the environment, and reducing climate resilience. Even with this outward suburban expansion, not enough housing is being produced to meet the current needs of low-income households and the future economic and business development needs of the city. Boise has the potential to leverage housing to enhance the financial stability of its residents, improve its environmental sustainability, and strengthen its ability to attract and maintain the workforce that businesses and the city need to prosper. This is only possible, however, if it turns away from policies that result in what Up for Growth has characterized as "more of the same," development that has driven sprawl and unaffordability nationally.

Boise's housing challenges did not appear overnight. They have developed over the course of two decades, during which housing production has failed to keep up with rapid household growth and the loss of housing units to disrepair or obsolescence. Up for Growth estimates that between 2000 and 2015, the State of Idaho underproduced housing by nearly 23,000 units statewide. Housing construction plummeted in the wake of the Great Recession and has continued to lag. The COVID-19 pandemic accelerated migration to southwest Idaho, driving substantial household growth while simultaneously slowing housing production and considerably increasing housing development costs.

The results of the convergence of these trends have been rapidly deteriorating affordability of both rental and owner-occupied housing in Boise. ULI's 2021 Home Attainability Index metrics suggested Boise's pre-pandemic housing

While Idaho Gains Households, Home-building Lags
(from Housing Affordability in Idaho, Fall 2021)





Priorities

PRODUCE: Invest in creation of new housing and focus deeply and aggressively where the market does not.

PRESERVE: Engage in a proactive effort to preserve units already on the market that serve lower-income households.

HOUSE THE UNHOUSED: Create supportive housing + units dedicated to Our Path Home.

Goals

PRODUCE 1250 units affordable to households earning 60% AMI and below in the next 5 years.

PRESERVE 1,000 units of affordable housing units in the next 5 years.

CREATE 750 units of supportive housing dedicated to Our Path Home in the next 5 years.

Guilding Principles

Center the most marginalized

Target resources where resources are needed most.

Embrace Housing First.

Approach affordabillity holistically.

Credit: City of Boise, Community Conversations: Housing, Part I-II

costs already provided ample reason for concern. As of 2019, for example, only 25% of the local for-sale housing stock was priced affordably for a family of four earning 80% of area median income (approximately $70,000). To purchase a home, it would take this family 21 years to save for the down payment and closing costs. Since 2019, Boise home prices have continued to rise rapidly, as evidenced by Zillow's report of a 59% increase in prices in the year ending March 31, 2022.

Rental housing costs have rapidly appreciated as well. ApartmentList.com reports that Boise metro rents increased by an average of an astounding 39.2% from March 2020 through April 2022, the sixth fastest increase in the U.S. during the pandemic. The potential human costs of these undersupply-driven price increases are profound. In 2021, the Idaho Asset Building network and Idaho Voices for Children highlighted houselessness prevention, educational gains, and improved health outcomes as some of the most important benefits enjoyed by Boise residents with access to high-quality housing they can afford. Each of these improved outcomes at the household level has positive implications for the cost of public services as well.

But reducing the cost of services is just a small part of the public benefits that flow from home attainability. Lack of access to attainable housing prevents critical members of the workforce from living near their work, increasing traffic, pollution, and climate risk, and undermining opportunities for business development and economic growth. The National Housing Conference's Paycheck-to-Paycheck database reveals that even before the pandemic, Boise had become unaffordable for many professionals in important occupations, including auto mechanics, cardiac technicians, delivery drivers, geriatric nurses, long-haul truck drivers, and public-school teachers. One local stakeholder interviewed by the ULI study panel noted that local hospitals even have difficulty recruiting doctors to Boise due to the lack of housing options and attainability.

Housing Crossroads (cont.)

Ultimately, ULI's Boise study panel put forward a set of recommendations, to be published late summer 2022, to close the production gap and incentivize housing development at the most needed price points and in the most appropriate locations to advance Boise's goals for housing, open space, climate change resilience, transportation, and economic vitality.

Many of the panel's recommendations focus on better coordinating land-use policies with housing planning to enable and improve housing development in ways that align well with Up for Growth's A Better Foundation framework. For example, the panel strongly recommended focusing housing density in an expanded city core, commercial and transportation corridors, and other major activity centers.

Additionally, panelists recommended creating incentives and tools to encourage and deliver lower cost units. In addition to density bonuses, the panel suggested that the city provide fee and permit waivers, fast-track permitting, and streamline site development standards for projects creating deeply affordable units and maintaining their affordability over the long term.

Austin, Texas' S.M.A.R.T. Housing Program and their Affordable Housing Unlocked Development Bonus Program were offered as examples of city efforts that have proved effective at delivering the kind of residential development that Boise desires and that will be required to meet the needs of its residents.

These developments are well located and designed with substantial numbers of units affordable to lower-income households.

Unfortunately, while incentive-based programs are helpful tools, significant subsidies will be needed as well in order to produce units affordable to the region's lowest-income households. Low-income housing tax credits of 4%, New Markets Tax Credits, Community Development Block Grant (CDBG) loans, a local land trust, and a social impact fund were among the tools the panel recommended that the city maximize for producing lower-cost units at affordable rents and prices.

The underproduction of housing in Boise relative to its rapid growth has developed into a major affordability crisis, but its efforts to turn away from more of the same development hold promise for its current and future residents. By adopting the ULI panel's recommendations and strategies consistent with A Better Foundation, Boise and its residents will enjoy a variety of economic, fiscal, and environmental benefits, in addition to gaining access to high-quality homes they can afford.

- Reflecting Boise's environmental and climate resilience values and priorities, A Better Foundation approach will **decrease vehicle miles traveled** in the Boise region relative to more of the same, **reducing future pollution,** including CO2 emissions.

- Applying A Better Foundation statewide in Idaho will yield a housing mix generating **average annual household savings of $2,900** relative to more of the same.

- Filling the underproduction gap consistent with A Better Foundation will generate **$13 billion of economic impact** in Idaho over 30 years.

ULI's study panel recommendations and Up for Growth's A Better Foundation offer concrete steps and a planning framework the City of Boise can leverage to avoid more of the same development and its consequences. Sitting at a major crossroads, Boise could become a shining example of how cities can produce the housing their residents need while protecting the environment, improving climate resilience, and enhancing their economic health.

Christopher Ptomey, J.D.

Christopher Ptomey is the executive director of Urban Land Institute's (ULI) Terwilliger Center for Housing. Previously, Ptomey led Habitat for Humanity International's U.S. government relations team and served as federal liaison for the Texas Department of Housing and Community Affairs. Currently, Ptomey leads ULI's Attainable Housing for All initiative. Ptomey is a graduate of Haverford College and holds a Juris Doctor from George Mason University Antonin Scalia Law School.

Artist's rendition of how applying A Better Foundation principles would improve housing supply in Boise, ID.

A Housing Deficit Is Driving Inflation, But Higher Interest Rates May Not Be Enough to Tame It

David M. Dworkin
President and CEO
National Housing Conference

The Consumer Price Index (CPI), the barometer of inflation, is the highest it has been in 40 years, and housing costs—both homeownership and rental—are higher than ever. In response, the Federal Reserve Board of Governors has begun a series of increases in interest rates, expected to be one-half of one percentage point (50 basis points) per increase through the end of the year. Short-term rates could rise as much as 350 basis points.

The Federal Reserve Bank's strategy is to gradually reduce demand, thereby reducing price increases and ultimately inflation, all without causing a recession. This approach is known as the "soft landing," and it is not easy. If they get it wrong, inflation will continue to rise and build momentum. Consumers typically adapt to rising costs by spending money now rather than saving it, concerned its value will depreciate further. With labor markets so tight, the impact of rate increases on wage growth may be blunted, putting further pressure on consumers. Another risk is that consumers and businesses may cut back too sharply, sending the economy into recession. Worst of all, we could end up with inflation and a recession, known as stagflation.

It is possible that raising interest rates will not impact inflation. In this pandemic-driven economy, Housing Underproduction is the biggest driver of housing prices. Demand is already constrained by record-low inventories of available and affordable homes. One possibility is that rising rates could add to inflationary pressures by increasing the cost of buying and renting a home, inflating the shelter cost number in the Consumer Price Index because there is not an adequate decrease in demand. Since housing price increases lag CPI, shelter could become an even larger driver of inflation as other pandemic-related supply chain back-ups resolve. The less supply, the more likely this outcome becomes.

Housing Deficit (cont.)

We have already seen mortgage rates increase from less than 3% a year ago to nearly 6% in June. Mortgage rates could climb to 8% before they peak. Higher interest rates impact housing in two ways. First, as the cost of buying a home increases, homeownership becomes less attainable, particularly for first-time homebuyers and Black Americans. The cost of the monthly mortgage payment on a typical single-detatched home goes up about $200 per month for every one-point rise in mortgage rates. Since May of 2021, mortgage rates have been on a steep climb. If rates reach 7% by the end of the year, that is an increase of almost $800 per month.

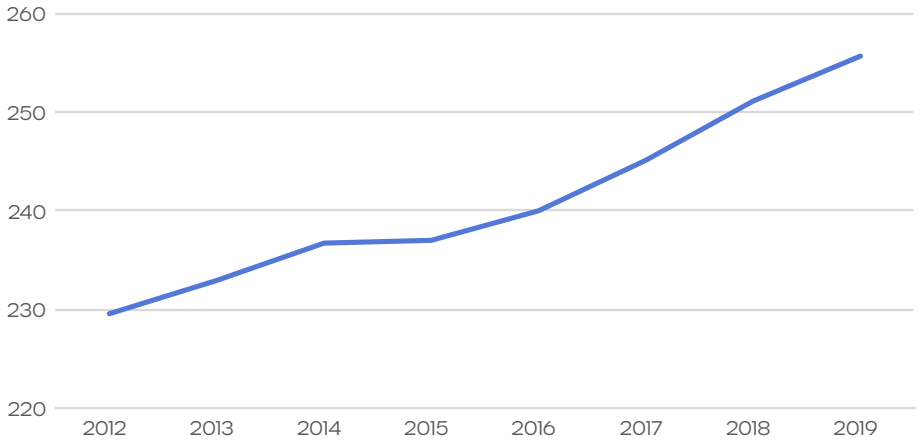
Another way high interest rates impact housing is that the cost of new homes increases with the cost of financing new construction. Today's housing market is unique in some significant ways that could alter these assumptions. First, housing inventory is still at record low levels compared to demand, while at the same time, housing starts are at capacity. Housing inventory has more than halved since the start of the pandemic, from just over 1 million active listings in January 2020, to 409,000 in April 2022 (Realtor.com, 2022). These numbers have begun to improve but remain well above historical norms. While the time it takes to sell a listing may get longer and price increases may flatten, it will be much harder to reduce home prices given the pent-up demand.

Housing Underproduction has more than doubled from 2012 through 2019, reaching a deficit of 3.8 million needed homes across 47 states and Washington, DC. Homebuilders in high growth places like Texas and Florida have seen spikes in their underproduction far in excess of California.

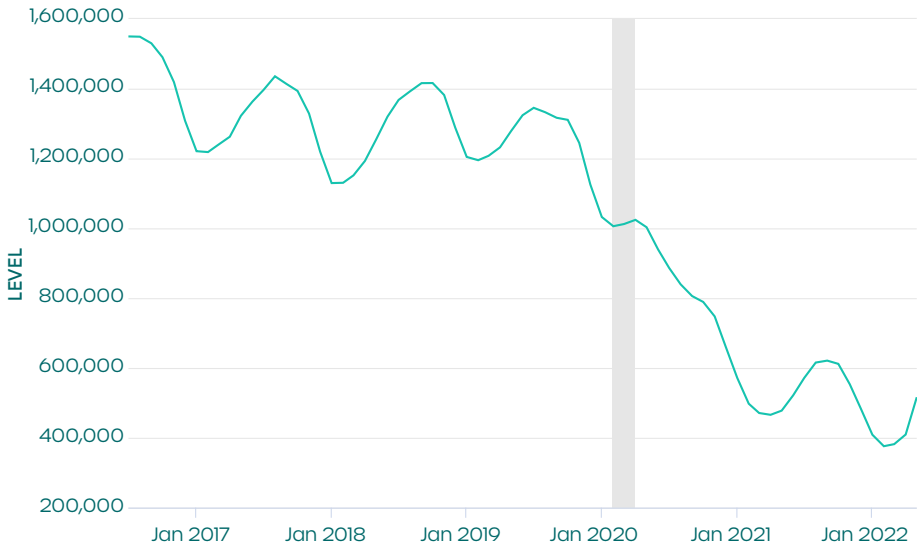
Yet, builders are already constructing as many homes as they can. Privately–owned housing units authorized by building permits in April were at a seasonally-adjusted annual rate of 1,760,000. The capacity to build more is constrained by a tight labor market, building supply shortages, and local zoning restrictions that continue to keep land costs high. Many approved projects have yet to break ground due to supply chain problems and material and labor costs. According to economist Bill McBride of the housing economy blog, Calculated Risk, the inventory of homes under construction at 266,000 is the highest since 2007 (2022). The inventory of homes not yet started is at a record 106,000, and housing supply costs account for most of the difference.

If higher interest rates reduce production more than demand, prices will remain high. Falling production in today's market is likely to exacerbate our housing affordability crisis, fueling increases in rents as homeownership rates fall. Higher rates will also do nothing to reduce the price of oil or the supply chain disruptions impacting commodity prices like lumber, steel, and copper, essential elements of new home construction that have already experienced huge price increases.

Consumer Price Index CPI for All Urban Consumers, Not Seasonally Adjusted, All Items in US City Average, All Urban Consumers, 2012-2019



Housing Inventory: Active Listing Count in the United States



Source: Realtor.com

While the ability of the President and Congress to influence inflation is limited, they do have tools at their disposal to address housing supply. Several policy proposals could improve single-detatched and multifamily production. These bills have broad bipartisan support and offer all Members of Congress the opportunity to vote on two important issues among voters: housing costs and inflation. The President's recent plan to address housing production is very encouraging, but it must be followed by tangible action across agencies and in Congress.

