BUILD HOMES, EXPAND OPPORTUNITY

Lessons from America's Fastest-Growing Cities

Blueprint for Opportunity Series
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George W. Bush Institute-SMU Economic Growth Initiative

The Bush Institute-SMU Economic Growth Initiative combines the public policy expertise of the George W. Bush Institute and the academic expertise of SMU. The joint initiative draws from economic policy-making experience at the highest levels and from cutting edge academic research to identify ideas for promoting innovation, entrepreneurship, and faster, more inclusive growth through global competitiveness and sound immigration policy.

Blueprint for Opportunity Series

The Blueprint for Opportunity series advances a policy agenda for improving economic mobility to help Americans flourish. It focuses on strengthening America's cities in their vital role as engines of upward mobility. Cities and neighborhoods make a powerful difference to people's opportunities, and the local level is where most of the policy energy is in the United States today. America has numerous metro areas that score relatively high as cities of opportunity, but the nation needs more.

EXECUTIVE SUMMARY

America's fastest-growing cities offer lessons on how America can address its housing affordability crisis. Based on our analysis of the 250 largest metropolitan areas and a deep dive into 25 large metros in the Sun Belt and Mountain states, places scoring best for pro-growth housing and land-use policies are mostly large Sun Belt metros from the Carolinas through Texas to Utah.

Top-performing metros for pro-growth policies include Austin and Houston, Texas; Charlotte, North Carolina; Greenville, South Carolina; and Provo, Utah. The most pro-growth localities within the Sun Belt–Mountain metros are mostly suburban boomtowns like Leander, Texas, and Apex, North Carolina, but a handful of large core cities like Houston and Fort Worth, Texas, score high as well.

Cities that achieve 10% faster housing growth than our simple demand model predicts tend to have home prices and rents 8% to 10% lower than they otherwise would as a result, our analysis shows. If all of America's 250 largest metros had policies as pro-growth as the 25 Sun Belt–Mountain metros, the 250 metros would have added some 5.6 million more homes from 2010 to 2023, based on a counterfactual analysis we present in this report. Average home prices would be $115,000 lower than they are today, we estimate. Monthly rents would be $450 lower.

Sun Belt cities that outperform for pro-growth policies embrace population growth and outward expansion to a much greater extent than other U.S. cities. And cities that outperform for pro-growth policies are mostly places that score high for market friendly, light-touch regulation in other economic domains. Policies to promote smart expansion and infill development include the following:

- Allow apartments, duplexes, and townhomes in substantial fractions of every city.
- Reduce minimum lot sizes to allow more homes on available land.
- Allow homes in all commercial areas and repurpose underused commercial land.
- Reduce or eliminate parking requirements for new apartment buildings.
- Enable innovative technologies like modular construction and 3D printing to take root.

Creating more in-demand cities, towns, and neighborhoods is an underappreciated but vital part of addressing America's housing crisis. The nation suffers from a demand-supply mismatch: Demand for homes in wealthy, scenic Pacific Coast metros has been strong, but ultrarestrictive policies have blocked sufficient supply, while many Midwestern and Southern cities have reasonably pro-growth policies but weak demand. The leading Sun Belt metros have outperformed in adding housing supply because demand to live there has grown and policies have allowed housing supply to keep up, for the most part. Cities can't easily change their natural surroundings, but they can become more attractive in these ways:

- Get the urban basics right: Safety, schools, educational and medical institutions, infrastructure, financial sustainability, and commerce friendly policies.
- Follow the "Jane Jacobs Principle": Allow fine-grained mixing of land uses and human activities in as many places as possible, because this is what makes cities flourish.
- Allow dynamic change in land use rather than trying to freeze neighborhoods in place.
- Focus relentlessly on quality placemaking: Good design, walkability, revitalized live-work-play downtowns, thriving innovation districts, and great parks and trails.

Policies focused on subsidized homes for lower-income families are drastically underdelivering relative to America's needs and failing to target the nation's most vulnerable residents. Cities should redirect available resources from expensive new construction to preserving and rehabbing existing housing at large scale to stretch dollars as far as they can go, create new funding streams to increase supply of rental units affordable to very low-income households, and rework policies to allow better mixing of public with private and nonprofit capital and expertise.

Congress should create new Smart Growth and Infill programs to fund what works at scale, make the low income housing tax credit and housing choice voucher programs more flexible, create new funding streams targeting rental apartments for very-low-income families, and end counterproductive demand subsidies like the mortgage interest deduction.

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I. INTRODUCTION

America has been building too few homes since the start of the 21st century. As a result, home prices have risen dramatically relative to people's incomes.

This is bad news for opportunity and economic mobility, because housing and opportunity are joined at the hip. Home prices powerfully shape the economic opportunities available to people, the quality of life they enjoy through hard work, and their ability to build wealth and financial security.

This report, fifth in the George W. Bush Institute-SMU Economic Growth Initiative's Blueprint for Opportunity series, explores what's gone wrong in housing markets and how these patterns are remaking the geography of opportunity in 21st century America. It ranks the nation's 250 largest metropolitan areas for how pro-growth their housing policies are and draws lessons from pro-growth cities. And it outlines a policy agenda for building homes in ways that would expand opportunity.

The report also features a deep dive into 25 large, fast-growing metros in the Sun Belt and Mountain states, with data on 248 cities and counties within these areas.* We focus on these places for two reasons. First, a disproportionate share of homes built since 2010 are in these 25 metros, so the future of housing supply in America depends in significant part on whether they continue to allow rapid growth. Second, they offer lessons on how other cities might create more pro-growth environments.

This report makes three main points:

- Faster growth in new home development is by far the most important answer to the nation's housing challenges – a conclusion shared by most housing experts and confirmed by our analysis.
- Policies to build more homes and policies to expand opportunity in cities, towns, and neighborhoods should go hand in hand, because housing and economic mobility are intertwined.
- This means building on what's working today. The medium-density growth model that's proved successful in our 25 Sun Belt–Mountain state metros is likely to be the most effective path toward addressing America's housing problems – though these places face large challenges, too.

Home prices in 21st century America

Rents, home prices, and homeownership costs (incorporating interest rates) have each risen roughly 20% more than incomes in the United States since 2000, Section II of this report shows. Home prices in 2000 were moderately above what we would see in a well-functioning housing market,** but today they're far above healthy levels. These trends have taken the worst toll on lower-income Americans, who have mostly lost out in what amount to bidding wars for scarce homes in many U.S. cities.

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* The 25 Sun Belt and Mountain state metropolitan areas we focus on in this report are Atlanta, Georgia; Austin, Texas; Boise, Idaho; Cape Coral–Fort Myers, Florida; Charleston, South Carolina; Charlotte, North Carolina; Colorado Springs, Colorado; Dallas–Fort Worth, Texas; Deltona–Daytona Beach–Ormond Beach, Florida; Denver, Colorado; Fayetteville-Springdale-Rogers, Arkansas; Greenville, South Carolina; Houston, Texas; Jacksonville, Florida; Lakeland–Winter Haven, Florida; Las Vegas, Nevada; Nashville, Tennessee; North Port–Sarasota–Bradenton, Florida; Orlando, Florida; Phoenix, Arizona; Provo, Utah; Raleigh, North Carolina; Salt Lake City, Utah; San Antonio, Texas; and Tampa, Florida.

** For a description of what we would expect from a well-functioning housing market, see our analysis in Section II, under "Why America needs faster housing supply growth."

Housing challenges are far worse in some places than others. Price-to-income ratios are roughly 50% higher than national averages in 25 large Northeast and Pacific Coast metros that we've chosen for comparison with our 25 Sun Belt–Mountain state metros in this report.* In the Sun Belt–Mountain metros, by contrast, price-to-income ratios are modestly below national averages.

Underproduction of homes, mostly since the global financial crisis of 2008, is the chief cause of the nation's growing affordability challenges. Severe underproduction in the Northeast–Pacific Coast metros, moreover, accounts for why the price gap between these and other cities has ballooned since 2010, though price differences across metros also reflect differences in income levels and housing demand.

Our 25 Sun Belt–Mountain state metros account for fully 41% of single-family homes and 35% of apartments built in America's 250 largest metros between 2010 and 2023. Home prices have risen faster in these metros than elsewhere despite outsized supply growth because of tremendous housing demand in these places – reflected in rapid inbound migration from elsewhere in the United States.

America's most pro-growth cities

The Sun Belt–Mountain state metros we focus on generally have much more pro-growth housing policies than metropolitan America as a whole, based on a scoring method we explain in Section III. The 25 Northeast–Pacific Coast metros mostly have more restrictive policies than average.

Among America's 100 largest metro areas, the five top-performing metros for pro-growth housing policy are Charlotte, Austin, Provo, Greenville, and Houston. The five worst performing are Honolulu, Hawaii; and San Jose, San Diego, San Francisco, and Riverside-San Bernardino, California.

Within the 25 Sun Belt–Mountain state metros, top-performing localities based on a similar analysis include suburban cities like Leander, Georgetown, and Kyle in the Austin metro area; New Braunfels in the San Antonio area; Queen Creek in the Phoenix area; and Apex and Wake Forest in the Raleigh, North Carolina, area. Among core cities in these metros, Houston, Fort Worth, and Dallas rank well above average, while Western cities like Salt Lake City, Phoenix, and Boise, Idaho, generally rank below average.

If all of America's 250 largest metros had policies similar to those of the 25 Sun Belt–Mountain state metros, the 250 largest metros would have added about 5.6 million more homes from 2010 to 2023 than they actually did, based on a counterfactual analysis we present in Section III. Average home prices would be $115,000 lower than they are today, we estimate. Monthly rents would be $450 lower.

Principles for building high-opportunity, affordable cities

We suggest several principles based on the experience of pro-growth cities and other localities:

- Expand: Allow and promote smart outward growth in suburban and exurban areas.
- Build more homes within cities: Streamline permitting processes; allow apartments, smaller homes, and smaller lots; permit homes in commercial areas; and reduce parking requirements.

* For a list of the 25 large Northeast–Pacific Coast metros, see Table 1 in Section II.

- Innovate: Allow and promote cost-saving innovations like 3D-printed building components and high-quality manufactured and modular homes.
- The Jane Jacobs principle: Promote fine-grained diversity of land uses and activities to create vibrant, opportunity-rich cities, towns, and neighborhoods.
- Allow dynamic evolution of land use rather than trying to freeze current patterns in place: Avoid measures to control rents or block development with the aim of preventing displacement.
- Get the urban basics right: Safety, good schools, infrastructure, and financial sustainability.
- Embrace quality placemaking: Develop walkable neighborhoods; revitalize downtowns; develop innovation districts; and invest in parks, trails, and waterfronts.
- Invest carefully in subsidized housing: Focus on preservation as well as new building; put well-located publicly owned land to use; develop new funding streams and stretch existing ones.

Our study of America's most pro-growth cities offers three additional lessons:

- The experience of our Sun Belt–Mountain state metros argues for optimism on the scope for developing high-opportunity localities in new places. Housing policy need not focus primarily on squeezing more homes into today's wealthiest but most densely built-up cities.
- Our analysis doesn't point to any city that's been particularly successful in overcoming entrenched local opposition to greater housing density. We consequently emphasize allowing markets to work more effectively to build homes in areas with less opposition.
- While our 25 Sun Belt–Mountain metros have outperformed other metros for building new subsidized homes for lower-income families, this report shows that pro-growth policies allowing adequate construction of market-rate homes are the most important driver of housing affordability – including for low- and moderate-income families.

A federal, state, local, and philanthropic agenda for change

Federal policymakers should address the housing crisis by promoting housing supply growth. Policymakers should be cautious about subsidizing demand, since demand subsidies in supply-constrained markets push prices higher. Pro-growth policies include funding and technical assistance for local initiatives to reimage land-use rules and plan for smart suburban expansion, plus greater flexibility in the low income housing tax credit program and new funding streams to support housing stock preservation and mixed-income development. Congress should avoid top-down mandates and housing subsidies targeting specific locations. It should also eliminate counterproductive subsidies like the mortgage interest tax deduction.

Promoting faster housing supply growth is primarily a local responsibility and should be a top priority for local governments everywhere. State governments can help but should take a light-touch approach to preempting local policies, since localities are best positioned to navigate the immense diversity of local conditions across the United States.

II. WHY AMERICA NEEDS FASTER HOUSING SUPPLY GROWTH

Homes and opportunity: Joined at the hip

A home is more than a roof over one's head. Having a reasonably affordable, well-located home is an essential element of enjoying a flourishing, opportunity-rich life.

Living standards and human flourishing

Living standards: Medium and lower-skilled workers in the nation's most expensive cities have lower-than-average real incomes and consumption after adjusting for housing costs, even though they receive higher-than-average nominal wages, according to a 2021 study by economists Rebecca Diamond of Stanford University and Enrico Moretti of the University of California at Berkeley.[1] Even for workers with a bachelor's degree, consumption is roughly equal in more expensive and less expensive cities even though workers earn much higher wages in large, wealthy localities with high home prices.[2]

Approximately half of all Americans have experienced hardship due to high and rising housing prices, based on a 2022 Gallup survey.[3] Among families earning less than $40,000 a year, more than two-thirds say housing costs have caused them hardship. In a 2024 Redfin survey of renters, 21% of respondents said they had sold belongings to pay rent, 18% had dipped into retirement savings, and 16% had skipped or delayed health care.[4]

People also tend to have fewer children than intended when housing costs force them into very small homes – which may be a factor in declining U.S. birth rates. Birth rates have fallen far below historic norms since 2008, and the school-age population in many cities is shrinking.[5]

High housing costs undermine economic mobility in multiple ways: Renters facing high housing cost burdens are more likely to experience eviction and other forms of housing instability. People who lose their homes involuntarily are 20% more likely to lose their job, a Milwaukee study showed.[6] Worries over housing costs often narrow people's cognitive bandwidth, reducing their ability to focus on work, a 2013 Princeton University study found.[7]

Rising home costs have also made it more difficult for moderate-income working families to accumulate savings. Household spending on housing, health care, education, and transportation has increased to 56% of consumer expenditures today from 47% in 2000, primarily because of housing cost inflation, according to a 2020 McKinsey Global Institute report.[8] Fewer than 40% of renter households have enough money left over after housing costs to cover a defined bundle of necessities and generate savings, a 2022 Urban Institute study found.[9*] Families with even modest savings are much more likely than those with none to start a business, participate in civic life, and invest in opportunity-enhancing activities for their children.[10]

* Consider also that households with children and with incomes in the bottom 40% of the income distribution spend about $45,000 (in 2024 dollars) on nonhousing necessities on average, according to a study by Duke University and University of Texas at Austin researchers. If such a family has income of $65,0000, annual housing costs of $15,000 would allow for savings, but housing costs of $20,000 or more would not (Lisa A. Gennetian et al., "How Do Low-Income Families Spend Their Money?", EconoFact, November 15, 2021).

Children are more likely to perform well academically and graduate from high school if their family experiences manageable housing costs and infrequent moves.[11] Housing stability also significantly influences college success.[12] For all these reasons, children of families with savings but low incomes achieve far greater upward mobility than those from comparable families without savings, a 2009 Pew Research study showed.[13]

Home prices and homelessness: The ideologically charged debate over the root causes of homelessness is beyond the scope of this report. While mental health and addiction problems clearly play considerable roles, there is substantial evidence that inadequate housing supply and high prices contribute to homelessness in 21st century U.S. cities.[14]

A 2018 Zillow study showed that rates of homelessness increase with housing prices in metro areas where median rents exceed 22% of median income levels – as they do in 28 of the nation's 250 largest metros.[15] These include most of the large metros of the Northeast and Pacific Coast, as well as Miami, Tampa, and Orlando, Florida. Homelessness rates per capita in expensive California, Oregon, and Washington were 4.4 times higher in 2022 than in 10 less expensive Sun Belt states from the Carolinas to Texas (not including Florida), based on the Department of Housing and Urban Development's "point-in-time" count data.[16]

Location, location, location: How home prices shape the geography of opportunity

The consequences of where we live within our cities: According to a longtime real estate industry adage, the three most important characteristics of any property are "location, location, location." Likewise, a person's home represents a position on the map, and this position powerfully shapes his or her economic opportunities.

People can work more productively in some places than in others. Neighborhoods and job centers that enable high productivity and thus high wages are places that achieve strong "agglomeration economies" – productivity and innovation gains that take place when people, firms, and ideas come together in a geographically concentrated place. Workers in thriving places have rich opportunities to learn and advance by watching others, receiving mentoring, forging connections, and performing in a highly competitive marketplace.[17]

People who can't afford to live within good range of high-opportunity job centers in their metropolitan area often face four unappealing choices: tolerate a very long commute; take a job with lower pay and less upside closer to where they can afford to live; pay an outsized share of their income for a better location; or move to a less expensive part of the country. Very few people opt for "super commutes" – though the share of workers in America's 10 largest metros who travel more than 75 miles each way for work has increased to 2.9% in 2024 from 2.2% in early 2020.[18] A modestly larger share accept such commutes in the New York City and Philadelphia metros, relatively expensive places.

But most people who can't afford a high-opportunity location resign themselves either to less attractive jobs closer to home or severe housing cost burdens. Lower-income workers typically experience only slightly longer commuting times than more affluent people living in the same metro area, according to a 2019 Brookings Institution study, meaning these workers mostly manage the tradeoff between maximizing job quality and holding down commuting time by sacrificing the former.

The Center for Neighborhood Technology's "AllTransit" dataset illustrates the job-market consequences of living in poorly located, lagging areas within large metros.[19] The dataset measures the share of metro-area jobs a person can reach by public transit within 30 minutes. If one lives in the prosperous Dallas suburb of Plano, for instance, one can reach 45 times more jobs than people living in the struggling suburb of Hutchins, even though Plano itself has limited transit options.[*] And the consequences of having poor job choices are significant. In a South Korean study, having twice as many jobs available within a 60-minute commute was associated with 24% higher wages.[20]

Many people choose to accept severe rent burdens in exchange for a relatively good location. A University of California at Berkeley study of 100 low-income renters in ultraexpensive San Mateo County, California, who had suffered eviction or displacement found that almost half remained within 5 miles of their old apartment afterward, mostly living in very crowded, subpar conditions.[21]

Segregation: One visible manifestation of how housing prices drive moderate-income people into low-opportunity locations is America's stubborn pattern of residential segregation. While housing segregation along racial lines has declined somewhat since the 1960s, it remains pervasive. Housing segregation along income lines, meanwhile, has increased dramatically since 2000.[22] Princeton University economist Patrick Sharkey has documented that the share of Black children growing up in neighborhoods of concentrated poverty is even higher today than in the years before the Civil Rights Act of 1964.[23]

The most powerful predictors of high segregation levels in U.S. cities are restrictive land-use rules, low home construction, and high rents, since housing factors drive people away from opportunity-rich neighborhoods more in expensive places.[24] Low-income children growing up in areas of concentrated poverty experience far less upward mobility than comparable young people elsewhere, due to poor educational opportunities, exposure to violence, role model and peer effects, diet, and other factors.[25]

Our data confirms that strong housing supply growth and manageable prices promote upward mobility. This report presents a new ranking of America's 250 largest metro areas as well as 248 localities within our 25 fast-growing Sun Belt–Mountain state metros for how pro-growth their housing policy environments are.[**] People in relatively pro-growth metros have enjoyed better income growth than people in more restrictive areas since 2010, based on simple regression analysis. Among our 248 Sun Belt–Mountain localities, cities with the most pro-growth policies as well as those with the most robust development of new apartments and single-family homes have seen faster income growth and lower poverty rates than other localities in these regions.[***]

The consequences of which cities we live in: Many Americans have responded to high and rising home prices by moving to less expensive parts of the country, even if it means less economic opportunity. Lower and medium-skilled people in particular have tended to relocate away from America's wealthiest, most expensive metro areas since the 1990s, reversing a 200-year-old pattern of Americans moving toward economic opportunity, a landmark study by economists Peter Ganong of the University of Chicago and Daniel Shoag of Harvard University showed.[26] Other studies agree that housing prices are the main

[*] Data available at AllTransit website, Center for Neighborhood Technology, available at https://www.cnt.org/tools/alltransit.

[**] See summary rankings in Section III, complete rankings in Appendix 3 of this report, and supporting data in the online Data Appendix to this report.

[***] See regression results in the online Data Appendix.

reason for migration away from some high-wage cities and that this migration has significantly reduced economic growth and opportunity in the United States.[27]

As for specific regions, studies confirm that housing prices have played a large role in migration out of expensive California coastal cities as well as in a reduced tendency for people to move away from distressed but affordable regions for better opportunities.[28]

Attracting talent and building opportunity in America's cities, towns, and neighborhoods: High housing prices aren't only pushing people away from high-opportunity places but reshaping America's geography of opportunity. Regions and cities that maintain reasonable housing supply growth and affordability – and also get other things right – are becoming high-opportunity places. Those with the most restrictive housing policies are likely to see diminishing opportunities for people who remain there.

The reason for these trends is simple: It's human talent that determines the opportunities in a place – and talent is mobile. In America's knowledge-centric economy, high-skilled people increasingly choose where they want to live, and employers follow. High-skilled people are seeking out places that score highly for good quality of life at an affordable price point, abundant evidence shows.[29] More than 60% of workers with a bachelor's degree or higher in the booming Dallas-Fort Worth and Houston metros, and more than 70% of those in the Atlanta and Tampa areas, were born in other states or abroad.[30]

Migration of high-skilled people to metro areas that score well for affordable quality of life creates a virtuous cycle. Each new high-skill job tends to generate 2.5 additional living-wage jobs, University of California at Davis economist Enrico Moretti has shown.[31] A growing skilled labor pool attracts more employers. Some people who've relocated start innovative businesses. And a growing population of high earners fuels investment in quality-of-life amenities, which in turn attracts more talent from elsewhere. For overpriced cities losing people, all these processes work in reverse.

The remote work experience during the COVID-19 pandemic reinforced these trends. Untethering people from traditional workplaces gave them more freedom to choose where to live, which many exercised by moving toward places offering better, more affordable quality of life. Some moved across the country without leaving their jobs. In the competitive labor market of the last four years, people were mostly able to maintain or increase their salaries when moving to less expensive places, contrary to some early predictions. The pandemic also brought to the surface people's dislike for long commutes, boosting the imperative for employers to locate operations near places where people they hope to attract wish to live.[32]

As of February 2025, 25% of paid working hours in the United States take place away from traditional workplaces, which gives millions of Americans expanded opportunity to maximize affordable quality of life within their region or metro area. Employer surveys show that hybrid work is likely here to stay, so housing considerations will continue to play a large role in determining which cities rise as centers of opportunity – and which decline.[33]

Securing the American dream: Homeownership and opportunity

Why homeownership matters: Housing prices strongly influence people's ability to become homeowners.

Homeownership is an essential vehicle of wealth accumulation and economic mobility for many Americans. Ownership, first of all, provides homeowners with a hedge against rising housing prices.* This is why median homeowners with a mortgage in America's 250 largest metros saw their housing cost burdens go down in recent years, to less than 22% of income in 2022 from 26% in 2010, while renters experienced rising cost burdens.[34]

Homeowners accumulate greater wealth over time – even nonhousing wealth – than otherwise similar renters, numerous studies show.[35] One reason is that required mortgage payments effectively force homeowners to build equity in their home over time, overcoming some of the behavioral challenges in the way of wealth accumulation. Another is that homeowners are more likely than comparable nonowners to make long-term investments in their property** as well as in businesses and stocks. Accumulated savings and home equity are the most important funding sources for startup businesses.[36]

These benefits translate to better economic mobility for the next generation. Children of homeowner families tend to achieve more years of education, experience fewer behavioral problems at school, and have lower teen pregnancy rates, holding other demographic and economic characteristics constant.[37] Homes are also the chief asset that parents bequeath to their children, creating wealth that advances upward mobility for the next generation.[38]

When a family owns their home, benefits also spill over to the wider community. A variety of studies show that neighborhoods with relatively high homeownership rates experience higher civic engagement, less resident turnover, greater property appreciation, and less high-displacement gentrification.[39]

Some commentators argue that homeownership is overrated for families and that policymakers should stop promoting it – or even discourage it. They typically argue that people would be better off investing their money in stocks and bonds; that homeownership is a bad bet as an investment in most places, even if it has turned out well in booming cities; and that homeowners are more likely than renters to oppose new housing development since they want to keep housing scarce and protect their investment.[40]

These arguments don't stand up to scrutiny. First-time, low- to moderate-income home buyers make only a 3% down payment, on average.[41] They generally can't borrow to invest in stocks and bonds, so foregoing homeownership would mean reallocating just this relatively small, one-time down payment amount. In any case, homeowners invest more in other assets than renters of the same income level.

As for the argument that housing is likely to perform badly as an investment in most places: Home prices have risen faster than inflation in 74% of America's 250 largest metros since 2005, the peak year for home values before the 2008 financial crisis. The average single-family house has appreciated 74% over this period, worse than stocks but better than bonds (which have earned 64% over the same period). The

* One study finds that cities experiencing rapid growth and volatility in rents tend to have higher ratios of home prices to rents than other cities. One reason, the author suggests, is that people rationally seek to buy a home to hedge against further increases in rents and thus bid up the price of for-sale houses (Todd Sinai and Nicholas S. Souleles, "Owner-Occupied Housing as a Hedge Against Rent Risk," *Quarterly Journal of Economics* 120, no. 2 [May 2005]: 763–89, https://doi.org/10.1093/qje/120.2.763).
** Studies show that housing units depreciate in value by 1.5% more per year when they're occupied by renters than when they are owner-occupied, suggesting owners invest more in maintenance (Edward L. Glaeser, *Triumph of the City: How Our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier, and Happier* [Penguin Books, 2012], 194–5).

average homeowner has enjoyed a return on the equity in their home far above stock market returns, since most have leveraged their equity with substantial mortgage borrowing.*

The final argument made by homeownership critics – that homeowners are more likely than renters to oppose new housing development – amounts to saying policymakers should steer people away from homeownership, an investment that would likely benefit them and their families, on the grounds that it might induce them to vote in ways policymakers don't prefer. Few would make this argument in any policy domain outside housing. In any case, multiple studies show that renters are just as likely to adopt "not-in-my-backyard" (NIMBY) attitudes as homeowners and that cities with low homeownership rates are just as prone to have restrictive land-use rules and weak housing supply growth as other cities.[42] Northeast and Pacific Coast metros with below-average ownership rates in many cases have the nation's most restrictive policies and most severe housing cost burdens, as Section III of this report shows.**

A final point in favor of promoting homeownership is that young as well as Black and Hispanic Americans overwhelmingly aspire to own a home, surveys show – though many doubt they'll ever be able to afford it.[43]

Why homeownership is out of reach for so many Americans: High home prices are the most powerful obstacle facing would-be homeowners today. More than half of America's renters say they would have a hard time making a down payment today, due to both historically expensive prices and rising rents that make it impossible for them to accumulate savings.[44] Generation Z families who are able to buy a home are far more dependent on family help for down payments than their counterparts from earlier generations.[45]

Just over 65% of U.S. households are homeowners, based on the most recent U.S. Census Bureau data.[46] The nation's homeownership rate has fallen back from 69% in 2005, reversing a multidecade uptrend. Homeownership rates declined sharply from 2007 to 2013 because of home foreclosures and tight mortgage lending standards in the wake of the 2008 financial crisis.[47] They recovered slightly from 2013 to 2021 as lending criteria loosened, then retreated after 2021 in the face of rising interest rates and high home prices. Today, homeownership in America stands at the same level as in 1964.[48]

Homeownership declines have been especially severe among disadvantaged groups. People under 35 still have far lower ownership rates than earlier generations did at the same stage in their lives.[49] Black and Hispanic families – who had long experienced low ownership rates due to decades of redlining – experienced steeper declines than other groups after 2008, since many Black and Hispanic families had become first-time owners during the run-up in prices before 2008 and weren't able to afford their mortgages after the crash.[50]

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* For purposes of the calculations in this paragraph, we use the Zillow national price index and the Bloomberg Aggregate Bond Index. Comparing returns from home equity with those from bonds: Homeowners do incur maintenance, insurance, and tax expenses that they would not incur with a bond portfolio, but they also avoid paying rent. Renting a home of equivalent quality to the one they own would cost more than maintenance, insurance, and tax expenses by an amount roughly equal to the profit margin earned by landlords, since landlords pass on their operating expenses to renters.

** Consider further that advocates of the hypothesis that homeowners are more likely to oppose new development so as to protect their investment exaggerate the benefits homeowners realize from higher prices. Homeowners generally benefit from price appreciation only when they sell and downsize, which for younger homeowners could be many years in the future. Studies of NIMBY attitudes show people resist new housing and densification in their neighborhood for many reasons, most of which apply as much to renters as homeowners. See discussion later in this section.

Cities with unusually restrictive housing policies see below-average homeownership rates, including among Black, Hispanic, and Asian American populations, our simple regression analysis shows.* In total, 25 large Northeast–Pacific Coast metros we focus on in this report** have homeownership rates well below metro-area averages: 57.0% compared with 62.6% in America's 250 largest metros as a whole. While home purchases have dropped across the country in response to high prices and interest rates since 2021, purchases by moderate-income families eligible for Federal Housing Administration mortgage insurance have fallen most severely in the nation's priciest metros, American Enterprise Institute researchers have shown.[51]

America's housing markets in the 2020s

Prices are at least 20% higher than we'd see in a well-functioning market

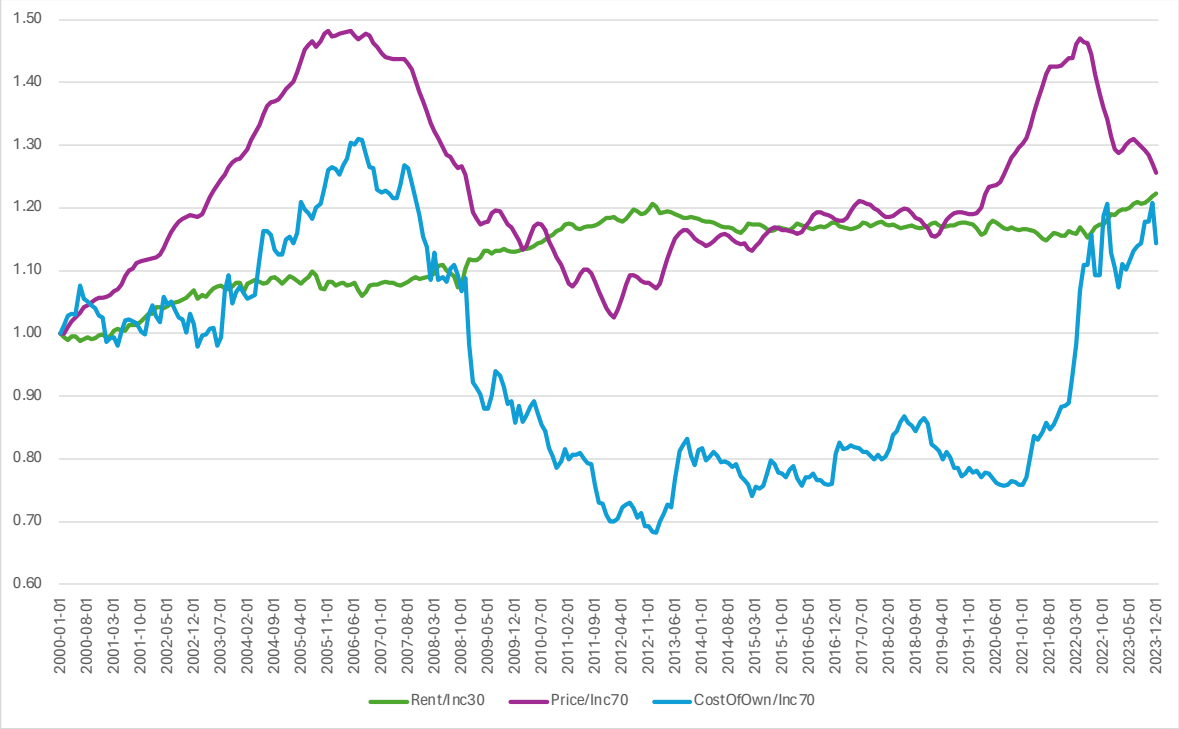
Price trends: Rents, home prices, and the cost of owning a home including interest rates have all increased approximately 20% relative to incomes since the year 2000. Figure 1 shows the growth of three ratios from 2000 to early 2024, normalizing each ratio to a starting point of 1 in 2000:***

- Median rent in the United States divided by the income of the 30th percentile household in the national income distribution – that is, the household whose income is greater than that of the bottom 30% of U.S. families but below that of the top 70%.
- Median home price divided by the income of the 70th percentile household.
- Median cost of homeownership, incorporating purchase prices and mortgage interest rates, divided by the income of the 70th percentile household.

We compare median rents to the 30th percentile household and home prices to the 70th percentile household rather than comparing both to the median household – the more common approach – since the median household neither rents the median apartment nor buys the median for-sale house. This is because America's homeowners are much wealthier than its renters. Homeowners in the 250 largest metros had a median household income of about $105,000 in 2022, while renters had a median income of $53,000. The median owner-occupied home belongs to the 70th percentile household (to the nearest 10 percentile points), while the median rental unit is home to the 30th percentile household.[52]

* See regression results in the online Data Appendix.
** See list of 25 Northeast–Pacific Coast metros in Table 1, Section II.
*** See underlying data in the online Data Appendix.

Figure 1
Home price and rent-to-income ratios, 2000-2024



Source: Author calculations based on rent and income data from the American Community Survey (U.S. Census), home price data from the S&P CoreLogic Case-Shiller National Home Price Index, rent data from Bureau of Labor Statistics consumer price data, and mortgage interest rate data from the Federal Reserve Bank of St. Louis' FRED database.

We can summarize the trends from 2000 to 2024 as follows:

- Rents rose to 35.0% of the 30th percentile household's income in early 2024 from 28.6% in 2000. Some 53% of renter households are "housing cost burdened" today – meaning they spend more than 30% of their income on housing, a federal government standard – up from just 30% of renter households 50 years ago. This percentage is the highest it's ever been in America's history. The shares of Black and Hispanic renters who are cost burdened are moderately higher, at 57% and 54%.[53] Among low-income renter families earning less than half the median income of their metro area, the average household spent 47% of their income on rent in 2022.[54]

- Home prices rose to 4.8 times the 70th percentile household's income at their 2022 peak, before falling back to 4.1 times income by early 2024 – still far above their 2000 level of 3.4 times income. Over the longer term, median home prices remained consistently between two and three times median household income from 1960 through 2000, then rose to 3.5 times in 2010 and over five times at their 2022 peak. Ratios of home prices to rents have fluctuated since 2000,* but in 2023, they stood at about the same level at which they began the century.[55]

* Constructing ratios of home prices to rents is a nontrivial exercise, since owner-occupied homes generally constitute a different (though substitutable) product than rental units. According to a ratio tracked by Mark Roberts of SMU and Crow Holdings and shared with the author, the costs of owning and renting were roughly the same from 2013 to 2020, then ownership costs moved sharply upward – and back to levels that prevailed early in the century relative to rents – after the Federal Reserve's interest rate

- The cost of homeownership* rose with home prices through 2006, fell to relatively low levels between 2011 and 2021 because of the Federal Reserve's low interest-rate policy, then rose again with higher interest rates. Ownership costs in 2024 were just under 20% higher than in 2000 as a share of the 70th percentile household's income. American Enterprise Institute researchers, using a slightly different method, point to a 24% increase in home prices relative to median income over the same period.[56]

  Over the same period, the average cost of homeowners' insurance – which we don't include in our calculations – rose by a similar amount, roughly 18% more than the growth in median household income.[57] In 2024, the average homeowning family spent about 2.9% of their pretax income on homeowners' insurance, up from 2.5% in 2000.[58]

What would a well-functioning housing market look like? Federal government standards plus a little economic reasoning provide guidelines.[59]

- Most people would spend at most 30% of their income on housing costs. People in the wealthiest, most productive cities might spend up to 35% or 40% of income, provided they could earn significantly more income by choosing to live there.** On average, households at the 30th income percentile would spend about 30%.

- Home prices would range from about 2.5 times people's earnings in cities with below-average incomes and expected economic growth to around five times in cities with high incomes and expected growth.*** On average, homes owned by people at the 70th income percentile would be worth about three times their income. Another way of looking at it: In a well-functioning market, houses should sell for the combined cost of the land, labor, and materials it takes to build them plus a developer's markup. Assuming 2024 labor and materials costs and a pre-2000 norm that land should represent at most 20% of total costs, an average new home would sell for about $400,000 in a typical metro, or about three times the 70th percentile family's income.****

- Rents would likely rise at a faster pace than general price inflation but slower than nominal incomes. We suggest rent increases would exceed general inflation partly because the quality of homes tends to increase over time. Apartments have grown roughly 0.7% per year in square footage terms since 1965, and attached appliances and amenities have improved.[60] Also, a rental apartment represents not just a place to live but also a valuable position on the map, and the

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hikes of 2021–22. The cost of owning a home should be higher than the level the same home would rent for, since owners capture the gains from future appreciation.

* To estimate homeownership costs, we make a simple estimate using 30-year fixed-rate mortgage interest data from the Federal Reserve Bank of St. Louis' FRED database and the S&P CoreLogic Case-Shiller National Home Price Index and prorating the cost of an assumed 20% down payment over 10 years, roughly the average time a homeowner owns a house. See Appendix 2 for details and the online Data Appendix for underlying data.

** See further discussion of why price-to-income ratios should be higher in exceptionally productive cities than in other cities later in this section and a more elaborate presentation in Appendix 1.

*** We arrive at these figures partly based on historical norms between 1960 and 2000 and partly based on estimates of the returns a rational investor would require to invest in residential real estate in cities with relatively low and slow-growing income levels and in cities with high and fast-growing income levels, respectively. See full explanation in Appendix 2 on Sources and Methods.

**** This analysis implies that, given today's labor and construction costs, average new homes would sell for well over three times the income of the median household even in a well-functioning market. This reflects the decadeslong failure of the homebuilding industry to achieve productivity improvements – a subject we address in Section IV. A Brookings Institution report comes to similar conclusions, saying that typical homes should sell for 2.5 to 4 times buyers' income in a well-functioning market. (Cecilie Murray and Jenny Schuetz, "Housing in the US Is Too Expensive, Too Cheap, and Just Right. It Depends on Where You Live" [June 21, 2018]).

value of this position rises with the value of economic activity that can take place there – that is, with local economic growth. On the other hand, rents should grow no faster than nominal incomes, since it seems unlikely apartments are improving so fast that people would allocate a growing share of their income to housing over time even as economic growth makes them wealthier. So, we expect that housing costs would remain constant or decline slowly over time as a share of incomes in a well-functioning market.*

- Home prices would grow at the same pace as rents over the long term, with shorter-term fluctuations driven by interest rates and shifting expectations about future appreciation.

Based on this analysis, national average rents and home prices in early 2024 were some 20% to 40% higher than they would have been in a properly functioning housing market.

Lower-tier housing markets: Lower-income families have borne the brunt of high and rising housing costs in 21st century America. This reflects not only that they have less ability than wealthier people to absorb rising rents without suffering hardship but also that housing prices have risen fastest in the lower-tier segment of the market. For instance, the 20th percentile owner-occupied home** in the 250 largest metros appreciated 41% from 2010 to 2022, compared with 33% for the median owner-occupied home.[61]

What would a well-functioning housing market look like in the lower-tier segment? The simple answer is that the vast majority of lower-income households would spend less than 30% of income on housing. A more complete answer starts from understanding how homes occupied by lower-income families come into being and how the lower-tier segment of the market evolves over time.

A key reality of the lower-tier market is that it's generally infeasible to build homes compliant with current building standards and affordable for lower-income families without subsidy.*** Consequently, the main way homes come into the lower-tier market is by aging out of higher-tier markets and becoming affordable as higher-income people move to new homes. Construction of subsidized, income-restricted apartments supplements this supply but invariably represents a small share of the "affordable" housing stock.

Evidence overwhelmingly confirms the importance of this "filtering-down" process, contrary to claims that new market-rate units – meaning unsubsidized homes – don't increase the affordable housing stock.[62] In a detailed study of what happens with specific rental apartments over time, economists from Columbia University and the University of British Columbia found that 5% of the units they studied in six large U.S. coastal cities filtered down over 10 years, moving from "unaffordable" to "affordable" under the study's definitions.[63] Affordable apartments in these cities were 10 years older than unaffordable ones.

This process accounts for a large majority of the homes America has added to the lower-tier market in recent years, based on a 2015 study by the Harvard University Joint Center for Housing Studies.[64] In the city of Dallas, just 54% of the housing units occupied by families with income below half the city's median

* Note also that single-family houses grew approximately 1.2% per year in square footage terms from 1975 to 2015. ("Average Size of Floor Area in New Single-Family Houses for Sale in the United States from 1975 to 2023," Statista, August 8, 2024.)

** 20th percentile home: The owner-occupied home with market value higher than 20% of the owner-occupied units in the 250 largest metro areas and lower than the other 80% of units.

*** The share of households who cannot afford the least-expensive legally permissible new home varies across cities based on income levels, building costs, and building codes but generally amounts to 20% to 40% of the population.

level are “affordable” based on the 30% of income standard. But almost four-fifths of these consist of “naturally occurring affordable housing” that aged into the lower-tier market, according to a study by the Dallas Child Poverty Action Lab.[65] Fewer than 10% of families with incomes in the bottom third live in subsidized units that were income-restricted from the start.*

In a well-functioning housing market, market forces would bring about the demolition of obsolete homes – most of which are likely to be occupied by lower-income families – and the development of new homes in sufficient quantity to replace all the demolished ones and keep up with local demand growth. People who can afford new market-rate housing would buy most of the new units. But affluent people would then vacate enough older homes to give most lower-income households an opportunity to move to newer, better homes than the ones they’re leaving. And lower-income families would pay a price they could afford, as they would only be competing for homes with other people of similar means.

An important caveat: If one city builds plenty of new market-rate units but others don’t, affluent people might move to the pro-growth city from other places in such large numbers that few older units in the growth friendly city filter down. In this way, more restrictive cities would effectively export some of their affordability problems to the pro-growth city.

If a city doesn’t add sufficient market-rate homes to keep up with demand, the filtering process goes into reverse: Affluent households buy (and renovate) units that were previously affordable to lower-income households, and homes filter up.[66] Lower-income families then compete for the scarce units not occupied by wealthier people, and housing becomes unaffordable for the city’s lower-income residents.

All this isn’t to say that income-restricted units don’t play an important role. With subsidies, public sector or nonprofit players can help low-income families by making housing units available at rents below even what they would command in a well-functioning market.

But this analysis does imply that it’s misleading to say – as many commentators do – that America isn’t building enough “affordable housing,” or that there aren’t enough “affordable units” for the country’s low-income population.[67] While these statements are true in a sense, they represent “banal observations,” in the words of authors Charles L. Marohn and Daniel Herriges in their 2024 book *Escaping the Housing Trap: The Strong Towns Approach to the Housing Crisis*. No city will ever build more than a modest amount of income-restricted housing. America isn’t building enough housing, period, and the shortfall manifests itself in a shortage of homes affordable to lower-income families.[68]

“Affordable” apartments are virtually indistinguishable, most of the time, from modest market-rate apartments.** Unaffordable prices in a city tell us that the city isn’t adding enough homes, not that it isn’t adding enough of a specific kind. One can argue that the public sector should dedicate more of its finite resources to making apartments available at rents below what would prevail in a well-functioning market –

* Author’s calculation based on data on subsidized units from Yardi Matrix provided to the author, data on units built through the federal low income housing tax credit program, and data from the Lincoln Institute of Land Policy on units developed through local “inclusionary zoning” policies. (“Low-Income Housing Tax Credits and Long-Term Affordability,” Bipartisan Policy Center, May 19, 2023, https://bipartisanpolicy.org/event/low-income-housing-tax-credits; Emily Thaden and Ruoniu Wang, “Inclusionary Housing in the United States: Prevalence, Impact, and Practices” [Lincoln Institute of Land Policy, September 2017], https://www.lincolninst.edu/publications/working-papers/inclusionary-housing-in-united-states/).

** The author thanks Dallas developer Paris Rutherford for a clear explanation of this point.

a plausible argument – but this is different from saying the housing market is failing to deliver enough new "affordable homes."

Our analysis also implies that in a dysfunctional, undersupplied housing market, we should see reasonable affordability for households down to a certain income level but a severe affordability crisis for households below this level. This income threshold varies across cities depending on how undersupplied the city is and thus what share of the city's households lose out in the game of "musical chairs." But people below the threshold bear most of the pain from underproduction of homes.

And this is exactly what we see. National studies by the National Low Income Housing Coalition and local studies like the Child Poverty Action Lab's report on Dallas show large shortfalls for families with income below half their metro area's median income – amounting to about one third of all households in both cases – but only modest shortfalls for families above this level.*

Price gaps across cities are up to 25% wider than we should expect as well.

America's housing crisis is far more severe in some places than others.

Sun Belt metros, coastal metros, and the rest: Many metro areas have generally manageable housing prices. We've calculated composite price-to-income ratios for the nation's 250 largest metro areas, incorporating 68 specific ratios with home prices, ownership costs, or rents as the numerator and a variety of income measures as the denominator.** Composite price-to-income ratios are at or below three times income in 104 of these metros, amounting to a quarter of the total 250-metro population. Housing is affordable for the vast majority of people in these places. Median home prices were below three times the 70th percentile household's income in all but 57 of the 250 largest metros at the market peak in 2022. Median rents were below 31% of the 30th percentile family's income in over half the 250 metros.

The 25 large Sun Belt and Mountain state metros we focus on in this report, by contrast, have an overall composite price level of 4.0 times income – slightly below the average for America's 250 largest metros but far above three times income.*** (See Table 1 for a list of our 25 Sun Belt–Mountain metros.)

At the other extreme are 35 metros, mostly in Northeast and Pacific Coast states, that have composite price levels over five times income. These include Los Angeles (8.6 times income), San Jose (7.9), San Diego (7.7), San Francisco (7.6), and New York City (6.6). Our group of 25 large Northeast–Pacific Coast metros has an overall composite price-to-income ratio of 6.6 times – 50% higher than the 250-metro average, 65% higher than the Sun Belt–Mountain metros, and more than 2.5 times more expensive than the most affordable 104 areas.

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* The National Low Income Housing Coalition's 2023 report finds a national shortage of 7.3 million housing units affordable for households below 30% of their area median income, an additional shortage of 1.2 million units affordable for households earning between 30% and 50% of their area median income, and a surplus of units affordable for households earning between 50% and 80% of their area median income ("Rental Housing Needs Assessment: City of Dallas" [HR&A and Child Poverty Action Lab, Spring 2023], https://childpovertyactionlab.imgix.net/CPAL_RentalHousingNeedsReport.pdf; Andrew Aurand et al., "The Gap: A Shortage of Affordable Homes" [National Low Income Housing Coalition, March 2023], https://nlihc.org/gap).

** Our choice of ratios generalizes the idea we describe earlier of comparing the median home price to the 70th-percentile household's income and median rent to the 30th-percentile household's income: matching specific housing price measures with the income of people who pay these prices. See Appendix 2 for a full summary of our methods and the online Data Appendix for all underlying data.

*** We calculate the overall composite price-to-income ratio as the weighted average composite ratio for the 25 metros, weighted by 2022 population.

Table 1
Sun Belt–Mountain state metros and Northeast–Pacific Coast metros*

Sun Belt-Mountain State Metros	Northeast-Pacific Coast Metros
Atlanta-Sandy Springs-Alpharetta, GA	Albany-Schenectady-Troy, NY
Austin-Round Rock-Georgetown, TX	Baltimore-Columbia-Towson, MD
Boise City, ID	Boston-Cambridge-Newton, MA-NH
Cape Coral-Fort Myers, FL	Bridgeport-Stamford-Norwalk, CT
Charleston-North Charleston, SC	Hartford-East Hartford-Middletown, CT
Charlotte-Concord-Gastonia, NC-SC	Los Angeles-Long Beach-Anaheim, CA
Colorado Springs, CO	Manchester-Nashua, NH
Dallas-Fort Worth-Arlington, TX	Modesto, CA
Deltona-Daytona Beach-Ormond Beach, FL	New Haven-Milford, CT
Denver-Aurora-Lakewood, CO	New York-Newark-Jersey City, NY-NJ-PA
Fayetteville-Springdale-Rogers, AR	Oxnard-Thousand Oaks-Ventura, CA
Greenville-Anderson, SC	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD
Houston-The Woodlands-Sugar Land, TX	Poughkeepsie-Newburgh-Middletown, NY
Jacksonville, FL	Providence-Warwick, RI-MA
Lakeland-Winter Haven, FL	Salinas, CA
Las Vegas-Henderson-Paradise, NV	San Diego-Chula Vista-Carlsbad, CA
Nashville-Davidson-Murfreesboro-Franklin, TN	San Francisco-Oakland-Berkeley, CA
North Port-Sarasota-Bradenton, FL	San Jose-Sunnyvale-Santa Clara, CA
Orlando-Kissimmee-Sanford, FL	Santa Cruz-Watsonville, CA
Phoenix-Mesa-Chandler, AZ	Santa Maria-Santa Barbara, CA
Provo-Orem, UT	Springfield, MA
Raleigh-Cary, NC	Syracuse, NY
Salt Lake City, UT	Visalia, CA
San Antonio-New Braunfels, TX	Washington-Arlington-Alexandria, DC-VA-MD-WV
Tampa-St. Petersburg-Clearwater, FL	Worcester, MA-CT

Price gaps across metros used to be much narrower. Rent-to-income ratios were roughly the same across the nation's cities in the 1980s.[69] California home price-to-income ratios, now over twice the national average, were only 35% higher in 1980.[70] Most of the widening gaps we see today opened up since 2000.

For families in the bottom fifth of the income distribution, housing prices are unaffordable in most metro areas. Consider, for instance, the ratio of the 30th percentile rental apartment to the 20th percentile family's income (since households at the 20th income percentile that rent their homes generally live in homes at about this spot in the price distribution). Based on this measure, rental units are priced above 30% of income for these families in 165 of the 250 largest metros. Metros that fail this affordability test

* We've selected these two groups in order to make quantitative comparisons throughout this report. Our criteria: (1) All 50 metros must rank among America's 100 largest metro areas. (2) All the Sun Belt–Mountain state metros must have experienced population growth above the average rate of the 250 largest metros, 2010–22, while the Northeast–Pacific Coast metros must have seen below-average population growth rates. (3) The leading core city of each Sun Belt–Mountain metro must be in one of 17 states: Alabama, Arizona, Arkansas, Colorado, Florida, Georgia, Idaho, Louisiana, Mississippi, Montana, New Mexico, North Carolina, South Carolina, Tennessee, Texas, Utah, or Wyoming; and the leading core city of the each Northeast–Pacific Coast metro must be in one of 14 states or districts: California, Connecticut, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Vermont, or Washington. The Northeast–Pacific Coast notably excludes Seattle and Portland, Oregon, because these metros experienced above-average growth from 2010 to 2022.

include all of our 25 Sun Belt–Mountain metros except Provo and Fayetteville-Springdale-Rogers and all our Northeast–Pacific Coast metros except Syracuse.

We've also calculated price-to-income ratios for the period 2006-2010, so we can estimate how local housing markets have evolved since 2010. During this period, the overall composite price-to-income level for America's 250 largest metros rose 13%, meaning rents and home prices increased 13% more than people's incomes. Price-to-income ratios increased 8% in our 25 large Northeast–Pacific Coast metros, which were already very expensive by 2010.

The most notable change, however, was in the Sun Belt–Mountain metros, where overall prices rose 25% relative to incomes. Fast-rising housing costs have quickly become a major concern in these cities. In a 2024 survey of Texans by the Texas Lyceum, for instance, 63% of respondents said they spend too much of their income on housing, up from 44% of respondents as recently as 2020.[71]

What should we expect? We would expect rents and home prices to be higher than elsewhere in cities that offer either exceptional job opportunities or unusually attractive quality-of-life amenities like mountains, beaches, and arts facilities.[72]

But even home price-to-income ratios should be higher in wealthy cities, all else equal. Why would people be willing to spend a larger-than-average share of income on housing in high-wage cities? Suppose a person lives in midsized city A, earns $60,000, and spends $18,000, or 30% of their income, on rent. If they could earn 20% more in wealthy city B – which many people could do today by moving to the wealthiest coastal cities – they could move to B, spend 40% of income on rent, and have enough money left over to increase consumption of nonhousing goods and services by $1,200. If price-to-income ratios weren't higher in B, people would flock there and drive up prices until homes become sufficiently expensive to deter further migration.*

So how wide a gap would we expect to see if housing markets were functioning well everywhere? We use two methods to suggest answers.

First, a simple modeling exercise suggests that cities which differ only in wage rates might experience price-to-income differences about twice as large as their wage differences. (See Appendix 1.) Typical workers in our wealthy Northeast–Pacific Coast metros earn wages roughly 20% higher than workers of comparable education levels in the average metro area and 30% higher than those in the bottom third of metros. Our model implies that we might expect price-to-income ratios to be around 40% higher than the 250-metro average and 60% higher than in low-wage metros. Wage levels in our Sun Belt–Mountain metros are in line with the 250-metro average, so price-to-income ratios should be near the average, too.

Second, we've done a quantitative analysis that predicts price-to-income ratios in the 250 largest metros as a function of income levels plus other factors that influence housing demand in U.S. cities. These include:

* Studies also show that people in expensive, high-wage cities tend to have homes only modestly smaller than their peers in less-expensive places, so people in the former are generally choosing to accept higher price-to-income ratios rather than consuming significantly less housing than people in places where housing is cheaper (Raven Molloy et al., "Housing Supply and Affordability: Evidence from Rents, Housing Consumption, and Household Location," Finance and Economics Discussion Series 2020-044 [Federal Reserve Board of Governors, March 2020], https://www.federalreserve.gov/econres/feds/files/2020044pap.pdf).

- Total population (people have tended to prefer larger cities in recent decades).
- Education levels (people have tended to seek out cities with high education levels).
- Average temperatures (people have tended to favor warmer over colder regions).
- Proximity to mountains and beaches and reputation for natural beauty.*

Based on these predictions, we would expect our Sun Belt–Mountain metros to have home price-to-income ratios 7% higher than the 250-metro average. We would expect our Northeast–Pacific Coast metros to have price-to-income ratios 25% higher, though a few would have price-to-income well above this level. For instance, the model predicts that ultrawealthy, temperate San Jose would be 68% more expensive than average. (See Figure 2.)

Home prices in the Northeast–Pacific Coast metros are far higher than we would predict, based on these methods. Our analysis suggests that the price-to-income gap between the nation's most expensive metro areas and the average metro is at least 10% to 25% wider than it would be in a well-functioning market. Our Sun Belt–Mountain metros, despite tremendous home price appreciation since 2010, remain slightly cheaper relative to the average metro than our two methods would predict.

Among large metros, New York City, Boston, San Jose, Denver, and Portland, Oregon, stand out as especially overvalued relative to our predicted price-to-income levels. Houston, Dallas-Fort Worth, San Antonio, Chicago, and Washington – while more expensive than our model predicts – are less overvalued than the average metro.

Property insurance and transportation costs don't offset much of the difference between the Northeast–Pacific Coast metros and the Sun Belt–Mountain metros, contrary to a popular narrative.[73] Annual insurance costs are approximately $900 higher in the 12 states where our Sun Belt–Mountain metros are located than in the nine Northeast–Pacific Coast states, mostly because regulators in some coastal states force insurers to sell property insurance at a loss.[74,**] Average commuting costs are $336 higher in the Sun Belt–Mountain metros because of the slightly smaller share of people who use public transit and forego auto ownership costs.*** Together, these offset only a small part of the large differences in annual housing costs, which we estimate at $20,000-plus for homeowners.**** Lower average tax costs in the Sun Belt–Mountain metros of more than $2,000 per year – including property, income, and sales taxes – in any case more than make up for these metros' slight disadvantage in insurance and transportation costs.[75]

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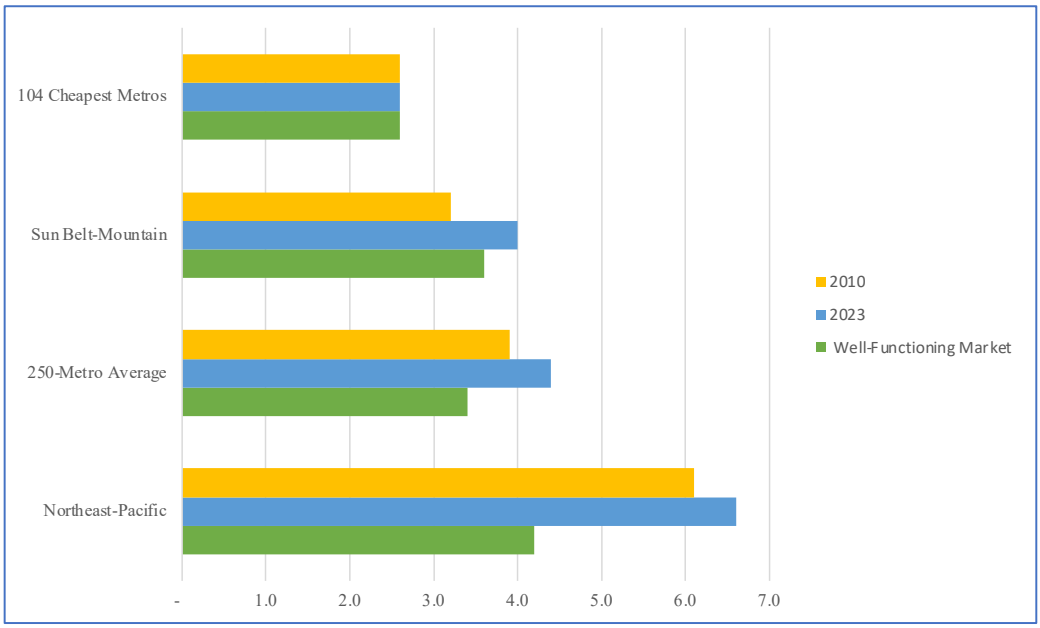
* Our method: We've run numerous regressions to arrive at the best-fitting model we can find to account for variation across metro areas in our composite price-to-income measure. We generate predicted price-to-income ratios for the 250 largest metros using the coefficients from our best-fitting model and data for each metro. See full explanation in Appendix 2 on Sources and Methods and regression results in the online Data Appendix.

** The unweighted average annual property insurance cost in Arizona, Arkansas, Florida, Georgia, Idaho, Nevada, North Carolina, South Carolina, Tennessee, Texas, and Utah in 2024 was $4,333, while the unweighted average for California, Connecticut, Maryland, Massachusetts, New York, Oregon, Pennsylvania, Rhode Island, and Washington was $3,404. Both were higher than the national average of $2,601. (Leslie Kasperowicz, "Average Homeowners Insurance Rates by State in 2025," Insurance.com, updated January 2025.)

*** $4,183 per year versus $3,847 per year. Author's calculations, based on American Community Survey data on modes of commuting and multiple online cost estimates; figures calculated as weighted averages of metro-area means, weighted by 2022 population (American Community Survey, "DP03: Selected economic characteristics," 2022, five-year estimates, https://data.census.gov/table?q=DP03).

**** Population-weighted average home value difference of $286,000 times 9%. The population-weighted average rent difference is just under $10,000, we estimate. Author's calculations based on Zillow and CoStar data.

Figure 2
Price-to-income levels: Comparison across metros, 2010 and 2023



Sources: Author's calculations and estimates, based on household income and housing data from the American Community Survey (U.S. Census), Zillow, and CoStar. See full explanation of our price-to-income measures in Appendix 2.

Why housing markets are out of whack

America isn't building enough homes: We estimate a national shortfall of 6.1 million to 7.8 million housing units, based on population growth plus an assumed replacement rate. Estimates from other organizations – Freddie Mac, the Brookings Institution, Urban Institute, the National Association of Realtors, and advocacy organization Up For Growth – range from 3.8 million to 7.3 million.[76,*]

A similar analysis suggests America built new housing units at rates roughly in line with what the nation needed from 1960 to 1990. Production fell some 25% below the required level in the 1990s and early 2000s, then some 50% to 60% short between 2008 and 2016. It partially recovered between 2017 and 2021, then fell back again in the wake of the Federal Reserve's 2022-2023 interest rate hikes.[77]

These patterns help account for some of the trends in rents and home prices visible in Figure 1. Rents accelerated upward relative to incomes after production declines got underway in 2008 and 2022. Home prices stopped rising relative to incomes during the construction recovery between 2017 and early 2020.

* We assume that 1.0% to 1.33% of the nation's housing stock needs to be replaced each year, based on useful life of 75 to 100 years. (An Urban Institute analysis assumes 0.8% to 1.0% per year; see Karan Kaul et al., "The Role of Single-Family Housing Production and Preservation in Addressing the Affordable Housing Supply Shortage" [Urban Institute, December 2021].) Our estimates are toward the high end of the range because we take into account internal migration in the United States. Cities and regions experiencing net in-migration need additional housing as a result, which cities with net out-migration don't offset with negative numbers. If we disregard internal migration, we arrive at an estimated shortfall of 3.9 million to 5.6 million homes. See Appendix 2 for full explanation and the online Data Appendix for underlying data.

Home prices have also seen short-term fluctuations based on two other forces: ups and downs in mortgage interest rates and shifts in people's long-term expectations for future home price appreciation. Ultra-low interest rates explain much of the rapid gains from 2001 and 2004 and during the pandemic in 2020 and 2021. Elevated expectations for the future, as reflected in surveys,[78] help account for why home prices kept rising after interest rates started upward in 2004 and 2022.

But over the longer term, supply and demand have been the main drivers of rents and home prices. For decades before the 1980s, housing was relatively abundant and cheap, though sometimes also low quality by today's standards, in the words of Marohn and Herriges. When housing demand surged in a city, a building boom would quickly follow in response, according to economists Edward Glaeser of Harvard University and Joseph Gyourko of the University of Pennsylvania.[79] Consequently, median home prices remained in a tight range of two to three times median household income for many decades.

But local policies have made it harder to build new homes, starting in the 1920s and 1930s but more aggressively since the 1980s. Restrictive policies take many forms:

- **Restrictions on what and where developers can build:** While local authorities started adopting zoning codes early in the 20th century for laudable purposes like separating residential areas from factories emitting toxic fumes, governments have since imposed ever-tougher restrictions on the physical forms and locations of new housing.* Early measures included banning "triple deckers" (a distinctive New England building type with three stacked apartments) and single-room occupancy boarding houses, according to Marohn and Herriges.[80] Localities increasingly raised minimum floor areas for apartments and minimum lot sizes for single-family homes. As a result, many Boston-area suburbs have median lot sizes well over an acre today. Some 40% of the housing units in Manhattan and almost 80% of those in the Boston-area town of Somerville would be illegal to build today.[81] Los Angeles zoning rules as of 1960 would have allowed sufficient housing to hold 10 million people, but subsequent restrictions have reduced the city's zoned capacity to 4.3 million – just above the current population.[82]

  More recently, many cities have made it close to impossible to build manufactured home** communities.[83] Seattle has reduced the number of apartments that can be built in many new high-rises by as much as half because it wants "skinny" towers on aesthetic grounds.[84] Portland, Oregon, has imposed an "urban growth boundary" making suburban expansion difficult. Houston, one of America's least restrictive cities, has nonetheless shown how deed restrictions can block new housing even in the absence of zoning rules.[85]

- **Policies that add significant costs to new home development:** Rules requiring a minimum number of parking spots per unit in new apartment buildings can add more than $20,000 in per-unit construction costs in Texas cities and more than $100,000 in San Francisco.[86] "Impact" fees can be as high as $200,000 for a new duplex in some California cities, while rezoning petitions can cost more than $100,000 per unit.[87] Complex rules governing tree preservation have added enough costs to kill numerous projects in Dallas.[88] While some of these rules undoubtedly advance legitimate public policy interests, they typically add 20% to the overall cost of

* Local governments also deployed zoning codes to create and enforce explicit housing segregation on racial lines starting in 2016, despite enactment of the Fair Housing Act of 1968 (Michael D. Tanner, *The Inclusive Economy: How to Bring Wealth to America's Poor* [Cato Institute, 2018], 203).

** Manufactured homes are housing units that are built in a factory and can be transported to a piece of land.

constructing a new apartment in Washington and Boston, 30% in Los Angeles, and more than 50% in New York, San Francisco, and San Jose. Policies that raise construction costs ensure that fewer projects will be economically viable, so fewer projects come to fruition.[89]

- **Opaque, slow, and uncertain approval processes:** In some cities, statutory permitting processes are sufficiently opaque and complex to deter most developers.[90] In others, they are so slow that they make otherwise economically viable projects unattractive.[91]

  A common problem in U.S. cities is that, since so little land is zoned for apartment buildings or townhomes, developers can only move forward if the city council makes a specific exception for their project – a process that inherently leads to politicization of land-use decisions and sometimes arbitrary denials.[92] Environmental laws – for instance, the California Environmental Quality Act and Massachusetts wetlands rules – empower local residents to object to and often block developments on specious grounds.[93] California imposed complex new rules regulating carbon "embedded" in construction materials and processes as recently as March 2024.[94] A "valid petition" rule in Texas, allowing small numbers of neighbors to stop apartment projects that require rezoning, killed 20 multifamily projects in Austin over a recent two-year period.[95] Some towns – for instance, Colts Neck, New Jersey, and Huntington Beach, California – have simply defied state rules that would have allowed new development projects.[96]

- **Complex mixes of restrictive policies:** Cities with highly restrictive housing and land-use policies typically impose many mutually reinforcing restrictions at once, detailed studies by Joseph Gyourko and colleagues have documented.[97] Onerous impact fees, for instance, can multiply the costs imposed by excessive parking requirements.

Urban land-use rules have grown progressively more restrictive since the 1980s, many studies confirm.[98] This trend closely matches the production shortfall that emerged in the 1990s and deepened after 2008.

The principal driver of increasingly restrictive policies in U.S. cities is grassroots opposition to new development and densification. Well-organized local pressure groups have played a large role in convincing city governments both to enact ever-tighter restrictions and to stop specific projects, Gyourko and colleagues show.[99] When local leaders convene community meetings to seek input on proposed projects, the comments they receive are overwhelmingly negative most of the time, a 2019 study of meetings in Henrico County, Virginia, documented.[100]

Antidevelopment groups oppose projects that would increase residential density in their neighborhoods for many reasons. Common motivations include preserving neighborhood aesthetic qualities and character; containing noise, congestion, and school overcrowding; protecting privacy and pedestrian safety; and conserving the natural environment.[101] Creating housing scarcity to increase home values is generally not people's principal motivation, contrary to a persistent narrative.[102] Renters are just as likely to express not-in-my-backyard (NIMBY) attitudes as homeowners. People generally want lower housing prices in their city, surveys show, [103] but most just don't believe increased supply would make homes more affordable.*

* One survey-based study by researchers from University of California campuses in Davis, Santa Barbara, and Riverside showed that large majorities strongly believe new development in a neighborhood causes higher rents and home prices nearby. (See Nall et al., "Folk Economics.") The researchers hypothesize that residents have often seen new apartment buildings go up in areas with fast-rising prices, and they mistake correlation for causation. Other surveys show that people are much less likely to support

There's little evidence that land-use policies have grown more restrictive since the 1980s because people became more NIMBY in their attitudes. On the contrary, Americans have gradually become more accepting of both new housing and more diverse families in their neighborhood.[104]

It's more likely that skepticism toward new development and densification has been relatively constant over time, but antidevelopment forces have become more empowered and effective in enacting restrictive policies and blocking projects.[105] This reflects a growing democratization of local decision-making: Political processes have given residents more ability than in the past to get what they want, over the wishes of real estate developers and other elites.*

Factors outside local politics and rules have played at most a small role in America's underproduction of housing since the 1990s. Labor and materials costs have remained relatively constant after adjusting for overall inflation for many decades.[106] Interest rates have choked off development when they've been relatively high, but they've spent most of the 21st century near all-time lows.

Nor does lack of available land prevent faster housing development, other than in the very densest places. Harris County, Texas, is denser than the San Jose metro area, measured by people per square mile, but saw housing growth more than three times higher from 2010 to 2023.[107] Greater Tokyo is much denser than the New York metro but has achieved four times New York's rate of supply growth – and has **prices more than a third lower relative to incomes. In our 25 Sun Belt–Mountain metros, we estimate that open, developable land constitutes fully 19% of the average city's land area and 57% of the average county's.

Local rules have grown even stricter in the years since 2008, Gyourko and colleagues show in an update to a massive study they conducted in 2006.[108] "There is no case of a highly regulated market as of 2006 becoming substantially (or even moderately) less regulated over time," they conclude.[109]

Consequently, new home development plunged to historically depressed levels between 2007 and 2016 and has remained low most years since then (See Figure 3). New multifamily construction has consisted almost entirely of smaller-than-typical apartments within large buildings in very concentrated locations within their cities.[110] Commuting times have risen considerably in most cities.[111] So has housing segregation along income lines.[112]

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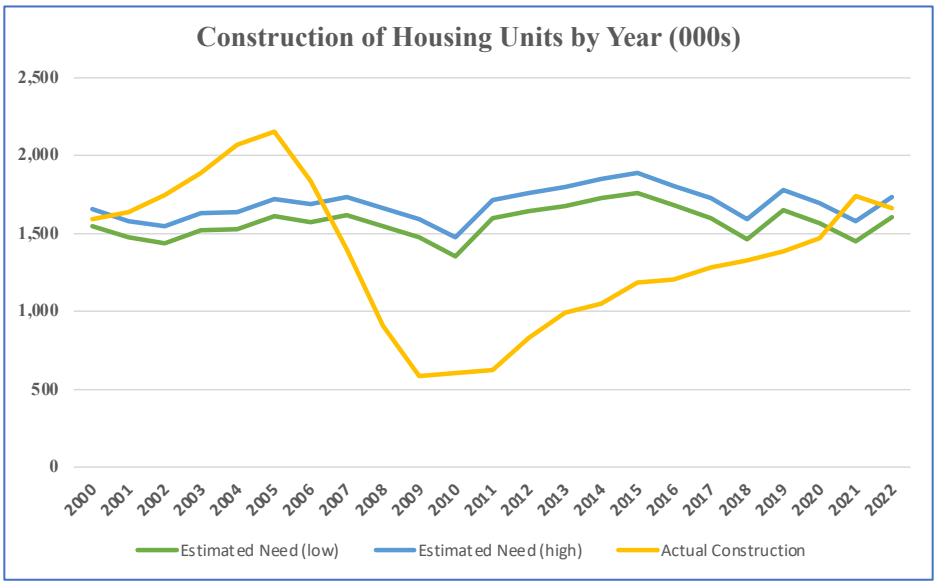
proposed multifamily projects in their city if they think developers will make a profit from new construction , and that very few people have an intuitive grasp of how new development causes older homes to filter down to moderate- or lower-income families. See Paavo Monkkonen and Micael Manville, "Opposition to Development or Opposition to Developers? Experimental Evidence on Attitudes Toward New Housing," *Journal of Urban Affairs* 41, no. 8 (2019): 1123–41; Evan Mast, "JUE Insight: The Effect of New Market-Rate Housing Construction on the Low-Income Housing Market," *Journal of Urban Economics* 133 (2023): Article 103383.

* One milestone in this democratization process: The Lyndon B. Johnson Administration's Community Action and Model Cities programs set new requirements for cities to create avenues for public participation in planning processes as a condition for federal funds (Michael Hankinson, "When Do Renters Behave Like Homeowners? High Rent, Price Anxiety, and NIMBYism," *American Political Science Review* [August 2018], https://www.mhankinson.com/documents/renters_preprint.pdf).

** See explanation in Appendix 2 and underlying data in the online Data Appendix. The author thanks demographer Wendell Cox for a thorough explanation of how much developable land actually exists in even the densest metro areas.

Figure 3
Underproduction of homes since 2007



Source: Author's calculations and estimates, based on U.S. Census population and construction data.

Cities that build less have higher prices: Many studies confirm that localities with more restrictive land-use policies experience higher land values, higher production costs, less development, and higher rents and home prices as a result. These include national studies as well as deep dives into localities in California, Massachusetts, and New York. However they measure policy restrictiveness, they all come to the same conclusions.[113]

Highly restrictive policies have outsized effects on supply and prices in the lower-tier segment of the market. This is partly because the direct effects of cost-increasing rules are larger in percentage terms when homes are relatively small and inexpensive.[114] It's also because overly restrictive rules undermine or reverse the filtering-down process that accounts for most housing affordable to lower-income families.[115]

We've calculated a score for each of the 250 largest metro areas, measuring how much supply growth they realized between 2010 and 2023 relative to what one would expect based on a predictive model of housing demand in each metro. (See Section III.) We estimate that metros which have produced 10% fewer homes than our model predicts have rents and home prices between 7% and 11% higher today than comparable metros that have performed in line with expectations, on average.*

* We base these estimates on numerous regressions treating price-to-income ratios as the dependent variable and our metro-area housing policy scores, along with various control variables, as explanatory variables. Some other studies have arrived at similar-sized effects of underproduction on rents and home prices (see Molloy et al., "Housing Supply and Affordability"; Bernard Fingleton et al., "Housing Affordability: Is New Local Supply the Key?" EPA: Economy and Space 51, no. 1 [2019]: 25–50, https://journals.sagepub.com/doi/pdf/10.1177/0308518X18798372), while others have found larger effects (see, for instance, Stephen Malpezzi, "Housing Prices, Externalities, and Regulation in U.S. Metropolitan Areas," *Journal of Housing Research* 7, no. 2 [1996]: 209–41, https://www.jstor.org/stable/24832860). See full explanation of our methods in Appendix 2 and regression results in the online Data Appendix.

Applying the same method to 248 cities and counties within our 25 fast-growing Sun Belt–Mountain state metros, we find similarly sized effects. Localities that underproduce see significantly higher housing prices as a result, even compared with neighboring localities. It's perhaps surprising that underproduction in one city compared to another one nearby would have such large effects when a family can so easily choose to live in the cheaper one. It turns out that, while one city may be a substitute for another in the minds of families deciding where to live, it's typically not a perfect substitute.