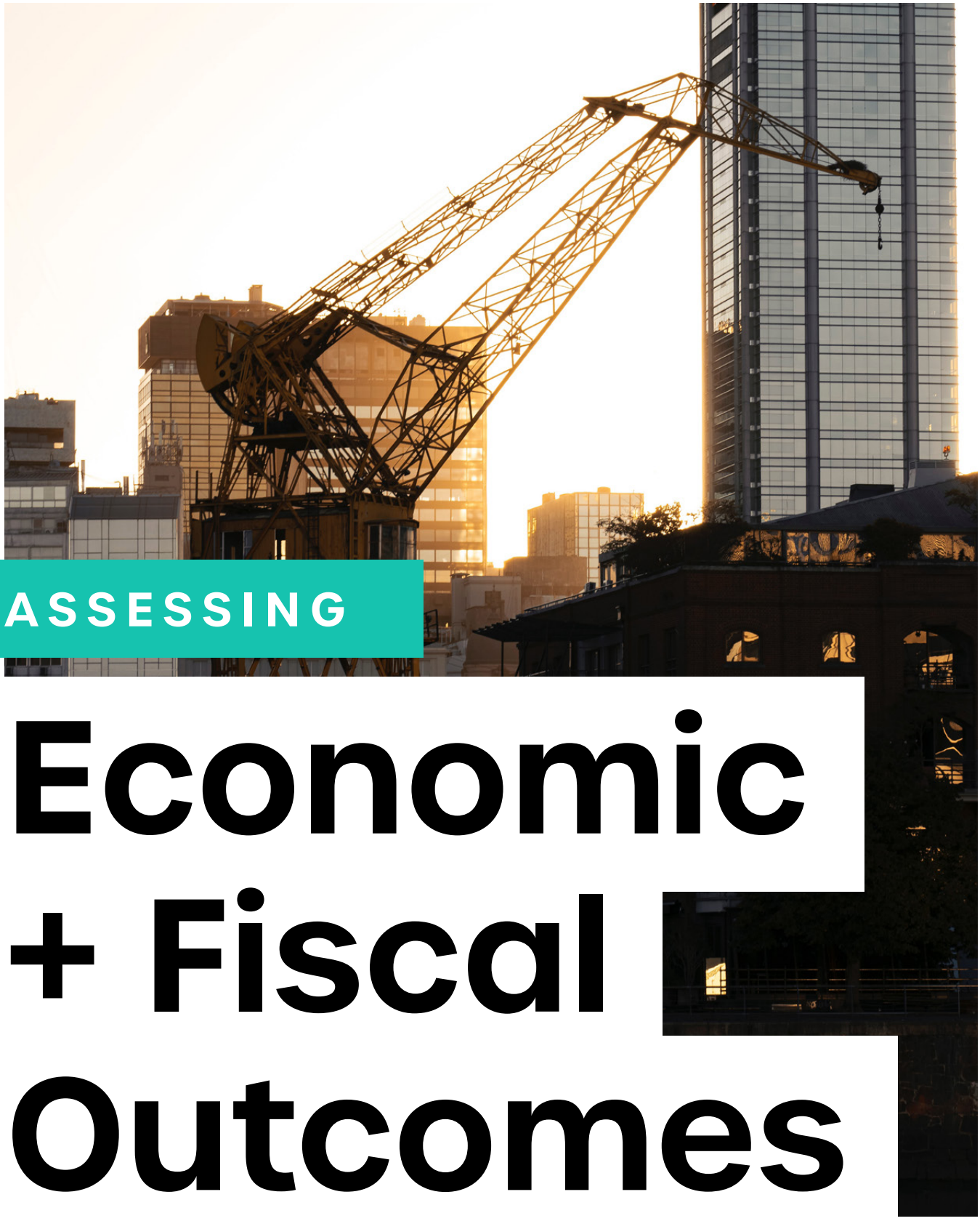
If we fail to address shortages in housing supply, we run the risk of fueling the fires of inflation rather than extinguishing them. The result could be stagflation, a word many of us have not used in a generation and some of us have never experienced. This would devastate the housing economy and only exacerbate our current housing supply challenges. Housing is a continuum. Lower homeownership rates lead to higher rents where demand exceeds the already severe shortage of housing affordable to the lowest-income households. This, in turn, may increase houselessness among those already struggling to afford shelter. Failure to act effectively hurts everyone. Tangible change will have widespread tangible impact.

David M. Dworkin

David M. Dworkin is president and chief executive officer of the National Housing Conference (NHC), the nation's oldest housing coalition, founded in 1931. Before joining NHC, Dworkin spent 12 years at Fannie Mae. He served as a senior policy advisor at the U.S. Department of the Treasury and served on President Obama's Detroit interagency team, where he helped develop and implement strategies to assist the City of Detroit's revitalization.

How the Federal Reserve's decision affects home mortgage and construction loan rates

Interest rate increases are decided by the Federal Open Market Committee (FOMC), comprised of the members of the Board of Governors of the Federal Reserve System, the president of the Federal Reserve Bank of New York, and four of the remaining eleven Reserve Bank presidents, each serving one-year terms on a rotating basis. They vote on changes to the Federal Funds Rate, the interest rate that banks charge each other to lend Federal Reserve funds overnight (Amadeo, 2019). This overnight interest rate is used as a benchmark for other short-term rates like the Prime Rate, which is often used as a foundation for other types of loans (hence a rate of "prime plus 2"). The cost of these funds greatly influences 30-year fixed mortgage rates, which generally rise or fall with the Prime Rate. So, while the Federal Reserve Bank is not directly increasing mortgage interest rates, it is increasing the cost of funding most mortgages. Anticipation of rising short-term rates can increase long-term rates as investors prepare for increased funding costs.



ASSESSING

Economic + Fiscal Outcomes

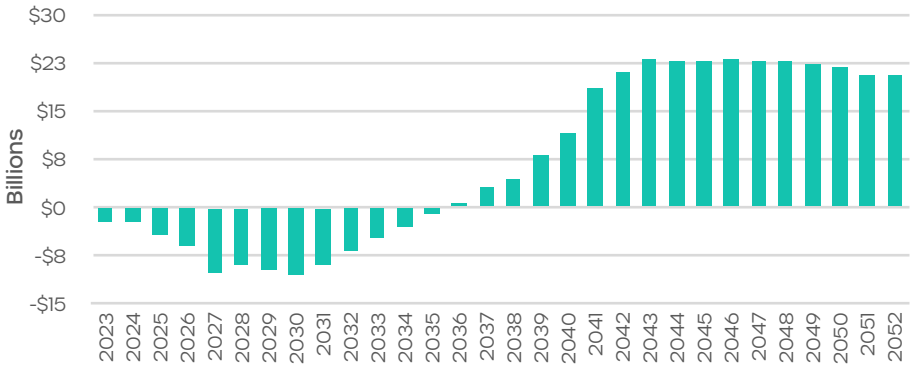
Overview and Findings

Increasing available housing stock is imperative if the nation is going to mitigate its housing affordability crisis. Unlike some other challenges the U.S. faces, addressing Housing Underproduction delivers tangible economic and fiscal benefits, not only for individuals by increasing access to jobs and personal income growth, but also on the broader economy and local, state, and federal governments, which will see significant fiscal advantages through taxable personal income and reductions in infrastructure maintenance and operating expenses.

Measuring the Economic and Fiscal Advantages of A Better Foundation™

The economic impact of building 3.8 million homes and the associated infrastructure to support them will be considerable. Construction will require both raw materials and skilled labor. From architects, regional planners, general contractors, framers, roofers, plumbers, electricians, and more, to labor needed up the supply chain, more than 700,000 jobs will be supported by the construction effort in the peak year of production.

Difference between A Better Foundation and More of the Same
Annual GDP ($B)

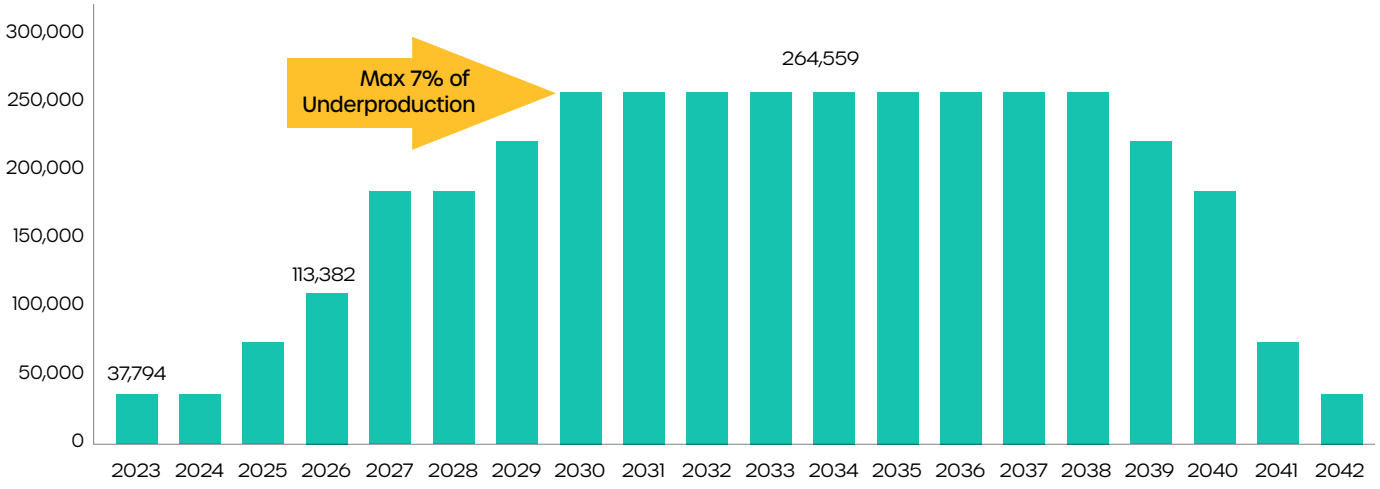


In addition to job creation, A Better Foundation's model would create more housing affordability, liberating income that families could spend elsewhere: food, clothing, services, travel, or other personal expenses. This profits local businesses and makes residents more resilient to shocks in the economy caused by natural disasters, public health crises, and rising fuel costs. After 30 years of sustained housing production, A Better Foundation generates $111 billion more in personal income nationally compared to more of the same.

The increased affordability of housing and its availability in high-opportunity areas pays dividends beyond those to individuals and families. The affordability benefit, plateauing as the 3.8 million units are built, continues to drive higher job, income, and Gross Domestic Product (GDP) numbers. Ultimately, over a 30-year time horizon, A Better Foundation generates $209 billion more in GDP nationally than more of the same.

This personal, regional, and national economic growth translates to the local and federal tax revenues cities, states,

Additional Housing Production per Year



and the nation need to thrive. Assuming a full buildout, A Better Foundation would produce $250 million additional state and local revenues (excluding property taxes), increasing to $8 billion ten years after production ends. A Better Foundation would also generate $110 million more in federal revenue than more of the same, reaching $4.3 billion after 30 years.

With A Better Foundation's considerably more efficient use of public infrastructure than more of the same, municipalities would realize a maintenance benefit that would grow to $27.7 billion after 30 years. Moreover, they can put the additional tax revenue collected toward infrastructure operation and maintenance costs not covered by other revenue sources, or to financing other community needs.

Infrastructure and the Benefits of A Better Foundation™

Solving Housing Underproduction through A Better Foundation can generate tremendous economic and fiscal benefits for communities. Many municipalities across the U.S., however, are burdened by an infrastructure financing system that, coupled with an unsustainable pattern of growth, impedes their ability to build needed housing. Left unsolved, this could lead to bankruptcy.

First implemented in the U.S. in 1947, impact fees were created to finance the construction of costly infrastructure to support rapid suburban residential growth following World War II (Marohn, 2012). In the post-World War II era and continuing until the Great Recession, many communities were able to manage affordability in the face of population growth by choosing expansion, a pattern of development that requires a greater investment in infrastructure than compact urban housing.

While the construction of infrastructure to support suburban expansion is funded through impact fees, the operation and maintenance of infrastructure is paid for through municipal budgets, largely funded through property tax revenue. A fiscal analysis found that suburban sprawl, whose underlying infrastructure was paid for through one-time impact fees, covers only 23% of infrastructure operations and maintenance expense, whereas metro infill communities cover 80% of such costs (Smart Growth America, 2013).

Many municipal governments lack sufficient property tax revenue to fund infrastructure operations and maintenance expenses. The issue is compounded by policies enacted in the 1970s "taxpayer revolt," where 44 states and the District of Columbia imposed at least one kind of property tax limitation (Lav & Leachman, 2018). As a result, impact fees became one of the few options left for municipal governments to cover their growing unfunded infrastructure liabilities. While impact fees cannot, by law, exceed the proportionate share of the cost of mitigating the impact of new development on infrastructure, the total impact fee charge can still increase substantially. This happens when local governments add more facilities to the impact fee list or seek to recover the value of excess capacity financed in the past.

High impact fees make it difficult for builders to meet housing need and housing production slows, especially for homes serving lower-income households. In turn, cities increase impact fee collection to cover infrastructure operations and maintenance costs. California is an extreme example of this cycle, where nonutility impact fees have increased by 55% in two decades. For comparison, this rate of increase is nearly three times the rate of impact fee growth for the rest of the U.S. (Nelson et. al., 2023). Today, impact fees in California can amount to as much as 18% of median home prices (Mawhorter et al., 2018).

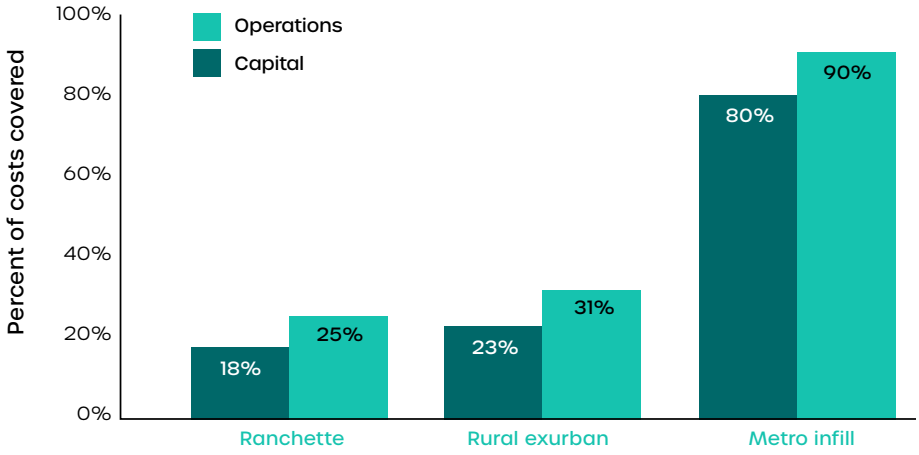
As the chart above shows, municipalities can dramatically lower their infrastructure spending, operations, and maintenance liabilities through a mix of Missing Middle and medium-density housing types that better leverage existing infrastructure.

The gain is substantial; total infrastructure operations and maintenance costs under A Better Foundation would be 72% lower than more of the same. At the same time, property tax revenues would be 329% higher per acre than more of the same.

Municipal leaders can take immediate steps to align impact fees to stimulate production. Impact fees can be calibrated on a square-foot basis to incentivize more compact and infill housing types rather than subsidizing sprawl by charging the same amount for any home, regardless of size.

Communities can consider leveraging excess capacity to advance housing affordability. Charging no or lower impact fees in areas with adequate

Percent of Operations and Capital Costs Covered by Housing Unit Revenue Contributions



Source: Adapted from Percent of Operations and Capital Costs Covered by Housing Unit Revenue Contributions, Building Better Budgets: A National Examination of the Fiscal Benefits of Smart Growth Development, Smart Growth America (2013).

Total infrastructure operations and maintenance costs under A Better Foundation would be 72% lower than more of the same. At the same time, property tax revenues would be 329% higher per acre.

infrastructure can be offset by charging higher fees in areas that require more infrastructure investment. For instance, in the mid-2000s, Albuquerque, New Mexico suspended impact fees in areas of the city with excess capacity, resulting in continued affordability while housing costs in peer cities rapidly outpaced incomes.

Salisbury, Maryland, one of the metropolitan areas trending toward Housing Underproduction, recently implemented a 90-day permit fee moratorium. This community, with 15,000 total homes, received applications to build over 8,000 new homes, a dramatic reversal of the city's trend toward underproduction (Day, 2022).

However powerful they can be, these reforms require political will and funding. The federal government can help communities that feel stuck servicing legacy infrastructure liabilities. House Financial Services Committee Chairwoman Maxine Waters (D-CA) introduced legislation in 2019 proposing to appropriate $10 billion to fund community infrastructure expenses if such communities commit to eliminating exclusionary zoning and land-use policies that limit affordable housing development. Additionally, the Biden administration recently proposed a plan to provide road, water, and sewer infrastructure funding for communities that adopt housing-forward policies.

Not yet passed into law, these proposals demonstrate growing recognition that solving infrastructure funding challenges is key to realizing housing affordability at scale.

Equitable Access to Housing Drives Innovation and Economic Dynamism

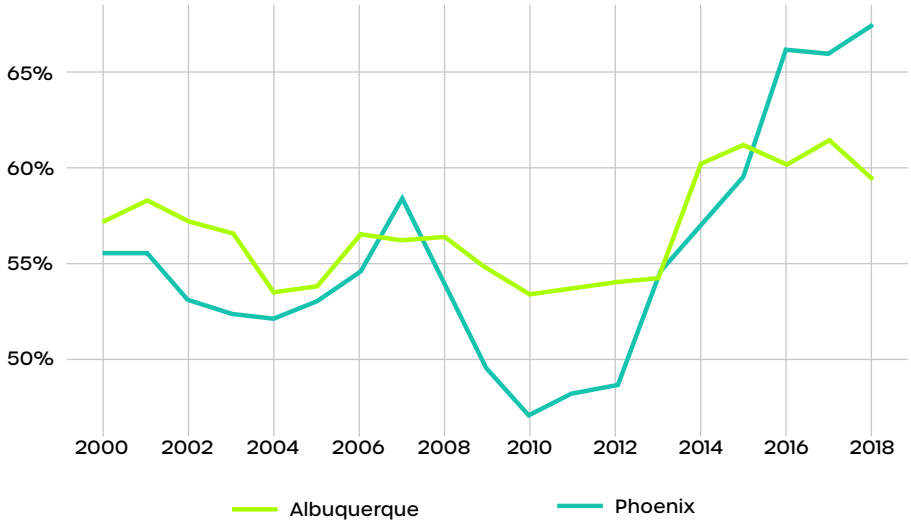
Access to affordable housing is critical to the economic vitality of all communities, particularly communities of color. Creating stable, affordable, integrated housing yields long-term gains by reducing evictions and childhood poverty. Over a lifetime, this leads to improved educational outcomes and economic productivity, as well as decreased health and crime costs. Currently, poverty is concentrated in Black and Latino neighborhoods across the U.S. and is associated with worse outcomes in almost every aspect of life. Segregated communities of color experience the following, among others (Mangan et al., 2020):

- Poverty rates three times higher than in white neighborhoods
- Lower high school graduation rates
- Lower lifetime earnings
- Worse health outcomes and lower life expectancies

A recent study on the economic impact of childhood poverty estimated that "for every dollar spent on reducing childhood poverty, the [United States] would save at least seven dollars with respect to the economic costs of poverty" (McLaughlin, 2018, p. 73).

Housing affordability is also foundational for building and sustaining functional local economies, allowing families a stable base from which to invest—economically and socially—in their communities. Families who are not cost-burdened have more discretionary money to spend in their communities, supporting local businesses, growing the local economy, and creating jobs.

Peer City Rent Comparison: 1BR (% of AMI)



Northwest Arkansas: A Booming Region Addresses Housing Underproduction

J.H. Cullum Clark, Ph.D
Director, Bush Institute at the Southern Methodist University (SMU) Economic Growth Initiative

Duke McLarty, J.D.
Executive Director
Northwest Arkansas Workforce Housing Center

Northwest Arkansas has gotten much right in recent decades. The region's success is visible in its booming economy, its accolades as an attractive place to live, and its enormous influx of people.

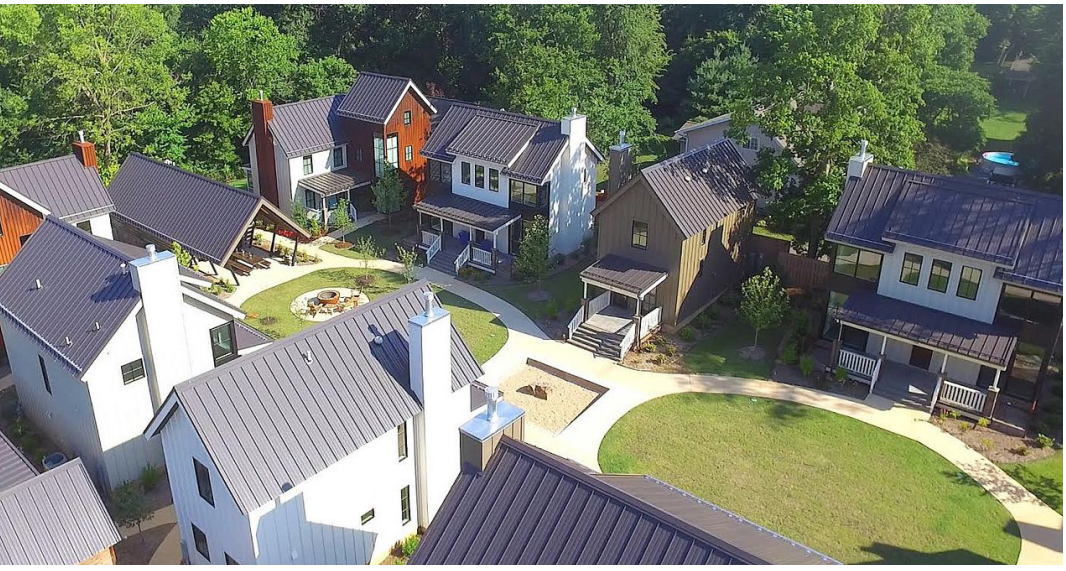
Like most growing regions, however, it faces fast-rising housing supply and affordability challenges. While initiatives are underway to accelerate housing development near the region's job centers, pivotal choices lie ahead for local leaders. The region's push to move beyond its low-density, car-centric model and address housing shortfalls makes it a timely case study for policymakers nationwide.

The Northwest Arkansas metropolitan area, centered on Fayetteville, Springdale, Rogers, and Bentonville, is home to 561,000 people, making it America's 102nd largest metro. It is also one of the fastest-growing. Its population grew 27% from 2010 to 2021, more than all but four of America's 100 largest metros. The arriving population is extraordinarily diverse, underscoring the region's position as a magnet for people of all backgrounds. Based on U.S. Census data, the metro has seen growth of 30% in its Black population since 2010, 36% among Hispanics, and 71% among Asians, far above most metros in each group.

The region's vibrancy starts with longtime strengths in retail, agribusiness, and higher education. Walmart, Tyson Foods, and the University of Arkansas flagship campus are based in Bentonville, Springdale, and Fayetteville, respectively. Northwest Arkansas is building on these assets to create a more knowledge-centric economy. Walmart and the University of Arkansas have joined forces with other firms to make the region a leader in autonomous trucking and drone-based logistics. Bentonville recently became the first locality to run a driverless truck experiment on city streets, with Walmart trucks ferrying goods around town (Sparkman, 2022). Electric truck company Canoo announced its relocation from California, moving its headquarters to Bentonville and bringing an R&D facility to Fayetteville (Sparkman, 2021). Bentonville is one of five cities to win a competition sponsored by co-living company Common to host a live-work-play remote center for footloose knowledge workers (Holder, 2021).

Northwest Arkansas is also emerging as a hub for knowledge-generating "eds and meds" activities. The University of Arkansas has just launched a "Biodesign Sprints" incubator and stepped up engagement in regional economic development through its Institute for Innovative and Integrative Research (I3R). Members of Walmart's founding Walton family have announced a partnership with the Washington County Regional Medical System to open a new medical school in Bentonville in 2024 and expand medical specialties in the region.

As a high-quality life center because of its natural beauty and world-class outdoor amenities, Northwest Arkansas also attracts new talent. The region's Razorback Greenway Trail extends nearly 40 miles, with each principal city building connectors to the east and west. The region is a top mountain biking center, even running cheeky advertisements in Texas claiming a better cycling culture than Austin's. The Crystal Bridges Museum of American Art in Bentonville



Design by GreenSpur. Photo courtesy of Limbered Team

	Fayetteville-Springdale-Rogers Metro Area	Metropolitan America *(population-weighted average of Top 100 metros)*
Population Growth, 2010-21	26.7%	9.8%
Housing Permits, 2015-19 *(as % of 2019 pop, Texas A&M Real Estate Center calculations)*	5.8%	2.3%
% of Existing Housing Units Built Between 2000-2020 *(ACS)*	35.8%	20.2%
Housing Underproduction as % of 2019 housing stock *(Up For Growth calculation)*	2.2%	3.8%
Median Home Value, 2010 *(ACS)*	$146,300	$251,609
Median Home Value, 2022 *(Zillow)*	$291,000	$480,390
Median Home Price to Median Household Income, 2010 *(Bush Institute calculation)*	3.2	4.4
Median Home Price to Median Household Income, 2022 *(Bush Institute calculation)*	3.6	5.0
% of Owner-Occupied Homes below $200,000 *(ACS)*	54.4%	31.8%
% of Rental Homes below $1,000/month *(ACS)*	65.6%	35.3%

anchors a lively arts scene, with each city investing in performing arts venues, outdoor art installations, music and film festivals, and programs to support local artists.

Numerous other initiatives are underway to promote opportunity. The Walton Family Foundation, the University of Arkansas, and other partners have supported incubators capitalizing on regional strengths, including outdoor recreation and artisanal food startups, as well as programs supporting Black entrepreneurs. The University of Arkansas and other institutions are rolling out innovative "early college" programs for high schoolers and upskilling opportunities for adults.

Northwest Arkansas is one of the only Southern mid-sized or smaller metros to perform above U.S. averages on indicators of social capital – the trust among citizens and civic engagement that make a community tick (Social Capital Project, n.d.) – and upward mobility for people growing up there, as measured by Harvard University economist Raj Chetty's Opportunity Insights group (2018). It easily makes a list of high-opportunity metros compiled by the George W. Bush Institute-SMU Economic Growth Initiative in a recent report (Clark, 2022).

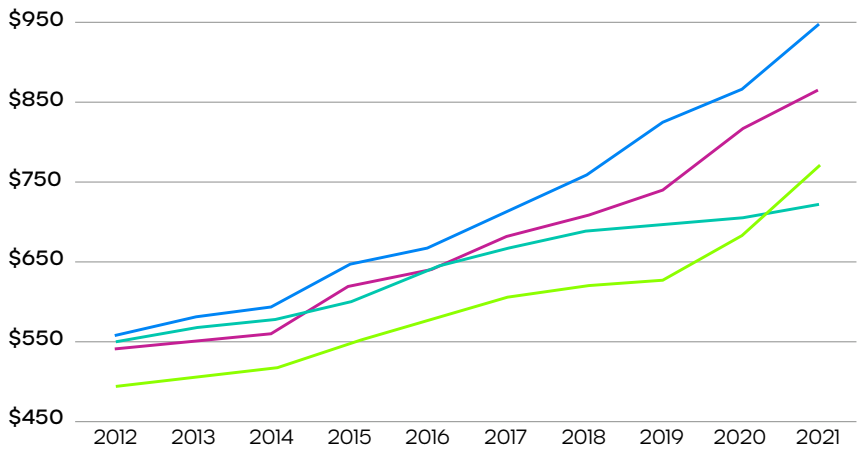
While Northwest Arkansas has much to offer current and potential residents, its housing picture is growing cloudier. On one hand, home prices remain more affordable than in most U.S. metros. The region's median sale price in 2021 was $332,000, below the U.S. metro average of $420,000, according to a RE/MAX report (RE/MAX NEWS, 2022). The share of renters paying more than 25% of their income in rent is below average: 29% compared with 38% for U.S. metros in total.

On the other hand, Bush Institute –SMU studies show prices have more than doubled over the past decade. Median prices saw the second-fastest growth rate from 2021 to 2022 among 53 metros covered by the recent RE/MAX report. New development has slowed, especially in the region's four core cities, and moderate-income families find themselves looking ever further from job centers for affordable housing, according to Mervin Jebaraj of the University of Arkansas Center for Business and Economic Research (Interview with the authors, May 2022).

A growing number of regional leaders believe Northwest Arkansas is approaching a crossroads. One possible path is to develop primarily outwards. While the region has ample land, this means adding population mostly in outlying areas requiring long commutes and increasing congestion in core cities since the region has limited public transit.

The other path is to promote moderate densification in central areas, with multiple housing types and more mixed-use infill development. This path also means creating policy toolkits to support subsidized housing in high-opportunity areas. More housing in the core cities

Rapid Increase in Rents in Northwest Arkansas



would have four benefits:

- Greater supply at all price points would ease market pressures and improve affordability over time, reinforcing one of the region's key competitive strengths.

- More attainable housing in high-opportunity areas would open up opportunities for moderate-income people and help employers fill positions.

- Creation of walkable urban spaces would attract talented people, just as trails and arts amenities do, adding vibrancy. Density and walkability contribute to a region's innovativeness, as thinkers from the great urbanist Jane Jacobs to modern-day scholars like Harvard's Edward Glaeser and George Washington University's Christopher Leinberger have shown (Ellison et al., 2007).

- Shorter commutes promote ecological and financial sustainability.

From 2019 to 2021, the Walton Family Foundation published a series of studies strongly endorsing the second path. The reports point to progress in all four cities – zoning changes, reduced parking minimums, and greater downtown walkability (2021).

Also in 2021, the Northwest Arkansas Council launched its new Workforce Housing Center, focused on bringing more housing options to teachers, firefighters, care providers, building tradespersons, and others who make up the economic backbone of the region. The Center believes the region is at risk of undermining its growth trajectory and "best place" quality of life if well-located housing moves further out of reach for families earning between $35,000 and $75,000 a year.

The Center is ramping up efforts to educate residents on housing challenges, advocate for an updated development model, and convene government, business, real estate, and banking leaders to build consensus on the path forward. Above all, the Center will press for policy changes to promote more housing and wider varieties of housing types, with a focus on proximity to job centers, transportation corridors, and the region's rich amenities.

Northwest Arkansas enjoys three advantages as it tackles its challenges. First, people are pouring into the region, creating good conditions for a homebuilding boom. Second, it's an extraordinarily low-density region compared to similarly sized metros, allowing for considerable infill and Missing-Middle development without creating what many would view as excessive density. Third, it has a strong tradition of coordinated action across the public, private, and nonprofit sectors to plan for the region's future.