Housing growth in fast-growing Sun Belt and Mountain State metro areas: The 25 Sun Belt–Mountain metros we focus on in this report account for 41% of all single-family homes and 35% of all apartments built in the nation's 250 largest metros between 2010 and 2022, despite being home to just 20% of the 250-metro population as of 2010. In the six years from 2017 to 2022, their share of production grew further to 43% of single-family homes and 37% of apartments.

Breaking down the multifamily market into tiers, the Sun Belt–Mountain metros account for an even larger share of the midrange tier than of the luxury tier, based on our analysis of data from real estate research firm Yardi Matrix: 39% over the period 2010-2023 and 41% over the latter half of this period. They also account for an outsized 27% of all income-restricted, "fully affordable" units built in the 250 largest metro areas from 2010 to 2023.*

Consider, by contrast, two other groups of metro areas. The 25 Northeast–Pacific Coast metros we list in Table 1 account for 11% of the single-family homes and 28% of the apartments built in the 250 largest metros between 2010 and 2022, while 29% of the 250-metro population lived in these areas in 2010. Their apartment production leaned more into luxury tiers than the Sun Belt–Mountain metros, as they produced just 17% of the midrange apartments and 23% of the income-restricted ones. These cities have built fewer homes per capita than most other U.S. cities and consequently have America's highest housing prices relative to people's incomes.

Another group of metro areas, the 104 we noted earlier with composite price-to-income ratios at or below three times,** presents a different pattern. These metros, home to a quarter of the 250-metro population in 2010, produced 21% of the single-family homes, 11% of the apartments, 20% of the midrange apartments, and 12% of the fully affordable apartments built in the 250 largest metros between 2010 and 2022. Yet despite apparent underproduction, they are the nation's cheapest metros. Their housing markets reflect an insight from Glaeser and Gyourko: Since homes are durable assets that last a long time, both new production and prices can fall to very low levels in a city that has sufficiently low housing demand.[116]

In each of these three groups, population changes have moved in tandem with housing production. From 2010 to 2022, population grew 23% in our 25 Sun Belt–Mountain metros, 4% in our Northeast–Pacific Coast metros, and 5% in the 104 cheapest metros.[117] This correlation is unsurprising, as people will only move to a place where they can find a home. But it doesn't resolve whether people are moving to Sun

* The author thanks Yardi Matrix for sharing the underlying data. To estimate new production of "midrange" units, we combine four more-granular Yardi categories: upper midrange, lower midrange, upper workforce, and lower workforce. Yardi's "fully affordable" category refers to subsidized, income-restricted apartments. Yardi's data covers midsized to large apartment buildings across the United States.

** The 104 cheapest metros have a slight degree of overlap with the other two groups: They include the Fayetteville-Springdale-Rogers metro, which is in our group of 25 fast-growing Sun Belt–Mountain metros, and the Syracuse metro, which is in the Northeast–Pacific Coast group.

Belt metros because they have more pro-growth policies and lower prices, or because people want to be there for other reasons and housing markets are responding. We address this question in Section III.

Our 25 Sun Belt–Mountain metros collectively produced new homes between 2017 and 2022 at a pace sufficient to keep up with our projections for future population growth. America's 250 largest metros as a whole underproduced by about 20% on this measure, despite the partial recovery in construction after 2016. The production pace in the 25 Northeast–Pacific Coast metros was about half of what they will need, even accounting for slow projected population growth in these places.*

Figure 4 shows the role our Sun Belt–Mountain metros have played in U.S. housing production since 2010. The chart's bars shows the share of new homes built in four groups of metros: the 25 Sun Belt–Mountain metros, our 25 Northeast–Pacific Coast metros, the other 50 of America's 100 largest metros, and the next 150 metros in population terms. As the chart illustrates, the Sun Belt–Mountain metros account for an outsized share of total homes, single-family homes, apartments, midrange apartments, and (to a slightly lesser degree) income-restricted apartments.**

Within our 25 Sun Belt–Mountain metro areas, fully 87% of single-family homes built between 2010 and 2022 are in suburban areas rather than core cities. Suburban and exurban areas also account for about a third of the midrange apartments built in these metros from 2010 to 2023. Moreover, they account for 63% of the housing units funded through the federal low income housing tax credit program between 2010 and 2021. Suburban communities are home to 72% of the population in these metros.

We also divide the suburban counties and municipalities within our 25 Sun Belt–Mountain metros into 65 inner-ring and 73 outer-ring localities.*** We estimate that inner-ring localities account for 40% of the single-family homes built in these metros between 2010 and 2022, while outer-ring localities account for 47%. Inner-ring communities, on the other hand, have produced far more apartments than their outer-ring neighbors: 27% of midrange and 14% of fully-affordable apartments built in the Sun Belt–Mountain metros compared to 5% and 6% in the outer-ring communities.

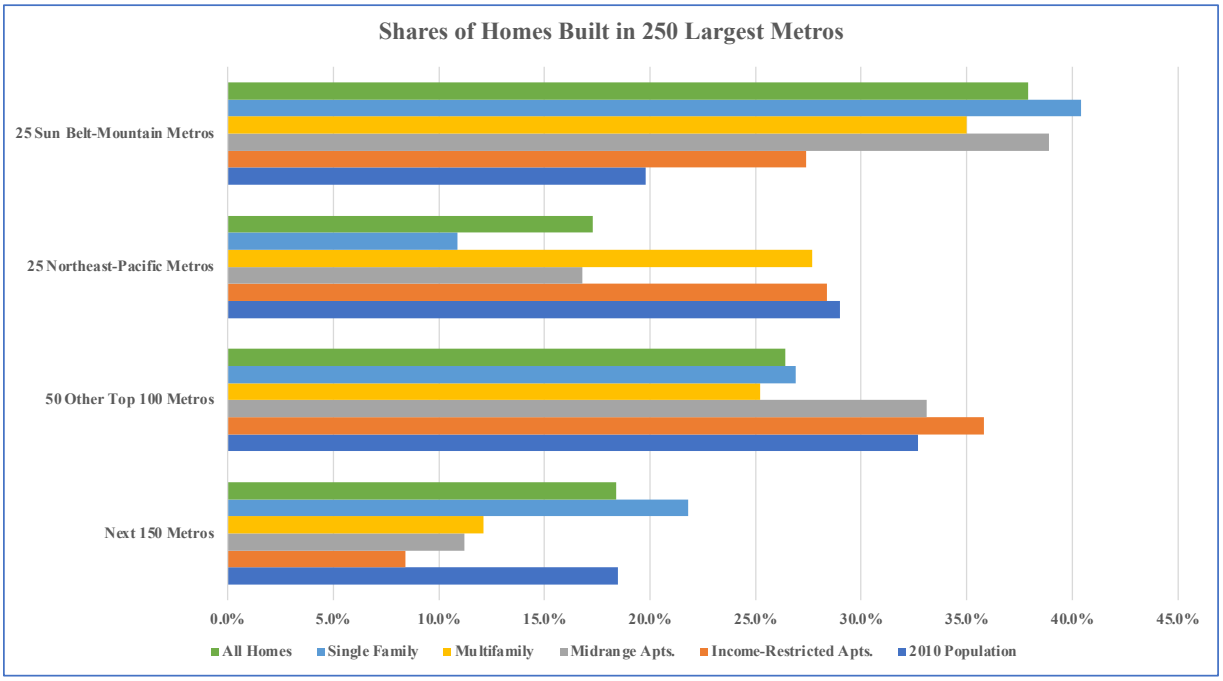
* Author's calculations based on U.S. data. We build simple growth projections through 2055 by "straightlining" out recent population growth figures for each metro, then adjusting our projections downward by the same amount for all metros to account for overall population slowdown and arrive approximately at official projections of the total U.S. population in 2055. Specifically, we assume that each metro will grow at the average of its annualized growth rates over 2016–22 and 2020–22, less 0.3% per year. Under these assumptions, the nation's population will rise to 373 million in 2055, and the share living in the 250 largest metros will rise to 84% of the total, from 81.3% in 2022. We further assume that, to keep up with true demand, each metro must replace 1.33% of its housing stock each year and allow for projected population growth. We compare our projected requirement for each metro with its actual 2017–22 pace of new development. Based on this analysis, 16 of 25 of our Sun Belt–Mountain metros are building sufficiently to keep up with demand. The nine that aren't are Atlanta, Deltona–Daytona Beach, Greenville, Jacksonville, Lakeland–Winter Haven, North Port–Sarasota–Bradenton, Orlando, Provo, and San Antonio. Only five of our Northeast–Pacific Coast metros – Los Angeles, San Diego, San Francisco, San Jose, and Santa Cruz – are on pace to keep up with demand, even though our projections suggest that total population in these 25 metros won't grow at all over the next 30 years.

** See underlying data, including for each of the 25 Sun Belt–Mountain metros, in Table A, Appendix 3.

*** We make this subjective judgment-based distinction according to how far localities are from their metro area's core city or cities and when most of their population growth has occurred. We have 250 counties and individual municipalities in our dataset in all, but in some cases there is overlap between counties and municipalities. The calculations we report here avoid double counting by using either suburban counties or the included municipalities within those counties, but not both.

Figure 4

Sun Belt–Mountain State metros: Outsized share of new homes built, 2010-2023



Source: Author's calculations based on data from the U.S. Census Bureau and Yardi Matrix. See underlying data in Table A, Appendix 3.

Sun Belt and Mountain state suburbs and exurbs have played a pivotal role in America's housing market since 2010, this analysis implies. They've produced about 36% of the single-family homes and 13% of the midrange apartments built in the nation's 250 largest metros since 2010. Just under 20% of all single-family homes built in the 250 largest metros are in outer-ring localities in our 25 Sun Belt–Mountain metros.

Since 2022: Some commentators contend that the Sun Belt–Mountain state housing boom is coming to an end. They point to home prices and rents: The Sun Belt and Mountain metros included in the S&P CoreLogic Case-Shiller index of 20 large markets all saw price changes below the median during the 12 months ending in May 2024, for instance. Rents have fallen in a few metros like Austin and Raleigh. These price changes, plus the relocation of a single company (Oracle) from Austin to Nashville, led one pundit to write a piece titled "Plunging Home Prices, Fleeing Companies: Austin's Glow Is Fading."[118]

This interpretation is misleading. Population growth in the 25 Sun Belt–Mountain metros has remained strong. Adding up the 253 cities in these metros with population over 50,000,* total population rose 1.0% from mid-2022 to mid-2023 – slightly below its 2021-2022 growth rate of 1.2% but in line with 2020-2021 and ahead of the prior decade's pace. The 132 cities in the Northeast–Pacific Coast metros with population over 50,000 collectively shrank 0.2% between mid-2022 and mid-2023. This was better than the shrinkage they experienced between 2021 and 2022** but equal to their 2020-2021 decline rate and worse than the annual pace of the previous decade.

* We count cities with population over 50,000 as of 2022.

** The 132 cities collectively shrank by 0.5% from mid-2021 to mid-2022.

The city of Austin, meanwhile, grew in line with its 2020-2022 rate. Austin-area suburbs Georgetown, Kyle, and Leander were three of the four fastest-growing of these 385 cities from 2022 to 2023.[119]

Rents and home prices have retreated in the Sun Belt–Mountain metros not because housing demand has slowed but because supply has expanded fast enough since 2022 to more than keep up with demand in most of these markets. Some Sun Belt metros – notably Charlotte and Raleigh – experienced very little building slowdown despite the headwind of high interest rates.[120] The research firm CoStar projects that apartment development in our 25 Sun Belt–Mountain metros in 2024 and 2025 will be slightly ahead of its pace over the previous 14 years.[121] Midrange multifamily projects in these metros that will open in 2024-2025 and are already counted in Yardi's database as of mid-2024 account for fully 51% of all such units for the 250 largest metros – a higher share than ever.*

By contrast, apartment development fell by half in 2023 in the six largest West Coast metros and has experienced little recovery.** As of mid-2024, the largest Northeast and Pacific Coast metros had below-average supply on the market and above-average recent price appreciation, according to American Enterprise Institute and RedFin data.[122]

Citizens in even relatively affordable places like Houston and Utah as well as mayors across the United States agree that housing affordability has become a top-tier concern.[123] Raphael Bostic, President of the Federal Reserve Bank of Atlanta and a leading authority on economic mobility, emphasizes that high housing costs in prosperous cities are among the steepest barriers to upward mobility in America today.[124] Surveys consistently show that the nation's affordability crisis, along with spiraling college tuition, is one of the main reasons many young Americans have grown pessimistic about the American dream.[125]

The main takeaway from this analysis is that America needs a sustained building boom – more homes of all kinds, with as many as possible in relatively high-opportunity locations.

* Large metros where the largest share of rental listings were offering rent concessions in July 2024 are all Sun Belt–Mountain metros with continuing rapid population growth but also very large supply growth in the apartment market: Atlanta, Austin, Charlotte, Nashville, Raleigh, and Salt Lake City. The top two major markets for year-over-year rent decline since July 2024 were Austin and Jacksonville (RedFin data, cited in Ashley Fahey, "Apartment Rents Hit a Post-Pandemic Milestone – and More Landlords Are Sweetening Their Deals," The Business Journals, August 14, 2024, https://www.bizjournals.com/bizjournals/news/2024/08/14/asking-rents-concessions-rise-apartments.html).

** Midrange multifamily projects in our 25 Northeast–Pacific Coast metros that will open in 2024–25 and are already counted in Yardi's database as of mid-2024 account for just 12% of all such units for the 250 largest metros.

III. AMERICA'S MOST PRO-GROWTH CITIES

Pro-growth housing policies: Which cities perform best?

America's 250 largest metro areas

Main rankings: We've calculated scores estimating how growth friendly housing policies are in the 250 largest metros. Our approach is to compare each metro's housing supply growth to our estimate of how much growth we would expect based on a quantitative model of housing demand.

Our logic: If a metro area has realized better-than-average housing supply growth since 2010, it may be because it has enjoyed relatively pro-growth policies. Or it may have had average policies but extraordinary demand growth. Likewise, a metro with subpar growth may owe its performance to either restrictive policies or weak demand (or both). Our aim is to distinguish policy from demand effects.

We estimate demand curves for each metro area – that is, lines on a graph showing how many new homes people would want at all possible price levels. These demand curve estimates, plus nonpolicy factors that affect how difficult it is to build homes,* allow us to estimate what housing supply growth would have been in each metro between 2010 and 2023, assuming all metros had equally growth friendly policies. If a metro area realized better growth than predicted, we infer that it has a more pro-growth environment than the average metro.**

Table 2 shows the 25 most pro-growth of America's 100 largest metros as well as the 25 most restrictive, based on our policy scores.*** Each metro's score is its actual growth less its predicted growth.

Charlotte, Raleigh, Greenville, and Charleston all rank among the six most growth friendly of the 100 largest metros. The Texas Triangle metros – Austin, Dallas-Fort Worth, Houston, and San Antonio – have also achieved housing growth well ahead of relatively high predicted growth. New York City, Philadelphia, Boston, Chicago, and Los Angeles have seen middle-of-the-pack performance, matching low model predictions. San Francisco, San Jose, San Diego, and most other West Coast metros score near the bottom, sharply lagging relative to high predicted growth.

Three of our fast-growing Sun Belt–Mountain state metros – Denver, Phoenix, and Las Vegas – rank in the bottom quarter of U.S. metros. All three have seen strong housing growth, but growth has nonetheless lagged relative to what we would expect in view of tremendous demand for housing in Southwestern cities. Sixteen of the 25 Sun Belt–Mountain metros perform in the top quarter of metros. On average, these 25 metros have realized growth 12% ahead of what our model predicts.

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* These include density, the extent of open space, and physical limitations like mountains and bodies of water that impede supply growth.
** Metro areas generally don't have housing and land-use policies as such. We suggest it makes sense to think of a metro's policy environment as a kind of population-weighted average of the housing and land-use policies of each locality in the metro area.
*** See full ranking of the 250 largest metros in Table B, Appendix 3. See full explanation of our scoring method in Appendix 2 and underlying data and relevant regression results in the online Data Appendix.

Table 2

America's most pro-growth and most restrictive metros

(among the 100 largest metros)

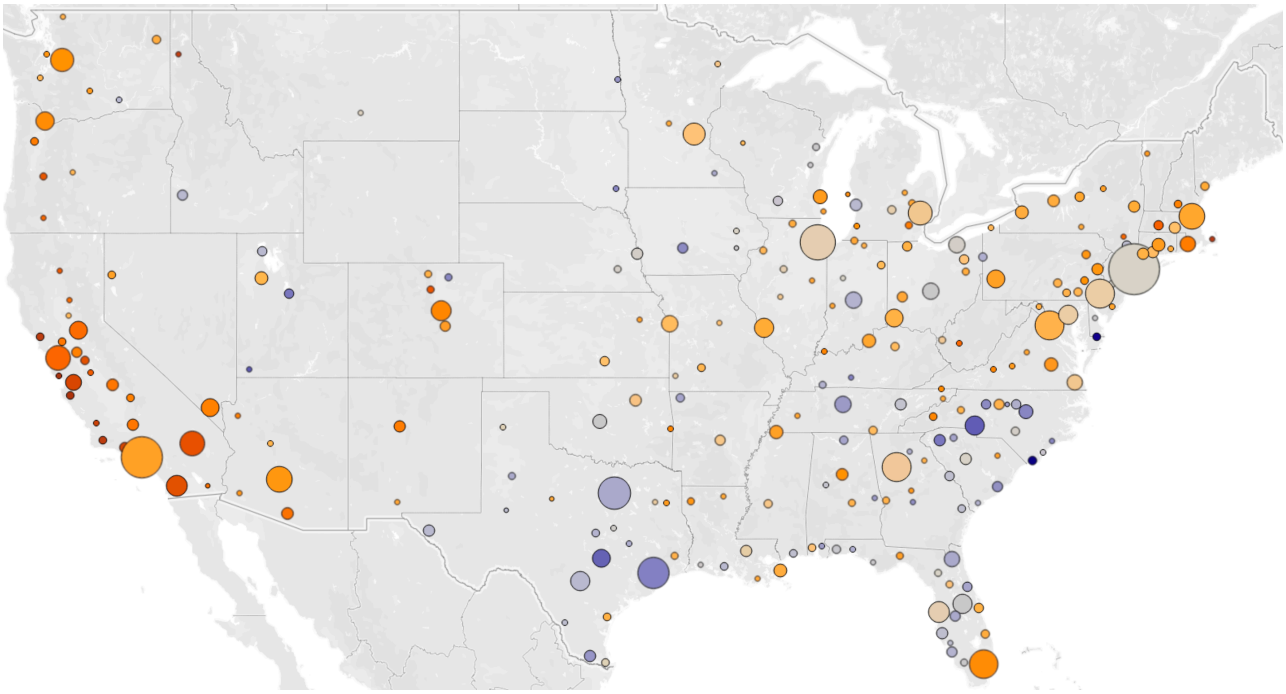
	Most Pro-Growth Metros	Score	Actual Growth	Predicted Growth		Most Restrictive Metros	Score	Actual Growth	Predicted Growth
1	Charlotte, NC	0.27	0.49	0.22	76	Hartford, CT	-0.07	0.01	0.09
2	Austin, TX	0.26	0.56	0.30	77	Milwaukee, WI	-0.07	0.03	0.10
3	Greenville, SC	0.21	0.40	0.19	78	Richmond, VA	-0.08	0.11	0.19
4	Provo, UT	0.21	0.56	0.35	79	Phoenix, AZ	-0.08	0.20	0.27
5	Houston, TX	0.18	0.30	0.13	80	Allentown-Bethlehem, PA	-0.08	0.04	0.12
6	Raleigh, NC	0.18	0.40	0.23	81	Birmingham, AL	-0.09	0.03	0.12
7	Des Moines, IA	0.16	0.31	0.14	82	Seattle, WA	-0.09	0.16	0.24
8	Winston-Salem, NC	0.16	0.31	0.15	83	Miami, FL	-0.09	0.08	0.17
9	Charleston, SC	0.15	0.37	0.22	84	Portland, OR-WA	-0.09	0.15	0.24
10	McAllen, TX	0.14	0.30	0.16	85	Denver, CO	-0.10	0.19	0.29
11	Nashville, TN	0.13	0.38	0.25	86	Stockton, CA	-0.11	0.10	0.21
12	Deltona-Daytona Beach, FL	0.10	0.30	0.19	87	Las Vegas, NV	-0.11	0.17	0.28
13	Fayetteville, AR	0.10	0.32	0.22	88	Albuquerque, NM	-0.11	0.06	0.18
14	Dallas-Fort Worth, TX	0.09	0.27	0.18	89	Providence, RI-MA	-0.11	0.03	0.14
15	Jacksonville, FL	0.09	0.27	0.18	90	Fresno, CA	-0.12	0.09	0.21
16	Lakeland-Winter Haven, FL	0.09	0.32	0.23	91	Bakersfield, CA	-0.12	0.08	0.20
17	Durham-Chapel Hill, NC	0.08	0.30	0.22	92	Tucson, AZ	-0.13	0.08	0.21
18	Indianapolis, IN	0.08	0.18	0.10	93	Sacramento, CA	-0.13	0.09	0.22
19	Cape Coral-Fort Myers, FL	0.07	0.28	0.21	94	San Francisco, CA	-0.14	0.04	0.18
20	San Antonio, TX	0.06	0.25	0.19	95	Springfield, MA	-0.15	0.00	0.15
21	Boise, ID	0.06	0.40	0.34	96	Riverside-San Bernardino, CA	-0.19	0.07	0.25
22	Grand Rapids, MI	0.06	0.21	0.14	97	San Diego, CA	-0.19	0.05	0.24
23	El Paso, TX	0.06	0.17	0.12	98	San Jose, CA	-0.21	0.09	0.30
24	Ogden, UT	0.06	0.32	0.26	99	Oxnard, CA	-0.21	0.03	0.24
25	Poughkeepsie, NY	0.05	0.09	0.03	100	Honolulu, HI	-0.23	0.06	0.29
	Average, 250 largest metros	**-0.02**	**0.14**	**0.16**					

Of our 25 Northeast–Pacific Coast metros, 10 rank in the bottom quarter of metros. Housing growth in these 25 metros has come in 10% behind expected growth, on average.

The top performing fifth of the nation's 250 largest metros includes 22 smaller metros located in the 19 Sun Belt–Mountain states, as we define them in this report. Strong performers also include several Midwestern and Great Plains metros: Des Moines, Indianapolis, and Grand Rapids.

Figure 5 shows our housing policy scores for all of America's 250 largest metro areas. The size of circles represents metro-area population size. Blue indicates exceptionally pro-growth policies, while orange indicates exceptionally restrictive policies.

Figure 5
Housing policy scores
(America's 250 largest metros)



Lower-tier markets and policy changes over time: We've done a similar exercise focused on the lower-tier housing market. The performance of metros in this ranking closely mirrors their performance in our main rankings (correlation: 0.78).*

Among the nation's large metros, Charlotte and Greenville stand out for performing even better in this ranking than in our main ranking. Most large metros, on the other hand, score less well in our lower-tier ranking than overall. Large metros with lower-tier scores significantly below overall scores include Atlanta, Fayetteville-Springdale-Rogers, Houston, Salt Lake City, San Francisco, Seattle, and Tampa.

We've also calculated scores by the same method for two separate periods, 2010-2016 and 2017-2023, to identify metros that have experienced significant shifts in their housing policy environment since 2010. Most metros saw an acceleration in housing growth from the first period to the second, which we attribute to financial recovery in the banking and homebuilding sectors, a loosening of mortgage lending standards after several difficult years in the aftermath of the 2008 crash, and greater returns from homebuilding in view of higher prices. But our prediction model takes this improvement into account. The performance of metros relative to predicted growth was generally similar across the two periods (correlation: 0.73). Housing policies mostly don't change very fast.**

* See full rankings for metro-area housing policy based on lower-tier market performance in Table C, Appendix 3, a full explanation of our methods in Appendix 2, and all relevant data in the online Data Appendix.
** See full rankings for changes in performance from 2010–16 to 2017–23 in Table D, Appendix 3, a full explanation of our methods in Appendix 2, and all relevant data in the online Data Appendix.

Large metros that achieved significant improvements include Austin, Philadelphia, Salt Lake City, and San Antonio. Charlotte and Seattle saw considerably lower scores in the more recent period.

On average, though, neither our Sun Belt–Mountain metros nor our Northeast–Pacific Coast metros experienced shifts from one period to the next in the growth-friendliness of their housing policies, relative to other metro areas.

Our method in brief:* We calculate four measures of housing growth for each metro – our main 2010-2023 score plus scores for the lower-tier market and for the 2010-2016 and 2017-2023 periods. Our main measure is a composite score based on 17 indicators of growth in the single-family and apartment sectors. Our composite scores reward metros for achieving broad-based growth across different housing types rather than growth in just a single type, like single-family homes with three or more bedrooms.

We likewise calculate composite price-to-income measures for each metro, for both overall and lower-tier markets. These incorporate 68 ratios with home prices, ownership costs, or rents as the numerator and a variety of income measures as the denominator.

We estimate each metro's demand curves two ways:**

- We arrive at predictions for each metro's housing growth based on how it scores for factors that influence people's desire to live there, independent of price levels. These include the metro's income levels, average temperature, proximity to mountains and beaches, reputation as a fun place for "hipster" young people, and density.***

- We also estimate each metro's demand curves from its housing price levels, adjusted for local incomes.****We additionally estimate what each metro's supply curve – the net number of new units that developers would build at all possible price levels – would look like if all metros had the same housing and land-use policies. To simplify, we assume that these "as-if" supply curves would differ across metros only insofar as different places have different density and availability of developable open land.

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* See Appendix 2 for a full explanation of sources and methods.

** We estimate four demand curves for each metro – an overall curve for 2010–23, a lower-tier market demand curve, and demand curves for 2010–16 and 2017–23.

*** Demand for housing has been higher than average in metros with relatively high income levels, warm climates, easy access to mountains and beaches, and fun "hipster" reputations. It's difficult to disentangle whether density (measured in our dataset as population per square mile) at the start of a time period influences housing demand in subsequent periods, since it also influences how difficult it is to add new homes. Our data suggests that metro-area density reduces both housing demand and supply, all else equal – that is, higher density means a metro's demand curve and supply curve are both further to the left than average, implying lower production in equilibrium but ambiguous price effects.

**** Economic assumptions:

- We assume the demand curves of all metros have the same slope – that is, the additional housing units people would want in response to a given decline in income-adjusted price levels under the further assumption that prices don't change in any other metros. This means conditions in all available substitute locations are held constant. We further assume that the actual housing growth and prices each metro has experienced in the relevant periods represent points on its particular demand curves. If we know a single point on a metro's demand curve as well as the demand curve's slope, we know the coordinates of the whole curve.
- Local housing and land-use policies, together with nonprice factors that affect how hard it is to build new housing such as density and the constraints imposed by physical geography, determine a metro's supply curve.
- A metro's combination of housing growth and prices (adjusted for local incomes) occurs at the intersection of its demand and supply curves.
- The horizontal distance between actual and predicted housing growth on the graph of housing growth and income-adjusted prices represents the effect of local housing and land-use policies.

The intersection of each metro's estimated demand curves and as-if supply curves tells us what we would expect its housing growth to be for each relevant period, assuming all metros had the same policies. Comparing actual housing growth to the average of our two predicted growth figures, we estimate how far each metro's true supply curve is from our as-if supply curve – that is, the extent to which policies increase or reduce the number of units developers would build at any given price.

One caveat: Our scores aim to measure how housing policy environments in different metros compare with one another in relative terms. They don't give us absolute numbers of homes that metros would have added if housing markets across the nation were functioning well.

Our scoring approach generally comes to similar conclusions as other rankings that have figured prominently in housing studies.* But our rankings differ from some prior studies in two significant respects. First, some large metros that score badly in most other studies – such as New York City, Los Angeles, Chicago, and Philadelphia – look middle-of-the-pack in our data. This is because predicted housing growth for these metros is relatively low. Second, mountain and desert metros like Phoenix, Denver, and Las Vegas that score relatively well in most other studies perform below average in our rankings because their housing growth has fallen short of high predicted growth.

Our estimates of underlying housing demand in U.S. metros also agree relatively closely with other published rankings.**

Key takeaways about America's fastest-growing cities: The nation's fastest-growing cities, primarily in the Sun Belt and Mountain states, have built an outsized share of all new homes in the United States since 2010 both because of rapid growth in people's desire to live there and because most of them have offered unusually pro-growth policies.

Demand matters. Virtually no low-demand metro has achieved above-average housing growth since 2010, regardless of policies.*** But demand isn't just a function of climate and natural features, our data shows. People have gravitated toward relatively high-wage cities, which is why warm but lower-income metros like Mobile and Memphis have experienced low demand and housing growth. People have also tended to desire medium-density rather than high-density locations, which helps explain why New York and Los Angeles – among America's wealthiest but also most densely populated metros – have seen below-average demand in our data.

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* Our scores are positively correlated with a ranking calculated by Massachusetts Institute of Technology economist Albert Saiz that makes inferences about policy from market data (correlation: 0.22), and with two ranking systems compiled by Joseph Gyourko and colleagues and by Federal Reserve economist Raven Saks that compute composite scores based on bottom-up reviews of specific observable policies (correlations: 0.53 and 0.35). Our scores are also reasonably predictive of a prominent measure of underproduction from the advocacy organization Up For Growth (correlation with Up For Growth's 2012 underproduction numbers: 0.28). If we exclude 18 metros with very low housing demand, as reflected in population declines, all three correlations go up. This is because, in metros with sufficiently low housing demand, developers are likely to build virtually no new units even if housing policies are relatively pro-growth. Our method might unfairly penalize such places.

** Our predicted growth estimates are positively correlated with a 2024 ranking of where new college graduates are applying for jobs from the career site Handshake (correlation: 0.20) and a 2024 ranking of quality of life in U.S. metros from U.S. News & World Report (correlation: 0.57). See "Catching Up with the Class of 2024: How Economic Stress, Employer Brand, Job Location, and Industry Preferences Factor into Their Vision for Post-Grad Life" (Handshake, May 2024); and "Best Places to Live for Quality of Life in the U.S. in 2024–2025," *U.S. News & World Report*, accessed January 31, 2025.

*** Indianapolis is the only metro that ranks in the bottom quarter of the 250 largest metros for predicted growth and realized housing growth above 15%, the 250-metro average growth rate in our data.

Our analysis runs counter to a common narrative that Americans moving away from constrained housing markets in the largest coastal metros have been moving to relatively low-opportunity places.[126] The 25 fast-growing Sun Belt–Mountain metros mostly rank above average among U.S. cities for wages and innovation and far above average for their business climate.*

The Western metros Denver, Las Vegas, and Phoenix represent exceptional cases – Sun Belt–Mountain state metros that have realized housing growth well above average despite relatively restrictive policies. The reason: They score near the top of all metros for housing demand.

But in most cases, policies make a large difference. California's coastal metros, with the exception of Los Angeles, also rank high for demand, our data shows. Austin and San Jose have the same predicted growth rate, for instance, but housing growth in these two tech hubs has been worlds apart: 55% in Austin compared with 9% in San Jose. Likewise, Dallas-Fort Worth and San Francisco have the same predicted growth but actual housing growth rates 22% apart.**

Why have fast-growing Sun Belt–Mountain metros experienced larger spikes in home prices adjusted for incomes than other metros since 2010? Booming demand has simply outstripped the ability of housing supply to keep up, even though policies are relatively pro-growth in most of these places and have shown no signs of becoming more restrictive relative to other metros.

Domestic migration from the coasts to the Sun Belt and Mountain state metros – a response to both the pull of high demand to live in these destinations and the push of sky-high home prices in the most restrictive, expensive coastal cities – has played out gradually over the last several decades. New shocks to the system, including a reset in people's preferences and work patterns during the COVID-19 pandemic and concerns about public disorder in some coastal cities, caused this ongoing flow of people to accelerate between 2020 and 2023.

Still, rents and home prices were modestly below the level we would expect in the Sun Belt–Mountain metros in 2024, on average, even after rapid appreciation over the previous decade. And prices have corrected further in these metros than in most other places since interest rates started upward in 2021, as we noted in Section II.

A deeper dive into the leading Sun Belt and Mountain State metros

To explore housing policies and markets in our 25 Sun Belt–Mountain metros more deeply, we've looked at data on the 248 municipalities and counties in these metros with population over 50,000.*** These

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* Specifically, almost all the 25 Sun Belt–Mountain metros score above average on a widely cited Arizona State University ranking of cities for "ease of doing business." Most score above average on a composite measure of innovation in U.S. metros we've built from multiple external rankings. Most of the Sun Belt–Mountain metros outside Florida score above average on incomes earned by people of comparable educational attainment. (See our methods in Appendix 2 and underlying data in the online Data Appendix.) The Florida metros on our 25-metro list mostly have below-average incomes, reflecting their heavy reliance on tourism and relocating retirees – both of which tend to lower average incomes for residents. See "City Rankings," Arizona State University, accessed January 31, 2025.

** Our model predicts 30% growth for Austin and San Jose and 22% for Dallas–Fort Worth and San Francisco.

*** We include both municipalities and counties for several reasons. Municipalities, unlike whole metro areas, nearly always have specific, identifiable housing policies. In some cases, counties do as well. Some counties are home to large populations living in unincorporated areas, so they play an important role in housing markets. Counties also have more available data than individual municipalities in some categories.

include 34 core cities. They also include 105 suburban cities and 83 suburban counties, collectively accounting for 72% of the population in the Sun Belt–Mountain metros.*

Table 3 shows the 25 localities that rank highest among these places for pro-growth housing policies as well as the 25 most restrictive localities, based on the same method we use for metro areas. All of the 25 most pro-growth localities are suburbs, as are 47 of the 50 top-ranking localities. The exceptions are 42nd-ranked Houston, 43rd-ranked Greenville, and 49th-ranked Fort Worth.**

But a closer look at the data highlights several diverse patterns.

Core cities: On average, core cities in the Sun Belt–Mountain metros perform slightly better than suburban localities in these metros. Predicted growth is considerably slower for the core cities – reflecting lower wage levels, higher density, and less open land – but their actual housing growth since 2010 has exceeded predicted levels by more than in the suburbs.

Most of these cities fall into one of four categories:

- **Pro-growth cities in pro-growth metro areas:** The cities of Houston, Fort Worth, Dallas, San Antonio, Charlotte, Greenville, and Bentonville have performed well ahead of generally strong Sun Belt–Mountain metro averages, as have the metros where they're located.

- **Core cities that score much better than their wider metropolitan area:** The city of Atlanta ranks well ahead of average for the Sun Belt–Mountain metros, while the Greater Atlanta metro is a middle-of-the-pack performer. The city of Denver scores relatively well for pro-growth policies, in contrast to the bottom-quartile Denver metro.

- **Middle-of-the-pack core cities:** These include the cities of Austin, Nashville, Raleigh, Tampa, Orlando, and Jacksonville – which score lower for pro-growth policies than their surrounding metro areas – and Phoenix, which outperforms its relatively restrictive metro area. While these cities look middle-of-the-pack relative to Sun Belt–Mountain metro averages, they still have policies that are more pro-growth than the average U.S. city.

- **Underperforming core cities:** These include Western cities Boise, Colorado Springs, and Salt Lake City, as well as midsized Florida cities Daytona Beach and Sarasota.

Suburban localities: Grouping suburban localities together by metro area, we highlight three categories:

- **Metros where almost all suburban localities have pro-growth policies:** These include all four Texas Triangle metros plus Charlotte, Raleigh, Greenville, and Nashville.

* The remainder of the 248 localities are core counties, where the core cities of each metro area are located.

** See explanation of our methods in Appendix 2; full ranking in Table E, Appendix 3; and underlying data in the online Data Appendix.

Table 3

The most pro-growth and most restrictive Sun Belt–Mountain state localities

(among 248 localities in our 25 Sun Belt–Mountain metros)

	Most Pro-Growth Localities	Score	Actual Growth	Predicted Growth		Most Restrictive Localities	Score	Actual Growth	Predicted Growth
1	Leander, TX	1.17	3.02	1.85	224	Fayette County, GA	-0.11	0.48	0.59
2	Herriman, UT	0.91	2.52	1.61	225	Clay County, FL	-0.12	0.50	0.62
3	Eagle Mountain, UT	0.81	3.04	2.23	226	Adams County, CO	-0.13	0.51	0.64
4	Queen Creek, AZ	0.72	2.63	1.91	227	Charleston, SC	-0.13	0.76	0.89
5	Kyle, TX	0.70	2.27	1.57	228	Roswell, GA	-0.13	0.29	0.42
6	Lehi, UT	0.67	2.10	1.42	229	Colorado Springs, CO	-0.13	0.41	0.54
7	New Braunfels, TX	0.67	1.72	1.05	230	Flower Mound, TX	-0.13	0.92	1.05
8	Meridian, ID	0.63	1.83	1.20	231	Glendale, AZ	-0.15	0.29	0.44
9	Frisco, TX	0.62	2.12	1.50	232	Alpharetta, GA	-0.16	0.44	0.60
10	Bentonville, AR	0.61	1.37	0.77	233	Salt Lake City, UT	-0.16	0.43	0.59
11	Wake Forest, NC	0.59	1.70	1.11	234	Surprise, AZ	-0.16	0.80	0.96
12	Buckeye, AZ	0.57	2.30	1.73	235	Centennial, CO	-0.17	0.37	0.54
13	Little Elm, TX	0.56	1.79	1.23	236	Parker, CO	-0.17	0.94	1.11
14	South Jordan, UT	0.56	1.98	1.42	237	Grapevine, TX	-0.19	0.45	0.64
15	Apex, NC	0.53	1.90	1.37	238	Douglas County, CO	-0.19	0.91	1.10
16	Georgetown, TX	0.48	1.99	1.51	239	Aurora, CO	-0.20	0.36	0.56
17	San Marcos, TX	0.46	1.49	1.03	240	El Paso County, CO	-0.21	0.52	0.73
18	Chambers County, TX	0.44	1.22	0.77	241	Casa Grande, AZ	-0.22	0.66	0.88
19	Comal County, TX	0.43	1.56	1.13	242	Provo, UT	-0.22	0.38	0.61
20	Mooresville, NC	0.43	1.27	0.84	243	Jefferson County, CO	-0.23	0.35	0.58
21	Forsyth County, GA	0.43	1.39	0.97	244	Maricopa County, AZ	-0.26	0.47	0.73
22	Spring Hill, TN	0.43	1.71	1.28	245	Johns Creek, GA	-0.28	0.37	0.65
23	Hays County, TX	0.42	1.85	1.42	246	Arapahoe County, CO	-0.31	0.42	0.74
24	Murfreesboro, TN	0.40	1.00	0.60	247	Scottsdale, AZ	-0.40	0.40	0.79
25	Rockwall County, TX	0.39	1.43	1.04	248	Maricopa, AZ	-0.52	0.24	0.76
	Average, 25 Sun Belt-Mountain Metros	**0.12**	**0.33**	**0.21**					

- **Metros with a wide range of suburban policy environments:** Greater Atlanta includes very pro-growth DeKalb and Forsyth counties but also suburban places that rank as relatively restrictive, including Sandy Springs and Alpharetta in core Fulton County as well as Gwinnett and Cobb counties. In the Phoenix metro area, inner suburbs like Glendale, Mesa, Scottsdale, and Tempe rank close to the bottom of our ranking, while some further-out cities like Queen Creek and Buckeye rank among America's most pro-growth communities. The Salt Lake City and Provo metros include high-ranking cities like Eagle Mountain, Lehi, and South Jordan but also several suburbs that score as relatively restrictive.

- **Metros where most suburbs have restrictive environments:** Most suburban localities in the Denver metro area rank well below average, in contrast to the city of Denver.

Lower-tier markets and policy changes over time: Some localities perform far better in the lower-tier market than overall. These disproportionately include suburban cities in Texas (for instance: Georgetown,

Flower Mound, Frisco, Sugar Land, and Wylie), Utah (Draper and South Jordan), and North Carolina (Mooresville and Iredell County). Among core cities, Bentonville, Charleston, and midsized Florida cities Fort Myers, North Port, and St. Petersburg stand out for having policy scores in the lower-tier market significantly higher than their overall scores. Conversely, lower-tier scores are much worse than overall scores for Boise, Las Vegas, and Phoenix.

As for localities whose policy score improved significantly from the 2010-2016 period to the 2017-2023 period, standouts include suburban Texas cities (Frisco, Leander, New Braunfels, Pflugerville, San Marcos, and Wylie), North Carolina (Apex, Concord, Mooresville, and Wake Forest), and Utah (Eagle Mountain and Lehi). The city of Denver has achieved the best improvement over the last decade of the leading Sun Belt–Mountain state core cities. On the other hand, core cities as well as suburbs in the Phoenix and Boise metro areas stand out for their deteriorating policy environment.*

What do pro-growth policies mean for home prices?

Outperformance of 10% on our policy score at the metro-area level is associated with home prices 7% to 11% lower than those of the average metro, as we noted in Section II. For localities in the 25 Sun Belt–Mountain metros, 10% outperformance translates to 8% to 12% lower prices, adjusted for local incomes.**

The latter conclusion is perhaps surprising, as some studies suggest that neighboring localities in the same metro area should be close substitutes for one another. If city A builds a lot of homes but city B doesn't, this argument goes, people will readily choose A over B until the two cities have more or less the same price levels.[127] Also, if city B implements restrictive policies in order to please existing residents, city A may be more inclined to do so too as a competitive response to retain its own existing population.[128]

Our data suggests rather that different localities in a metro area each make their own choices, and these choices make a large difference. Our findings are consistent with studies showing that more restrictive cities in the San Francisco Bay area have prices as much as 17% higher than less restrictive ones, adjusted for incomes.[129] Differences in minimum lot sizes across Boston area suburbs lead to price gaps of more than 9%.[130]

Sun Belt–Mountain localities that are most overvalued relative to what our model predicts are mostly places that score poorly or at best middle of the pack for their housing policies: the cities of Austin and Nashville plus several midsized Florida cities (Cape Coral, Kissimmee, Sarasota, and St. Petersburg). Localities that are less overvalued than average, meanwhile, are virtually all cities with better-than-average policies: San Antonio, Bentonville, and several suburbs in Texas or North Carolina metros.***

What do pro-growth cities do differently?

Commit to growth: The most fundamental fact about the nation's most growth friendly cities is that they not only allow but embrace and plan for ongoing population growth.

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* See underlying data in the online Data Appendix.

** These ranges reflect regression results using our main policy score and pricing data for 2010–23, our scores for lower-tier markets, and our scores for the 2010–16 and 2017–23 periods. See regression results and underlying data in the online Data Appendix.

*** See underlying data in the online Data Appendix.

This may seem a mundane observation. But the truth is that most local governments are indifferent or hostile to population growth. The journalist Matthew Yglesias has reported on how the town of Poolesville, Maryland – in the Washington, D.C., suburbs, close to Dulles Airport – rejected proposals for a new bridge across the Potomac River because it would bring unwanted "development pressures," as local leaders put it.[131] Poolesville's "not here" attitude is extremely common across the United States.

In the 1960s and 1970s, a popular theory held that the political cards are stacked in favor of growth, since developers want new tenants and homebuyers, and political elites want new tax revenues.[132] Proponents of this view could point to generally pro-growth policies in most U.S. cities at that time. But by the 1980s and 1990s, this hypothesis was out of date. Residents, seeing little to gain from further growth and many reasons to oppose development near their neighborhood, became adept at outmaneuvering developer interests. City leaders interested in being reelected became more responsive to vocal antidevelopment majorities and more concerned that the future maintenance costs of additional roads and sewer lines would exceed the revenues arising from new development.[133]

Coastal California led the way in turning against growth. California, the fastest-growing state in the country for the first two-thirds of the 20th century, was once well-known for pro-growth boosters like Pat Brown, Governor from 1959 to 1967. But politics shifted dramatically after Brown's time. Milestones included the 1975 publication of a prominent book *The Destruction of California*[134] by Raymond F. Dasmann calling for an end to housing expansion, the spread of growth moratorium policies in suburbs across the state in the 1980s, and successful initiatives to block densification in the state's largest cities in subsequent decades.[135]

Today, cities with explicitly pro-growth leaders are the exception, not the rule. But the booming cities we identify in this report have enthusiastically embraced growth, for many decades in most cases and certainly since 2010:

- Atlanta, Dallas, and Houston stand out as "New South" cities that decisively put Confederate nostalgia behind them in the 1960s and chose to focus on business and economic growth. Atlanta famously adopted the motto "The City Too Busy to Hate." Business groups in Dallas and Houston – the Dallas Citizens Council and the Suite 8F Group, respectively – guided policymaking with the aim of maximizing growth through the 1980s.[136]

  Charlotte has been a growth-focused metro since its emergence as a national banking center in the 1980s.* A prominent civic leader said in 2024, "Places either grow or die. Nothing stands still. You're either becoming more relevant to the world or less relevant. Charlotte chooses more relevant.… Instead of having our talent move to other cities, we want other cities' talent moving here."[137]

- Charleston Mayor Joe Riley, who served for 40 years from 1975 to 2015, transformed his city from one of the nation's most backward-looking, change-resistant, anti-growth localities into one of its fastest-growing core cities.[138] Riley "knew that a city had to grow to survive," his biographer Brian Hicks writes.[139]

* North Carolina National Bank became NationsBank in 1992 after a series of acquisitions in Georgia, Florida, and Texas, then became one of America's four largest banks when it acquired Bank of America and adopted the Bank of America name in 1998.

- The Phoenix metro area has relentlessly pursued growth at least since the era of banker and civic booster Walter Bimson, known as "Mr. Arizona," in the 1950s and 1960s.[140] "Growth is an orthodox faith in the Valley," journalist George Packer writes in a prominent 2024 essay.[141]

- Texas Triangle suburbs like Anna, north of Dallas, are among the most growth-focused communities in the United States. Anna has more than tripled its population since 2010 and plans to double it again by 2030. Former mayor Nate Pike described Anna in 2024 as "a blank canvas.… If you want to do a project in Anna, the answer is yes. We always start with a yes."[142]

Allow medium-density development: The larger Sun Belt metros have allowed a great deal of what American Enterprise Institute housing experts call "light-touch" density,* contrary to the metros' outdated reputation for low-density "sprawl."[143]

Consider apartment construction. The Sun Belt–Mountain metros built twice as many apartments per capita as the 25 Northeast–Pacific Coast metros between 2010 and 2022. Apartments comprised one-third of new housing units in the Sun Belt–Mountain metros – a lower share than in the dense Northeast–Pacific Coast metros, but much larger than the share in the other half of America's 100 largest metros.

The cities of Atlanta, Charleston, Charlotte, Dallas, Fort Worth, Greenville, and Jacksonville each added more than 10 times as many midrange apartments per capita as the 25 Northeast–Pacific Coast metros as a whole. Sun Belt–Mountain suburbs lean more heavily toward single-family homes, but still built more than twice as many midrange units per capita as the Northeast–Pacific Coast metros. Several Dallas-area suburban cities – Frisco, Denton, Lewisville, and McKinney – added midrange apartments at more than 30 times the per-capita rate of the New York City, Los Angeles, or Chicago metros.[144]

Apartment construction in the Sun Belt–Mountain metros, moreover, hasn't resulted in fewer single-family homes. If housing markets functioned well everywhere, each additional apartment would "crowd out" one new single-family home, since it would reduce demand by one household. And a new apartment building takes up scarce land. But if housing is in short supply in many metro areas, a metro area or city might be able to outperform other places for both new apartments and new single-family houses – and attract that many more people from more restrictive, expensive localities. Sun Belt metros and localities that have added relatively large apartment supply since 2010 have also outperformed for single-family homes, holding factors that influence demand constant, our data confirms.**

Some of the Sun Belt–Mountain metros, meanwhile, stand out for allowing medium density in neighborhoods zoned for single-family homes. Houston was the first large U.S. city to reduce minimum lot size rules, which it did in areas near downtown in 1998 and citywide in 2013.*** Austin followed in 2024. Median lot sizes in the states of Texas, Arizona, Colorado, Florida, and Utah are significantly smaller than medians for Maryland, Massachusetts, New York, and Pennsylvania. While California has a lower median

* Light-touch density: Medium-density development patterns characterized by detached homes on relatively small lots, duplexes to fourplexes, townhomes, and small apartment buildings, assisted by as-of-right zoning and light-touch regulation and permitting (Tobias Peter, "Housing Abundance with Light-Touch Density" [American Enterprise Institute, March 15, 2024], https://www.aei.org/research-products/report/housing-abundance-with-light-touch-density/).
** See regression results in online Data Appendix.
*** See further discussion of takeaways from Houston's experience in Section IV.

lot size than any of these states, the median in Texas is just 14% larger – refuting Texas' reputation for sprawl.*

Overall density, measured by population per square mile, is lower in the Sun Belt–Mountain metros than in very high-density metros like New York, Boston, Los Angeles, and San Francisco. But most of the largest Sun Belt metros – Atlanta, Charlotte, Dallas-Fort Worth, Houston, Orlando, Raleigh, and Tampa – rank in the top third of America's 100 largest metro areas for density.**

Many individual localities in the Sun Belt–Mountain metros have populations per square mile similar to those of some leading coastal cities. The cities of Denver and Las Vegas, for instance, are denser than the cities of Philadelphia or Washington. Sun Belt localities that have density only slightly smaller than the city of Washington include Atlanta, Dallas, and Houston – but also the Dallas-area suburbs of Allen, Plano, and Richardson; Wake Forest in the Raleigh area; Murfreesboro in the Nashville area; and Sandy and West Valley City in the Salt Lake City area.***

Allow affordable market-rate homes in diverse locations; supplement with subsidized units: Many of the most pro-growth metros have been successful at adding new units that are relatively affordable for lower-income families in diverse locations across their core and suburban cities. Getting this right is important for expanding economic opportunity. But cities have often built new affordable homes primarily in areas of concentrated poverty, far from thriving job centers.[145]

We've compiled first-of-its-kind data on the location of midrange and subsidized apartments within core cities and larger suburbs in our 25 Sun Belt–Mountain metros.**** Both apartment categories play significant roles in the opportunities available to low- to moderate-income families. On the one hand, most low- to moderate-income families live in unsubsidized midrange homes, as we define them in this report. On the other, income-restricted homes are typically the cheapest units on the market for low-income households – though there are never enough of them.

Combining Yardi Matrix and U.S. Census data, we've identified demographic and economic characteristics of neighborhoods where new and existing apartments are located within 19 core cities and

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* Median lot sizes: Arizona (8,726 square feet), California (8,327), Colorado (10,019), Florida (10,019), Maryland (13,504), Massachusetts (19,166), New York (11,067), Pennsylvania (13,504), Texas (9,540), Utah (10,890) (NeoMam Studios, "The Median Lot Size in Every U.S. State in 2022," Visual Capitalist, November 29, 2022, https://www.visualcapitalist.com/cp/the-median-lot-size-in-every-american-state-2022/). Studies confirm that minimum lot sizes play a large role in constraining development in highly restrictive localities. (See, for instance, Joseph Gyourko et al., "A New Measure of the Local Land Regulatory Environment for housing markets: The Wharton Residential Land Use Regulatory Index," *Urban Studies* 45, no. 3 (2008): 693–721.)

** Economist Jed Kolko of Indeed.com measured density by a more nuanced method in 2021, computing the population-weighted average density of the Census tracts in large U.S. metros. He concluded that the Austin, Dallas–Fort Worth, and Houston metros are denser than most other large metros on this measure, though significantly less dense than New York, Los Angeles, and San Francisco. See William Fulton, "Texas Cities Are as Sprawling as Ever. But They're Also More Dense" (Kinder Institute for Urban Research, September 15, 2021).

*** Each of these cities have populations per square mile greater than 80% of Washington's level.

**** Our method: We calculate numbers of existing and new midrange and affordable apartments at the "submarket" level for 19 core cities and 18 suburban cities based on Yardi Matrix data; we match this data with demographic and economic characteristics of each submarket built from Census tract-level data from the American Community Survey (U.S. Census); and we analyze the relationships between submarket-level demographic and economic measures on the one hand and affordable housing measures on the other. Our data allows us to develop data for 19 of the 34 core cities in the 25 Sun Belt–Mountain metros. For suburban cities, we develop data only for suburbs that have two or more submarkets in the Yardi data and for which we have adequate data. The author thanks Zach Katz, Lily Kemp, and John Martin, students in an SMU-sponsored data science boot camp program in Summer 2024, for their great work building and analyzing this dataset. See summary data in Table E, Appendix 2; full explanation of our methods in Appendix 2; and underlying data in the online Data Appendix.

15 suburban communities. Based on Yardi's data, we can break down the midrange and subsidized apartment markets of Dallas into 26 submarkets, those of Fort Worth into 23 submarkets, and those of Atlanta into 21 submarkets, for instance.

Our analysis points to several conclusions:

- Since 2010, the core cities of the Sun Belt–Mountain metros have generally added new midrange apartments in locations that had higher-than-average income levels, faster-than-average population growth, and lower-than-average Black and Hispanic population shares at the start of this period. As of 2010, midrange apartments tended to be located disproportionately in lower-income, slow-growing neighborhoods with larger Black and Hispanic population shares, but new construction since 2010 is reversing this pattern.

- On the other hand, Sun Belt–Mountain core cities are still building subsidized, income-restricted apartments in locations that were disproportionately lower-income, slow-growing, and Black or Hispanic, and that had outsized concentrations of such units in 2010.

- More than half the suburbs for which we have data have built midrange units disproportionately in locations that had higher-than-average income levels and smaller-than-average Black and Hispanic population shares in 2010. The same pattern has prevailed with respect to subsidized apartments in over a third of these cities.

Together, these trends indicate that new midrange units are mostly advancing the goal of income and racial integration in these metro areas, while new subsidized units are holding it back. But new midrange apartments outnumber new subsidized units in the average Sun Belt–Mountain metro four to one, so the net effect of recent development is to give low- and moderate-income people more opportunity to live in higher-opportunity areas.*

Core cities that score relatively well for building new midrange apartments in high-opportunity locations include Charleston, Dallas, Daytona Beach, Greenville, Raleigh, San Antonio, and Tampa. The Western cities Boise, Las Vegas, and Salt Lake City as well as Charlotte, Fort Worth, Houston, and St. Petersburg, by contrast, have leaned more toward building in lower-income locations.**

Allowing midrange apartments in demographically and economically diverse locations contributes to affordability and opportunity in two ways. First, it gives the people who will live there better access to thriving job centers. Second, opening up more locations means faster overall housing growth. More new midrange apartments in suburban areas are associated with lower metro-area home prices, our data shows. New subsidized units, which get built in much smaller numbers, don't have the same effect.***

New income-restricted homes have still contributed to the Sun Belt–Mountain metros' affordability edge, even if they are too concentrated in low-opportunity locations. These metros have added far more

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* This analysis points to an inescapable tradeoff: Cities that build new midrange or affordable apartments disproportionately in neighborhoods with higher educational attainment and income levels, faster population growth, and lower shares of Black and Hispanic population advance the goal of income and racial integration, but at the cost of investing less in new apartments in underinvested lower-income neighborhoods.

** See Table F, Appendix 3.

*** See correlation table in the online Data Appendix.

subsidized units than the Northeast–Pacific Coast metros on a per capita basis.* They account for 27% of all subsidized units built in the 250 largest metro areas since 2010. Cities that have built more than twice as many units as the average metro include Atlanta, Austin, Charlotte, Dallas, Denver, Fort Worth, Greenville, Jacksonville, Nashville, Salt Lake City, and San Antonio, plus more than a third of the suburban cities for which we have data.

Just as apartments haven't crowded out single-family homes in the Sun Belt–Mountain metros, subsidized apartments haven't crowded out market-rate apartments or houses, our data show.**

Why are some cities so much more pro-growth than others?

Our data points to seven factors that explain why policies are so much more growth friendly in some places than others:

- **General policy orientation:** Metros with more market-oriented policies in other domains, as measured by the SMU Bridwell Institute for Economic Freedom's U.S. Metropolitan Area Economic Freedom Index,[146] tend to have more pro-growth housing and land-use policies.***

- **Density:** Metros with high populations per square mile tend to have more restrictive housing and land-use restrictions, stronger opposition to new development, and slower housing growth.[147] Many people may enjoy the amenities that come with greater urban density up to a point, but find additional density beyond this point unappealing. Very high density is also associated with more congestion and longer commutes. Densely built-out places, moreover, may already have full suites of urban amenities, so that residents might rationally judge that further densification will increase infrastructure expenses without bringing them significant benefits in return.[148]

- **Incomes and occupations of existing residents:** Metros and localities with higher income levels tend to have more restrictive policies. One possible reason: Incumbent residents and policymakers often have a "fiscal motive" to oppose additional homes, particularly if new residents are likely to be moderate- or low-income people who might add more to city expenses than they bring in additional tax revenues. This fiscal motive may be strongest in wealthy cities where the burden of additional expenses is most likely to fall on existing residents, not new ones. Wealthy cities may also have more residents with the time and resources to lead organized opposition to new development than other places. In addition, metros and cities with a high share of people

* The Sun Belt–Mountain metros added 0.00295 subsidized units per capita between 2010 and 2023, compared to 0.00208 per capita in the Northeast–Pacific Coast metros (total units divided by 2010 population; population-weighted averages for each group).
** This conclusion runs counter to earlier evidence from more supply-constrained metros, where new housing units funded through the low income housing tax credit program have crowded out market-rate units at a rate of up to two-thirds of a market-rate unit for each new subsidized unit. We speculate that this effect is weaker or nonexistent in metro areas with pro-growth policies, relatively few geographic constraints on growth, and the ability to attract net domestic migration from other metros. For evidence of crowd-out, see Michael Eriksen and Stuart Rosenthal, "Crowd Out, Stigma, and the Effect of Place-Based Subsidized Rental Housing," (Syracuse University Department of Economics, 2007), and Todd Sinai and Joel Waldfogel, "Do Low-Income Housing Subsidies Increase the Occupied Stock?" *Journal of Public Economics* 89, no. 11/12 (2005): 2137–64; Stephen Malpezzi and Kerry Vandell, "Does the Low-Income Housing Tax Credit Increase the Supply of Housing?" *Journal of Housing Economics* 11, no. 4 (2002): 360–80, https://doi.org/10.1016/S1051-1377(02)00123-7; Michael D. Eriksen and Stuart S. Rosenthal, "Crowd Out Effects of Place-Based Subsidized Rental Housing: New Evidence from the LIHTC Program," *Journal of Public Economics* 94, no. 11–12 (2010): 953–66, https://doi.org/10.1016/j.jpubeco.2010.07.002.
*** See regression results in the online Data Appendix. The author thanks the Bridwell Institute for Economic Freedom and Dr. Dean Stansel, chief author of the index, for sharing underlying index data. The U.S. Metropolitan Area Economic Freedom Index combines measures of government size, tax burdens, and labor market regulations rather than land-use restrictions, but is highly predictive of land-use rules.

working in what urbanist Richard Florida calls “creative” occupations tend to have more restrictive policies, even controlling for income levels, our data shows. There may be cultural or political inclinations that lead people in these fields to oppose new development more aggressively than people in other occupations.[149]

- **Natural amenities and beauty:** People living in places with mountains, ocean views, and other appealing natural features have particularly strong reasons to support restrictive policies, MIT economist Albert Saiz points out. Moreover, restrictive rules in these cities have given rise to high home prices over time, which fosters concentrations of high-wage employers and filters out lower-income workers – and thus reinforces the effects of high incomes on policy.[150]

- **Water, climate, and other physical constraints:** Growing strain on water supply in the Colorado River watershed has led to new policies in Arizona and other Southwestern states that have significantly raised the cost of housing development and thus caused housing growth rates to slow.[151] Sharp increases in property insurance rates have similarly raised the cost of insuring homes in coastal areas with high hurricane risk. This has likely led to more restrictive policies in Florida, where a state-owned insurance provider assumes much of this financial risk.[152]

- **Factors influencing policies on subsidized homes in particular:** Metros and cities with especially severe affordability problems tend to build more subsidized homes, all else equal, though they generally do not have a comparable tendency toward pro-growth policies for market-rate housing.[153] Metros with strong social capital – the trust, civic engagement, and connectedness among residents that make a community tick – also tend to build more subsidized homes than other places.[154]

- **Other idiosyncratic policies on subsidized housing:** While the low income housing tax credit (LIHTC) is a federal program, states set rules that influence the location and volume of subsidized housing development. Texas, for instance, released an updated “Qualified Allocation Plan” in 2024 with a new points-based system to evaluate applications for 9% credits, which states award on a competitive basis.[155] While intended to promote subsidized development in high-opportunity areas, the policy has had the effect of significantly curtailing space on the state’s map where for-profit developers can use the credits, reducing developer interest in Texas. (State policymakers subsequently expanded the map, but LIHTC-funded developers say it remains extremely restrictive.)

  The City of Dallas similarly reacted to a lawsuit accusing city government of deploying LIHTC funds in ways that reinforced geographic concentrations of poverty by adopting a strict policy against building subsidized units in low-opportunity neighborhoods in 2018. Since virtually all readily developable land was in such areas, the policy implicitly amounted to building almost no new subsidized units at all. New production in the city fell 88% from the 2010-2016 period to the 2017-2023 period.*

* The legal case, Texas Department of Housing and Community Affairs v. The Inclusive Communities Project, went to the U.S. Supreme Court, which decided in the city’s favor, ruling that cities have legitimate reasons to balance their interests in both racial integration and revitalization of underinvested neighborhoods, which can be in conflict with each other (“Dallas, Texas: February 29 – March 4, 2016: A ULI Advisory Services Panel Report” [Urban Land Institute, 2016]).

Most of our Sun Belt–Mountain metros enjoy unusually pro-growth housing environments because of a general orientation toward market friendly policies; medium density; high enough incomes to be attractive to people but not so high as to create insuperable opposition to growth; lower-than-average physical hurdles; and in some cities, strong social capital (more on this in Section IV).

Within our Sun Belt–Mountain metros, there is generally no significant difference between core and suburban cities, holding other factors that influence policy constant.

Why haven't Midwest metros grown faster?

This is an important question, because Midwestern metros account for fully 15% of the population in America's 100 largest metros, they mostly have lower-than-average density and ample room to expand, and their weather disadvantage relative to the Sun Belt is narrowing because of climate change. But they have seen slightly below-average housing growth since 2010. Their production rate between 2017 and 2022 was 30% lower than they need to keep up with projected population growth. Wealthy Northeast–Pacific Coast metros have underbuilt because of highly restrictive policies, but how about medium-income metros in the Midwest?

Counting 19 of the nation's 100 largest metros as Midwestern, the region's metros mostly have policy environments near the national average. The main reason for slow housing growth in the Midwest is low demand growth. These metros have produced as many homes as our demand model would predict, but their demand growth has been less than half that of the average metro area.[*] One component of addressing America's housing crisis is to redirect housing demand from overheated, restrictive metros to places with room to build and reasonably supportive policies. This means America needs places like the major Midwest metros to increase economic opportunity and quality of life.

A secondary factor: Only a handful of metros in the region have policy environments significantly better than average. Most have average or modestly below-average land-use policies, and average policies have generally led to inadequate housing growth in America's cities.

What if the rest of America had pro-growth policies too?

Suppose all the nation's 250 largest metros had policies that were as growth friendly as those in the 25 Sun Belt–Mountain metros. One way to estimate the effect this would have had since 2010 is to assume each metro had policies that would have generated growth 12 percentage points higher than predicted by our demand model – equivalent to the advantage our Sun Belt–Mountain metros have enjoyed over the 250-metro average – provided that demand remained unchanged.[**]

But in this scenario, demand for housing in each metro would have been lower, since people's alternatives in other metros would have been more attractive than they were in actuality. Each metro's housing growth in equilibrium would have been higher (except metros whose policies were even more

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[*] We define 19 of the nation's 100 largest metros as Midwestern for purposes of this section: Akron, Ohio; Chicago; Cincinnati, Ohio; Cleveland, Ohio; Columbus, Ohio; Dayton, Ohio; Detroit; Grand Rapids; Indianapolis; Kansas City, Missouri; Louisville, Kentucky; Madison, Wisconsin; Milwaukee; Minneapolis–St. Paul; Omaha; Pittsburgh; St. Louis; Toledo, Ohio; and Wichita, Kansas. Our demand model predicts 8% housing growth as we measure it for the average Midwestern metro, compared to 15% for the nation's 250 largest metros as a whole. Actual housing growth has been 7% (author's calculations).

[**] See full explanation of our counterfactual scenario analyses in Appendix 2.

pro-growth than the Sun Belt-Metro average, where growth would have been lower than it actually was), but by less than 12 percentage points. Making data-informed assumptions about the shapes of supply and demand curves and doing a little algebra, we can arrive at estimates of how much larger national housing growth would have been between 2010 and 2023 and how much lower home prices and rents would be in this scenario.

We estimate that, if all metros had policies equivalent to the average Sun Belt–Mountain metro, America's 250 largest metros would have 5.6 million more homes today. Median home prices would be about $115,000 lower, and rents would be $450 lower per month. Our composite price-to-income ratio for the 250 metros would stand at 3.2 times, rather than today's level of 4.4 times income.

As a more conservative scenario, suppose only that all metros with worse policy environments than our 25 Sun Belt–Mountain metros had pursued policies that would have resulted in 12 percentage points more growth than they actually realized, rather than 12 percentage points more than our demand model predicts. This means that highly restrictive metros still would have performed poorly relative to demand, but just not as poorly as they actually did. In this scenario, we assume that metros whose policies are more pro-growth than the average Sun Belt–Mountain metro would have had the same policies, but they would have produced fewer homes in equilibrium because better alternatives elsewhere would have shifted their demand curves downward.

In this more cautious and perhaps realistic scenario, we estimate that America's 250 largest metros would have 3.0 million more homes today. Home prices would be about $70,000 lower, monthly rents would be $260 lower, and the 250-metro price-to-income ratio would be at 3.7 In other words, homes would still be overvalued relative to how they would be priced in well-functioning housing markets, but by only half as much as today.

IV. PRINCIPLES FOR BUILDING HIGH-OPPORTUNITY, AFFORDABLE CITIES: LESSONS FROM THE SUN BELT AND ELSEWHERE

The experience of the nation's most growth friendly cities – and other cities working to promote better housing growth – points to eight principles for how to build relatively affordable opportunity-rich cities, towns, and neighborhoods in 21st century America:

1) **Expand.**
2) **Build more homes within existing cities.**
3) **Innovate.**
4) **The Jane Jacobs Principle: Geographically intricate diversity of activities and land uses.**
5) **Allow dynamic evolution in cities.**
6) **Get the urban basics right: Safety, schools, infrastructure, financial sustainability.**
7) **Focus on quality placemaking.**
8) **Subsidize housing – but in efficient and limited ways.**

Our starting premise is that housing and economic opportunity are joined at the hip. America needs to build more homes in places that already offer people better-than-average opportunities to live a flourishing life or that have good prospects for becoming a place like that, for two reasons.

First, a reasonably well-located home is essential for accessing thriving job centers as well as amenities that affluent Americans enjoy.

Second, private-sector capital and expertise must inevitably play a large role in addressing America's housing challenges, but private developers will only invest at scale in places where people who can afford market-rate homes want to live. Metros with declining populations are unlikely to see significant increases in private sector-led development, since new homes must compete with existing inventory. Creating demand is as important as freeing up supply.

Building more homes in vibrant places necessarily means some combination of two things: allowing more homes per square mile in places that are already thriving and creating new thriving places. A key takeaway from growth friendly cities is that America needs both. The Houston area, for instance, shows how to allow gentle densification in a core city and also create booming, relatively affordable communities in places that were entirely rural two generations ago.

This report differs from many others in its comparatively light emphasis on the idea of squeezing much greater density into already-dense places. One reason is that cities have tried to accomplish this goal again and again, and they've repeatedly failed in the face of determined local opposition. More successful cities and metro areas have worked around opposition rather than bulldozing it.

Recent history also suggests that it's easier to build a thriving town or neighborhood when painting on a blank canvas, on previously undeveloped land, than when trying to turn around distressed, left-behind places. It also seems to be easier than liberalizing land-use rules in highly restrictive cities.

In addition, demographic realities provide an important backdrop to this discussion. America's population is likely to grow more slowly in coming decades than it ever has in the nation's history, then peak out

around the 2070s.[156] While this shift will pose significant challenges, it also provides reasons for optimism that America can address its housing problems with modest densification and outward expansion of metropolitan areas.[157]

Another takeaway from recent history is that America has been successful at increasing opportunity in many long-established places as well as building new opportunity-rich places, particularly in the Sun Belt and Mountain states.

Consider two trends. First, worker productivity levels in the largest Sun Belt–Mountain metro areas are converging toward those in wealthy Northeast–Pacific Coast metros. One piece of evidence: Median salary levels for software developers in the leading Sun Belt–Mountain metros are rapidly catching up with those in the San Francisco Bay area, the leader on this measure. In an ADP study of how much salaries grew in 24 large metros from 2018 to 2024, seven metros saw growth of over 28% – Salt Lake City (35% growth), Orlando (35%), Dallas-Fort Worth (32%), Houston (31%), Detroit (30%), Miami (29%), and Denver (28%) – while the median salary in the Bay Area rose 17%.*

Second, the leading Sun Belt metros have mostly outperformed other large metros for improving upward mobility in recent decades, based on a measure of upward mobility developed by Harvard University economist Raj Chetty and colleagues.[158] In a 2024 study of the nation's 50 largest commuting zones (similar to metro areas), nine of the 16 included areas from our Sun Belt–Mountain group rank in the top third for improving upward mobility: Austin (second ranked), Charlotte (third), Nashville (fourth), Dallas (seventh), San Antonio (eighth), Houston (11th), Raleigh (14th), Denver (16th), and Fort Worth (17th). Other than 10th-ranked San Jose and 15th-ranked Seattle, the leading Northeast–Pacific Coast metros score either in the middle third (New York City, Boston, and San Francisco) or the bottom third (Los Angeles; San Diego; Sacramento; Washington; Baltimore; Philadelphia; Newark, New Jersey; and Providence, Rhode Island).**

The Sun Belt metros have also succeeded in creating opportunity-rich localities from scratch in recent decades, like Frisco, Texas, which has grown by 36 times since 1990 to its 2024 population of 232,000.[159] And they've seen several successes in transforming formerly distressed core-city areas, like Atlanta's Villages at East Lake.[160] The nonprofit organization Purpose Built Communities guided the redevelopment of East Lake into a relatively safe, thriving mixed-income neighborhood with celebrated schools and robust support services for low-income residents.

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* The median salary for software developers in the seven Sun Belt–Mountain metros in the ADP study stood at roughly 80% of the San Francisco Bay Area level in 2024, up from 71% in 2018 (unweighted averages of median salary levels for the Atlanta, Dallas–Fort Worth, Denver, Houston, Orlando, Raleigh, and Salt Lake City metros). By comparison, the median for the New York, Philadelphia, Seattle, and Washington metros also stood at 80% of the San Francisco level in 2024, up from 78% in 2018, calculated the same way. See Jeff Nezaj, "The Rise—and Fall—of the Software Developer," ADP Research, June 17, 2024, https://www.adpresearch.com/the-rise-and-fall-of-the-software-developer/.

** Chetty's Opportunity Insights group measures the adult incomes of people who grew up in families at the bottom quartile of the income distribution in each commuting zone (CZ), wherever they live in adulthood. They evaluate changes over time in CZ upward mobility by comparing adult incomes of cohorts born in 1992 to those of cohorts born in 1978. The 1978 cohort generally had worse-than-average upward mobility in the Sun Belt CZs, but the gap between Sun Belt and Northeast–Pacific Coast CZs narrowed for the 1992 cohort. Among the Sun Belt–Mountain state CZs, Brownsville-Harlingen ranked first for improvement, Salt Lake City 27th, Atlanta 29th, Jacksonville 34th, Orlando 36th, Phoenix 40th, and Tampa 46th. Strong performers outside the Sun Belt states include Grand Rapids (fifth), Indianapolis (sixth), Kansas City (12th), and Columbus (13th) (Opportunity Insights, "The Opportunity Atlas," https://www.opportunityatlas.org/).

This record of transformation runs counter to a prevailing narrative that takes the existing geographic alignment of higher and lower-opportunity places as fixed and focuses on moving people into places that have ranked above average for opportunity in the past.[161]

Principle One: Expand

The case for expanding America's booming metro areas

America can best address its housing supply challenges by building millions of homes of all kinds in places where it's most feasible to do so. This means expanding outward.

Sun Belt and Mountain state metros with pro-growth policies show the way. Our 25 Sun Belt–Mountain metros, which account for 41% of single-family homes and 35% of apartments built in the 250 largest metros since 2010, have outperformed by expanding their geographic footprint. Fully 77% of new housing units and 88% of single-family homes built in these metros since 2010 are outside core cities. And this growth has overwhelmingly taken place on previously undeveloped land rather than through densification of built-up suburban areas.

The Sun Belt–Mountain metro experience offers a straightforward takeaway: It's much easier to build new homes at scale on the expanding outer edge of booming metropolitan areas than to overcome entrenched resistance to higher density in core urban neighborhoods.

The main reason why we put this principle first is the scale of the problem. America needs to go very big to address its need for more homes over the next 25 years. The nation's 250 largest metros will need to add an additional 28 million homes by 2050, we estimate – 22 million to keep up with projected population growth and another 6 million to make up for underproduction between 2008 and 2023.*

If all metros were to build in line with their 2017-2023 pace, the 250 largest metros would add at most 17 million units – at least 11 million below what's needed.** America needs to build new homes at an annual rate roughly 40% to 60% higher than its 2017-2023 pace, our projections imply.***

It is unlikely that the nation's largest core cities and inner-ring suburbs will increase housing density, measured by the number of units per square mile, more than a modest amount in coming decades, we believe. Our reasons for this prediction:

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* We project that total population in the 250 largest metros will increase by 43 million from 2022 to 2050, growing to 314 million (84.0% of America's projected population of about 373 million) from 217 million (81.3% of total population) in 2022. Our simple projection further suggests that 77 metros will see population shrinkage collectively amounting to 11 million, while the other 173 metros will grow by 54 million. The growing metros will need an additional 22 million housing units, while declining demand in shrinking metros will not offset this demand. Our projection that the 250 metros need 6 million further units to make up for the hole in supply created between 2008 and 2023 represents the low end of our estimated construction shortfall, which we summarize in Section II and explain in full in Appendix 2.