While Northwest Arkansas is struggling like all fast-growing metros to produce the housing it needs in high-opportunity areas, these advantages make it a region to watch.

Cullum Clark, Ph.D.

J.H. Cullum Clark is director at the Bush Institute at the Southern Methodist University (SMU) Economic Growth Initiative and an adjunct professor of Economics. Clark worked in the investment industry for 25 years, serving as an equity analyst and portfolio manager at Brown Brothers Harriman & Co. and at Warburg Pincus Asset Management, as president and chief investment officer of Cimarron Global Investors, and as president of Prothro Clark Company. He holds a Ph.D. from SMU, a Bachelor of Arts from Yale University, and a Master of Arts from Harvard University.

Duke McLarty, J.D.

As the executive director of the Northwest Arkansas Workforce Housing Center, Duke McLarty develops housing solutions that promote well-designed, mixed-use neighborhoods across the region. McLarty previously served as the senior director of Government and Community Relations for AIR Communities and as a senior policy advisor at the U.S. Department of Housing and Urban Development and the Federal Housing Administration. McLarty holds a Juris Doctor from the University of Arkansas School of Law.

Artist's rendition of how applying A Better Foundation principles would improve housing supply in Bentonville, Arkansas.

Economic and Fiscal Consequences of Housing Underproduction

Brink Lindsey, J.D.
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Daniel Takash
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In the United States, zoning and other forms of land-use regulation have traditionally been seen as a singularly local issue, with decisions made by local authorities on a hyper-local (often plot-by-plot) basis. It has become increasingly clear, however, that pervasive restrictions on land-use have a cumulative impact that is national in scope.

With regard to housing, land-use restrictions are intended to control where housing can be built and what kind of housing is permitted, from single-detatched homes to high-rise apartment complexes and everything in between. The inadvertent impact of land-use restrictions, however, has been to impose progressively tighter limits on how much total housing can be built in a given metro area. These constraints on housing supply have translated in turn into housing shortages, skyrocketing home prices, and affordability crises in cities across the country.

It wasn't always this way. Zoning rules date back more than a century, spreading rapidly with the urbanization and especially suburbanization of the country. In the early days, developers could get around zoning limits on urban density by building homes farther away from the city center. Over time, however, opportunities for sprawl were exhausted and housing construction started to fall behind demand. As documented by Jake Anbinder in The Atlantic (2021), beginning in the 1960s, a collection of longtime residents resistant to change, environmentalists skeptical of growth and construction, and homeowners seeking to protect their financial investments expanded zoning's restrictions with environmental review regulations, community input provisions, historical preservation laws, and a host of other rules.

The sum of local decisions to block multifamily housing and keep minimum lot sizes large, street parking available, sidewalks uncrowded, and neighborhoods unchanged has had dramatic consequences for the United States as a whole. As estimated in this report, the cumulative impact as of 2019 adds up to 3.8 million fewer housing units than should have been produced.

Economic and Fiscal Consequences (cont.)

This underproduction of housing is not evenly distributed across the country. On the contrary, this report documents that it is heavily concentrated in the places with the most productive economies, highest wages, and most appealing amenities—in other words, the places otherwise most likely to attract new residents. Looking at the state level, California is a good case in point: Almost a million homes that should have been built by now haven't been. Texas pitches itself as the place to live and do business for people wanting to leave California, but despite its impressive economic growth, it has failed to build over 320,000 units of housing. Florida and New York are just behind Texas, underproducing almost 290,000 and 260,000 homes respectively.

At the regional and national level, artificially restricted housing supply and the resulting inflated home prices in the nation's most desirable locations act as barriers to geographic mobility. Because people are priced out of relocating to many otherwise attractive places by excessive housing costs, they are stuck in less productive cities and lower-paying jobs than otherwise would be the case.

The costs of this spatial misallocation of the nation's population are exacerbated by so-called "agglomeration economies," that is, the stimulus that proximity gives to innovation and growth. For example, according to "The Paper Trail of Knowledge Spillovers: Evidence from Patent Interferences," a study by Ina Ganguli, Jeffrey Lin, and Nicholas Reynolds for the Federal Reserve Bank of Philadelphia (2019), cases of simultaneous invention among patent filers are 1.4 to 4 times more likely for those who live in close physical proximity relative to a random pairing of patent applicants. Accordingly, when workers move to a high-productivity area, they are improving not only their personal productivity, but also creating the general conditions for the growth of productivity overall. Conversely, when they are prevented from moving by bloated housing costs, this "multiplier effect" of aggregation is lost.

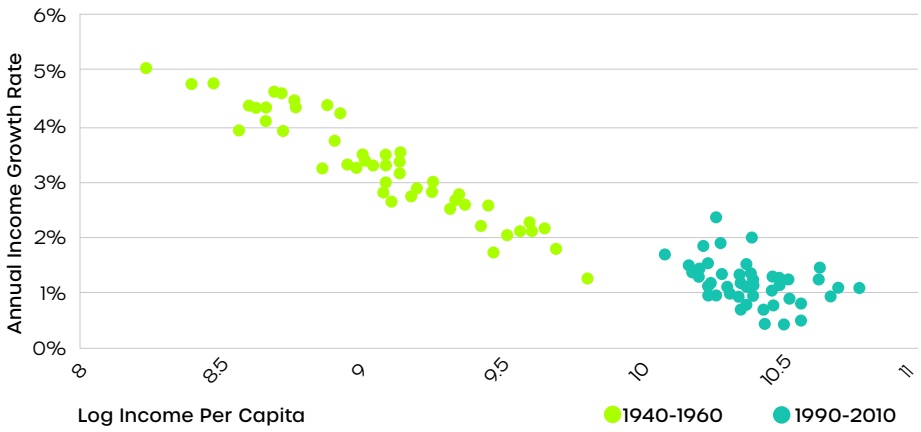
The overall effect of Housing Underproduction on U.S. economic performance is staggering. In a 2019 study, Chang-Tai Hsieh and Enrico Moretti's paper *Housing Constraints and Spatial Misallocation* estimated a counterfactual United States in order to calculate economic output. Their fictional U.S. took the most restrictive cities' housing regulations (New York, San Francisco, and San Jose) and made them as accommodating as those of the median U.S. city. The study shows that under such liberalization and the consequent increase in housing supply, the total GDP of the United States in 2009 would have been 8.9% higher than it was, translating to $8,775 in added wages for all U.S. workers. Even using more conservative assumptions about mobility, Hsieh and Moretti found GDP in the same period would be 3.7% higher, with $3,685 in added wages. These gains would have come from workers moving to areas with high productivity growth who, in present-day, would stay in less-productive parts of the country.

Other recent research confirms the sizeable impact of artificially constrained housing supply on economic growth. Analysis by Kyle Herkenhoff, Lee Ohanian, and Edward Prescott (2017) found that deregulating land use across the United States to 1980 levels would raise productivity by up to 16% and consumption by up to 11%. Applying more conservative assumptions about labor responsiveness to housing prices, Edward Glaeser and Joseph Gyourko (2018) found that the reallocation of labor from deregulating housing supply would boost GDP by up to 2%.

Beyond its large negative impact on overall economic output, housing underproduction also works to lock in geographic inequality. According to research by Peter Ganong and Daniel Shoag in their paper entitled "Why has Regional Income Convergence in the U.S. Declined?" (2017), from the end of Reconstruction to the 1980s, incomes across states converged at a rate of around 1.8% per year, where states with lower incomes experienced higher rates of growth than higher-income states. By contrast, between 1990 and 2010, the rate of interstate income convergence fell by more than half.

The Decline of Income Convergence

Incomes overall have increased, but states with lower incomes are no longer growing as quickly as their peers.



Source: Peter Ganong and Daniel Shoag, "Why Has Regional Income Convergence in the U.S. Declined?" Journal of Urban Economics, November 2017.

As shown by Ganong and Shoag, the decline in interstate income convergence tracks the declining net returns to moving to higher-income states. Living in an area with higher wages typically comes at the price of paying more for housing and other goods and services, but workers still come out ahead so long as their pay increase is more than the increase in the cost of living. In 1940, when unskilled workers moved to a state with a higher average income, they could expect to gain $0.88 in income net of housing costs for every $1.00 increase in nominal pay, gains greater than those for skilled households. This pattern remained roughly the same until the last decades of the 20th century, when the net gains from moving fell from over $0.70 in 1980 to around $0.50 in 2000, declining to less than $0.40 in 2010.

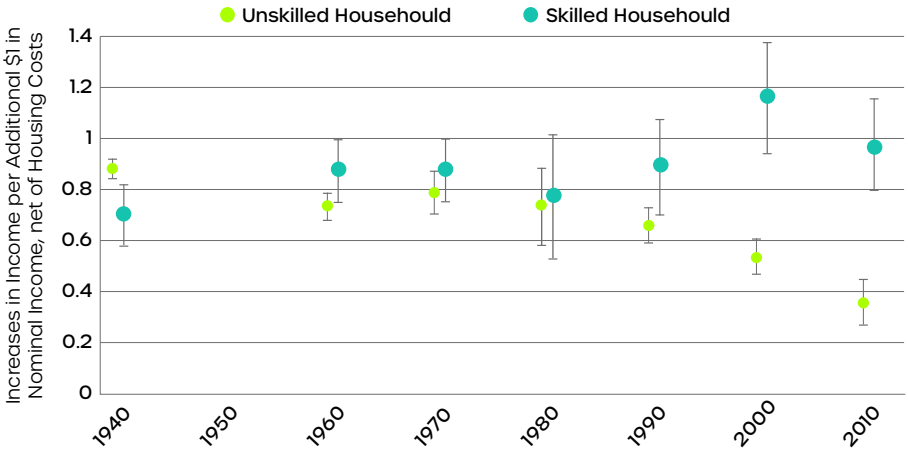
The economic costs of the failure to build housing in places where people want to live and work also comes in the form of fewer people living and working. There is evidence to suggest that increasing housing costs have a negative impact on fertility, and thus population growth (Shoag, 2018). This is due to the expense of housing in general and, especially in urban areas, housing well-suited for families. As found by Whitney Airgood-Obrycki and Jennifer Molinsky (2019), that type of housing is often instead occupied by young people who are unable to find housing that better matches their needs. The ability to move to opportunity applies just as much to families and children as it does to workers.

In addition to these far-reaching and interconnected economic effects, housing underproduction has significant fiscal consequences. Lower economic output reduces revenue across the board, but the effects are particularly acute for jurisdictions that should be–but aren't–growing. Higher density and population are associated with increased public transportation utilization, positively contributing to the balance sheets of those systems (Mattson, 2020). More people require more public services, but in general, density is negatively associated with the per-capita costs of public services across the board (Mattson, 2021). Furthermore, a larger population means a larger tax base, especially if highly paid professionals who might otherwise move out into the suburbs are instead able to find housing that fits their needs in the city.

The good news is that the housing crisis has attracted increasing national attention in recent years and elected officials at all levels of government are taking notice. Incremental reforms in the past few years have slowed the growth of housing underproduction; however, much work remains to address the shortfall that has accumulated over decades. The laws and regulations that make it impossible to build housing of the type people want in the areas they want have generated enormous costs for would-be residents of metropolitan areas, the finances of those local governments, and the U.S. economy at large. The natural migration of people to areas where they can increase their incomes and improve their living situations has salutary effects for both them and the country as a whole. The policies that have impeded this process over the past decades are immensely costly and need to be reversed as much, and as soon, as possible.

Effect of Moving to a State with $1 Higher Nominal Income

High housing costs mean the returns from moving to a richer state for unskilled workers have declined substantially.



Source: Peter Ganong and Daniel Shoag, "Why Has Regional Income Convergence in the U.S. Declined?" Journal of Urban Economics, November 2017.

Brink Lindsey, J.D.

Brink Lindsey is a vice president at the Niskanen Center, where he plays a leading role in developing and articulating the Center's distinctive policy vision. He has written about a range of policy issues and American social, economic, and cultural history. Lindsey is the author of several books, including The Captured Economy (with Steven Teles).

Daniel Takash

Daniel Takash is the regulatory policy fellow at the Niskanen Center. He researches regulatory policies on occupational licensing, financialization, land-use regulation and zoning, intellectual property, and other topics related to regressive rent-seeking. Takash graduated from Johns Hopkins University with a Bachelor of Science in Applied Mathematics & Statistics and Political Science. His last name rhymes with "brackish."

CONSIDERING

Climate Change

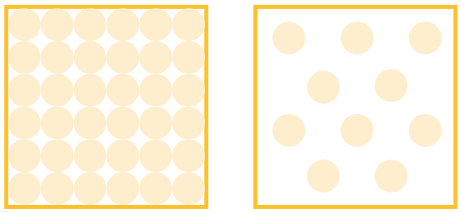
Overview and Findings

More of the same housing policy drives poor climate outcomes. We intentionally designed A Better Foundation to realize tangible climate benefits while increasing housing availability and affordability. Key to this framework is locating new housing in areas with high concentrations of jobs and community assets, and in walkable neighborhoods with generous pedestrian or transit infrastructure. This method increases land efficiency, lowers vehicle miles traveled, and decreases the social cost of carbon.

Jobs, Transit, and Walkability

Some communities have an abundance of jobs but not enough housing. This increases housing costs, limits economic dynamism, and forces long commutes that increase greenhouse gas emissions. Other communities have too few jobs. Sometimes called "bedroom communities," these areas tend to be exclusive and segregated, often requiring residents travel long distances to get to jobs and services. By concentrating production in census tracts with two jobs per housing unit, A Better Foundation can reduce average commute times between home and work by fifteen percent.

A Better Foundation also prioritizes transit infrastructure in the distribution of housing. Census tracts within one half-mile of high-frequency transit station areas and tracts in the top 20% of "walkable places" are given priority



A Better Foundation uses

72% less land

to build the same number of housing units compared to more of the same.

A Better Foundation builds

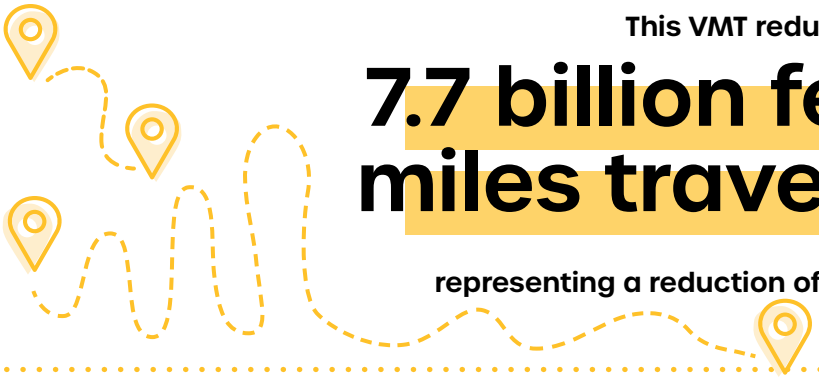
25% more Missing Middle and moderate density

compared to more of the same.

A Better Foundation's housing distribution leads to

a 15% reduction in Vehicle Miles Traveled (VMT)

compared to more of the same.



This VMT reduction translates to

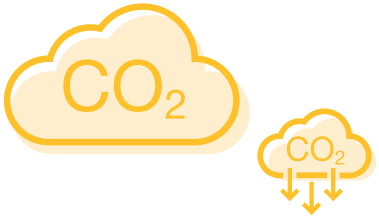
7.7 billion fewer vehicle miles traveled annually

representing a reduction of 5.6 VMT per household per day.

This VMT reduction translates to an

annual reduction of $110 million

in the social cost of carbon.



for new housing distribution. We use the U.S. Environmental Protection Agency's National Walkability Index, which considers factors like pedestrian-oriented intersections, likelihood of carpooling (via commute mode splits), housing density, and the mix of employment types in an area.

Focusing on housing close to jobs and transit, or in areas where residents can walk to work and services, actively pursues climate policy goals by reducing emissions and traffic congestion.

Climate Justice

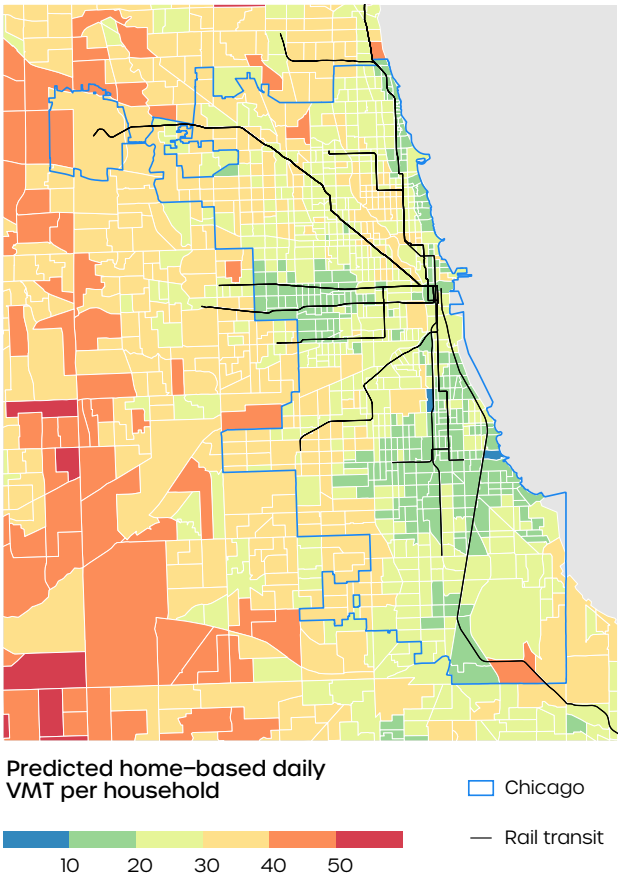
Historically, communities of color have experienced disproportionately negative environmental impacts linked to overtly and covertly discriminatory housing, planning, and community development practices. A recent study (Lane et al., 2022) on the climate impacts of redlining found that "compared with white people, Black and Latino Americans live with more smog and fine particulate matter from cars, trucks, buses, coal plants and other nearby industrial sources in areas that were redlined" (Fears, 2022, para. 3). The Fair Housing Act of 1968 brought an end to redlining; however, the impacts of these discriminatory housing practices continue to affect the wealth, health, climate, and community development of these redlined communities (Lane et al., 2022).

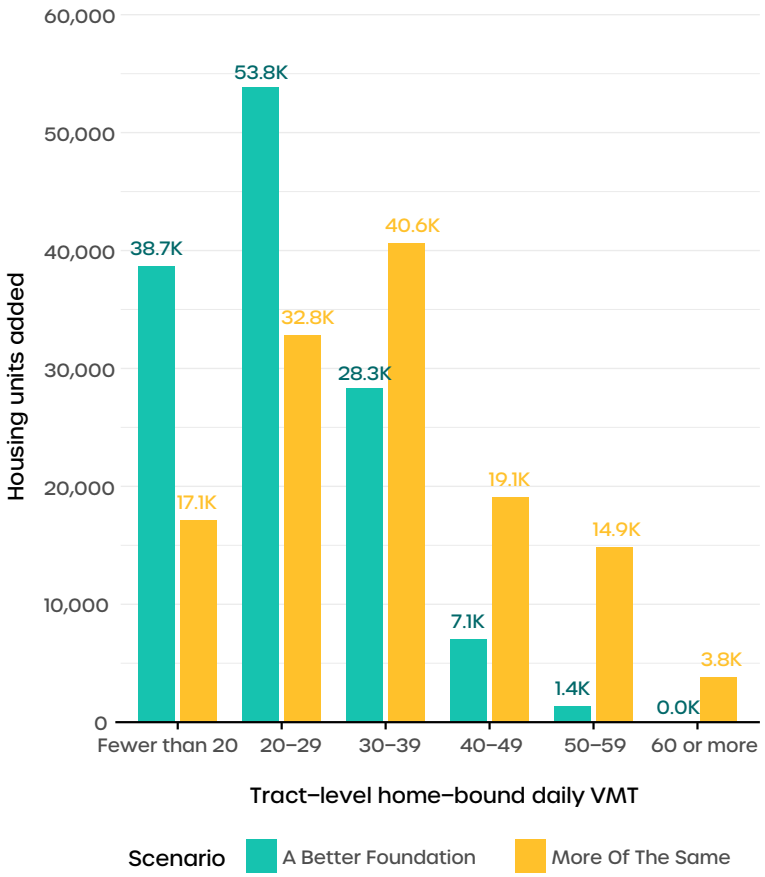
Studies show that 80% of current communities that had been redlined as "Hazardous" experience higher pollution levels (e.g., nitrogen dioxide) today (Fears, 2022; Lane et al., 2022). Another report showcases how "79% of the 73 incinerators remaining in the U.S. are located in low-income communities and/or communities of color" (Waste Dive, 2019, para. 2). In other words, the most toxic incinerators and worst pollutant emitters are in communities of color (Isabel Baptista & Perovich, 2019; Waste Dive, 2019).

These reports capture some of the direct environmental impacts of redlining and housing segregation tactics that "allowed whiter, wealthier communities to exclude industrial uses and people of color from their boundaries" (Isabel Baptista & Perovich, 2019). The lingering environmental impacts in communities of color must be addressed through current and future housing projects and policy reform.

Increased Land Efficiency

The incremental development of A Better Foundation builds more homes per acre, compared to the status quo. As a result, A Better Foundation uses 28% of the land required to support a more of the same approach. This is a direct benefit in the cost of installing and maintaining infrastructure, but also a benefit to the climate through sequestration of carbon, preservation of farmlands, and resource allocation.





A Better Foundation uses 28% of the land required to support a more of the same approach.

Vehicle Miles Traveled (VMT)

By encouraging more housing in walkable neighborhoods closer to jobs and community assets, A Better Foundation reduces commute times and vehicle miles traveled. VMT reductions vary by state. States whose development patterns have been in suburban and rural places benefit most through adding density in high-opportunity areas As an illustration, Alaska sees the smallest reduction in VMT and climate benefits while Vermont sees the largest reduction. However, benefits accrue widely in all states, with 20 states showing a reduction in VMT of more than 20% when using A Better Foundation approach compared to more of the same.

Social Cost of Carbon

The social cost of carbon is a measure of the economic damages that result from emitting one ton of carbon dioxide into the atmosphere. A term widely used in climate policy discussions, it is an attempt to put a dollar value on the damages resulting from carbon dioxide emissions, damages such as drought, flooding, heatwaves, and rising sea levels. Lower VMT associated with A Better Foundation reduces carbon dioxide emissions, representing a reduction of $110 million annually in the social cost of carbon after 20 years.

Urban Walkability in New York Metro Solves Multiple Challenges

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Metropolitan Housing and Communities Policy Center at the Urban Institute

Christopher Leinberger
Chair of the Center for Real Estate and Urban Analysis
George Washington University School of Business

Michael Rodriguez, AICP
Partner
Places Platform, LLC

Up for Growth's Housing Underproduction in the U.S. report underscores the severe housing crisis across the country and its significant economic, social, and environmental consequences. As the report outlines, homes in metropolitan regions throughout the country are unaffordable for a large share of households, both leading to increased houselessness, and encouraging population and development into environmentally destructive exurban sprawl. This outward expansion reinforces our reliance on automobiles, leads to additional energy consumption and carbon emissions, diminishes public health, and has negative foreign policy implications. We can help address the housing shortage by allowing housing to be constructed in walkable urban places where we already have built the infrastructure and where artificial zoning constraints have pushed housing prices to record highs. While we give an example here using metropolitan New York, this concept applies to all regions struggling with high housing costs.

There are two basic forms of housing development in metropolitan America. The first is "drivable suburban," which is extremely low-density and automobile-dependent, has segregated land-uses with housing separated from schools, offices, retail, and other aspects of life, and is mostly made up of large lots. It is the number one contributor of urban-related greenhouse gas emissions. The second is "walkable urban," which is higher density with multiple transportation options, integrated land-uses within walking distance, and far less land use. People living in walkable urban places create an estimated 50% fewer greenhouse gas emissions over the course of their daily lives than those in drivable suburban places.

From the perspective of reducing emissions, a greater proportion of development needs to be walkable urban. This would reduce price pressure on walkable urban land, the type of community that price premiums tell us many people want to live in but can't afford. It would take advantage of existing infrastructure, decrease greenhouse gas emissions and noise pollution, increase both gross regional and gross national product, put a solid fiscal base under local jurisdictions, and if done right, diversify accessibility to high-opportunity communities for low-income households.

Metropolitan New York

The Housing Underproduction report estimates that metropolitan New York, the largest American metro region, has a housing deficit of 342,000 units as of 2019, which based on the regional product mix, can be assumed to consist of 200,000 rental units and 142,000 for-sale units. For context, the region has about 7.8 million housing units (44% in New York City and 56% everywhere else). In the decade from 2010 to 2020, the whole region only added about 286,700 housing units. At that rate, it would take 12 years for the region to make up for the housing deficit it is already in, without accounting for any additional population growth and natural replacement. In other words, without dramatic action, this deficit will get deeper.

Metro New York is ranked the most walkable urban metro in the country by Foot Traffic Ahead 2019 (Loh). However, in this region—an area roughly the size of Maryland—only 17% of walkable urban development is in the vast suburbs according to our research in WalkUP Wake Up Call: Metro New York (Leinberger et al., 2017.). The price premiums for its walkable urban housing are the highest in the country. Walkable urban rental apartments have a 236% price per square foot price premium over drivable suburban rental, and walkable urban for-sale housing has a 70% price per square foot premium, both reflecting the pent-up demand for walkable urban housing.

One explanation for this price premium is that the New York region has compressed all its walkable urban real estate (housing, office, retail, and other buildings) into a tiny 2.5% of the region's total land mass. The other 97.5% of land consists of low-density drivable suburban areas and open space, built at a density much less than metropolitan Los Angeles.

It's crucial to understand that this tiny area of walkable urbanism is an economic powerhouse. It generates about 56% of the region's $1.2 trillion gross regional product and 53% of its $6 trillion in real estate asset value, and it contains 32% of all real-estate inventory by square footage. This vitality is focused on a small area in New York City (much of the city is actually drivable suburban) and certain other walkable urban places in the region, such as the downtowns of Jersey City, Newark, Stamford, and White Plains. Research by Chang-Tai Hsieh and Enrico

Moretti indicates that limitations on available housing in the San Francisco, San Jose, and New York metro areas, reduces total U.S. GDP by 3.7 percentage points as individuals are priced out of making efficient moves for better jobs and opportunities (2019). Addressing housing needs and being a growing economy are one and the same.

Underproduction Within New York Metro

New research conducted for the Urban Institute and the Housing Crisis Research Collaborative explored how housing production varied between municipalities—towns and cities—between 2000 and 2020. On average, data showed that municipalities with greater numbers of residents with higher incomes and more expensive homes added more housing than communities with residents with lower incomes and less-valuable homes. The explanation for this phenomenon is relatively straightforward: Developers want to build in economically vibrant, attractive cities and towns. They are unlikely to put their money into major projects in depressed metropolitan areas, cities, or neighborhoods.

Even so, among the most expensive cities—defined as those whose home values average at least 30% more than their respective metropolitan areas—there is considerable variation. In fact, about 40% of these exclusive cities accommodated less than half their fair share of regional housing growth. In many cases, these cities have leveraged land-use regulations, like restrictive zoning codes, to cut off the supply of new and needed housing.

Take Ridgewood, New Jersey, a leafy suburban town about 40 minutes by express train from Manhattan's Penn Station. It is a prosperous community with homes worth 69% more than the metropolitan average and resident incomes averaging more than twice as high as those of the region. Its residents are also far more likely to be non-Hispanic white and highly educated. Over the past two decades, Ridgewood's residents and leaders found the means to keep the community that way, leveraging the fact that the city is zoned almost entirely for single-detached housing. The municipality added a grand total of 12 residences during that period—far fewer than the 1,106 homes the town should have added if it was to add 13%, the growth of the region over these 20 years. At the same time, Ridgewood lost about one-third of its already-small number of Black residents.

In metropolitan areas like New York, towns like Ridgewood are impediments to fair, adequate housing accessibility. Its local government has not done enough to create the conditions for construction, and the result is that it has become more and more exclusive.

To increase housing production, Ridgefield and other cities need to start by addressing restrictive zoning to allow for more units to be built in places where unaffordability is most pressing. They can do so in a way that produces more walkable urbanism—attractive for renters and homeowners alike.

Artist's rendition of how applying A Better Foundation principles would improve housing supply in Ridgewood, NJ.

Urban Walkability (cont.)

Walkable urbanism can be achieved both in central cities and in their urbanizing suburbs. We believe that the price premiums for walkable urban housing indicate a pent-up demand for that type of built environment, where one can walk or bike to meet most of one's daily needs. The New York region should expand its walkable urban inventory around the region, including into Long Island, suburban New Jersey, Westchester, and southeast Connecticut. Doing so would reduce land-price pressure on the 2.5% of land that is currently walkable urban, perhaps increasing the amount of walkable urban land to 5-7% of the total.

Much of the 342,000 additional housing units that need to be built can be completed in urbanizing suburban communities, which can be an opportunity for them to grow their economies. This can include infill in existing downtowns; upzoning land around the over 950 existing subway, light-rail and commuter rail stations in the region; redeveloping failing regional malls and business parks; and allowing for slightly more density like duplexes and auxiliary housing units (ADUs) in existing neighborhoods, what's known as "light-touch density."

We have modeled one scenario where the region meets its housing needs with 160,000 rental and 82,000 for-sale units in walkable urban places with a focus on urbanizing suburbs, and the remaining 100,000 units in drivable suburban locations. In this scenario, the entire region could fit its walkable urban housing needs focused only on developing and in-filling around 6.3 square miles of land in the 12,800 square mile region, or only 0.005% of the metropolitan land. The 100,000 units in drivable suburban would occupy 49 square miles of new land, but this figure could be reduced through more compact development. As one of the country's oldest regions, the infrastructure and urban bones are certainly there to accomplish this, but decisions have been made otherwise.