** The specific projection depends on our assumption regarding how many newly built units would simply replace older units. We assume that 1% of the housing stock in the largest 250 metros would be demolished each year.

*** We add replacement demand of 26 million to 35 million units between 2025 and 2050 to our projected demand for 22 additional units and divide by 25 years to arrive at annual rates. Our assumptions regarding replacement rates are based on useful lives between 75 and 100 years. These assumptions imply that America needs to build 2.2 million to 2.5 million new housing units per year, compared with the 2017–23 pace of 1.5 million per year (and the 2010–16 pace of just over 900,000 per year).

- Populations per square mile have been declining in built-up urban areas across the United States and elsewhere for more than a century, New York University urban planning scholar Shlomo Angel and colleagues have shown. As people have become wealthier, they've demanded more spacious homes.[162] Declines have been especially steep in places that were extremely dense in the early 20th century like Manhattan. This trend could reverse, but it seems unlikely – unless housing becomes so expensive that people come to tolerate much less space.

- Newer metropolitan areas tend to be less dense than older ones.* Development patterns have evolved toward falling density. Fully built-out inner-ring suburbs in our Sun Belt–Mountain metros have about the same density as neighboring core cities, so this trend may have come to an end, but there's no indication it's reversed.

- Core cities and inner-ring suburbs mostly don't have much open space in which to pursue infill development. Eric Kronberg, an Atlanta developer and architect, concluded from a close study of his city that it cannot realistically reach its housing goals by building on currently open land, even if builds only high-rise apartment buildings. "You literally can't get there from here. There are only so many towers … we can build," he said.[163] Using satellite photography from Google Earth, we believe that open, developable space amounts to at most 10% of total land mass in the average Sun Belt–Mountain core city or inner-ring suburb.**

- Intense political resistance has stymied initiatives to increase density more or less wherever local governments have attempted them. Policies have become more restrictive since 2010, on average.*** If a city's current plan is to keep on holding meetings and trying to convince opponents to accept significant densification, we suggest: What it's doing isn't working.

  When individual cities become sufficiently expensive relative to incomes, moreover, forces favoring still-more-restrictive land-use policies seem to become more powerful, creating a self-reinforcing cycle. Metros in the United States and elsewhere that reach extremely high price-to-income ratios virtually never reverse policies enough to drive prices back down, demographer Wendell Cox has observed.[164] Recent history argues against expecting dramatic increases in housing supply in the nation's most restrictive metros.

A 5% increase in density – which we think is a reasonable estimate of what might be possible – would add about 1 million homes in America's 50 largest core cities. A similar increase in the inner-ring suburbs of these cities plus smaller core cities and their inner suburbs would add about another 3 million, based on loose definitions of inner-ring.

* The age of large U.S. metros, proxied by the number of years since each metro's core city reached a population of 100,000, the number of years since it reached 250,000, and the number of years since it reached 500,000 (if it has done so) are highly predictive of 2022 density, holding other relevant factors like overall population and income levels constant (author's calculations based on American Community Survey, 2022 five-year estimates, and decennial census data from the U.S. Census).

** See explanation of our method in Appendix 2 and underlying data in the online Data Appendix.

*** Section II cites studies by economists Albert Saiz of MIT and Edward Glaeser of Harvard that reach this conclusion as well as evidence from numerous studies showing that policies have generally grown more restrictive.

Is sufficient expansion possible? We believe so. Suppose all core cities and inner-ring suburbs in the 250 largest metros collectively add 4 million homes between 2025 and 2050. America would need a further 24 million homes by 2050. The following scenario* plausibly delivers them:

- Our 25 large Sun Belt–Mountain metros add a net 11 million homes in outer-ring areas or beyond the counties currently considered part of the metro areas by 2050. Total population in these metros would rise 45%, consistent with recent trends as well as with official growth projections by state demographers.** The built-up physical footprint of the average metro area would expand about 16%. Roughly 44% of residents would live outside today's core cities and inner-ring suburbs, up from 22% at present. This expansion is physically feasible, since open, developable space makes up 40% to 70% of total land mass in the 25 metros as currently defined, and some of the metros are starting to expand into counties not yet included within official metro-area boundaries.

- Our 25 large Northeast–Pacific Coast metros add a net 2 million homes in outer areas beyond core cities and inner-ring suburbs. We assume these metros would expand relatively little, thanks to both tougher physical constraints than the Sun Belt–Mountain metros (like oceans) and exceptionally strict land-use rules in suburban areas, which we judge are unlikely to change dramatically. Total population would rise 11%, better than the near-zero growth trend of the past six years. These metros would see very little outward expansion of their built-up footprint.

- The other 200 of America's 250 largest metros add a net 11 million homes in outer areas. Total population would grow 24% by 2050, double the pace these metros have seen since 2017. The total physical footprint of the 200 metros would rise about 9%. Almost a third of total population would live outside today's core cities and inner-ring suburbs, far higher than today. Our projections for these metros – many of which are in currently slow-growing Midwestern states – are likely the boldest we offer in this thought experiment.

- The total footprint of metropolitan areas would grow by about 10%. America could absorb this expansion without meaningful reduction in food-growing lands – and without touching protected areas in any way – since metro areas as a whole take up only 3% of the nation's land mass.***

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* See full explanation of our calculations in Appendix 2 and underlying data in the online Data Appendix.

** Our simple projections, based on "straight-lining out" from 2017–23 trends, point to aggregate population growth of 45% in our 25 Sun Belt-Mountain metros. For official state demographer projections, see, for instance, "Texas Population Projections Program: Vintage 2022 Projections," Texas Demographic Center, 2022, https://tnsdc.utk.edu/2022/03/09/tennessee-could-add-nearly-1-million-new-residents-by-2040.
https://demographics.texas.gov/Projections/2022/; "Tennessee Could Add Nearly 1 Million New Residents by 2040," Tennessee State Data Center, March 9, 2022, https://tnsdc.utk.edu/2022/03/09/tennessee-could-add-nearly-1-million-new-residents-by-2040/; "Metro Atlanta's population to reach 7.9 million by 2050," Georgia Public Policy Foundation, February 21, 2024, https://www.georgiapolicy.org/news/metro-atlantas-population-to-reach-7-9-million-by-20250/; "Projections of Florida Population by County, 2025-2045, with Estimate for 2020," Florida Economic and Demographic Research, Florida Population Studies 54, no. 189 (April 2021), http://edr.state.fl.us/content/population-demographics/data/MediumProjections_2020.pdf; Michael Cline, "NC to Become 7th Most Populated State in Early 2030s," North Carolina Office of State Budget and Management, January 23, 2024, https://www.osbm.nc.gov/blog/2024/01/23/nc-become-7th-most-populated-state-early-2030s; "Population Projections, 2010-2035," South Carolina Revenue and Fiscal Affairs Office, https://rfa.sc.gov/data-research/population-demographics/census-state-data-center/population-data/population-projections-2000-2035-rev2019.

*** They take up just under 4% of America's land mass not counting Alaska, most of which will almost surely never be developed or turned to agriculture.

These projections illustrate the scale of the challenge. If one assumes, optimistically, that existing core cities and inner-ring suburbs can increase density by 10% rather than 5%, then America would still need 20 million additional homes – rather than 24 million – in what are currently considered outlying areas.

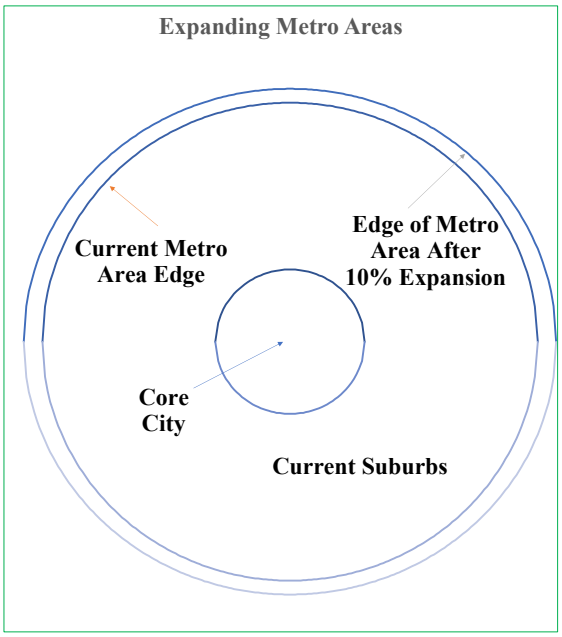
An important note: Increasing the pace of home production by some 50% over the next 25 years will only be possible if the nation significantly expands its construction trades workforce. Absent this expansion, labor shortages would preclude growth at the magnitude we envision.

Our thought experiment assumes that metros in the "other" category, particularly midsized Midwestern ones, will be able to expand home production to a much greater extent than the largest Northeast–Pacific Coast metros. We base this assumption on two factors. First, they are generally less constrained by physical geography and have much more open land to build on. Second, they already have more growth friendly policies, on the whole. Indianapolis, Grand Rapids, and Des Moines rank in the top quarter of the 100 largest metros for pro-growth policies. Several more score above average, including Chicago, Columbus, Detroit, Madison, and Omaha.

Expansion into currently undeveloped land will almost certainly account for the lion's share of the nation's net new housing between now and 2050. The key question is how to do it smartly, in ways that will maximize economic opportunity and affordable quality of life for as many Americans as possible. (More on this question in this and the next section of the report.)

Figure 6 illustrates the physical expansion our projections require for the average metro area. A 10% expansion in physical area is relatively modest, as the illustration shows.

Figure 6
How much do metro areas need to grow?



Which is more desirable: 10% expansion or large increases in core city densities? Leaving aside whether dramatic densification is politically feasible for the moment, what mix of these two strategies should Americans prefer?

A prominent urban consultant recently called the Sun Belt–Mountain metro boom a "mirage" that will soon end, since the expansion of these metros will run into "limits of geography," and "you can only sprawl so much."[165] America has been building homes "in the wrong places" when it builds in "low-density" suburbs, a Brookings Institution author adds.[166] Some urbanists call for policies to encourage or even force significant density increases in core cities, through policies like restricting public-sector infrastructure investment to already built-up areas or imposing targeted taxes on greenfield suburban development.[167]

Portland, Oregon, has led the nation in implementing policies along these lines. Portland's initiatives include required minimum densities in many neighborhoods, maximum allowed parking spots in new buildings, and an "urban growth boundary" to block suburban expansion. Seattle and San Francisco have also tightened parking maximums to encourage much denser development.[168] At least 15 states – mostly in the Northeast or on the Pacific Coast – have "growth-management" laws aimed at blocking outward expansion of their metropolitan areas.*

Critics of suburban expansion generally make six arguments against the Sun Belt growth model: first, that it consigns people to "distant," low-opportunity places; second, that it undermines agglomeration economies that work best in very dense locations; third, that it leaves lower-income people behind in

* California, Colorado, Connecticut, Delaware, Florida, Hawaii, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, Oregon, Rhode Island, Vermont, and Washington (Randal O'Toole, "The New Feudalism: Why States Must Repeal Growth-Management Laws," Policy Analysis No. 802 [Cato Institute, October 18, 2016], https://www.cato.org/policy-analysis/new-feudalism-why-states-must-repeal-growth-management-laws).

struggling urban cores; fourth, that it's physically unsustainable because of geographic constraints; fifth, that it is harmful to the environment because it gives rise to large homes and long commutes; and sixth, that it's "reactionary" or simply "wrong" for people to live in suburban single-family homes.[169]

None of these arguments stands up to scrutiny.

- **Distant and low opportunity?** Exurban residents are often distant from traditional downtowns, it's true, but not from the booming suburban job centers and alternative downtowns that are arising in the Sun Belt–Mountain metros.

  We've calculated the ratio of daytime working adults to nighttime working residents – a measure of the extent to which localities host diverse job centers – for the 139 cities in our Sun Belt–Mountain metro dataset. More than half the suburban cities for which we have data have daytime-nighttime ratios above 0.9, meaning they've become significant destinations for commuters. Some – like Alpharetta, Georgia; Franklin, Tennessee; Plano, Texas; and Scottsdale, Arizona, – are major business centers with substantial urban amenities and far more jobs than working residents. Walkable mixed-use developments have become ubiquitous in most of these cities. The suburbs in our dataset have increased their daytime-nighttime ratios dramatically since 2010 – which means that jobs in these cities have grown even faster than booming resident populations. Core cities in our Sun Belt–Mountain metros have daytime-nighttime ratios above 1.0, but they're falling in most core cities as jobs move out.*

  Cities that have increased their daytime-nighttime ratio since 2010 have higher incomes than other cities, controlling for education levels and housing policies, our data shows. People in both inner- and outer-ring suburbs in the Sun Belt–Mountain metros, moreover, have higher earnings than people of the same educational level in the core cities of these areas, as well as less expensive homes.[170]

- **Undermining the benefits of density?** While density promotes innovation and productivity up to a point – this is why cities exist – it doesn't follow that very dense places are more innovative or productive than medium-density urban environments. Very dense localities tend to be harder to navigate, as evidenced by longer commuting times. If high density is accompanied by astronomical commercial real estate prices, as it typically is, it fosters industry monoculture rather than diversity – weakening a key engine of urban innovation.**

  Our data suggests, further, that high productivity in urban places leads to density, rather than the other way around. The age of metro areas – which is the best predictor of population per square mile we can find – isn't predictive of metro-area income levels.*** On the other hand, the share of

* A bedroom suburb like Little Elm, Texas, typically has a daytime–nighttime ratio below 0.5. See daytime–nighttime ratios for all Sun Belt–Mountain municipalities in our dataset in Table G, Appendix 3.

** Consider the San Francisco Bay Area as an example: Very high density and high commercial rents mean very few firms besides well-financed tech companies can afford to do business there, so the area's economy is highly concentrated in industry terms. Richard Florida agrees that "too much density" can "deaden neighborhoods" (*The New Urban Crisis: How Our Cities Are Increasing Inequality, Deepening Segregation, and Failing the Middle Class – and What We Can Do About It* [Basic Books, 2018], 28).

*** As proxies for metro-area age, we've calculated for each of the 100 largest metros the number of years since the metro's oldest core city reached populations of 100,000, 250,000, and 500,000, based on decennial Census data.

workers employed in business, scientific, professional, or financial industries, which is closely correlated with metro-area income levels, predicts density fairly well.[171]

- **Leaving low-income people behind?** Skeptics often criticize outlying suburbs for not building enough subsidized apartments. In our Sun Belt–Mountain metros, the average outer-ring suburb as we define it added half as many subsidized, income-restricted apartments per capita as the average core city between 2010 and 2023. But it also built midrange market-rate apartments at a rate slightly larger than that of the average core city – and six times larger than the average core city's construction rate for subsidized units. Outer-ring suburbs built three times as many single-family homes per capita as core cities from 2010 to 2021.

  Sun Belt–Mountain metro exurbs have substantial populations of people living below the poverty line. In the average outer-ring suburb, 28% of households headed by a female householder with children have incomes below the poverty line – just below the average core city's level of 32% of households. Over 27% of families living in the outer-ring suburbs have incomes between $35,000 and $75,000, compared with 29% in the core cities. But lower-income people in these communities mostly have the benefit of booming job markets and highly rated schools for their children. They also spend less on housing. Renters at the 80th percentile for housing cost burdens, renters with household income below $35,000, and renters below 24 years old all pay smaller shares of their income for rent in the outer-ring suburbs than their core-city counterparts.[172]

- **Hitting physical limits?** This argument isn't true of the fast-growing metros of Texas, Arkansas, Tennessee, Georgia, or the Carolinas, as any visitor to their booming outskirts can attest. It's truer of smaller Florida metros, in some cases. In arid Southwestern metros, water scarcity will impose significant limits absent new policies. But inefficient agricultural activities use 70% or more of water supplies in Southwestern states, generally at deeply subsidized rates.[173] Policies to introduce better-functioning market mechanisms in water markets would free up substantial water for further suburban development, albeit at a price.[174]

  It has long been fashionable to accuse major cities of growing too large. Greater London, for instance, frequently faced this criticism during the 19th and early 20th centuries – when its built-up area was less than a quarter its present size.[175] It then quadrupled in size, and it continues to function reasonably well today.

- **Environmentally harmful?** Newly built homes in suburban cities aren't much larger than those in core cities.* Workers in outer-ring suburbs in our Sun Belt–Mountain metros have longer commutes than their core-city counterparts when they travel to work – 30.1 minutes on average in 2022 compared with 25.2 minutes in 2010 – but more remote working means that total miles driven per capita in the United States has fallen about 4% since 2007 and 3% since the eve of the pandemic in December 2019.[176] Electric vehicles powered by renewable electricity generation will make modern American lifestyles, both urban and suburban, more sustainable in the longer term.

* The average newly built housing unit in core U.S. cities has 767 per square feet, just 4% below the average newly built unit in U.S. suburbs (Florida, *New Urban Crisis*, 67).

- **Reactionary and wrong?** These claims are hard to evaluate without more context. One counterargument: Suburbs in our Sun Belt metros are less racially segregated than core cities in the same metros. They're also more likely to locate new subsidized as well as midrange market-rate apartments in higher-income, White-majority neighborhoods.[177]

  In some cases, critiques of suburban expansion are rooted more in ideology than economics. The English blogger Simon Cooke, in a post titled "Why I Stopped Being a YIMBY" ("yes-in-my-backyard"), argues that many YIMBY proponents of urban densification "don't want to allow the building of homes according to what people want but rather according to their grandiose vision of future urbanism.… The new urbanism stopped being about how you dropped housing prices and reduced rents by building houses and began to embrace elements of trendy urbanism."[178] These elements, Cooke believes, include an "obsession" with densification and public transit, an ideologically charged rejection of suburban development, and an "illiberal" determination to impose the movement's vision on society.

But efforts to build at very high density generally don't translate to improved affordability. One reason is that apartment towers with steel frames are very expensive to build and don't work financially unless they consist primarily of luxury apartments.[179]

High-density metros and localities also tend to impose more restrictive land-use policies. As a result, they experience higher prices, greater segregation, and more severe displacement of lower-income residents.[180]

An American success story: The outward expansion of thriving metropolitan areas and the creation of new ones have been powerful engines of economic growth and opportunity throughout America's history. Having more land than most other countries do to accommodate this expansion is an underappreciated competitive advantage for the United States.

Successful cities must physically expand, urbanist Jane Jacobs wrote in *The Death and Life of Great American Cities*, her 1961 classic that is still widely considered the most important book on cities written by an American.[181] More intensive land uses constantly replace older uses in successful cities, she observed. Innovation and growing specialization ensure some activities are always migrating outward.[182]

Human settlements have always spread out as far around job centers as the technology of the day would allow. Cities like London, Amsterdam, New York, and Pittsburgh had thriving suburbs as early as the 1830s. In America, growth in suburban areas has far outpaced that of core cities continuously since the emergence of mass automobile ownership in the 1920s.[183]

Open space and suburbanization have made U.S. cities into leading examples of what economists call the "polycentric metropolis," with many job centers and alternative downtowns.[184] Outward expansion has provided a pressure valve that has kept urban housing less expensive than in more densely populated countries – though America's affordability edge has been eroding in the 21st century. Metros unconstrained by growth-management laws mostly have much lower home prices than those that constrain this vital mechanism for preserving affordability.[185]

More profoundly, suburban expansion and new city creation have served as forces for renewal in the U.S. economy. They have long allowed people and businesses to vote with their feet and leave behind cities

that have grown corrupt, sclerotic, or dedicated to the interests of incumbent interests over innovative upstarts and newcomers.* American economic dynamism has always depended on the fact that, when older cities have experienced decline, there have been newer ones coming up to take their place.

Looking ahead, technological change will likely drive greater outward expansion of thriving metro areas by reducing the "cost of distance," Bain Consulting predicts in a 2017 report. Drones will slash the costs of delivering goods, automation will enable retail and restaurant firms to operate in more far-flung locations, and remote and hybrid work will allow more dispersed working patterns.[186]

For individual cities and metros, successful outward expansion requires creating more quality places where people and businesses will want to be, permitting medium density and diverse housing types, and simply allowing these long-term trends to unfold.

For America as a whole to build the homes it needs, it won't be enough just for the most pro-growth Sun Belt metros to keep expanding at their current pace. Places that haven't ranked high for economic opportunity or housing demand in recent decades – particularly in the Midwest – will need to commit themselves to much faster growth. This means investing in transportation and water infrastructure to support outward expansion, becoming business friendly, building ecosystems of innovation and entrepreneurship, strengthening quality-of-life amenities, and adopting pro-growth land-use policies like those in the Sun Belt metros.

New cities

In addition to suburban expansion, inventive Americans are pursuing two more ways of expanding the physical footprint of metropolitan America and building relatively affordable, opportunity rich cities.

One strategy is to establish entirely new cities in locations not directly adjacent to existing metropolitan areas. An initiative that's received considerable attention is "California Forever," a plan led by entrepreneur Jan Sramek and funded by Silicon Valley venture capitalists to build a new master-planned, walkable community in Solano County, between San Francisco and Sacramento.[187] California Forever's organizers – including a former head of the San Francisco Bay Area Planning and Urban Research Association – say they've turned to the initiative out of frustration with the restrictive and inflexible rules governing development in existing Northern California cities.[188,**]

Another aspiring "new city" is Bellemont, Arizona, a master-planned community with heavy outdoor recreation focus northwest of Flagstaff, Arizona – with Bill Gates as a prominent investor.[189]

Building a fully functioning city from scratch – and not just a retirement and second-home community or a remote bedroom suburb – is a difficult undertaking, since any new community will initially lack the rich diversity of mutually reinforcing activities that have grown up over decades or centuries in established cities.[190] But entrepreneurs are pursuing similar endeavors around the world. In South Korea, a public-private partnership established the city of Songdo in 2015 on land partly reclaimed from the ocean on the

* We must also acknowledge the downside: Suburban expansion has at times in the nation's history given White Americans tools to reinforce racial segregation, including "White flight" from core cities in the early decades after the Civil Right Act (1964) and Fair Housing Act (1968).

** Going to rural areas is no panacea, however. Existing residents in Solano County are working hard to block Sramek's plan for California Forever.

country's west coast, an hour from downtown Seoul.[191] Songdo, built on the premise that South Korea had to go beyond the Seoul metro's existing boundaries to find sufficient land for "smart" cities at large scale, already has a population of 210,000.[192] Indonesia started building a new capital city, Nusantara, from scratch in 2022.

Liminal cities

The other way the footprint of metropolitan America is growing beyond current metro-area boundaries is through the improving fortunes of what we call "liminal cities": small semiurban areas physically located between large metros and rural America.

We've identified 288 micropolitan areas,* as the federal government defines them, that we characterize as liminal cities because they meet three criteria:

- They have population under 100,000.
- They are within 100 miles of one of America's 60 largest metros.**
- At least 5% of the working population commutes at least some of the time to one of the 60 largest metros, demonstrating that it's manageable to do so.

Our 288 liminal cities are home to about 15 million people. We've also identified a "control" group of 247 micropolitan areas, with 11 million residents, that satisfy the first criterion but don't quality as liminal cities because they fail to satisfy at least one of the other two.

Until recently, our liminal cities typically lost population over time to larger metro areas nearby. One indicator: Our liminal cities experienced considerably less home price appreciation from 1990 to 2010 than either the 60 largest metros or the 247 further-out, nonliminal micro areas.

But economic opportunities have taken a turn for the better for people living in America's liminal cities. They are benefiting from three tectonic shifts in the economy:

- Hybrid work allows people to live relatively far from workplaces and commute less than five days a week.***
- Broadband connections are rapidly improving.****

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* The federal Office of Management and the Budget (OMB) defines a metropolitan area as a set of one or more contiguous counties with one or more central cities of at least 50,000 and total population over 100,000, and with a minimum exchange of daily commuters between the core county or counties and each included suburban county: For each suburban county, either at least 25% of workers living in the suburban county commute to one of the neighboring core cities, or at least 15% of workers in the suburban county commute to a neighboring core city and at least 15% of people working in the suburban county commute from another county in the metro area. OMB defines micropolitan areas similarly, but with smaller minimum sizes for core municipalities. Micropolitan areas have populations between 10,000 and 100,000. In our group, 104 of the 288 liminal cities (36%) are in Sun Belt–Mountain states between North Carolina and Nevada. As an example, 19 micro areas qualify as liminal cities because they are within commuting range of the Dallas–Fort Worth metro. The author thanks Elliott Abel, David Brock, and Jacob Britt for their thorough work building and analyzing this dataset.

** Distance measured from centroid of the micro area to centroid of the nearest large metropolitan area.

*** The share of workers who work remotely at least some of the time has increased considerably more in the liminal cities than in their nonliminal micro counterparts (author's analysis of American Community Survey data).

**** Population-weighted average download speeds reached two-thirds the average speed seen in the 60 largest metros in 2021 – 130 megabytes per second compared with 196 MB per second – up from 61% of the large-metro level in 2019.

- New exurban job centers in large metros are often much more reachable from liminal cities than traditional downtowns, so commutes can be shorter than they would have been in the past.

Thanks to improving work opportunities, incomes have grown faster in our liminal cities than in the 60 largest metros.* The liminal cities' edge in income growth for people who work remotely at least part of the time is especially pronounced. Incomes are still modestly lower than in the largest metros, but home prices are 59% less expensive.** After adjusting for lower living costs, real incomes have essentially caught up with those of the largest metros. Consequently, the liminal cities as a group have seen net in-migration from elsewhere in the United States since 2017, while the largest metros and the nonliminal micro areas have each collectively experienced net out-migration.***[193]

Future declines in the cost of distance and a vast edge in home prices are likely to increase the appeal of liminal cities further in coming years – especially for people who want large-city career opportunities but also appreciate small-town charm. Growth in liminal cities represents an additional way for America to address its housing problem by expanding the reach of its booming metro areas outward.

Principle Two: Build more homes within existing cities

Liberalizing land-use rules: Necessary but not sufficient

American cities everywhere need to liberalize overrestrictive land-use rules to unleash much higher rates of new homebuilding.

This is how developers can reimagine currently built-up residential areas in some places to achieve greater density, though, as we've said, we don't expect to see dramatic densification of many residential neighborhoods in core cities or inner-ring suburbs in coming decades.

What's more significant is how land-use rules will influence three vitally important opportunities to build homes at large scale:

- **To what degree will cities allow new homes in areas that are now dedicated predominantly to commercial uses?** Commercial activities currently take up about 8% to 15% of the land not devoted to roads, parks, or institutional uses in large U.S. cities. In most places, commercially zoned areas include few housing units.[194] More intensive mixed-use development in these areas would contribute significantly to increasing overall housing supply in cities without changing the density or character of existing residential neighborhoods. Plus, this kind of land-use reform provokes less opposition than most other approaches, surveys show.[195]

- **How many homes will cities allow on parcels of raw land that have never been developed or are being repurposed from other uses?** In the average U.S. city, 16.7% of land is

* The population-weighted average of median household incomes in the 288 liminal cities grew 30.4% in nominal terms from 2010 to 2021, compared to 28.3% in the 60 largest metros.

** The population-weighted average of median owner-occupied home values in 2021 was $378,000, compared with $911,000 in the 60 largest metros (based on American Community Survey data).

*** Net domestic in-migration to the 288 liminal cities between 2017 and 2021 amounted to 1.1% of their collective 2017 population, compared with net domestic out-migration of 1.0% of the collective populations of both the 60 largest metros and the 247 nonliminal micro areas (author's calculations based on U.S. Census data).

considered vacant.[196] In Dallas, developable vacant land amounts to 44,000 acres.[197] Just over 1% of the city's land mass is both vacant and close to public transit stops.[198] Vacant industrial real estate available for repurposing constitutes at least an additional 1% in most cities.[199] Medium-density residential development on even a small portion of this land would also contribute meaningfully to the housing stock without disrupting existing neighborhoods.

The historic fires that ravaged Los Angeles County in January 2025 raise the same question. The fires destroyed most housing across more than 40,000 acres – an area roughly the size of Washington and Minneapolis.[200] The Los Angeles area will add far more housing if it permits moderately greater density than prevailed before the fires in areas like Pacific Palisades on this land, compared to rebuilding at old densities. But the state and city governments have proposed emergency rules that seem to allow expedited permitting only if lots and homes are about the same size as before.[201]

- **To what degree will exurban localities allow homes of all kinds and medium-density land-use in previously undeveloped areas on their expanding outer edge?** How cities answer this question will profoundly influence the nation's housing markets. Expanding the physical footprint of America's metropolitan areas by 10% would add approximately 24,000 square miles.* If expanding metro areas were to build out these new areas at a density of 2,600 people per square mile – roughly the density of Fort Worth; McKinney, Texas; Apex, North Carolina; and Marietta, Georgia – they would create more than 24 million additional homes. But if they followed the example of low-density suburbs like Goodyear or Peoria in the Phoenix area, or the still-lower density of most Boston suburbs, they would add fewer than 9 million units.**

  The scale of possibilities in expanding exurban areas dwarfs that of what core cities can realistically construct in built-up urban neighborhoods. One real-world example: Dallas-based Hillwood Communities announced plans in 2024 to build a master-planned community on 3,200 acres on the outskirts of Denton, Texas, with 6,000 single-family homes and 3,000 apartments, plus 1,100 acres of permanent green space and recreation areas.[202] By contrast, the largest apartment towers under construction in Uptown Dallas will have just 300 to 400 units.[203]

While faster supply growth is a large part of the answer for America's housing crisis, solutions should extend beyond simply allowing developers to "build, build, build."*** Housing strategies for existing cities must address the needs of specific categories of locations and people. Some examples:

- **Shrinking cities, towns, and neighborhoods:** One quarter of the core cities in America's 100 largest metros have smaller populations than they had between 1940 and 1950. Thirteen of the 100 metros have shrunk since 1990 at the metro-area level as well.[204] When cities, towns, or

* By comparison, the total physical footprint of the 100 physically largest municipalities that are core cities within metropolitan areas is approximately17,500 square miles (author's calculations based on U.S. Census data).

** People of course have to live somewhere, so metro areas would sprawl much further out in this scenario, but America would likely build considerably fewer units overall. Goodyear and Peoria have densities of 511 and 1,069 people per square mile, respectively. The Boston-area suburbs of Andover, Concord, Groton, Ipswich, Natick, Westford, and Weston each have densities between 300 and 1,000 people per square mile. See further explanation of our estimates on urban expansion in Appendix 2; population densities for all municipalities with population over 50,000 in our 25 Sun Belt–Mountain metros in Table M, Appendix 3; and underlying data in the online Data Appendix.

*** Charles L. Marohn, Jr., and Daniel Herriges argue against what they call a simplistic strategy of "build, build, build" in their book *Escaping the Housing Trap: The Strong Towns Response to the Housing Crisis* (Wiley, 2024), 127.

neighborhoods experience long periods of population decline, the incentive for developers to build new homes collapses, since new units must compete against oversupplied existing ones. Yet the remaining population still needs quality housing. Expanding outward is likely not the answer for these places. There may be a place, rather, for governments to engineer a smaller, denser physical footprint for the city – including subsidies to support new construction as well as repairs for existing homes in central locations – to put schools, infrastructure, and other urban amenities on a path that is sustainable despite smaller population. This challenge will become much more common as the nation's population growth slows in coming decades.

- **Older people needing assisted living facilities:** About 70% of Americans will need to live in an assisted living facility at some point in their lives.[205] The population over 85 will more than double by 2040, but capacity at assisted living facilities is declining due to labor shortages and regulatory constraints.[206] The market won't adequately supply this market without subsidy, because millions of seniors cannot afford the full cost of assisted living, now at about $60,000 per year on average.[207] The public sector must subsidize new development of this distinctive kind of housing for America to address the needs of its seniors.

- **People needing permanent supportive housing:** America's homelessness response system has approximately 395,000 permanent supportive housing beds and 145,000 rapid rehousing beds, according to the U.S. Department of Housing and Urban Development (HUD)'s 2023 Housing Inventory Count.[208] This compares with a total unhoused population of 653,000 people, based on HUD's 2023 Point-in-Time count.[209] Gaps between housing inventory and need are much larger in percentage terms in some places, above all California – which had 105,000 beds in the two categories but 181,000 unhoused people in 2023.[*] Adding more of this specialized form of housing in locations where it's most needed requires public and nonprofit sector funding.

- **Lower-income people:** A well-functioning market nationwide could address much of the affordability crisis facing lower-income Americans, as we discus in Section II. Sensible land-use deregulation would make it economically feasible to build homes that many lower-income families could afford. More important, local markets would make more existing homes affordable for a wider share of the population through filtering down of older units.

  But the goal of well-functioning markets throughout the United States is likely unrealistic. Even if one city adopts the best possible regulatory reforms and realizes a building boom, affluent people will move from more restrictive, expensive cities and keep prices higher than the city's lower-income population can afford. This is especially the case if the destination city only builds luxury homes attractive to affluent potential migrants from other cities. So local governments and nonprofits must pursue additional measures to make more homes affordable to lower-income populations. Local governments and nonprofits might also wish to help lower-income families by making homes available to them at lower prices than even a well-supplied market would produce. Initiatives to improve affordability don't necessarily entail subsidizing construction of new units, but cities might judge that it makes sense to support new development in certain locations.

[*] The nation's shortfall of permanent supportive housing may be much larger than HUD's numbers indicate. Some experts believe the point-in-time count underestimates the true population of unhoused people by half or more ("Don't Count On It: How the HUD Point-in-Time Count Underestimates the Homelessness Crisis in America," National Law Center on Homelessness and Poverty, 2017, https://homelesslaw.org/wp-content/uploads/2018/10/HUD-PIT-report2017.pdf).

Streamline development processes

Cities should have processes for approving new home construction that are quick, transparent, and predictable.

First, they should generally allow more types of housing in more locations on an "as-of-right" basis. That means developers would have the right to build a wider range of housing on land to which they hold title – in at least some locations – without having to ask for specific approval from city officials.[210] One simple change, for instance, would be to allow more units in new apartment buildings in areas already zoned for multifamily housing. Another would be to create categories of developers who are automatically approved for certain kinds of development based on their record, like the Transportation Security Administration's "Trusted Traveler" program.

Second, cities should adopt widely recognized national or international building codes rather than operating idiosyncratic local codes.[211] Local codes can add as much as 13% to the cost of building an apartment relative to standardized codes, a 2018 study by the National Multifamily Housing Council found.* Cities should also avoid adding further to construction costs through expensive new code provisions aimed at reducing energy use. The Department of Housing and Urban Development released national energy rules in early 2024 that will add up to $31,000 to the cost of building single-family homes, according to the National Association of Home Builders.[212] America's housing crisis is sufficiently severe that policymakers shouldn't worsen it even to advance other worthy goals.

Third, cities should run fast, efficient, predictable permitting processes. Cities that have launched sweeping initiatives to reduce permitting delays include Anaheim, California; Austin; Denver; Grand Rapids; Phoenix; Provo; and Salt Lake City.[213] Anaheim's 2017 reform program – which also included upzoning a commercial area and allowing apartment development as of right in more neighborhoods – led to 4,500 units over the next six years, adding 3% to the housing stock, according to an American Enterprise Institute case study.[214] The Dallas suburb of Frisco predictably issues permits within three days through a streamlined online portal, but the City of Dallas' permitting process delays single-family construction by four months or more and has defied concerted efforts to reform it.[215]

Fourth, states should allow for third-party review – that is, review of building applications by certified entities outside city government. Texas passed legislation in 2023 giving developers recourse to third-party reviewers if government permitting processes become sufficiently delayed.[216] States should go further and create a well-defined licensing pathway to bring third-party reviewers into the market in all cities.

Allow smaller homes and apartments

Cities should allow apartments, townhomes, "plexes" (duplexes, triplexes, and fourplexes), tiny homes, manufactured homes, and medium density in general in a significant fraction of their neighborhoods.

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* New York City's building code added 5% to 15% to the cost of building a new apartment relative to standardized codes in 1999, according to a New York University study. See Jerry J. Salama et al., "Reducing the Cost of New Housing Construction in New York City" (The New York University School of Law Center for Real Estate and Urban Policy, 1999); Paul Emrath, "Regulation: Over 30 Percent of the Cost of a Multifamily Development" (National Association of Home Builders and National Multifamily Housing Council, June 2018), https://www.nmhc.org/contentassets/60365effa073432a8a168619e0f30895/nmhc-nahb-cost-of-regulations.pdf.

Apartments, townhomes, and plexes are almost entirely illegal in many cities across the United States. In the Nashville area, for instance, rules vary significantly across localities. Apartments are illegal virtually everywhere in Tennessee's Sumner and Williamson counties, but are allowed in large parts of Maury County and the city of Smyrna.[217] They are legal on just 11% of land in the metro's core Davidson County.[218]

Cities would be wise to proceed gently in liberalizing these restrictions in built-up residential areas. Marohn and Herriges, who call for cities to allow the next increment of development density everywhere,* also argue against allowing developers to build anything anywhere. Their reasoning: A massive new development in an older neighborhood signals to residents that complete turnover is coming and undermines incentives to make incremental investments in their homes, putting the older homes in the neighborhood on a sure path to demolition.[219]

Allowing more "light-touch density" in built-up areas across the United States could add some 2 million units to the nation's housing stock, American Enterprise Institute experts estimate – roughly consistent with our own 5% estimate for how much it might add.[220] But allowing significant light-touch density to take root in expanding suburban cities and towns could add 10 million-plus more units than might otherwise come into being, without disrupting established urban neighborhoods.**

Cities in our Sun Belt–Mountain metros and elsewhere are pursuing many strategies for allowing more small homes and apartments.

- Denver reformed its zoning code in 2010 to allow more apartments in areas zoned for multifamily and townhomes in areas zoned for plexes (and in select single-family neighborhoods). Apartment and townhome development between 2011 and 2021 more than tripled relative to the previous decade as a result.[221] Denver is one of a handful of core cities in our Sun Belt–Mountain metros to achieve a composite growth score more than 10% beyond what our demand model would have predicted for 2010-2023 – along with Atlanta, Charlotte, Dallas, Fort Worth, Houston, and San Antonio.

- El Paso County, Colorado (where Colorado Springs is located), and Gaston County, North Carolina (in the Charlotte metro), have recently loosened restrictions to allow developers to build tiny home communities.[222]

- Salt Lake City loosened rules in 2023 to allow townhomes and smaller single-family homes in more parts of the city.[223]

- The state of Montana passed a broad-based housing reform package in 2023 that included a provision allowing localities to create neighborhoods zoned for tiny homes.[224]

- Atlanta launched a comprehensive review of its zoning code in 2023.[225]

* This would mean, for instance, allowing duplexes in neighborhoods zoned for single-family homes and townhomes in neighborhoods zoned to allow 2-4 plexes.

** We should note that outward metro-area expansion does disrupt rural living patterns in its path. But families living in rural settings are very likely to own their land and thus realize windfall gains by selling to exurban developers.

Reduce minimum lot sizes

Minimum lot size rules are one of the most pervasive forms that land-use restrictions take – and also one of the most constraining. Cities should allow homes on smaller lots.

Lot size restrictions, present in almost all cities, prevent developers from building many homes that people would happily buy. Localities in the Boston area with high minimum lot sizes see significantly less home development than comparable adjacent localities with lower minimums, University of Warwick economist Amrita Kulka showed in a 2022 study.[226] Another study by Mercatus Center economists in 2023 found that lot sizes in four fast-growing Texas suburban cities* disproportionately tend to be just over the minimum, suggesting that developers would have built on smaller lots had they been allowed to do so.[227]

Comparing cities with high minimum lot sizes with similar adjacent cities that allow development on lots only about half as large, more restrictive cities tend to have 11% fewer homes per square mile, 4% larger houses, and 9% to 10% higher home prices, according to a 2023 national study by the University of Pennsylvania's Joseph Gyourko and Brown University economist Sean McCulloch.[228]

Houston led the nation in deregulating overrestrictive lot size rules. The city permitted developers to build detached houses and townhomes on lots as small as 1,400 square feet in centrally located neighborhoods in 1998, then expanded the policy throughout Houston in 2013. The policy gives city blocks the right to opt out by majority vote, but only 16% of eligible blocks had done so by 2023. Houston's lot size reforms have significantly improved housing growth and affordability, several studies have shown:

- The city has added approximately 30,000 to 40,000 more housing units, mostly townhomes, than could have been built under old rules on previously raw land or in rezoned commercial areas.
- Developers have built about 4,200 more units than would have been allowed before on lots previously occupied by larger single-family homes. Conversions have taken place on 0.5% of all single-family lots.
- These net additions mean Houston's housing stock is 4% larger than it would otherwise be.[229]
- Houston housing prices rose less relative to incomes than in peer cities Austin, Dallas, and San Antonio from 2010 to 2023, our data shows.

The city of Austin passed a similar change in lot size restrictions in 2024.

The Sun Belt–Mountain localities in our dataset have minimum lot sizes ranging from 1,400 square feet to 10,000 square feet. Even the most restrictive allow lots half the size of the minimum in most Boston-area suburbs. Among large cities, Charlotte and Denver stand out alongside Houston and Austin for more permissive lot size rules, while Atlanta and Dallas have higher minimums than most peer cities.

* Frisco (in the Dallas–Fort Worth metro), Pearland (in the Houston metro), and Pflugerville and Round Rock (in the Austin metro).

The Houston experience suggests that policies to allow smaller lots in other cities would likely have modest effects on built-up single-family neighborhoods but significantly larger effects on what developers build on raw or repurposed land. At the national level, this takeaway is especially important for expanding exurban areas with vast raw land for development – places which will play a pivotal role in determining the future of housing markets and affordability in the United States.

Rezone commercial and industrial land to allow homes

Cities should aggressively rezone underutilized commercial and industrial areas to free up land for residential or mixed-use development. Rezoning could free up 1% to 2% of urban land not devoted to roads, parks, or institutional uses.*

- In the Houston metro, developer Weekley Homes has built thousands of homes in several large master-planned communities on former industrial sites.[230]

- Tysons, Virginia, a Washington suburb, rezoned substantial commercial land surrounding its Metro station to mixed use in 2010.[231] The community's housing stock increased 23% between 2017 and 2021, far ahead of the Washington metro as a whole.[232]

- San Diego approved a redevelopment plan for Kearny Mesa, a formerly blighted industrial area, in 2020. Development plans will allow for up to 25,000 homes, adding 4% to the city's housing stock. Almost a third of subsidized units built in the city since 2020 are in Kearny Mesa.[233]

- New York City rezoned 40% of the city's land mass during Mayor Michael Bloomberg's tenure.[234] Rezoning plus other land-use reforms helps explain why New York ranks ahead of Los Angeles and Chicago on our measure of housing policies – and well ahead of other Northeastern metros like Boston, Providence, Hartford, New Haven, and Philadelphia.

Allow homes in commercial areas

Cities should allow landowners and developers to build residential units as of right – meaning without obtaining specific permission from local authorities – in virtually all areas zoned for commercial uses. Allowing mixed-use development to expand in commercial areas would likely add significant housing stock in these areas, which comprise 8% to 15% of the developable land in most cities.

Mixed-use development in commercial areas provokes less opposition than other forms of urban densification, according to a 2022 survey by University of California researchers.[235] By contrast, building mixed-use developments in fully residential neighborhoods "never happens," urban planner Jeff Speck has observed.[236]

Cities have shown growing interest in office-to-residential conversions in view of high vacancy rates in downtown office buildings. While conversions represent a good use for half-empty office buildings that will likely never refill and a sound strategy for reactivating downtown neighborhoods, they can make only a

* This would amount to 5% to 10% of developable land currently zoned for retail and restaurants or for industrial uses. Current vacancy rates in U.S. cities as of 2024 are 5% in retail properties (James Bohnaker, "Q4 2024 U.S. Shopping Center Marketbeat" [Cushman & Wakefield, 2024]) and 6% in industrial properties (Adam Burgess et al., "Q1 2024 U.S. Industrial Real Estate Market Report" [Plante Moran, April 26, 2024].)

modest contribution to the housing stock in most cities. Office properties take up 1% to 2% of the land in most cities, and structural challenges mean only 3% to 9% of them are suitable for conversion. Developers working on conversions have also encountered significant difficulties winning approvals, in part because local governments worry about losing property tax revenues when buildings move to less valuable uses.[237]

Another type of urban land where cities could add homes is property owned by religious institutions. Redeveloping portions of these properties – a strategy some call "yes in God's backyard" (YIGBY) – could contribute modestly to the housing stock in all cities.[238]

Several cities and states have made notable moves to allow more homes in commercial areas:

- Grand Rapids allowed residential or mixed-use development in all commercially zoned areas starting in 2008.[239] This reform set off a building boom that enabled the city's downtown population to grow 47% from 2010 to 2020. The Grand Rapids metro area is one of a handful of Midwestern metros that score in the top quarter of U.S. metros in our ranking for pro-growth policies.

- Minneapolis passed a sweeping land-use reform in 2018 that, among other things, allows residential or mixed-use buildings up to six stories as of right in several defined commercial areas alongside transit corridors.[240] This element of the city's housing package, along with parking reform, explains why Minneapolis has seen better growth in its housing stock than most Midwestern cities since 2018.

- Florida passed landmark legislation, the Live Local Act of 2023, that allows residential or mixed-use development up to each city's highest permitted density in almost all the state's commercial areas, provided they meet specified affordability terms for some units.[241]

- Montana allowed developers to build multifamily or mixed-use structures as of right in all commercially zoned urban areas as part of its 2023 reform package.[242]

- The Arizona Legislature passed a bill similar to Florida's Live Local Act in 2023, but Governor Katie Hobbs vetoed it on the grounds of preserving local control.[243] Advocates are continuing to push for this kind of legislation.

- Nashville is considering a plan similar to those of Grand Rapids and Minneapolis.[244]

- Atlanta, Dallas, and Phoenix are among the large metros with the most office-to-residential conversions underway on a per-capita basis as of 2024, according to a RentCafe report.[245]

Reduce parking requirements

Cities should reduce the parking spots they require in new multifamily and commercial buildings – and consider eliminating minimum requirements in most dense, walkable areas.

Cities dedicate too much space to parking. Downtown parking garages typically had 20% weekday vacancies before the pandemic, and they have far more today as a result of low office occupancy. Urban

apartment developers usually build as few parking spots as local rules allow, indicating they believe tenant demand will be below this level.[246]

Excessive parking requirements exacerbate housing problems and weaken cities in two significant ways:

- They add at least $20,000 per unit to the cost of multifamily structures – and much more in the nation's priciest cities. Higher construction costs mean less construction and higher rents.[247]

- Excess parking space consumes valuable space in downtowns and other urban centers and makes them unsightly and less walkable. Dedicated parking lots and garages take up between 13% and 34% of most downtowns, a 2023 Parking Reform Network study found.* Parking requirements also increase the cost of building new commercial buildings and thus stymie efforts to create attractive, walkable mixed-use neighborhoods that will drive demand for new housing.[248]

Cities should replace surface parking in dense areas with multilevel garages that are ideally almost invisible from the street. They should also reduce or eliminate minimum parking spot requirements in new buildings.

Fully eliminating parking minimums doesn't mean that new buildings would have no parking, since developers would have strong incentives to provide enough spots to satisfy potential tenants. It's true that some developers might underprovide for parking, which could lead to overloaded streetside parking. This is why the late parking expert Donald Shoup of the University of California at Los Angeles recommends a more comprehensive strategy. In Shoup's view, cities should remove minimums but also charge for street parking at rates high enough to ensure there are usually unfilled spots and devote parking revenues to quality-of-life investments that make dense areas as attractive and walkable as possible.[249]

Outside the densest metro areas, cities need to recognize that if parking is too difficult in traditional or alternative downtowns, people reliant on cars will mostly live elsewhere and avoid visiting rather than abandon car ownership and embrace public transit. So cities face a delicate balancing act and should implement parking reforms gradually and carefully.

Cities that have heavily reduced or abolished parking minimums for new buildings include Austin; Buffalo, New York; Minneapolis; San Francisco; and Santa Monica, California.[250] Charlotte approved a large multifamily project near downtown in 2023 with no parking at all, which allowed the project to include 25% more units. On the other hand, the Denver suburb Aurora, Colorado, recently required a new 405-unit building to include 485 spaces despite the developer's estimate that tenants would use only 390 – "a complete waste of money," in the developer's view.[251]

Selectively allow granny flats

Cities should under some circumstances allow property owners to rent out accessory dwelling units (ADUs) on their property – sometimes called granny flats – to unrelated tenants. After Los Angeles

* The Parking Reform Network study includes 20 core cities in our 25 Sun Belt–Mountain metros. They dedicate between 17% and 33% of their downtowns to parking. Among the core cities of our Northeast–Pacific Coast metros, five stand out for dedicating less of their downtowns to parking – Midtown Manhattan (0.4%), San Francisco (3%), Washington (4%), Boston (6%), and Seattle (9%) – but the other 13 Northeast–Pacific Coast cities included in the study range from 13% to 34%. ("Parking Lot Map," Parking Reform Network, accessed January 31, 2025, https://parkingreform.org/resources/parking-lot-map/.)

permitted ADUs as of right in 2022, the city experienced a backyard building boom, amounting to a quarter of all housing units built over the next two years.[252] San Diego, meanwhile, now allows ADUs in commercial as well as residential areas.[253]

Allowing ADUs citywide, unlike the other ideas in this section, potentially implies significant densification in single-family neighborhoods. ADU proposals consequently provoke intense opposition from many residents. Los Angeles only implemented its granny flat measure because of 2016 California legislation requiring cities to allow ADUs.[254] San Diego is considering scaling back its ADU ordinance.

Dallas realtor Doug Newby has long argued against allowing ADUs on the grounds that they would wipe out trees, increase traffic congestion, and undermine the fragile stability of neighborhoods in changing cities.[255] For these reasons, cities sometimes allow ADUs only if residents in the immediate neighborhood approve them by majority vote and if property owners live on the premises.[256]

Offer density bonuses for building income-restricted homes

Cities should under some circumstances incentivize developers to reserve a minority of units in new market-rate developments for lower-income tenants at submarket rents. Such measures – sometimes called "voluntary inclusionary zoning" – typically offer developers the right to include more units than would otherwise be allowed in exchange. They also usually give developers an option to pay into the city's affordable housing fund in lieu of income-restricted units.

Inclusionary zoning measures are best suited to certain locations. Possibilities include the following:

- Reserved units in multifamily or mixed-use developments in commercial centers or near public transit stops, since they promote access to good work opportunities for lower-income people.

- Units reserved for people in essential occupations – for instance, apartments for teachers near schools or for nurses and medical technicians near hospitals.

- Reserved units in new buildings in underinvested areas, to prevent displacement of lower-income residents and promote stable mixed-income neighborhoods.

At the same time, cities should acknowledge the limits of voluntary inclusionary zoning policies. In locations where the rent gap between market-rate and reserved units is large, the property taxes foregone by local taxing authorities from each reserved unit can represent a very expensive way to subsidize affordability. The same dollars could typically help more families if employed in more efficient ways.[257]

Also, the economics of new development typically don't allow developers to reserve more than 10% of units and earn their target returns, since the market constrains what they can charge for their market-rate units. That's why voluntary inclusionary zoning policies have generated very few units. New York City's policy gave rise to just 172 units per year on average between 1988 and 2013.* Dallas's 2019 policy has delivered only several hundred units.[258]

* New York officials have found they can sometimes bargain for longer-duration submarket rents more effectively than for an additional number of units, according to author interviews with New York housing experts.

Density bonuses, moreover, are effective only insofar as they give developers an exemption from what are typically overrestrictive land-use rules. Cities would generally help far more low-income people by relaxing these constraints for all multifamily development citywide.

Less helpful ideas

Eliminating single-family zoning: A few cities – notably Minneapolis and cities in Oregon and California – have moved to allow multifamily development everywhere by ending all single-family zoning.* Critics of single-family zoning – which covers neighborhoods where a majority of all Americans live – typically make their case in ideological rather than economic terms, often alongside arguments against suburban "sprawl." One think tank report, for instance, asserts without evidence that single-family zoning is an "opportunity-hoarding mechanism" that undermines the environment, weakens economic opportunity for lower-income people, and is rooted in racism.[259]

In theory, eliminating single-family zoning has the merits of allowing homeowners to do what they wish with their property and unleashing developers to build more homes on lots that become available for sale. But one shouldn't exaggerate the likely effects. Zoning rules prevent developers from building what they would like to build in only a very small fraction of areas zoned single family. And in some low-income neighborhoods, replacing an old single-family house with a duplex or triplex reduces the number of homes affordable to low-income families by one.

Evidence from cities that have eliminated single-family zoning citywide, moreover, doesn't point to significant positive effects. Minneapolis added only 23 plexes that wouldn't have been allowed under previous rules during the policy's first two years, one study showed.[260] Almost nine in 10 housing units built in Minneapolis since 2020 have been in buildings with 20 or more units, suggesting that the city's reform allowing multifamily development in commercial areas has been far more effective than permitting plexes in formerly single-family neighborhoods. Oregon and California cities have seen similarly meager effects. In Portland, Oregon, full elimination of single-family zoning plus legalization of ADUs everywhere in the city and other reforms added about 0.6% to the city's housing stock between 2021 and 2024. These policies have accomplished less than expected both because the economics of buying a single-family home and replacing it with a quadplex are difficult in most places where people want to live and because Minneapolis and West Coast cities have maintained density rules that make it harder still.

Cambridge, Massachusetts, which ended single-family zoning citywide and passed other reforms in February 2025, optimistically projects that the policies will add some 7% to the housing stock – roughly consistent with our prediction that drastic liberalization might add 5% to 10% to the population density of built-up urban areas.

For most cities, the main reason for skepticism about ending single-family zoning and trying to force higher density in single-family neighborhoods is that it's usually unpopular with residents.[261] Charlotte and Gainesville, Florida, have repealed ordinances allowing plexes in certain areas in response to public outcries.[262] Since people can easily move away from cities that adopt policies they strongly oppose, cities

* Minneapolis approved its rule eliminating single-family zoning citywide in 2019, and it went into effect in 2020. The State of Oregon prohibited single-family zoning in all municipalities over 10,000 in 2019. California banned single-family zoning through a 2022 law that in practice covers 13 large cities.

should consider allowing multifamily development in single-family areas only where most residents support doing so.

Mandatory set-asides in all new apartment developments: Rules requiring developers to reserve units for low-income tenants at submarket rates in new apartment buildings – often called "mandatory inclusionary zoning" – constitute a tax on new development.* In general, if government taxes something, producers deliver less of it. Developers have finite time and capital and can easily choose to build only in localities that don't impose such a tax or to scale back their operations.

Mandatory inclusionary zoning rules have resulted in very few income-restricted units, numerous studies show. And they have caused steep declines in new market-rate development in several cities that have imposed them.[263] After Portland, Oregon, imposed a mandatory set-aside rule in 2017 requiring developers to reserve up to 15% of units in new developments, multifamily building permits dropped 64%.[264] A similar 2019 rule in Seattle caused townhome construction to plunge 80%.[265]

Cities in our Sun Belt and Mountain metros have gone in different directions on mandatory inclusionary zoning. Arizona, Idaho, Tennessee, and Texas prohibit cities from imposing mandatory policies.[266] Colorado, on the other hand, enacted legislation in 2021 reversing its ban on such policies.[267] The Denver-area city of Broomfield is among several localities in the state that have since imposed mandates.[268]

Taxing new development to pay for subsidized homes: Excessive taxes on development are similarly counterproductive. Cities do charge developers fees at levels estimated to pay for city-funded infrastructure supporting new developments – and they should. But when they charge taxes and "impact fees" far beyond these levels to fund other priorities, they reduce new development and generate higher rents and home prices.

California cities routinely charge fees that can exceed $100,000 per new housing unit, adding immensely to the cost of development.[269] Some Sun Belt localities – notably Fort Myers Beach, Florida, and Rutherford County, Tennessee – have followed this unhelpful example in recent years.

Mandatory top-down quotas for new housing development: Government-imposed top-down production quotas for specific goods never constitute smart economic policy. This lesson from history fully applies to housing production. Yet California imposes production quotas on all of the state's cities through its Regional Housing Need Allocation program.[270] The program even specifies production quotas for units affordable at specific income levels – though developers cannot possibly build apartments at the affordability levels the state demands without massive subsidies, thanks to the state's complex system of mandates and fees.

The state's policy can generate absurd demands on specific cities. In Silicon Valley, state mandates call for housing production that translates to population growth over the next decade of 16% in San Jose,

* In theory, cities could design mandatory and voluntary inclusionary zoning policies in such a way that the mandates in the former match the incentives created by the latter so they produce the same results. It is oversimplistic, therefore, to assert that mandates are counterproductive while voluntary programs with density bonuses are helpful. In practice, building good incentives into a mandatory rule is likely beyond the capacity of city officials, so voluntary programs are preferable in our view.

19% in Sunnyvale, and 23% in Palo Alto – even though each city's population has declined significantly in recent years.*

In practice, one of two things is true of quota policies like California's. Either the state doesn't enforce its stated quotas – in which case they are meaningless – or the state forces cities to build hundreds of thousands of "affordable housing" units in locations and at density levels poorly suited to local communities. In the latter case, many people with choices will likely vote with their feet and leave the state. Ironically, California might address its severe housing challenges in part by driving down demand.

We estimate that the four main reforms we suggest in this section – allowing apartments and plexes in more areas, reducing minimum lot sizes to Houston's level, allowing residential development as of right in commercial areas or rezoning them, and reducing parking minimums – could each add 2% to 3% to the housing stock in most core cities and inner-ring suburbs, especially if coupled with vast improvements to permitting processes. Achieving half this potential would count as a big win in most cities. This is why it's reasonable to expect 5% higher density in built-up cities that succeed in reforming their land-use rules.

The potential is somewhat smaller in the nation's mostly densely built-up cities, since lot size rules are less relevant there. Our estimate is consistent with recent experience: Core cities that are large, dense, and in demand have mostly increased their populations between 3% and 13% since 2000.** They will almost surely grow more slowly over coming decades in view of slowing population growth nationwide, even if they do manage some degree of land-use reform.

But the potential to address America's housing challenges through smart outward expansion in growing metro areas is enormous. Expanding the footprint of the average metro area by 10% and building out these areas at the medium density levels of Sun Belt cities like Fort Worth would add some 15 million more homes than if the average metro expands by the same amount but at density levels more characteristic of many sprawling suburbs.

Principle Three: Innovate

America's cities need dramatic innovation in homebuilding materials and methods, aimed at reducing the cost of building new homes and thus slashing home prices and rents.

Construction stands out as the only large U.S. industry that hasn't experienced productivity gains in many decades. Productivity is defined as the quantity of goods produced from a given package of labor and capital inputs. Construction productivity is about the same as it was in the 1960s, according to a 2023 study by Federal Reserve Bank of Chicago President Austan Goolsbee and University of Chicago economist Chad Syverson which measures square feet of construction per unit of input.[271] Construction productivity has declined when measured by the number of homes, since homes have grown larger and require more labor and materials than smaller homes.[272] Falling productivity means it costs slightly more

* In theory, building homes at the rate required by the state could generate large-enough home price declines not just to halt out-migration but stimulate in-migration sufficient to fill the expanded housing stock. In practice, this hypothesis makes implausible assumptions about how strongly new development would affect home prices and how strongly these lower prices would affect migration patterns.

** By "in demand," we mean that housing demand growth since 2010 has been above average, based on our estimates. Core cities with weak demand have mostly seen population declines since 2000. One exception is the city of Seattle, which grew 38% between 2000 and 2022 by carrying out large land annexations as well as by increasing density ("Vision 2020," Annexation Briefing Paper [Puget Sound Regional Council, March 2019]). Another exception is Washington, which grew 25%.

to build a home than it did in the 1960s, relative to wage levels. Virtually all other manufactured goods cost far less to produce than they did then.

Harvard University economist Edward Glaeser and colleagues, moreover, found in a 2024 study that increasingly restrictive land-use rules since the 1970s have played a large role in causing this stagnation in productivity by making it difficult to mass-produce homes at scale.

Exploring specific paths that technological progress might take in the homebuilding industry is beyond the scope of this report. But we can highlight possibilities that constitute low-hanging fruit for addressing America's housing crisis.

- **Manufactured homes:** Factory-produced homes have improved significantly since the "trailers" of the 1960s in terms of design, finishes, and energy efficiency.[273] Increasingly, they look indistinguishable from many homes built on site. But they typically cost one-third less than a comparable built-on-site house, amounting to a $90,000 advantage.[274]

- **Modular building:** Building major house components ("modules") in an off-site factory and assembling them on site can save 20% of production costs on homes that are entirely indistinguishable from traditionally built homes, according to a 2024 Center for American Progress report.[275]

- **3D-printing:** Using 3D-printed building components has the potential to take half the costs out of building homes, a Deloitte report predicts.[276]

Regulatory and financial hurdles have prevented these approaches from fulfilling their potential. Manufactured homes are illegal in large parts of almost every U.S. city. Many cities and towns have tightened regulations further in the 2020s.[277] The mortgage industry, moreover, hasn't scaled up loan products supporting the industry.[278] This means buyers must take out personal loans, which are harder to obtain than conventional mortgages. Tremendously diverse local building codes and zoning rules stand in the way of building modular or 3D-printed homes at scale.[279]

Manufactured homes consequently represent just 6% of America's housing stock, down slightly since 2010. Only 3% of single-family home construction qualifies as modular, compared with rates as high as 45% in Finland and Sweden and 15% in Japan.[280]

Despite these challenges, some cities in our Sun Belt–Mountain metros and elsewhere are leading the way in deploying new technologies to address housing needs.

- Austin; Lakeland, Florida; Myrtle Beach, South Carolina; and several North Carolina suburbs stand out for allowing manufactured homes in more areas than most U.S. cities.[281] The states of Maine and New Hampshire have recently loosened their rules statewide.[282]

- A 2024 bill before the Utah Legislature would reform building codes statewide to allow more modular construction.[283]

- Phoenix is among the first U.S. cities to build a permanent supportive housing community using recycled, solar-powered shipping containers.[284] Arizona was also the first state to launch a

"Property Technology Sandbox" program aimed at accelerating the rollout of cost-saving technologies.[285]

- 3D-printing firm ICON will soon complete the first-ever community of homes built entirely through 3D printing, consisting of 100 houses in the Austin-area suburb of Georgetown, Texas.[286] Georgetown is one of the highest-scoring cities in our Sun Belt–Mountain metros for pro-growth land-use policies.

If improved building technologies were to reduce the cost of constructing new homes by 20% and deliver at large scale, they would reduce rents and home prices for existing structures by a similar amount. This is because developers would have powerful incentives to keep building and undercutting existing properties until the latter converged to the lower price of new homes.

Principle Four: The Jane Jacobs Principle

The Jane Jacobs Principle, as we call it, is the idea that geographically intricate diversity of land uses and human activities taking place near one another is the lifeblood of thriving urban places. This principle is the central thesis of Jacobs' 1961 classic, *The Death and Life of Great American Cities*.[287]

No city can plan for the "exuberant diversity" of people, ideas, and activities that make great cities and neighborhoods work, Jacobs argued. The best cities can do is to allow it:

> "… most city diversity is the creation of incredible numbers of different people and different private organizations, with vastly differing ideas and purposes, planning and contriving outside the formal framework of public action. The main responsibility of city planning should be to develop – insofar as public policy and action can do so – cities that are congenial places for this great range of unofficial plans, ideas, and opportunities to flourish."[288]

Fine-grained diversity of activities contributes to vibrancy in three vital ways, according to Jacobs:

- People enjoy being part of what she called the "intricate sidewalk ballet." They like to live, work, and play in interesting places, and the talent pools and spending power they create are the cornerstones of urban vitality.*

- By providing constant "eyes on the street," diverse activities throughout the day contribute even more than good policing does to public safety – a prerequisite for urban health when people are living amidst many strangers.

- Vibrancy depends on people coming together and spawning new ideas and ever-growing economic diversity, Jacobs wrote in her book *The Economy of Cities*. Fine-grained diversity promotes "collisions" among ideas and propels this process.[289]

Successful neighborhoods, Jacobs observed, are places where people stay or move in by choice, invest in and fight for their community, and build "confidence and strength, partly from practice and growth of

* The philosopher Alain de Botton writes about why people like living in or near diverse, mixed-use settings: "Contact, even of the most casual kind, with commercial enterprises gives us a transfusion of energy we are not always capable of producing ourselves" (Alain de Botton, *The Architecture of Happiness* [Pantheon Books, 2006], 246).

trust." Neighborhoods go into decline because they become "stagnant, dull" places that people want to leave behind – in some cases, despite the presence of elegant buildings and promenades. Thriving neighborhoods have a critical mass of density, she said, but excessive density is the enemy of diversity.

Jacobs argued that cities across America had made several self-destructive mistakes:

- Central business districts developed by expelling activities other than white-collar office work and characterized by "deathlike stillness" after 5 p.m. and on weekends.
- "Dull" and "regimented" middle-income areas "sealed against any buoyancy or vitality."
- Uniform, Stalinist-style apartment blocks as envisioned by the architect Le Corbusier.
- Public housing projects focused entirely on low-income people.

Economists have since confirmed Jacobs' insights. Metros with great diversity of firms and industries working in proximity achieve greater innovation and prosperity than other places, according to a study by Harvard economist Edward Glaeser and colleagues.

Cities throughout the Sun Belt–Mountain metros, like many cities elsewhere, are working to become more diverse, vibrant live-work-play communities, though all have a long way to go to realize this vision:

- Houston has achieved the Jane Jacobs Principle more successfully than most other cities that grew large in the automobile age, thanks to its unique rejection of traditional zoning rules.

- Many of the core cities in these metros – notably including Atlanta, Charleston, Dallas, Denver, Fort Worth, Houston, Phoenix, and San Antonio – have made progress in reimagining formerly moribund downtowns as vibrant live-work-play centers, even as traditional office-going populations have declined.

- Fast-growing suburban cities throughout these metros are working to become fully functioning cities rather than traditional bedroom communities. Most of the suburban cities in our dataset have daytime working adult populations almost equal to or larger than their nighttime population of working adult residents, as we noted earlier.

Some good news: Cities can implement the Jane Jacobs Principle in significant part by simply allowing it. Many developers want to build mixed-use places. Zoning codes and permitting processes are the main impediments holding them back.

Principle Five: Allow dynamic evolution in cities

Change

Change is constant. Successful cities not only allow diverse land uses near one another – they allow these uses to evolve.

Take a single Manhattan block – at Fifth Avenue and 23rd Street. In the 200 years since the early 1800s, the block has hosted a seedy circus on the outskirts of the city, then New York's poshest hotel, then a red-light district, then factories producing cheap textiles, then a struggling residential neighborhood, then

an upscale Italian market, and most recently a large social media firm, according to author Christiane Bird.*[290]

More intensive land uses are always replacing older uses in successful cities, Jacobs observed.[291] As in any well-functioning market, rising and falling prices play key roles in mediating this constant recycling of urban space.[292] Cities have remained "macro stable" only by allowing constant "microchange," author Charles Marohn argues.

Sometimes city governments mistakenly think they can slow the forces of change. A New York City policy document explicitly states that one of the city's planning goals is to slow down change and increase "predictability," according to urbanist Alain Bertaud. Efforts by New York developers to convert defunct industrial property to residential development can take as long as 16 years due to such policies. Hartford failed to allow recycling of half-empty downtown office buildings as the city's insurance industry declined, contributing to the hollowing out of its urban core.[293]

Even worse, some cities adopt self-destructive policies in response to inevitable changes. San Francisco is among the many cities that have refused to close schools even as district enrollment declines.[294] But this just means spreading falling dollars across underenrolled schools and guaranteeing they will become ever more under-resourced and dilapidated, driving more families away.**

Allowing land uses to evolve is one component of a larger challenge for cities: allowing the dynamic changes that inevitably occur when a city pursues market-oriented, commerce friendly policies.

The futility of freezing neighborhoods in place

Historic preservation: One of the most abused – if well-intentioned – ways cities try to freeze neighborhoods in place is through historic preservation rules. In New York City, historic preservation rules cover fully 15% of Manhattan's nonpark land below 96th Street and 27% of the island's buildings. But as Harvard's Edward Glaeser points out, antidevelopment activists have become adept at using preservation rules to block new land uses in these areas, including adaptive reuse of regulated structures.[295] Consequently, much of Manhattan is effectively closed off to new development.

Growth-minded cities use historic preservation rules sparingly. When they do deploy them, they focus on preserving truly distinctive structures – but not how they're used. Winston-Salem has converted an abandoned RJ Reynolds tobacco plant into the heart of one of the nation's most impressive urban innovation districts, preserving the distinctive "bones" of the facility.

Sun Belt suburban cities like McKinney, Texas, have adaptively reused historic buildings in old town squares, but they benefit enormously by facing few constraints from ill-conceived preservation rules.

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* Economist William Easterly and colleagues did a similar analysis of a location in New York's SoHo neighborhood, which hosted a freedmen's community, then fashionable townhomes, then a red-light district, then light-industrial facilities, then artist lofts, and now upscale apartments and fashion stores (See Yukie Ohta, "The Greene Street Project: A Long History of a Short Block," SoHo Memory Project, October 31, 2015, https://sohomemory.org/the-greene-street-project-a-long-history-of-a-short-block/).

** Note that two-thirds of U.S. school districts saw declining enrollment in the 2022–23 year. (Chad Aldeman, "Interactive: In Many Schools, Declines in Student Enrollment Are Here to Stay," The74, April 24, 2024.)

Rent control: Another self-destructive strategy cities use to freeze neighborhoods and their residents in place is rent control. Rent control policies, largely discredited by the 1980s, have made a comeback. New York City and St. Paul, Minnesota, have recently implemented strict new rules. Oregon enacted statewide rent control in 2019. Housing activists, authors, and some otherwise pro-housing elected officials have enthusiastically endorsed these moves.[296]

Rent control is a textbook case of counterproductive economic policy*:

- Rent control policies discourage and thus reduce development of new rental properties, as abundant studies consistently demonstrate.
- They reduce landlord investment in their properties, leading them to deteriorate over time.
- They disproportionately benefit affluent renters.
- They lock tenants in place, thereby short-circuiting the filtering-down process that gives rise to most homes affordable to lower-income people.
- They promote "key money" and other forms of corruption, as people who can afford it pay off landlords to gain access to artificially cheap apartments.[297]

Even if rent control policies exempt newly built buildings, they discourage development by conveying signals to would-be developers that regulators will likely expand controls to new buildings in the future. And even if rent control policies allow for rent increases above the general inflation rate, one of two things is necessarily true: Either the rate of allowed increase is so high that it doesn't impose meaningful constraints on landlords and thus does no good for current renters, or it reduces development by preventing projects that don't work in financial terms given the allowable rent increases.[298]

St. Paul presents a cautionary tale. Construction starts declined precipitously just after the city passed its controversial measure in 2021, as even sympathetic observers noted.[299]

Some cities have produced similarly self-defeating results by enacting excessively strict protections for delinquent tenants. California's 2019 Tenant Protection Act, together with eviction moratorium policies during the pandemic, led to an outbreak of squatting in San Francisco, Oakland, and other cities – adding further to the many disincentives facing would-be developers in those cities.[300]

For all these reasons, virtually every state where our Sun Belt–Mountain metros are located bans localities from implementing rent control rules.** Apart from Minnesota and Oregon, localities with rent control policies in effect are mostly in slow-growing Northeast–Pacific Coast metros.[301] These include New York City, numerous New York and New Jersey suburbs, the Maryland suburbs of Washington, and all the largest cities of California.

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* Swedish economist Assar Lindbeck once wrote, "Rent control appears to be the most efficient technique presently known to destroy a city – except for bombing" (*The Political Economy of the New Left* [Harper and Row, 1972]; cited in Sven Rydenfelt, "The Rise, Fall and Revival of Swedish Rent Control," in *Rent Control: Myths and Realities*, ed. Walter Block and Edgar Olsen [The Fraser Institute, 1981], pp. 213, 230).

** Thirty-five states have laws disallowing local rent control rules (Tanner, *Inclusive Economy*, 212).

Banning single-family rental homes: A newer idea, also ill-conceived, is to ban for-profit firms from buying or building single-family homes for purposes of renting them out.[302] Corporate investors in single-family rental real estate emerged in the early years after the 2008 financial crisis, when houses were selling at historically cheap levels relative to their rental value.[303] As home prices recovered, the industry rationally shifted toward building new homes rather than buying existing ones.[304]

Critics oppose corporate ownership of single-family homes on the grounds that it reduces people's ability to become homeowners and, since most build-to-rent single-family homes are in lightly regulated Sun Belt metros without rent control, makes people vulnerable to predatory rent increases by greedy landlords.

Calls for banning this business don't stand up to scrutiny. For one thing, it's easy to exaggerate the scale of the industry. In Houston, landlords organized as businesses control only 4% of the single-family homes currently occupied by renters.[305] Build-to-rent houses made up just 3% of single-family construction nationally in 2023.[306] The emergence of corporate landlords, moreover, has had no effect on home prices, a 2024 American Enterprise Institute study found.[307]

Critics typically don't clarify why private-sector ownership of rental housing units should be legal or illegal based only on whether they're physically attached to other units. And if corporate buyers someday buy more single-family homes than people want to rent at the going price, rents will go down.

But the main argument against banning the build-to-rent industry is that it would cut off a source of capital and expertise for building new homes. It would be less damaging to ban corporate landlords only from buying existing homes, but this would still remove from the market a set of knowledgeable, deep-pocketed firms that provide a service their tenants value.

Blocking neighborhood change to prevent displacement of low-income households: Perhaps the most self-destructive policy some cities pursue today to freeze neighborhoods in place is stopping new home development in lower-income neighborhoods on the grounds that it might displace existing residents.