Conclusion

Cities throughout the U.S. are struggling to address limited and unaffordable housing in their communities, increased homelessness, local government fiscal shortfalls, and vulnerable and insufficient infrastructure. Continuing development outward as suburban sprawl precipitates environmentally destructive reliance on automobiles and the infrastructure they require. It results in increased energy consumption, decreased quality of life, and the limitation of economic opportunity for millions of people.

Our research shows that across America, walkable urban places are only 1.5-6.5% of any one region's total land mass. Building more homes is imperative, but how and where we build them is critical. If cities continue to add housing on their fringes, what looks like a housing solution quickly becomes an environmental problem. In contrast, allowing more development in walkable urban places where infrastructure already exists, where economies are vibrant, and where the day-to-day necessities of life produce fewer greenhouse gas emissions, is a win not only for increased housing supply, but also for equity, affordability, economic vibrancy, and climate change mitigation.

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Good Housing Policy is Good Climate Policy

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Climate-aligned cities are essential to climate mitigation and adaptation

The U.S. Housing Underproduction and broader housing affordability crises intersect with the global climate crisis. Stabilizing the climate and avoiding more than 1.5-2°C (2.7-3.6°F) of warming requires limiting cumulative carbon pollution (IPCC, 2022). It is insufficient to aim for a midcentury net zero emissions target, enabled by a future fleet of zero-emission devices. Supporting metropolitan regions to build equitable, efficient, all-electric—and just plain more—housing in walkable and urban neighborhoods is critical to meeting our climate commitments.

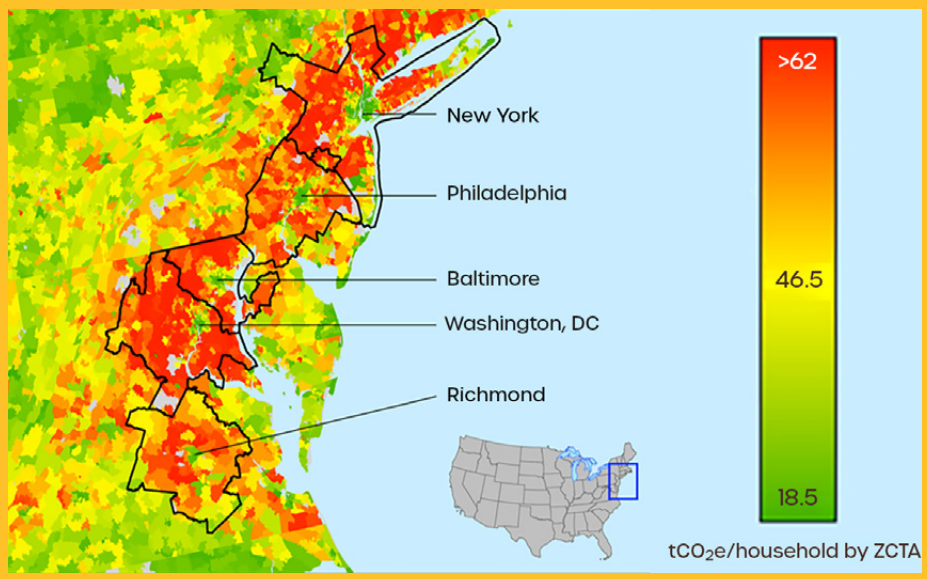
In the U.S., the transportation sector is the largest source of climate pollution, dominated by passenger cars and trucks (EPA, 2019). Nearly a century of law and policy have privileged car use over other social goals, necessitating long car trips for most households just to complete daily activities (Shill, 2020; Mangan et al., 2020). As a result, the U.S. produces about one-third of global light-duty vehicle emissions, far above its population share (4%) or even its emissions share in other sectors (11%).* In addition to direct tailpipe emissions, car-oriented communities exacerbate other emissions sources across all sectors: petroleum extraction and refining; vehicle manufacturing; building energy use; materials, manufacturing, and construction emissions "embodied" in buildings and infrastructure; and the destruction of natural land carbon sinks by sprawling urban land-use.*

A strategy focused solely on changing what cars we drive is incomplete (Alarfaj et al., 2020; Milovanoff et al., 2020). We must also reduce how much we drive by building compact cities and shifting from single-occupancy vehicles to public transport, active transportation, and shared vehicles (ITDP 2021). Compact cities are complementary to vehicle electrification, reducing the number, size, and range of electric vehicles needed and leaving room for carbon-intensive industrial sectors to decarbonize over time (IEA, 2021).* RMI estimates that in the U.S., we need to deploy 70 million EVs and reduce vehicle miles traveled (VMT) per capita 20% below 2019 levels by 2030 to be consistent with global warming of 1.5°C (Teplin et al., 2021).

In its recent report on climate mitigation, the Intergovernmental Panel on Climate Change (IPCC) highlighted the opportunity for compact cities to contribute to emission reductions, finding that better urban planning could reduce emissions by 23-26% (2022). One of the most fundamental climate strategies is the avoidance of "carbon lock-in" by preventing addition of new long-lived, carbon-intensive equipment and infrastructure—from fossil-fueled vehicles and buildings, to highways that disperse homes from each other and destinations (Seto et al., 2016).

Indeed, the longest-lived infrastructure of all is the design of cities and street networks. Yet, a century of exclusionary and low-density planning rules in the U.S. have mandated carbon-intensive communities irrespective of market demands (Wegmann, 2019; Manville et al., 2019). We can avoid further carbon lock-in

Figure 1: Average household carbon footprint in the Eastern United States (tons CO_2e/household by zip code tabulation area)



Source: UC Berkeley Coolclimate Network.

*For additional literature review and methodology details, see the online technical supplement available at: www.upforgrowth.org/underproduction

by reforming these regulations to enable developing infill housing in walkable cities and towns, simultaneously improving access to sustainable transportation modes and focusing new growth in compact and low-VMT communities.

In addition to being a carbon mitigation strategy, climate-aligned housing supports climate resilience. Avoiding new development in areas at high risk for climate hazards like floods, heat waves, and wildfires is increasingly an area of concern for developers, financial lenders, home insurers, and policymakers (Schuetz, 2022). Even more than the material makeup of buildings, the arrangement of buildings and roads in compact areas is critical for reducing susceptibility to wildfires (Greenbelt, 2021). It also makes cities easier to defend when wildfires do occur (Headwaters Economics, 2015). Some city governments have even aligned their land-use and fire management plans to guide infill development into higher-density and less vulnerable neighborhoods to help deter wildfire sparks and spread (C40 Knowledge Community, 2020).

Most critically, while policies like urban growth boundaries can help prevent encroachment into the wildland-urban interface, waterfronts, and other areas vulnerable to extreme climate events, they are only truly effective and politically viable if tied to increased infill housing production (Amos, Dave [City Beautiful], 2022). Achieving more infill housing alleviates the need to build in greenfield or hazardous areas that may be superficially cheaper to develop when implicit subsidies and externalities are not accounted for. The role of limited supply in pricing out lower-income households from environmentally healthy and climate-resilient neighborhoods is an under-emphasized component of serving frontline communities experiencing the "first and worst" consequences of the climate crisis.

The climate benefits of infill housing are frequently missed

Despite the large climate mitigation benefits of compact and infill housing, housing policy is frequently ignored in climate planning (Subin, 2020). The climate pathways models (Williams et al., 2021) used to map out carbon neutral futures typically focus on how quickly today's fossil-powered appliances, vehicles, and industries can be transitioned to clean energy. Separating emissions sources into sectors, however, makes it challenging to represent cross-sector opportunities such as compact and infill housing. Lacking urban planning and regional transportation modules, the climate pathways models have difficulty representing fundamental changes to today's energy consumption and development patterns.

The most glaring analytical deficiency in climate planning models is the sole use of local emissions metrics for most local climate plans (IPCC, 2022). These show limited benefit for co-locating jobs and housing and for efficient use of materials. Worse, they show the wrong sign of change when population is added to cities with lower average emissions than where growth would otherwise have occurred. Building more housing in compact cities tends to make global emissions go down. However, city emissions will go up using conventional accounting. One of the few studies which accounted for this spatial mismatch found that urban infill housing was the most potent action available under local policy for many California cities (Jones et al., 2018).

National technical potential for greenhouse gas benefits from climate-aligned housing

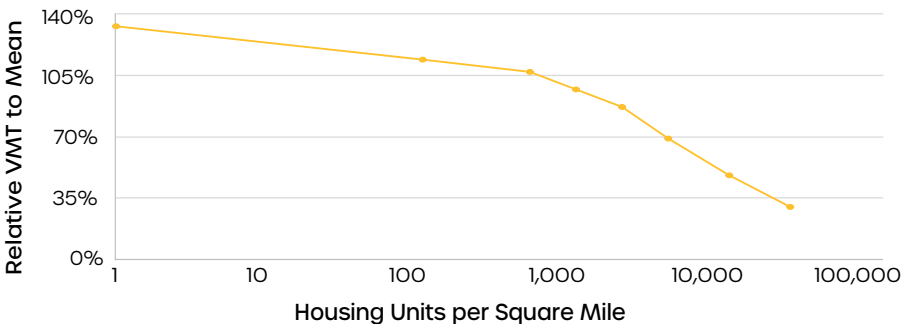
Jones and Kammen (2014) developed a per household carbon emissions dataset, allocating regional vehicle travel and upstream emissions sources such as fuel production and building materials back to households. We used this dataset to extrapolate a rough "technical potential" (i.e., prior to considering economic or political constraints) for housing policy to reduce U.S. climate pollution over the next decade. This is intended to be commensurate with similar estimates for other measures like building and vehicle electrification.

Jones and Kammen (2014) found a consistent pattern around the U.S.: low-emitting urban cores surrounded by higher-emitting suburbs (Figure 1). The biggest reason for this difference is the lower car dependence of urban cores. We illustrate the clear relationship between population density and VMT (Figure 2). People in the densest neighborhoods drive 70% less than average.

Including all emissions sources, our analysis of Jones and Kammen (2014) data shows that a family at a particular income level will emit ~5 to 15 fewer tons CO_2e/year when living in a denser urban neighborhood (Figure 3).*

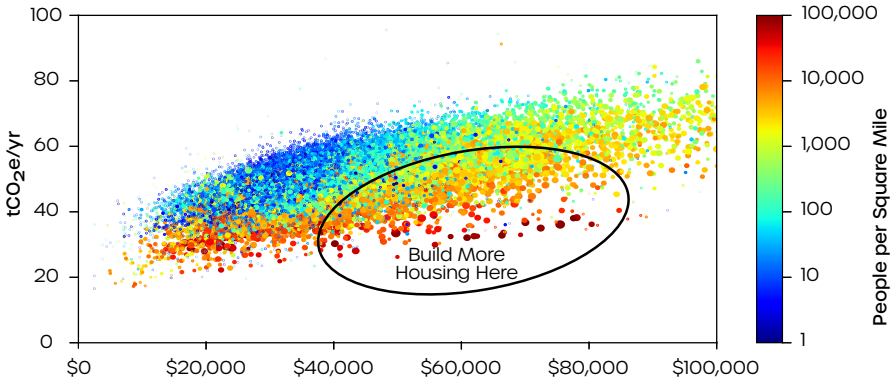
The ongoing demand for new housing will stack onto the cumulative 3.8 million home shortage estimated by this report, providing an important opportunity for building housing in the right places—perhaps upwards of 14 million homes over the next decade.* Multiplying the per household emissions savings by this number of homes suggests a technical potential of roughly 100-200 million tons of CO_2e/year avoidable after 10 years if we build housing in the right places.

Figure 2: Relative vehicle miles traveled per capita in U.S. to national average by household density bin (dots reflect minimum of bin ranges).



Source: RMI analysis of National Household Travel Survey data.

Figure 3: Year 2013 household greenhouse gas footprint vs. household income, by U.S. zip code. Dot size is proportional to zip code population.



Source: RMI analysis of UC Berkeley Coolclimate Network data.

The upper end of this range is roughly equal to the emissions reduction potential of phasing out all gas appliance sales by 2030, or of all U.S. states adopting California's target of 100% of vehicle sales being zero emission passenger vehicles by 2035 (Orvis & Mahajan, 2021). Yet, building and vehicle electrification have received much more attention in climate policy. Note that the technical potential is just the benefit from location efficiency; combining with complementary approaches to build efficient, all-electric housing with low carbon materials would stack onto these benefits.

Building on momentum for equitable housing and climate policy

The fact that [good] housing policy is climate policy is beginning to be recognized by some U.S. cities such as San Diego (City of San Diego, 2021). Overall, however, that compact and urban infill housing is key to reducing climate pollution is often overlooked in climate policy. For already walkable communities, it can be the most impactful emissions reduction measure available to local policymakers. At a national scale, its near-term potential could be as high as building or vehicle electrification. Local climate action plans must include the benefits of pro-housing land-use strategies and move away from drawing rigid boundaries around their jurisdictions that disregard linkages to regional emissions.

Additional focus is needed to investigate the relationship between environmental and equity-oriented housing reforms. Is there a tradeoff between maximizing VMT reduction and maximizing housing affordability and equity? Environmentally motivated housing reforms have conventionally focused on narrow approaches such as transit-oriented development (i.e., higher density within close walking distance of frequent transit). However, narrow upzoning of individual sites or corridors raises several equity concerns (Phillips, 2020). Upzoning has sometimes been focused in low-income areas and communities of color with less political power than other communities, funneling unmet market demand into a small area and risking exacerbation of displacement and gentrification (Philips et al., 2021). It has also concentrated multifamily housing along polluted and noisy arterial roads (Grabar, 2021).

At the same time, policy momentum is growing for broader upzoning to allow "missing middle housing" (Parolek, 2020). Cities from Sacramento to Charlotte, and states from California to Maine, are reforming zoning to widely legalize accessory dwelling units and small multi-family housing, while clearing away barriers such as discretionary review and mandatory parking minimums. Beyond the equity benefits of adding more diverse housing types to exclusionary communities, new economic research contends that we will only achieve broad housing affordability by upzoning large land areas within cities (Philips, 2022).

Up for Growth's A Better Foundation framework makes progress to address these concerns. It prioritizes areas for infill housing that are walkable, job-rich, and transit-adjacent while encompassing much larger land areas. To fully address Housing Underproduction, we will need to employ a full range of strategies to reduce car dependence (Yudkin et al., 2021), while at the same time adding housing to the suburbs (Grant et al., 2020). We will need to complement housing supply with "stability" and "subsidy" approaches to fully solve the housing affordability crisis (Philips, 2020).

But as the rest of this report shows and Figure 3 highlights, there are many high-income, low-emissions neighborhoods where affordable infill housing could be built if exclusionary zoning regulations and more of the same development patterns are rejected. This is not only an opportunity to reduce the emissions driving climate change. By building affordable housing in higher-income, lower-emissions neighborhoods, we can increase access to opportunity, create economically vibrant communities, and build resiliency to the impacts of climate change as well.

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Conclusion

Millions of people in nearly every state are experiencing crippling effects of the housing crisis.

Exclusionary housing policies ensure communities of color are sicker, poorer, and less mobile than their white neighbors; individuals and families are increasingly cost-burdened; states struggle to maintain infrastructure to support sprawling populations; and traffic congestion and long commutes make carbon emissions soar.

A more of the same approach to housing policy will not only fail to narrow the gap between the housing we have and the housing we need, it will also worsen the social, economic, and climate problems that threaten our nation today.

While the magnitude of the housing deficit is daunting, it represents an opportunity to adapt, to use A Better Foundation to provide desperately needed homes while promoting racial equity, increasing housing affordability, bolstering economic dynamism, and addressing climate change.

This report is an effort to deliver practical and tangible solutions to advocates and policymakers. By providing regionally relevant, annually replicable data that considers unique drivers of housing underproduction, advocates and policymakers can spot trends more easily and respond to them in ways that will improve lives, economies, and the planet.

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Housing Underproduction by Metropolitan Area

Rank	Region	UNDERPRODUCTION		Percent Change in Median Rent (2012-2019)	Share of Renter Households who are Cost Burdened	Percent Change in Median Home Value (2012-2019)	Black-White Home-ownership Gap
		Total (2019)	As a Share of Total Housing Stock (2019)				
1	Los Angeles-Long Beach-Anaheim, CA	388,874	8.3%	NA	53.4%	NA	17.0 pp
2	New York-Newark-Jersey City, NY-NJ-PA	342,144	4.4%	22.6%	47.5%	20.7%	28.1 pp
3	Miami-Fort Lauderdale-Pompano Beach, FL	189,301	7.4%	31.6%	58.5%	79.7%	15.8 pp
4	Washington-Arlington-Alexandria, DC-VA-MD-WV	156,597	6.5%	19.9%	44.0%	21.4%	19.8 pp
5	Riverside-San Bernardino-Ontario, CA	153,372	9.7%	29.2%	52.9%	76.8%	22.0 pp
6	Chicago-Naperville-Elgin, IL-IN-WI	129,218	3.3%	21.0%	43.8%	22.5%	32.4 pp
7	San Francisco-Oakland-Berkeley, CA	114,000	6.2%	47.0%	42.1%	68.7%	23.7 pp
8	Phoenix-Mesa-Chandler, AZ	108,564	5.5%	26.9%	44.1%	81.6%	32.9 pp
9	Atlanta-Sandy Springs-Alpharetta, GA	97,538	4.1%	31.8%	47.0%	53.7%	26.9 pp
10	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	89,949	3.6%	20.0%	48.0%	12.2%	26.1 pp
11	Dallas-Fort Worth-Arlington, TX	85,226	3.0%	37.1%	44.9%	69.7%	29.2 pp
12	Seattle-Tacoma-Bellevue, WA	81,024	4.9%	50.2%	45.4%	71.3%	35.0 pp
13	Minneapolis-St. Paul-Bloomington, MN-WI	80,138	5.5%	27.8%	43.4%	39.7%	50.1 pp
14	Boston-Cambridge-Newton, MA-NH	77,252	3.9%	35.9%	46.2%	34.7%	31.9 pp
15	Houston-The Woodlands-Sugar Land, TX	74,192	2.8%	30.5%	47.2%	55.0%	26.3 pp
16	Denver-Aurora-Lakewood, CO	69,173	5.7%	52.8%	47.1%	77.3%	22.1 pp
17	San Diego-Chula Vista-Carlsbad, CA	67,799	5.5%	40.3%	53.6%	60.3%	26.6 pp
18	San Antonio-New Braunfels, TX	64,624	7.1%	27.7%	44.9%	49.6%	19.8 pp
19	Portland-Vancouver-Hillsboro, OR-WA	58,624	5.7%	45.2%	47.6%	63.9%	25.4 pp
20	Detroit-Warren-Dearborn, MI	51,282	2.7%	18.3%	45.7%	65.1%	35.1 pp

Rank	Region	UNDERPRODUCTION		Percent Change in Median Rent (2012-2019)	Share of Renter Households who are Cost Burdened	Percent Change in Median Home Value (2012-2019)	Black-White Home-ownership Gap
		Total (2019)	As a Share of Total Housing Stock (2019)				
21	San Jose-Sunnyvale-Santa Clara, CA	47,665	6.7%	52.2%	43.6%	78.9%	29.5 pp
22	Sacramento-Roseville-Folsom, CA	45,550	5.0%	36.0%	51.5%	73.8%	31.3 pp
23	Austin-Round Rock-Georgetown, TX	33,238	3.8%	35.7%	45.2%	66.2%	20.8 pp
24	Oxnard-Thousand Oaks-Ventura, CA	30,986	10.6%	29.3%	55.5%	52.4%	14.3 pp
25	Salt Lake City, UT	26,774	6.2%	32.1%	42.6%	61.2%	45.5 pp
26	Las Vegas-Henderson-Paradise, NV	24,193	2.6%	21.9%	49.6%	115.6%	32.2 pp
27	McAllen-Edinburg-Mission, TX	21,731	7.6%	22.9%	44.9%	16.3%	17.1 pp
28	Columbus, OH	21,666	2.5%	22.0%	39.4%	35.2%	38.4 pp
29	Baltimore-Columbia-Towson, MD	21,638	1.8%	20.8%	46.5%	15.5%	30.1 pp
30	Charlotte-Concord-Gastonia, NC-SC	21,622	2.0%	29.1%	42.0%	42.0%	29.4 pp
31	Lakeland-Winter Haven, FL	20,349	6.7%	19.1%	47.0%	81.0%	21.1 pp
32	Orlando-Kissimmee-Sanford, FL	20,136	1.9%	33.0%	53.8%	78.4%	17.0 pp
33	Grand Rapids-Kentwood, MI	17,639	4.1%	28.4%	42.8%	58.6%	46.8 pp
34	Fresno, CA	17,302	5.1%	20.5%	51.6%	65.5%	27.0 pp
35	Stockton, CA	16,203	6.5%	27.8%	50.3%	102.3%	18.9 pp
36	Richmond, VA	15,824	3.0%	23.0%	49.1%	21.1%	25.5 pp
37	Colorado Springs, CO	15,270	5.2%	39.2%	49.7%	50.0%	26.6 pp
38	Milwaukee-Waukesha, WI	15,224	2.2%	15.8%	43.1%	20.0%	41.9 pp
39	Raleigh-Cary, NC	13,473	2.4%	30.7%	42.4%	40.3%	30.1 pp
40	Boise City, ID	13,259	4.6%	35.4%	45.8%	91.5%	30.5 pp
41	Bakersfield, CA	13,241	4.4%	8.8%	55.2%	57.0%	23.5 pp
42	Salem, OR	13,082	8.1%	38.8%	45.5%	56.0%	NA
43	Bridgeport-Stamford-Norwalk, CT	12,980	3.5%	20.1%	46.6%	10.2%	33.3 pp
44	Ogden-Clearfield, UT	12,883	5.6%	32.0%	38.0%	61.0%	50.7 pp
45	Brownsville-Harlingen, TX	12,131	7.9%	29.0%	48.2%	17.6%	NA
46	Modesto, CA	12,044	6.6%	28.4%	48.9%	109.9%	23.9 pp
47	Tampa-St. Petersburg-Clearwater, FL	11,876	0.8%	30.0%	49.2%	69.4%	26.7 pp
48	Albuquerque, NM	11,433	2.9%	17.3%	45.1%	17.3%	34.0 pp
49	Deltona-Daytona Beach-Ormond Beach, FL	10,664	3.4%	29.4%	51.1%	66.9%	18.2 pp
50	Cincinnati, OH-KY-IN	10,311	1.1%	18.1%	40.4%	22.6%	39.5 pp

Rank	Region	UNDERPRODUCTION		Percent Change in Median Rent (2012-2019)	Share of Renter Households who are Cost Burdened	Percent Change in Median Home Value (2012-2019)	Black-White Home-ownership Gap
		Total (2019)	As a Share of Total Housing Stock (2019)				
51	El Paso, TX	10,246	3.4%	16.9%	46.8%	10.5%	26.0 pp
52	Indianapolis-Carmel-Anderson, IN	9,271	1.1%	20.6%	43.2%	26.1%	34.8 pp
53	Cape Coral-Fort Myers, FL	8,825	2.2%	34.8%	52.5%	77.8%	29.1 pp
54	Gainesville, GA	8,763	11.5%	20.1%	39.9%	49.5%	10.9 pp
55	Santa Rosa-Petaluma, CA	8,759	4.2%	40.4%	49.9%	74.8%	26.7 pp
56	Provo-Orem, UT	8,734	4.6%	31.6%	47.3%	73.5%	38.7 pp
57	Santa Maria-Santa Barbara, CA	8,613	5.4%	NA	54.3%	NA	8.2 pp
58	Vallejo, CA	8,586	5.4%	38.5%	49.1%	96.0%	25.9 pp
59	Manchester-Nashua, NH	8,516	4.9%	22.9%	48.5%	21.0%	34.4 pp
60	Laredo, TX	8,373	9.8%	22.0%	43.0%	36.1%	NA
61	Lancaster, PA	8,268	3.9%	19.3%	45.7%	20.6%	48.0 pp
62	Allentown-Bethlehem-Easton, PA-NJ	8,138	2.3%	22.7%	47.0%	14.5%	45.2 pp
63	Portland-South Portland, ME	8,017	2.9%	23.7%	41.2%	22.5%	43.7 pp
64	Springfield, MO	7,838	3.8%	15.3%	43.6%	24.7%	36.1 pp
65	New Orleans-Metairie, LA	7,727	1.4%	12.2%	46.5%	22.9%	22.6 pp
66	Merced, CA	7,455	8.6%	31.5%	40.1%	104.9%	10.4 pp
67	Fort Collins, CO	7,399	4.8%	44.8%	51.9%	72.5%	NA
68	Naples-Marco Island, FL	7,389	3.3%	35.5%	55.2%	58.8%	19.6 pp
69	Worcester, MA-CT	6,990	1.8%	21.7%	43.5%	19.4%	37.1 pp
70	Olympia-Lacey-Tumwater, WA	6,898	5.8%	27.0%	53.4%	45.9%	31.0 pp
71	Visalia, CA	6,820	4.5%	25.2%	44.0%	57.8%	28.7 pp
72	Spokane-Spokane Valley, WA	6,559	2.7%	23.9%	43.2%	47.8%	34.3 pp
73	Eugene-Springfield, OR	6,556	4.0%	25.9%	48.1%	42.0%	24.4 pp
74	Bend, OR	6,550	7.1%	60.8%	40.8%	75.7%	NA
75	Urban Honolulu, HI	6,453	1.8%	NA	52.0%	NA	22.0 pp
76	York-Hanover, PA	6,298	3.4%	19.5%	45.8%	14.1%	38.2 pp
77	Santa Cruz-Watsonville, CA	6,148	5.7%	21.1%	51.4%	53.8%	NA
78	Palm Bay-Melbourne-Titusville, FL	5,947	2.1%	29.7%	47.7%	81.3%	13.8 pp
79	Providence-Warwick, RI-MA	5,840	0.8%	18.3%	45.2%	20.4%	30.4 pp
80	Reading, PA	5,774	3.4%	14.6%	39.6%	13.0%	36.5 pp

Rank	Region	UNDERPRODUCTION		Percent Change in Median Rent (2012-2019)	Share of Renter Households who are Cost Burdened	Percent Change in Median Home Value (2012-2019)	Black-White Home-ownership Gap
		Total (2019)	As a Share of Total Housing Stock (2019)				
81	Kennewick-Richland, WA	5,667	5.3%	32.9%	43.7%	52.0%	57.9 pp
82	Yakima, WA	5,666	6.3%	15.2%	43.2%	35.4%	24.3 pp
83	Poughkeepsie-Newburgh-Middletown, NY	5,636	2.1%	18.9%	52.1%	8.3%	33.1 pp
84	Port St. Lucie, FL	5,501	2.4%	29.2%	46.8%	81.6%	21.3 pp
85	Green Bay, WI	5,418	3.7%	15.5%	38.7%	21.8%	65.8 pp
86	Omaha-Council Bluffs, NE-IA	5,392	1.4%	22.1%	40.5%	31.9%	36.3 pp
87	Greeley, CO	5,334	4.6%	35.3%	48.9%	88.7%	61.3 pp
88	Kansas City, MO-KS	5,051	0.5%	23.0%	41.1%	34.0%	33.2 pp
89	Springfield, MA	5,047	1.7%	19.3%	50.5%	14.8%	24.4 pp
90	Salinas, CA	4,933	3.4%	39.9%	54.3%	89.5%	19.2 pp
91	Bellingham, WA	4,706	4.7%	29.2%	50.6%	55.9%	NA
92	Hartford-East Hartford-Middletown, CT	4,689	0.9%	17.4%	43.8%	4.2%	30.0 pp
93	Des Moines-West Des Moines, IA	4,644	1.6%	21.4%	38.6%	26.5%	50.8 pp
94	St. Louis, MO-IL	4,502	0.4%	15.1%	40.7%	18.9%	38.3 pp
95	Bremerton-Silverdale-Port Orchard, WA	4,477	3.9%	41.9%	48.9%	48.2%	24.8 pp
96	Fayetteville-Springdale-Rogers, AR	4,470	2.1%	21.9%	37.6%	43.1%	38.3 pp
97	Reno, NV	4,193	2.0%	37.4%	45.4%	115.9%	21.5 pp
98	East Stroudsburg, PA	4,142	5.1%	NA	51.0%	NA	2.6 pp
99	Racine, WI	4,130	5.0%	13.5%	45.0%	23.9%	49.8 pp
100	Appleton, WI	4,015	4.0%	15.4%	33.2%	17.6%	15.1 pp
101	Huntsville, AL	3,766	1.9%	20.8%	41.5%	20.0%	26.7 pp
102	Madison, WI	3,718	1.3%	28.0%	40.7%	27.1%	45.5 pp
103	Napa, CA	3,621	6.5%	43.8%	47.4%	69.0%	18.2 pp
104	Coeur d'Alene, ID	3,456	4.6%	16.7%	39.1%	72.9%	NA
105	Akron, OH	3,193	1.0%	12.0%	45.2%	19.3%	33.6 pp
106	St. Cloud, MN	3,174	3.8%	25.4%	31.3%	26.7%	58.9 pp
107	Hickory-Lenoir-Morganton, NC	3,139	1.9%	16.0%	32.6%	24.6%	25.8 pp
108	Hilton Head Island-Bluffton, SC	3,108	2.7%	NA	42.7%	NA	19.1 pp
109	Prescott Valley-Prescott, AZ	3,066	2.5%	NA	42.8%	NA	40.4 pp
110	Medford, OR	3,049	3.1%	24.9%	47.5%	59.9%	31.2 pp