Virtually all proposed investments in lower-income urban neighborhoods provoke ferocious opposition from nearby residents today. Journalist Conor Dougherty presents an in-depth look at development opponents in the San Francisco Bay area in his 2020 book *Golden Gates: The Housing Crisis and a Reckoning for the American Dream*.[308] Antidevelopment activists in his account resist new housing initiatives, including income-restricted projects, based on the belief that new housing would raise housing prices for residents of older buildings* – but also because it would bring "strangers" into their neighborhoods. Angry crowds denounce pro-housing "yes-in-my-back-yard" (YIMBY) leaders as "colonizers," "Satans," and "neoliberal[s] … erasing the voices of displaced communities."[309]

Neighborhood opposition routinely blocks pro-housing policies and specific projects. One unhelpful trend: Activists have successfully turned historic preservation rules into a tool to shut down housing development in neighborhoods in Boise, Dallas, Houston, Nashville, and other cities.[310]

* A large majority of San Francisco renters believe, contrary to evidence, that new development in their neighborhood would cause higher rents for themselves, a 2015 survey-based study found. (Hankinson, "When Do Renters Behave Like Homeowners?")

Antidevelopment activists also fiercely resist proposed nonhousing investments that would bring renewed vitality to lower-income neighborhoods. Activists often oppose new parks ("green gentrification"), salad restaurants and coffee shops ("food gentrification"), volunteer efforts to fix up abandoned houses ("enablers of gentrification"), and proposals to take down highways that cut through historic Black neighborhoods ("more gentrification").[311]

Neighborhood changes associated with "gentrification" provoke far more heated feelings than their opposite: decades of underinvestment and neighborhood decline. Yet the latter is the reality in the vast majority of low-income neighborhoods in U.S. cities, numerous studies confirm.[312] Other studies show that when affluent professionals move into previously low-income neighborhoods, longtime residents benefit through new retail and restaurant jobs, improved neighborhood amenities, and indeed less displacement.[313]

The main cause of displacement, when it occurs, is the emergence of supersized gaps between neighborhood property values and the value the same land would command under alternate uses.[314] Land values become most depressed in low-income neighborhoods suffering from persistent underinvestment and decay. And potential gains to developers are highest in cities with restrictive land-use policies and high market-rate home prices. Over a sufficiently long period of time, the greatest threat to residents who wish to stay in their neighborhood isn't new development, but lack of it.[315] The most vulnerable residents are renters, who have no opportunity to cash in when developers come around with attractive offers.

Policymakers should welcome and promote mixed-income housing development, especially in today's low-income neighborhoods.

As for actual displacement of low-income residents, a reasonable goal is to slow forces for displacement when they arise and buy time for residents. Freezing neighborhoods in place is neither feasible nor good for existing residents, Jane Jacobs wrote. But sudden, drastic upheaval in a neighborhood can tear apart its hard-won social fabric and badly disrupt the lives of a city's most vulnerable residents.[316] Sensible strategies include the following:

- Helping renters become homeowners, since it's much harder for developers to displace a whole neighborhood if it has many owner-occupied homes.
- Offering developers valuable density bonuses in exchange for including income-restricted units in new apartment buildings.
- Providing assistance for minor home repairs.
- Slowing the rate of increases in assessed home values for property tax purposes, so struggling homeowners experience these gradually rather than as a sudden shock.

Convincing people to embrace growth

Change in cities is inevitable, but many people – affluent and lower-income alike – resist it, especially in their "backyard." Cities that aim to be relatively affordable opportunity-rich places must convince their existing residents to embrace or at least tolerate change and growth. In democratically governed cities with empowered citizens and neighborhood groups, there is no way to avoid this challenge.

The best way to build a pro-growth consensus, in our view, is for leaders to present a vision aimed at convincing residents that the specific kinds of growth and change the city has in mind will be good for them. Cities can, for instance, do the following:

- Plan for mixed-use centers that will give nearby residents more walkability, convenience, retail options, and job opportunities.

- Pair new housing developments with improved trails and parks and present them as a package.[317]

- Articulate a vision for how city government will use new tax revenues from population growth to improve everyone's quality of life and hold down tax rates.

Some of America's fastest-growing suburban cities have been very successful at sustaining public consensus in favor of long-term growth plans. For instance, Frisco, Texas, has had a consistent, widely supported long-term plan, overseen by the same city manager for 34 years until 2023, and can point to specific planned projects that will benefit residents as far out as the 2040s and 2050s.[318]

Appealing to people's self-interest and civic pride is likely more effective than trying to shame them into accepting new development – a tactic that is often tried but fails virtually everywhere.[319]

Local leaders face particular challenges when they're trying to overcome community resistance in lower-income neighborhoods on the cusp of change and new development. Residents' trust in city government is often very low, typically with good reason in predominantly Black or Hispanic neighborhoods that have suffered and remember significant historical injustices.

Addressing this trust deficit can start with appreciating that the reasons residents give for fearing "gentrification" are often more cultural than economic. A San Francisco activist said that the buses carrying tech workers to and from her neighborhood seemed like "spaceships on which our alien overlords have landed to rule over us." Developers and local leaders planning transformational investments often show a lack of knowledge or even curiosity about the rich historical heritage of Black or Hispanic communities in the neighborhood.[320]

Part of the answer is to create inclusive, respectful processes that engage community residents in planning for neighborhood change. Cincinnati, Ohio, pioneered an effective process for planning a large project that resulted in both approval for the project and preservation of many neighborhood homes that might otherwise have been on a path toward demolition.[321]

If a city aims to liberalize land-use rules, it can also make sense to plan for gradual implementation. It's easier for residents to come to terms with changes if they see them unfold gradually rather than all at once.[322]

Principle Six: Get the urban basics right

If a city wants to retain residents and attract more people and businesses, the most important thing its public sector can do is perform its core functions well. This means ensuring reasonable safety and public

order, providing good schools, maintaining transportation networks and other vital infrastructure, and achieving financial sustainability with manageable tax levels – in addition to allowing flexible evolution in land uses and economic activities.

Quality-of-life amenities and design matter a lot. (See Principle Seven.) But for cities to succeed, the "urban basics" are nonnegotiable. As Harvard's Edward Glaeser has written,

> "… aesthetic interventions can never substitute for the urban basics. A sexier public space won't bring many jobs if it isn't safe. All the cafés in Paris won't entice parents to put their kids in a bad public school system. If commuting into a city is a lengthy torment, then companies will head for the suburbs, no matter how many cool museums the city has."

Glaeser adds:

> "The bottom-up nature of urban innovation suggests that the best economic development strategy may be to attract smart people and get out of the way."[323]

Safety and public order

No city, town, or neighborhood can thrive if people don't feel reasonably safe there. Declining safety and public order in U.S. cities were among Jane Jacobs' central themes throughout *The Death and Life of Great American Cities*. Crime reduction played a pivotal role in the recovery in fortunes experienced by New York City and Los Angeles in the 1990s after several tough decades.[324]

But some cities today are pursuing policies that fuel perceptions among many people that safety and order aren't priorities – and that may have caused crime rates to spike. Minneapolis, for instance, significantly reduced the size of its police force after 2020.[325] New York City, Philadelphia, Chicago, San Francisco, Seattle, and Portland are among the many cities that have made significant criminal justice system changes since 2020 and have subsequently seen rising crime rates.[326] Perceptions of declining safety have led to the closure of hundreds of grocery and drug stores in these cities, including more than 100 Duane Reade and Rite Aid units in New York City since 2020.[327]

Safety and order concerns have contributed to the accelerating net migration of people out of leading Northeast–Pacific Coast cities since 2020.[328] Falling populations in these metros undermine incentives for developers to build homes.

How to reduce violent crime in U.S. cities is beyond the scope of this report. But research does support several key principles. These include engaging in "obsessive maintenance" (in Charles Marohn's words), removing blight, installing good street lights, rehabbing homes in underinvested neighborhoods, decommissioning tent encampments, and allowing diverse, mixed-use development that puts "eyes on the street," as Jacobs put it.[329] They also include striking a sensible balance in policing between earning the trust of communities that have historical reasons not to trust police forces on the one hand and ensuring safety and order on the other.

Schools

About 74% of households consider the quality of public schools an "important" or "very important" factor in deciding where to live, according to a 2013 National Association of Realtors survey.[330] Differences in school quality are "perhaps the most important factor encouraging suburbanization," Glaeser believes.[331]

Improving schools is one of the most important steps localities can take to increase demand for homes and thus induce developers to build. The fast-growing Sun Belt suburbs we highlight in this report almost universally have respected public school systems.

Infrastructure

History teaches that cities which stop investing adequately in their physical infrastructure experience long-term decline as a result.[332] Cities face two significant infrastructure challenges: keeping their transportation networks and other infrastructure working for residents and doing it in a way that will be financially sustainable over the long term.

Average commuting times – a good measure of how well a metro's transportation infrastructure is working – have gotten worse in America's metros since 2010, based on American Community Survey data.* Our Sun Belt–Mountain metro areas perform roughly in line with the average metro on this measure, while their Northeast–Pacific Coast metros perform worse than average.**

Although large city size predicts longer commutes, several large core cities in our Sun Belt–Mountain metros have better-than-average commuting times, including Charlotte, Dallas, Denver, Nashville, Phoenix, and San Antonio. The inner-ring suburbs in the Sun Belt–Mountain metros, as we define them, have commuting times only slightly worse than core cities in these metros,*** reflecting their success in becoming significant employment centers. Some relatively large suburban cities – like Cary, North Carolina; Marietta, Georgia; Plano, Texas; and Scottsdale, Arizona – have significantly shorter commuting times than their neighboring core cities.

On the other hand, many fast-growing outer-ring suburbs in these metros have very high and rising commute times, which suggests infrastructure challenges are growing.**** One notable milestone is that the average commuting time in the Houston metro caught up with the Los Angeles metro in 2022.

Financial sustainability

The other infrastructure challenge for cities is to build out infrastructure that the city's tax revenues can sustainably maintain. Most American metros have developed at such low density that future tax revenues are unlikely to be sufficient to pay for maintenance and upgrades to their far-flung roads, water mains, and sewer lines, according to urbanist and civil engineer Charles Marohn.[333]

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* The average one-way commuting time rose to 27.1 minutes in 2022 from 26.0 minutes in 2010 (U.S. Census Bureau, American Community Survey, 2022 and 2010 five-year estimates).

** The population-weighted average for the 25 Sun Belt–Mountain metros was 27.4 minutes in 2022, up from 26.2 minutes in 2010. The corresponding figure for the 25 Northeast–Pacific Coast metros was 30.5 minutes, up from 29.6 minutes in 2010.

*** 26.0 minutes in the inner-ring suburbs compared to 25.2 minutes in the core cities (population-weighted averages).

**** Most of the counties we classify as "outer-ring" had average commuting times between 30 and 40 minutes in 2022.

But cities also exist in a competitive environment in which they cannot easily impose above-average tax rates without driving residents and businesses to other cities. High tax rates have contributed to out-migration from many coastal and Midwest cities, Stanford University scholars Joshua Rauh and Ryan Shyu have shown.[334]

The average state and local tax burden in the 12 states where our Sun Belt–Mountain metros are located is 9.5%, compared with 12.9% in the 10 states where our Northeast–Pacific Coast metros are located. All the Sun Belt–Mountain states except Idaho and Utah have tax burdens below the national median of 10.2%.*

Principle Seven: Focus on quality placemaking

In addition to getting the urban basics right, cities must compete to offer people attractive neighborhoods with good quality of life. Cities that perform best in this competition are likely to see expanding housing demand and thus private-sector interest in increasing home production. By attracting talent and businesses, they're also likely to offer the best economic opportunities for their residents.

Quality design is an essential part of good placemaking. While defining quality design is beyond the scope of this report, we can offer several ideas that connect with the report's main themes:

- Quality design makes a place interesting by authentically representing the place's local identity, rather than making it look like every place else.[335]

- Quality design reflects diverse styles and building types, enabling a rich mixing of human activities near one another, rather than a homogeneous top-down vision. Jane Jacobs added that neighborhoods need to include some older buildings, because there are some valuable tenants – like independent book shops – that usually can only afford older space.[336]

- Quality design appeals to ordinary people – not just architects and urban planners – and enables people to enjoy living in their city in widely diverse ways.

- Quality design welcomes people, brings them together, and promotes strong social capital, trust, and civic engagement. Leaders in Copenhagen have focused with great intentionality on designing public spaces with these goals since the 1990s, helping to produce what is widely considered one of the world's best urban turnarounds and success stories.[337]

Growth-minded urban leaders often become well-known for their obsessive emphasis on quality-of-life and design issues. Joe Riley, mayor of Charleston, South Carolina, for 40 years,** invested heavily not only in public safety, infrastructure, and physical expansion of his city but also in thoughtful quality-of-life

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* Unweighted averages of 2022 tax burdens across states. Sun Belt–Mountain state tax burdens: Arizona (9.5%), Arkansas (10.2%), Colorado (9.7%), Florida (9.1%), Georgia (8.9%), Idaho (10.7%), Nevada (9.6%), North Carolina (9.9%), South Carolina (8.9%), Tennessee (7.6%), Texas (8.6%), Utah (12.1%); Northeast–Pacific Coast state tax burdens: California (13.5%), Connecticut (15.4%), District of Columbia (12.0%), Hawaii (14.1%), Maryland (11.3%), Massachusetts (11.5%), New Jersey (13.2%), New York (15.9%), Pennsylvania (10.6%), Rhode Island (11.4%) (Erica York and Jared Walczak, "State and Local Tax Burdens, Calendar Year 2022" [Tax Foundation, April 7, 2022] https://taxfoundation.org/data/all/state/tax-burden-by-state-2022/).

** 1975–2015.

improvements. Building on one of America's most distinctive historic areas, he led a massive investment program to revitalize downtown commerce, started a prominent arts festival, beautified the city, and took down the Confederate flag ahead of most other Southern cities. He also rejected development proposals that didn't authentically reflect the city's identity.

On Riley's watch, Charleston earned accolades like *Conde Nast Traveler*'s recognition as America's top tourist destination. It also became one of the nation's fastest-growing cities after decades of stagnation.[338]

An additional benefit of quality placemaking is that it helps convince residents to embrace growth and change, according to urbanist Bill Fulton. The California developer Don Terner, Fulton told us, found that people critical of urban density tend to underestimate the true density of apartment projects when they like the design and overestimate that of projects when they don't.[339]

Space limits us to a cursory tour of some elements of quality placemaking that have proved to be important in our Sun Belt–Mountain metros and other 21st century cities.

- **Walkability:** People appreciate walkable places – meaning neighborhoods where people can easily walk to destinations they might wish to visit, like parks and commercial areas. They are willing to pay up to live in or near them, as reflected in large premiums in rents and home prices. For-sale homes, for instance, can sell for more than double the price of comparable homes in the same metro if they're in or near a "walkable urban place" (WalkUP), as George Washington University's Christopher Leinberger and colleagues define them.* Price-to-income ratios are some 9% to 18% higher in metros that outperform for walkable commutes, holding other demand factors constant, based on our data.** People who live in relatively walkable places also have more civic engagement and trust in their neighbors than other people do, several studies show.[340]

  Characteristics of neighborhoods that make them walkable are straightforward: (1) fine-grained mixing of activities – the Jane Jacobs Principle – so people can walk from residential to nonresidential areas; (2) attractive design; (3) safety from crime; and (4) safety from cars. The fourth prerequisite is the hardest one for many cities, as cars can seem ubiquitous and streets unsafe.*** Creating conditions for safe walkability is primarily about designing streets to calm auto traffic and only secondarily about speed limits.**** Evidence from European cities proves it's possible to achieve dramatic improvements in pedestrian safety, but virtually all U.S. cities lack the will to pursue these measures against motorists' resistance.

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* Rent premiums are smaller but still significant: 16% in the Atlanta metro in 2015 and 37% in the Dallas–Fort Worth metro in 2018 (Christopher B. Leinberger, "The WalkUP Wake-Up Call: Atlanta" [The George Washington University School of Business, 2013]; Tracy Hadden Loh and Christopher B. Leinberger, "The WalkUP Wake-Up Call: Dallas–Fort Worth" [Center for Real Estate and Urban Analysis, January 2019]).

** Author's calculations. See Appendix 2 for an explanation of the calculations.

*** People are right to be concerned, as pedestrian deaths from collisions with cars have recently reached all-time highs in Austin, Atlanta, Boston, Denver, and many other cities. (Asher Price, "Austin's Troubling Traffic Deaths," Axios Austin, January 23, 2023; Thomas Wheatley, "Georgia's Roads Are Deadly for Pedestrians, Report Shows," Axios Atlanta, April 11, 2022; Irina Matchavariani and Vanessa Ochavillo, "Mass. Pedestrian Deaths Spiked in 2022," WBUR, March 30, 2023; Alayna Alvarez, "Denver's Streets Are Deadlier Than Ever," Axios Denver, January 20, 2023).

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Cities in the Sun Belt–Mountain metros and elsewhere are nonetheless making progress toward increasing walkability. Leinberger lists 45 established or emerging WalkUPs in the Atlanta metro and 77 in the Dallas-Fort Worth metro. Most of the emerging WalkUPs in both metros are in suburban cities. The share of all trips that people make on foot is still a little smaller in the leading Sun Belt–Mountain metros than the largest Northeast–Pacific Coast metros, but it's catching up.*

- **Downtowns:** Most of the core cities in our Sun Belt–Mountain metros are reinventing their formerly struggling downtowns as vibrant live-work-play centers. Greenville – where a former mayor wrote a book called *Reimagining Greenville: Building the Best Downtown in America*[341]– narrowed its main shopping street to make it more walkable, planted hundreds of trees, built a minor league baseball stadium with attached condos, created a downtown park around a neglected waterfall on the Reedy River, and added a walking trail through downtown.[342] Fayetteville, Arkansas, is building a new downtown arts district, including outdoor performance and gathering spaces.[343] Colorado Springs has seen more than $2 billion of investment in its downtown since 2013, bringing new hotels and arts facilities and improved walkability.[344]

  People are voting with their feet. Fort Worth, which is pursuing one of the most celebrated downtown revitalizations in the United States, now has some 10,000 people living downtown, up from almost zero in 2000. Downtown Dallas' resident population has grown to 20,000 from essentially zero over the same period. Salt Lake City – which has seen the best foot traffic recovery of all big-city downtowns since the pandemic thanks to its exceptional mixing of activities – plans to quadruple its downtown resident population.[345]

- **Innovation districts:** Cities in the Sun Belt and across America are building out innovation districts, the fastest-growing placemaking strategy in U.S. metro areas today. Innovation districts are dense, physically compact urban areas where startups and other knowledge-generating institutions and leading-edge companies of diverse size and industry cluster together to stimulate creativity, collaboration, innovation, and entrepreneurship. In most cases, innovation district leaders aspire to create attractive, walkable environments, including substantial housing options.**

  America's innovation districts have proved extremely successful as economic development engines over the last decade, a first-of-its-kind Bush Institute-SMU Economic Growth Initiative dataset showed in early 2024.[346] Their effects have been most powerful in cities with relatively pro-growth housing policies, the report shows.

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* The average share for the Austin, Atlanta, Charlotte, Dallas–Fort Worth, Phoenix, and Salt Lake City metros was 9% in 2023, according to Replica data. The average share for Boston, Chicago, Philadelphia, San Francisco, Seattle, and Washington was 13%. New York City was in a league of its own at 18%.

** We draw this definition from the leading authors on the topic: Julie Wagner, president of the Global Institute on Innovation Districts (GIID) and Bruce Katz, director of the Nowak Metro Finance Lab at the Lindy Institute for Urban Innovation at Drexel University (Bruce Katz and Julie Wagner, "The Rise of Innovation Districts: A New Geography of Innovation in America," Brookings Metropolitan Policy Program, May 2014, https://www.giid.org/wp-content/uploads/2019/01/innovationdistricts1.pdf; Global Institute on Innovation Districts, https://www.giid.org). Katz and Wagner define innovation districts as "geographic areas where leading-edge anchor institutions and companies cluster and connect with startups, business incubators, and accelerators. They are also physically compact, transit-accessible, and technology wired and offer mixed-use housing, office, and retail." We slightly rework this definition because, based on the definition, most of the 36 self-identified innovation districts in our dataset would not fully qualify under GIID's strict definition – primarily because of lack of housing and/or transit-based access. We fully agree that GIID's wording captures the common aspirations of most innovation district founders and leaders.

Atlanta, Charlotte, Dallas, Denver, Fort Worth, Houston, Salt Lake City, and San Antonio each have expanding innovation districts in or close to their downtowns. Arizona State University operates five innovation districts in the Phoenix area. These include one that has contributed significantly to the revitalization of downtown Phoenix and a new health care-focused district the university is developing in northern Phoenix in partnership with the Mayo Clinic. Research Triangle Park, which has transformed the economies of Raleigh and neighboring Durham, North Carolina, since its launch in 1960, is developing a new alternative downtown in the heart of the park, with substantial housing planned.

- **Parks, trails, and waterfronts:** Green space figures prominently in urban placemaking initiatives everywhere. Well-designed parks, trails, and waterfronts lead to substantial health benefits, greater trust among residents, less crime, and lower summer temperatures. They also create 5% to 10% property value premiums for homes located nearby.[347] Like premium values for homes in walkable neighborhoods, the size of these price differences shows that homes in such locations are scarcer than they should be.

  The most popular parks and trails connect well to surrounding neighborhoods and support a wide diversity of human activities, Jane Jacobs wrote. On the other hand, she observed, parks that feel isolated and cut off from nearby neighborhoods are often the least safe places in cities.[348]

  The cities of Atlanta, Boise, Denver, Plano, and St. Petersburg rank among the top quarter of America's 100 largest cities on the Trust for Public Land's "ParkScore," which measures park quality and access, but most Sun Belt–Mountain cities rank as middle-of-the-pack or worse in this area.[349] Houston has been a Sun Belt leader in developing conservancy organizations to improve and maintain some of its largest parks, following the example of New York's Central Park Conservancy and Friends of the High Line.[350] Booming suburbs like Frisco and Allen, Texas, are investing heavily in quality parks and trails as they expand outwards. Chattanooga, Tennessee – once dismissed as "the Pittsburgh of the South" for its rusting metalworking facilities – has transformed its Tennessee River waterfront into a beloved downtown park, now surrounded by new apartment buildings.[351]

- **Other placemaking assets:** Some cities have created an attractive sense of place through simple measures like allowing "streeteries" – streetside tables outside restaurants that popped up during the pandemic – to stay open. Houston made its COVID-era streetery rules permanent in 2023 – in contrast to Philadelphia, which has largely regulated its popular streeteries out of existence. Sun Belt cities also mostly rank in the upper half of cities for the permissiveness of their rules governing food trucks, a 2022 study of regulations in 20 cities found. Denver and Orlando ranked second and third, after Portland, Oregon.

  Other cities are engaging in purposeful placemaking on a grander scale through initiatives to build walkable alternative downtowns. These include Nashville's massive redevelopment of the East Bank of the Cumberland River and Charlotte's booming South End neighborhood.[352]

- **Quality placemaking in suburbs:** Booming suburban cities across the Sun Belt are investing heavily to create engaging downtowns, with walkable town squares and main streets, streeteries,

arts facilities, and ample apartments and townhomes.* Some prominent examples: Cary in the Raleigh metro; Katy, Spring Cypress, and Sugar Land in the Houston metro; McKinney, Prosper, and Southlake in the Dallas-Fort Worth metro; Buckeye and Surprise in the Phoenix metro; and Draper in the Salt Lake City metro.[353] Residents can do "everything [they've] been doing, and live in a nicer, more comfortable environment," said one tech executive who recently relocated to Katy from San Francisco.[354]

- **Mobility:** Cities must focus not only on creating as many quality neighborhoods as they can but also on ensuring efficient ways for people to move among them. The starting point for maximizing people's ability to get to work and other destinations should be the Jane Jacobs Principle: The more cities intermingle land uses, the closer people can live to their main destinations. But many people must inevitably travel long distances in even the best designed cities – because they can't afford to live near their city's highest-opportunity job centers, they're making compromises as part of a two-career family, or they prefer to live in certain kinds of neighborhoods. The goal of mobility policies should be to give as many residents as possible the ability to get to most or all the jobs in the city's labor market within a manageable period of time, not to minimize travel distance, urbanist Alain Bertaud writes.[355] In Jane Jacobs' words: "The point of cities is multiplicity of choice. It is impossible to take advantage of multiplicity of choice without being able to get around easily."[356]

  For the vast majority of Americans, the answer is not public transit in the 20th century sense. Ridership on transit systems has been in long-term decline throughout the 21st century. It dropped far further during the pandemic and remains more than 20% below 2019 levels.[357,**] In 2022, public transit constituted the main means of getting to work for just 3.6% of working people in America's 250 largest metros – and only 1.6% of people outside our 25 Northeast–Pacific Coast metros. Fully three-quarters of all regular transit riders are in just seven large, dense metros,*** with 48% in the New York City metro alone.[358] The reasons for low ridership are straightforward: It takes much longer to get places on public transit than in a car in all but the most congested cities; transit systems are unreliable and unpleasant in some cities; fares are becoming a lot higher; and many people perceive them as unsafe and becoming more so.[359]

  The economics of light rail are extremely poor in all but the densest metro areas. The Dallas Area Rapid Transit Authority (DART)'s ridership projections suggest a capital cost per daily rider of $220,000 on its Silver Line and $600,000 on its Orange Line.[360] Almost all light rail systems lose money at the operating level and stay afloat through subsidies. Losses per rider are even higher in suburbs – where most population growth is happening – than in core cities, in view of very low ridership.[361]

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* Urbanist Jeff Speck, a leading authority on creating walkable places, said of new mixed-use centers in Sun Belt suburban cities: "When done properly, they seem to be an almost surefire real estate home run, because the hundreds of thousands of people surrounding them are almost starved for urbanism" (Speck, *Walkable City Rules*, 236–7).

** Consider the Dallas Area Rapid Transit System (DART): Weekday average ridership on DART buses fell to 110,000 in 2017 from 164,000 in 2001 even as the population of DART's service area boomed ("A Transit Problem," editorial, *Dallas News*, July 13, 2017). By 2023, it stood at 88,000. Weekday average ridership on DART's light rail system fell to 62,000 in 2023 from 96,000 in 2014 ("Facts About Dallas Area Rapid Transit (DART)," Dallas Area Rapid Transit, accessed January 31, 2025, https://www.dart.org/about/about-dart/about-dart/dart-facts; Andrew Keatts, "In Texas, Two Dramatically Different Transit Philosophies Emerge," Urban Edge (blog), Kinder Institute for Urban Research, October 28, 2015).

*** New York City, Chicago, Los Angeles, Boston, Washington, San Francisco, and Philadelphia.

Cities should allow market forces to determine population densities and build transportation infrastructure that these density levels will support, rather than planning transformational investments that might theoretically deliver density consistent with urban planners' transit goals.* For many cities this means scaling back light rail plans and emphasizing more economically manageable bus networks. The Raleigh, Houston, Denver, and Salt Lake City metros are among the cities that have recently recalibrated policies in this direction.[362] Plano decided to reduce its sale tax contribution to DART in early 2024.[363]

Cities should also recognize that, outside the densest large metros, public transit is primarily a service that supports low-income people who can't afford other modes of transportation. Cities like Houston are building out services aimed at helping the people who need it most – like high-frequency bus rapid transit lines and Uber Pool-like technologies focused on lower-income neighborhoods.

For everyone else, the main answer is high-quality road networks, including high-occupancy vehicle lanes and charging systems to support transitions to electric vehicles. Building out highways does, as critics argue, induce additional demand by supporting suburban expansion rather than meaningfully reduce commuting times.[364] But the largest Sun Belt–Mountain metros show that it's possible to build a vast, expansive metro area and still hold average commutes below 30 minutes each way – which is a tolerable level for most people. At the same time, quality placemaking implies more effective separation of roads that are meant to move people quickly from streets running through dense urban areas with many pedestrians, Charles Marohn explains in his book *Confessions of a Recovering Engineer: Transportation for a Strong Town*.[365]

Congestion pricing – charging tolls for vehicular access to dense areas, often at rates which vary with congestion levels – is a sound economic idea.[366] But the controversy over New York Governor Kathy Hochul's congestion pricing system for Manhattan – opposed by many suburban commuters and now by the Trump Administration – suggests that this strategy might be politically difficult in most U.S. cities for the time being.[367] More generally, policies that make it more painful to commute by car in core cities are likely to result in even less commuting to traditional downtowns and more business relocations to accessible suburbs. This is why Washington mayor Muriel Bowser dismissed a congestion pricing proposal for her city, calling it a "downtown killer."[368]

Principle Eight: Subsidize housing – but in efficient and limited ways

Why new subsidized housing has a limited (though useful) role

Cities should help lower-income residents who can't afford a market-rate home. But they should do so in ways that stretch available resources as far as they can go and do as much good as possible.

Subsidized housing supply must necessarily play a limited, targeted role in how cities provide this help, for three reasons:

* Both Alain Bertaud and Charles Marohn forcefully make this argument (Alain Bertaud, *Order Without Design: How Markets Shape Cities* [MIT Press, 2018], 140; Marohn, *Confessions of a Recovering Engineer*, 179).

- Most low-income families currently live in homes that have "filtered down" through the market by aging out of the market-rate segment – "naturally occurring affordable housing" (NOAH), as many call it. This reality is good news for cities, because otherwise they would waste countless homes that still have significant useful lives ahead but that more affluent residents have left behind. Cities should in some cases help low-income residents cover the rent, but they don't need to subsidize the construction of tomorrow's naturally occurring affordable housing, since it is today's midrange market-rate housing.

- Local governments never have enough funds to make more than a small dent in the problem. The reason: Subsidizing construction of a new home is the most expensive thing governments ever do to help a family. Available dollars just don't go very far. This is why actual new units built through affordable housing initiatives routinely come in well below the unrealistic numbers that governments promise. Austin announced a goal in 2017 to add 60,000 new income-restricted units over the subsequent decade – then delivered 900 over the first four years of the plan.[369] Dallas targeted 20,000 over three years in a 2018 plan, but managed only a few hundred.[370] Greenville, South Carolina, aimed for 10,000 over a decade in a policy launched the same year and wound up adding 700 between 2018 and 2023.[371]

  Sometimes cities and states pursue inefficient policies that ensure dollars devoted to new construction produce even fewer units than they should. Building a subsidized apartment in Los Angeles typically costs more than $1 million now because of California's complex rules and mandates.[372] A federal program to build homes on Native reservations has spent $700,000 per unit, despite inexpensive land.[373]

  Some policies – like Dallas's 2018 decision to support new subsidized housing only in "high-opportunity" areas – guarantee that available dollars will produce relatively few units.[374] Subsidized housing initiatives also invite fraud on the part of developers – inevitable when governments are spending such large sums, often with poor accountability.[375]

- Cities should limit their reliance on subsidized new buildings for a larger reason as well: Consigning low-income people to buildings or zones devoted entirely to low-income housing reinforces segregation along income lines and undermines opportunity for beneficiaries. Jane Jacobs argued that low-income people have similar housing needs as more affluent people and differ only in their ability to pay. When cities create dedicated neighborhoods for low-income families, with apartment buildings built by a separate industry of developers who operate only in such areas, the result is cities divided into separate and unequal zones.[376]

  In addition to the harm this segregation does to a city's social fabric and to tenants living in these "affordable" enclaves, no one in the city other than the potential tenants has anything to gain from such developments, American Enterprise Institute scholar Stan Veuger notes.[377] Consequently, residents oppose new "affordable" developments throughout the city, and few get built.

Subsidized homes, new or existing, should nonetheless play an important, if targeted, role in addressing the nation's affordability crisis. Even if a city implements Principles One through Seven perfectly, it will import some of the housing problems of other cities with more restrictive policies in the form of in-migration, which drives up home prices. Unless all cities create well-functioning housing markets, all cities

will have significant populations facing cost burdens and constrained opportunity because too few homes are affordable to them. Subsidized units help.

Cities should in some cases subsidize new development to give low- to moderate-income residents opportunities to live in specific locations.

- New homes in commercial areas or near public transit stops are likely to open up outsized job opportunities for lower-income residents.

- New homes reserved for workers in essential occupations can help address a city's employment needs, for instance, by helping moderate-income health care professionals live near hospitals or by helping police and fire professionals live near their workplaces.

- New homes in central locations can help a city with declining population consolidate schools and other essential services to better serve all residents.

When cities do subsidize new development, they should do their best to navigate the inevitable tradeoff between good location on the one hand and stretching dollars to help as many as possible on the other.

New subsidized development at the metro-area level: Nine of our 25 Sun Belt–Mountain metros rank in the top quarter of America's 100 largest metros for new subsidized, income-restricted apartments per capita, as Table 4 shows.* These include top-ranked Austin, fourth-ranked Denver, and ninth-ranked San Antonio. Only one of our 25 metros – Fayetteville-Springdale-Rogers – ranks in the bottom quarter on this measure. Four large Pacific Coast metros – second-ranked Seattle plus San Diego, San Francisco, and San Jose – score in the top quarter of the country's 100 largest metros as well.

Stark differences separate high and low performers on this metric. Each of the 15 highest ranking metros has produced between three and 10 times as many new subsidized apartments per capita as Boston, Chicago, Milwaukee, Pittsburgh, or Providence. If metros that rank low for subsidized housing scored high for midrange market rate units, they might be making reasonable tradeoffs. But most low-performing metros also have relatively restrictive land-use rules overall. Fayetteville-Springdale-Rogers and Durham-Chapel Hill are the only metros that rank in the bottom quarter for subsidized units but the top quarter for pro-growth policies.

High-performing metros generally have either very pro-growth policies or extreme affordability crises. The latter group, including the five California and Hawaii metros that rank in the top quarter of our rankings, have responded to their housing problems with generous subsidies for income-restricted housing but not with looser restrictions on market-rate development. Several high-ranking metros are also top performers on quantitative measures of social capital. These include Denver, Des Moines, Madison, Minneapolis-St. Paul, Salt Lake City, and Provo.**

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* See data on production of new subsidized units in the largest metros in Table H, Appendix 3 and full data in the online Data Appendix.

** Each of these metros scores near the top of all metros on the U.S. Congress Joint Economic Committee's composite social capital measure. (Joint Economic Committee – Republicans, "The Geography of Social Capital in America" [SCP Report No. 1-18, April 2018].)

Table 4

New subsidized apartment production per capita, 2010-2023

(Metros with highest and lowest production among the 100 largest metro areas)

	Metro	Builds		Metro	Builds
1	Austin-Round Rock-Georgetown, TX	0.0091	65	Tucson, AZ	0.0015
2	Seattle-Tacoma-Bellevue, WA	0.0083	66	Tulsa, OK	0.0012
3	Spokane-Spokane Valley, WA	0.0071	67	Boston-Cambridge, MA-NH	0.0012
4	Denver-Aurora-Lakewood, CO	0.0067	68	Buffalo-Cheektowaga, NY	0.0012
5	Richmond, VA	0.0064	69	Syracuse, NY	0.0012
6	El Paso, TX	0.0051	70	Cleveland-Elyria, OH	0.0012
7	San Francisco-Oakland-Berkeley, CA	0.0049	71	Durham-Chapel Hill, NC	0.0012
8	Minneapolis-St. Paul, MN-WI	0.0049	72	Akron, OH	0.0012
9	San Antonio-New Braunfels, TX	0.0046	73	Dayton-Kettering, OH	0.0011
10	McAllen-Edinburg-Mission, TX	0.0045	74	Toledo, OH	0.0011
11	Nashville-Davidson, TN	0.0042	75	Oklahoma City, OK	0.0011
12	Madison, WI	0.0042	76	Milwaukee-Waukesha, WI	0.0011
13	Honolulu, HI	0.0040	77	St. Louis, MO-IL	0.0011
14	Bridgeport-Stamford-Norwalk, CT	0.0039	78	Chicago-Naperville, IL-IN-WI	0.0010
15	Provo-Orem, UT	0.0039	79	Providence-Warwick, RI-MA	0.0009
16	Miami-Fort Lauderdale, FL	0.0039	80	Cincinnati, OH-KY-IN	0.0009
17	Des Moines-West Des Moines, IA	0.0038	81	Fayetteville-Springdale, AR	0.0009
18	Raleigh-Cary, NC	0.0038	82	Wichita, KS	0.0008
19	Portland-Vancouver, OR-WA	0.0037	83	Kansas City, MO-KS	0.0007
20	Charlotte-Concord-Gastonia, NC-SC	0.0034	84	Allentown-Bethlehem, PA-NJ	0.0007
21	Salt Lake City, UT	0.0034	85	Little Rock, AR	0.0007
22	San Jose-Sunnyvale-Santa Clara, CA	0.0033	86	Jackson, MS	0.0007
23	Indianapolis-Carmel-Anderson, IN	0.0031	87	Ogden-Clearfield, UT	0.0006
24	Tampa-St. Petersburg-Clearwater, FL	0.0030	88	Detroit-Warren-Dearborn, MI	0.0005
25	San Diego-Chula Vista-Carlsbad, CA	0.0029	89	Pittsburgh, PA	0.0003
	Average	**0.0024**			

Source: Author's calculations based on Yardi Matrix and U.S. Census data. See data for 89 of the 100 largest metros in Table H, Appendix 3, and underlying data in the online Data Appendix. Yardi's dataset doesn't cover the other 11.

Although our 25 Northeast–Pacific Coast metros have mostly underperformed our Sun Belt–Mountain metros for subsidized home production on a per-capita basis since 2010, their stock of subsidized units per capita is still about 50% larger than the Sun Belt–Mountain metros as a result of production in earlier periods.* Even in the Northeast–Pacific Coast metros, however, the stock of subsidized homes amounts to only 3% of the total housing stock – covering less than a 10th of the population of qualified residents.

New subsidized development in Sun Belt–Mountain localities: Ten core cities rank among the 25 best-performing Sun Belt–Mountain localities in our dataset for subsidized home production since 2010: second-ranked Fort Worth, Jacksonville, Atlanta, Charlotte; Fort Myers, Salt Lake City, Charleston, Denver, Austin, and Greenville. The other 15, led by Wake Forest, North Carolina, consist mostly of Texas, North Carolina, and Colorado suburbs.

* See data on production and inventory of subsidized units per capita in the largest metros in Tables H and I, Appendix 3, and full data in the online Data Appendix.

Low-performing core cities are mostly in the West: Boise, Las Vegas, and Phoenix.*

Neighboring suburbs make dramatically different choices regarding subsidized homes. McKinney, Texas, for instance, produced three times as many subsidized units on a per-capita basis between 2010 and 2023 as next-door Frisco. As of 2023, McKinney had roughly five times as many units in existence per capita as Frisco and eight times more units funded through the federal low income housing tax credit program.[378]

As for location, Greenville leads the core cities in these metros for building subsidized units in relatively affluent, thriving areas of the city, followed by Tampa, San Antonio, and Raleigh. Most of our core cities have built subsidized homes primarily in areas with below-average incomes, slow population growth, and large Black or Hispanic population shares, as we note in Section III. On the other hand, most core cities and larger suburbs in our Sun Belt metros have disproportionately built midrange apartments – the naturally occurring affordable housing of the future – in affluent, growing areas since 2010.**

Preserving and repairing existing affordable homes

Cities should lean heavily toward preserving and rehabbing existing homes that are affordable to low-income residents rather than building new subsidized units, since they can typically stretch available resources so much further this way.

Consider a Dallas family earning $40,000, approximately half of America's median household income in 2024. If policymakers wish to make a rental apartment available to them at 30% of their income, or $12,000 per year, private-sector lenders would likely lend a developer up to about $120,000 to buy or build an apartment based on the family's capacity to pay this rent. Building new affordable apartments in the Dallas area costs between $250,000 and $300,000 per unit in 2024, while buying an older apartment complex and modestly rehabbing it costs between $150,000 and $200,000 per unit.*** Based on the midpoints of these ranges, building a new unit for the family would cost three times as much in subsidies as preserving and rehabbing an older one.****

Real-world evidence is consistent with our estimates of how much subsidy it takes to build new income-restricted apartments. In Austin, two bond issues in 2013 and 2018 generated 3,707 units at a cost of $85,000 per unit in bond money.[379] But it took significant (undisclosed) additional subsidies to get these done, so total subsidies were well over $100,000 per unit – and this was before the 30%-plus increases in labor and materials costs that have taken place since 2020.[380]

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* See data on production and inventory of subsidized units per capita in localities within the 25 Sun Belt–Mountain metros in Tables J and K, Appendix 3, and full data in the online Data Appendix.

** See summary data on the location of new subsidized and midrange apartments in Table F, Appendix 3.

*** We base these estimates on news reports on the cost of new developments (Nick Wooten, "$76 Million Affordable Housing Development Slated for Dallas County Construction," *Dallas News*, April 16, 2024), LoopNet listings of older buildings, and an assumption that rehabbing an older unit sufficiently to attract our hypothetical family might cost up to $25,000 ("Cost to Renovate a House: Average Renovation Costs Per Square Foot," Togal.AI, accessed January 31, 2025).

**** Our calculation: The cost of subsidizing a new apartment would $275,000 less the $120,000 that we assume private-sector lenders would rationally finance, or $155,000. The cost of subsidizing the purchase and rehab of an older unit would be $175,000 less $120,000, or $55,000.

Cities can support preservation and rehab either by subsidizing acquisition of older units by private-sector and nonprofit landlords or by helping pay for repairs. North Carolina is among the states that have built substantial programs to subsidize major repairs.[381]

Preserving and rehabbing older apartment buildings is a strategy that can scale. Just over half of America's housing stock was built before 1970, and over a quarter of it before 1950.[382] Meanwhile, state and local governments collectively spend more than $50 billion per year on subsidized housing.[383] We conservatively estimate that these funds would bring at least quarter million more units into the subsidized segment of the market each year if cities spent it entirely on subsidizing preservation than if they spent it all on new units – a difference of more than 6 million units over the next 25 years.

Securing land for new subsidized homes

Raw land or land that can be repurposed from other uses should figure prominently in any strategy to accelerate the development of new subsidized homes.

City governments as well as school districts and public transit agencies typically own large portfolios of unused or underutilized land. Additional land is in private hands. Vacant land constitutes 16.7% of the physical footprint of the average large city, though not all of it is suitable for residential development.

The city of Dallas has 91,000 acres of undeveloped land, the most of any U.S. city, according to a study by Yardi Systems' Commercial Café. Fort Worth has 75,000, while Houston, San Antonio, and Phoenix round out the top five cities on this measure. Dallas' city government owns some 50,000 undeveloped acres. Dallas also has 475 land parcels already zoned for apartments that could hold 100,000 units, a 2023 RentCafé study found.

But most city governments don't have management entities that control this land, think about how to activate it, and have authority to acquire additional land for future development. Consequently, private sector initiatives to buy government-owned land for development often move at a tortuously slow pace. Many well-located parcels sit vacant for decades.

All cities should have a management entity, perhaps structured as a quasi-autonomous urban development corporation or as an external municipal property advisor answerable to city government, that focuses primarily on converting unused or underutilized land into much-needed homes or revenue-generating commercial properties. City governments and other public authorities should identify land holdings available for development and turn them over to empowered management entities as quickly as possible.

Public land management entities should do the following to address their city's affordability crisis and stimulate economic development in underinvested areas:

- Develop transparent strategic plans for every parcel. Choose locations for future subsidized homes that balance the goals of giving residents access to economic opportunities and stretching subsidy budgets to help as many people as possible. Plan on using land in the least attractive locations for nonresidential purposes like industrial development.

- Try to buy up additional land early and cheaply in locations that are likely to experience significant development and price appreciation, perhaps resulting from planned public investments in infrastructure or quality-of-life amenities. Atlanta is among the U.S. cities focused on executing this strategy.[384] Copenhagen is famous for doing it well.[385]

- Set aside a reasonable portion of land in planned development areas for parks, trails, and other outdoor amenities. Although they won't generate property tax revenues, studies show that they will increase the value of nearby properties by 5% to 10%.[386]

- Make land intended for residential or commercial development available cheaply to qualified developers. Don't be "penny-wise and pound-foolish" and hold out for the highest possible price. Future property tax revenues will likely make up for the foregone profits. In any case, cities have a strong interest in helping low-income residents afford decent housing in relatively good locations even if they lose money by doing so. Raleigh has been aggressive in getting land into the hands of developers to activate strategic locations – such as land adjacent to the city's Dorothea Dix Park, now undergoing transformational improvements.[387]

Building subsidized housing with low-income housing tax credits

Cities and states should aim to add new homes funded through the federal low income housing tax credit (LIHTC) program in ways that both promote opportunity and help as many people as possible, recognizing that these goals present inevitable tradeoffs. But they should also diversify their affordable housing strategies away from overreliance on LIHTC-funded construction.

The LIHTC program is the mainstay of new subsidized home production in the United States. Since 2010, the program has supported development of some 40,000 to 60,000 units annually, amounting to 10% to 15% of total apartment construction in a typical year. LIHTC-funded units comprise more than 70% of subsidized apartments built in the 208 Sun Belt–Mountain localities for which we have data. Since the program's inception in 1986, it has generated over 3.1 million homes, or just over 2% of America's housing stock.

The LIHTC program ensures that 3.1 million households have access to homes they can afford. LIHTC development, moreover, hasn't crowded out market-rate development in booming Sun Belt–Mountain metros, countering concerns some researchers have raised.[388,*]

States exercise considerable control over where LIHTC-funded apartments get built because each state periodically publishes a Qualified Allocation Plan (QAP) defining a point system to choose projects for the program's competitive 9% credits.[**] Localities also influence project locations through various land-use powers.

Promoting opportunity means locating new units reasonably close to thriving job centers or in some cases public transit stops. Stretching available resources as far as they can go means building in locations

* See regression results in the online Data Appendix.

** The program's lucrative 9% credits give awardees a transferable credit against federal taxes equal to 9% of their project's qualified costs for 10 years. Developers generally sell their credits to financial institutions upfront at a discount, such that proceeds fund about 70% of project costs, on average. The program also provides developers of other qualified projects a 4% credit against federal taxes on a noncompetitive basis.

where land is cheap. As these goals are typically in conflict with one another, local authorities should focus on navigating the tradeoffs as efficiently as possible without leaning entirely toward one goal. States should make their QAP point systems as flexible as possible to empower local authorities.

At the same time, cities and states should diversify their strategies, in view of the program's significant shortcomings:

- LIHTC-funded units cost at least 20% more to build than comparable apartments funded by other means, Purdue University economist Michael Eriksen has shown.[389] These costs are a result of program rules, bureaucratic complexity, and bad incentives leading some developers to pad costs, sometimes fraudulently.[390] LIHTC subsidies per unit averaged over $150,000 some years between 2010 and 2020.[391] Post-2020 data isn't readily available, but construction cost inflation has likely raised per-unit subsidies further.*

- The program's allocation system empowers state and local officials to award lucrative assets in ways that are inherently political, further undermining the program's effectiveness.

- The program's funding fluctuates tremendously with the economy, since tax credits are more valuable to investors in good times.

- LIHTC deals don't work financially for developers when land prices rise too high.

- The LIHTC program doesn't work well for building small structures in infill locations, Marohn and Herriges point out.[392] One reason: Since developers aren't allowed to include the cost of parking spaces in their basis calculation, they usually must build surface parking, reducing the number of units they can fit onto available land.

- It's far harder than it should be to combine LIHTC credits with private funding sources in the same development, many developers say.[393] This is partly because the short timelines over which development must occur often make it impossible to access other public funds that become available at incompatible points in the calendar.

- LIHTC deals usually don't help the poorest residents in neighborhoods, because the rents these families can afford are too low to make deals work even with tax credits.

- Subsidizing production of an apartment building in a particular location is inherently less efficient than demand subsidies (like Section 8 housing choice vouchers) that allow beneficiaries to move around for work opportunities. Cities are continuously changing, moreover, so permanently attaching subsidy dollars to specific buildings unnecessarily constrains efforts to help low-income people find well-located homes they can afford.

- Cities and states often make the program even more geographically inflexible through arbitrary policies. Critics have long argued that cities have concentrated poverty by locating LIHTC-funded

* Some estimates for the high cost of producing LIHTC-funded units are higher than Eriksen's estimate. The average new LIHTC-funded unit costs about $450,000 to build, compared to about $300,000 for a similar non-LIHTC unit, according to American Enterprise Institute research. (Edward Pinto and Tobias Peter, "Kamala Harris's Housing Plan Would Be Worse Than Doing Nothing," Opinion, *Newsweek*, updated September 4, 2024.)

units in low-income areas.[394] Our data on core cities in the Sun Belt–Mountain metros is consistent with this criticism. But Texas has swung in the other direction in its 2024 QAP, with so many rules aimed at reversing this pattern that few places on the map are viable locations for development.[395] Dallas moved so far in this direction – without adequately considering the difficulties of building in what the city deemed "high-opportunity" areas – that subsidized apartment production fell 88% in the 2017-2023 period from the 2010-2016 period.[396]

- While the program allows for projects focused on preserving and rehabbing older apartment buildings, state QAPs push the vast majority of LIHTC funding to new construction.[397]

- Similarly, state QAPs mostly encourage developers to build buildings consisting entirely of income-restricted apartments, undermining the goal of creating mixed-income communities. Fully 96% of all units in buildings built with LIHTC funding between 2010 and 2021 in the Sun Belt–Mountain localities for which we have data are income restricted.[398]

Some localities in our Sun Belt-Metro metro areas have built far more LIHTC-funded apartments than others. Cities that score high for LIHTC production – Atlanta, Denver, Greenville, Salt Lake City, Leander, and Kissimmee, Florida – added more than four times as many units per capita as Dallas, Houston, or San Antonio between 2010 and 2021.*

Cities that score high for LIHTC production also tend to score high for income-restricted units in general, based on our regression analysis. But LIHTC production isn't predictive of how cities perform for holding down housing cost burdens for lower-income households. Overall housing production is much more important, in view of the modest scale of LIHTC-funded construction.**

Creating new funding streams to support affordability

Cities should develop new funding streams and policy programs to make homes reasonably affordable for as many residents as possible. They should focus on preserving naturally occurring affordable housing, making it available to people who need it most, and promoting mixed-income communities in financially sustainable ways.

Cities typically have access to several funding streams for housing outside of the LIHTC program and federal Section 8 housing choice vouchers. These include general fund appropriations, dedicated bond proceeds, and foregone tax revenues in exchange for income-restricted units in structures like tax increment financing (TIF) districts. Philanthropic funders supplement these streams in many cities.

Austin raised $350 million for housing in a dedicated bond offering in 2022, while Charlotte issued $100 million in dedicated bonds in 2024.[399] TIFs and similar structures have generated several thousand new units in Dallas and Houston, though they have come under criticism for locking significant shares of each city's tax revenues into specific, sometime affluent geographic zones.[400]

* See LIHTC production per capita for Sun Belt–Mountain localities in Table L, Appendix 3 and underlying data in the online Data Appendix.
** See regression results in the online Data Appendix.

America's cities need to develop new avenues to make more of their existing rental housing stock affordable to their lowest-income residents at scale, bypassing the inflexibilities of the LIHTC program.

Cities should experiment with different approaches and see what works in real-world markets. Some ideas:

- Create lending programs that offer for-profit or nonprofit landlords submarket interest rates, long maturities, and other favorable terms in exchange for making units affordable to low-income people. A landlord could secure attractive financing to buy an existing market-rate building in return for charging below-market rents for some, most, or all the units in a building.

- Consider sweetening the terms for landlords who create mixed-income tenant bases. Allow individual units to move back and forth between market-rate and submarket rents as market conditions evolve.

- Offer grants to landlords to support buying and rehabbing old apartment buildings.

- Make funding streams available automatically to qualified for-profit or nonprofit landlords, so that they don't have to get specific city council approvals for individual projects.

- Turn government-owned land into new funding streams by entering into ground leases with residential and commercial developers.

- Get creative in mixing public-sector and philanthropic funding streams. One possibility: Offer attractively priced second-mortgage loans to landlords leveraging senior loans from philanthropic players to attract philanthropic capital into the affordable rental space.

- Build partnerships among local governments, landlords, and large employers like hospitals and school districts to buy and rehab older buildings close to workplaces and make units available to moderate-income essential employees at preferential rents.

Promoting homeownership through community land trusts or shared equity structures

Cities should promote homeownership among lower-income residents. The single best way they can do so is to allow developers to build more market-rate housing of all kinds, so that prices for starter homes will be lower relative to people's incomes.

Some additional measures cities can pursue to help lower-income families become homeowners:

- Offer loans with sweetened terms to landlords in exchange for offering rent-to-own opportunities to lower-income tenants.

- Offer loans or grants to support conversion of rental apartment buildings into condos with preferential entry prices for existing tenants.

- Support the growth of community land trusts, provided there are nonprofits prepared to manage them in view of the organizational complexity they present. Encourage land trusts focused on

financing homeownership citywide, allowing people to live anywhere, rather than serving only contiguous areas.[401] Encourage land trusts to emphasize helping beneficiaries access existing homes rather than building news ones to create as many homeowners as possible.

- Build partnerships with financial institutions to offer shared-equity mortgages to qualified lower-income residents. One possibility: Local governments could reduce risk for lenders and attract them into the space by guaranteeing them a minimum return should home values decline.

- Avoid direct grants to residents to cover down payments. This kind of demand subsidy drives up home prices and reduces the probability that recipients will become stable homeowners by eliminating their "skin in the game."[402]

A role for social housing?

If cities and states pursue policies to build or operate government-owned rental housing – often called social housing rather than public housing today – they should avoid repeating failed policies of the past.

Specifically, they should aim for dispersed, human-scale buildings with tenants of varying income levels, preferably close to job centers or public transit stops, rather than concentrating low-income tenants in large, isolated facilities like the public housing projects of the 1950s and 1960s. And they should combine public-sector and private sector assets in ways that employ the best of both – meaning public-sector funding but private sector management expertise.

History hasn't been kind to giant public housing projects like Chicago's Cabrini-Green and St. Louis's Pruitt-Igoe.[403] Contrary to initial promises, they became known for squalor and violent crime – leading cities to demolish most of them by the 1990s. Their failures had many causes: They consisted of massive brutalist-style structures removed from ordinary urban life; they concentrated poverty in dense locations; and they had public-sector landlords with no incentive to keep them in good shape, including in some cases officials with racist motives who shamefully neglected them. Even today, the New York City Housing Authority – the nation's largest public-sector landlord – has earned a reputation for corruption and mismanagement.[404]

Yet social housing, like rent control, is making a comeback. Seattle in particular has responded to its affordability crisis with plans for a public-sector entity that will build and operate rental buildings.[405,*]

Supporters often cite European countries where large proportions of the population live in government-owned or financed apartment buildings. American cities should draw accurate rather than rose-tinted lessons from these examples. Consider three prominent models:

- Vienna, Austria, where 60% of residents live in government-owned or -funded rent-controlled apartments, is the most cited example. Vienna's system delivers moderate affordability, though rents for government-owned units are about the same as in for-profit buildings in Berlin, according

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* For forceful cases in favor of social housing, see Peter Moskowitz, *How to Kill a City: Gentrification, Inequality, and the Fight for the Neighborhood* (Nation Books, 2018); Daniel Aldana Cohen and Mark Paul, "The Case for Social Housing," The Appeal, November 2, 2020, https://theappeal.org/the-lab/report/the-case-for-social-housing; and Fran Quigley, "The Case for Social Housing: Ending the Affordability Crisis," *Commonweal*, March 15, 2023, https://www.commonwealmagazine.org/case-social-housing.

to a 2023 American Enterprise Institute study.[406] Vienna's system avoids fostering concentrations of poverty, since so many people live side by side in its buildings. But the system has drawbacks. Neither the public sector nor for-profit developers have built many new buildings since the 1950s – which might be acceptable in a European city with so much spectacular neo-Baroque and Art Nouveau architecture but would pose an enormous problem in most U.S. cities. Vienna's social housing authority does an infamously mediocre job of maintaining its housing stock. A third of units lack central heat. Moderate rents mean there are long waitlists to get a unit, which promotes corruption and cronyism. And revenues cover only 63% of operating costs on average, so the full cost of the policy to the government is very large.

- In the Netherlands, social housing of a different kind makes up 35% of the housing stock. In the Dutch model, large, sophisticated nonprofits called housing associations finance new and existing rent-controlled buildings with loans that come from private-sector lenders, but with central government credit backstops. Unlike Viennese government-owned housing, the housing associations impose strict income limits, which means that tenants near the cutoff levels often pay far lower rents than nonqualifying families with slightly higher incomes, generating many complaints about the system.[407]

- In Denmark, the national government offers private-sector or nonprofit developers loans that incur zero interest for 40 years and cover roughly one-fourth of development costs.[408]

Any new social housing initiative in the United States should borrow the best of these and other models, avoid the worst, and incorporate distinctive American strengths:

- Empower large, sophisticated private landlords rather than government housing agencies to operate social housing, as in the Netherlands. These could include new nonprofits like the Dutch Housing Associations or for-profit landlords paid management fees by nonprofit owners.

- Restrict government's role to guaranteeing private-sector loans rather than owning properties outright, as in the Netherlands, or making zero-interest loans, as in Denmark. Bring the expertise and capital of American private-sector finance into the space.

- If government agencies choose to own properties, hire private-sector or nonprofit management entities to run them. Give managers an option to buy properties out at some time in the future, so that they have strong incentives to maintain them.

- Emphasize buying and rehabbing older properties rather than building new ones.

- Aim to create geographically dispersed mixed-income settings, as in Vienna.

Creating holistic affordable communities

Cities should partner with proven nonprofits to create compact mixed-income neighborhoods with holistic wraparound services that promote opportunity for low-income families.

The East Lake neighborhood in Atlanta is one of America's greatest neighborhood turnaround stories.[409] In the 1980s, the area had a poverty rate above 90%, a high school graduation rate below 30%, and a

reputation for disorder and violent crime. Starting in the 1990s, the nonprofit Purpose Built Communities led a sweeping revitalization effort. Key initiatives have included the following:

- Demolishing a dilapidated and dangerous public housing project that had been built in 1936.
- Building a community of 1,500 homes, half of them income restricted and half of them market rate, in a compact 175-acre area. Income-restricted townhomes look indistinguishable from market-rate ones, which removes the "stigma" of living in an income-restricted unit.
- Empowering residents to deliberate as a community and make key planning decisions.
- Opening the Charles R. Drew charter school, which gives preference to neighborhood kids and has become one of the highest-performing schools in Atlanta.
- Launching an effective job training and placement initiative for residents.
- Providing wraparound educational support services and a distinctive "community quarterback" model of supporting upward mobility for residents.
- Creating a neighborhood nonprofit to help seniors cover home renovations and repairs.

The results: Graduation rates rose well above city averages, crime rates fell 90%, and East Lake became an in-demand neighborhood for affluent as well as lower-income Atlantans.[410] All cities should launch efforts like the revitalization of East Lake in as many low-income neighborhoods as possible.

On subsidizing demand

Although this report is about how to improve housing supply and affordability, policies to subsidize demand are relevant insofar as they affect rents and home prices.

Demand subsidies present a dilemma. On the one hand, they allow beneficiaries to move around for work opportunities, unlike policies that subsidize new units in specific, inflexible locations. In this sense, demand subsidies are preferable to supply subsidies. But on the other hand, subsidizing demand in a supply-constrained market increases prices, sometimes by the full amount of the subsidy.

Demand subsidy policies should aim to help people who need them most, but with as little effect on prices as possible. Here are four demand subsidy policies that would likely meet these goals:

- **A better designed housing choice voucher program:** The Section 8 housing choice voucher program helps more than 2 million households pay their rent. Unlike the LIHTC program, the housing choice voucher program mostly helps extremely low-income families, in many cases with income of less than 30% of their area's median income. But the program is poorly designed in important respects.

Some useful changes: First, remove disincentives for beneficiaries to work by less steeply scaling down the value of vouchers when people increase their labor earnings.* Second, restrict the use of vouchers to apartments with rents below a relatively low ceiling so that they don't affect rents in apartments modestly above this level – that is, low-end market-rate apartments where most low-income people live. Third, make vouchers more financially attractive and easier to navigate for landlords. Bureaucratic complexity, including onerous inspection requirements, is one of the factors causing many landlords to decline housing choice vouchers.[411] Sweetening the deal is better policy than forcing landlords to accept them, since the latter likely causes the supply of affordable rental apartments to contract. That said, many localities – including Atlanta and Orange County, Florida – have banned source-of-income discrimination, which may help low-income renters enough to outweigh any negative effects from reduced supply.[412]

- **Subsidize crosstown moves:** Helping people cover moving expenses increases their ability to relocate for work opportunities. But since it helps people vacate one home and move to another, it doesn't increase overall housing demand citywide.

- **Better residential mortgage contracts:** The basic design of the 30-year fixed-rate mortgage hasn't changed in many decades. Mortgage contracts should be structured to let borrowers take their mortgage and its associated interest rate with them when they move so they can move for opportunity without feeling locked down by an attractive rate. They should also provide for automatic refinancing when interest rates go lower so borrowers don't have to waste time on bureaucratic complexity to refinance.** These reforms would help moderate-income homeowners without driving up housing prices. On the contrary, mortgage originators would likely charge slightly higher rates to offset revenues they would lose from these changes, which would result in lower home prices.

- **Property tax breaks for low-income households:** Consider policies to ensure that property taxes don't rise more than disadvantaged homeowners' incomes or freeze their property tax levels altogether for some extended period of time to mitigate negative effects of sudden displacement. Since residents who would benefit are already in their homes, helping them stay there doesn't cause them to bid up the price of any other home.[413]

* For evidence that Section 8 vouchers reduce workforce participation by beneficiaries, see Brian Jacob and Jens Ludwig, "The Effects of Housing Assistance on Labor Supply: Evidence from a Voucher Lottery," *American Economic Review* 102, no. 1 (February 2012): 272–304, https://doi.org/10.1257/aer.102.1.272; Tanner, *Inclusive Economy*, 214–5.

** Economist John Cochrane of the Hoover Institution and Stanford University lays out what a better mortgage contract would look like (John Cochrane (@grumpyeconomist), "Missing mortgage contract innovation," Grumpy Economist blog, May 13, 2023, https://johnhcochrane.blogspot.com/2023/05/missing-mortgage-contract-innovation.html).

V. A FEDERAL, STATE, LOCAL, AND PHILANTHROPIC AGENDA FOR CHANGE

Federal, state, and local policymakers as well as philanthropic funders all have vital roles to play in addressing America's housing crisis.

Today's challenges have been growing for more than four decades and reflect many mistakes at every level. Fully reversing them will require significant policy changes, sustained over at least 20 or 25 years. There is no short-term fix remotely commensurate to the size of the problem.

But America can solve it. Population and housing demand will grow more slowly in coming decades than ever before in the nation's history, so U.S. cities don't have to return to mid-20th century construction rates to fill their supply shortfall and keep up with growth.

Fast-growing Sun Belt–Mountain metros have shown how to achieve rapid supply growth. If they keep adding homes at their current pace, if restrictive Northeast and Pacific Coast metros grow a bit faster, and if other metros in the Midwest and elsewhere build homes twice as fast as they have over the last decade, today's housing crisis will likely recede into the nation's rearview mirror, as we showed in Section IV.

Federal policies

Principles

Federal housing policies should start from three principles:

First, America should treat its housing crisis as a crisis, as the recently formed National Housing Crisis Task Force puts it.* Local policies largely created the problem, and localities must play leading roles in solving it. But it's a national crisis. Fewer than a third of all metros have been adding homes over the last six years at a pace that's on track to keep up with projected population growth. And cities that build too little housing export their housing problems to other cities in the form of large out-migration to more affordable cities. The federal government, moreover, has one vital asset that state and local governments don't: massive fiscal capacity.

Second, the goal for federal housing policy should be abundant and relatively affordable housing supply. This necessarily means home prices lower than today's levels, relative to incomes, in most metro areas. People often say they want policies that will be "good for home values." But there's a key distinction. The federal government undoubtedly should pursue policies to create more high-opportunity neighborhoods with great quality of life, which would have the effect of increasing demand to live in them and thus raise home values in the absence of additional supply. It should not defend the financial interests of incumbent homeowners by supporting local policies that make homes a scarce commodity.

A successful national push to increase housing supply and affordability would make homeownership marginally less attractive in many cities for a time, until prices revert to levels consistent with well-

* Full disclosure: The author is a member of the nonpartisan National Housing Crisis Task Force, formed in 2024 and co-chaired by a Republican governor and two Democratic mayors.

functioning housing markets. There is simply no way to lower home prices for first-time buyers and simultaneously raise selling prices for longtime owners looking to downsize. But lower prices would increase the number of homeowners in the long run, as we documented in Section II.

Authors Charles Marohn and Daniel Herriges rightly note in Escaping the Housing Trap that America has gotten itself into a "trap" because it can't push home prices down without harmful economic effects. For instance, lower prices would reduce the revenues of middleman industries that earn a percentage of home purchase prices, like realtors, mortgage originators, and title insurers. Marohn and Herriges, citing the example of the 2008 financial crisis, also argue that lower prices could destabilize banks and other financial institutions with exposure to assets dependent on high home values.[414] But that crisis resulted from a rapidly collapsing speculative bubble. If home prices simply recede relative to people's nominal incomes over several decades – as they should do in a well-functioning market – the financial system will realize any adverse effects only gradually and will be fine.

Third, the federal government should avoid subsidizing people to live in some parts of the country over others. Geographic neutrality means allowing market forces to determine which localities will experience population growth in coming decades and which ones will decline. Allowing market forces to play out will maximize people's well-being in the long run. It implies the following:

- **Don't subsidize long-distance moves to the nation's largest, wealthiest cities.** Although people living in places like New York City and the San Francisco Bay area earn more on average, it doesn't follow that overall well-being would be higher if millions more people moved to these very productive cities. Highly skilled people living there today enjoy about the same standard of living as people in less productive cities, after adjusting for local living costs, as we showed in Section II. Lower-skilled people in these cities are worse off on average after paying high housing costs, despite modestly higher nominal wages.

  At the macroeconomic level, moves to these cities don't increase overall opportunity nationwide, because falling "agglomeration" benefits in shrinking places fully offset rising benefits in the wealthiest metros, according to a 2014 study by economists Patrick Kline and Enrico Moretti of the University of California at Berkeley.[415]

- **Don't subsidize long-distance moves to struggling areas:** The federal government likewise shouldn't try to turn around distressed cities and rural areas by subsidizing highly skilled people or firms to move there. "Place-based policies" that subsidize particular locations typically have modest, nonlasting benefits for those places and impose offsetting losses on other areas, some of which are struggling just as much. Kline and Moretti showed this in a study of long-term effects of the Franklin D. Roosevelt Administration's Tennessee Valley Authority initiative.[416]

  People are generally better off if places with low productivity or very restrictive land-use policies shrink in size. Rather than trying to short circuit this process, the federal government should help people get the best possible education so they can pursue their goals successfully, wherever these goals take them.*

* Harvard's Edward Glaeser makes this argument forcefully in his book *Triumph of the City*, 65, 255–7.

- **Don't subsidize living in expensive, amenity-rich cities just because home prices are higher there:** Federal as well as state policymakers should avoid asking taxpayers in lower-amenity places to subsidize the outsized rent of others who wish to live in cities with great beaches or mountain views. Federal programs should generally give equal subsidies to people earning the same income regardless of their location, which in practice means subsidizing a smaller percentage of housing costs in amenity-rich cities with restrictive policies. Subsidy programs should perhaps carve out an exception for the lowest-income, least mobile people who have lived in an expensive city for a long time and thus have strong connections there.[417]

- **Don't subsidize choosing locations with high flood risk:** Federal policies that subsidize people wishing to live near the Florida coast or in neighborhoods below sea level in New Orleans make no sense, particularly as climate change increases the risk to properties in these places.

- **Don't subsidize choosing some locations within a metro area over others:** A frequent argument is that the public sector subsidizes people living in exurban areas over core cities by building roads and highways.[418] But this argument starts from the premise that the natural state of things absent subsidies is for growing populations to live in ever-denser conditions in core cities. Another way to think about it: People should choose where they want to live and then government should build the best transportation network it can for everyone's benefit. In any case, the federal government invests far more in public transit serving core urban areas on a per-user basis than it does in highways.* Local transit agencies also subsidize urban riders by subsidizing significant operating losses.[419] Federal policy should aim to support people of similar income levels at similar levels, regardless of where they choose to live.

Supply-side subsidies

The federal government should engage in a sweeping rethink of its policies toward supply-side housing subsidies. We suggest the following:

- **Promote smart, sustainable, medium-density expansion of growing metro areas as well as higher-density urban infill development as top-tier national priorities:** Physical expansion of booming metros is inevitable. How America's growing metros expand will do more than anything else to determine whether the nation's housing crisis gets a lot better or a lot worse. It's time to move on from the unstated premise of many commentators that the United States can realistically add all the homes it needs by increasing the density of built-up areas – which would require a 50% increase in population per square mile throughout metropolitan America if metros stop growing outward. This idea is a dangerous fantasy because it distracts energy and resources from initiatives that could make a difference at large scale.

* In 2023, 44% of federal transportation spending went to highways, supporting the 92% of American households who own a car, the additional Americans who rent one periodically, the handful who take long bus rides from suburbs, and the 80%-plus who get to work primarily by driving a car. Some 22% of spending went to public transit and rail, supporting the roughly 2% of Americans who get to work primarily by subway/light rail, the less than 1% who take commuter rail from suburbs, and the additional Americans who ride public transit when visiting New York or other transit-heavy cities (USA Facts, "Government spending," https://usafacts.org/government-spending/; author's calculations based on American Community Survey data, 2022, five-year estimates).

At the same time, effective implementation of the pro-growth policies we outline in our Principle Two could realistically add some 5% – or conceivably 10% – to populations in built-up areas, amounting to 3 million to 6 million homes. If cities mostly put these additional homes in good locations in or near commercial areas and other job centers, they can boost the economic opportunities available to residents dramatically.

- **Launch a "Smart Growth" initiative to ensure that growing metro areas build out as much of their expanding physical footprint at medium rather than low densities and achieve as much quality placemaking as possible:** A Smart Growth initiative should promote development patterns with a full range of housing types, substantial mixing of land uses, walkable town centers, and ample green space. Building at the density of Fort Worth or McKinney, Texas, would add at least 15 million more homes than building at the density of the most sprawling suburbs in the Boston or Phoenix areas, as we show in Section IV. America needs a lot more places like the most successful suburban cities in our 25 large Sun Belt and Mountain metros.*

  Five significant incentive problems stand in the way of this vision:

  - Existing residents in expanding areas may want their towns to remain low-density bedroom communities even though they also want nearby jobs and amenities. They have incentives to take a free ride on the job centers, walkable neighborhoods, and amenities of nearby cities. But if all towns in the area think this way, the result will be low housing density and long commutes for everyone.

  - Expanding cities have incentives to push the future homes of low- to moderate-income people into other cities nearby, even if they want some of these people working in their city by day. Again, the result of uncoordinated growth is likely to be a monoculture of single-family houses on large lots everywhere.

  - Elected leaders have incentives to build out low-density infrastructure that is cheap today but financially unsustainable in the long run given the tax revenues the area will generate, since they won't be in office when the bills come due.**

  - Developers have incentives to underprovide green space and take a free ride on the parks and trails built by other developers nearby. If local authorities don't manage growth with a clear vision of what they're trying to achieve, cities will expand with less green space than residents would have preferred and become dull places that people will want to leave as soon as they can.

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* Fully 50 of the 105 suburban municipalities with populations over 50,000 in our Sun Belt–Mountain metros have a higher population density than Fort Worth (2,597 people per square mile in 2022). Twenty-two have a higher density than Atlanta, one of the densest core cities in our 25 metros at 3,639 people per square mile. See population densities for all municipalities in our dataset in Table M, Appendix 3, and underlying data in the online Data Appendix.

** This is one of the main arguments Charles L. Marohn, Jr., makes in his book *Strong Towns: A Bottom-Up Revolution to Rebuild American Prosperity* (Wiley, 2019).

- Residents have incentives to stop growth altogether if they believe further growth will add to local government expenses without bringing them better schools or quality-of-life amenities.

The federal government is the only player positioned to solve these collective action problems. A Smart Growth program should present localities with a bargain: infrastructure funding for expanding areas in exchange for smart growth plans in every locality in the area, with no holdouts or free riders. Congress should move a large part of federal infrastructure spending into competitive grant programs that link infrastructure grants to comprehensive, area-wide smart growth plans.

- **Launch a similar Smart Infill initiative to help cities build out the infrastructure they need to support medium- to high-density development in commercial areas and on raw or repurposed land:** A Smart Infill program could include subsidies to support office-to-multifamily conversions where they're technically feasible, pocket parks in transitioning downtowns, affordable units near growing innovation districts, basic infrastructure for raw land development, tiny home and manufactured home communities, new bus routes, and other investments that add incremental homes in high-opportunity locations.

  A Smart Infill initiative, like a Smart Growth initiative focused on expanding suburban areas, should make grants on a competitive basis to incent relatively intensive, high-quality development plans.

- **Create a significant federal funding stream to subsidize preservation and rehab of rental properties by public, nonprofit, and for-profit landlords:** The goal should be to establish a supply-side subsidy that addresses the largest gap in the nation's affordable housing ecosystem – rental units affordable to very low-income families. These families suffer most from America's dysfunctional housing market, and it will take decades of good policy to solve the market's accumulated problems. America needs a bold initiative to help its most vulnerable families as fast as possible. We suggest the following principles:

  - Focus on preservation and rehab of existing rental properties, with some flexibility to support new construction or office conversions in opportunity-enhancing locations.

  - Promote geographic flexibility. Support affordability anywhere. Avoid tying subsidies permanently to any one building or location.

  - Promote mixed-income communities. Create funding opportunities that allow landlords to make some but not all the units in their buildings available at rents affordable to very low-income residents and receive commensurate subsidies.

  - Emphasize loan guarantees or direct loans, with some flexibility to make grants in certain circumstances. Loans with sufficiently low loss rates would create a self-sustaining capital source to support deeply affordable rental housing in perpetuity.

- Allow all kinds of landlords to borrow under the terms of the program, including for-profit firms, local governments, traditional nonprofits, and new nonprofit landlords, perhaps modeled on Dutch Housing Associations.

- Leverage loans with enticements for private and nonprofit capital. One possibility: second-mortgage loans to landlords to match senior loans by philanthropic funders.

- Support local government initiatives to acquire land ahead of value-enhancing infrastructure investments.

- Incorporate loan terms that incent landlords to offer rent-to-own opportunities or to convert rental properties to condos.

We envision a new program run by existing government-sponsored entities (GSEs) like Fannie Mae and Freddie Mac empowered to make, buy, or guarantee loans and to issue bonds backed by the full faith and credit of the U.S. Treasury. Loan purchases or guarantees under this program could give rise to a new industry of private sector loan originators like today's mortgage firms and new business lines within commercial banks, all focused on financing preservation, rehab, and sometimes construction of deeply affordable rental properties and apartments.

Loans purchased or guaranteed under the program should feature very low interest rates, long maturities, and special terms like allowing landlords to defer interest payments during difficult times when tenants fall behind in greater numbers than usual. Loans should allow landlords to move units flexibly back and forth between market-rate and below-market rents, as well as across different levels of affordability, with commensurate adjustments in payment terms for landlords. Crucially, landlords should be able to access loans with no involvement by local governments.

Suppose Congress were to authorize the GSEs to add assets of up to $1.2 trillion (compared with a combined $7 trillion in total assets at Fannie Mae and Freddie Mac today). Suppose further that tenants could afford to pay $750 a month on average in today's dollars. Assume that acquiring and rehabbing one unit costs $175,000, nonprofit landlords put up 33% equity when acquiring and rehabbing properties, and landlords borrow at a 5% interest rate on average. Based on these assumptions, the GSEs could buy or guarantee loans sufficient to finance 10 million deeply affordable rental units.* One could imagine a Department of Housing and Urban Development program supplementing loan purchases or guarantees with grants to support landlords making units available to extremely low-income families.

We assume the GSEs could borrow roughly at long-term Treasury borrowing rates, buy or guarantee loans paying a 1% markup over these rates, and cover operating costs with net interest.

* Our simple math: Suppose the average tenant can afford to pay $750 per month, and 65% of rent revenues are available for interest payments. About $9,000 in rents per year is a reasonable assumption of very low-income families' ability to pay in our view since the average cash income of families in the bottom income quintile is about $20,000, and the average annual consumption spending of bottom-quintile families (with benefit from government transfer payments and in-kind goods and services) is about $33,000. Suppose further that loans cost 5% and are interest-only as long as they're outstanding. Landlords could then borrow $117,000 for each unit, amounting to two thirds of our assumed cost of preserving and rehabbing units. An additional $1.2 trillion on the GSEs' balance sheet could finance 10 million units under these assumptions.

As an alternative, Congress could expand and liberalize the Federal Housing Administration's existing 223(f) lending program.[420] This FHA program makes loans to multifamily property buyers at relatively competitive interest rates in amounts of some 80% to 87% of property value. Disadvantages include very long approval times and strict limits on how much of a property is allocated to retail and restaurant tenants, which makes it hard to use these loans to redevelop properties for mixed uses. Congress could direct FHA to loosen these terms, lower interest rates for qualified properties fully or partly devoted to income-restricted housing, and make loan approvals faster and more predictable.

- **Reform the LIHTC program to make it more flexible, but don't expand it:** Make it easier to combine LIHTC with other funding sources and build buildings with market-rate as well as subsidized units. Set aside a significant share of tax credits for preserving and rehabbing units and require states to develop separate point systems for these projects in their QAPs. Loosen the "50% test" requiring developers receiving 4% credits to fund at least 50% of their developments with private activity bonds, as this rule unnecessarily limits the number of units developed with otherwise unlimited 4% credits. Increase or eliminate existing state-by-state caps on annual issuance of private activity bonds. Streamline onerous income verification requirements for both applicants and landlords.

  Congress should devote any increase in housing expenditures to well-structured demand subsidies or geographically flexible supply-side subsidies – as envisioned in the previous bullet point – in view of the LIHTC program's inherent limitations and poor return on investment in terms of families helped per dollar of spending. We recommend maintaining the program at its current size because it is familiar and has a substantial built-up ecosystem of specialized developers and credit syndicators, which Congress would be unwise to disrupt for the time being.

- **Loosen rules on other federal lending programs to support housing development:** The Bipartisan Infrastructure Law of 2022 expanded eligibility for U.S. Department of Transportation loans under the Transportation Infrastructure Finance and Information Act (TIFIA) and Railroad Rehabilitation & Improvement Financing (RRIF) programs to support transit-oriented residential and mixed use development. However, restrictive rules governing these programs have made it difficult for private sector developers to access these them for housing development near public transit stops.[421]

- **Make well-located federal land available for housing and mixed-use development:** The Lincoln Land Institute estimates that the federal government owns land near public transit stops that could support between 35,000 and 135,000 new apartments.[422] The federal government's General Services Administration (GSA) owns more than 500 million square feet of office space, a significant source of property for office-to-residential conversions because GSA plans to reduce its real estate footprint in U.S. cities.[423] The federal government also has significant holdings of undeveloped land on the outskirts of many metropolitan areas – particularly western metros like Las Vegas, Phoenix, and Salt Lake City.

- **Renew and expand the Opportunity Zone (OZ) program:** The OZ program, introduced in the Tax Cuts and Jobs Act of 2017, created a new limited-time, uncapped federal tax benefit for taxpayers who invest capital gains from past investments into real estate or businesses located

within low-income Census tracts designated by state governors as opportunity zones. From the program's launch to 2024, the nation's 8,764 designated zones saw an increase in residential addresses amounting to 313,000 homes, according to a 2025 analysis by the Economic Innovation Group (EIG). While it is too early to say how many of these homes would have come into being absent the program, EIG's analysis suggests that the OZ program accounts for at least a quarter of them, at a cost to the federal government in foregone tax revenues much lower than the LIHTC program and other subsidies.*

Congress should renew the program – which will expire in 2026 in the absence of new legislation – and expand it geographically, since at present it covers only a quarter of eligible low-income Census tracts, home to just 10% of the U.S. population. Congress should also remove the program's complex rules governing the sources of funds for qualified investments, tighten the range of qualified investments in ways that include affordable and mixed-income housing but exclude some kinds of investment like luxury hotels and apartment buildings, create more transparency around specific investments that have qualified for tax exemptions, and require the IRS to collect and publish data on results.

- **Subsidize supply-side innovation:** New technologies that take 20% or more out of the cost of building new homes would add tremendously to human well-being in the United States. While the private sector can and should fund most research and development work in this area, the federal government should invest in basic science supporting innovative housing technologies. One idea: Congress might create an innovation-focused office within the National Science Foundation or the Department of Housing and Urban Development to fund research on cheap, lightweight, super-strong building materials.

Demand-side subsidies

Congress should reform and expand demand-side subsidies, but it should also design demand subsidies so that they have as little upward effect on rents and home prices as possible.

- **Reform and expand the Section 8 housing choice voucher program:** Straightforward reforms would make the housing choice voucher program more effective, as we discussed in Section IV. Reduce disincentives to work; restrict use of vouchers to units below a relatively low ceiling so that they don't drive up rents for apartments modestly above this level; loosen inspection requirements; and make vouchers more financially attractive and easier to navigate for landlords. Congress should fully phase out the "project-based" rental assistance part of the Section 8 program and shift funds entirely to tenant-based assistance, since the former needlessly ties subsidies to specific inflexible locations. Congress should also expand the program's budget of

* Our calculation (not EIG's): The growth rate in residential addresses within OZs rose by about 0.5% per year during 2018-2024, compared with the annual growth rate of the prior five years – 1.2% per year vs. 0.7% per year, according to the EIG analysis. In eligible Census tracts that were *not* designated as OZs, the growth rate rose less, from 1.0% to 1.2% per year. Since growth in OZs exceeded growth in this control group by 0.3% per year, amounting to 25% of the total growth rate of 1.2% per year, one might make the simple inference that the OZ benefit accounts for at least one quarter of the housing stock growth experienced in designated zones. As for the cost per unit in foregone revenues for the federal government, taxpayers made $89 billion of qualified investments in designated zones over the period, generating $8.2 billion in tax benefits. An unknown but significant share of these investments went to non-housing initiatives. Under various assumptions about how much went to housing and how many units came into being that otherwise wouldn't have, we arrive at as estimate of $25,000 to $50,000 in subsidy per unit – considerably less than the per-unit cost of LIHTC subsidies.

$45 billion. Housing choice vouchers are the most effective federal subsidy program for very low-income families, and most U.S. cities have long waitlists filled with qualified families.*

- **Direct FHA to pilot a program supporting rent-to-own pathways:** This might include loans on preferential terms to landlords that offer appropriately structured purchase opportunities for current tenants.

- **Subsidize crosstown moves for low-income families:** Moving subsidies help low-income families relocate within their cities for job opportunities but don't drive up home prices overall. Congress eliminated income tax deductions for movers as part of the Tax Cut and Jobs Act (TCJA) of 2017 – a good policy change as the tax deduction had primarily subsidized affluent people who itemize tax deductions. Congress should create a means-tested, refundable tax credit to support opportunity-enhancing moves without distorting housing markets.

- **Create a universal savings plan to help low-income families afford down payments:** Congress should generally promote household savings by replacing the current mix of complex savings plans – 401(k) plans, individual retirement accounts, Roth IRAs, 529 plans, and more – with a single unified, flexible, tax-advantaged savings plan. A universal savings plan should have high annual contribution limits, tax-free accumulation over time, simple penalty-free withdrawal rights, opportunities for employers to contribute, and federal matching contributions for low-income families. It should allow households to use funds for first-time down payments as well as for education, starting a business, or retirement spending.**

- **Eliminate and avoid counterproductive subsidies that drive home prices up:** Congress should get Fannie Mae and Freddie Mac fully out of the business of subsidizing second homes and investment properties charging market-rate rents. Subsidizing mortgages for such house purchases drives up home prices and advances no good policy purpose.[424]

Taxes

Our recommendations for reforming the LIHTC program, renewing the Opportunity Zone program, subsidizing home moves, and creating a universal savings plan would all require changes to the federal tax code.

Congress should also eliminate the mortgage interest deduction (MID). The MID, which lets tax filers deduct all interest on mortgages up to $750,000, drives up home prices while primarily benefiting relatively affluent households which itemize tax deductions. Because of the MID, a family with income just over $100,000 can pay a purchase price about 17% higher than they otherwise could afford.*** Since home prices are higher as a result, the MID undermines its stated purpose of promoting homeownership.

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* HUD has gradually been moving away from project-based assistance. It should complete this process. See "The Federal Government's Support for Low-Income Housing Expanded During the Pandemic," Peter G. Peterson Foundation, updated April 23, 2024, https://www.pgpf.org/blog/2024/04/how-does-the-federal-government-support-housing-for-low-income-households; Sonya Acosta and Erik Gartland, "Families Wait Years for Housing Vouchers Due to Inadequate Funding," Center for Budget and Policy Priorities, July 22, 2021, https://www.cbpp.org/research/housing/families-wait-years-for-housing-vouchers-due-to-inadequate-funding.

** For a good discussion of how such accounts could work, see Tanner, *The Inclusive Economy*, 225–8.

*** Author's estimate. Simple math: Suppose the cost of homeownership without the MID is 10% of a home's purchase price, including 6% for interest payments in the early years of a mortgage, 2% for principal paydown, and 2% from amortizing a 20% down

The main effect of the MID is to redistribute wealth. Beneficiaries include households with incomes over $100,000 and a mortgage – which receive some 75% to 90% of the MID's tax benefits – as well as industries that profit from high home prices, like realtors, mortgage originators, and title insurers. Moderate-income people hoping to become first-time homeowners or trade up to a larger home lose out. The MID also distorts markets by inducing people to demand larger homes than they otherwise would.[425]

Eliminating the MID would lower home prices by some 4% and increase homeownership rates by 5%, economist Kamila Sommer and Paul Sullivan estimated in a 2018 study.[426] Home prices declined relative to incomes after Denmark eliminated its own version of the MID in the 1980s.[427]

Ending the MID would also generate substantial incremental tax revenues that Congress could reallocate to more useful housing policies. The MID currently reduces federal revenue by approximately $30 billion per year. If Congress allows the 2017 tax law's lower tax rates and higher standard deduction to expire as scheduled in 2025 but eliminates the MID, it will raise at least $60 billion more per year than it would if the MID continues with the 2017 law's maximum deductible mortgage of $750,000.[428]

Federal housing finance

Congress should direct the mortgage giants Fannie Mae and Freddie Mac to make significant policy changes to reduce market distortions and encourage lower-cost home development.

- Reduce Fannie and Freddie's overall footprint in the housing market. Stop supporting mortgage refinancings as well as second homes and investment properties leased to market-rate tenants.*

- Support better-designed residential mortgage products. Standard mortgages should let borrowers take their mortgage and its associated interest rate with them when they move and should provide for automatic refinancing when interest rates go lower.** They should allow homebuyers to roll student debt into their mortgage, provided they can afford total resulting payments.[429]

- Support development of specialized mortgage products for manufactured homes to promote wider use and ownership of affordable, high-quality alternatives to site-built homes.

- Authorize Fannie and Freddie to make mezzanine construction loans to support development of new market-rate as well as income-restricted housing.***

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payment over 10 years. A family earning just over $100,000 has a marginal income tax rate of 24%, so the MID reduces the interest portion of their homeownership costs by 24%, and the full cost to 8.56%. If the family is willing to pay as much in after-tax dollars as they would pay without the MID, they can afford a 17% (10%/8.56%) higher purchase price.

* For a thorough set of recommendations on how to reform and reduce the footprint of Fannie Mae and Freddie Mac, see Tobias J. Peter, "How the Federal Government's Policies Are Crowding Out Lower Income Americans Out of the Housing Market," Statement before the Senate Committee on Banking, Housing, and Urban Affairs, (American Enterprise Institute, February 10, 2022), https://www.banking.senate.gov/imo/media/doc/Peter%20Testimony%202-10-228.pdf.

** Economist John Cochrane of the Hoover Institution and Stanford University lays out what a better mortgage contract would look like in "Missing mortgage contract innovation," follow.it, Grumpy Economist blog, May 13, 2023.

*** These and other federal policy ideas in this section draw on the report, titled "Addressing America's Housing Crisis," of the National Housing Crisis Task Force, of which the author is a member. See also Paul Williams and Yakov Feygin, "Smoothing the Housing Investment Cycle: Part 1," Center for Public Enterprise, July 2024, https://publicenterprise.org/wp-content/uploads/Smoothing-the-Housing-Investment-Cycle-Part-1.pdf; Rachel Siegel, "Federal Agencies Can Improve Access to Credit for Manufactured Home Buyers," Pew Trusts, October 10, 2023, https://www.pewtrusts.org/en/research-and-analysis/articles/2023/10/10/federal-agencies-can-improve-access-to-credit-for-manufactured-home-buyers.

Data and technical assistance

The U.S. Census Bureau and the Department of Housing and Urban Development (HUD) should support federal, state, local, for-profit, and philanthropic housing initiatives with far better data and technical assistance.

- **Data:** Collect geographically granular data on housing inventory, new construction, rents, and home prices, disaggregated by building type, size, and income-restricted status and make it as accessible as American Community Survey data. Federal agencies are uniquely positioned to maintain much-needed nationally consistent data.*

- **Building codes:** HUD should write and encourage use of modern, standardized building codes to reduce construction costs imposed by idiosyncratic local codes. It should also create standardized code for manufactured, modular, and 3D-printed homes to encourage rollout of cost-saving technologies.

- **Model zoning ordinances:** HUD should also create model ordinance language for specific environments, including residential development in commercial areas, development on vacant or repurposed urban land, and medium-density development in expanding exurban areas.**

Fair Housing Act enforcement

Federal legal authorities should vigorously enforce the Fair Housing Act of 1968. Recent examples of well-justified enforcement: The Department of Justice has investigated mortgage originators and realty firms in Maryland, North Carolina, Ohio, Pennsylvania, Rhode Island, Tennessee, and elsewhere for illegally steering Black or Hispanic families away from affluent White-majority neighborhoods or "redlining" Black and Hispanic-majority neighborhoods, leading to consent orders in 2023 and 2024.[430]

But the federal government should abandon the premise, embodied in the Obama Administration's 2015 "Affirmatively Furthering Fair Housing" rule and updated in a 2023 Biden Administration rulemaking process, that single-family zones inherently reinforce housing segregation.[431] It's time to move past ideologically driven, unsupported arguments against allowing the kinds of neighborhoods where many Black and Hispanic people in fact wish to live.[432]

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* For a detailed analysis of the kinds of data federal agencies should collect, see Jenny Schuetz, "To Meet Today's Critical Housing Challenges, HUD Needs a Broader, Bolder Vision," Brookings Institution, January 22, 2024, https://www.brookings.edu/articles/to-meet-todays-critical-housing-challenges-hud-needs-a-broader-bolder-vision/.

** U.S. Senators Amy Klobuchar (D-Minn.), Tim Kaine (D-Va.), and Rob Portman (R-Ohio) introduced legislation in 2020 that would have directed HUD to develop new technical assistance programs to help local governments break down barriers to faster housing growth (Housing Supply and Affordability, S. 5061, 116th Cong. [2020]; "A Bold, Bipartisan Response to the Housing Affordability Crisis: The American Housing Act of 2023," BPC Action, Bipartisan Policy Center, October 4, 2022, https://bpcaction.org/a-bold-bipartisan-response-to-the-housing-affordability-crisis-the-american-housing-act-of-2023/). U.S. Senator John Fetterman (D-Pa.) introduced a 2024 bill that would create a task force to write model zoning language ("2024 Reducing Regulatory Barriers to Housing Act: Official Press Release," Up for Growth, June 4, 2024; Nolan Gray, "The Growing Federal Push for Zoning Reform," Bloomberg CityLab, June 27, 2024, https://www.bloomberg.com/news/articles/2024-06-25/-yimby-zoning-reform-is-finding-fans-at-the-federal-level?cmpid=BBD062724_CITYLAB).

Property insurance

Congress should explore strategies to mitigate the effects of fast-rising property insurance rates on multifamily development and investment. While a full analysis of recent developments in the property insurance market is beyond the scope of this report, we note here that surging insurance premiums are taking a toll on housing affordability and threaten to exacerbate the nation's housing crisis significantly. Possible federal policies include a role for federal capital in providing reinsurance or acting as an insurer of last resort, as the federal government does through the National Flood Insurance program.*

Other federal policy domains that impact housing

Congress should exempt qualifying infill housing and mixed-use development from the onerous requirements of the National Environmental Protection Act (NEPA). Required submissions can take years to complete, even for developments nearly certain to have no meaningful environmental impact.[433] Congress has considered permitting reform for energy projects.[434] It should incorporate housing exemptions into any reform bill.

Congress should provide financial support for state education and workforce development initiatives aimed at preparing people to work in skilled construction trades.** The number of workers in the construction trades is approximately 1 million fewer than before the 2008 financial crisis.[435] Millions of skilled construction workers will retire over the next decade, exacerbating labor challenges that constrain housing development. America's need for construction workers should also play a role in federal immigration policies.

Don't make it worse

The federal government shouldn't reinforce counterproductive local policies – or implement them nationwide, as the Biden Administration suggested doing with a 2024 proposal for a federal rent control system.[436]

The policy changes we recommend wouldn't necessarily add to total federal spending. Eliminating the mortgage interest deduction would raise more than enough revenue to offset the modest increases we suggest in supply and demand-side subsidy programs. Congress could of course amplify the effects of these measures by stepping up grants for building, buying, and rehabbing rental properties.

State policies

State housing and land-use policies should start from the same premises as federal policies: Treat the housing crisis like a crisis, aim to make homes abundant and more affordable than today relative to incomes, and avoid subsidizing some locations over others.

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* The National Housing Crisis Task Force calls for a blue-ribbon commission to address this very significant challenge and suggests some specific forms a larger federal role might take (National Housing Crisis Task Force, "From crisis to transformation: A federal housing policy agenda," November 2024, https://nationalhousingcrisis.org/app/uploads/2024/11/From-Crisis-to-Transformation-A-Report-from-the-National-Housing-Crisis-Task-Force.pdf).

** We address how states and localities are working to expand career pathways, including for skilled construction trades, in our interactive site "Explore State Education and Workforce Data," our note "Education And Workforce Pipeline New Data Released," and our report Engines Of Opportunity: How Eds And Meds Institutions Can Become More Powerful Drivers of Prosperity in America's Cities.

States should support housing supply growth and affordability in the following ways:

- **Invest in infrastructure to support both medium-density expansion of growing metros and intensive infill development in built-up urban areas:** Build out road networks and water infrastructure ahead of expansion. Make it easy to launch municipal utility districts. Improve transportation and broadband connections to outlying "liminal" as well as rural communities. Shift some transportation and water spending to competitive grants that support infrastructure investments tied to regional plans for medium-density development, with no free riding localities. (See similar recommendation in our discussion of federal supply subsidies above.) Support urban infrastructure enabling downtown revitalizations, innovation districts, mixed-income housing in commercial areas, bus rapid transit, and other local placemaking investments.

- **Shift statewide property tax policies to tax land more heavily and structures more lightly:** Design tax systems to encourage rather than discourage development of raw land and better use of underused office, retail, and industrial areas. Pennsylvania has allowed localities to use "split-rate" property taxes for more than a century.[437] Some 16 cities in the state value land parcels separately from structures built on them and charge higher rates on the former, with beneficial results. Harrisburg instituted a split-rate tax with rates four times higher for land in 1982. It subsequently enjoyed a nearly 90% decline in the number of vacant structures over the next 20 years, an impressive economic revival in its formerly distressed downtown, and lower property tax bills for most residents. Allentown saw similar results after it adopted a split-rate system taxing land values at almost five times the rate charged on structures in 1996.

- **Reform state policies that discourage home development:** Some states, including Michigan and New Hampshire, unnecessarily discourage LIHTC-funded development by including the value of tax credits in assessed property values for tax purposes.[438] Others create disincentives by valuing LIHTC properties based on their land and construction costs rather than on the income they generate. Colorado, Florida, Georgia, and Utah, on the other hand, are among several states that have passed legislation directing tax assessors to value LIHTC properties based on their income and exclude the value of tax credits. Other states should follow their example. Texas, meanwhile, has made LIHTC-funded development more difficult than it should be through overrestrictive QAP rules. The state's restrictions partly account for why Dallas, Houston, and San Antonio have added fewer LIHTC-funded units than most other large cities since 2010.

The most controversial housing policy issue in many states concerns how and to what extent state governments should exercise preemption powers and override local housing and land-use rules.

Some proponents of vigorous state preemption argue persuasively that localities are locked in a collective action problem, in which each locality seeks the benefits of having relatively affordable housing nearby while underbuilding it within its own borders. Preemption advocates believe state governments are positioned to coordinate solutions in which all localities build their fair share.[439] Others argue that states should override restrictive land-use rules on the grounds that such rules violate the Fair Housing Act by pushing prices out of reach for low-income Black, Hispanic, and otherwise marginalized families.[440]

We agree that some local policies might be sufficiently egregious to warrant state preemption. But we suggest states should mostly take a light-touch approach to overriding local land-use policies, for three reasons:

- **States are just as likely to impose counterproductive policies as pro-growth policies:** California has led the nation in imposing statewide housing and land-use rules on localities for decades – and it has among the most restrictive, dysfunctional policy environments in the United States. This probably reflects the fact that California has imposed many measures that drive up construction costs alongside its pro-housing policies. But many states have imposed policies that impede housing growth and affordability.[441] Texas blocks localities from passing source-of-income discrimination rules or property tax freezes for low-income homeowners – both of which several large cities would clearly pass if they were allowed. Oregon has passed statewide rent control, over the wishes of many local leaders concerned that the law will undermine supply growth in their cities. California's top-down construction quotas for every city – deeply out of touch with demographic realities in many localities – might slow housing growth rather than accelerate it by weakening demand to live in the state. It's also inconsistent to call for state preemption when one likes a policy but support local control whenever one doesn't.

- **Empowered localities promote much-needed policy experimentation and customization:** Everyone benefits when localities try different policies with uncertain results. Houston's experiment with reducing minimum lot sizes turned out to have larger effects than expected, while Minneapolis' elimination of single-family zoning has so far been less effective than proponents had hoped. One-size-fits-all policies would make such experiments harder. Moreover, optimal policies for a fast-growing Sun Belt suburb likely look different from what's best for a shrinking town in a distressed region. That's why Charles Marohn and Daniel Herriges warn against top-down policies that short circuit the local feedback loops policymakers need in their book *Escaping the Housing Trap*.[442]

- **We generally doubt the wisdom and effectiveness of strategies that rely on faraway state authorities imposing top-down mandates on local communities that conflict with what local citizens want and view as vital interests:** Top-down mandates are a recipe for endless conflict and litigation. While they are required in extraordinary circumstances – like federal intervention to end racial segregation policies in the 1960s – local development patterns don't meet this test, in our view. Carrots make more sense than sticks when states wish to influence local land-use rules. Coercive state mandates are also unnecessary. America can address its housing challenges even if the most restrictive cities don't change their policies very much, as Section IV showed.

Local policies

We laid out our recommendations for how local governments can create affordable, high-opportunity cities, towns, and neighborhoods in Section IV. Our recommendations in brief:

- **Get the urban basics right:** Public safety, schools, infrastructure, and financial sustainability.

- **Expand outward, allowing development at medium density – meaning the density levels of Fort Worth, McKinney, Apex, or Marietta.**
    - Lead with a vision of how growth will benefit all residents.
    - Plan for ample green space.
    - Build infrastructure that the tax base will sustainably support in the long term.
- **Allow and promote more home development in built-up areas.**
    - Streamline permitting processes. Aim to allow as much development on an as-of-right basis as possible. Avoid idiosyncratic local building codes that add costs or prevent innovative housing types like modular homes.
    - Allow apartments, townhomes, plexes, and tiny homes in substantial portions of every city's land mass.
    - Reduce minimum lot sizes.
    - Allow innovative technologies like modular and 3D-printed homes everywhere, provided they meet baseline rules.
    - Allow residential development in all commercial areas as of right and rezone underused commercial and industrial areas.
    - Reduce or eliminate parking minimums for new apartment buildings.
    - Allow accessory dwelling units (ADUs) in areas where residents support doing so.
    - Offer density bonuses in exchange for reserving income-restricted units in new apartment buildings, but don't mandate reserved units in all new developments.
    - Do no harm. Avoid counterproductive policies like rent control.
- **Implement the Jane Jacobs Principle:** Allow mixing of activities in as many areas as possible. Promote development of new walkable mixed-use centers.
- **Focus obsessively on quality placemaking:** Quality design, walkability, revitalized downtowns, innovation districts, great green space, and well-functioning transportation infrastructure – including attractive streets, efficient roads and highways, and financially sustainable public transit options.
- **Subsidize housing for low-income residents, but in efficient and limited ways.**
    - Emphasize preservation and rehab of existing buildings. Support growth of nonprofit landlords focused on deeply affordable rental properties. Subsidize minor home repairs.

- Target new construction subsidies to relatively high-opportunity locations (while stretching available resources as far as they can go) or to specific building types that require subsidies like permanent supportive housing and assisted-living facilities.

- Aim to build or preserve units affordable to low-income families in mixed-income rather than isolated locations.

- Create public-sector management entities focused on acquiring raw or underused land and activating it as fast as possible.

- Be innovative about mixing funding sources for new development or preservation. Induce philanthropic capital into the affordable rental housing space. Partner with large employers to buy or develop homes affordable to essential employees like teachers and health care professionals.

- Promote homeownership. Support shared equity borrowing structures for lower-income homebuyers. Promote community land trusts where there's a nonprofit management entity prepared to lead the effort.

- Bring in professional management entities to manage future social housing and establish good incentives for them to maintain properties they manage.

- Support development of holistic affordable neighborhoods with good schools and wraparound services to promote well-being and opportunity for low-income residents.

- Structure demand subsidies so that they encourage work and drive rents and home prices up as little as possible. Implement temporary property tax freezes or limits on tax increases to help low-income residents in rapidly changing neighborhoods. Avoid down payment assistance in supply-constrained markets.

- **Implement split-rate property taxes, taxing land at higher rates than structures, to promote development and more intensive land uses.**

Philanthropy

This report identifies several ways philanthropic funders can help support housing supply growth and affordability for lower-income families.

- **Help local governments get the urban basics right.**

    - Support local schools, colleges, and universities.

    - Support essential social services like homelessness response systems.

- **Support quality placemaking.** Good placemaking attracts people to a place, and strong demand induces supply.

    - Help ensure that newly built or renovated public spaces incorporate quality design.
    - Help fund investments advancing downtown revitalizations, like pocket parks or public squares.
    - Support innovation district elements that private sector developers sometimes can't fund, like coworking space for startups and accelerator programs.
    - Support new or renovated parks, trails, and waterfronts.
- **Support nonprofit affordable housing initiatives.**
    - Emphasize preservation and rehab of existing buildings to stretch available philanthropic resources and help as many people as possible.
    - Support initiatives to reserve income-restricted units in new or renovated buildings in high-opportunity locations.
    - Support nonprofit landlords providing rental housing to very low income families, nonprofit entities focused on managing social housing (like Dutch Housing Associations), and nonprofit entities managing community land trusts.
    - Become a lender to nonprofit landlords or support nonprofit lending initiatives.
- **Support nonprofits focused on developing holistic affordable neighborhoods with wraparound services to support well-being and opportunity for low-income residents (like Purpose Built Communities).**

VI. CONCLUSION

America has underbuilt homes in the 21st century primarily because land-use rules are too restrictive in cities everywhere – especially in the leading Northeast and Pacific Coast metro areas – and secondarily because housing demand has been insufficient to induce adequate housing growth in too many metros. Solving America's affordability crisis requires significantly more pro-growth land-use policies in all localities. It also requires creating many more attractive, opportunity-rich cities, towns, and neighborhoods where people will want to live and developers will want to build.

The Sun Belt and Mountain metros we highlight in this report face substantial challenges like everyplace else. Land-use rules are worse than average in some of the Mountain metros, and they are overrestrictive even in fast-growing cities in Texas, Florida, and the Carolinas. Most core cities in the Sun Belt–Mountain metros still locate too much subsidized housing in areas of concentrated poverty. They remain strikingly segregated along income as well as racial lines. Some built-out suburbs are becoming less friendly to further growth. Water constraints will increasingly limit growth in arid Mountain and Desert metros unless they address dysfunctional water policies.[443] Rising summer temperatures may reduce demand to live in some Sun Belt cities, whatever their policies.

But despite these shortcomings, our 25 Sun Belt–Mountain metros are growing fast and adding homes at a pace that has a good chance of keeping up with future population growth. Their relative success reflects a commitment to growth that is all too lacking elsewhere in America and an above-average willingness to allow apartments, townhomes, mixed-use centers, and other forms of medium-density development in suburban cities.

They've outperformed most other U.S. metros for building income-restricted apartments and for allowing midrange apartments – the affordable housing of the future – in most areas. And they're moving faster than most other places to loosen overrestrictive rules, though Midwestern cities like Grand Rapids and Minneapolis have been pathbreakers as well.

The leading Sun Belt–Mountain metros have built far more homes than other places on a per-capita basis both because they've created communities where people and employers want to be and because they've allowed almost enough new homes to accommodate the resulting demand. They've seen sharp home price increases since 2017 because home production hasn't quite kept up with the surge of in-migration they've experienced from the Northeast, California, and other places. Even so, home prices are still modestly lower than our quantitative model would predict, relative to other parts of the country.

The way forward: Pursue what works

America's strategy to build more homes and expand opportunity should draw on lessons from its fastest-growing cities, because the model they embody works better than any alternative at the scale the nation needs. The main principles of the strategy we outline in this report are as follows:

- **Expand metropolitan areas outward in smart, sustainable ways:** Congress should launch a Smart Growth initiative to promote medium- rather than low-density expansion. Expanding localities should allow and promote a full range of housing types, well-designed walkable mixed-use centers, ample green space, and diverse local employers. States and localities should make

growth models more financially and ecologically sustainable by allowing closer mixing of job centers and residential areas, coupling infrastructure with smart development plans, and supporting the growth of electric vehicle infrastructure and renewable power generation. Property tax systems should tax land more heavily than structures to incent development.

- **Allow and promote infill development:** Congress should also initiate a Smart Infill initiative to support residential development in feasible high-opportunity locations. Cities should allow apartments, townhomes, tiny homes, and manufactured homes in a substantial share of their land mass; streamline permitting processes; reduce minimum lot sizes; allow residential development as of right in commercial-zoned areas and rezone others; and reduce parking minimums.

- **Innovate:** Federal, state, and local policymakers should launch initiatives to support the growth of cost-reducing building technologies, including manufactured homes, modular construction, and 3D-printed homes.

- **Build more high-opportunity cities, towns, and neighborhoods:** This means getting the urban basics – safety, schools, infrastructure, and financial sustainability – right; support knowledge-generating institutions and innovation; run light-touch, commerce friendly regulatory policies; aim for places that embody the Jane Jacobs Principle of fine-grained mixing of diverse activities; revitalize traditional and alternative downtowns as vibrant live-work-play environments; build innovation districts; build great parks, trails, and waterfronts; and promote local social capital.

- **Rethink subsidized housing policies to stretch dollars further and help as many families as possible:** Congress should create a new government-sponsored program focused on financing private sector, nonprofit, and public-sector initiatives to preserve and rehab rental housing and make it available to very low-income families; reform the LIHTC and Section 8 housing choice voucher programs; renew the Opportunity Zone program; and step up housing-focused data collection and technical assistance to localities. States and localities should emphasize preservation of existing housing stock over new builds, focus new construction on opportunity-enhancing locations; promote mixed-income communities; and get more creative about combining public, nonprofit, and for-profit capital.

- **Do no harm:** Congress should eliminate the mortgage interest deduction from the federal tax code. States and localities should avoid efforts to freeze neighborhoods in place like rent control and policies that subsidize demand in supply-constrained markets.

Solving America's housing crisis is within reach, this report shows. The answer is to build our way out of the hole we've created over the last 20 to 30 years – and to do so in ways that expand the geography of opportunity in the United States. America's cities and metro areas have more than enough land, capital, and expertise to build the homes Americans need. They just need to get smarter about public resources and let markets work.

It's time to start building.

VII. APPENDICES

Appendix 1: A simple model of home prices across cities

We construct the following simple model to inform our analysis of how much we should expect home price-to-income ratios to vary across cities when some cities are more productive and offer people higher incomes than others.

Suppose people choose how much housing and how much of a bundle of nonhousing goods and services to consume with the aim of maximizing the following utility function:

$$U(h,x) = \left[\alpha\left(h^{\frac{\gamma_h-1}{\gamma_h}}\right)^{\frac{\sigma-1}{\sigma}} + (1-\alpha)\left(x^{\frac{\gamma_x-1}{\gamma_x}}\right)^{\frac{\sigma-1}{\sigma}}\right]^{\frac{\sigma}{\sigma-1}}$$

subject to the budget constraint:

$$hP_h + xP_x \leq \theta$$

where h = amount of housing consumed
x = amount of all other goods and services consumed
P_h = annual price per unit of housing
P_x = annual price per unit of a fixed bundle of nonhousing goods and services
θ = annual income

and $\sigma, \gamma_h, \gamma_x > 0$.

We can think of the amount of housing a person consumes in terms of features like the size, quality, and location of their home.

The four parameters in the utility function have the following interpretations:

- α defines how people weight housing versus other goods and services in determining utility.
- σ defines people's elasticity of substitution between housing and the fixed bundle of other goods and services: how much more of one item people would require in exchange for one unit less of the other, holding their utility constant.
- γ_h helps determine people's marginal utility from an additional unit of housing, allowing the percentage gain from an additional unit to differ from the percentage gain in marginal utility from an additional unit of the nonhousing bundle.
- γ_x helps determine people's marginal utility from an additional unit of the nonhousing bundle of goods and services.

Solving the consumer's maximization problem for h and x and then substituting equations, we arrive at long expressions for the optimal consumption of h and x, each as a function of income, the prices of housing and the nonhousing bundle, and the four parameters. (We omit the expressions here to save space.)

Our goal is to determine how much more a person would be willing pay for a unit of housing to gain the additional income they could earn by choosing a wealthy, highly productive city instead of a less prosperous and productive city and also how much housing they would consume in one city compared with what they would consume in the other.

The key to solving the problem is the idea that people must be indifferent between any two cities in equilibrium. If housing in more productive city H was priced cheaply enough to give people greater utility from living and working there than from living and working in less productive city L, people would move from L to H until they drove housing prices up in H and down in L sufficiently to deter further migration. Indifference between the two cities implies equal utility.

We can then calculate how much more people would be willing to pay to live in city H relative to city L numerically.

Using "H" and "L" superscripts for the high- and low-productivity cities, we assume the following values in our base-case analysis:

$$P_x^H = P_x^L = P_h^L = \theta^L = 1$$

$$\alpha = 1/15$$

$$\sigma = 1/3$$

$$\gamma_h = 2$$

$$\gamma_x = 4/3$$

We make the simplifying assumption that the bundle of nonhousing goods and services costs the same in both cities.* In actuality, nonhousing prices are modestly more expensive in wealthier cities, reflecting the higher cost of land inputs into production processes and the greater ability of consumers to pay. But differences in housing prices explain the vast majority of the cost-of-living gaps between wealthy and less-wealthy cities.

Our low assumed value for σ means that the elasticity of substitution between housing and the nonhousing bundle is relatively low. Low elasticity means people will respond to higher housing prices in city H by devoting a larger share of their income to housing than they would in L to avoid giving up too much housing, though they will still sacrifice some housing. This is consistent with the real-world fact that people devote higher income shares to housing in pricier cities than in less expensive cities.

* Some academic papers make the same simplifying assumption about nonhousing prices. See, for instance, Jessie Handbury, "Are Poor Cities Cheap for Everyone? Non-homotheticity and the Cost of Living Across U.S. Cities," National Bureau of Economic Research working paper no. 26574 (December 2019), https://www.nber.org/papers/w26574.

Our assumed values for γ_h and γ_x ensure that the share of income people devote to housing decreases with higher income if prices remain constant, consistent with real-world patterns: People earning higher income devote less of their income to housing than lower-income people in the same city.

We choose this set of parameter values because it generates realistic estimates of how much people with average income typically devote to housing in lower-productivity versus high-productivity metros, relative to income.

Setting utility from living in city H equal to utility from living in L, we can derive an equilibrium housing price for H (P_h^H) for any assumed level of the income premium people earn in H (θ^H). Plugging derived housing prices into our expressions for optimal consumption of housing and the nonhousing bundle, we calculate how much of the two items people will consume if they live in city H.

Table 5 shows how people's equilibrium consumption of housing in city H, their consumption of nonhousing goods and services in H, the price they're willing to pay for housing in H, their resulting price-to-income ratio in H, the share of income they devote to housing in H, and their utility from living in H vary with the income premium they earn from living and working in H relative to living and working in L.

Table 5
Housing choices, prices, and income shares as functions of income
(base case)

$\boldsymbol{\theta^H}$	$\boldsymbol{h^H}$	$\boldsymbol{x^H}$	$\boldsymbol{P_h^H}$	$\boldsymbol{P_h^H / \theta^H}$	$\boldsymbol{hP_h^H / \theta^H}$	Utility
1	0.292	0.708	1.000	1.000	0.292	0.865
1.1	0.261	0.747	1.352	1.229	0.321	0.865
1.2	0.238	0.783	1.754	1.462	0.348	0.865
1.3	0.218	0.817	2.213	1.702	0.371	0.865
1.4	0.205	0.852	2.673	1.909	0.391	0.865
1.5	0.194	0.886	3.165	2.110	0.409	0.865
1.6	0.184	0.918	3.708	2.318	0.426	0.865

The first row of Table 5, for $\theta^H = \theta^L = 1$, shows results in the special case where income in city H is the same as in city L. In this case, people devote 29% of their income to housing and 71% to all other goods and services in either city.

If, on the other hand, people can earn 20% more in city H than in city L, the housing price level in H that will leave them indifferent between H and L is 75% higher in H, translating to a 46% higher price-to-income ratio. At this price, people in H would consume 18% less housing and 11% more of the bundle of nonhousing goods and services than they would if they lived in L. The higher price they would pay for housing in H more than offsets the smaller amount they would consume, so they devote a larger share of their income to housing in H than in L (32% compared to 29%). Our assumed 20% income premium is

roughly equal to the premium income that medium-skilled people* earn by living in America's wealthiest metros relative to what people with the same education level earn in an average metro.

If people earn 30% more in city H – roughly equivalent to the income premium medium-skilled people earn in the wealthiest metros relative to what they earn in the 100 lowest-income of the nation's 250 largest metros – then the price-to-income ratio they experience in H is 70% higher than in L.

Our basic intuition: People can earn more and consume more nonhousing goods and services if they choose city H over city L. Everyone would therefore choose city H unless the price of housing in H is so high that they would end up with a home that's considerably smaller, lower quality, or less well located in H even after devoting a larger share of their income to housing. The home price-to-income ratio in H must be significantly higher than in L to leave people indifferent between the two cities.

Table 5 shows results for income premiums above 1.3 because income gaps across U.S. metros can exceed 50% for high-skilled people. Such people would be willing to accept price-to-income ratios more than twice as high to enjoy the opportunities that come from working in H, the table shows.

Table 6 shows results when we change our assumed value for α to 1/10 but keep other parameters at the same values. This set of parameters generates estimates of how much of their income people devote to housing in lower- versus higher-productivity metros that are similar to what we observe in today's very expensive housing market.

Table 6
Housing choices, prices, and income shares as functions of income
(alternative case)

θ^H	h^H	x^H	P_h^H	P_h^H / θ^H	hP_h^H / θ^H	Utility
1	0.344	0.657	1.000	1.000	0.344	0.845
1.1	0.315	0.693	1.294	1.176	0.371	0.845
1.2	0.291	0.727	1.626	1.355	0.394	0.845
1.3	0.272	0.760	1.984	1.526	0.415	0.845
1.4	0.257	0.792	2.364	1.689	0.434	0.845
1.5	0.244	0.822	2.776	1.851	0.452	0.845
1.6	0.234	0.853	3.194	1.996	0.467	0.845

Under this alternative set of parameter values, people are willing to accept only a 36% higher price-to-income ratio in city H if they earn 20% more there than in L, and a 53% higher price-to-income ratio in H if they earn 30% more by working there.

This exercise suggests that we should expect to see price-to-income differences between metros that are roughly twice as large as the income differences between them in a well-functioning housing market, as

* Medium-skilled people: People with an associate degree or some college but no bachelor's degree, for present purposes.

we asserted in Section II. In view of the actual income differences between U.S. metros today, we would expect the wealthiest Northeast–Pacific Coast metros to have price-to-income ratios about 40% higher than the average metro and 60% higher than metros that rank among the 100 lowest-income of America's 250 largest metros.

In fact, price-to-income gaps between our 25 Northeast–Pacific Coast metros and most other metros are considerably larger than this model predicts.

Appendix 2: Sources and Methods

Sources

- **The American Community Survey (U.S. Census Bureau):** We use the following metrics at the metropolitan area, county, and local levels (2010, 2017, and 2022 five-year estimates):

    - **Sector employment shares:** We calculate the share of working people employed in "creative" sectors (to use the term popularized by urbanist Richard Florida) as the sum of shares for five sectors, as the ACS defines them: information; finance, insurance, and real estate; professional, scientific, and management; educational services, health care, and social services; and arts, entertainment, and recreation.

    - **Income measures:** Median household income; population shares in 10 income bins; per capita income; median income for workers; income by educational attainment level.

      We use population shares across income bins – for instance, the share of workers making between $50,000 and $74,999 – to estimate the 10th, 20th, 25th, 30th, 40th, and 70th household income percentiles for each metro, county, and locality in our dataset. Our method: We assume individual households are distributed evenly within each bin and estimate percentile cutoffs by interpolation. For instance, if 20% of a metro's households have income below $50,000 and 30% have income between $50,000 and $74,999, we assume the latter 30% are spread evenly between $50,000 and $74,999, which would mean that 10% of households have income greater than $50,000 but less than $58,333 ($50,000 + (1/3)($74,999 - $50,000)). Thus we would arrive at an estimated 30th percentile cutoff of $58,333. We use these percentile cutoff levels to calculate specific home price-to-income ratios, such as the rent of the 30th percentile rental unit divided by the 20th income percentile.

      We calculate pro forma 30th, 40th, 50th, and 70th household income percentiles as the estimated income a household at the given percentile level for America's 250 largest metros as a whole would earn in a given metro, county, or locality. Our goal is to correct for self-selection in the population of each place: Educational attainment levels differ greatly across metros, counties, and localities, so the household at (say) the median income level in the wealthy San Francisco metro is likely to have higher educational attainment levels than the household at the median income level in the average metro. We want to estimate how much more income the same household would earn if they chose to live in the San Francisco metro compared to what they would earn in the average metro, recognizing that they would be at a lower income percentile if they chose to live in the San Francisco metro. We presume that they would likely earn more in the San Francisco metro because it is an exceptionally productive local economy, meaning individual workers have higher productivity and thus higher income there than they would have if they lived in a less productive place. Our method: We calculate the ratio of median income for people with an associate degree or some college in each place to the population-weighted average of this measure for the 250 largest metros and also the same ratio for people with a bachelor's degree. We multiply the 30th, 40th, and 50th percentile cutoffs for the 250 largest metros as a whole (population-weighted average of

medians) by each place's ratio for people with an associate degree or some college to arrive at three pro forma income levels. We multiply the 50th and 70th percentile cutoffs for the 250 largest metros as a whole by each place's ratio for people with a bachelor's degree to arrive at two more.

- **Poverty rates:** Overall share of households below federal poverty thresholds; share of households with children headed by a female householder.

- **Commuting:** Mean one-way commute (in minutes); share of workers across several bins for duration of one-way commute; means of commute (drive; public transit; walk or bicycle; mostly work from home).

- **Housing units:** Total units; breakdown into single family, 2-4 plexes multifamily, or RVs/manufactured homes; breakdown by number of bedrooms; age of housing unit.

- **Monthly rent for renter households.**

- **Value of home for owner-occupied units (self-reported in the ACS)**.*

- **Monthly ownership costs for homeowners with a mortgage.**

- **Housing cost burdens:** Percentage of renters and of homeowners with a mortgage across several bins for housing costs as a percentage of income; percentile burdens, estimated the same way we estimate income percentiles – for instance, housing costs as a percentage of income for renters at the 20th, 30th, 40th, and 50th percentiles for this ratio.

- **Homeownership rates, including overall rates and rates for White, Black, Hispanic, and Asian populations.**

- **Median housing cost burden (housing costs as percentage of income) for several populations:** Renters with household income between $35,000 and $49,999; renters with household income between $50,000 and $74,999; renters ages 15 to 24.

- **Decennial Census (U.S. Census):** Decennial population figures for cities back to 1820 and metro areas back to 1990. We estimate the age of metro areas three ways – as the number of years since the leading core city in the metro area first reached population of 100,000, 250,000, and 500,000 in decennial Census counts.

* We recognize that self-reported estimates of the market value of a survey respondent's home are likely to have significant errors relative to professional estimates, particularly in a market with fast-changing market prices. However, studies show that percentage cross-sectional differences across cities and percentage changes over time in self-reported values in the ACS reflect professional estimates reasonably closely. (See Katherine A. Kiel and Jeffrey E. Zabel, "The Accuracy of Owner-Provided House Values: The 1978-1991 American Housing Survey," *Real Estate Economics* 27 [1999]: 263–98; and Karen M. Pence and Brian Bucks, "Do Homeowners Know Their House Values and Mortgage Terms?" FEDS working paper no. 2006-03 [2006].) Since we use ACS estimates to make cross-sectional and over-time comparisons rather than to arrive at accurate absolute values, we believe we're justified in using ACS self-reported values, alongside professional estimates from Zillow.

- **Population Estimates program (U.S. Census):** Annual population estimates for metros, counties, and localities, 2000-2023.

- **Survey of Construction (U.S. Census):** Annual figures at the metro, county, and local levels for single-family, 2-4 plex, and multifamily building permits, 2010-2022.

- **Tax Policy Center:** U.S. income quintile cutoffs, 2000 to 2022.[444]

- **CoStar:** Annual estimates of apartments delivered at the metro, county, and local levels for 2007 to 2023, plus forecasts for 2024 and 2025; annual estimates of average rents and average rent per square foot; annual estimates for vacancy rates. We calculate total new builds as a percentage of period starting inventory for 2007-2010, 2010-2017, 2017-2023, and 2023-2025 (projected); growth rates in total inventory for each of these periods; average vacancy rates for each period; average size in square feet of total inventory for each period; and average rents and rent per square foot for 2007-2010, 2010-2016; 2014-2016; 2017-2023; and 2021-2023. The author thanks CoStar for making this data available to SMU researchers for research purposes.

- **Yardi Matrix:** End-of-year total inventory of apartments in relatively large buildings and new builds for each year from 2010 to 2023, plus forecasts for 2024 and 2025, at the metro, county, locality, and submarket level, divided into five categories: upper midrange, lower midrange, upper workforce, lower workforce, and fully affordable (subsidized and/or income-restricted). We combine the first four categories into a single "midrange" category to simplify the analysis and calculate new builds for 2010-2016, 2017-2023, and 2024-2025 (projected). The author thanks Yardi Matrix for sharing this data.

- **The S&P CoreLogic Case-Shiller National Home Price Index, 2000-2024**.[445]

- **Bureau of Labor Statistics:** Annual rent increases at the national level, as reflected in the consumer price index, 2000-2024.

- **Federal Reserve Bank of St. Louis's FRED database:** Average residential mortgage rates at the national level, 2000-2024; other national data series as noted in footnotes and endnotes.

- **Zillow:** Annual average single-family home values at the metro, county, and local levels, 2000-2023;[446] annual average "lower-tier" single-family home value at each geographic level; annual average value for single-family homes with three bedrooms at each geographic level, to control for variation across places in home size.

- **Google Earth:** Satellite images of counties and localities in our 25 Sun Belt–Mountain metros, as available in April 2024.

- **National Oceanic and Atmospheric Administration:** Average January and July temperatures, as available in May 2024.[447]

- **National Weather Service:** Average rain and snowfall at the metro-area level, as available in May 2024.[448]

- **Proximity to mountains, beach, and coasts:** Binary variables at the metro-area level (1 if metros are close for each feature, 0 otherwise), based on author's judgment. Proximity to mountains means mountains are visible and easily accessible from core cities within metro areas. Proximity to beaches means beaches frequently visited for recreational purposes in relatively warm locations. Proximity to coasts: 1 if metros qualify as close to beaches or if metros are constrained by ocean or lake coasts, even if the latter aren't widely seen as attractive beachfront locations. (Scores available in the online Data Appendix)

- **Beauty:** Binary variable at the metro-area level (1 if metro is widely considered exceptionally beautiful, 0 otherwise), based on whether metros or their core cities are mentioned in at least one of several media rankings for "most beautiful cities." These include *Forbes*, Ranker, TourScanner, and Original Travel.[449]

- **Hipster:** Binary variable at the metro-area level (1 if metro is considered an exceptionally good place for young professionals or hipsters, 0 otherwise), based on whether metros or their core cities are mentioned in at least one of several media rankings. These include Rent.com, Niche, LawnStarter, Business Insider, *Forbes*, and *U.S. News & World Report*.[450]

- **Foodie:** Binary variable at the metro-area level (1 if metro is considered a leading "foodie" city, 0 otherwise), based on whether metros or their core cities are mentioned in at least one of several media rankings. These include *U.S. News & World Report*, *Far & Wide*, and Business Insider.[451]

- **SMU Bridwell Institute for Economic Freedom:** Metropolitan Area Economic Freedom index.[452] The author thanks Dr. Dean Stansel, chief author of the index, for sharing the underlying data.

- **U.S. Congress Joint Economic Committee:** Social Capital index.[453]

- **Albert Saiz's estimates of geographic constraints on expansion for 86 large metro areas**.[454]

- **Population density data from several sources:** Metro-area data on population from the U.S. Census and on land area from USA.com;[455] county and local land area data from various publicly available local sources.

Methods

Methods for Section II: Why America needs faster housing growth

U.S. rents, home prices, and homeownership costs over time: We calculate the three time series from which we generate Figure 1 as follows:

- **Rent-to-income ratio:** We estimate the 30th percentile income level for each year as the mean of the 1st and 2nd quintile income cutoffs, based on data from the Tax Policy Center. We divide the rent index value from the Bureau of Labor Statistics consumer price index as of each year

end by our estimate of the 30th percentile income level for the United States as a whole and rebase the series so that the value for the start of 2000 is 1.

We focus on the 30th income percentile because households at this level rent the median rental home (to the nearest decile). We arrive at this statement by estimating income deciles of the total populations of renter households and homeowners at the national level, based on ACS data.

- **Home price-to-income ratio:** We estimate the 70th percentile income level for each year as the mean of the 3rd and 4th quintile income cutoffs, based on data from the Tax Policy Center. We divide the S&P CoreLogic Case-Shiller National Home Price Index as of each year end by our estimate of the 70th percentile income level for the United States as a whole and rebase the series to 1 for the start of 2000.

  We focus on the 70th income percentile because households at this level own the median owner-occupied home (to the nearest decile). We arrive at this statement by estimating income deciles of the total populations of renter households and homeowners at the national level, based on ACS data.

- **Cost of homeownership as share of income:** We estimate the annual cost of ownership by (1) assuming homeowners borrow 80% of the purchase price of the average single-family home value with a 30-year fixed-rate mortgage, (2) translating the average 30-year fixed-rate residential mortgage rate for each year to an annual cost using a publicly available mortgage calculator to estimate monthly payments and annualizing, and prorating the 20% down payment equally across 10 years, since this is approximately how long homeowners tend to own a home on average. We divide the annual cost by the 70th percentile income level, as estimated by the method described above.

What should we expect?

- **What we should expect for overall rents, home prices, and homeownership costs:** For rents, we start from the longtime federal standard that housing costs should generally not exceed 30% of a household's income.[456] But people can earn considerably higher incomes in some cities than they could in other cities (see Appendix 1), which raises the question of whether we should consider 30% an upper limit in the average city or even in the most productive, high-wage cities. Since the federal standard is based on national data, we believe it makes sense to think of 30% of income for families well below median income in an average metro as a reasonable expectation in a well-functioning market. It follows that we should expect to see cost burdens somewhat below 30% for people with income well below the local median in relatively low-income areas, if housing markets are functioning well. We should expect to see even relatively low-income families spending well over 30% in the nation's highest-wage metros, since they would earn enough to pay such higher rents and still have living standards as high or higher than they would enjoy in lower-wage metros. We estimate that well-functioning markets might generate rent-to-income ratios of around 25% to 27% of income for families at the 30th income percentile and above in relatively low-wage metros and around 38% to 41% for families in the 30th percentile in the nation's wealthiest metros.

We should expect that home prices in a well-functioning market would usually be at levels that would generate a market return to owners if rented out at prevailing rents. Recognizing the many assumptions one might make in estimating such levels, we base our estimates on simple premises. Suppose long-term risk-free fixed-income instruments yield 4% and that investors require a 1% premium for bearing the price risk associated with residential real estate, so their required return is 5%.

Consider, first, the case of houses in relatively low-wage metros with low expected future productivity growth, ample developable land, and relatively permissive land-use rules – that is, metros where we would expect home prices to be lowest relative to rents. We assume that land would represent only 20% of a typical home's value in such metros and that structures depreciate at 2% per year, meaning depreciation reduces a home's value by 2% a year, all else equal. We further assume that investors would lose 0.5% per year in real terms from either population shrinkage (which means falling demand for space in the city) or dilution of the value of space (from easy outward expansion of the metro more than offsetting population growth), more than offsetting the rise in real value associated with rising productivity in the metro (which raises the value of well-located locations there). Since these two factors reduce returns by about 2%, investors would require a net operating income (NOI) of about 7% of their investment. To earn 7% NOI after operating costs, we assume investors would need to receive about 11% in gross rents and would realize an NOI margin of about 64%. If rent amounts to 11% of a home's market value, then the market value should be around nine times rent. If rents amount to 25% to 27% of income, home values should be about 2.3 to 2.5 times people's income in metros at the low end of the range. This estimate matches the low end of home price-to-income ratios that prevailed in metros with average or below-average incomes between the 1960s and 1980s.

Now consider the case of houses in very high-wage metros with high expected future productivity growth, constrained land supply, and restrictive land-use rules – that is, metros where we would expect home prices to be highest relative to rents. We assume that land might amount to half of a typical home's value in such a metro, meaning depreciation of 2% structure value would reduce the home's total value by 1% per year. We further assume that investors would gain 1.0% per year in real terms from population growth and/or rising productivity in the metro, more than offsetting the dilution effect from modest outward expansion of the metro. Investors would require an NOI of about 5% of their investment, which we assume would translate to gross rental revenue of about 8% of the typical home's market value. This implies that home values should be about 12 times rents and 4.5 to five times people's income, based on rent-to-income ratios of 38% to 41%. From the 1960s to 1980s, homes in the nation's wealthiest metros typically had price-to-income rations some 20% to 30% higher than in average metros, which translates to price-to-income ratios between three and four times. Since then, income gaps between low-wage and high-wage metros have widened, which suggests to us that the home price-to-income ratios that would prevail in the wealthiest metros in a well-functioning housing market should be somewhat higher than the three- to four-times range.

As for how we should expect rents and home prices to evolve over time, we suggest that both should rise faster than overall goods and services inflation because the value of a home's location on the map – an important part of its total value – should rise with productivity growth, which is to say with the value of economic activity that can occur there, slightly diluted if the metro grows outward more than population grows. This assumption is consistent with historical

experience: Shelter costs have typically experienced inflation slightly greater than overall inflation, including in the late 20th century. On the other hand, we believe it's highly improbable that rents and home values would rise faster than nominal incomes per capita in a well-functioning market. For the vast majority of physical goods, production costs have fallen relative to wages over the long term, reflecting increases in productivity, and people have devoted a falling share of income to them over time. The quality and size of homes has risen, but at a slower pace than real wage growth by any measure. We should thus expect rents and home prices to rise at a pace greater than overall goods and services inflation but no faster than nominal income growth.

We should also expect to see home prices fluctuate relative to rents based on shifts in interest rates and in people's expectations for future home price appreciation. Expectations for five-year-out appreciation, as measured by surveys, rarely fluctuate outside a narrow range. Two exceptions: They went far above long-term normal levels between 2004 and 2006 and again between 2022 and 2024, and they went well below their normal range between 2009 and 2011.*

- **What should we expect across cities?** We arrive at estimates for how wide we should expect the gaps across metros to be in a well-functioning housing market by two methods: First, we derive estimates from a theoretical model, calibrated to produce realistic figures for how much income people devote to housing in different cities and at different income levels within the same city. (See Appendix 1.)

  Second, we generate predicted price-to-income ratios for each of America's 250 largest metros and for each of the 248 counties and municipalities in our Sun Belt–Mountain metro dataset through a quantitative model. Our model is the best fitting we can find for predicting our composite price-to-income ratios, based on a series of regression models. For whole metro areas, right-side predictive variables include total 2010 population, 2010 population density, people with an associate degree or some college as a share of all people without a bachelor's degree, medium household income, rainfall per year, average January temperature, whether the metro is constrained by a coastline (binary variable), whether it is known for recreational beaches (binary variable), whether it's adjacent to mountains (binary variable), and whether it's known for exceptional beauty (binary variable).** We derive predicted price-to-income ratios for each metro by plugging actual values for each metro into our regression equation.

  We generate our predictive model for counties and municipalities by the same method, grouping all counties and municipalities together in the same dataset. Right-side predictive variables include the share of workers working in creative industries, 2010 metro-area density, 2010 locality density, percent open developable space (recalibrated as z-scores, calculated separately for counties and municipalities since counties mostly have far more open space), mean commuting time, average January temperature, whether the metro is close to beaches, whether it's close to mountains, whether it's considered an exceptionally good "foodie" city, and whether it's considered an exceptionally good city for young professionals or hipsters.

  If the model's right-side variables predict policy differences, our predictive model will yield biased estimates of how far apart we should expect the price-to-income ratios of metros to be. For

* See Glaeser and Gyourko, "The Economic Implications of Housing Supply."

** See regression model in the online Data Appendix.

instance, if places with high creative worker shares or great mountain or ocean views also tend to have stricter land-use policies, then the differences the model generates in predicted price-to-income ratios would reflect both the effects of differences in these demand factors and also differences in land-use policies. We expect this is the case, so we also look at the predictions from our calibrated theoretical model, and we don't overstate the precision of these estimates.

Why America's housing markets are out of whack

- **America's housing shortfall:** To estimate the shortfall in housing production, we derive estimates of how many new housing units the United States should have built each year from 2000 to 2023. Leaving aside fluctuations in for-sale inventory levels, we assume the nation needs to add sufficient new units each year to keep up with overall population growth and to replace obsolete older units. We estimate the number of units needed to keep up with population growth each year as the absolute increase in population that year divided by the average household size as of that year (total population divided by total housing units). We estimate required replacement levels as 1.00% to 1.33% of the total housing stock as of the start of each year, based on the premise that houses have a useful life of 75 to 100 years on average, giving us a range of required replacement levels. The economics literature contains a wide variety of assumptions about the useful lives of homes. Actual rates of demolition have run somewhat below 1% each year in the 21st century, but this is the natural result of very low rates of new development.

- **Quantifying the effect of housing supply on rents and home prices:** We calculate composite scores for housing growth as well as for home price-to-income ratios from 2010 to 2023 for each of America's 250 largest metros and each of the 248 counties and municipalities in our Sun Belt–Mountain metro dataset. (See full explanation in our discussion of methods for Section III below.) We estimate the effect of variation in composite housing growth scores on home price-to-income ratios across metro areas and across localities separately. We derive estimated effects by regressing home price-to-income ratios on housing growth scores, including all right-side variables from our best-fitting model for price-to-income ratios as controls.

  We estimate all regression models by ordinary least squares multivariate regression.

- **Open space in Sun Belt–Mountain state cities and counties:** We estimate the amount of open developable space as a share of total land mass for each county and municipality in our Sun Belt–Mountain metro dataset by superimposing county or municipal boundaries on satellite images in Google Earth and estimating the share of open developable space to the nearest 10% by visual inspection. We convert each raw percentage for individual municipalities into z-scores using the mean and standard deviation of percentages for all municipalities and convert raw percentages for counties into z-scores separately using the mean and standard deviation of percentages for all counties We calculate z-sores for counties and municipalities separately because observed open space percentages are far higher for most counties than most municipalities and including them together in raw form would suggest that counties overwhelmingly have easier construction environments than municipalities. This would be misleading, since far more open space in most Sun Belt and Mountain metro counties is in remote locations where developers wouldn't likely build in the near term than in most municipalities.

Methods for Section III: America's most pro-growth cities

Our strategy for scoring the policies of each metro area and locality in our dataset for how pro-growth or restrictive they are is to make inferences about policy environments from observed housing growth and price-to-income ratios between 2010 and 2023.

Our strategy reflects two considerations. First, localities operate so many land-use and housing policies – some explicit and some embodied in local processes for permitting and other activities – that it would be virtually impossible to arrive at a comprehensive catalogue of specific policies in each of the 498 geographic units we want to evaluate. "Creativity on the part of local governments [with respect to efforts to influence local housing supply] appears to know virtually no bounds," housing economists Joseph Gyourko and Raven Molloy conclude.*

Second, prominent economic papers on housing and land-use policies have employed a strategy similar to ours, so we can draw on methodological approaches in these papers.**

We calculate four scores for each metro or locality of interest: an overall score for 2010-2023, a score for the lower-tier segment of the market for the same period, and overall scores for the two subperiods 2010-2016 and 2017-2023. We calculate the latter two scores to evaluate the extent to which policy environments changed over the period from 2010 to 2023.

Housing growth measures: We calculate composite housing growth scores from 17 measures, which we list below. Our goal is to reward places for achieving high growth rates across a variety of housing types as well as overall. We calculate composite scores for each of America's 250 largest metros by the following method, then separately calculate composite scores for each of the 248 counties and municipalities in our Sun Belt–Mountain metro dataset.

We include the following 17 measures in our composite housing growth scores:

- Growth rate of units, 2010 to 2022 (ACS).
- Growth rate of single-family units, 2010 to 2022 (ACS).
- Growth rate of multifamily units, 2010 to 2022 (ACS).
- Growth rate of one-bedroom units, 2010 to 2022 (ACS).
- Growth rate of two-bedroom units, 2010 to 2022 (ACS).
- Growth rate of three-bedroom units, 2010 to 2022 (ACS).

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* Joseph Gyourko and Raven Molloy, "Regulation and Housing Supply," in *Handbook of Regional and Urban Economics*, ed. Gilles Duranton et al., vol. 5, (Elsevier, 2015), 1289–1337.

** See, for instance, Edward L. Glaeser et al., "Urban Growth and Housing Supply," *Journal of Economic Geography* 6 (2006): 71–89, https://ssrn.com/abstract=917712; Albert Saiz, "On Local Housing Supply Elasticity," working paper (University of Pennsylvania Wharton School, July 2008), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1193422.

- Share of total housing stock built since 2010, as of 2022 (ACS).
- Building permits, 2010-2022 as a percentage of 2010 units (U.S. Census Survey of Construction).
- Building permits, 2017-2022 as a percentage of 2010 units (U.S. Census Survey of Construction).
- Single-family building permits, 2010-2022 as a percentage of 2010 single-family units (U.S. Census Survey of Construction).
- Single-family building permits, 2017-2022 as a percentage of 2010 single-family units (U.S. Census Survey of Construction).
- Multifamily building permits measured by units, 2010-2022, as a percentage of 2010 multifamily units (U.S. Census Survey of Construction).
- Multifamily building permits measured by units, 2017-2022, as a percentage of 2010 multifamily units (U.S. Census Survey of Construction).
- Growth rate of apartment inventory, 2010 to 2023 (CoStar).
- Growth rate of apartment inventory, 2017 to 2023 (CoStar).
- New apartment builds, 2010-2023, as a percentage of 2010 inventory (CoStar).
- New apartment builds, 2017-2023, as a percentage of 2017 inventory (CoStar).

For our lower-tier segment housing growth scores, we calculate composite scores by the same method, but with just the following nine measures:

- Growth rate of one-bedroom units, 2010 to 2022 (ACS).
- Growth rate of two-bedroom units, 2010 to 2022 (ACS).
- Growth rate of three-bedroom units, 2010 to 2022 (ACS).
- Multifamily building permits measured by units, 2010-2022, as a percentage of 2010 multifamily units (U.S. Census Survey of Construction).
- Multifamily building permits measured by units, 2017-2022, as a percentage of 2010 multifamily units (U.S. Census Survey of Construction).
- Growth rate of apartment inventory, 2010 to 2023 (CoStar).
- Growth rate of apartment inventory, 2017 to 2023 (CoStar).
- New apartment builds, 2010-2023, as a percentage of 2010 inventory (CoStar).

- New apartment builds, 2017-2023, as a percentage of 2017 inventory (CoStar).

To create composite scores, we calculate z-scores for each of our 17 measures, where the z-score for each place is the place's value on the relevant measure less the mean value for all metros (or localities) on this measure, divided by the standard deviation of the values for all metros (or localities) on this measure. We convert all underlying values to z-scores because our 17 measures have varying scales, so taking averages of them would mean combining apples and oranges, as it were. We then convert back to a growth score by the following method: We calculate a weighted average of the unconverted growth rates for each metro (or locality), assigning 50% weight to the unweighted mean of all measures that cover single-family as well as multifamily units, a 35% weight to the unweighted mean of all measures that cover only single-family units (in view of the 71% share of single-family homes in the total housing stock), and a 15% weight to the unweighted mean of all measures that cover only multifamily units (including 2-4 plexes). We then calculate the difference between the mean and minimum of this weighted average across metros (or localities), and multiple this difference by each place's average z-score. We calculate a weighted average of the 17 z-scores for each metro (or locality) using the same weights as above, and we multiply the difference between the overall mean and minimum of the weighted average growth rate by the weighted average z-score for each metro (or locality) to generate overall housing growth scores for each place.

To calculate weighted averages of unconverted growth rates and of z-scores for the lower-tier segment, we assign a weight of 67% to the unweighted mean of the first three measures and a 33% weight to the unweighted mean of the last six measures, generating growth scores that weight multifamily much more heavily than in the overall scores, at about 45% of the total.

We leave specific measures of income-restricted and LIHTC apartment development out of our growth measures because we want to analyze the relationship between development of subsidized units and development of market-rate units, so our growth scores primarily reflect the latter.

Price-to-income measures: Our price-to-income scores represent a composite of 68 individual ratios, each with a housing price or annual cost measure as the numerator and an income measure as the denominator. Out lengthy list of measures reflects the fact that there is no one "correct" way to match price or cost measures with income figures. Different ratios capture affordability in different ways, and we believe all the ratios we use capture some important aspect of housing market realities.

Our list of ratios reflects variation across all the following dimensions:

- **Home price or rent measures:**
    - **Average price or ownership cost:** ACS average single-family home values versus Zillow average overall single-family home values versus Zillow average lower-tier single-family home values versus Zillow average 3-bedroom single-family values.
    - **Year(s):** 2022 versus 2018-2022 ACS average versus 2017-2023 Zillow overall average.
    - **Position in the price/cost distribution:** Median price versus 40th percentile price versus 30th percentile price versus 20th percentile price versus 50th percentile

ownership cost burden versus 60th percentile ownership cost burden versus 70th percentile ownership cost burden versus 80th percentile ownership cost burden.

- **Rent:** ACS median rent versus CoStar average rent per unit versus CoStar average rent per square foot.

- **Year(s):** 2022 ACS versus 2017-2023 CoStar versus 2021-2023 CoStar.

- **Position in the rent/rent burden distribution:** Median rent versus 40th percentile rent versus 30th percentile rent versus 20th percentile rent versus median rent burden versus 60th percentile rent burden versus 70th percentile rent burden versus 80th percentile rent burden versus rent burden for people with income below $35,000 versus rent burden for people between $35,000 and $50,000 versus rent burden for people between $50,000 and $75,000 versus rent burden for people between $75,000 and $100,000 versus rent burden for people ages 15 to 24.

- **Income measures:**

  - **Income:** 2022 median household income versus average of 2018 and 2022 median household income versus median individual income versus 70th percentile income versus 40th percentile income versus 30th percentile income versus 20th percentile income versus pro forma median household income versus pro forma 70th percentile income versus pro forma 40th percentile income versus pro forma 30th percentile income.

  - **Year(s):** 2022 versus 2018-2022 average.

Different ratios capture affordability from different points of view. Median home value to median income, for instance, captures the idea that the median person might aspire to own the median owner-occupied home, though in fact they can't afford it. Median home value-to-70th percentile income matches people in the income distribution with the home price they're most likely to be paying at present, supposing they're a homeowner, just as median rent-to-30th percentile income matches people with the rent they're likely to be paying if they're a renter. Actual 50th, 60th, 70th, and 80th ownership cost or rent burdens captures the actual share of income going to housing for families who are the median, the 60th percentile, the 70th percentile, and the 80th percentile specifically for housing cost burdens, so it fully captures the actual burdens people face after they make their housing choices. Our pro forma measures capture how home prices vary across cities for the same family deciding where to live, recognizing that they would earn more but also pay higher home prices in wealthy, expensive places.

For our main price-to-income scores, we combine our 68 measures to arrive at composite scores as follows:

- **Price/ownership cost measures:**

  - 2022 ACS median home value to 2022 median household income.

  - 2023 Zillow mean home price to 2022 median household income.

- 2023 Zillow mean three-bedroom home price to 2022 median household income.
- 2023 Zillow mean lower-tier home price to 2022 median household income.
- Average of 2018 and 2022 ACS median home values to average of 2018 to 2022 median household incomes.
- Average of 2018-2023 Zillow mean home prices to average of 2018 and 2022 median household incomes.
- Average of 2018-2023 Zillow mean three-bedroom home prices to average of 2018 and 2022 median household incomes.
- Average of 2018-2023 Zillow mean lower-tier home prices to average of 2018 and 2022 median household incomes.
- 2022 ACS median home value to 2022 median individual income.
- 2023 Zillow mean home price to 2022 median individual income.
- 2023 Zillow mean three-bedroom home price to 2022 median individual income.
- 2023 Zillow mean lower-tier home price to 2022 median individual income.
- 2022 ACS median home value to 2022 70th percentile household income.
- Average of 2018 and 2022 ACS median home values to average of 2018 to 2022 70th percentile household incomes.
- 2023 Zillow mean home price to 2022 70th percentile household income.
- 2023 Zillow mean three-bedroom home price to 2022 70th percentile household income.
- 2023 Zillow mean lower-tier home price to 2022 70th percentile household income.
- 2022 ACS 40th percentile home value to median household income.
- 2022 ACS 30th percentile home value to 40th percentile household income.
- 2022 ACS 20th percentile home value to 30th percentile household income.
- 2021-2023 Zillow mean lower-tier home price to 40th percentile household income.
- 2017-2023 Zillow mean lower-tier home price to 40th percentile household income.
- 2021-2023 Zillow mean lower-tier home price to 30th percentile household income.

- 2017-2023 Zillow mean lower-tier home price to 30th percentile household income.
- 2022 ACS median home value to pro forma 70th percentile household income.
- 2023 Zillow mean home price to pro forma 70th percentile household income.
- 2022 ACS 40th percentile home value to pro forma median household income based on earnings of people with an associate degree or some college.
- 2022 ACS 40th percentile home value to pro forma median household income based on earnings of people with a bachelor's degree.
- 2022 ACS 30th percentile home value to pro forma 40th percentile household income.
- 2023 Zillow mean lower-tier home price to 2022 40th percentile household income.
- 2022 ACS 20th percentile home value to pro forma 30th percentile household income.
- 2023 Zillow mean lower-tier home price to 2022 30th percentile household income.
- 2022 ACS median ownership cost to income.
- 2022 ACS 60th percentile ownership cost to income.
- 2022 ACS 70th percentile ownership cost to income.
- 2022 ACS 80th percentile ownership cost to income.