Rank	Region	UNDERPRODUCTION		Percent Change in Median Rent (2012-2019)	Share of Renter Households who are Cost Burdened	Percent Change in Median Home Value (2012-2019)	Black-White Home-ownership Gap
		Total (2019)	As a Share of Total Housing Stock (2019)				
111	Louisville/Jefferson County, KY-IN	2,952	0.5%	23.9%	39.5%	26.8%	36.6 pp
112	Madera, CA	2,941	5.7%	16.4%	45.7%	74.2%	NA
113	Yuba City, CA	2,854	4.5%	26.1%	50.6%	77.8%	-4.2 pp
114	Decatur, AL	2,711	4.0%	24.4%	30.6%	22.3%	18.0 pp
115	Yuma, AZ	2,559	2.7%	-1.5%	40.6%	27.4%	34.9 pp
116	Ann Arbor, MI	2,336	1.5%	23.7%	47.6%	54.6%	24.7 pp
117	Sheboygan, WI	2,260	4.4%	17.9%	30.5%	16.1%	NA
118	Wichita, KS	2,213	0.8%	22.0%	42.6%	24.1%	34.3 pp
119	Virginia Beach-Norfolk-Newport News, VA-NC	2,205	0.3%	12.5%	45.8%	9.7%	29.1 pp
120	St. George, UT	1,960	2.6%	5.4%	35.3%	77.7%	NA
121	Wausau-Weston, WI	1,896	2.5%	6.8%	39.0%	13.4%	NA
122	Monroe, MI	1,822	2.8%	3.0%	54.1%	35.2%	39.7 pp
123	Burlington-South Burlington, VT	1,805	1.8%	30.3%	56.6%	16.9%	47.3 pp
124	Harrisonburg, VA	1,757	3.2%	13.9%	30.4%	12.3%	41.3 pp
125	Nashville-Davidson–Murfreesboro–Franklin, TN	1,689	0.2%	38.4%	43.0%	65.5%	30.9 pp
126	Lincoln, NE	1,575	1.1%	25.3%	42.4%	33.2%	51.0 pp
127	Midland, TX	1,573	2.4%	50.6%	41.9%	77.0%	15.8 pp
128	Boulder, CO	1,511	1.1%	47.7%	52.6%	62.6%	53.1 pp
129	New Haven-Milford, CT	1,500	0.4%	11.7%	50.5%	3.9%	30.1 pp
130	Charleston-North Charleston, SC	1,430	0.4%	26.5%	43.5%	46.1%	19.6 pp
131	Barnstable Town, MA	1,429	0.9%	28.5%	43.3%	13.3%	9.7 pp
132	Lima, OH	1,416	3.1%	13.8%	37.7%	24.3%	30.7 pp
133	Charlottesville, VA	1,400	1.4%	23.1%	40.0%	17.9%	11.4 pp
134	Knoxville, TN	1,353	0.3%	18.8%	41.6%	18.9%	30.0 pp
135	Idaho Falls, ID	1,322	2.4%	20.0%	45.8%	38.7%	NA
136	Athens-Clarke County, GA	1,310	1.5%	9.9%	50.8%	28.1%	29.6 pp
137	Pueblo, CO	1,276	1.8%	13.9%	51.2%	44.4%	6.9 pp
138	Grand Junction, CO	1,245	1.8%	24.0%	50.0%	32.7%	NA
139	Spartanburg, SC	1,236	0.9%	23.3%	42.5%	38.3%	33.8 pp
140	Muskegon, MI	1,207	1.6%	16.9%	48.5%	31.2%	35.1 pp

Rank	Region	UNDERPRODUCTION		Percent Change in Median Rent (2012-2019)	Share of Renter Households who are Cost Burdened	Percent Change in Median Home Value (2012-2019)	Black-White Home-ownership Gap
		Total (2019)	As a Share of Total Housing Stock (2019)				
141	Sebastian-Vero Beach, FL	1,177	1.4%	30.2%	48.3%	68.7%	31.7 pp
142	Punta Gorda, FL	1,147	1.1%	19.8%	54.1%	70.3%	7.3 pp
143	La Crosse-Onalaska, WI-MN	1,081	1.8%	20.1%	41.5%	24.1%	61.8 pp
144	Tucson, AZ	1,025	0.2%	15.4%	45.6%	37.9%	34.3 pp
145	Jackson, MS	993	0.4%	15.4%	45.5%	14.9%	30.5 pp
146	Rochester, MN	979	1.0%	26.7%	39.6%	35.7%	52.5 pp
147	Kankakee, IL	937	2.0%	19.1%	49.7%	3.0%	31.8 pp
148	Owensboro, KY	930	1.8%	27.9%	45.4%	28.6%	17.5 pp
149	Canton-Massillon, OH	923	0.5%	11.3%	36.4%	21.7%	44.2 pp
150	San Luis Obispo-Paso Robles, CA	910	0.7%	39.8%	53.9%	55.0%	-8.5 pp
151	Pensacola-Ferry Pass-Brent, FL	897	0.4%	15.4%	41.5%	44.1%	29.4 pp
152	North Port-Sarasota-Bradenton, FL	732	0.2%	37.2%	50.1%	70.8%	36.2 pp
153	Hanford-Corcoran, CA	712	1.5%	21.9%	46.3%	53.6%	-5.5 pp
154	Sioux Falls, SD	662	0.6%	18.5%	36.7%	43.9%	51.0 pp
155	Las Cruces, NM	655	0.7%	6.8%	42.5%	18.4%	23.2 pp
156	Auburn-Opelika, AL	630	0.9%	-1.8%	45.7%	17.8%	9.3 pp
157	Janesville-Beloit, WI	627	0.9%	23.4%	40.7%	25.9%	40.3 pp
158	Wenatchee, WA	567	1.0%	29.1%	33.1%	49.2%	NA
159	Santa Fe, NM	546	0.7%	16.9%	40.0%	16.5%	6.9 pp
160	Lebanon, PA	437	0.8%	21.8%	47.9%	11.4%	72.0 pp
161	Cedar Rapids, IA	397	0.3%	13.5%	37.2%	11.7%	51.3 pp
162	Duluth, MN-WI	314	0.2%	14.5%	43.9%	22.0%	45.4 pp
163	Chico, CA	196	0.2%	22.0%	49.6%	65.7%	29.8 pp
164	Anchorage, AK	157	0.1%	4.2%	44.4%	12.5%	28.7 pp
165	Tuscaloosa, AL	141	0.1%	28.1%	51.9%	10.1%	25.5 pp
166	Dalton, GA	127	0.2%	15.4%	30.4%	30.8%	8.1 pp
167	Houma-Thibodaux, LA	114	0.1%	3.9%	49.8%	24.6%	32.6 pp
168	State College, PA	46	0.1%	9.1%	51.2%	33.3%	44.1 pp
169	Billings, MT	35	0.0%	21.2%	45.5%	29.6%	NA

Glossary

Census Tract. A small statistical subdivision of a county with an average population of 4,000 individuals. The primary purpose of census tracts is to provide a stable set of geographic units for the presentation and analysis of statistical data.

Community Assets. Anything that improves the quality of community life. Assets include: the capacities and abilities of community members; physical structures or places such as parks, schools, hospitals, churches, libraries, recreation centers, and social clubs; local private, public, and nonprofit institutions and organizations.

Cost-Burdened. An individual or family spending more than 30% of their income on housing costs.

Density. The number of developed units in a specific area of land. Residential density, for example, is typically measured by dwelling units per acre (du/ac) or alternatively, as the ratio of building footprint to the size of the site, known as Floor Area Ratio (FAR).

Exclusionary Zoning. A residential zoning plan whose requirements (e.g., minimum lot and/or house size) have the effect of excluding low-income residents.

The Great Recession. A common term for the steep decline in economic activity in the United States from December 2007 to June 2009, including the global recession in 2009.

Gross Domestic Product (GDP). The total monetary or market value of all the finished goods and services produced within a country's borders over a specific period, often used as a measurement of a country's economic health.

High Density. Residential development at the highest end of the density distribution, these are buildings that are typically more than five stories and constructed as podium or high-rise buildings.

High Economic Mobility. In the top 20% of tracts within a state using economic mobility based on the research from the Opportunity Atlas. Economic mobility broadly describes the changes in someone's economic well-being over their lifetime. In the case of Opportunity Insights, it measures current outcomes for children who grew up in low-income families at the census tract level.

High Opportunity Neighborhoods. Places that are rich in jobs, transportation, infrastructure, and community assets.

Housing Underproduction™. Occurs when communities fall short of meeting housing needs. Up for Growth calculates underproduction as the difference between total housing need and total housing availability.

Impact Fees. One-time charges imposed by municipalities on the building of new homes to mitigate the development's proportionate share impact on community facilities.

Infrastructure-Rich. Located either within one-half mile of high frequency transit station areas or within the top 20% of walkable places based on data from the U.S. Environmental Protection Agency's National Walkability Index.

Insufficient Availability. A lack of housing adequate to support a balanced housing market and absorb market fluctuations and demand preferences.

Job-Rich, Housing-Poor. An area that has a minimum of two jobs per housing unit.

Local Area Transportation Characteristics for Households (LATCH). Estimates of average weekday household person trips, vehicle trips, person miles traveled, and vehicle miles traveled (per day), for all census tracts in the United States. The Bureau of Transportation Statistics (BTS) developed the model to allow for census tract estimation using the National Household Travel Survey (NHTS) data along with American Community Survey (ACS) data from the Census Bureau. The model divides the NHTS data into six geographic areas, classifies these areas as urban/suburban/rural, and then estimates average

weekday household: person miles traveled, person trips, vehicle miles traveled, and vehicle trips for each geographic area. The BTS model then transfers the estimates to individual census tracts using the household and demographic data from the ACS for each census tract. (https://www.bts.gov/latch)

Medium Density. Residential development that falls between attached small-scale development (see Missing Middle housing) and high-density development. Buildings are typically constructed using wood framing and are two to four stories in height.

Metropolitan Statistical Area (MSA). A geographic entity delineated by the Office of Management and Budget for use by federal statistical agencies. MSAs have at least one urbanized area with a population of 50,000 or more and adjacent territory that is socially and economically integrated with the core, identified through commuting ties.

Missing Middle Housing. Coined by Opticos Design founder Daniel Parolek, Missing Middle Housing describes a range of multifamily or clustered housing types compatible in scale with single-detatched and transitional neighborhoods that is intended to meet demand for walkable neighborhoods, respond to changing demographics, and provide housing at different price points.

More of the Same. A hypothetical growth scenario that assumes housing is developed consistent with past patterns and under existing policies.

Mortgage Ready. As defined by Freddie Mac, a group of potential future borrowers ages 45 and younger, who exhibit the following characteristics: Credit score equal to or greater than 661, DTI equal to or less than 25%, no foreclosures or bankruptcies in the past 84 months, and no severe delinquencies in past 12 months.

Multifamily Housing. Housing where multiple separate housing units for residential inhabitants are contained in one building or several buildings within one complex. Units can be stacked on top of each other (top and bottom units), or next to each other (side-by-side units). Common forms are apartment buildings, cohousing projects, and condominiums, where typically the units are owned by the occupants rather than leased from a single building owner.

National Walkability Index. A nationwide geographic data resource that ranks areas according to their walkability. (See Walkability.) The national dataset includes walkability scores for all block groups as well as the underlying attributes that are used to rank them. (https://www.epa.gov/smartgrowth/national-walkability-index-user-guide-and-methodology)

Opportunity Atlas. An interactive map that allows one to view estimates showing the average outcomes in adulthood of people who were born between 1978 and 1983, and who grew up in each census tract. This data calculator is the result of a collaboration between researchers at the U.S. Census Bureau and Opportunity Insights, a research and policy group based at Harvard University. (https://www.opportunityatlas.org/)

Opportunity Mapping. Combining data and spatial analysis to show segregation patterns and to help us see how these patterns affect access to economic opportunity, community assets, and social networks. Localities and regions have used opportunity maps to better understand the housing choices available to individuals and families from diverse backgrounds. (https://nhc.org/wp-content/uploads/2017/10/Opportunity-Mapping.pdf)

Public Use Microdata Area (PUMA). Statistical geographic areas for the dissemination of decennial census and American Community Survey (ACS) Public Use Microdata Sample files. The Census Bureau thereby provides selected extracts of raw data from a small sample of census records that are screened to protect confidentiality. PUMAs are defined using county and census tracts, each PUMA including at least 100,000 people based on Census published counts.

REMI (Regional Economic Model). A structural representation of a regional economy that uses publicly available data to build an economic forecast. The model can simulate economic impacts of policy changes and produce new forecasts that reflect those impacts.

Shelter Cost Number. The price of shelter calculated by the Bureau of Labor Statistics (BLS) as part of their efforts to track inflation. For rentals, the BLS counts rent paid to the landlord for shelter and any utilities included in the lease, as well as any government subsidies paid to the landlord on behalf of the renter. For homes owned by residents, the BLS computes what it would cost the owner to rent a similar place, known as Owners' Equivalent Rent (OER), and it does not count the cost of utilities.

Single-Detached Housing. Housing that is a freestanding residential building —one dwelling unit— usually occupied by just one household or family. Mother-in-law or basement suites may be allowed in some places without changing the description from single-detached.

Social Cost of Carbon. Used to estimate in dollars all economic damage that would result from emitting one ton of carbon dioxide into the atmosphere. It also represents the value of damages avoided for a small reduction in emissions (i.e., the benefit of a CO2 reduction). The social cost of carbon is used to inform policymakers as they measure the costs and benefits of a proposed policy to curb climate change.

Socially Vulnerable Communities. Those areas identified by the U.S. Centers for Disease Control and Prevention as having high levels of poverty and unemployment, decreased access to education and transportation, and other challenges that negatively impact their ability to survive and thrive when confronted by stressors.

Target Vacancy Rate. Real estate markets are characterized by frictions that tend to impede the process of market clearing. In a frictionless economy, the requirement that supply equals demand implies that vacancy rates should be zero. Housing markets, in fact, are very decentralized, making it difficult at times to match a particular home with the most appropriate resident. Landlords want to lease to tenants who are most willing to pay for their space and will set rents so that not all tenants will find the lease attractive. Thus, even in equilibrium, we should expect to observe some empty space.

Uninhabitable Units. Housing units that have been vacant for more than a year that do not contain a full functioning kitchen or indoor plumbing. These units are removed from the short-term supply of housing as the renovation costs are assumed to be cost prohibitive.

Vehicle Miles Traveled (VMT). A measure used extensively in transportation planning for a variety of purposes. It measures the amount of travel for all vehicles in a geographic region over a given period, typically one year. It is calculated as the sum of the number of miles traveled by each vehicle.

Walkability. A measure developed by the EPA based on intersection density (higher intersection density is correlated with more walk trips), proximity to transit stops, diversity of employment types (strong mix of retail, office, industrial), and mix of occupied housing types.

UP FOR GROWTH®

To learn more and to get involved, please visit

UpForGrowth.org

Up for Growth is a national 501(c)(3) cross-sector member network committed to solving the housing shortage and affordability crisis through data-driven research and evidence-based policy.