- **Rent measures:**
  - 2022 ACS median rent to median household income.
  - 2017-2023 average CoStar rent per unit to median household income.
  - 2021-2023 average CoStar rent per unit to median household income.
  - 2017-2023 average CoStar rent per square foot to median household income.
  - 2021-2023 average CoStar rent per square foot to median household income.
  - 2022 ACS median rent to 30th percentile household income.
  - 2022 ACS 40th percentile rent to 25th percentile household income.
  - 2022 ACS 30th percentile rent to 20th percentile household income.

- 2022 ACS 20th percentile rent to 10th percentile household income.
- 2022 ACS median rent to income.
- 2022 ACS 60th percentile rent to income.
- 2022 ACS 70th percentile rent to income.
- 2022 ACS 80th percentile rent to income.
- 2022 ACS median rent to income for households with income below $35,000.
- 2022 ACS median rent to income for people with income between $35,000 and $50,000.
- 2022 ACS median rent to income for people with income between $50,000 and $75,000.
- 2022 ACS median rent to income for people with income between $75,000 and $100,000.
- 2022 ACS median rent to income for people 15 to 24.
- Average 2017-2023 CoStar mean rent to 40th percentile household income.
- Average 2021-2023 CoStar mean rent to 40th percentile household income.
- Average 2017-2023 CoStar mean rent to 30th percentile household income.
- Average 2021-2023 CoStar mean rent to 30th percentile household income.
- Average 2017-2023 CoStar mean rent per square foot to 40th percentile household income.
- Average 2021-2023 CoStar mean rent per square foot to 40th percentile household income.
- Average 2017-2023 CoStar mean rent per square foot to 30th percentile household income.
- Average 2021-2023 CoStar mean rent per square foot to 30th percentile household income.
- 2022 ACS median rent to pro forma 30th percentile household income.
- 2022 ACS 40th percentile rent to pro forma 30th percentile household income.
- Average 2021-2023 CoStar mean rent to pro forma 40th percentile household income.

- Average 2021-2023 CoStar mean rent to pro forma 30th percentile household income.
- Average 2021-2023 CoStar mean rent per square foot to pro forma 40th percentile household income.
- Average 2021-2023 CoStar mean rent per square foot to pro forma 30th percentile household income.

We calculate composite scores from these 68 specific ratios for America's 250 largest metros and for our 248 Sun Belt–Mountain localities separately. We proceed as follows: We convert each ratio for a metro to a z-score, then calculate a weighted average z-score, assigning a 70% weight to the unweighted mean of the 36 home price/ownership cost z-scores and a 30% weight to the unweighted mean of the 32 rent z-scores. We calculate a weighted average price-to-income score, converting cost measures to price measures by dividing by 0.08 as a simplifying assumption, and using the same weighting system as we use for z-scores. We take the difference between the average and the minimum of the weighted mean price-to-income ratios for each metro (or locality), and multiply by the weighted z-score for each metro to arrive at a composite price-to-income score.

We calculate composite price-to-income scores for the lower-tier market from 13 of these home price/ownership cost ratios and 25 of our rent ratios, as follows:

- **Price/ownership cost measures:**
  - 2022 ACS 30th percentile home value to 40th percentile household income.
  - 2022 ACS 20th percentile home value to 30th percentile household income.
  - 2021-2023 Zillow mean lower-tier home price to 40th percentile household income.
  - 2017-2023 Zillow mean lower-tier home price to 40th percentile household income.
  - 2021-2023 Zillow mean lower-tier home price to 30th percentile household income.
  - 2017-2023 Zillow mean lower-tier home price to 30th percentile household income.
  - 2022 ACS 30th percentile home value to pro forma 40th percentile household income.
  - 2023 Zillow mean lower-tier home price to 2022 40th percentile household income.
  - 2022 ACS 20th percentile home value to pro forma 30th percentile household income.
  - 2023 Zillow mean lower-tier home price to 2022 30th percentile household income.
  - 2022 ACS 60th percentile ownership cost to income.
  - 2022 ACS 70th percentile ownership cost to income.

    - 2022 ACS 80th percentile ownership cost to income.

- **Rent measures:**
    - 2022 ACS median rent to 30th percentile household income.
    - 2022 ACS 40th percentile rent to 25th percentile household income.
    - 2022 ACS 30th percentile rent to 20th percentile household income.
    - 2022 ACS 20th percentile rent to 10th percentile household income.
    - 2022 ACS median rent to income.
    - 2022 ACS 60th percentile rent to income.
    - 2022 ACS 70th percentile rent to income.
    - 2022 ACS 80th percentile rent to income.
    - 2022 ACS median rent to income for households with income below $35,000.
    - 2022 ACS median rent to income for people with income between $35,000 and $50,000.
    - 2022 ACS median rent to income for people 15 to 24.
    - Average 2017-2023 CoStar mean rent to 40th percentile household income.
    - Average 2021-2023 CoStar mean rent to 40th percentile household income.
    - Average 2017-2023 CoStar mean rent to 30th percentile household income.
    - Average 2021-2023 CoStar mean rent to 30th percentile household income.
    - Average 2017-2023 CoStar mean rent per square foot to 40th percentile household income.
    - Average 2021-2023 CoStar mean rent per square foot to 40th percentile household income.
    - Average 2017-2023 CoStar mean rent per square foot to 30th percentile household income.
    - Average 2021-2023 CoStar mean rent per square foot to 30th percentile household income.
    - 2022 ACS median rent to pro forma 30th percentile household income.

- 2022 ACS 40th percentile rent to pro forma 30th percentile household income.
- Average 2021-2023 CoStar mean rent to pro forma 40th percentile household income.
- Average 2021-2023 CoStar mean rent to pro forma 30th percentile household income.
- Average 2021-2023 CoStar mean rent per square foot to pro forma 40th percentile household income.
- Average 2021-2023 CoStar mean rent per square foot to pro forma 30th percentile household income.

We calculate weighted average z-scores as before, but assigning a 40% weight to the unweighted mean of the 13 home price/ownership cost z-scores and a 60% weight to the unweighted mean of the 25 rent z-scores.

Estimating demand and supply curves: We estimate demand curves for each metro and locality two ways.

First, we generate predicted values for the housing growth scores for each metro and locality using a quantitative predictive demand model. Our model is the best fitting we can find for predicting our composite housing growth scores, based on a series of regressions. For whole metro areas, right-side predictive variables include 2010 population density, mean January temperature, whether a metro is constrained by a coastline, whether it's known for recreational beaches, whether it's near mountains, and whether it's known as an exceptionally good place for young professionals and hipsters. We generate predicted values using each metro's values for these measures and the coefficients from our best-fitting regression.*

We also calculate a "demand proxy" variable that turns out to be highly predictive of housing growth scores. We generate predicted housing growth scores both with and without the demand proxy, then average the two to arrive out our first predicted value for housing growth. We look at demand scores both ways because the demand proxy may or may not be influenced by policies in effect between 2010 and 2023, and our goal is to estimate how much housing growth each metro would have experienced if all metros had the same policies. Our demand proxy is the unweighted mean of seven growth variables, seven price-to-income variables, and one measure of vacancy rates from the 2000-2011 period. Our premise is that high growth, high home price-to-income ratios and low vacancy before 2010-2011 probably mean there was high demand to live in a metro before 2010, and the factors that led to high demand then are likely to be relevant in the more recent period since 2010-2011. On the other hand, policies that were in effect in the 2000s may not be very predictive of policies in effect since 2010-2011.

The seven included growth variables are population growth from 2000 to 2010, population growth from 2010 to 2012, single-family permits from 2000 to 2009 as a percentage of 2000 total units, multifamily permits as a percentage of 2000 units, CoStar apartment inventory growth from 2007 to 2010, and CoStar apartment new builds as a percentage of 2007 inventory. Our seven included price-to-income

* See underlying data and regression results in the online Data Appendix.

variables are 2010 median home price to median household income, average Zillow home price 2000-2009, average Zillow three-bedroom home price 2000-2009, average Zillow home price 2009-2011, average Zillow three-bedroom home price 2009-2011, average CoStar rent 2007-2009, and average CoStar rent per square foot 2007-2009. Our final variable is average CoStar apartment vacancy rate 2007-2009, with z-scores multiplied by -1.

While we recognize that the demand proxy likely reflects policies in effect before 2010, it turns out that the predicted growth scores our predictive model generates with and without the demand proxy included are very similar (correlation: 0.68).

Second, we infer the position of each metro or locality's demand curve from observed housing growth and price-to-income scores.

We start by converting our composite price-to-income scores to logarithmic scale so that equal-sized differences along a straight-line demand or supply curve will represent equal-sized percentage changes in home price-to-income ratios. Analyzing our metro area data separately from our Sun Belt–Mountain locality data, we regress composite price-to-income scores expressed in logs on our composite housing growth scores.

Again, we estimate all regression models by ordinary least squares.

Figure 7 shows a scatterplot of actual housing growth scores and price-to-income scores at the metro-area level, while Figure 8 shows predicted metro-area housing growth scores against predicted price-to-income scores, with a best-fit regression line superimposed. As expected, both figures show an upward-sloping relationship between the variables. Metros that have experienced relatively fast housing growth typically have relatively high price-to-income ratios. This indicates that differences in demand strongly affect prices – probably with larger effects than the actual differences we see in housing and land-use policies.

Predicted housing growth and price-to-income ratios have a similar relationship in our Sun Belt–Mountain localities dataset. Figure 9 shows actual housing growth and price-to-income scores, while Figure 10 shows predicted housing growth and price-to-income scores. The best-fit line's slope is less steep in the localities dataset: 0.063 for our localities compared to 2.595 for metro areas. This is as expected, since neighboring localities are likely to be closer substitutes for one another in the eyes of people deciding where to live than different metro areas. Easier substitution means we should expect less variation in price-to-income ratios for a given variation in housing growth scores. Still, it's notable that the best-fit line still slopes slightly upward rather than downward for localities. This means demand differences and supply curve differences likely have similar-sized market effects.
Our method reflects the assumption that variation around the upward-sloping best-fit line results from differences across metros and localities in both housing policies and nonhousing factors that affect metro-area housing supply curves like coastlines and mountains that constrain metropolitan expansion. This assumption implies that supply curves for different places would vary based on nonhousing factors even if all metros and localities had the same housing and land-use policies.

Figure 7
Housing growth and prices, actual
(250 largest metros)

Figure 8
Housing growth and prices, predicted
(250 largest metros)

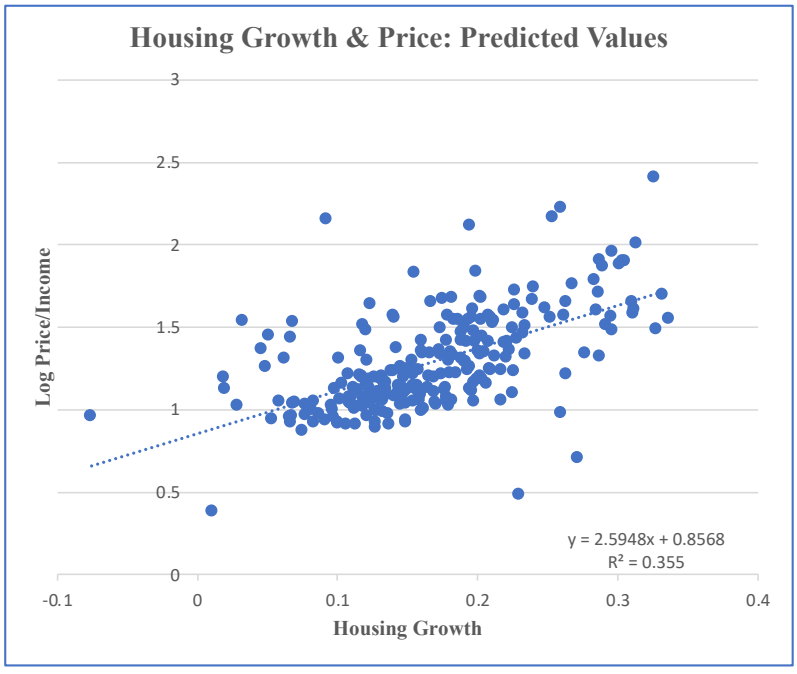


Figure 9
Housing growth and prices, actual
(248 Sun Belt–Mountain localities)

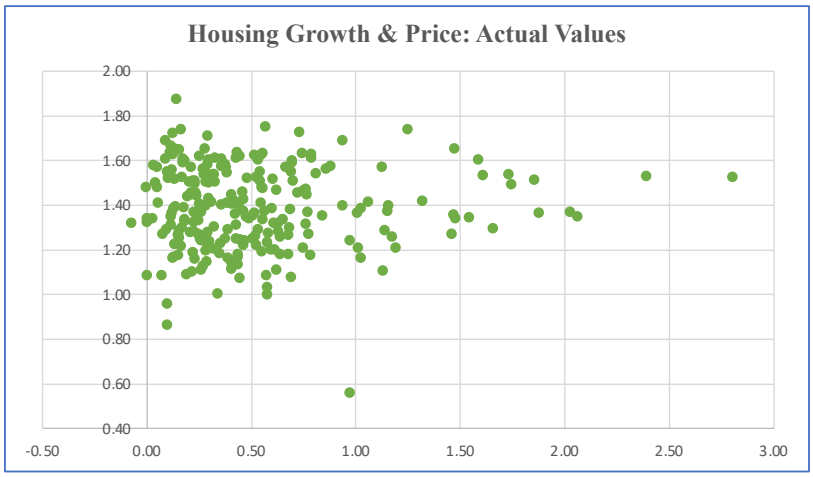
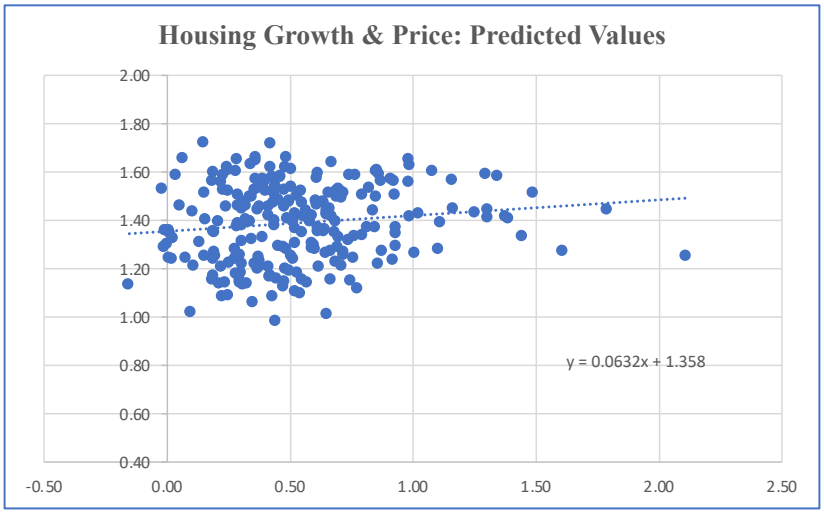


Figure 10
Housing growth and prices, predicted
(248 Sun Belt–Mountain localities)



We estimate the position of each metro's or locality's housing demand curve by assuming that (1) the place's actual housing growth and price-to-income scores represent a point on the place's demand curve (at the intersection with its actual, unobservable supply curve), and (2) all metro-area demand curves have the same constant slope. We assume also that demand curves for all Sun Belt–Mountain localities have the same constant slope as well, with a less steep slope than metro-areas demand curves.

We assume that metro-area "as-if" supply curves – meaning the supply curves metros would have if all metros had the same housing and land-use policies – vary across metros but have the same slope, equal to the coefficient on predicted housing growth scores from regressing predicted home price-to-income

ratios on predicted housing supply growth scores and non-policy supply constraints. The coefficient we derive is similar to but not precisely equal to the slope of the best-fit line from Figure 8. Likewise, we assume that as-if supply curves for our Sun Belt–Mountain localities vary across localities but have the same slope, equal to the coefficient on predicted housing growth scores from a similar regression. This coefficient is likewise similar but not equal to the best-fit line's slope from Figure 10.* In both cases, we estimate as-if supply curves as upward-sloping lines with our calculated slopes, shifted upward or downward based on physical supply constraints imposed by coasts or mountains.

We identify the intersection of our estimated demand curve and estimated as-if supply curve for each metro and locality by combining equations for demand and as-if supply curves.

Demand:

$$P_i = mG_i + (P_0 - mG_0)$$

where	G_i	=	Growth score we would expect for place i if all places have same policies
	P_i	=	Price-to-income ratio for place i if i experienced growth of G_i
	m	=	Slope of metro (or locality) demand curves (see discussion below)
	P_0	=	Actual price-to-income ratio
	G_0	=	Actual housing growth score

Supply:

$$P_i = \beta G_i + Z_i\lambda$$

where	G_i	=	Growth score we would expect for place i if all places have same policies
	P_i	=	Price-to-income ratio for place i if i experienced growth of G_i
	β	=	Slope of metro (or locality) as-if supply curves, from regressions
	Z_i	=	Vector of nonpolicy factors affecting supply curves
	λ	=	Vector of coefficients estimating effect of variation in nonpolicy factors

Combining equations to solve for G_i, we have:

$$mG_i + (P_0 - mG_0) = \beta G_i + Z_i\lambda$$

Rearranging, we arrive at the following:

$$G_i = \left(\frac{1}{\beta - m}\right)[P_0 - mG_0 - Z_i\lambda]$$

To solve for G_i, we plug in the following numbers:

- β is the slope from our two regressions of predicted price-to-income ratios on predicted housing growth scores: 3.114 for metros and 0.160 for localities.

* See regression results in the online Data Appendix.

- m is our assumed constant demand curve slope. For metros, we assume a value of -1.538, and for localities, we assume a value of -1.333. We estimate these slopes based on existing literature on the elasticity of housing demand with respect to price. For metros, we assume that a 1% increase in home price-to-income ratios in a metro area, with housing prices in all other places held constant, is associated with a 0.65% decline in housing demand for housing in that metro. We can think of this demand curve as a compensated demand curve, since higher prices in our dataset tend to come with incomes sufficiently higher to keep utility roughly constant. Several careful studies point to elasticities of compensated housing demand of about -0.65.* For localities, we assume that a 1% price-to-income increase is associated with a 0.75% fall in demand.** These assumed elasticities translate to slopes of -1.538 and -1.333, the respective inverses of -0.65 and -0.75.

- P_0 and G_0 represent actual observed housing growth and price-to-income scores for each metro or locality.

- Z_i: Regressing predicted price-to-income ratios on predicted housing growth scores and other variables, we find that the two variables that most consistently have significant effects on predicted price-to-income ratios at the metro-area level are 2010 density (people per square mile) and whether the place is constrained by a coastline, a binary variable. We assume the vector Z_i consists of these two variables. At the level of Sun Belt–Mountain localities, we find three significant variables: 2010 metro-area density, 2010 locality density, and open space (recalibrated as we explain in our "Sources" discussion above). To arrive at demand curve estimates at the locality level, we assume Z_i consists of these three variables.

- λ: For metros, the vector of effects of variation in Z_i consists of the coefficient 0.0004212 for 2010 density and 0.2402 for the binary coastline variable, both drawn from the regression we note in the previous bullet point. For Sun Belt–Mountain localities, the vector of coefficients – calculated the same way – consists of the coefficient -0.000375 for metro-area density, the coefficient 0.0000551 for locality density, and the coefficient -0.05439 for our open space variable.

With these inputs, we calculate a second predicted housing growth score (G_i) for each metro and locality. Our two demand scores are highly correlated with one another despite the very different ways we estimate them (correlation: 0.84).

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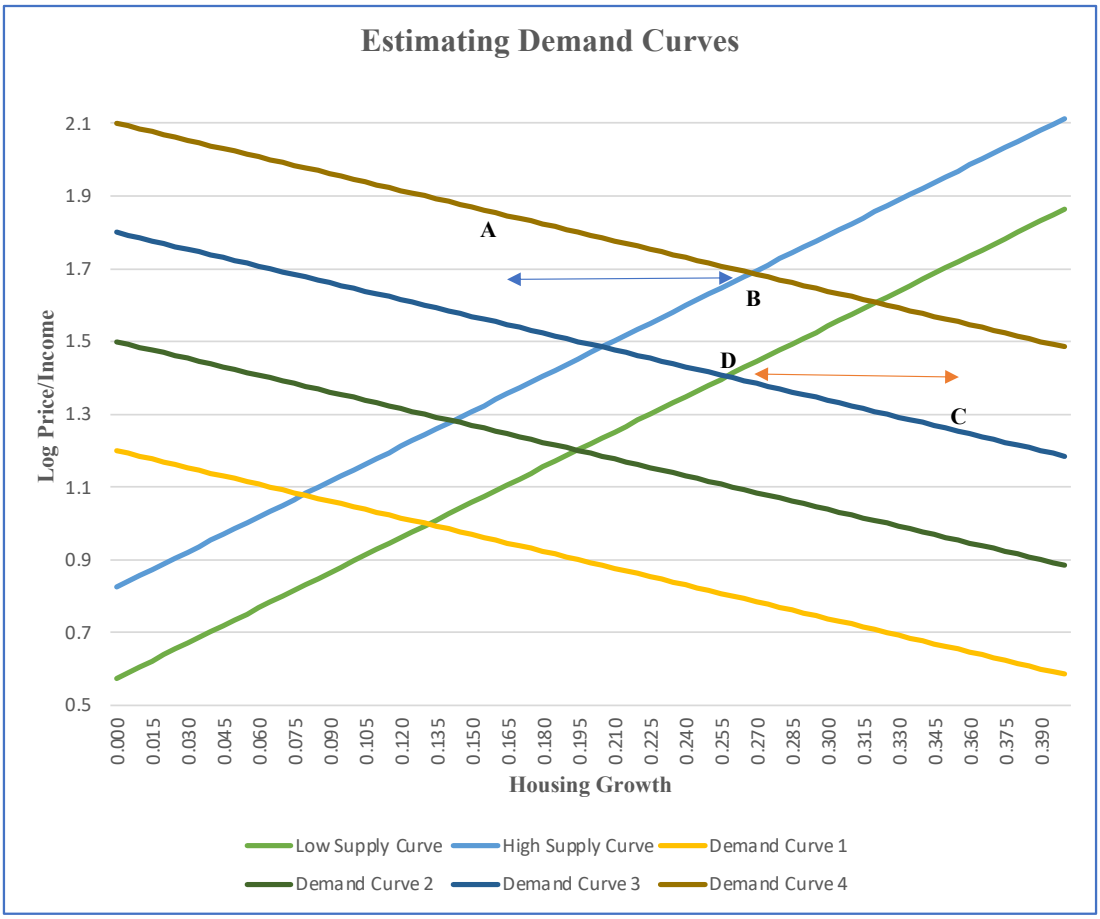
* Eric Hanushek and John Quigley found a long-term elasticity, allowing people multiple years to adjust to price shocks, of -0.65 for the Pittsburgh metro area and -0.45 for the Phoenix metro. David Albouy et al. arrived at a nationwide estimate of about -2/3. They report that the lowest-end estimates in the literature are -0.3 and the highest are about -1.0. (David Albouy et al., "Housing Demand, Cost-Of-Living Inequality, and the Affordability Crisis," NBER working paper 22816 [November 2016], https://www.nber.org/system/files/working_papers/w22816/w22816.pdf). Two other studies point to possible compensated demand elasticities between -0.36 and -1.0: Eric A. Hanushek and John M. Quigley, "What Is the Price Elasticity of Housing Demand?" *Review of Economics and Statistics* 62, no. 3, 449–54 (August 1980), https://hanushek.stanford.edu/sites/default/files/publications/Hanushek%2BQuigley%201980%20REStat%2062%283%29_0.pdf; Stephen K. Mayo, "Theory and Estimation in the Economics of Housing Demand," *Journal of Urban Economics* 10, no. 1, 95–116 (1981), https://doi.org/10.1016/0094-1190(81)90025-5; Oskar R. Harmon, "The Income Elasticity of Demand for Single-Family Owner-Occupied Housing: An Empirical Reconciliation," *Journal of Urban Economics* 24, no. 2, 173–85 (1988), https://doi.org/10.1016/0094-1190(88)90037-X .

** We are not aware of studies quantifying the elasticity of housing demand with respect to price in individual localities, where prices are held constant in neighboring localities in the same metro area. We arrive at an estimate of -0.75 based on the observation that elasticity is almost surely higher than at the metro-area level because it's much easier to substitute one locality for another one. But we also believe it makes sense to assume an elasticity lower than -1.0, since our data suggests that comparable people devote slightly higher shares of their income to housing in more expensive localities than in cheaper neighboring ones.

We calculate the average of our two predicted housing growth scores to arrive at our prediction for how much housing growth each metro or locality would have realized if all places had the same housing and land-use policies. We subtract this number from each place's actual score to arrive at our housing policy score, based on the assumption that this difference is due primarily to differences in policies.

Figure 11 illustrates our method graphically.

Figure 11
Estimating demand curves from prices
(250 largest metros)



Consider, first, an expensive metro area H that has the actual housing growth and home price-to-income scores identified by point A and a relatively constraining set of nonhousing factors that result in it having the higher and further left of the two upward-sloping as-if supply curves we show in the figure. The highest and furthest-out downward-sloping demand curve we show passes through point A. If all metros had the same housing policies, our second approach predicts that metro H would have the housing growth and price-to-income ratios identified by point B. The horizontal distance from A to B represents the extent to which actual housing growth in H has fallen short relative to what we would expect if all metros had the same policies.

Alternatively, consider a cheaper metro L that has the actual scores identified by point C and less constraining density and geography, such that L has the lower and further right upward-sloping as-if supply curve. The second highest downward-sloping demand curve in the figure passes through point C. If all metros had identical policies, our approach predicts metro L would have the scores identified by point D. The horizontal distance between C and D represents the degree to which housing growth in L has outperformed relative to predicted growth, pointing to relatively pro-growth policies in metro L.

We include two more demand curves (curves 1 and 2) lower down in the figure to illustrate the point that, in our second approach, there are as many parallel demand curves as there are metros. Similarly, there are as many demand curves as there are localities in our separate localities dataset.

Location of midrange and subsidized apartments within cities: We aggregate total inventory and new build data for income-restricted and midrange apartments for each municipality for which we have data in the Yardi Matrix dataset, where we define "midrange" as the total of four Yardi Matrix categories: upper midrange, lower-midrange, upper workforce, and lower workforce. We overlay maps of each city showing how Yardi defines submarkets on Census tract maps of the same cities, and we build lists of Census tracts corresponding as closely as possible to each Yardi submarket. In most cases, a Yardi submarket contains roughly 10 to 20 Census tracts. We download a variety of demographic and economic data for all included Census tracts from the U.S. Census American Community Survey, then aggregate total or population-weighted average figures for each demographic or economic variable of interest for each submarket. This method allows us to describe demographic and economic characteristics of each Yardi submarket, and to evaluate relationships between Yardi midrange and income-restricted housing data and other characteristics at the submarket level.

Evaluating crowd-out effects: To analyze whether new apartments crowd out single-family development at the metro-area or locality level, we run a series of regressions with single-family permits per capita as the dependent variable and multifamily new builds per capita – as measured by several different metrics in our dataset – as the explanatory variable of interest, with a set of additional variables that collectively predict single-family development per capita as controls.

To analyze whether new midrange or subsidized apartments crowd out single-family or market-rate multifamily development, we repeat this process with single-family or market-rate multifamily development per capita as the dependent variable, relevant measures of subsidized development per capita as explanatory variables of interest, and additional variables that predict the relevant dependent variable as controls.

See all regression results in the online Data Appendix.

Counterfactual exercises: We described two counterfactual exercises at the end of Section III.

In our first counterfactual exercise, we estimate how many more housing units would have been built in the nation's 250 largest metro areas if all metros had land-use policies as pro-growth as our 25 Sun Belt–Mountain metros.

The Sun Belt–Mountain metros have a population-weighted-average policy score 12 points higher than metropolitan America as a whole. We start by adding 12 percentage points to the predicted housing growth scores of all 250 metros. This means that very high-performing metros would have lower scores

than they have in actuality, though it moves housing growth scores upward for most metros – in some cases by a long way.

Adding 12 percentage points to predicted housing growth scores means shifting the aggregate housing supply curve 12 percentage points to the right relative to where it has actually been. (The actual population-weighted average housing growth score for the 250 largest metros was 0.13.) However, every individual metro in this scenario would have lower housing demand than it has in fact had, since most other metros would offer more attractive alternatives than they did between 2010 and 2023. So the aggregate housing demand curve would shift downward and to the left. But how much would it shift?

To resolve this question, we have to introduce another assumption regarding the elasticity of aggregate housing demand with respect to the national home price level. This elasticity is significantly lower than the elasticity of housing demand with respect to price for any one metro holding prices in other metros constant. For any one metro, people can respond to higher prices by reducing their housing consumption – e.g., living with their parents or choosing a smaller home – or by moving to another metro. For the nation as a whole, people can respond only by reducing housing consumption. (We set aside the possibility of moving to another country or outside the 250 largest metros for simplicity.) Since people have in fact been moving in large numbers from the most expensive metros to somewhat more affordable places, we know the difference in elasticities is relatively large. We assume for present purposes that the elasticity of aggregate housing demand with respect to the national home price level in the 250 largest metros is -0.2. This translates to a slope for the aggregate housing demand curve, which we'll label m_{AGG}, of -5.0.

We want to solve for the increase in housing growth that would occur in equilibrium from these shifts in policy. Let H_0 be the weighted average housing growth score across all metros in the base-case scenario – the one that actually prevailed from 2010 to 2023 – and let H_G be the weighted average housing growth score under our counterfactual assumptions. Each metro that would have more pro-growth housing policy in the counterfactual scenario would see lower home prices as a result. For the 250 metros as a whole, the outward shift in the aggregate supply curve by the amount $(H_G - H_0)$ would reduce the aggregate price level by this amount times the slope of the upward-sloping supply curve, which we've labeled β.

At the same time, the decline in the aggregate housing price level would also be equal to the equilibrium change in aggregate housing growth from the base case to the counterfactual scenario, times the slope of the aggregate housing demand curve m_{AGG}. Let H_{CF} be the weighted average housing growth in equilibrium in the counterfactual scenario. We then have the following:

$$m_{AGG}(H_{CF} - H_0) = \beta(H_G - H_0)$$

Rearranging, we arrive at the following:

$$H_{CF} = \frac{\beta H_G - m_{AGG} H_0}{\beta - m_{AGG}}$$

We have a value for β derived from actual data, an assumed value for m_{AGG}, a base-case weighted average value for H_0 of 0.13, and an assumed value for H_G of 0.25 (0.13 + 0.12). It follows that H_{CF} in our counterfactual analysis is 0.1760.

This means each metro adds 0.0460 more units in equilibrium than its predicted growth score, not 0.12 more units. Again, most metros add more units in the counterfactual scenario, but some add fewer units. The difference in units relative to the base case translates to a lower local price-to-income ratio than in the base case for metros that add more, which we calculate using our assumed local demand curve slope of -1.538.

Aggregating up the changes in housing growth and price-to-income scores for all 250 metros, we calculate that aggregate housing growth would be 5.6% higher than in the real-world base case, and aggregate price-to-income levels would be 26.9% lower. This translates to 5.6 million more housing units in the 250 metros, $117,000 lower home prices, and $448 lower monthly rents on average.

Since the 250 largest metros account for 81.3% of the total U.S. population, the addition of 5.6 million housing units in the 250 largest metros would translate to 6.9 million more units nationwide if the rest of the United States experienced the same improvement. Under this scenario, America would have entirely avoided its crisis of underbuilding since 2000.

Our second counterfactual exercise makes more cautious assumptions. Here we assume that all metros improve their actual housing policy score by 0.12 or to the 0.25 level of the 25 Sun Belt–Mountain metros, whichever is lower. Metros with real-world scores above 0.25 remain the same in this scenario. Most metros have better policy scores, but some still have scores well below the level our demand model predicts. This scenario recognizes that it may be impossible to achieve policy improvements as dramatic as (say) the difference between low-performing San Jose and high-performing Austin.

In this scenario, differences between base case and counterfactual policy improvement vary across metros, so we can't use an equation as simple as the one in the first exercise. To simplify, we assume that each metro increases housing growth in equilibrium by the amount of its improved policy score times 38.3% (our equilibrium change as a share of the rightward shift in the supply curve in the first exercise: 0.0460 divided by 0.12).

Again aggregating up changes in housing growth and price-to-income ratios in equilibrium, we estimate that aggregate housing growth would be 3.0% higher than in the base case, and aggregate price-to-income levels would be 15.8% lower. This scenario translates to 3.0 million more housing units in the 250 largest metros, $69,000 lower home prices, and $263 lower monthly rents on average.

Methods for Section IV: Principles for building affordable, high-opportunity cities

Thought experiment on how to reach 28 added million units: As we state in Section IV of this report, we estimate that relatively successful land-use reforms could increase the density of built-up core urban and inner-ring suburban areas by 5%, amounting to 4 million housing units. Our math: The core cities of America's 50 largest metros have total population of 50 million. Based on our analysis of our 25 Sun Belt–Mountain metros, we loosely estimate that 30% of the population of a typical metro lives in the core city, 50% lives in built-up inner-ring suburbs, and 20% lives in lower-density outer-ring suburban/exurban areas. Based on these percentages, we estimate that just over 200 million people live in core urban or inner-ring suburban areas in America's 250 largest metros. This translates to roughly 80 million housing units. A 5% increase in density would thus add 4 million units.

We explain how we get to our estimate of 28 million housing units in a footnote on p. 59. If built-up core and inner-ring suburban areas add 4 million units, America would need to add 24 million units in outwardly expanding exurban areas. We arrive at the numbers in our thought experiment by the following steps:

- **Our 25 fast-growing Sun Belt–Mountain metro areas:** Increasing density in built-up urban areas would add 1.2 million units. Adding these plus 11 million in outwardly expanding areas increases the total housing stock by 50% by 2050, just ahead of our simple projection of 45% population growth and in line with our projected need for new housing. It also tracks closely with official state demographers' projections for growth in the major Sun Belt–Mountain metros. Conservatively, adding 11 million units at the Fort Worth-McKinney density of about 3,600 people per square mile on what is now raw or lightly populated land would require about 11,000 square miles, which amounts to expanding built-up areas in these metros by about 16%.

- **Our 25 Northeast–Pacific Coast metros:** We assume arbitrarily that our 25 Northeast–Pacific Coast metros, some of which are high-demand places, can expand 3% and add 2 million units at Fort Worth-level density.

- **The other 200 of America's 250 largest metros:** To reach 24 million and taking the contribution from outward expansion in the first two groups, the other 200 metros would have to add 11 million units in outwardly expanding areas. Building these areas out at Fort Worth-level density, would require up to 11,000 square miles. It's harder to gauge the total built-up area of these metros, but we very roughly estimate that this expansion would increase their built-up area by 9%.

- Adding the three groups together, outward expansion at Fort Worth's density level of 3,600 people per square mile would require up to 24,000 square miles, increasing the total built-up area of the 250 largest metros by about 10%. (Note: The total area of the counties included in America's 250 largest metros is about 800,000 square miles, but we estimate that only about 250,000 to 300,000 square miles are built up.)

Consider, further, what Fort Worth or McKinney-level density would look like. Suppose 30% of each square mile of expanding metro areas is available for residential development, and localities allocate 7.5% of this residential area to multifamily and 7.5% to relatively dense townhomes or small-lot cluster homes, amounting to 14 acres each. Based on industry benchmarks,* localities could build about 40 apartments or 12 townhomes or cluster homes per acre. This implies 728 apartments, townhomes, or cluster homes – or about 1,600 people – in each square mile. This would leave 7.1 million square feet of residential land that would need to hold about 816 single-family homes on somewhat larger lots. Each square mile could hold this many homes if the average lot size were 8,700 square feet – slightly larger than the average single-family lot in California today but slightly smaller than the average in Texas.

However, if the 250 larges metros were to expand by 10% but build at low density, the projections look very different. Suppose localities were to prohibit apartments, plexes, townhomes, and small-lot cluster homes entirely and build out all of this new residential area with lot sizes averaging 16,000 square feet. The resulting density would be only about 1,260 people per square mile – just over a third of the Fort

* "Calculator: Density Guide," JHP, https://jhparch.com/density.

Worth-McKinney level. In this scenario, America would almost surely build far fewer homes than it needs, and the nation's housing crisis would get a lot worse.

Walkability model: We estimate how walkable each metro is on average by comparing the share of working people who mostly walk to work to the share we would project based on a simple predictive model. Our reasoning: The share who walk to work might reflect how manageable and pleasant it is to walk to work, but it might also reflect additional factors that influence commuting decisions that don't in themselves make walking more or less manageable or pleasant. For instance, more people are likely to walk to work in cities with bad traffic congestion and average commuting times even if the city isn't well designed to make life more pleasant for pedestrians.

We identify factors predicting the share of workers who commute by walking through a series of regressions. Factors that predict this percentage in our best-fitting model include the age of the metro's core city (which strongly predicts population density), the share of people in the metro who live and work in the same county, and average July temperature.[*] Our data only allows us to estimate walkability for 41 large metros.

Based on this method, metros scoring high for walkability are mostly the largest Northeast–Pacific Coast metros, while metros scoring lowest are mostly in the Midwest. Our Sun Belt–Mountain metros plus Chicago generally score in the middle of the pack.

Effects of specific policies: We estimate the effect of specific identifiable policies on home price-to-income ratios in our 248 Sun Belt–Mountain localities by regressing a series of home price-to-income ratios on measures for each policy, with all variables we've identified that influence price-to-income ratios as controls.[**]

We analyze the effects of the following specific policies:

- **Multifamily unit new builds per capita:** Since virtually all localities heavily restrict multifamily development, we judge that the number of multifamily units that actually get built is implicitly a policy decision.

- **Plex unit new builds per capita:** Same reasoning as above.

- **New midrange apartments per capita:** Same reasoning as above.

- **New subsidized and/or income-restricted apartments per capita:** Development of new subsidized or income-restricted apartments typically requires specific approval from local governments and also some form of subsidy paid for or directed by local governments, so both the number and location of new units are policy decisions.

- **New low income housing tax credit (LIHTC)-funded units:** Local governments must specifically approve development of LIHTC-funded units, so the number and location of new units are policy decisions.

[*] See regression results in the online Data Appendix.
[**] See regression results in the online Data Appendix.

- **Minimum lot size:** Every locality in our Sun Belt–Mountain dataset has minimum lot size rules. While local zoning ordinances typically contain rules for more than one type of single-family zone, we've attempted to identify the minimum allowable lot size in the exclusively single-family zone type that allows the smallest lots by inspecting zoning ordinances.

In our Sun Belt–Mountain localities, all but the last policy are highly corelated with one another: Localities that score relatively high for any one tend to score high on others. Minimum lot sizes, by contrast, have essentially no correlation with the other policy variables.

Our analysis of the effects of variation in these policies on home price-to-income ratios shows the following:

- The first five policies are positively associated with our housing policy scores and with various measures of housing growth, but they generally don't predict home price-to-income ratios, whether we include our overall housing price scores as right-side controls or not. In most cases, if we include both overall housing policy scores and specific affordable housing policies as right-side variables, outperformance on the former strongly predicts lower home price-to-income ratios, but specific affordable housing policy scores are positively associated with price-to-income ratios. We don't believe that policies resulting in greater-than-average construction of midrange, subsidized, or LIHTC-funded apartments actually raise housing cost burdens. Rather, we infer that (1) they don't make much difference after we control for the overall policy environment for market-rate development, and (2) cities with especially severe housing cost burdens are probably more likely to invest capital and effort in building subsidized housing units. On the other hand, our data at the both the metro-area and locality levels shows that cities with particularly severe housing crises aren't more likely than others to adopt generally pro-growth policies in response.

- Lower minimum lot sizes are associated with lower home price-to-income ratios in our Sun Belt–Mountain localities, but the effects we estimate generally don't reach conventional levels of statistical significance. We believe the small and insignificant effects we estimate are due to two factors. First, very low or negative correlations with other growth-oriented policies mean very few cities are pursuing a pro-housing policy agenda across the board. Restrictive rules in other respects likely reduce the beneficial effects of having looser lot size rules in most of these cities. Second, the variation we observe in minimum lot sizes across these cities may be too small to produce large effects. Most of the cities for which we have data have minimum lot sizes between 5,000 and 7,500 square feet. It may be that the minimum lot size differences across cities must be wider for lower size to generate statistically significant differences in home prices. In the study by Gyourko and McCulloch we cite in our main text, more permissive cities had minimums less than half as large as the minimums of otherwise comparable cities with restrictive lot size rules.

Appendix 3: Detailed Tables

Table A
Shares of housing production, 2010-2023

	Shares of New Housing Production (% of total for 250 largest metros)					Population	
	All Homes	Single-Family	Multi-Family	Mid-Range Apartments	Inc-restricted Apartments	2010	2022
Houston, TX	5.2%	5.9%	4.3%	3.8%	2.4%	2.4%	2.7%
Dallas-Fort Worth, TX	5.1%	4.9%	5.6%	5.5%	2.9%	2.6%	2.9%
Atlanta, GA	2.8%	3.2%	2.3%	3.0%	2.7%	2.1%	2.3%
Phoenix, AZ	2.7%	3.0%	2.3%	2.1%	1.3%	1.7%	1.9%
Austin, TX	2.6%	2.3%	3.3%	3.5%	3.0%	0.7%	0.9%
Charlotte, NC-SC	1.9%	2.1%	1.7%	2.4%	1.5%	0.9%	1.0%
Orlando, FL	1.9%	1.9%	1.9%	2.2%	1.0%	0.9%	1.0%
Nashville, TN	1.7%	1.8%	1.8%	1.9%	1.3%	0.7%	0.8%
Denver, CO	1.7%	1.4%	2.3%	2.6%	3.3%	1.0%	1.1%
Tampa-St. Petersburg, FL	1.6%	1.7%	1.4%	1.7%	1.6%	1.1%	1.2%
Raleigh, NC	1.3%	1.5%	1.1%	1.4%	0.8%	0.5%	0.5%
San Antonio, TX	1.2%	1.2%	1.2%	2.2%	1.9%	0.9%	1.0%
Jacksonville, FL	1.2%	1.4%	0.8%	0.9%	0.5%	0.5%	0.6%
Las Vegas, NV	1.1%	1.3%	0.7%	0.7%	0.9%	0.8%	0.9%
North Port-Sarasota, FL	0.8%	0.9%	0.5%	0.0%	0.0%	0.3%	0.3%
Salt Lake City, UT	0.7%	0.6%	0.9%	0.8%	0.7%	0.4%	0.5%
Boise, ID	0.7%	0.8%	0.4%	0.5%	0.2%	0.2%	0.3%
Cape Coral-Fort Myers, FL	0.7%	0.7%	0.5%	0.0%	0.0%	0.3%	0.3%
Charleston, SC	0.6%	0.7%	0.5%	1.4%	0.2%	0.3%	0.3%
Provo, UT	0.5%	0.6%	0.4%	0.5%	0.4%	0.2%	0.3%
Greenville, SC	0.5%	0.7%	0.3%	0.8%	0.4%	0.3%	0.4%
Lakeland-Winter Haven, FL	0.5%	0.7%	0.2%	0.0%	0.0%	0.2%	0.3%
Colorado Springs, CO	0.5%	0.5%	0.4%	0.4%	0.3%	0.3%	0.3%
Fayetteville-Springdale, AR	0.4%	0.5%	0.2%	0.6%	0.1%	0.2%	0.2%
Deltona-Daytona Beach, FL	0.3%	0.5%	0.1%	0.0%	0.0%	0.2%	0.3%
25 Sun Belt-Mountain Metros	**37.9%**	**40.4%**	**35.0%**	**38.9%**	**27.4%**	**19.8%**	**22.2%**
25 Northeast-Pacific Metros	**17.3%**	**10.9%**	**27.7%**	**16.8%**	**28.4%**	**29.0%**	**27.6%**
50 Other Top 100 Metros	**26.4%**	**26.9%**	**25.2%**	**33.1%**	**35.8%**	**32.7%**	**32.0%**
Next 150 Metros	**18.4%**	**21.8%**	**12.1%**	**11.2%**	**8.4%**	**18.5%**	**18.2%**

Sources: Author's calculations based on housing and population data from the U.S. Census and housing data from Yardi Matrix.

Table B

Housing policy scores, 2010-2023

(250 largest metros)

	Policy Scores	Score	Actual Growth	Predicted Growth		Policy Scores	Score	Actual Growth	Predicted Growth
1	Myrtle Beach, SC	0.60	0.92	0.32	51	Midland, TX	0.05	0.24	0.19
2	Salisbury, MD-DE	0.54	0.85	0.31	52	Laredo, TX	0.05	0.26	0.21
3	St. George, UT	0.28	0.63	0.35	53	Punta Gorda, FL	0.05	0.28	0.23
4	Charlotte, NC-SC	0.27	0.49	0.22	54	Gulfport-Biloxi, MS	0.05	0.24	0.19
5	Austin, TX	0.26	0.56	0.30	55	North Port-Sarasota, FL	0.05	0.28	0.23
6	Greenville, SC	0.21	0.40	0.19	56	Augusta, GA-SC	0.05	0.19	0.14
7	Provo, UT	0.21	0.56	0.35	57	Savannah, GA	0.05	0.22	0.18
8	Bowling Green, KY	0.18	0.36	0.18	58	Knoxville, TN	0.04	0.21	0.17
9	Houston, TX	0.18	0.30	0.13	59	Tuscaloosa, AL	0.04	0.21	0.17
10	Raleigh, NC	0.18	0.40	0.23	60	Madison, WI	0.03	0.21	0.18
11	Sioux Falls, SD	0.17	0.34	0.17	61	Wilmington, NC	0.03	0.22	0.19
12	Jacksonville, NC	0.16	0.36	0.20	62	Pensacola, FL	0.03	0.18	0.15
13	Greeley, CO	0.16	0.44	0.28	63	Panama City, FL	0.03	0.22	0.19
14	Des Moines, IA	0.16	0.31	0.14	64	Green Bay, WI	0.03	0.08	0.05
15	Winston-Salem, NC	0.16	0.31	0.15	65	Appleton, WI	0.03	0.12	0.09
16	Warner Robins, GA	0.15	0.28	0.13	66	Dover, DE	0.03	0.25	0.22
17	Charleston, SC	0.15	0.37	0.22	67	Oklahoma City, OK	0.03	0.15	0.12
18	Fargo, ND-MN	0.14	0.30	0.16	68	Iowa City, IA	0.03	0.20	0.17
19	McAllen, TX	0.13	0.30	0.16	69	Columbus, OH	0.03	0.14	0.11
20	Nashville, TN	0.13	0.38	0.25	70	Naples, FL	0.03	0.32	0.29
21	Auburn, AL	0.12	0.36	0.24	71	Orlando, FL	0.03	0.27	0.25
22	Daphne-Fairhope, AL	0.12	0.40	0.28	72	Lake Charles, LA	0.02	0.20	0.17
23	Burlington, NC	0.11	0.28	0.17	73	Waco, TX	0.02	0.15	0.13
24	Deltona-Daytona Beach, FL	0.10	0.30	0.19	74	Omaha, NE-IA	0.01	0.13	0.12
25	Spartanburg, SC	0.10	0.27	0.17	75	Lincoln, NE	0.01	0.15	0.14
26	Huntsville, AL	0.10	0.28	0.18	76	Cleveland, OH	0.01	0.01	0.00
27	Fayetteville-Springdale, AR	0.10	0.33	0.22	77	Fayetteville, NC	0.01	0.14	0.13
28	Dallas-Fort Worth, TX	0.09	0.27	0.18	78	Trenton-Princeton, NJ	0.01	0.03	0.02
29	Jacksonville, FL	0.09	0.27	0.18	79	New York, NY-NJ-PA	0.01	0.05	0.04
30	Rochester, MN	0.09	0.24	0.15	80	Columbia, SC	0.00	0.16	0.16
31	Lubbock, TX	0.09	0.23	0.14	81	Lafayette, IN	0.00	0.15	0.15
32	Lakeland-Winter Haven, FL	0.09	0.32	0.23	82	Cedar Rapids, IA	0.00	0.07	0.07
33	Gainesville, GA	0.09	0.28	0.19	83	Gainesville, FL	0.00	0.21	0.21
34	Durham-Chapel Hill, NC	0.08	0.30	0.22	84	Billings, MT	0.00	0.20	0.20
35	Youngstown, OH-PA	0.08	-0.04	-0.12	85	Amarillo, TX	0.00	0.10	0.11
36	College Station-Bryan, TX	0.08	0.31	0.23	86	Brownsville-Harlingen, TX	0.00	0.14	0.15
37	Crestview-Fort Walton, FL	0.08	0.30	0.22	87	Peoria, IL	0.00	0.05	0.05
38	Indianapolis, IN	0.08	0.18	0.10	88	Chicago, IL-IN-WI	0.00	0.02	0.03
39	Hilton Head, SC	0.07	0.32	0.25	89	Tampa-St. Petersburg, FL	0.00	0.15	0.15
40	Clarksville, TN-KY	0.07	0.25	0.18	90	Lansing-East Lansing, MI	-0.01	0.09	0.10
41	Cape Coral-Fort Myers, FL	0.07	0.28	0.21	91	Baton Rouge, LA	-0.01	0.17	0.18
42	Killeen-Temple, TX	0.07	0.26	0.19	92	Baltimore, MD	-0.01	0.04	0.05
43	Kennewick-Richland, WA	0.07	0.27	0.20	93	Philadelphia, PA-NJ-DE-MD	-0.01	0.05	0.06
44	Boise, ID	0.06	0.40	0.34	94	Joplin, MO	-0.01	0.08	0.09
45	Grand Rapids, MI	0.06	0.21	0.14	95	Tyler, TX	-0.01	0.15	0.16
46	San Antonio, TX	0.06	0.25	0.19	96	Huntington, WV-KY-OH	-0.01	0.06	0.07
47	El Paso, TX	0.06	0.17	0.11	97	Atlanta, GA	-0.01	0.15	0.16
48	Ogden, UT	0.06	0.32	0.26	98	Detroit, MI	-0.01	-0.01	0.01
49	Lafayette, LA	0.06	0.24	0.18	99	Springfield, IL	-0.01	0.02	0.03
50	Poughkeepsie, NY	0.05	0.09	0.03	100	Virginia Beach-Norfolk, VA	-0.02	0.11	0.12
	Average	**-0.02**	**-0.18**	**0.16**					

Table B (cont.)

Housing policy scores, 2010-2023

(250 largest metros)

	Policy Scores	Score	Actual Growth	Predicted Growth		Policy Scores	Score	Actual Growth	Predicted Growth
101	Jackson, MS	-0.02	0.11	0.13	151	Port St. Lucie, FL	-0.05	0.18	0.23
102	Duluth, MN-WI	-0.02	0.05	0.06	152	Abilene, TX	-0.05	0.07	0.11
103	Little Rock, AR	-0.02	0.12	0.13	153	Canton-Massillon, OH	-0.05	-0.02	0.03
104	Tulsa, OK	-0.02	0.10	0.12	154	Norwich-New London, CT	-0.05	0.03	0.08
105	Mobile, AL	-0.02	0.06	0.08	155	Albany, NY	-0.05	0.07	0.12
106	Minneapolis-St. Paul, MN	-0.02	0.12	0.14	156	Binghamton, NY	-0.05	0.00	0.05
107	Akron, OH	-0.02	0.00	0.02	157	Johnson City, TN	-0.05	0.08	0.13
108	Ocala, FL	-0.02	0.19	0.21	158	Saginaw, MI	-0.05	-0.01	0.04
109	Columbia, MO	-0.02	0.14	0.16	159	St. Cloud, MN	-0.05	0.06	0.11
110	Worcester, MA-CT	-0.02	0.14	0.16	160	St. Louis, MO-IL	-0.05	0.03	0.08
111	Wichita, KS	-0.02	0.05	0.08	161	Champaign-Urbana, IL	-0.06	0.05	0.11
112	New Haven, CT	-0.02	0.01	0.03	162	Monroe, LA	-0.05	0.08	0.13
113	Kansas City, MO-KS	-0.03	0.09	0.11	163	Dayton, OH	-0.05	-0.03	0.02
114	Chattanooga, TN-GA	-0.03	0.12	0.15	164	Portland, ME	-0.05	0.10	0.16
115	Lexington, KY	-0.03	0.11	0.13	165	Terre Haute, IN	-0.05	0.02	0.07
116	Eau Claire, WI	-0.03	0.09	0.12	166	South Bend, IN-MI	-0.05	0.01	0.07
117	Yuba City, CA	-0.03	0.07	0.10	167	Flint, MI	-0.05	-0.06	0.00
118	Fort Wayne, IN	-0.03	0.03	0.06	168	Houma-Thibodaux, LA	-0.06	0.10	0.15
119	Erie, PA	-0.03	0.01	0.04	169	Las Cruces, NM	-0.06	0.15	0.21
120	Davenport, IA-IL	-0.03	0.02	0.05	170	Jackson, TN	-0.06	0.05	0.10
121	Anchorage, AK	-0.03	0.08	0.11	171	Syracuse, NY	-0.06	0.02	0.07
122	Olympia, WA	-0.04	0.19	0.22	172	Charlottesville, VA	-0.06	0.16	0.22
123	Springfield, MO	-0.04	0.10	0.14	173	Atlantic City, NJ	-0.06	0.04	0.10
124	Lancaster, PA	-0.04	0.08	0.11	174	Louisville, KY-IN	-0.06	0.05	0.10
125	Salt Lake City, UT	-0.04	0.21	0.24	175	Boston, MA-NH	-0.06	0.08	0.14
126	Prescott Valley-Prescott, AZ	-0.04	0.20	0.24	176	Racine, WI	-0.06	0.02	0.08
127	Hickory-Lenoir, NC	-0.04	0.07	0.11	177	Topeka, KS	-0.06	-0.01	0.06
128	Washington, DC-VA-MD	-0.04	0.14	0.18	178	Florence, SC	-0.07	0.04	0.10
129	Bend, OR	-0.04	0.32	0.36	179	Utica-Rome, NY	-0.07	-0.01	0.06
130	York-Hanover, PA	-0.04	0.05	0.09	180	Reno, NV	-0.07	0.20	0.27
131	Montgomery, AL	-0.04	0.07	0.11	181	Los Angeles, CA	-0.07	0.03	0.09
132	Athens, GA	-0.04	0.16	0.20	182	Pittsburgh, PA	-0.06	0.01	0.07
133	Beaumont-Port Arthur, TX	-0.04	0.08	0.13	183	Tallahassee, FL	-0.07	0.12	0.18
134	Harrisburg, PA	-0.04	0.06	0.11	184	Memphis, TN-MS-AR	-0.07	0.04	0.10
135	Elkhart-Goshen, IN	-0.04	0.02	0.06	185	Longview, TX	-0.07	0.04	0.11
136	Greensboro-High Point, NC	-0.04	0.08	0.12	186	Colorado Springs, CO	-0.07	0.21	0.28
137	Columbus, GA-AL	-0.04	0.10	0.14	187	Burlington, VT	-0.07	0.13	0.20
138	Hagerstown, MD-WV	-0.04	0.11	0.16	188	Yakima, WA	-0.07	0.09	0.16
139	Bellingham, WA	-0.04	0.19	0.23	189	Lynchburg, VA	-0.07	0.08	0.15
140	Palm Bay-Melbourne, FL	-0.04	0.13	0.17	190	Hartford, CT	-0.07	0.01	0.09
141	Cincinnati, OH-KY-IN	-0.04	0.05	0.09	191	Macon-Bibb County, GA	-0.07	0.03	0.10
142	Rockford, IL	-0.05	-0.03	0.01	192	Milwaukee, WI	-0.07	0.03	0.10
143	Toledo, OH	-0.05	0.00	0.04	193	Richmond, VA	-0.08	0.11	0.19
144	Fort Collins, CO	-0.05	0.27	0.32	194	Phoenix, AZ	-0.08	0.19	0.27
145	Bridgeport-Stamford, CT	-0.05	0.06	0.11	195	Allentown-Bethlehem, PA-NJ	-0.08	0.04	0.12
146	Corpus Christi, TX	-0.05	0.08	0.13	196	Yuma, AZ	-0.08	0.11	0.19
147	Buffalo, NY	-0.05	0.02	0.07	197	Bremerton, WA	-0.08	0.12	0.20
148	Spokane, WA	-0.05	0.22	0.26	198	Shreveport, LA	-0.08	0.04	0.12
149	New Orleans, LA	-0.05	0.11	0.16	199	Scranton-Wilkes-Barre, PA	-0.08	0.00	0.08
150	Rochester, NY	-0.05	0.05	0.10	200	Kalamazoo, MI	-0.08	0.02	0.10
	Average	**-0.02**	**-0.18**	**0.16**					

Table B (cont.)

Housing policy scores, 2010-2023

(250 largest metros)

	Policy Scores	Score	Actual Growth	Predicted Growth
201	Muskegon, MI	-0.08	0.01	0.10
202	Reading, PA	-0.09	0.00	0.09
203	Birmingham, AL	-0.09	0.03	0.12
204	Seattle, WA	-0.09	0.16	0.24
205	Miami-Fort Lauderdale, FL	-0.09	0.08	0.17
206	Portland, OR-WA	-0.09	0.15	0.24
207	Kingsport-Bristol, TN-VA	-0.09	0.02	0.11
208	Denver, CO	-0.10	0.19	0.29
209	Fort Smith, AR-OK	-0.10	-0.02	0.08
210	Roanoke, VA	-0.10	0.02	0.12
211	Asheville, NC	-0.10	0.17	0.27
212	Evansville, IN-KY	-0.10	-0.03	0.07
213	Manchester-Nashua, NH	-0.10	0.05	0.15
214	Visalia, CA	-0.11	0.10	0.20
215	Lake Havasu City, AZ	-0.11	0.11	0.22
216	Stockton, CA	-0.11	0.10	0.21
217	Las Vegas, NV	-0.11	0.17	0.28
218	Albuquerque, NM	-0.11	0.06	0.18
219	Providence, RI-MA	-0.11	0.03	0.14
220	Salem, OR	-0.11	0.10	0.21
221	Ann Arbor, MI	-0.11	0.05	0.16
222	Vallejo, CA	-0.12	0.05	0.17
223	Fresno, CA	-0.12	0.08	0.20
224	Bakersfield, CA	-0.12	0.08	0.20
225	Tucson, AZ	-0.12	0.08	0.21
226	El Centro, CA	-0.13	0.09	0.21
227	Chico, CA	-0.13	0.11	0.24
228	Sacramento, CA	-0.14	0.08	0.22
229	Charleston, WV	-0.14	-0.07	0.07
230	San Francisco-Oakland, CA	-0.14	0.04	0.18
231	Kingston, NY	-0.14	0.02	0.16
232	Medford, OR	-0.14	0.09	0.24
233	Springfield, MA	-0.15	0.00	0.15
234	Merced, CA	-0.16	0.04	0.20
235	Redding, CA	-0.17	0.03	0.20
236	Boulder, CO	-0.18	0.14	0.32
237	Eugene, OR	-0.18	0.06	0.24
238	Riverside-San Bernardino, CA	-0.18	0.07	0.25
239	Modesto, CA	-0.19	0.00	0.19
240	San Diego, CA	-0.19	0.05	0.24
241	San Jose, CA	-0.21	0.09	0.30
242	Oxnard, CA	-0.21	0.03	0.24
243	Honolulu	-0.23	0.06	0.29
244	San Luis Obispo, CA	-0.23	0.05	0.28
245	Coeur d'Alene, ID	-0.25	0.00	0.25
246	Santa Maria-Santa Barbara, CA	-0.26	0.03	0.28
247	Santa Rosa, CA	-0.26	0.03	0.29
248	Barnstable Town, MA	-0.26	0.00	0.26
249	Salinas, CA	-0.28	0.02	0.30
250	Santa Cruz, CA	-0.29	0.00	0.29
	Average	**-0.02**	**-0.18**	**0.16**

Table C

Lower-tier housing policy scores, 2010-2023

(250 largest metros)

		Scores		Actual Growth				Scores		Actual Growth	
		Lower Tier	Main	Lower Tier	Main			Lower Tier	Main	Lower Tier	Main
1	Myrtle Beach, SC-NC	0.64	0.59	0.98	0.91	51	Tuscaloosa, AL	0.04	0.04	0.20	0.20
2	Bowling Green, KY	0.48	0.18	0.68	0.35	52	Laredo, TX	0.04	0.05	0.31	0.26
3	Charlotte, NC-SC	0.41	0.26	0.70	0.48	53	Huntsville, AL	0.03	0.10	0.29	0.28
4	Midland, TX	0.36	0.05	0.23	0.24	54	Greeley, CO	0.03	0.16	0.43	0.44
5	Greenville, SC	0.30	0.21	0.52	0.40	55	Kennewick-Richland, WA	0.03	0.06	0.27	0.26
6	St. George, UT	0.29	0.28	0.75	0.62	56	Jackson, TN	0.03	-0.06	0.09	0.05
7	Winston-Salem, NC	0.28	0.16	0.46	0.30	57	Salisbury, MD-DE	0.03	0.53	0.39	0.84
8	McAllen-Edinburg, TX	0.28	0.13	0.42	0.29	58	Peoria, IL	0.03	0.00	0.10	0.05
9	Charleston, SC	0.25	0.15	0.48	0.37	59	Poughkeepsie, NY	0.02	0.05	0.08	0.09
10	Rochester, MN	0.24	0.09	0.44	0.24	60	York-Hanover, PA	0.02	-0.04	0.10	0.05
11	Des Moines, IA	0.19	0.16	0.38	0.30	61	Boise, ID	0.02	0.06	0.49	0.39
12	Provo, UT	0.19	0.20	0.63	0.55	62	North Port-Sarasota, FL	0.01	0.05	0.26	0.28
13	Burlington, NC	0.18	0.11	0.38	0.28	63	Bellingham, WA	0.01	-0.04	0.31	0.19
14	Gainesville, FL	0.17	0.00	0.48	0.21	64	Muskegon, MI	0.01	-0.08	0.15	0.02
15	Sioux Falls, SD	0.17	0.17	0.42	0.33	65	Durham-Chapel Hill, NC	0.01	0.08	0.33	0.30
16	Deltona-Daytona Beach, FL	0.17	0.10	0.44	0.29	66	Lubbock, TX	0.01	0.09	0.21	0.23
17	Austin, TX	0.17	0.25	0.59	0.56	67	Cleveland, OH	0.00	0.01	0.00	0.01
18	Fargo, ND-MN	0.15	0.14	0.34	0.30	68	South Bend, IN-MI	0.00	-0.05	0.06	0.02
19	Jacksonville, NC	0.14	0.16	0.38	0.36	69	Wilmington, NC	0.00	0.03	0.30	0.22
20	Gainesville, GA	0.14	0.08	0.38	0.28	70	Hilton Head Island, SC	0.00	0.07	0.38	0.32
21	Grand Rapids-Kentwood, MI	0.13	0.06	0.35	0.20	71	Saginaw, MI	0.00	-0.05	0.02	-0.01
22	Jackson, MS	0.12	-0.02	0.26	0.11	72	Davenport-Moline, IA-IL	-0.01	-0.03	0.06	0.02
23	Brownsville-Harlingen, TX	0.11	0.00	0.19	0.14	73	Kansas City, MO-KS	-0.01	-0.03	0.10	0.09
24	Huntington, WV-KY-OH	0.11	-0.01	0.21	0.06	74	Binghamton, NY	-0.01	-0.05	0.04	0.00
25	Hickory-Lenoir, NC	0.10	-0.04	0.23	0.07	75	New York, NY-NJ-PA	-0.01	0.01	0.08	0.05
26	Indianapolis, IN	0.10	0.07	0.22	0.18	76	Albany, NY	-0.01	-0.05	0.13	0.07
27	Daphne-Fairhope, AL	0.10	0.12	0.55	0.40	77	Killeen-Temple, TX	-0.02	0.07	0.19	0.26
28	Youngstown, OH-PA	0.09	0.08	-0.08	-0.04	78	Lafayette, IN	-0.02	0.00	0.19	0.15
29	Trenton-Princeton, NJ	0.09	0.01	0.10	0.03	79	Omaha, NE-IA	-0.02	0.02	0.17	0.13
30	Madison, WI	0.08	0.03	0.38	0.21	80	New Haven, CT	-0.02	-0.02	0.04	0.01
31	Knoxville, TN	0.08	0.04	0.32	0.21	81	Burlington, VT	-0.02	-0.07	0.23	0.13
32	Tyler, TX	0.08	-0.01	0.23	0.15	82	Springfield, IL	-0.02	-0.01	0.04	0.02
33	Columbus, OH	0.08	0.03	0.22	0.14	83	Eau Claire, WI	-0.03	-0.03	0.16	0.09
34	Cape Coral-Fort Myers, FL	0.08	0.07	0.33	0.28	84	Clarksville, TN-KY	-0.03	0.07	0.20	0.25
35	Nashville, TN	0.07	0.12	0.40	0.37	85	Kalamazoo, MI	-0.03	-0.08	0.03	0.02
36	Punta Gorda, FL	0.07	0.05	0.42	0.28	86	Washington, DC-VA-MD	-0.03	-0.04	0.20	0.14
37	Worcester, MA-CT	0.07	-0.02	0.29	0.14	87	Jacksonville, FL	-0.03	0.09	0.24	0.27
38	Appleton, WI	0.07	0.03	0.21	0.12	88	El Paso, TX	-0.03	0.06	0.16	0.17
39	Dallas-Fort Worth, TX	0.07	0.09	0.27	0.27	89	Rochester, NY	-0.03	-0.05	0.10	0.05
40	Terre Haute, IN	0.07	-0.05	-0.02	0.02	90	Little Rock, AR	-0.03	-0.01	0.20	0.12
41	Philadelphia, PA-NJ-DE-MD	0.06	-0.01	0.12	0.05	91	Lancaster, PA	-0.04	-0.04	0.11	0.08
42	Joplin, MO	0.05	-0.01	0.14	0.08	92	Dover, DE	-0.04	0.03	0.20	0.24
43	Augusta, GA-SC	0.05	0.05	0.26	0.19	93	Virginia Beach-Norfolk, VA	-0.04	-0.01	0.19	0.11
44	San Antonio, TX	0.05	0.06	0.30	0.25	94	Bridgeport-Stamford, CT	-0.04	-0.04	0.19	0.06
45	College Station-Bryan, TX	0.05	0.08	0.36	0.31	95	Allentown-Bethlehem, PA-NJ	-0.04	-0.08	0.09	0.04
46	Ogden-Clearfield, UT	0.05	0.05	0.40	0.32	96	Green Bay, WI	-0.04	0.03	0.08	0.09
47	Houston, TX	0.05	0.18	0.27	0.30	97	Prescott, AZ	-0.04	-0.04	0.19	0.20
48	Raleigh, NC	0.05	0.17	0.36	0.40	98	Norwich-New London, CT	-0.04	-0.05	0.13	0.03
49	Montgomery, AL	0.04	-0.04	0.19	0.08	99	Olympia, WA	-0.04	-0.04	0.32	0.19
50	Lansing, MI	0.04	-0.01	0.15	0.09	100	Houma-Thibodaux, LA	-0.04	-0.06	0.13	0.10
	Average	**-0.06**	**-0.02**	**0.15**	**0.14**						

Table C (cont.)

Lower-tier housing policy scores, 2010-2023

(250 largest metros)

		Scores		Actual Growth				Scores		Actual Growth	
		Lower Tier	Main	Lower Tier	Main			Lower Tier	Main	Lower Tier	Main
101	Harrisburg-Carlisle, PA	-0.04	-0.04	0.12	0.07	151	Cincinnati, OH-KY-IN	-0.10	-0.04	0.04	0.05
102	Orlando, FL	-0.04	0.02	0.31	0.27	152	Tampa-St. Petersburg, FL	-0.10	-0.01	0.10	0.14
103	Oklahoma City, OK	-0.05	0.03	0.10	0.15	153	Athens, GA	-0.10	-0.04	0.12	0.16
104	Akron, OH	-0.05	-0.02	0.03	0.01	154	St. Louis, MO-IL	-0.10	-0.05	0.03	0.03
105	Fort Collins, CO	-0.05	-0.05	0.38	0.27	155	Roanoke, VA	-0.10	-0.10	0.01	0.02
106	Duluth, MN-WI	-0.05	-0.01	0.10	0.05	156	Fresno, CA	-0.10	-0.12	0.04	0.08
107	Spartanburg, SC	-0.05	0.10	0.17	0.27	157	Champaign-Urbana, IL	-0.10	-0.05	0.02	0.05
108	Charlottesville, VA	-0.05	-0.06	0.23	0.16	158	Bremerton-Silverdale, WA	-0.10	-0.08	0.15	0.12
109	Syracuse, NY	-0.06	-0.06	0.05	0.02	159	Yakima, WA	-0.10	-0.07	0.10	0.09
110	Amarillo, TX	-0.06	0.00	0.15	0.11	160	Rockford, IL	-0.10	-0.04	-0.06	-0.03
111	Lexington, KY	-0.06	-0.03	0.10	0.11	161	Beaumont-Port Arthur, TX	-0.10	-0.04	0.04	0.09
112	Racine, WI	-0.06	-0.06	0.08	0.02	162	Lake Charles, LA	-0.10	0.02	0.20	0.20
113	Naples, FL	-0.06	0.02	0.34	0.31	163	Springfield, MO	-0.10	-0.04	0.15	0.11
114	Johnson City, TN	-0.06	-0.05	0.09	0.08	164	Kingston, NY	-0.11	-0.14	0.06	0.03
115	Cedar Rapids, IA	-0.06	0.00	0.06	0.07	165	Atlantic City, NJ	-0.11	-0.06	0.04	0.04
116	Buffalo, NY	-0.06	-0.04	0.07	0.03	166	Lynchburg, VA	-0.11	-0.07	0.08	0.08
117	Yuba City, CA	-0.06	-0.03	0.06	0.07	167	Columbus, GA-AL	-0.11	-0.04	0.08	0.10
118	Milwaukee, WI	-0.06	-0.07	0.06	0.03	168	New Orleans, LA	-0.11	-0.05	0.14	0.11
119	Warner Robins, GA	-0.06	0.15	0.11	0.28	169	Louisville, KY-IN	-0.11	-0.06	0.01	0.05
120	Pensacola, FL	-0.06	0.03	0.16	0.18	170	Elkhart-Goshen, IN	-0.11	-0.04	0.00	0.03
121	Waco, TX	-0.06	0.02	0.13	0.15	171	Reading, PA	-0.11	-0.08	0.01	0.01
122	Auburn-Opelika, AL	-0.07	0.12	0.30	0.36	172	Boston, MA-NH	-0.11	-0.06	0.14	0.08
123	Lincoln, NE	-0.07	0.01	0.15	0.15	173	Pittsburgh, PA	-0.11	-0.06	-0.02	0.01
124	Mobile, AL	-0.07	-0.02	0.12	0.06	174	Billings, MT	-0.12	0.00	0.18	0.20
125	Wichita, KS	-0.07	-0.02	0.01	0.05	175	Los Angeles, CA	-0.12	-0.06	0.03	0.03
126	Erie, PA	-0.07	-0.03	0.01	0.01	176	Canton-Massillon, OH	-0.12	-0.05	-0.06	-0.02
127	Iowa City, IA	-0.07	0.03	0.21	0.20	177	Palm Bay-Melbourne, FL	-0.13	-0.04	0.14	0.13
128	Fort Wayne, IN	-0.07	-0.03	-0.02	0.03	178	Panama City, FL	-0.13	0.03	0.10	0.22
129	Savannah, GA	-0.07	0.04	0.18	0.22	179	Richmond, VA	-0.13	-0.08	0.08	0.11
130	Detroit, MI	-0.07	-0.01	-0.04	-0.01	180	Macon-Bibb County, GA	-0.13	-0.07	0.08	0.03
131	Kingsport-Bristol, TN-VA	-0.07	-0.09	0.07	0.02	181	Dayton, OH	-0.14	-0.05	-0.12	-0.03
132	Baltimore, MD	-0.08	-0.01	0.02	0.04	182	Manchester-Nashua, NH	-0.14	-0.10	0.17	0.06
133	Chicago, IL-IN-WI	-0.08	0.00	0.03	0.03	183	Scranton-Wilkes-Barre, PA	-0.14	-0.08	0.00	0.00
134	Utica-Rome, NY	-0.08	-0.06	-0.04	0.00	184	Crestview, FL	-0.14	0.08	0.15	0.30
135	Shreveport, LA	-0.08	-0.08	0.07	0.05	185	Birmingham, AL	-0.14	-0.08	0.03	0.03
136	Tulsa, OK	-0.08	-0.02	0.08	0.10	186	Anchorage, AK	-0.15	-0.03	0.05	0.08
137	Bend, OR	-0.08	-0.04	0.42	0.32	187	Asheville, NC	-0.15	-0.10	0.16	0.17
138	Toledo, OH	-0.08	-0.04	-0.03	0.00	188	Sacramento, CA	-0.15	-0.13	0.08	0.09
139	Baton Rouge, LA	-0.08	-0.01	0.15	0.17	189	Salt Lake City, UT	-0.15	-0.04	0.24	0.20
140	Abilene, TX	-0.08	-0.05	0.05	0.07	190	Monroe, LA	-0.15	-0.05	0.01	0.08
141	Longview, TX	-0.08	-0.07	0.24	0.04	191	Fayetteville, NC	-0.15	0.01	0.01	0.14
142	Lakeland-Winter Haven, FL	-0.08	0.09	0.23	0.31	192	Atlanta, GA	-0.15	-0.01	0.10	0.15
143	Providence, RI-MA	-0.09	-0.11	0.07	0.03	193	Corpus Christi, TX	-0.16	-0.05	-0.01	0.08
144	Spokane, WA	-0.09	-0.05	0.31	0.22	194	Columbia, SC	-0.16	0.00	0.03	0.16
145	Hartford, CT	-0.09	-0.07	0.03	0.01	195	Portland, ME	-0.16	-0.05	0.12	0.10
146	Greensboro-High Point, NC	-0.09	-0.04	0.09	0.08	196	Memphis, TN-MS-AR	-0.16	-0.07	-0.05	0.04
147	El Centro, CA	-0.09	-0.13	0.17	0.09	197	Visalia, CA	-0.16	-0.11	0.07	0.10
148	Chattanooga, TN-GA	-0.09	-0.03	0.09	0.12	198	Salem, OR	-0.17	-0.11	0.09	0.10
149	Miami-Fort Lauderdale, FL	-0.09	-0.09	0.13	0.08	199	Tallahassee, FL	-0.17	-0.06	0.24	0.12
150	Minneapolis-St. Paul, MN-WI	-0.10	-0.02	0.11	0.12	200	St. Cloud, MN	-0.17	-0.05	0.01	0.06
	Average	**-0.06**	**-0.02**	**0.15**	**0.14**						

Table C (cont.)

Lower-tier housing policy scores, 2010-2023

(250 largest metros)

		Scores		Actual Growth	
		Lower Tier	Main	Lower Tier	Main
201	Ocala, FL	-0.17	-0.02	0.11	0.19
202	Portland, OR-WA	-0.18	-0.09	0.16	0.15
203	Topeka, KS	-0.18	-0.06	-0.08	-0.01
204	Albuquerque, NM	-0.18	-0.11	0.04	0.06
205	Flint, MI	-0.18	-0.05	-0.16	-0.06
206	Lafayette, LA	-0.19	0.06	0.00	0.24
207	Redding, CA	-0.19	-0.17	0.06	0.04
208	Fayetteville-Springdale, AR	-0.20	0.10	0.10	0.32
209	Hagerstown, MD-WV	-0.20	-0.04	0.04	0.12
210	Port St. Lucie, FL	-0.20	-0.05	0.11	0.18
211	Reno, NV	-0.20	-0.07	0.18	0.20
212	Springfield, MA	-0.20	-0.15	0.01	0.00
213	Boulder, CO	-0.20	-0.17	0.27	0.14
214	Denver, CO	-0.20	-0.10	0.20	0.19
215	Phoenix, AZ	-0.21	-0.08	0.21	0.20
216	Ann Arbor, MI	-0.21	-0.11	0.05	0.04
217	Riverside-San Bernardino, CA	-0.22	-0.18	0.01	0.07
218	Columbia, MO	-0.22	-0.02	0.00	0.14
219	Vallejo, CA	-0.22	-0.12	0.05	0.06
220	Oxnard-Ventura, CA	-0.22	-0.21	0.08	0.03
221	Las Vegas, NV	-0.23	-0.11	0.31	0.18
222	Bakersfield, CA	-0.23	-0.12	0.03	0.08
223	Yuma, AZ	-0.23	-0.08	-0.02	0.12
224	Florence, SC	-0.23	-0.06	-0.13	0.04
225	Charleston, WV	-0.23	-0.13	-0.13	-0.07
226	Fort Smith, AR-OK	-0.24	-0.09	-0.13	-0.01
227	Las Cruces, NM	-0.24	-0.06	0.03	0.15
228	Tucson, AZ	-0.24	-0.12	0.03	0.09
229	Seattle, WA	-0.24	-0.09	0.15	0.16
230	Modesto, CA	-0.25	-0.19	-0.03	0.00
231	Evansville, IN-KY	-0.25	-0.10	-0.16	-0.03
232	Stockton, CA	-0.25	-0.11	0.01	0.10
233	Eugene, OR	-0.25	-0.18	0.04	0.06
234	San Francisco-Oakland, CA	-0.26	-0.14	0.05	0.04
235	Colorado Springs, CO	-0.26	-0.07	0.14	0.21
236	Medford, OR	-0.26	-0.14	0.06	0.09
237	San Diego, CA	-0.26	-0.19	0.05	0.05
238	Barnstable Town, MA	-0.28	-0.26	0.08	0.01
239	Gulfport-Biloxi, MS	-0.28	0.05	-0.01	0.24
240	Lake Havasu City, AZ	-0.28	-0.11	0.04	0.11
241	San Jose-Sunnyvale, CA	-0.29	-0.21	0.13	0.09
242	Merced, CA	-0.33	-0.16	-0.08	0.04
243	Honolulu	-0.34	-0.22	0.07	0.06
244	Salinas, CA	-0.36	-0.28	0.03	0.02
245	Santa Rosa, CA	-0.37	-0.26	-0.04	0.03
246	Santa Cruz, CA	-0.38	-0.29	0.03	0.00
247	San Luis Obispo, CA	-0.40	-0.23	0.00	0.06
248	Santa Maria-Santa Barbara, CA	-0.40	-0.25	0.00	0.03
249	Chico, CA	-0.46	-0.13	-0.10	0.11
250	Coeur d'Alene, ID				
	Average	**-0.06**	**-0.02**	**0.15**	**0.14**

Table D

Change in housing policy scores, 2017-2023 vs. 2010-2016

(250 largest metros)

	Change in Policy Scores	Change in Scores	Score, 2010-16	Score, 2017-23		Change in Policy Scores	Change in Scores	Score, 2010-16	Score, 2017-23
1	Springfield, MA	0.21	-0.20	0.01	51	Providence, RI-MA	0.03	-0.08	-0.05
2	Punta Gorda, FL	0.15	-0.08	0.07	52	Redding, CA	0.03	-0.12	-0.09
3	Toledo, OH	0.15	-0.10	0.05	53	Yuba City, CA	0.03	-0.04	-0.01
4	Lakeland-Winter Haven, FL	0.14	-0.05	0.09	54	Richmond, VA	0.03	-0.05	-0.02
5	Charleston, WV	0.13	-0.14	-0.01	55	McAllen-Edinburg, TX	0.03	0.09	0.12
6	Wilmington, NC	0.12	-0.08	0.05	56	Duluth, MN-WI	0.03	-0.02	0.01
7	Gainesville, GA	0.12	-0.01	0.11	57	Los Angeles, CA	0.03	-0.06	-0.03
8	Lansing, MI	0.12	-0.05	0.07	58	Anchorage, AK	0.03	-0.01	0.01
9	Gainesville, FL	0.12	-0.06	0.05	59	Abilene, TX	0.03	-0.03	-0.01
10	Greeley, CO	0.10	0.06	0.17	60	Miami-Fort Lauderdale, FL	0.03	-0.06	-0.03
11	St. George, UT	0.09	0.13	0.22	61	Youngstown, OH-PA	0.03	0.03	0.06
12	Tyler, TX	0.09	-0.04	0.05	62	Burlington, NC	0.03	0.05	0.08
13	Evansville, IN-KY	0.09	-0.12	-0.03	63	Louisville, KY-IN	0.03	-0.05	-0.02
14	Salt Lake City, UT	0.09	-0.05	0.04	64	Lafayette, IN	0.02	0.01	0.03
15	Daphne-Fairhope, AL	0.09	0.03	0.12	65	Montgomery, AL	0.02	-0.02	0.01
16	Athens, GA	0.09	-0.06	0.02	66	Muskegon, MI	0.02	-0.07	-0.04
17	Prescott, AZ	0.09	-0.06	0.03	67	Salem, OR	0.02	-0.08	-0.06
18	Ocala, FL	0.09	-0.08	0.00	68	Fayetteville-Springdale, AR	0.02	0.04	0.06
19	Cape Coral-Fort Myers, FL	0.08	-0.01	0.08	69	Des Moines, IA	0.02	0.13	0.16
20	Merced, CA	0.08	-0.15	-0.07	70	Reading, PA	0.02	-0.06	-0.04
21	Peoria, IL	0.07	0.01	0.08	71	Akron, OH	0.02	-0.02	0.00
22	Terre Haute, IN	0.07	-0.06	0.01	72	Ann Arbor, MI	0.02	-0.08	-0.06
23	Durham-Chapel Hill, NC	0.07	0.05	0.12	73	Binghamton, NY	0.02	-0.05	-0.03
24	Hagerstown, MD-WV	0.07	-0.04	0.02	74	Colorado Springs, CO	0.02	-0.04	-0.02
25	Hickory-Lenoir, NC	0.06	-0.07	-0.01	75	Tallahassee, FL	0.02	-0.05	-0.03
26	Naples, FL	0.06	0.00	0.06	76	Champaign-Urbana, IL	0.02	-0.05	-0.03
27	Provo, UT	0.06	0.13	0.19	77	Pensacola, FL	0.02	0.02	0.04
28	San Antonio, TX	0.06	0.03	0.09	78	Phoenix, AZ	0.02	-0.04	-0.03
29	Brownsville-Harlingen, TX	0.05	-0.02	0.03	79	Rockford, IL	0.02	-0.03	-0.01
30	North Port-Sarasota, FL	0.05	0.01	0.06	80	Charleston, SC	0.02	0.12	0.14
31	Racine, WI	0.05	-0.06	-0.01	81	Davenport, IA-IL	0.02	-0.01	0.00
32	Auburn-Opelika, AL	0.05	0.07	0.12	82	Crestview, FL	0.02	0.08	0.09
33	Boise, ID	0.05	0.02	0.07	83	York-Hanover, PA	0.02	-0.02	0.00
34	Port St. Lucie, FL	0.05	-0.08	-0.03	84	Cleveland, OH	0.02	0.00	0.01
35	Clarksville, TN-KY	0.05	0.05	0.10	85	Tampa-St. Petersburg, FL	0.02	-0.01	0.01
36	Salinas, CA	0.05	-0.19	-0.14	86	Modesto, CA	0.02	-0.13	-0.11
37	Reno, NV	0.05	-0.06	-0.01	87	Kansas City, MO-KS	0.02	-0.01	0.01
38	Palm Bay-Melbourne, FL	0.05	-0.05	-0.01	88	Kalamazoo, MI	0.01	-0.05	-0.04
39	Medford, OR	0.04	-0.11	-0.06	89	Warner Robins, GA	0.01	0.11	0.13
40	Jacksonville, FL	0.04	0.04	0.08	90	Dayton, OH	0.01	0.00	0.02
41	Austin, TX	0.04	0.16	0.21	91	Detroit, MI	0.01	-0.02	-0.01
42	Bend, OR	0.04	-0.01	0.03	92	Yakima, WA	0.01	-0.04	-0.03
43	Tuscaloosa, AL	0.04	0.04	0.08	93	Buffalo, NY	0.01	-0.02	-0.01
44	Springfield, IL	0.04	0.01	0.05	94	El Centro, CA	0.01	-0.08	-0.07
45	Stockton, CA	0.04	-0.09	-0.05	95	Utica-Rome, NY	0.01	-0.04	-0.03
46	Atlantic City, NJ	0.04	-0.06	-0.02	96	Milwaukee, WI	0.01	-0.05	-0.04
47	Philadelphia, PA-NJ-DE-MD	0.04	-0.02	0.02	97	Sioux Falls, SD	0.01	0.13	0.14
48	Macon, GA	0.04	-0.07	-0.03	98	Virginia Beach-Norfolk, VA	0.01	0.01	0.02
49	Trenton-Princeton, NJ	0.04	-0.01	0.03	99	Topeka, KS	0.01	-0.03	-0.02
50	Sacramento, CA	0.03	-0.10	-0.07	100	St. Louis, MO-IL	0.01	-0.03	-0.02
	Average	**0.00**	**0.00**	**0.00**					

Table D (cont.)

Change in housing policy scores, 2017-2023 vs. 2010-2016

(250 largest metros)

	Change in Policy Scores	Change in Scores	Score, 2010-16	Score, 2017-23		Change in Policy Scores	Change in Scores	Score, 2010-16	Score, 2017-23
101	Oxnard-Ventura, CA	0.01	-0.12	-0.11	151	Fresno, CA	-0.01	-0.06	-0.07
102	New Haven, CT	0.01	-0.01	-0.01	152	Visalia, CA	-0.01	-0.06	-0.07
103	San Francisco-Oakland, CA	0.01	-0.09	-0.08	153	Green Bay, WI	-0.01	0.04	0.03
104	Vallejo, CA	0.01	-0.06	-0.06	154	Baton Rouge, LA	-0.01	0.03	0.02
105	Roanoke, VA	0.01	-0.06	-0.05	155	Kingsport-Bristol, TN-VA	-0.01	-0.05	-0.06
106	Savannah, GA	0.01	0.06	0.06	156	Asheville, NC	-0.01	-0.03	-0.04
107	Atlanta, GA	0.01	0.00	0.00	157	Poughkeepsie, NY	-0.01	0.01	0.00
108	Hartford, CT	0.01	-0.04	-0.03	158	Washington, DC-VA-MD-WV	-0.01	0.00	-0.01
109	Chicago, IL-IN-WI	0.01	-0.01	0.00	159	Santa Maria-Santa Barbara, CA	-0.01	-0.14	-0.15
110	Fort Collins, CO	0.00	0.02	0.02	160	Manchester-Nashua, NH	-0.01	-0.05	-0.06
111	Scranton-Wilkes-Barre, PA	0.00	-0.05	-0.05	161	Lake Charles, LA	-0.01	0.04	0.03
112	South Bend, IN-MI	0.00	-0.03	-0.02	162	St. Cloud, MN	-0.01	0.00	-0.01
113	Chattanooga, TN-GA	0.00	-0.02	-0.01	163	Albuquerque, NM	-0.01	-0.05	-0.06
114	Bellingham, WA	0.00	-0.01	-0.01	164	Fargo, ND-MN	-0.01	0.09	0.08
115	Lancaster, PA	0.00	-0.01	0.00	165	Greensboro-High Point, NC	-0.01	-0.01	-0.02
116	Portland, ME	0.00	-0.03	-0.02	166	Riverside-San Bernardino, CA	-0.01	-0.10	-0.11
117	Santa Cruz, CA	0.00	-0.17	-0.17	167	Lincoln, NE	-0.01	0.04	0.03
118	Longview, TX	0.00	-0.03	-0.03	168	Houma-Thibodaux, LA	-0.01	-0.01	-0.02
119	Oklahoma City, OK	0.00	0.05	0.05	169	Omaha, NE-IA	-0.01	0.04	0.03
120	Lake Havasu City, AZ	0.00	-0.08	-0.07	170	College Station-Bryan, TX	-0.01	0.08	0.07
121	Allentown-Bethlehem, PA-NJ	0.00	-0.04	-0.03	171	Bridgeport-Stamford, CT	-0.01	0.00	-0.02
122	Orlando, FL	0.00	0.03	0.04	172	Columbus, OH	-0.01	0.04	0.03
123	Las Cruces, NM	0.00	-0.02	-0.02	173	Pittsburgh, PA	-0.01	-0.03	-0.05
124	Cedar Rapids, IA	0.00	0.05	0.05	174	Santa Rosa, CA	-0.01	-0.16	-0.17
125	Cincinnati, OH-KY-IN	0.00	-0.02	-0.02	175	Columbus, GA-AL	-0.01	0.00	-0.01
126	Elkhart-Goshen, IN	0.00	-0.02	-0.02	176	Fayetteville, NC	-0.01	0.07	0.05
127	Denver, CO	0.00	-0.03	-0.03	177	Norwich-New London, CT	-0.01	-0.02	-0.04
128	Canton-Massillon, OH	0.00	-0.03	-0.03	178	Bremerton-Silverdale, WA	-0.01	-0.03	-0.04
129	Kingston, NY	0.00	-0.08	-0.09	179	Wichita, KS	-0.01	0.01	-0.01
130	Boston, MA-NH	0.00	-0.03	-0.03	180	Honolulu	-0.02	-0.10	-0.11
131	Huntsville, AL	0.00	0.09	0.09	181	Lexington, KY	-0.02	0.01	-0.01
132	Boulder, CO	0.00	-0.08	-0.08	182	Florence, SC	-0.02	-0.03	-0.05
133	Yuma, AZ	0.00	-0.05	-0.05	183	Springfield, MO	-0.02	0.01	-0.01
134	Portland, OR-WA	0.00	-0.04	-0.04	184	Madison, WI	-0.02	0.05	0.03
135	Syracuse, NY	0.00	-0.02	-0.03	185	New York, NY-NJ-PA	-0.02	0.01	-0.01
136	Burlington, VT	0.00	-0.02	-0.02	186	Tulsa, OK	-0.02	0.02	0.00
137	Eau Claire, WI	0.00	-0.01	-0.01	187	Nashville, TN	-0.02	0.11	0.08
138	Jackson, MS	0.00	0.02	0.01	188	Augusta, GA-SC	-0.02	0.06	0.04
139	San Luis Obispo, CA	0.00	-0.13	-0.13	189	San Jose-Sunnyvale, CA	-0.02	-0.10	-0.13
140	Baltimore, MD	0.00	0.01	0.00	190	Tucson, AZ	-0.02	-0.06	-0.08
141	Mobile, AL	0.00	0.02	0.01	191	Dallas-Fort Worth, TX	-0.02	0.09	0.06
142	Jackson, TN	-0.01	-0.03	-0.04	192	Appleton, WI	-0.02	0.06	0.04
143	Fort Smith, AR-OK	-0.01	-0.08	-0.08	193	Bakersfield, CA	-0.02	-0.05	-0.08
144	Albany, NY	-0.01	-0.01	-0.02	194	Flint, MI	-0.02	-0.04	-0.06
145	Eugene, OR	-0.01	-0.10	-0.11	195	Salisbury, MD-DE	-0.02	0.39	0.37
146	Lubbock, TX	-0.01	0.08	0.07	196	Little Rock, AR	-0.02	0.03	0.00
147	Saginaw, MI	-0.01	-0.03	-0.04	197	Lynchburg, VA	-0.02	-0.01	-0.04
148	Minneapolis-St. Paul, MN-WI	-0.01	0.00	-0.01	198	Monroe, LA	-0.02	0.00	-0.03
149	Columbia, SC	-0.01	0.02	0.02	199	Memphis, TN-MS-AR	-0.03	0.00	-0.02
150	Erie, PA	-0.01	-0.01	-0.02	200	Rochester, NY	-0.03	0.00	-0.03
	Average	**0.00**	**0.00**	**0.00**					

Table D (cont.)

Change in housing policy scores, 2017-2023 vs. 2010-2016

(250 largest metros)

	Change in Policy Scores	Change in Scores	Score, 2010-16	Score, 2017-23
201	Harrisburg-Carlisle, PA	-0.03	0.01	-0.02
202	Las Vegas, NV	-0.03	-0.03	-0.06
203	Coeur d'Alene, ID	-0.03	-0.12	-0.15
204	San Diego, CA	-0.03	-0.09	-0.12
205	Houston, TX	-0.03	0.16	0.13
206	Amarillo, TX	-0.03	0.05	0.01
207	Gulfport-Biloxi, MS	-0.03	0.09	0.05
208	Dover, DE	-0.03	0.06	0.02
209	Johnson City, TN	-0.03	-0.01	-0.04
210	Raleigh, NC	-0.03	0.16	0.12
211	Hilton Head Island, SC	-0.03	0.07	0.03
212	Barnstable Town, MA	-0.04	-0.13	-0.16
213	Columbia, MO	-0.04	0.00	-0.04
214	Lafayette, LA	-0.04	0.10	0.06
215	El Paso, TX	-0.04	0.09	0.06
216	Iowa City, IA	-0.04	0.07	0.03
217	Seattle, WA	-0.04	-0.01	-0.05
218	Huntington, WV-KY-OH	-0.04	0.00	-0.04
219	Fort Wayne, IN	-0.04	0.00	-0.04
220	Birmingham, AL	-0.05	-0.03	-0.08
221	Killeen-Temple, TX	-0.05	0.14	0.09
222	Billings, MT	-0.05	0.05	0.00
223	Kennewick-Richland, WA	-0.05	0.10	0.05
224	Joplin, MO	-0.05	0.03	-0.03
225	Indianapolis, IN	-0.06	0.10	0.04
226	Olympia, WA	-0.06	0.04	-0.02
227	Chico, CA	-0.06	-0.11	-0.17
228	Laredo, TX	-0.07	0.09	0.03
229	Worcester, MA-CT	-0.07	0.04	-0.03
230	New Orleans, LA	-0.07	0.01	-0.05
231	Deltona-Daytona Beach, FL	-0.07	0.10	0.03
232	Waco, TX	-0.07	0.07	0.00
233	Ogden-Clearfield, UT	-0.07	0.11	0.03
234	Spartanburg, SC	-0.08	0.08	0.00
235	Rochester, MN	-0.09	0.13	0.05
236	Corpus Christi, TX	-0.09	0.03	-0.07
237	Bowling Green, KY	-0.10	0.15	0.05
238	Charlottesville, VA	-0.12	0.05	-0.07
239	Beaumont-Port Arthur, TX	-0.12	0.05	-0.06
240	Panama City, FL	-0.13	0.04	-0.08
241	Charlotte, NC-SC	-0.14	0.25	0.12
242	Grand Rapids-Kentwood, MI	-0.14	0.13	-0.01
243	Greenville, SC	-0.15	0.22	0.08
244	Knoxville, TN	-0.15	0.12	-0.03
245	Winston-Salem, NC	-0.15	0.17	0.02
246	Spokane, WA	-0.17	0.09	-0.09
247	Jacksonville, NC	-0.18	0.27	0.09
248	Midland, TX	-0.18	0.20	0.02
249	Shreveport, LA	-0.18	0.05	-0.13
250	Myrtle Beach, SC-NC	-0.35	0.55	0.20
	Average	**0.00**	**0.00**	**0.00**

Table E

Housing policy scores, 2010-2023

(248 Sun Belt–Mountain state localities)

	Localities	Score	Actual Growth	Predicted Growth		Localities	Score	Actual Growth	Predicted Growth
1	Leander, TX	1.17	3.02	1.85	51	Garland, TX	0.25	0.36	0.11
2	Herriman, UT	0.91	2.52	1.61	52	Dallas, TX	0.25	0.38	0.13
3	Eagle Mountain, UT	0.81	3.04	2.23	53	Dallas County, TX	0.25	0.39	0.15
4	Queen Creek, AZ	0.72	2.63	1.91	54	Burleson, TX	0.24	0.88	0.64
5	Kyle, TX	0.70	2.27	1.57	55	Allen, TX	0.23	1.00	0.77
6	Lehi, UT	0.67	2.10	1.42	56	Rockwall, TX	0.23	1.02	0.79
7	New Braunfels, TX	0.67	1.72	1.05	57	Johnson County, TX	0.23	0.82	0.59
8	Meridian, ID	0.63	1.83	1.20	58	Greenville County, SC	0.23	0.65	0.42
9	Frisco, TX	0.62	2.12	1.50	59	Mecklenburg County, NC	0.22	0.68	0.46
10	Bentonville, AR	0.61	1.37	0.77	60	Springdale, AR	0.22	0.53	0.31
11	Wake Forest, NC	0.59	1.70	1.11	61	Iredell County, NC	0.21	0.75	0.54
12	Buckeye, AZ	0.57	2.30	1.73	62	Smyrna, TN	0.21	0.79	0.58
13	Little Elm, TX	0.56	1.79	1.23	63	Ellis County, TX	0.21	0.99	0.78
14	South Jordan, UT	0.56	1.98	1.42	64	Concord, NC	0.20	0.77	0.57
15	Apex, NC	0.53	1.90	1.37	65	Pearland, TX	0.20	0.92	0.72
16	Georgetown, TX	0.48	1.99	1.51	66	Barrow County, GA	0.20	0.69	0.49
17	San Marcos, TX	0.46	1.49	1.03	67	Charlotte, NC	0.19	0.65	0.46
18	Chambers County, TX	0.44	1.22	0.77	68	San Antonio, TX	0.19	0.47	0.28
19	Comal County, TX	0.43	1.56	1.13	69	Dickson County, TN	0.19	0.46	0.27
20	Mooresville, NC	0.43	1.27	0.84	70	Berkeley County, SC	0.19	0.92	0.74
21	Forsyth County, GA	0.43	1.39	0.97	71	Taylorsville, UT	0.18	0.28	0.10
22	Spring Hill, TN	0.43	1.71	1.28	72	Carrollton, TX	0.18	0.49	0.31
23	Hays County, TX	0.42	1.85	1.42	73	Tarrant County, TX	0.18	0.49	0.31
24	Murfreesboro, TN	0.40	1.00	0.60	74	Clearwater, FL	0.18	0.52	0.34
25	Rockwall County, TX	0.39	1.43	1.04	75	Rutherford County, TN	0.17	0.84	0.67
26	Wylie, TX	0.39	1.38	0.99	76	Lake County, FL	0.17	0.85	0.69
27	Wilson County, TN	0.39	1.30	0.92	77	Avondale, AZ	0.16	0.84	0.68
28	Montgomery County, TX	0.37	1.26	0.90	78	Nassau County, FL	0.16	0.93	0.77
29	Nampa, ID	0.37	0.94	0.57	79	Johnston County, NC	0.16	1.02	0.87
30	Winter Haven, FL	0.35	0.99	0.64	80	Davidson County, TN	0.15	0.62	0.47
31	McKinney, TX	0.35	1.40	1.05	81	Arlington, TX	0.15	0.27	0.12
32	Osceola County, FL	0.34	1.18	0.84	82	Las Vegas, NV	0.15	0.33	0.18
33	Mansfield, TX	0.33	1.21	0.88	83	North Richland Hills, TX	0.15	0.40	0.25
34	Rogers, AR	0.33	0.65	0.31	84	Commerce City, CO	0.14	0.93	0.79
35	Waller County, TX	0.33	0.76	0.43	85	Cabarrus County, NC	0.14	0.76	0.62
36	Fort Myers, FL	0.33	0.96	0.63	86	Atlanta, GA	0.14	0.41	0.27
37	Kannapolis, NC	0.31	0.71	0.40	87	Dekalb County, GA	0.13	0.36	0.23
38	Harris County, TX	0.30	0.53	0.23	88	Baytown, TX	0.13	0.50	0.37
39	Caldwell, ID	0.30	0.76	0.46	89	Cedar Park, TX	0.13	1.18	1.05
40	Irving, TX	0.28	0.39	0.11	90	Richardson, TX	0.13	0.49	0.36
41	Pasadena, TX	0.28	0.24	-0.03	91	Lincoln County, NC	0.13	0.68	0.55
42	Houston, TX	0.28	0.42	0.14	92	Washington County, AR	0.13	0.59	0.47
43	Greenville, SC	0.27	0.61	0.34	93	Denver, CO	0.13	0.52	0.40
44	Fort Bend County, TX	0.27	1.25	0.98	94	Grand Prairie, TX	0.13	0.47	0.34
45	Pflugerville, TX	0.27	1.42	1.14	95	Kissimmee, FL	0.12	0.59	0.46
46	Maury County, TN	0.27	1.08	0.81	96	Brazoria County, TX	0.12	0.81	0.69
47	Benton County, AR	0.26	0.86	0.60	97	Clayton County, GA	0.12	0.32	0.20
48	Liberty County, TX	0.26	0.82	0.56	98	Laurens County, SC	0.12	0.34	0.22
49	Fort Worth, TX	0.25	0.67	0.42	99	Deltona, FL	0.12	0.53	0.41
50	Goodyear, AZ	0.25	1.71	1.46	100	Kaufman County, TX	0.12	0.79	0.67
	Average, 25 Sun Belt-Mountain Metros	**0.12**	**0.33**	**0.21**					

Table E (cont.)

Housing policy scores, 2010-2023

(248 Sun Belt–Mountain state localities)

	Localities	Score	Actual Growth	Predicted Growth		Localities	Score	Actual Growth	Predicted Growth
101	Pinellas County, FL	0.12	0.27	0.16	151	Huntersville, NC	0.04	0.85	0.80
102	Orem, UT	0.12	0.60	0.48	152	Bradenton, FL	0.04	0.36	0.31
103	Palm Coast, FL	0.12	0.87	0.76	153	Lakeland, FL	0.04	0.45	0.41
104	Henry County, GA	0.12	0.61	0.50	154	Nashville, TN	0.04	0.60	0.55
105	Mesquite, TX	0.11	0.24	0.13	155	Seminole County, TN	0.04	0.41	0.37
106	Bexar County, TX	0.11	0.53	0.42	156	Bedford, TX	0.04	0.17	0.13
107	Missouri City, TX	0.11	0.82	0.71	157	Rowan County, NC	0.04	0.37	0.33
108	Tooele County, UT	0.11	0.88	0.77	158	Williamson County, TN	0.04	0.98	0.94
109	Gastonia, NC	0.10	0.42	0.32	159	Hillsborough County, FL	0.04	0.54	0.50
110	Bartow County, GA	0.10	0.52	0.42	160	Spalding County, GA	0.04	0.39	0.36
111	League City, TX	0.10	0.93	0.83	161	Wilson County, TX	0.04	0.58	0.54
112	North Las Vegas, NV	0.10	0.62	0.52	162	Atascosa County, TX	0.04	0.34	0.31
113	North Charleston, SC	0.10	0.66	0.56	163	Franklin County, NC	0.03	0.68	0.64
114	Duval County, FL	0.10	0.50	0.40	164	Denton County, TX	0.03	0.89	0.86
115	Polk County, FL	0.10	0.70	0.61	165	Sandy, UT	0.03	0.51	0.48
116	Guadalupe County, TX	0.10	0.84	0.74	166	Orlando, FL	0.03	0.56	0.53
117	Pickens County, SC	0.10	0.50	0.40	167	Gilbert, AZ	0.03	0.86	0.83
118	Galveston County, TX	0.09	0.59	0.49	168	Robertson County, TN	0.03	0.56	0.53
119	Cape Coral, FL	0.09	0.80	0.70	169	Cobb County, GA	0.03	0.36	0.33
120	Walton County, GA	0.09	0.51	0.42	170	Hunt County, TX	0.03	0.47	0.45
121	North Port, FL	0.09	1.01	0.92	171	Port Orange, FL	0.02	0.52	0.50
122	West Jordan, UT	0.09	0.57	0.48	172	St. Petersburg, FL	0.02	0.37	0.35
123	Gaston County, NC	0.09	0.50	0.41	173	Williamson County, TX	0.02	1.25	1.23
124	Lewisville, TX	0.09	0.60	0.51	174	Hernando County, FL	0.02	0.55	0.53
125	Cherokee County, GA	0.09	0.81	0.72	175	Henderson, NV	0.01	0.62	0.60
126	Castle Rock, CO	0.09	1.37	1.28	176	Daytona Beach, FL	0.01	0.53	0.52
127	Fayetteville, AR	0.09	0.65	0.56	177	Plano, TX	0.01	0.42	0.41
128	Hood County, TX	0.09	0.69	0.60	178	Raleigh, NC	0.01	0.54	0.53
129	Anderson County, SC	0.09	0.43	0.34	179	Round Rock, TX	0.00	0.79	0.78
130	Pasco County, FL	0.08	0.70	0.62	180	Flagler County, FL	0.00	0.73	0.73
131	Paulding County, GA	0.08	0.56	0.48	181	Douglas County, GA	0.00	0.37	0.37
132	Collin County, TX	0.08	1.01	0.94	182	Tampa, FL	0.00	0.36	0.36
133	Sarasota County, FL	0.08	1.05	0.98	183	Broomfield, CO	0.00	1.10	1.10
134	Hendersonville, TN	0.07	0.63	0.56	184	Phoenix, AZ	-0.01	0.34	0.35
135	Canyon County, ID	0.07	0.78	0.71	185	Euless, TX	-0.01	0.39	0.41
136	West Valley City, UT	0.06	0.24	0.17	186	Sanford, FL	-0.01	0.30	0.31
137	Sumner County, TN	0.06	0.70	0.64	187	Cary, NC	-0.01	0.80	0.81
138	The Woodlands, TX	0.06	0.87	0.81	188	Wise County, TX	-0.01	0.46	0.47
139	Lee County, FL	0.06	0.67	0.61	189	Bastrop County, TX	-0.01	0.82	0.84
140	Utah County, UT	0.06	1.03	0.97	190	Draper, UT	-0.02	1.03	1.04
141	Mesa, AZ	0.06	0.46	0.41	191	Texas City, TX	-0.02	0.63	0.65
142	Denton, TX	0.06	0.79	0.74	192	Franklin, NC	-0.02	0.97	0.99
143	Gwinnett County, GA	0.05	0.48	0.43	193	Salt Lake County, UT	-0.02	0.56	0.58
144	Marietta, GA	0.05	0.36	0.31	194	Chandler AZ	-0.02	0.47	0.49
145	Bonita Springs, FL	0.05	0.81	0.76	195	Coweta County, GA	-0.02	0.54	0.57
146	Orange County, FL	0.05	0.57	0.52	196	Travis County, TX	-0.03	0.78	0.81
147	Union County, NC	0.05	0.67	0.62	197	Tempe, AZ	-0.03	0.38	0.41
148	Parker County, TX	0.05	0.71	0.66	198	Manatee County, FL	-0.03	0.79	0.82
149	Austin, TX	0.05	0.67	0.62	199	St. Johns County, FL	-0.03	0.94	0.97
150	Fulton County, GA	0.05	0.48	0.43	200	Sugar Land, TX	-0.03	0.68	0.71
	Average, 25 Sun Belt-Mountain Metros	**0.12**	**0.33**	**0.21**					

Table E (cont.)

Housing policy scores, 2010-2023

(248 Sun Belt–Mountain state localities)

	Localities	Score	Actual Growth	Predicted Growth
201	Nye County, NV	-0.04	0.40	0.44
202	Lakewood, CO	-0.04	0.33	0.37
203	Charlotte County, FL	-0.04	0.62	0.67
204	Carroll County, GA	-0.04	0.37	0.41
205	Jacksonville, FL	-0.04	0.47	0.51
206	Dorchester County, SC	-0.05	0.72	0.76
207	Volusia County, FL	-0.05	0.44	0.49
208	Newton County, GA	-0.05	0.45	0.50
209	Wake County, NC	-0.05	0.76	0.81
210	Sarasota, FL	-0.05	0.41	0.46
211	Rockdale County, GA	-0.06	0.33	0.40
212	Boise, ID	-0.07	0.41	0.48
213	Pinal County, AZ	-0.07	0.75	0.82
214	Arvada, CO	-0.07	0.49	0.56
215	Westminster, CO	-0.08	0.42	0.50
216	Clark County, NV	-0.09	0.54	0.62
217	Galveston, TX	-0.09	0.34	0.43
218	Ada County, ID	-0.09	0.77	0.86
219	Charleston County, SC	-0.09	0.69	0.78
220	Sandy Springs, GA	-0.10	0.45	0.55
221	Apopka, FL	-0.11	0.56	0.67
222	Peoria, AZ	-0.11	0.72	0.83
223	Medina County, TX	-0.11	0.31	0.43
224	Fayette County, GA	-0.11	0.48	0.59
225	Clay County, FL	-0.12	0.50	0.62
226	Adams County, CO	-0.13	0.51	0.64
227	Charleston, SC	-0.13	0.76	0.89
228	Roswell, GA	-0.13	0.29	0.42
229	Colorado Springs, CO	-0.13	0.41	0.54
230	Flower Mound, TX	-0.13	0.92	1.05
231	Glendale, AZ	-0.15	0.29	0.44
232	Alpharetta, GA	-0.16	0.44	0.60
233	Salt Lake City, UT	-0.16	0.43	0.59
234	Surprise, AZ	-0.16	0.80	0.96
235	Centennial, CO	-0.17	0.37	0.54
236	Parker, CO	-0.17	0.94	1.11
237	Grapevine, TX	-0.19	0.45	0.64
238	Douglas County, CO	-0.19	0.91	1.10
239	Aurora, CO	-0.20	0.36	0.56
240	El Paso County, CO	-0.21	0.52	0.73
241	Casa Grande, AZ	-0.22	0.66	0.88
242	Provo, UT	-0.22	0.38	0.61
243	Jefferson County, CO	-0.23	0.35	0.58
244	Maricopa County, AZ	-0.26	0.47	0.73
245	Johns Creek, GA	-0.28	0.37	0.65
246	Arapahoe County, CO	-0.31	0.42	0.74
247	Scottsdale, AZ	-0.40	0.40	0.79
248	Maricopa, AZ	-0.52	0.24	0.76
	Average, 25 Sun Belt-Mountain Metros	**0.12**	**0.33**	**0.21**

Table F

Location of new affordable apartments, 2010-23

(19 Sun Belt–Mountain cities)

	Overall	Mid-Range	Subsidized
Daytona Beach	-0.37	-0.69	0.28
Greenville	-0.17	-0.17	-0.17
Charleston	-0.10	-0.30	0.31
San Antonio	-0.09	-0.20	0.13
Tampa	-0.03	-0.07	0.06
Dallas	-0.03	-0.22	0.35
Raleigh	-0.01	-0.08	0.14
Atlanta	0.02	-0.09	0.23
Nashville	0.04	-0.05	0.22
Orlando	0.07	-0.06	0.33
Las Vegas	0.13	0.02	0.35
Austin	0.13	0.05	0.31
Jacksonville	0.14	-0.07	0.55
Houston	0.14	0.00	0.42
Fort Worth	0.15	0.07	0.32
Salt Lake City	0.28	0.27	0.31
St. Petersburg	0.33	0.24	0.51
Charlotte	0.34	0.33	0.36
Boise	0.45	0.43	0.49
Average	**0.07**	**-0.03**	**0.29**

Note: Our figures for “midrange” are unweighted averages of correlations between new midrange apartments per capita at the submarket level, on the one hand, and measures of incomes, combined Black and Hispanic population shares, population growth, and 2010 inventories of midrange and subsidized units per capita, on the other. Our figures for “subsidized” are likewise unweighted averages of correlations between new subsidized, income-restricted apartments, on the one hand, and the same demographic, economic, and 2010 apartment inventory measures on the other. So, positive figures mean the city is disproportionately adding new apartments in areas with lower-than-average incomes, slower-than-average population growth, higher-than-average combined Black and Hispanic population shares, and larger-than-average 2010 per-capita inventories of midrange and subsidized apartments. Our “overall” figure is a weighted average of our “midrange” and “subsidized” measures, weighted two-thirds to midrange. We put greater emphasis on midrange because it is a much larger source of new, relatively affordable housing than the subsidized segment.

Table G

Daytime-nighttime ratios, 2010 and 2022

(113 Sun Belt–Mountain localities)

	Daytime-Nighttime Ratios (working adults who work in city divided by working adults living there)			Growth Rates, 2010-22	
	2010	2022	Change, 2010-22	Population	Jobs
Alpharetta, GA	2.82	2.59	-0.23	14%	15%
Marietta, GA	2.45	2.50	0.05	8%	8%
Sanford, FL	2.44	2.32	-0.12	17%	5%
Grapevine, TX	1.56	2.32	0.76	9%	80%
Orlando, FL	2.47	2.28	-0.19	29%	26%
Atlanta, GA	2.41	2.11	-0.30	17%	16%
Fort Myers, FL	2.62	2.02	-0.59	42%	9%
Lakeland, FL	1.83	2.01	0.18	17%	35%
Tampa, FL	2.06	1.88	-0.19	15%	15%
Daytona Beach, FL	2.10	1.82	-0.28	20%	13%
Franklin, TN	1.69	1.77	0.08	33%	53%
Tempe, AZ	1.84	1.76	-0.08	12%	13%
Bentonville, AR	2.29	1.71	-0.58	53%	36%
Sandy, UT	1.57	1.66	0.09	9%	29%
North Charleston, SC	1.84	1.65	-0.19	18%	23%
Houston, TX	1.64	1.65	0.00	9%	14%
Galveston, TX	1.60	1.64	0.04	11%	10%
Richardson, TX	1.71	1.61	-0.09	18%	19%
Scottsdale, AZ	1.53	1.57	0.03	10%	17%
Bradenton, FL	1.58	1.52	-0.06	12%	2%
Winter Haven, FL	1.89	1.51	-0.38	50%	29%
Irving, TX	1.69	1.43	-0.26	17%	7%
Plano, TX	1.25	1.39	0.14	9%	26%
Clearwater, FL	1.38	1.38	-0.01	9%	9%
Charleston, SC	1.51	1.37	-0.14	24%	24%
Smyrna, TN	1.32	1.36	0.04	34%	57%
Dallas, TX	1.45	1.36	-0.09	8%	12%
Austin, TX	1.39	1.35	-0.04	20%	34%
Denver, CO	1.55	1.34	-0.20	18%	20%
Raleigh, NC	1.35	1.33	-0.02	15%	25%
The Woodlands, TX	1.17	1.33	0.16	26%	46%
Sugar Land, TX	1.28	1.31	0.03	38%	48%
Sandy Springs, GA	1.21	1.31	0.10	14%	42%
Charlotte, NC	1.38	1.31	-0.08	19%	24%
Nashville, TN	1.36	1.29	-0.06	14%	23%
Boise, ID	1.37	1.29	-0.08	14%	12%
Las Vegas, NV	1.20	1.26	0.06	10%	16%
Fayetteville, AR	1.40	1.25	-0.14	29%	21%
Baytown, TX	1.10	1.25	0.14	17%	43%
Kissimmee, FL	1.16	1.24	0.08	31%	40%
Rogers, AR	1.28	1.23	-0.05	24%	39%
Gastonia, NC	1.35	1.22	-0.12	12%	14%
San Antonio, TX	1.20	1.21	0.01	8%	21%
Centennial, CO	0.84	1.18	0.34	7%	53%
Rockwall, TX	1.09	1.18	0.08	27%	61%
Jacksonville, FL	1.20	1.17	-0.03	15%	17%
Georgetown, TX	1.15	1.17	0.01	50%	71%
Cary, NC	1.01	1.15	0.14	28%	57%
Fort Worth, TX	1.21	1.15	-0.07	24%	32%
Casa Grande, AZ	1.17	1.14	-0.03	11%	29%
Average	**1.12**	**1.14**	**0.02**	**10%**	**52%**

Sources: Author's calculations based on data from the American Community Survey, 2022 and 2010 five-year estimates and the Population Estimates program (U.S. Census).

Table G (cont.)

Daytime-nighttime ratios, 2010 and 2022

(113 Sun Belt–Mountain localities)

	Daytime-Nighttime Ratios (working adults who work in city divided by working adults living there)			Growth Rates, 2010-22	
	2010	2022	Change, 2010-22	Population	Jobs
Round Rock, TX	1.20	1.14	-0.06	19%	30%
Phoenix, AZ	1.18	1.11	-0.07	11%	13%
Springdale, AR	1.23	1.11	-0.12	24%	26%
Roswell, GA	1.01	1.10	0.09	4%	21%
Concord, NC	1.20	1.09	-0.11	33%	39%
Chandler, AZ	0.86	1.08	0.22	16%	58%
Denton, TX	1.15	1.08	-0.07	25%	33%
Colorado Springs, CO	1.11	1.07	-0.04	14%	19%
New Braunfels, TX	1.16	1.05	-0.12	60%	68%
St. Petersburg, FL	1.07	1.04	-0.03	7%	10%
Pasadena, TX	0.86	1.04	0.19	1%	28%
Murfreesboro, TN	1.10	1.04	-0.06	41%	55%
Bonita Springs, FL	0.98	1.03	0.05	23%	32%
Commerce City, CO	1.26	1.00	-0.26	37%	29%
Carrollton, TX	1.03	0.98	-0.04	10%	16%
Frisco, TX	0.88	0.98	0.10	71%	126%
Cedar Park, TX	0.66	0.97	0.30	55%	164%
Lakewood, CO	1.07	0.96	-0.10	9%	8%
Parker, CO	0.64	0.96	0.32	29%	115%
Goodyear, AZ	0.71	0.95	0.24	49%	123%
Flower Mound, TX	0.59	0.94	0.35	18%	110%
Nampa, ID	0.97	0.93	-0.03	25%	53%
Mansfield, TX	0.76	0.92	0.16	30%	84%
McKinney, TX	0.84	0.89	0.06	48%	88%
Burleson, TX	0.75	0.89	0.14	33%	73%
Huntersville, NC	0.80	0.89	0.08	30%	56%
Grand Prairie, TX	0.84	0.87	0.03	12%	29%
Johns Creek, GA	0.82	0.87	0.05	6%	21%
Apex, NC	0.68	0.86	0.18	74%	155%
Mesa, AZ	0.83	0.85	0.03	14%	28%
Bedford, TX	0.79	0.84	0.05	5%	6%
Wake Forest, NC	0.70	0.83	0.13	58%	132%
Lewisville, TX	0.89	0.82	-0.06	30%	27%
Allen, TX	0.62	0.82	0.20	24%	82%
Aurora, CO	0.75	0.81	0.06	19%	43%
Glendale, AZ	0.78	0.81	0.03	9%	16%
Caldwell, ID	0.76	0.79	0.03	32%	48%
Gilbert, AZ	0.58	0.74	0.16	28%	82%
Henderson, NV	0.65	0.74	0.08	23%	33%
North Richland Hills, TX	0.66	0.73	0.07	10%	25%
Castle Rock, CO	0.62	0.72	0.10	53%	107%
Apopka, FL	0.64	0.71	0.08	32%	56%
Kannapolis, NC	0.70	0.71	0.01	25%	42%
Queen Creek, AZ	0.72	0.69	-0.03	134%	179%
Peoria, AZ	0.58	0.68	0.10	24%	52%
Palm Coast, FL	0.62	0.67	0.05	21%	49%
Spring Hill, TN	0.58	0.65	0.07	76%	53%
Garland, TX	0.64	0.65	0.01	7%	12%
Arvada, CO	0.52	0.64	0.12	15%	58%
Avondale, AZ	0.42	0.63	0.21	17%	106%
Average	**1.12**	**1.14**	**0.02**	**10%**	**52%**

Table G (cont.)

Daytime-nighttime ratios, 2010 and 2022

(113 Sun Belt–Mountain localities)

	Daytime-Nighttime Ratios (working adults who work in city divided by working adults living there)			Growth Rates, 2010-22	
	2010	**2022**	**Change, 2010-22**	**Population**	**Jobs**
North Las Vegas, NV	0.57	0.61	0.04	22%	39%
Leander, TX	0.50	0.61	0.12	133%	264%
Pearland, TX	0.53	0.61	0.08	36%	70%
Pflugerville, TX	0.46	0.61	0.15	37%	125%
Euless, TX	0.49	0.59	0.11	17%	49%
Cape Coral, FL	0.54	0.58	0.05	29%	47%
Kyle, TX	0.40	0.58	0.18	72%	228%
League City, TX	0.46	0.56	0.10	35%	74%
Wylie, TX	0.48	0.53	0.05	37%	88%
Maricopa, AZ	0.34	0.53	0.19	34%	143%
North Port, FL	0.37	0.44	0.07	34%	71%
Buckeye, AZ	0.47	0.44	-0.03	86%	103%
Little Elm, TX	0.30	0.44	0.14	85%	241%
Average	**1.12**	**1.14**	**0.02**	**10%**	**52%**

Table H

Subsidized production per capita, 2010-23

(largest metro areas*)

	Metro	Builds		Metro	Builds
1	Austin-Round Rock-Georgetown, TX	0.0091	51	Bakersfield, CA	0.0019
2	Seattle-Tacoma-Bellevue, WA	0.0083	52	New York, NY-NJ-PA	0.0018
3	Spokane-Spokane Valley, WA	0.0071	53	Riverside-San Bernardino, CA	0.0018
4	Denver-Aurora-Lakewood, CO	0.0067	54	Birmingham-Hoover, AL	0.0017
5	Richmond, VA	0.0064	55	New Orleans-Metairie, LA	0.0017
6	El Paso, TX	0.0051	56	Baton Rouge, LA	0.0017
7	San Francisco-Oakland-Berkeley, CA	0.0049	57	Omaha-Council Bluffs, NE-IA	0.0017
8	Minneapolis-St. Paul, MN-WI	0.0049	58	Philadelphia, PA-NJ-DE-MD	0.0016
9	San Antonio-New Braunfels, TX	0.0046	59	Phoenix-Mesa-Chandler, AZ	0.0016
10	McAllen-Edinburg-Mission, TX	0.0045	60	Grand Rapids-Kentwood, MI	0.0016
11	Nashville-Davidson, TN	0.0042	61	Worcester, MA-CT	0.0016
12	Madison, WI	0.0042	62	Boise City, ID	0.0016
13	Honolulu	0.0040	63	Charleston-North Charleston, SC	0.0016
14	Bridgeport-Stamford-Norwalk, CT	0.0039	64	Columbia, SC	0.0016
15	Provo-Orem, UT	0.0039	65	Tucson, AZ	0.0015
16	Miami-Fort Lauderdale, FL	0.0039	66	Tulsa, OK	0.0012
17	Des Moines-West Des Moines, IA	0.0038	67	Boston-Cambridge, MA-NH	0.0012
18	Raleigh-Cary, NC	0.0038	68	Buffalo-Cheektowaga, NY	0.0012
19	Portland-Vancouver, OR-WA	0.0037	69	Syracuse, NY	0.0012
20	Charlotte-Concord-Gastonia, NC-SC	0.0034	70	Cleveland-Elyria, OH	0.0012
21	Salt Lake City, UT	0.0034	71	Durham-Chapel Hill, NC	0.0012
22	San Jose-Sunnyvale-Santa Clara, CA	0.0033	72	Akron, OH	0.0012
23	Indianapolis-Carmel-Anderson, IN	0.0031	73	Dayton-Kettering, OH	0.0011
24	Tampa-St. Petersburg-Clearwater, FL	0.0030	74	Toledo, OH	0.0011
25	San Diego-Chula Vista-Carlsbad, CA	0.0029	75	Oklahoma City, OK	0.0011
26	Albuquerque, NM	0.0029	76	Milwaukee-Waukesha, WI	0.0011
27	Washington, DC-VA-MD-WV	0.0028	77	St. Louis, MO-IL	0.0011
28	Colorado Springs, CO	0.0028	78	Chicago-Naperville, IL-IN-WI	0.0010
29	Greensboro-High Point, NC	0.0027	79	Providence-Warwick, RI-MA	0.0009
30	Atlanta-Sandy Springs-Alpharetta, GA	0.0027	80	Cincinnati, OH-KY-IN	0.0009
31	Winston-Salem, NC	0.0027	81	Fayetteville-Springdale-Rogers, AR	0.0009
32	Memphis, TN-MS-AR	0.0026	82	Wichita, KS	0.0008
33	Greenville-Anderson, SC	0.0026	83	Kansas City, MO-KS	0.0007
34	Rochester, NY	0.0025	84	Allentown-Bethlehem, PA-NJ	0.0007
35	Orlando-Kissimmee-Sanford, FL	0.0025	85	Little Rock, AR	0.0007
36	Louisville/Jefferson County, KY-IN	0.0025	86	Jackson, MS	0.0007
37	Las Vegas-Henderson-Paradise, NV	0.0024	87	Ogden-Clearfield, UT	0.0006
38	Dallas-Fort Worth-Arlington, TX	0.0024	88	Detroit-Warren-Dearborn, MI	0.0005
39	Albany-Schenectady-Troy, NY	0.0023	89	Pittsburgh, PA	0.0003
40	Sacramento-Roseville-Folsom, CA	0.0023			
41	Los Angeles-Long Beach, CA	0.0022			
42	Baltimore-Columbia-Towson, MD	0.0022			
43	Columbus, OH	0.0021			
44	Houston, TX	0.0021			
45	Knoxville, TN	0.0021			
46	Augusta-Richmond County, GA-SC	0.0020			
47	Stockton, CA	0.0020			
48	Harrisburg-Carlisle, PA	0.0020			
49	Jacksonville, FL	0.0019			
50	Fresno, CA	0.0019			
	Average	**0.0024**			

Sources: Author's calculation based on data from Yardi Matrix and the U.S. Census.

* The Yardi Matrix dataset on affordable apartments lacks data on 11 of the 100 largest metros.

Table I

Subsidized inventory per capita, 2023

(largest metro areas*)

	Metro	Inventory		Metro	Inventory
1	Bridgeport-Stamford-Norwalk, CT	0.0421	51	Kansas City, MO-KS	0.0098
2	Richmond, VA	0.0378	52	San Diego-Chula Vista-Carlsbad, CA	0.0098
3	Harrisburg-Carlisle, PA	0.0234	53	Omaha-Council Bluffs, NE-IA	0.0097
4	Worcester, MA-CT	0.0217	54	Tulsa, OK	0.0097
5	Seattle-Tacoma-Bellevue, WA	0.0172	55	Charleston-North Charleston, SC	0.0092
6	New York, NY-NJ-PA	0.0172	56	Columbia, SC	0.0090
7	San Francisco-Oakland-Berkeley, CA	0.0170	57	Raleigh-Cary, NC	0.0089
8	Rochester, NY	0.0164	58	Chicago-Naperville-Elgin, IL-IN-WI	0.0088
9	Honolulu	0.0153	59	Cincinnati, OH-KY-IN	0.0088
10	Albany-Schenectady-Troy, NY	0.0152	60	Los Angeles-Long Beach, CA	0.0086
11	Providence-Warwick, RI-MA	0.0152	61	St. Louis, MO-IL	0.0086
12	Nashville-Davidson, TN	0.0151	62	Houston, TX	0.0086
13	Orlando-Kissimmee-Sanford, FL	0.0148	63	Detroit-Warren-Dearborn, MI	0.0084
14	Spokane-Spokane Valley, WA	0.0145	64	Des Moines-West Des Moines, IA	0.0083
15	Buffalo-Cheektowaga, NY	0.0144	65	Columbus, OH	0.0083
16	El Paso, TX	0.0144	66	Dallas-Fort Worth-Arlington, TX	0.0080
17	San Jose-Sunnyvale-Santa Clara, CA	0.0142	67	Madison, WI	0.0078
18	Denver-Aurora-Lakewood, CO	0.0140	68	Baton Rouge, LA	0.0076
19	Boston-Cambridge-Newton, MA-NH	0.0138	69	Stockton, CA	0.0076
20	Dayton-Kettering, OH	0.0135	70	Fresno, CA	0.0076
21	Syracuse, NY	0.0132	71	Bakersfield, CA	0.0076
22	Washington, DC-VA-MD-WV	0.0130	72	Little Rock, AR	0.0076
23	Memphis, TN-MS-AR	0.0129	73	Atlanta-Sandy Springs-Alpharetta, GA	0.0075
24	Baltimore-Columbia-Towson, MD	0.0127	74	Las Vegas-Henderson-Paradise, NV	0.0075
25	Allentown-Bethlehem-Easton, PA-NJ	0.0126	75	Augusta-Richmond County, GA-SC	0.0074
26	Grand Rapids-Kentwood, MI	0.0125	76	Oklahoma City, OK	0.0072
27	Austin-Round Rock-Georgetown, TX	0.0125	77	New Orleans-Metairie, LA	0.0069
28	Miami-Fort Lauderdale, FL	0.0125	78	Riverside-San Bernardino, CA	0.0068
29	Toledo, OH	0.0125	79	Charlotte-Concord-Gastonia, NC-SC	0.0067
30	Cleveland-Elyria, OH	0.0125	80	Fayetteville-Springdale-Rogers, AR	0.0065
31	Akron, OH	0.0125	81	Wichita, KS	0.0063
32	Sacramento-Roseville-Folsom, CA	0.0121	82	Colorado Springs, CO	0.0059
33	Minneapolis-St. Paul, MN-WI	0.0121	83	Durham-Chapel Hill, NC	0.0058
34	McAllen-Edinburg-Mission, TX	0.0120	84	Phoenix-Mesa-Chandler, AZ	0.0048
35	Pittsburgh, PA	0.0119	85	Boise City, ID	0.0037
36	Portland-Vancouver, OR-WA	0.0116	86	Ogden-Clearfield, UT	0.0037
37	Jacksonville, FL	0.0116	87	Salt Lake City, UT	0.0037
38	Jackson, MS	0.0115	88	Provo-Orem, UT	0.0037
39	Louisville/Jefferson County, KY-IN	0.0114	89	Tucson, AZ	0.0035
40	Milwaukee-Waukesha, WI	0.0112			
41	Greenville-Anderson, SC	0.0112			
42	Albuquerque, NM	0.0112			
43	Knoxville, TN	0.0112			
44	Philadelphia, PA-NJ-DE-MD	0.0110			
45	Tampa-St. Petersburg-Clearwater, FL	0.0107			
46	Birmingham-Hoover, AL	0.0103			
47	Indianapolis-Carmel-Anderson, IN	0.0101			
48	San Antonio-New Braunfels, TX	0.0099			
49	Greensboro-High Point, NC	0.0099			
50	Winston-Salem, NC	0.0099			
	Average	**0.0113**			

Sources: Author's calculations based on data from Yardi Matrix and the U.S. Census.

* The Yardi Matrix dataset on affordable apartments lacks data on 11 of the 100 largest metros.

Table J

Subsidized production per capita, 2010-23

(Sun Belt–Mountain localities)

	Locality	Builds		Locality	Builds
1	Wake Forest, NC	0.0235	51	Mooresville, NC	0.0046
2	Fort Worth, TX	0.0224	52	Broomfield, CO	0.0046
3	Texas City, TX	0.0216	53	South Jordan, UT	0.0045
4	Jacksonville, FL	0.0205	54	Plano, TX	0.0044
5	Atlanta, GA	0.0198	55	Raleigh, NC	0.0042
6	Charlotte, NC	0.0155	56	Murfreesboro, TN	0.0040
7	Rockwall, TX	0.0147	57	Nampa, ID	0.0039
8	Fort Myers, FL	0.0131	58	Bradenton, FL	0.0038
9	Salt Lake City. UT	0.0120	59	Aurora, CO	0.0037
10	Smyrna, TN	0.0119	60	Pearland, TX	0.0035
11	Charleston, SC	0.0119	61	Frisco, TX	0.0034
12	McKinney, TX	0.0118	62	Rowan County, NC	0.0034
13	Parker, CO	0.0118	63	Tempe, AZ	0.0030
14	Sugar Land, TX	0.0111	64	Clearwater, FL	0.0030
15	Galveston, TX	0.0107	65	Castle Rock, CO	0.0029
16	Georgetown, TX	0.0100	66	North Las Vegas, NV	0.0029
17	Denver, CO	0.0099	67	Arvada, CO	0.0029
18	Gastonia, NC	0.0098	68	Tampa, FL	0.0029
19	Lewisville, TX	0.0098	69	St. Petersburg, FL	0.0029
20	Westminster, CO	0.0095	70	The Woodlands, TX	0.0028
21	Lakeland, FL	0.0090	71	Phoenix, AZ	0.0025
22	Denton, TX	0.0085	72	Henderson, NV	0.0024
23	Missouri City, TX	0.0085	73	Sanford, FL	0.0024
24	Austin, TX	0.0083	74	Irving, TX	0.0023
25	Greenville, SC	0.0082	75	Las Vegas, NV	0.0023
26	Marietta, GA	0.0082	76	North Port, FL	0.0022
27	Daytona Beach, FL	0.0080	77	Cape Coral, FL	0.0021
28	Carrollton, TX	0.0079	78	North Charleston, SC	0.0019
29	Cedar Park, TX	0.0078	79	Bastrop County, TX	0.0019
30	Winter Haven, FL	0.0074	80	Mesa, AZ	0.0019
31	Centennial, CO	0.0072	81	Avondale, AZ	0.0019
32	Euless, TX	0.0070	82	Lee County, FL	0.0018
33	Lakewood, CO	0.0069	83	Glendale, AZ	0.0018
34	Burleson, TX	0.0068	84	Springdale, AR	0.0017
35	Round Rock, TX	0.0067	85	New Braunfels, TX	0.0016
36	Mesquite, TX	0.0065	86	Maricopa, AZ	0.0016
37	Concord, NC	0.0063	87	Franklin County, NC	0.0016
38	Huntersville, NC	0.0063	88	Alpharetta, GA	0.0015
39	Nashville, TN	0.0061	89	Garland, TX	0.0014
40	League City, TX	0.0060	90	Surprise, AZ	0.0014
41	Commerce City, CO	0.0059	91	Roswell, GA	0.0013
42	Dallas, TX	0.0057	92	Gilbert, AZ	0.0012
43	Palm Coast, FL	0.0057	93	Sarasota County, FL	0.0011
44	Sarasota, FL	0.0056	94	Franklin, TN	0.0010
45	Caldwell, ID	0.0055	95	Boise, ID	0.0009
46	San Antonio, TX	0.0053	96	Comal County, TX	0.0009
47	Houston, TX	0.0052	97	Anderson County, SC	0.0007
48	Orlando, FL	0.0050	98	Lincoln County, NC	0.0007
49	Apopka, FL	0.0048	99	West Jordan, UT	0.0007
50	Kannapolis, NC	0.0048	100	Arlington, TX	0.0006
	Average	**0.0024**			

Sources: Author's calculations based on data from Yardi Matrix and the U.S. Census.

Table J (cont.)
Subsidized production per capita, 2010-23
(Sun Belt–Mountain localities)

	Locality	Builds
101	Montgomery County, TX	0.0006
102	Pickens County, SC	0.0005
103	West Valley City, UT	0.0005
104	Allen, TX	0.0000
105	Apex, NC	0.0000
106	Baytown, TX	0.0000
107	Bedford, TX	0.0000
108	Berkeley County, SC	0.0000
109	Bonita Springs, FL	0.0000
110	Buckeye, AZ	0.0000
111	Casa Grande, AZ	0.0000
112	Chandler, AZ	0.0000
113	Dorchester County, SC	0.0000
114	Draper, UT	0.0000
115	Fayetteville, AR	0.0000
116	Flower Mound, TX	0.0000
117	Goodyear, AZ	0.0000
118	Grand Prairie, TX	0.0000
119	Grapevine, TX	0.0000
120	Hendersonville, TN	0.0000
121	Hood County, TX	0.0000
122	Hunt County, TX	0.0000
123	Kyle, TX	0.0000
124	Laurens County, SC	0.0000
125	Lehi, UT	0.0000
126	Mansfield, TX	0.0000
127	Meridian, ID	0.0000
128	North Richland Hills, TX	0.0000
129	Orem, UT	0.0000
130	Pasadena, TX	0.0000
131	Peoria, AZ	0.0000
132	Pflugerville, TX	0.0000
133	Port Orange, FL	0.0000
134	Provo, UT	0.0000
135	Queen Creek, AZ	0.0000
136	Richardson, TX	0.0000
137	Rogers, AR	0.0000
138	San Marcos, TX	0.0000
139	Sandy, UT	0.0000
140	Sandy Springs, GA	0.0000
141	Scottsdale, AZ	0.0000
142	Spring Hill, TN	0.0000
143	Taylorsville, UT	0.0000
144	Tooele County, UT	0.0000
145	Waller County, TX	0.0000
146	Wise County, TX	0.0000
147	Wylie, TX	0.0000
	Average	**0.0024**

Sources: Author's calculations based on data from Yardi Matrix and the U.S. Census.

Table K

Subsidized inventory per capita, 2023

(Sun Belt–Mountain localities)

	Locality	Inventory		Locality	Inventory
1	Jacksonville, FL	0.0903	51	Las Vegas, NV	0.0130
2	Atlanta, GA	0.0674	52	, TX	0.0126
3	Sugar Land, TX	0.0555	53	Kannapolis, NC	0.0119
4	Fort Worth, TX	0.0494	54	Parker, CO	0.0117
5	Dallas, TX	0.0490	55	Laurens County, SC	0.0116
6	Baytown, TX	0.0484	56	North Charleston, SC	0.0115
7	Bradenton, FL	0.0426	57	Concord, NC	0.0114
8	Missouri City, TX	0.0419	58	Irving, TX	0.0112
9	Texas City, TX	0.0419	59	Raleigh, NC	0.0110
10	Daytona Beach, FL	0.0412	60	Mooresville, NC	0.0107
11	Fort Myers, FL	0.0404	61	Pflugerville, TX	0.0105
12	Denton, TX	0.0369	62	St. Petersburg, FL	0.0103
13	Orlando, FL	0.0368	63	Commerce City, CO	0.0098
14	Charlotte, NC	0.0342	64	Sanford, FL	0.0094
15	The Woodlands, TX	0.0333	65	Huntersville, NC	0.0092
16	Euless, TX	0.0313	66	Round Rock, TX	0.0092
17	Greenville, SC	0.0301	67	Murfreesboro, TN	0.0092
18	Marietta, GA	0.0295	68	Pasadena, TX	0.0091
19	Smyrna, TN	0.0289	69	Caldwell, ID	0.0089
20	Winter Haven, FL	0.0284	70	South Jordan, UT	0.0088
21	Grand Prairie, TX	0.0269	71	Wise County, TX	0.0087
22	Arlington, TX	0.0255	72	Glendale, AZ	0.0084
23	Nashville, TN	0.0253	73	Hendersonville, TN	0.0082
24	Salt Lake City, UT	0.0253	74	Phoenix, AZ	0.0082
25	McKinney, TX	0.0253	75	Port Orange, FL	0.0081
26	Wake Forest, NC	0.0250	76	Waller County, TX	0.0080
27	Westminster, CO	0.0249	77	Aurora, CO	0.0080
28	Galveston, TX	0.0240	78	League City, TX	0.0080
29	Lewisville, TX	0.0240	79	Springdale, AR	0.0079
30	Burleson, TX	0.0238	80	West Valley City, UT	0.0077
31	Gastonia, NC	0.0227	81	West Jordan, UT	0.0076
32	Charleston, SC	0.0223	82	Gilbert, AZ	0.0076
33	Tampa, FL	0.0217	83	Castle Rock, CO	0.0070
34	Houston, TX	0.0214	84	Garland, TX	0.0066
35	Lakeland, FL	0.0213	85	Henderson, NV	0.0065
36	Georgetown, TX	0.0206	86	Rowan County, NC	0.0065
37	Rockwall, TX	0.0204	87	Rogers, AR	0.0064
38	Denver, CO	0.0203	88	Bedford, TX	0.0063
39	Carrollton, TX	0.0195	89	Anderson County, SC	0.0062
40	Sarasota, FL	0.0185	90	Palm Coast, FL	0.0061
41	Mesquite, TX	0.0182	91	Kyle, TX	0.0059
42	Cedar Park, TX	0.0159	92	Mesa, AZ	0.0059
43	Lakewood, CO	0.0157	93	Montgomery County, TX	0.0058
44	Hunt County, TX	0.0152	94	Broomfield, CO	0.0058
45	Clearwater, FL	0.0152	95	San Marcos, TX	0.0058
46	Austin, TX	0.0151	96	Centennial, CO	0.0058
47	Arvada, CO	0.0139	97	Nampa, ID	0.0055
48	San Antonio, TX	0.0137	98	Frisco, TX	0.0052
49	Apopka, FL	0.0132	99	Surprise, AZ	0.0049
50	Plano, TX	0.0131	100	Lee County, FL	0.0049
	Average	**0.0113**			

Sources: Author's calculations based on data from Yardi Matrix and the U.S. Census.

Table K (cont.)
Subsidized inventory per capita, 2023
(Sun Belt–Mountain localities)

	Locality	Inventory
101	Provo, UT	0.0048
102	Hood County, TX	0.0048
103	Draper, UT	0.0047
104	North Port, FL	0.0046
105	Boise, ID	0.0044
106	Avondale, AZ	0.0043
107	North Las Vegas, NV	0.0042
108	Sandy Springs, GA	0.0042
109	Tempe, AZ	0.0041
110	Tooele County, UT	0.0041
111	Fayetteville, AR	0.0040
112	New Braunfels, TX	0.0040
113	Roswell, GA	0.0038
114	Alpharetta, GA	0.0038
115	Sandy, UT	0.0035
116	Peoria, AZ	0.0035
117	Sarasota County, FL	0.0032
118	Casa Grande, AZ	0.0028
119	Richardson, TX	0.0025
120	Lehi, UT	0.0025
121	Bonita Springs, FL	0.0024
122	Franklin County, NC	0.0023
123	Apex, NC	0.0022
124	Mansfield, TX	0.0021
125	Comal County, TX	0.0020
126	Bastrop County, TX	0.0020
127	Chandler, AZ	0.0018
128	Franklin, TN	0.0014
129	Lincoln County, NC	0.0012
130	Maricopa, AZ	0.0012
131	Cape Coral, FL	0.0012
132	Taylorsville, UT	0.0010
133	Berkeley County, SC	0.0009
134	Meridian, ID	0.0009
135	Buckeye, AZ	0.0006
136	Pickens County, SC	0.0006
137	Scottsdale, AZ	0.0005
138	Dorchester County, SC	0.0004
139	Allen, TX	0.0000
140	Flower Mound, TX	0.0000
141	Goodyear, AZ	0.0000
142	Grapevine, TX	0.0000
143	North Richland Hills, TX	0.0000
144	Orem, UT	0.0000
145	Queen Creek, AZ	0.0000
146	Spring Hill, TN	0.0000
147	Wylie, TX	0.0000
	Average	**0.0113**

Sources: Author's calculations based on data from Yardi Matrix and the U.S. Census.

Table L

LIHTC production per capita, 2010-21

(Sun Belt–Mountain localities)

	Locality	Builds		Locality	Builds
1	Kissimmee, FL	0.0303	51	Colorado Springs, CO	0.0038
2	Greenville, SC	0.0268	52	New Braunfels, TX	0.0037
3	Salt Lake City, UT	0.0193	53	Avondale, AZ	0.0036
4	Smyrna, TN	0.0153	54	North Charleston, SC	0.0034
5	Leander, TX	0.0149	55	McKinney, TX	0.0034
6	Orlando, FL	0.0134	56	Buckeye, AZ	0.0033
7	Denver, CO	0.0132	57	Nampa, ID	0.0033
8	Herriman, UT	0.0132	58	North Las Vegas, NV	0.0032
9	Atlanta, GA	0.0129	59	San Antonio, TX	0.0030
10	Marietta, GA	0.0125	60	Round Rock, TX	0.0030
11	Commerce City, CO	0.0120	61	Franklin, NC	0.0028
12	Gastonia, NC	0.0113	62	Houston, TX	0.0028
13	Kyle, TX	0.0110	63	Mesa, AZ	0.0027
14	San Marcos, TX	0.0106	64	Carrollton, TX	0.0026
15	Burleson, TX	0.0101	65	Mesquite, TX	0.0026
16	Winter Haven, FL	0.0093	66	Tempe, AZ	0.0026
17	Murfreesboro, TN	0.0090	67	Huntersville, NC	0.0025
18	Tampa, FL	0.0085	68	Dallas, TX	0.0024
19	Fort Myers, FL	0.0083	69	Johns Creek, GA	0.0023
20	Sarasota, FL	0.0081	70	Bedford, TX	0.0022
21	Georgetown, TX	0.0072	71	Fayetteville, TX	0.0021
22	Apopka, FL	0.0072	72	Casa Grande, AZ	0.0019
23	Lakewood, CO	0.0071	73	Boise, ID	0.0016
24	Kannapolis, NC	0.0071	74	Glendale, AZ	0.0016
25	Lakeland, FL	0.0071	75	Pearland, TX	0.0014
26	Westminster, CO	0.0070	76	Daytona Beach, FL	0.0013
27	St. Petersburg, FL	0.0068	77	Frisco, TX	0.0013
28	Austin, TX	0.0063	78	West Jordan, UT	0.0013
29	Caldwell, ID	0.0062	79	Garland, TX	0.0012
30	Provo, UT	0.0061	80	West Valley City, UT	0.0012
31	Bradenton, FL	0.0059	81	Roswell, GA	0.0011
32	Parker, CO	0.0058	82	Sandy, UT	0.0011
33	Las Vegas, NV	0.0056	83	Denton, TX	0.0011
34	Texas City, TX	0.0056	84	Spring Hill, TN	0.0011
35	Concord, NC	0.0055	85	Castle Rock, CO	0.0011
36	Galveston, TX	0.0053	86	Sandy Springs, GA	0.0011
37	Wake Forest, NC	0.0050	87	Draper, UT	0.0010
38	Nashville, TN	0.0047	88	Arvada, CO	0.0009
39	Jacksonville, FL	0.0046	89	Broomfield, CO	0.0009
40	Charleston, SC	0.0046	90	Surprise, AZ	0.0008
41	Clearwater, FL	0.0044	91	Irving, TX	0.0008
42	Raleigh, NC	0.0044	92	Arlington, TX	0.0006
43	Phoenix, AZ	0.0043	93	Meridian, ID	0.0006
44	Mooresville, NC	0.0043	94	Baytown, TX	0.0005
45	Aurora, CO	0.0042	95	Cary, NC	0.0004
46	Missouri City, TX	0.0041	96	Plano, TX	0.0003
47	Springdale, AR	0.0041	97	Allen, TX	0.0000
48	Charlotte, NC	0.0041	98	Alpharetta, GA	0.0000
49	Henderson, NV	0.0040	99	Apex, NC	0.0000
50	Fort Worth, TX	0.0039	100	Bentonville, AR	0.0000
	Average	**0.0028**			

Table L (cont.)
LIHTC production per capita, 2010-21
(Sun Belt–Mountain localities)

	Locality	Builds
101	Bonita Springs, FL	0.0000
102	Cape Coral, FL	0.0000
103	Cedar Park, TX	0.0000
104	Centennial, CO	0.0000
105	Chandler, AZ	0.0000
106	Deltona, FL	0.0000
107	Eagle Mountain, UT	0.0000
108	Euless, TX	0.0000
109	Flower Mound, TX	0.0000
110	Gilbert, AZ	0.0000
111	Goodyear, AZ	0.0000
112	Grand Prairie, TX	0.0000
113	Grapevine, TX	0.0000
114	Hendersonville, TN	0.0000
115	League City, TX	0.0000
116	Lehi, UT	0.0000
117	Lewisville, TX	0.0000
118	Little Elm, TX	0.0000
119	Mansfield, TX	0.0000
120	North Port, FL	0.0000
121	North Richland Hills, TX	0.0000
122	Orem, UT	0.0000
123	Pasadena, TX	0.0000
124	Peoria, AZ	0.0000
125	Pflugerville, TX	0.0000
126	Port Orange, FL	0.0000
127	Queen Creek, AZ	0.0000
128	Richardson, TX	0.0000
129	Rockwall, TX	0.0000
130	Rogers, AR	0.0000
131	Scottsdale, AZ	0.0000
132	South Jordan, UT	0.0000
133	Sugar Land, TX	0.0000
134	Taylorsville, UT	0.0000
135	The Woodlands, TX	0.0000
136	Wylie, TX	0.0000
	Average	**0.0028**

Table M

Population per square mile, 2022

(Sun Belt–Mountain localities)

	City	Density (Pop. per Sq Mi, 2022)	% Open Space	Density in Built-Up Areas (Pop per Sq Mi, 2022)
1	Sanford, FL	9,605	0%	9,605
2	Taylorsville, UT	5,430	0%	5,430
3	Orem, UT	5,111	0%	5,111
4	Bedford, TX	4,946	0%	4,946
5	Las Vegas, NV	4,741	10%	5,268
6	Denver, CO	4,646	20%	5,807
7	Kissimmee, FL	4,616	10%	5,129
8	Tempe, AZ	4,525	0%	4,525
9	Garland, TX	4,281	10%	4,757
10	Chandler, AZ	4,176	0%	4,176
11	Richardson, TX	4,071	0%	4,071
12	Allen, TX	4,056	10%	4,506
13	Bradenton, FL	3,985	10%	4,428
14	Sandy, UT	3,985	0%	3,985
15	Plano, TX	3,958	10%	4,397
16	Murfreesboro, TN	3,936	10%	4,373
17	Arlington, TX	3,935	0%	3,935
18	North Richland Hills, TX	3,895	0%	3,895
19	West Valley City, UT	3,857	20%	4,822
20	Glendale, AZ	3,817	40%	6,361
21	Mesa, AZ	3,785	10%	4,205
22	Euless, TX	3,773	40%	6,288
23	Irving, TX	3,749	0%	3,749
24	Gilbert, AZ	3,661	10%	4,068
25	Atlanta, GA	3,639	10%	4,043
26	West Jordan, UT	3,637	10%	4,041
27	Westminster, CO	3,609	20%	4,512
28	Houston, TX	3,605	10%	4,005
29	Centennial, CO	3,590	0%	3,590
30	Carrollton, TX	3,575	0%	3,575
31	Lakewood, CO	3,470	0%	3,470
32	Dallas, TX	3,370	10%	3,744
33	Pasadena, TX	3,347	10%	3,719
34	Meridian, ID	3,330	10%	3,700
35	Clearwater, FL	3,250	0%	3,250
36	Wake Forest, NC	3,203	0%	3,203
37	Mesquite, TX	3,180	20%	3,974
38	Round Rock, TX	3,170	10%	3,522
39	Austin, TX	3,142	0%	3,142
40	Phoenix, AZ	3,113	10%	3,459
41	Raleigh, NC	3,103	10%	3,448
42	Arvada, CO	3,077	10%	3,419
43	South Jordan, UT	3,005	20%	3,756
44	Henderson, NV	2,973	20%	3,716
45	Cedar Park, TX	2,936	10%	3,263
46	Nampa, ID	2,931	10%	3,257
47	Frisco, TX	2,929	20%	3,661
48	Lewisville, TX	2,908	20%	3,635
49	McKinney, TX	2,885	30%	4,121
50	Cary, NC	2,867	0%	2,867
	Average	**2,579**	**19%**	**3,132**

Source: Author's calculations based on U.S. Census data.

Table M (cont.)

Population per square mile, 2022

(Sun Belt–Mountain localities)

	City	Density (Pop. per Sq Mi, 2022)	% Open Space	Density in Built-Up Areas (Pop per Sq Mi, 2022)
51	San Antonio, TX	2,863	10%	3,181
52	Charlotte, NC	2,805	10%	3,116
53	Orlando, FL	2,798	10%	3,108
54	Boise, ID	2,755	10%	3,061
55	Lehi, UT	2,754	10%	3,060
56	Sandy Springs, GA	2,749	10%	3,055
57	Leander, TX	2,717	10%	3,019
58	The Woodlands, TX	2,691	0%	2,691
59	Parker, CO	2,670	40%	4,449
60	Caldwell, ID	2,661	20%	3,327
61	Johns Creek, GA	2,653	10%	2,947
62	Apex, NC	2,622	10%	2,913
63	Provo, UT	2,600	10%	2,889
64	Fort Worth, TX	2,597	20%	3,247
65	North Las Vegas, NV	2,588	30%	3,698
66	Missouri City, TX	2,570	20%	3,212
67	Sugar Land, TX	2,560	20%	3,200
68	Marietta, GA	2,558	0%	2,558
69	Sarasota, FL	2,553	0%	2,553
70	Kyle, TX	2,552	30%	3,645
71	Pearland, TX	2,540	10%	2,823
72	Little Elm, TX	2,539	30%	3,627
73	Roswell, GA	2,507	0%	2,507
74	Pflugerville, TX	2,482	20%	3,102
75	Colorado Springs, CO	2,447	20%	3,059
76	Alpharetta, GA	2,440	10%	2,711
77	Grand Prairie, TX	2,436	30%	3,479
78	Herriman, UT	2,404	20%	3,005
79	Aurora, CO	2,376	40%	3,961
80	Greenville, SC	2,361	0%	2,361
81	Smyrna, TN	2,337	20%	2,922
82	Deltona, FL	2,302	10%	2,558
83	Baytown, TX	2,222	30%	3,175
84	Fort Myers, FL	2,217	10%	2,464
85	Tampa, FL	2,209	20%	2,761
86	Broomfield, CO	2,175	50%	4,350
87	Port Orange, FL	2,167	20%	2,709
88	League City, TX	2,141	30%	3,058
89	Castle Rock, CO	2,116	40%	3,527
90	Mansfield, TX	2,047	10%	2,274
91	Franklin, TN	2,040	40%	3,400
92	New Braunfels, TX	2,022	20%	2,527
93	Hendersonville, NV	1,925	20%	2,406
94	St. Petersburg, FL	1,893	0%	1,893
95	Burleson, TX	1,883	20%	2,354
96	San Marcos, TX	1,865	10%	2,072
97	Avondale, AZ	1,859	10%	2,065
98	Mooresville, NC	1,853	10%	2,059
99	Salt Lake City, UT	1,813	30%	2,590
100	Rogers, AR	1,794	20%	2,242
	Average	**2,579**	**19%**	**3,132**

Table M (cont.)

Population per square mile, 2022

(Sun Belt–Mountain localities)

	City	Density (Pop. per Sq Mi, 2022)	% Open Space	Density in Built-Up Areas (Pop per Sq Mi, 2022)
101	Flower Mound, TX	1,782	40%	2,970
102	Spring Hill, TN	1,770	40%	2,949
103	Commerce City, CO	1,751	40%	2,919
104	Fayetteville, AR	1,697	30%	2,424
105	Draper, UT	1,688	20%	2,110
106	Cape Coral, FL	1,672	10%	1,857
107	Concord, NC	1,646	20%	2,057
108	Bentonville, AR	1,603	20%	2,004
109	Rockwall, TX	1,595	20%	1,994
110	Kannapolis, NC	1,568	10%	1,742
111	Gastonia, NC	1,550	10%	1,723
112	Wylie, TX	1,542	20%	1,928
113	Apopka, FL	1,529	10%	1,699
114	Lakeland, FL	1,525	20%	1,907
115	Georgetown, TX	1,496	40%	2,493
116	Queen Creek, AZ	1,471	40%	2,452
117	Huntersville, NC	1,457	10%	1,619
118	Denton, TX	1,452	39%	2,380
119	North Charleston, SC	1,429	20%	1,786
120	Grapevine, TX	1,410	20%	1,763
121	Maricopa, AZ	1,386	60%	3,465
122	Bonita Springs, FL	1,316	10%	1,462
123	Surprise, AZ	1,312	50%	2,623
124	Scottsdale, AZ	1,307	20%	1,634
125	Nashville, TN	1,301	20%	1,626
126	Winter Haven, FL	1,209	20%	1,511
127	Jacksonville, FL	1,086	20%	1,357
128	Daytona Beach, FL	1,078	20%	1,348
129	Peoria, AZ	1,069	20%	1,336
130	Palm Coast, FL	1,001	40%	1,668
131	Charleston, SC	955	40%	1,592
132	Eagle Mountain, UT	922	80%	4,611
133	Texas City, TX	804	60%	2,011
134	Springdale, AR	795	30%	1,136
135	North Port, FL	740	40%	1,234
136	Goodyear, AZ	511	30%	730
137	Casa Grande, AZ	493	80%	2,464
138	Galveston, TX	255	10%	283
139	Buckeye, AZ	158	90%	1,584
	Average	**2,579**	**19%**	**3,132**

[1] Rebecca Diamond and Enrico Moretti, "Where Is the Standard of Living the Highest? Local Process and the Geography of Consumption," Working Paper no. 29533 (National Bureau of Economic Research, December 2021), https://www.nber.org/papers/w29533.
[2] Diamond and Enrico, "Where Is the Standard of Living the Highest?" See also Peter Ganong and Daniel W. Shoag, "Why Has Regional Income Convergence in the U.S. Declined?" *Journal of Urban Economics* 102, no. 1 (2017), 76–90; Stan Veuger, *Housing and the American Worker* (Economic Innovation Group, July 2024), https://www.aei.org/research-products/report/housing-and-the-american-worker/?mkt_tok=NDc1LVBCUS05NzEAAAGUiE7_NxZZ8LYZs-voa7VcHImYgaegQHjUKvf5LtN2MeiTHGgrsWetiZGsOj8LfyR_-RKQvAFQyfUT6KaCqNQw2Sq25OCWHoeACUYfYrxMCv7qSxhH.
[3] Jeffrey M. Jones, "Americans Expect Inflation to Persist Over Next Six Months," Gallup, January 26, 2022, https://news.gallup.com/poll/389129/americans-expect-inflation-persist-next-six-months.aspx.
[4] Lily Katz, "Skipping Meals and Working Overtime: The Sacrifices Americans Make to Afford Housing," Redfin | News, April 5, 2024, https://www.redfin.com/news/homebuying-sacrifices-survey-2024/.
[5] Lyman Stone, "The Conservative Fertility Advantage," Institute for Family Studies, November 18, 2020, https://ifstudies.org/blog/the-conservative-fertility-advantage; Cullum Clark, "Deep Blue Birth Dearth," *City Journal*, July 16, 2024, https://www.city-journal.org/article/deep-blue-birth-dearth.
[6] Michael D. Tanner, *The Inclusive Economy: How to Bring Wealth to America's Poor* (Cato Institute, 2018), 201, 218.
[7] Anandi Mani et al., "Poverty Impedes Cognitive Function," *Science* 341, no. 6149 (August 30, 2013): 976–80, https://doi.org/10.1126/science.1238041. See also Raj Chetty et al., "Creating Moves to Opportunity: Experimental Evidence on Barriers to Neighborhood Choice," *American Economic Review* 114, no. 5 (2024): 1281–1337, https://www.aeaweb.org/articles/pdf/doi/10.1257/aer.20200407?etoc=1&_ga=GA1.2.1602700224.1688227673&_ga_96K6S9DJLT=GS1.1.1719089890.8.1.1719089903.0.0.0&aeawebcookie=KgUZpKofFYxYooDrmHnn405lBKfzlwxs9Xk&PHPSESSID=5d06efa2bf3c08d34011092b7c8eea0.
[8] *The Social Contract in the 21st Century: Outcomes for Workers, Consumers, and Savers in Advanced Economies* (McKinsey Global Institute, 2020), https://www.mckinsey.com/industries/social-sector/our-insights/the-social-contract-in-the-21st-century.
[9] "Most Renter Households Lack Enough Income to Cover All Living Expenses," Housing Matters: An Urban Institute Initiative, December 14, 2022, https://housingmatters.urban.org/research-summary/most-renter-households-lack-enough-income-cover-all-living-expenses.
[10] Tanner, *Inclusive Economy*, 218–9.
[11] Jerry Anthony, "Housing Affordability and Economic Growth," *Housing Policy Debate*, 2022, https://www.nlihc.org/sites/default/files/Housing_Affordability_Economic_Growth.pdf; Lei Ding et al., "Gentrification and Residential Mobility in Philadelphia," *Regional Science and Urban Economics* 61 (2016): 38–51; Maya Brennan et al., *The Impacts of Affordable Housing on Education: A Research Summary* (Center for Housing Policy, November 2014), https://nhc.org/wp-content/uploads/2017/03/The-Impacts-of-Affordable-Housing-on-Education-1.pdf; Sheila Crowley, "The Affordable Housing Crisis: Residential Mobility of Poor Families and School Mobility of Poor Children," *Journal of Negro Education* 72, no. 1 (Winter 2003): 22–38, https://www.jstor.org/stable/3211288; "The Social Contract in the 21st Century" (McKinsey); Tanner, *Inclusive Economy*, 202–3.
[12] Julie Mack, "Top Hurdle for Kalamazoo Promise Isn't Sending Kids to College. It's Getting Them to Finish," MLive, June 13, 2023, https://www.mlive.com/news/kalamazoo/2023/06/top-hurdle-for-kalamazoo-promise-isnt-sending-kids-to-college-its-getting-them-to-finish.html; Clifford Adelman, "Answers in the Toolbox: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment" (National Institute on Postsecondary Education, Libraries, and Lifelong Learning, June 1999), files.eric.ed.gov/fulltext/ED431363.pdf; "Community College Leadership Report: Maintaining a Focus on Reaching, Enrolling, Supporting, and Retaining Students," salesforce.org, 2021, https://www.salesforce.org/wp-content/uploads/2022/01/edu-report-community-college-leadership-report-011421-v1.pdf; Brian J. Mistler et al., "The Association for University and College Counseling Center Directors Annual Survey," accessed November 23, 2021, https://www.aucccd.org/assets/documents/Survey/aucccd_directors_survey_monograph_2011.pdf; "Student Mental Health Survey (September 2020)" (Active Minds, September 2020), https://www.activeminds.org/wp-content/uploads/2020/10/Student-Mental-Health-Data-Sheet-Fall-2020-1.pdf; Dan Hooper, *Fleece U: How American Universities are Robbing Our Kids and Our Future* (Self-published, 2021), 7–8, 48–9.
[13] Reid Cramer et al., "A Penny Saved Is Mobility Earned: Advancing Economic Mobility Through Savings" (Economic Mobility Project, Pew Charitable Trusts, November 2009), https://search.issuelab.org/resource/a-penny-saved-is-mobility-earned.html.
[14] Bill Pitkin, "Homelessness Is a Housing and Racism Problem," Housing Matters, Urban Institute, May 11, 2022, https://housingmatters.urban.org/articles/homelessness-housing-and-racism-problem; see also Tobias Peter and Ethan Frizzell, "Our Homelessness Problem Is Getting out of Control – What Can We Do?" opinion, *The Hill*, June 12, 2024, https://thehill.com/opinion/finance/4716935-our-homeless-problem-is-getting-out-of-control-what-can-we-do/.
[15] Zillow Research, *Homelessness Rises Faster Where Rent Exceeds a Third of Income*, Zillow, December 11, 2018, https://www.zillow.com/research/homelessness-rent-affordability-22247/.
[16] Tanya de Sousa et al., *The 2022 Annual Homelessness Assessment Report (AHAR) to Congress: Part One: Point-in-Time Estimates of Homelessness* (U.S. Department of Housing and Urban Development Office of Community Planning and Development, December 2022), https://www.huduser.gov/portal/publications/2022-ahar-part-1-pit-estimates-of-homelessness.html
[17] Paul Krugman and Anthony J. Venables, "Globalization and the Inequality of Nations," working paper no. 5098 (National Bureau of Economic Research, April 1995), https://www.nber.org/papers/w5098; Jorge De La Roca and Diego Puga, "Learning by Working in Bigger Cities," *Review of Economic Studies* 84, no. 1 (January 2017): 106–42, https://academic.oup.com/restud/article/84/1/106/2669971; Tunku Varadarajan, "The Weekend Interview with Edward Glaeser," *Wall Street Journal*, May 28–9, 2022.
[18] Nick Bloom and Alex Finan, "The Rise in Super Commuters," INRIX and Stanford, June 2024, https://nbloom.people.stanford.edu/sites/g/files/sbiybj24291/files/media/file/supercommuters_final.pdf
[19] "AllTransit," CNT, accessed January 31, 2025, https://cnt.org/tools/alltransit.
[20] R. Prid'homme and C.W. Lee, "Size, Sprawl, Speed, and the Efficiency of Cities," 1998, cited in Alain Bertaud, *Order Without Design: How Markets Shape Cities* (MIT Press, 2018), 33.
[21] Conor Dougherty, *Golden Gates: The Housing Crisis and a Reckoning for the American Dream* (Penguin Books, 2020), 58.
[22] Michael C. Lens, "Measuring the Geography of Opportunity," *Progress in Human Geography* 41, no.1, (2017): 3–25, http://unequalcities.org/wp-content/uploads/sites/17/2019/01/Lens-Michael-J11_PiHG_2016.pdf; Douglas S. Massey et al., "The Changing Bases of Segregation in the United States," *The Annals of the American Academy of Political and Social Science* 626, no. 1 (2019), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3844132/.

[23] O. Patterson, "The Long Reach of Racism in the U.S.," The Saturday Essay, *Wall Street Journal*, June 5, 2020, https://www.wsj.com/articles/the-long-reach-of-racism-in-the-u-s-11591372542.
[24] Jonathan T. Rothwell and Douglas S. Massey, "Density Zoning and Class Segregation in U.S. Metropolitan Areas," *Social Science Quarterly* 91, no. 5 (2009): 1123–43, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632084/; Michael C. Lens and Paavo Monkkonen, "Do Strict Land Use Regulations Make Metropolitan Areas More Segregated by Income?" *Journal of American Planning Association* 82, no. 1 (2016): 6–21, http://unequalcities.org/wp-content/uploads/sites/17/2019/01/Lens-Michael-J8_Lens_Monkkonen_2016.pdf.
[25] Jonathan T. Rothwell and Douglas S. Massey, "Geographic Effects on Intergenerational Income Mobility," *Economic Geography* 91, no. 1 (2014): 83–106, https://doi.org/10.1111/ecge.12072; William Julius Wilson, *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy* (University of Chicago Press, reprint edition, 1990); Tanner, *Inclusive Economy*, 53, 76–9.
[26] Ganong and Shoag, "Why Has Regional Income Convergence in the U.S. Declined?"
[27] Chang-Tai Hsieh and Enrico Moretti, "Housing Constraints and SPATIAL Misallocation," *American Economic Journal: Macroeconomics* 11, no. 2 (April 2019): 1–39, https://eml.berkeley.edu/%7Emoretti/growth.pdf; Raven Saks, "Job Creation and Housing Construction: Constraints on Metropolitan Area Employment Growth," *Journal of Urban Economics* 64, no. 1 (2008): 178–95, https://doi.org/10.1016/j.jue.2007.12.003. See also Edward Glaeser and Joseph Gyourko, "The Economic Implications of Housing Supply," *Journal of Economic Perspectives* 32, no. 1 (2018): 3–30, https://www.aeaweb.org/articles?id=10.1257/jep.32.1.3.
[28] "The Work Ahead: Machines, Skills, and U.S. Leadership in the Twenty-First Century," Council on Foreign Relations, April 10, 2018, https://www.cfr.org/event/work-ahead-machines-skills-and-us-leadership-twenty-first-century; Michael Amior and Alan Manning, "The Persistence of Local Joblessness," *American Economic Review* 108, no. 7 (July 2018): 1942–70, https://www.aeaweb.org/articles?id=10.1257/aer.20160575; Ritashree Chakrabarti and Junfu Zhang, "Unaffordable Housing and Local Employment Growth: Evidence from California Municipalities," *Urban Studies* 52, no. 6 (2014): 1134–51, https://doi.org/10.1177/0042098014532854.
[29] David Salveson and Henry Renski, "The Importance of Quality of Life in the Location Decisions of New Economy Firms" (Center for Urban and Regional Studies, 2003), https://www.researchgate.net/publication/228494438_The_importance_of_quality_of_life_in_the_location_decisions_of_new_economy_firms; Jean Folger, "Why Silicon Valley Companies Are Moving to Texas," Investopedia, updated October 30, 2024, https://www.investopedia.com/why-silicon-valley-companies-are-moving-to-texas-5092782; Jerry Anthony, "Housing Affordability and Economic Growth" (Housing Policy Debate, May 2022), https://www.nlihc.org/sites/default/files/Housing_Affordability_Economic_Growth.pdf; Richard Florida, *The New Urban Crisis: How Our Cities are Increasing Inequality, Deepening Segregation, and Failing the Middle Class – and What We Can Do About It* (Basic Books, 2018), xiii, xv, 123; Bruce Katz and Jeremy Nowak, *The New Localism: How Cities Can Thrive in the Age of Populism* (Brookings Institution Press, 2018), 50; Edward L. Glaeser, *Triumph of the City: How Our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier, and Happier* (Penguin Books, 2012), 11.
[30] W. Michael Cox and Richard Alm, "Opportunity Knocks: The College-Educated Edge," Insights: Texas Economy, *D CEO Magazine*, August 2019.
[31] Enrico Moretti, "Local Multipliers," *American Economic Review* 100, no. 2 (2010): 373–7, https://www.jstor.org/stable/27805022. See also Taner Osman and Tom Kemeny, "Local Job Multipliers Revisited," *Journal of Regional Science* 62, no. 1 (January 2022): 150–70, https://doi.org/10.1111/jors.12561.
[32] Richard Florida and Adam Ozimek, "How Remote Work Is Reshaping America's Urban Geography," *Wall Street Journal*, March 6–7, 2021; Christopher Mims, "Tech Talent Says Goodbye to the Coast," *Wall Street Journal*, October 22, 2021; "What Workers Really Want," Axios Markets, November 16, 2021; "The Pyjama Revolution," *Economist*, October 30, 2021; "Charted: Hybrid Work Wins," Axios AM, April 9, 2024; "What a Way to Make a Living," *Economist*, September 12, 2020; Peter Cappelli, "Here Comes the Two-Tier Workplace," *Wall Street Journal*, August 16, 2021; Katherine Bindley, "Should Moving Somewhere Cheaper Mean a Pay Cut?" *Wall Street Journal*, September 11-2, 2021.
[33] Shelby Buckman, Jose Maria Barrero, Nicholas Bloom, and Steven J. Davis, "Measuring work from home," Becker Friedman Institute for Economics working paper no. 2025-31, February 2025, https://bfi.uchicago.edu/wp-content/uploads/2025/02/BFI_WP_2025-31.pdf; Nicholas Bloom and Alex Finan, "The Rise in Supercommuters," slide deck, June 2024, https://nbloom.people.stanford.edu/sites/g/files/sbiybj24291/files/media/file/supercommuters_final.pdf; Steven J. Davis, "Work from Home, AI, and the Labor Market: What's Next?" (Economic Innovation Group, July 2024), https://eig.org/wp-content/uploads/2024/07/TAWP-Davis.pdf; "C-Suite Outlook 2024: Leading for Tomorrow," The Conference Board, January 10, 2024, https://www.conference-board.org/publications/C-Suite-Outlook-2024-leading-for-tomorrow.
[34] Author's analysis of data from the American Community Survey (ACS), U.S. Census Bureau, 2010 and 2022 five-year estimates.
[35] Michal Grinstein-Weiss et al., "Homeownership and Wealth Among Low- and Moderate-Income Households," Brookings Institution, January 28, 2013, https://www.brookings.edu/research/homeownership-and-wealth-among-low-and-moderate-income-households/; Laurie S. Goodman and Christopher Mayer, "Homeownership and the American Dream," *Journal of Economic Perspectives* 32, no. 1 (2018): 31–58, https://doi.org/10.1257/jep.32.1.31.
[36] Paolo Sodini et al., "Identifying the Benefits of Home Ownership: A Swedish Experiment," Working Paper no. 22882 (National Bureau of Economic Research, December 2016), https://www.nber.org/papers/w22882; Sebastian Galiani and Ernesto Schargrodsky, "Property Rights for the Poor: Effects of Land Titling," *Journal of Public Economics* 94, nos. 9–10 (2010): 700–29, https://doi.org/10.1016/j.jpubeco.2010.06.002; B. Friedman et al. , "Savings: The Poor Can Save, Too," *Democracy: A Journal of Ideas* 26 (Fall 2012), https://democracyjournal.org/magazine/26/savings-the-poor-can-save-too/.
[37] Richard K. Green and Michelle J. White, "Measuring the Effects of Homeowning: The Effects on Children," working paper no. 93 (University of Chicago Center for the Study of the Economy and the State, February 1994); Thomas P. Boehm and Alan M. Scholttman, "Does Home Ownership by Parents Have an Economic Impact on Their Children?," *Journal of Housing Economics* 8, no. 3 (September 1999), https://doi.org/10.1006/jhec.1999.0248; Michael H. Boyle, "Home Ownership and the Emotional and Behavioral Problems of Children and Youth," *Child Development* 73, no. 3 (January 28, 2003); Donald R. Haurin et al., "Does Homeownership Affect Child Outcomes?," *Real Estate Economics* 30, no. 4 (January 10, 2003), 635–66, https://doi.org/10.1111/1540-6229.t01-2-00053.
[38] Edward N. Wolff, *A Century of Wealth in America* (Belknap Press, 2017), xv, 91, 262–4, 429–31.
[39] Denise DiPasquale and Edward L. Glaeser, "Incentives and Social Capital: Are Homeowners Better Citizens?," Working Paper no. 6363 (National Bureau Economic Research, January 1998), https://www.nber.org/papers/w6363; William M. Rohe et al., "Home Ownership and Access to Opportunity," *Journal of Housing Studies* 17, no. 1 (2002), http://dx.doi.org/10.1080/02673030120105884; Maureen Kennedy and Paul

Leonard, "Dealing with Neighborhood Change: A Primer on Gentrification and Policy Choices," Brookings Institution, April 1, 2001, https://www.brookings.edu/articles/dealing-with-neighborhood-change-a-primer-on-gentrification-and-policy-choices/.

[40] See Matthew Yglesias, "The High Cost of Promoting Homeownership," Substack, February 21, 2024, https://www.slowboring.com/p/the-high-cost-of-promoting-homeownership; Jerusalem Demsas, "The Ownership Society Was a Mistake," *The Atlantic*, December 20, 2022, https://www.theatlantic.com/newsletters/archive/2022/12/homeownership-real-estate-investment-renting/672511/; Cecile Murray and Jenny Schuetz, "Housing in the US Is Too Expensive, Too Cheap, and Just Right. It Depends on Where You Live," Brookings Institution, June 21, 2018, https://www.brookings.edu/articles/housing-in-the-u-s-is-too-expensive-too-cheap-and-just-right-it-depends-on-where-you-live/; Jenny Schuetz, "Rethinking Homeownership Incentives to Improve Household Financial Security and Shrink the Racial Wealth Gap," Brookings Institution, December 9, 2020, https://www.brookings.edu/articles/rethinking-homeownership-incentives-to-improve-household-financial-security-and-shrink-the-racial-wealth-gap/. For the classic statement of the "home voter" hypothesis – the argument that homeowners are more likely than renters to oppose new development nearby because they want to keep housing scarce and protect their investment, see William Fischel, *Zoning Rules! The Economics of Land Use Regulation* (Lincoln Institute of Land Policy, 2015).

[41] Gina Freeman and Aleksandra Kadzielawski, "First-Time Home Buyer Down Payment: How Much Is Needed?," The Mortgage Reports, updated January 13, 2025, https://themortgagereports.com/19010/first-time-home-buyer-making-downpayment-gina-pogol.

[42] John R. Logan and Min Zhou, "The Adoption of Growth Controls in Suburban Communities," *Social Science Quarterly* 71, no. 1 (1990): 118–29, https://www.proquest.com/openview/3a61ccb7d4d72a3e1be68b57b0a53f70/1?pq-origsite=gscholar&cbl=1816420; Jan K. Brueckner, "Testing for Strategic Interactions Among Local Governments: The Case of Growth Controls," *Journal of Urban Economics* 44, no. 3 (November 1998): 438–67, https://www.sciencedirect.com/science/article/abs/pii/S0094119097920787; Michael Hankinson, "When Do Renters Behave Like Homeowners? High Rent, Price Anxiety, and NIMBYism," *American Political Science Review* (August 2018), https://www.mhankinson.com/documents/renters_preprint.pdf; Edward Glaeser and Bryce A. Ward, "The Causes and Consequences of Land Use Regulation: Evidence from Greater Boston," *Journal of Urban Economics* 65, no. 3 (2009): 265–78, https://doi.org/10.1016/j.jue.2008.06.003.

[43] Mikaela Arroyo, "Busting Gen Z Myths: What the Housing Industry Needs to Know," John Burns Research and Consulting, April 12, 2024, https://jbrec.com/insights/gen-z-and-myths-about-homeownership-for-this-group/; "Wells Fargo Study: Homeownership Goals Shape How Americans Live, Work, and Save," Wells Fargo Newsroom, July 9, 2019, https://newsroom.wf.com/English/news-releases/news-release-details/2019/Wells-Fargo-Study-Homeownership-Goals-Shape-How-Americans-Live-Work-and-Save/default.aspx; "SCE Housing Survey," Center for Microeconomic Data, Federal Reserve Bank of New York, 2024, https://www.newyorkfed.org/microeconomics/sce/housing#/. Numerous author interviews unanimously point to the same conclusions.

[44] "Homeownership Goals Shape," Wells Fargo.

[45] Dana Anderson, "Nepo-Homebuyers: More Than One-Third of Gen Z and Millennial Homebuyers Plan to Use Family Money for Down Payment," Redfin | News, March 27, 2024, https://www.redfin.com/news/gen-z-millennial-down-payment-family-help.

[46] Data for American Community Survey, DP04, Selected Housing Characteristics, from 2022: ACS 1-Year Estimates Data Profiles, United States Census Bureau accessed January 31, 2025, https://data.census.gov/table/ACSDP1Y2022.DP04?q=DP04:%20SELECTED%20HOUSING%20CHARACTERISTICS.

[47] Sharada Dharmasankar and Bhash Mazumder, "Have Borrowers Recovered from Foreclosures During the Great Recession?," Chicago Fed Letter No. 370 (Federal Reserve Bank of Chicago, 2016), https://www.chicagofed.org/publications/chicago-fed-letter/2016/370; Melissa Carlson, "Is Getting a Home Mortgage Still Too Difficult?," Cornerstone Real Estate, February 23, 3024, https://www.cornerstonemi.com/blog/is-getting-a-home-mortgage-still-too-difficult.

[48] Tobias J. Peter, "How the Federal Government's Policies Are Crowding Out Lower Income Americans out of the Housing Market," Statement before the Senate Committee on Banking, Housing, and Urban Affairs (American Enterprise Institute, February 10, 2022), https://www.banking.senate.gov/imo/media/doc/Peter%20Testimony%202-10-228.pdf.

[49] Wolff, *Century of Wealth*, 386; Florida, *New Urban Crisis*, 199.

[50] Hanna Chugg, "The Homeownership Gap Between Black and White Families in the United States," Ballard Brief (Brigham Young University, Spring 2023), https://ballardbrief.byu.edu/issue-briefs/the-homeownership-gap-between-black-and-white-families-in-the-united-states; Wolff, *Century of Wealth*, 402; Chuck Collins et al., Report: *The Road to Zero Wealth* (Institute for Policy Studies, September 1, 2017), https://ips-dc.org/report-the-road-to-zero-wealth/; Tanner, *Inclusive Economy*, 95.

[51] Peter, "Government's Policies Are Crowding Out."

[52] Author's analysis of data from the ACS, U.S. Census, 2022 five-year estimates. For a further analysis of homeowners and renters are arrayed along the overall income distribution using Australian data, see Demi Chung and Roselyne Joyeux, "Explaining House Prices in Australia: 1970 – 2003," *Economic Record* 81 (August 2005): S100, https://www.academia.edu/25566905/Explaining_House_Prices_in_Australia_1970_2003_a.

[53] Peyton Whitney, "More than 42 Million US Households Were Cost Burdened in 2022," *Housing Perspectives* (Joint Center for Housing Studies of Harvard University, January 19, 2024), https://www.jchs.harvard.edu/blog/more-42-million-us-households-were-cost-burdened-2022.

[54] Author's analysis of data from the ACS, U.S. Census, 2022 five-year estimates, household income percentiles from the Tax Policy Center (https://www.taxpolicycenter.org/statistics/household-income-quintiles), and income, rent (CPI), and single-family home price (S&P CoreLogic Case-Shiller National Home Price Index) data from the Federal Reserve Bank of St. Louis' FRED database; David Albouy et al., "Housing Demand, Cost-of-Living Inequality, and the Affordability Crisis," Working Paper no. 22816 (National Bureau of Economic Research, November 2016), https://www.nber.org/system/files/working_papers/w22816/w22816.pdf; Jung Hyun Choi and Amalie Zinn, "The Wealth Gap Between Homeowners and Renters Has Reached a Historic High," Urban Institute, May 1, 2024, https://housingmatters.urban.org/articles/wealth-gap-between-homeowners-and-renters-has-reached-historic-high; Owen Minott and Andy Winkler, *Understanding and Addressing Racial Disparities in Housing* (Bipartisan Policy Center, December 2021), https://bipartisanpolicy.org/download/?file=/wp-content/uploads/2021/12/BPC_Racial-Disparities-Brief_RV2-3.pdf; "Rental Housing Needs Assessment: City of Dallas" (HR&A and Child Poverty Action Lab, Spring 2023), https://childpovertyactionlab.imgix.net/CPAL_RentalHousingNeedsReport.pdf.

[55] "Rental Housing Needs Assessment: City of Dallas" (HR&A and Child Poverty Action Lab); Wendell Cox, Demographia International Housing Affordability: 2024 Edition (Chapman University, 2024), http://www.demographia.com/dhi.pdf; see also previous editions of the annual Demographia report.

[56] Edward J. Pinto et al., *The State of the First-Time Homebuyer in 2023* (American Enterprise Institute, June 10, 2024), https://www.aei.org/research-products/report/the-state-of-the-first-time-homebuyer-in-2023/.

[57] Data for Producer Price Index by Industry: Premiums for Property and Casualty Insurance: Premiums for Homeowner's Insurance (PCU9241269241262), FRED Economic Data, St. Louis Fed, updated January 14, 2025, https://fred.stlouisfed.org/series/PCU9241269241262; data for Median Household Income in the United States (MEHOINUSA646N), FRED Economic Data, St. Louis Fed, updated September 11, 2024, https://fred.stlouisfed.org/series/MEHOINUSA646N.

[58] "What Does Homeowners Insurance Cost? A Complete Guide," Matic, accessed January 31, 2025, https://matic.com/cost-of-homeowners-insurance-guide.
[59] "HOME Rent Limits," HUD Exchange, accessed January 31, 2025, https://www.hudexchange.info/programs/home/home-rent-limits/.
[60] Mousumi Sarkar, "How American Homes Vary by the Year They Were Built," Housing and Household Economic Statistics Working Paper No. 2011-18 (U.S. Census Bureau, June 2011), https://www.census.gov/content/dam/Census/programs-surveys/ahs/working-papers/Housing-by-Year-Built.pdf.
[61] Tobias Peter and Edward J. Pinto, *National Home Price Appreciation (HPA) Index – May 2024* (American Enterprise Institute, June 20, 2024), https://www.aei.org/research-products/report/national-home-price-appreciation-hpa-index-may-2024/; author's calculations based on data from the ACS, U.S. Census.
[62] For the classic statement of how "filtering" works in urban housing markets over time, see James L. Sweeney, "Quality, Commodity Hierarchies, and Housing Markets," *Econometrica* 49 (1974): 147–67. For a contemporary argument that filtering doesn't work, see Council of Community Housing Organizations, "The Filtering Fallacy – An Infographic," 2016, https://www.sfccho.org/publications-reports/2018/10/12/the-filtering-fallacy-an-infographic.
[63] Tsur Tsuriel Somerville and Christopher J. Mayer, "Government Regulation and Changes in the Affordable Housing Stock," conference presentation at "Policies to Promote Affordable Housing," February 7, 2002, https://www.researchgate.net/publication/5050493_Government_Regulation_and_Changes_in_the_Affordable_Housing_Stock.
[64] *America's Rental Housing: Expanding Options for Diverse and Growing Demand* (Joint Center for Housing Studies of Harvard University, 2015), https://www.jchs.harvard.edu/sites/default/files/americas_rental_housing_2015_web.pdf.
[65] "Rental Housing Needs Assessment: City of Dallas" (HR&A and Child Poverty Action Lab).
[66] Somerville and Mayer, "Government Regulation and Changes in the Affordable Housing Stock."
[67] See, for instance, Andre M. Perry, "How Racial Disparities in Home Prices Reveal Widespread Discrimination," Brookings Institution, February 4, 2021, https://www.brookings.edu/articles/how-racial-disparities-in-home-prices-reveal-widespread-discrimination/; *The Gap: A Shortage of Affordable Homes* (National Low-Income Housing Coalition, March 2024), https://nlihc.org/gap; Sami Sparber and Adam Tamburin, "Nashville Is a Leader in the Nationwide Apartment Boom," Axios Nashville, September 27, 2023, https://www.axios.com/local/nashville/2023/09/27/leader-nationwide-apartment-boom.
[68] Charles L. Marohn and Daniel Herriges, *Escaping the Housing Trap: The Strong Towns Approach to the Housing Crisis* (John Wiley & Sons, Inc., 2024), 134–7.
[69] Morris Davis and Francois Ortalo-Magne, "Household Expenditures, Wages, and Rents," *Review of Economic Dynamics* 14 (2011): 248–61.
[70] Kyle F. Herkenhoff, Lee E. Ohanion, and Edward C. Prescott, "Tarnishing the Golden and Empire States: Land-Use Restrictions and the U.S. Economic Slowdown," Working Paper no. 23790 (National Bureau of Economic Research, September 2017), https://www.nber.org/papers/w23790.
[71] "Texas Lyceum Executive Summary" (Texas Lyceum, 2024), https://www.texaslyceum.org/assets/Poll/TwentyFour/Lyceum_2024_Poll_Executive_Summary_FINAL%20%282%29.pdf.
[72] This discussion draws on a rich literature in urban and regional economics on the idea of spatial equilibrium in a system of cities. See, for instance, Sherwin Rosen, "Wage-Based Indexes of Urban Quality of Life," in Peter Mieszkowski and Mahlon Straszheim, eds., *Current Issues in Urban Economics* (Johns Hopkins University Press, 1979), 74–109; Jennifer Roback, "Wages, Rents, and the Quality of Life," *Journal of Political Economy* 90, no. 6 (1982): 1257–78, https://www.jstor.org/stable/1830947; Stijn Van Niewerburgh and Pierre-Olivier Weill, "Why Has House Dispersion Gone Up?" Working Paper no. 12538 (National Bureau of Economic Research, 2006), https://www.nber.org/papers/w12538; Klaus Desmet and Esteban Rossi-Hansberg, "Urban Accounting and Welfare," *American Economic Review* 103, no. 6 (October 2013): 2296–327, https://www.aeaweb.org/articles?id=10.1257/aer.103.6.2296.
[73] David Faris, "The Sun Belt Boom Is Over | Opinion," *Newsweek*, May 24, 2024, https://www.newsweek.com/sun-belt-boom-over-opinion-1904633.
[74] Sangmin Oh et al., "Pricing of Climate Risk Insurance: Regulation and Cross-Subsidies," SSRN, January 15, 2021, https://dx.doi.org/10.2139/ssrn.3762235.
[75] Erica York and Jared Walczak, *State and Local Tax Burdens, Calendar Year 2022*" (Tax Foundation, April 7, 2022), https://taxfoundation.org/data/all/state/tax-burden-by-state-2022/.
[76] "Housing Supply: A Growing Deficit," Freddie Mac, May 7, 2021, https://www.freddiemac.com/research/insight/20210507-housing-supply; Jenny Schuetz, "How the Federal Government Can Encourage Innovative Housing Policies That Improve Supply and Affordability" (Brookings, September 12, 2023), https://www.brookings.edu/articles/how-the-federal-government-can-encourage-innovative-housing-policies-that-improve-supply-and-affordability/; Andrew Aurand et al., *The Gap: A Shortage of Affordable Homes* (National Low Income Housing Coalition, March 2023), https://nlihc.org/gap; Kenneth T. Rosen et al., *Housing Is Critical Infrastructure: Social and Economic Benefits of Building More Housing* (Rosen Consulting Group, June 2021), https://www.nar.realtor/advocacy/housing-is-critical-infrastructure; Mike Kingsella and Leah MacArthur, eds., *Housing Underproduction in the U.S. 2022* (Up for Growth, 2022), https://upforgrowth.org/wp-content/uploads/2022/09/Up-for-Growth-2022-Housing-Underproduction-in-the-U.S.pdf.
[77] Author's calculations based on population and housing stock data from the U.S. Census Bureau; "U.S. Housing Chartbook: Still frozen," Strategas, June 26, 2024.
[78] For survey data on the public's expectations for future home price appreciation, see Torsten Slok, "Households Bullish on Future Home Price Appreciation," The Daily Spark, Apollo Global Management, June 29, 2024.
[79] Glaeser and Gyourko, "The Economic Implications of Housing Supply."
[80] Marohn and Herriges, *Escaping the Housing Trap*, 18–21, 77–80.
[81] Andrew H. Whittemore, "How the Federal Government Zoned America: The Federal Housing Administration and zoning," *Journal of Urban History* 39, no. 4 (2013): 620–42, https://doi.org/10.1177/0096144212470245/; Glaeser and Gyourko, "The Economic Implications of Housing Supply"; Edward L. Glaser et al., "Regulation and the Rise of Housing Prices in Greater Boston," Policy Brief no. 2006-1 (Rappaport Institute for Greater Boston and Pioneer Institute for Public Policy Research, February 2006), https://highriseboston.com/files/docs/Regulation%20and%20the%20Rise%20of%20Housing%20Prices%20in%20Greater%20Boston.pdf; Bertaud, *Order Without Design*, 232–5; Quoctrung Bui et al., "40 Percent of Buildings in Manhattan Could Not Be Built Today," The Upshot, *New York Times*, May 20, 2016, https://www.nytimes.com/interactive/2016/05/19/upshot/forty-percent-of-manhattans-buildings-could-not-be-built-today.html; Daniel Hertz, "The Illegal City of Somerville," City Observatory, June 6, 2016, https://cityobservatory.org/the-illegal-city-of-somerville/.
[82] Marohn and Herriges, *Escaping the Housing Trap*, 88.

[83] Karan Kaul et al., *The Role of Single-Family Housing Production and Preservation in Addressing the Affordable Housing Supply Shortage* (Urban Institute, December 2021), https://www.urban.org/sites/default/files/publication/105265/the-role-of-single-family-housing-production-and-preservation-in-addressing-the-affordable-housing-supply-shortage.pdf.
[84] Author interview with the CEO of a leading West Coast multifamily development firm.
[85] Christopher Berry, "Land Use Regulation and Residential Segregation: Does Zoning Matter?" *American Law and Economics Review* 3, no. 2 (May 2001): 251–74, https://academic.oup.com/aler/article-abstract/3/2/251/115515.
[86] Author interviews with developers; Tanner, *Inclusive Economy*, 205.
[87] Marohn and Herriges, *Escaping the Housing Trap*, 117.
[88] Author interview with the CEO of a local homebuilders' association in Texas.
[89] Tanner, *Inclusive Economy*, 207.
[90] See, for instance, a description of the Marin County, California development process in Jim Heid, Building Small: A Toolkit for Real Estate Entrepreneurs, Civic Leaders, and Great Communities (Urban Land Institute, 2022).
[91] Author interviews with developers in Dallas.
[92] Alex Golden, "Bentonville Teacher-Housing Project in Limbo," Axios NW Arkansas, February 21, 2024, https://www.axios.com/local/nw-arkansas/2024/02/21/bentonville-teacher-housing-project.
[93] Dougherty, *Golden Gates*, 81; Glaeser, *Triumph of the City*, 192.
[94] "Free Exchange: Anti-Environmentalists," *The Economist*, March 16, 2024.
[95] Salim Furth and C. Whit Ewen, "Mostly Invisible: The Cost of Valid Petitions in Texas," policy brief (Mercatus Center at George Mason University, February 20, 2023), https://www.mercatus.org/research/policy-briefs/mostly-invisible-cost-valid-petitions-texas.
[96] Nacha Cattan, "Springsteen's NJ Town Fears 'Disaster' from Kushner Housing Plan," Bloomberg CityLab, June 20, 2024, https://www.bloomberg.com/news/articles/2024-06-20/why-a-new-jersey-town-is-rebelling-against-a-kushner-housing-plan?cmpid=BBD062324_CITYLAB; Yusra Farzan, "Court Finds Huntington Beach Violated State Housing Mandate," LAist, May 16, 2024, https://laist.com/news/court-finds-huntington-beach-violated-state-housing-mandate.
[97] Joseph Gyourko, Jonathan S. Hartley, and Jacob Krimmel, "The Local Residential Land Use Regulatory Environment Across U.S. Housing Markets: Evidence from a New Wharton Index," *Journal of Urban Economics* 124 (July 2021), https://doi.org/10.1016/j.jue.2021.103337; Glaeser and Gyourko, "The Economic Implications of Housing Supply."
[98] Raven Molloy et al., "Housing Supply and Affordability: Evidence from Rents, Housing Consumption, and Household Location," *Journal of Urban Economics* 129 (2022): article 103427, https://doi.org/10.1016/j.jue.2022.103427; Ganong and Shoag, "Why Has Regional Income Convergence in the U.S. Declined?," Kristoffer Jackson, "Do Land Use Regulations Stifle Residential Development? Evidence from California Cities," *Journal of Urban Economics* 91, no. 1 (2016): 45–56, https://www.sciencedirect.com/science/article/abs/pii/S0094119015000789; Joseph Gyourko et al., "Superstar Cities," *American Economic Journal – Economic Policy* 5, no. 4 (2013): 167–99, https://www.aeaweb.org/articles?id=10.1257%2Fpol.5.4.167&ref=akusion-ci-shi-dai-bizinesumedeia; Glaeser and Ward, "Evidence from Greater Boston"; Tanner, *Inclusive Economy*, 207.
[99] Joseph Gyourko et al., "A New Measure of the Local Regulatory Environment for Housing Markets: The Wharton Residential Land Use Regulatory Index," *Urban Studies* 45, no. 3 (2008): 693–729, https://doi.org/10.1177/0042098007087341.
[100] Andrew H. Whittemore and Todd K. BenDor, "Opposition to Housing Development in a Suburban US County: Characteristics, Origins, and Consequences," *Land Use Policy* 88 (November 2019): article 104158, https://doi.org/10.1016/j.landusepol.2019.104158.
[101] Katherine Einstein et al., *Neighborhood Defenders: Participatory Politics and America's Housing Crisis* (Cambridge University Press, 2019); Dougherty, *Golden Gates*, 30, 101; Asian Wilson, "Proposed 258-Unit Apartment Complex Causes Concern for Homeland Park Residents," 7News, WSPA.com, Greenville, South Carolina, https://www.wspa.com/news/local-news/a-proposed-258-apartment-complex-causes-concern-for-residents-in-homeland-park-community/.
[102] Logan and Zhou, "The Adoption of Growth Controls in Suburban Communities"; Brueckner, "Testing for Strategic Interactions Among Local Governments"; Hankinson, "When Do Renters Behave Like Homeowners?"; Glaeser and Ward, "Evidence from Greater Boston"; Christopher S. Elmendorf et al., "Folk Economics and the Politics of Housing," *City Journal*, November 28, 2022, https://www.city-journal.org/article/folk-economics-and-the-politics-of-housing.
[103] Clayton Nall et al., *Folk Economics and the Persistence of Political Opposition to New Housing*, April 29, 2024, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4266459.
[104] "Our 2022 Survey: NIMBYism Is Losing Ground," coUrbanize, September 2022, https://www.courbanize.com/blog/our-2022-survey-nimbyism-is-losing-ground; *Americans Say They Like Diverse Communities; Election, Census Trends Suggest Otherwise* (Pew Research Center, December 2, 2008), https://www.pewresearch.org/social-trends/2008/12/02/americans-say-they-like-diverse-communities-election-census-trends-suggest-otherwise/.
[105] Hankinson, "When Do Renters Behave Like Homeowners?"
[106] Peter, "Government's Policies Are Crowding Out"; Joseph Gyourko and Raven Molloy, "Regulation and Housing Supply," in *Handbook of Regional and Urban Economics*, ed. Gilles Duranton et al., vol. 5, (Elsevier, 2015), 1289–1337, https://doi.org/10.1016/B978-0-444-59531-7.00019-3; Joseph Gyourko, "Housing Supply," *Annals of Economics* working paper, August 25, 2008, https://web.archive.org/web/20100619124646id_/http://real.wharton.upenn.edu/~gyourko/Working%20Papers/Housing%20Supply-August%2025%202008.pdf; Morris Davis and Jonathan Heathcote, "The Price and Quality of Residential Land in the United States," *Journal of Monetary Economics* 54 (2007): 2595–620, https://doi.org/10.1016/j.jmoneco.2007.06.023.
[107] Author's calculations based on the Bush Institute's composite growth measure (see Appendix 2 for a full explanation of methods and the online Data Appendix for underlying data; Glaeser, *Triumph of the City*, 191.
[108] Joseph Gyourko et al., "The Local Residential Land Use Regulatory Environment Across U.S. Housing Markets: Evidence from a New Wharton Index," *Journal of Urban Economics* 124 (July 2021), article 103337, https://doi.org/10.1016/j.jue.2021.103337; Joseph Gyourko et al., "A New Measure of the Local Regulatory Environment for Housing Markets: The Wharton Residential Land Use Regulatory Index," Working Paper #558 (Wharton University of Pennsylvania Samuel Zell & Robert Lurie Real Estate Center, October 22, 2006); https://realestate.wharton.upenn.edu/working-papers/a-new-measure-of-the-local-regulatory-environment-for-housing-markets-the-wharton-residential-land-use-regulatory-index/
[109] See also Glaeser and Gyourko, "The Economic Implications of Housing Supply."
[110] Sami Sparber, "Apartments Are Getting Bigger Again," Axios, July 1, 2024, https://www.axios.com/2024/07/01/apartment-size-average-square-feet; Hannah Hoyt, *More for Less? An Inquiry into Design and Construction Strategies for Addressing Multifamily Housing Costs*, Gramlich Fellowship Paper (Joint Center for Housing Studies of Harvard University and NeighborWorks America, March 2020),

https://www.jchs.harvard.edu/sites/default/files/media/imp/harvard_jchs_gramlich_design_and_construction_strategies_multifamily_hoyt_2020_3.pdf.

[111] Vicki Been et al., *Supply Skepticism: Housing Supply and Affordability* (NYU Furman Center, August 20, 2018), https://furmancenter.org/files/Supply_Skepticism_-_Final.pdf.

[112] Jonathan T. Rothwell and Douglas S. Massey, "Geographic Effects on Intergenerational Income Mobility," *Economic Geography* 91, no. 1 (2014): 83–106, https://doi.org/10.1111/ecge.12072.

[113] Joseph Gyourko et al., "A New Measure of the Local Land Regulatory Environment for Housing Markets: The Wharton Residential Land Use Regulatory Index," *Urban Studies* 45, no. 3 (2008): 693-72, https://doi.org/10.1177/0042098007087341; Ganong and Shoag, "Why Has Regional Income Convergence in the U.S. Declined?"; Saks, "Job Creation and Housing Construction"; Albert Saiz, "The Geographic Determinants of Housing Supply," *Quarterly Journal of Economics* (August 2010): 1253–95, https://academic.oup.com/qje/article-abstract/125/3/1253/1903664; Keith R. Ihlanfeldt, "The Effect of Land Use Regulation on Housing and Land Prices," *Journal of Urban Economics* 61, no. 3 (May 2007), 420–35, https://doi.org/10.1016/j.jue.2006.09.003; David Albouy and Gabriel Erhlich "Housing Productivity and the Social Cost of Land-Use Restrictions," *Journal of Urban Economics* 107 (2018): 101–20, https://doi.org/10.1016/j.jue.2018.06.002; Robert W. Wassmer and Joshua A. Williams, "The Influence of Regulation on Residential Land Prices in United States Metropolitan Areas," *CityScape* 23, no. 1 (2021), https://www.huduser.gov/portal/periodicals/cityscpe/vol23num1/ch1.pdf; Paul Cheshire et al., "Empty Homes, Longer Commutes: The Unintended Consequences of More Restrictive Local Planning," *Journal of Public Economics* 158 (2018): 126–51, https://doi.org/10.1016/j.jpubeco.2017.12.006; Nils Kok et al. "Land Use Regulations and the Value of Land and Housing: An Intra-Metropolitan Analysis," *Journal of Urban Economics* 81 (May 2014), 136–48, https://doi.org/10.1016/j.jue.2014.03.004; Jackson, "Do Land Use Regulations Stifle Residential Development?"; Glaeser and Ward, "Evidence from Greater Boston"; Edward L. Glaeser et al., "Why Is Manhattan So Expensive? Regulation and the Rise in Housing Prices," *Journal of Law and Economics* 48, no. 2 (October 2006): 331–69, https://www.journals.uchicago.edu/doi/abs/10.1086/429979.

[114] Stephen Malpezzi and Richard K. Green, "What Has Happened to the Bottom of the U.S. Housing Market?" *Urban Studies* 33, no. 10 (1996): 1807–20, https://doi.org/10.1080/0042098966385; Liam Dillon and Ben Poston, "Affordable Housing in California Now Routinely Tops $1 Million per Apartment to Build," *Los Angeles Times*, June 22, 2022, https://www.latimes.com/homeless-housing/story/2022-06-20/california-affordable-housing-cost-1-million-apartment.

[115] Somerville and Mayer, "Government Regulation and Changes in the Affordable Housing Stock."

[116] Edward L. Glaeser and Joseph Gyourko, "Urban Decline and Durable Housing," *Journal of Political Economy* 113 no. 2 (April 2005), https://doi.org/10.1086/427465.

[117] Author calculations based on U.S. Census data.

[118] Shelly Hagan and Amanda Albright, "Plunging Home Prices, Fleeing Companies: Austin's Glow Is Fading," Bloomberg CityLab, April 25, 2024, https://www.bloomberg.com/news/articles/2024-04-25/larry-ellison-s-austin-snub-adds-to-city-s-housing-office-woes?cmpid=BBD042824_CITYLAB. See also "17 Interactive Case-Shiller Home Price Charts for 20 Metros & USA," Real Estate Decoded, July 30, 2024, https://realestatedecoded.com/case-shiller/; Dana Anderson, "Housing Markets on Florida's west Coast Are Cooling Faster than Anywhere in the U.S., with Supply Rising and Demand Falling," RedFin News, June 11, 2024, https://www.redfin.com/news/housing-markets-cooling-fast-florida.

[119] Author calculations based on U.S. Census data.

[120] Alexandria Sands, "No, Charlotte's Not Done Building Apartments – or Offices or Hotels, for That Matter," Axios Charlotte, February 2, 2023, https://www.axios.com/local/charlotte/2023/02/02/charlotte-uptown-growth-report-2023-319747; Kayli Thompson, "In Reversal, Triangle's Apartment Supply Now Outweighs Demand," Triangle Business Journal, May 8, 2024, https://www.bizjournals.com/triangle/news/2024/05/08/apartment-rents-vacancy-rates-raleigh-durham.html.

[121] CoStar data made available through the Cox School of Business at Southern Methodist University.

[122] Tobias Peter and Edward J. Pinto, *National Home Price Appreciation (HPA) Index—May 2024* (American Enterprise Institute, June 20, 2024), https://www.aei.org/research-products/report/national-home-price-appreciation-hpa-index-may-2024/; Kim Bojórquez and Brianna Crane, "Salt Lake's Housing Market Cools Down," Axios Salt Lake City, July 8, 2024, https://www.axios.com/local/salt-lake-city/2024/07/08/salt-lake-housing-market-cool-down-home-buying.

[123] Daniel Potter et al., *The 43rd Kinder Houston Area Survey: Houston of Tomorrow* (Kinder Institute for Urban Research, May 20, 2024), https://kinder.rice.edu/research/kinder-houston-area-survey-2024-results; Utah Foundation, *Priced Out & Fed Up: Cost of Living and Political Dysfunction Are Voters' Top Issues* (Utah Priorities Project, April 2024), https://www.utahfoundation.org/wp-content/uploads/rr819.pdf ; Kristen Klurfield, *Exploring the Affordable Housing Shortage's Impact on American Workers, Jobs, and the Economy* (Bipartisan Policy Center and J. Ronald Terwilliger Center for Housing Policy, March 2024), https://bipartisanpolicy.org/download/?file=/wp-content/uploads/2024/03/Exploring-the-Aff-Housing-Shortage-Impact-on-American-Workers-Jobs-and-the-Economy_BPC-3.2024.pdf.

[124] "Fed Official Warns About Racism's Economic Toll," *Wall Street Journal*, July 7, 2020.

[125] See also Bret Stephens, "How Capitalism Went Off the Rails," *The New York Times*, June 18, 2024, https://www.nytimes.com/2024/06/18/opinion/capitalism-inflation.html.

[126] See, for instance, Christopher Coes et al., "The Great Real Estate Reset," Brookings Institution, December 16, 2020, https://www.brookings.edu/articles/distorted-and-destabilized-housing-markets-are-pushing-households-into-climate-risky-low-opportunity-communities/.

[127] Robert W. Helsley and William C. Strange, "Strategic Growth Controls," *Regional Science and Urban Economics* 25 no. 4 (1995): 435–60, https://doi.org/10.1016/0166-0462(95)02095-C.

[128] Saiz, "The Geographic Determinants of Housing Supply."

[129] Jeffrey Zabel and Maurice Dalton, "The Impact of Minimum Lot Size Regulations on House Prices in Eastern Massachusetts," *Regional Science and Urban Economics* 41, no. 6 (November 2011): 571–83, https://doi.org/10.1016/j.regsciurbeco.2011.06.002.

[130] Stephen Malpezzi, "Housing Prices, Externalities, and Regulation in U.S. Metropolitan Areas," *Journal of Housing Research* 7, no. 3 (1996): 209–41, https://www.jstor.org/stable/24832860.

[131] Matthew Yglesias, "The Problem with Poolesville: Blue America Wants to Grow," Slow Boring (March 05, 2024), https://www.slowboring.com/p/the-problem-with-poolesville.

[132] See, for instance, Harvey Molotch, "The City as a Growth Machine: Toward a Political Economy of Place," *American Journal of Sociology* 82, no. 2 (September 1976): 309–32, https://www.journals.uchicago.edu/doi/10.1086/226311.

[133] For the best explanation of the latter problem, see Charles Marohn, Jr., *Strong Towns: A Bottom-Up Revolution to Rebuild American Prosperity* (Wiley, 2019).

[134] Raymond Dassman, *The Destruction of California* (Collier, 1975).
[135] Dougherty, *Golden Gates*, 68, 80, 84, 93, 124.
[136] Mirtha Donastorg, "Maynard Jackson Lifted Up Black businesses, but Some Say City Faltered," *Atlanta Journal-Constitution*, January 25, 2024, https://www.ajc.com/news/business/mayor-maynard-jackson-gave-atlantas-black-businesses-a-lift-but-at-a-cost/L3IBX6SOUJAUBCFADRBF54FYLQ/; Darwin Payne, *Dallas Citizens Council: An Obligation of Leadership* (Dallas Citizens Council, 2008), https://www.goodreads.com/book/show/35115927-dallas-citizens-council; Stephen L. Klineberg, *Prophetic City: Houston on the Cusp of a Changing America* (Avid Reader Press, 2020).
[137] Annual letter by CEO Michael Smith of Charlotte Center City Partners, 2024; see also Alexandria Sands, "No, Charlotte's Not Done Building Apartments – or Offices or Hotels, for that Matter," Axios Charlotte, February 2, 2023, https://www.axios.com/local/charlotte/2023/02/02/charlotte-uptown-growth-report-2023-319747.
[138] "South Carolina Hall of Fame: Joseph P. Riley, Jr.," The Official South Carolina Hall of Fame, accessed January 31, 2025, http://www.theofficialschalloffame.com/directlink.html?id=95.
[139] Brian Hicks, *The Mayor: Joe Rile and the Rise of Charleston* (Evening Post Books, 2015), 119.
[140] Jon Talton, *A Brief History of Phoenix* (The History Press, 2015); The Republic, "Banker Walter Bimson Financed Growth in Phoenix," AZCentral, June 2, 2014, https://www.azcentral.com/story/news/arizona/2014/06/02/walter-bimson-arizona-icon/9185517/.
[141] George Packer, "What Will Become of American Civilization?," *The Atlantic*, June 10, 2024, https://www.theatlantic.com/magazine/archive/2024/07/phoenix-climate-drought-republican-politics/678494.
[142] Susan McFarland, "'We Always Start with a Yes,' Anna Mayor Says of Proposed Economic Development Projects," *The Dallas Morning News*, August 21, 2023, https://www.dallasnews.com/news/2023/08/21/got-a-development-project-for-anna-we-always-start-with-a-yes-says-mayor/.
[143] See the portrayal of the leading Sun Belt metros in Coes et al., "The Great Real Estate Reset."
[144] Author calculations based on U.S. Census population and construction data and Yardi Matrix data on "midrange" and "workforce" apartments.
[145] Seth Kaplan, "Affordable Housing Is Never the Only Problem – or the Only Solution," Next City, February 26, 2024, https://nextcity.org/features/affordable-housing-is-never-the-only-problem-or-the-only-solution; Bruce Katz and Margery Austin Turner, *Expanding the Supply of Affordable Housing for Low-Wage Workers* (Center for American Progress, August 10, 2020), https://www.americanprogress.org/article/expanding-supply-affordable-housing-low-wage-workers/; Casey Dawkins, "The Spatial Pattern of Low-Income Housing Tax Credit Properties: Implications for Fair Housing and poverty Deconcentration Policies," *Journal of the American Planning Association* 79, no. 3 (2013): 222–34, https://doi.org/10.1080/01944363.2014.895635.
[146] Dean Stansel, "Metropolitan Area Economic Freedom," occasional paper (Bridwell Institute for Economic Freedom, November 2023), https://www.smu.edu/cox/centers-institutes/bridwell-institute/research.
[147] See regression results in the online Data Appendix. See also Whittemore and BenDor, "Opposition to Housing Development in a Suburban U.S. County"; Glaeser and Ward, "The Causes and Consequences of Land Use Regulation"; Bengte Evenson and William C. Wheaton, "Local Variation in Land Use Regulations [with Comments]," *Brookings-Wharton Papers on Urban Affairs* (2003): 221–60.
[148] Marohn and Herriges, *Escaping the Housing Trap*, 103.
[149] See regression results in the online Data Appendix. See also Dennis Epple et al., "Community Development with Endogenous Land Use Controls," *Journal of Public Economics* 35 no. 2 (1988): 133–62, https://doi.org/10.1016/0047-2727(88)90051-5l; Barbara Sherman Rolleston, "Determinants of Restrictive Suburban Zoning: An Empirical Analysis," *Journal of Urban Economics* 21 no. 1 (1987): 1–21, https://doi.org/10.1016/0094-1190(87)90019-2; Laurie J. Bates and Rexford E. Santerre, "The Determinants of Restrictive Residential Zoning: Some Empirical Findings," *Journal of Regional Science* 34, no. 2 (1994): 253–63, https://doi.org/10.1111/j.1467-9787.1994.tb00866.x; Dougherty, *Golden Gates*, 109; Marohn and Herriges, *Escaping the Housing Trap*, 6.
[150] Saiz, "The Geographic Determinants of Housing Supply."
[151] *Waters of the West*, special report (George W. Bush Institute, 2024), https://www.bushcenter.org/series/waters-of-the-west.
[152] Robert Macoviak, "Understanding the Exodus: Why Home Insurance Companies Are Pulling Out of Florida," Oyer, Macoviak and Associates, accessed January 31, 2025, https://www.oyerinsurance.com/why-are-home-insurance-companies-leaving-florida/; "Whitehouse Presses Citizens Property Insurance for Answers about Company's Solvency," United States Senate Committee on the Budget, March 19, 2024, https://www.budget.senate.gov/chairman/newsroom/press/whitehouse-presses-citizens-property-insurance-for-answers-about-companys-solvency-.
[153] See regression results in the online Data Appendix. See also Carla Flink, Rebecca J. Walter, and Xiaoyang Xu, "Policy Diffusion in a Redistributive Policy: Affordable Housing and State Housing Trust Funds," *State and Local Government Review* 53, no. 3 (2021): 187–209, https://journals.sagepub.com/doi/10.1177/0160323X211049420.
[154] See regression results in the online Data Appendix.
[155] Texas Department of Housing and Community Affairs 2024 Qualified Allocation Plan, 10 TAC Ch. 11 (2023), https://www.tdhca.texas.gov/sites/default/files/multifamily/docs/24-QAP-10TAC-Ch11.pdf.
[156] William H. Frey, "New Census Projections Show Immigration Is Essential to the Growth and Vitality of a More Diverse U.S. Population," Brookings, November 29, 2023, https://www.brookings.edu/articles/new-census-projections-show-immigration-is-essential-to-the-growth-and-vitality-of-a-more-diverse-us-population.
[157] J.H. Cullum Clark, "How to Prepare America for Demographic Decline," *The Catalyst* 32 (Fall 2024), https://www.bushcenter.org/catalyst/the-great-gray-wave/how-to-prepare-america-for-demographic-decline.
[158] Chetty et al., "The Opportunity Atlas," United States Census Bureau, accessed January 31, 2025, https://opportunityatlas.org/.
[159] Cullum Clark, "Frisco Is Setting the Pace for Pro-Growth City Policies," opinion, *The Dallas Morning News*, November 11, 2023, https://www.dallasnews.com/opinion/commentary/2023/11/11/frisco-pro-growth-housing-policies/.
[160] *Transforming East Lake: Systematic Intentionality in Atlanta*, America's Promise Alliance Case Study (Center for Promise, 2014), https://purposebuiltcommunities.org/wp-content/uploads/2016/09/Americas-Promise_EastLake_CaseStudy_2014_03-1.pdf.
[161] Adie Tomer et al., "Connecting People by Proximity: A Better Way to Plan Metro Areas," commentary, Brookings, June 21, 2019, https://www.brookings.edu/articles/connecting-people-by-proximity-a-better-way-to-plan-metro-areas/.
[162] Shlomo Angel, *Planet of Cities* (Lincoln Institute of Land Policy, 2012).
[163] Eric Kronberg, "Housing Atlanta's Future," presentation at Atlanta Regional Housing Forum, August 4, 2021, https://www.kronbergua.com/presentations-1; Kronberg interview cited in Marohn and Herriges, *Escaping the Housing Trap*, 129.
[164] Author's interview with Wendell Cox.

[165] Bruce Schaller, *Boom Times or Doom Loop? America's Urban Future Post-Pandemic* (Schaller Consulting, June 20, 2023), http://www.schallerconsult.com/urbanfuture.htm.
[166] Jenny Scheutz, *Fixer-Upper: How to Repair America's Broken Housing Systems* (Washington: Brookings Institution Press, 2022), 37; Jenny Schuetz, "Dysfunctional Policies Have Broken America's Housing Supply Chain," Brookings Institution, February 22, 2022, https://www.brookings.edu/articles/dysfunctional-policies-have-broken-americas-housing-supply-chain/.
[167] M. Nolan Gray, *Arbitrary Lines: How Zoning Broke the American City and How to Fix It* (Island Press, 2022); Adie Tomer et al. "Connecting People by Proximity: A Better Way to Plan Metro Areas," Brookings Institution, June 21, 2019, https://www.brookings.edu/articles/connecting-people-by-proximity-a-better-way-to-plan-metro-areas/.
[168] Michael Lewyn and Kristoffer Jackson, "How Often Do Cities Mandate Smart Growth or Green Building?" Mercatus working paper (Mercatus Center at George Mason University, June 7, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3191334.
[169] Schuetz, *Fixer-Upper*, 37–45; Tomer et al., "Connecting People by Proximity"; Bruce Schaller, *Boom Times or Doom Loop? America's Urban Future, Post-Pandemic* (Schaller Consulting, 2023), http://www.schallerconsult.com/urbanfuture.htm; Gray, *Arbitrary Lines*; Veuger, *Housing and the American Worker*; Dougherty, *Golden Gates*, xii; Mary T. Bassett, "Density Is a Healthy Choice," *New York Times*, May 17, 2020; Bertaud, *Order Without Design*, 337. Dougherty called suburban single-family neighborhoods "reactionary," while Bassett asserted that it's "wrong" for people to live in them.
[170] Author's calculations based on American Community Survey data, 2022 five-year estimate (U.S. Census).
[171] Author's calculations based on data from the American Community Survey and decennial Census counts (U.S. Census).
[172] Author's calculations based on data from the American Community Survey (U.S. Census), the U.S. Census Bureau's Construction Spending data, and Yardi Matrix.
[173] "Agriculture," Arizona Department of Water Resources, accessed January 31, 2025, https://www.azwater.gov/conservation/agriculture.
[174] J.H. Cullum Clark, "How Water Markets Would Make America's Western Cities Sustainable," *Waters of the West*, special report (George W. Bush Institute, 2024), https://www.bushcenter.org/publications/how-water-markets-would-make-americas-western-cities-sustainable.
[175] For evidence of the criticisms Greater London often received, see Carl Abbott, *Suburbs: A Very Short Introduction* (Oxford University Press, 2023); Rupa Huq, "Suburbia: The New Utopia?" *The Guardian,* November 16, 2009, https://www.theguardian.com/commentisfree/2009/nov/16/suburbia. For a stunning graphic on the expansion of the London metro areas over 2,000 years, see "The Evolution of London: The City's Near-2,000-Year History Mapped," *The Guardian*, May 14, 2014, https://www.theguardian.com/cities/2014/may/15/the-evolution-of-london-the-citys-near-2000-year-history-mapped.
[176] Author's calculations based on American Community Survey data, 2022 five-year estimates (U.S. Census); driving miles data from the Federal Reserve Bank from St. Louis's FRED database, https://fred.stlouisfed.org/series/M12MTVUSM227NFWA; population data from the U.S. Census.
[177] Author's analysis of Yardi Matrix data.
[178] Simon Cooke, "Why I Stopped Being a YIMBY," The View from Cullingworth, June 17, 2024, https://www.viewfromcullingworth.com/p/why-i-stopped-being-a-yimby.
[179] See study of Houston's Fourth Ward in Jeffrey S. Lowe and Assata Richards, "Pro-Growth Ethos Mediated by Race: No YIMBY, No Zoning, and the Housing Crisis in Houston," *International Journal of Urban and Regional Research* 46, no. 2 (2022): 301–6, https://doi.org/10.1111/1468-2427.13064.
[180] See discussion in Section III; see also Florida, *New Urban Crisis*, 67, 110; Richard Morrill, "Inequality of the Largest U.S. Metropolitan Areas," New Geography, September 1, 2013, http://www.newgeography.com/content/003921-inequality-largest-us-metropolitan-areas.
[181] Jane Jacobs, *The Death and Life of Great American Cities* (Vintage, 1961, reissue edition 1992).
[182] Jacobs, *Death and Life*, 165. See also Bertaud, *Order Without Design*, xiii.
[183] Kotkin, *The City*, 152–7, 164; Wade, *Urban Frontier*, 305.
[184] Jacques-Francois Thisse, "Toward a Unified Theory of Economic Geography and Urban Economics," *Journal of Regional Economics* 50, no. 1 (February 2010): 281–96, https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-9787.2009.00651.x. See also Martina Barcelloni Corte and Paola Vigano., eds., *The Horizontal Metropolis: The Anthology* (Springer: 2023).
[185] Randal O'Toole, "The New Feudalism: Why States Must Repeal Growth-Management Laws," Policy Analysis no. 802 (Cato Institute, October 18, 2016), https://www.cato.org/policy-analysis/new-feudalism-why-states-must-repeal-growth-management-laws.
[186] "Spatial Economics: The Declining Cost of Distance," Bain & Company, September 2017.
[187] Hugh Langley and Adam Rogers, "Big Tech's Urban Hero: Here's Why Silicon Valley Is Betting on a Goldman Prodigy to Build a Glorious City of the Future," *Business Insider*, May 5, 2024, https://www.businessinsider.com/california-forever-jan-sramek-goldman-sachs-silicon-valley-city-future-2024-4.
[188] Jerusalem Demsas, "Why Don't We Just Build New Cities?," *The Atlantic*, September 23, 2024, https://www.theatlantic.com/ideas/archive/2023/09/housing-crisis-new-cities-california-forever/675465/.
[189] "Bellemont, AZ City Guide," Flyhomes, accessed January 31, 2025, https://flyhomes.com/city-guide/bellemont--az.
[190] Jeffrey Mason, "Freedom Cities Won't Likely Be American," *City Journal*, March 13, 2023, https://www.city-journal.org/article/freedom-cities-wont-likely-be-american.
[191] Sung Jin Park, "Revisit the Values of Songdo Smart City," @sparkcity, LinkedIn, April 30, 2024, https://www.linkedin.com/pulse/revisit-values-songdo-smart-city-sung-jin-park-phd-1b0vc/.
[192] See also Albert Saiz, "The Global Housing Affordability Crisis: Policy Options and Strategies," IZA Working Paper No. 203 (Institute of Labor Economics [IZA], 2023), https://www.econstor.eu/bitstream/10419/283421/1/1869513053.pdf.
[193] Author's calculations based on data from the American Community Survey, 2021 five-year estimates, and the Population Estimates Program (U.S. Census).
[194] Author's calculations based on land-use data on Cincinnati, Philadelphia, Raleigh, San Diego, and Seattle in "Typical Percentages of Land Uses," A Good Community: How to Make and Keep It, June 14, 2024, https://www.agoodcommunity.org/typical-percentage-of-land-uses.html.
[195] Clayton Nall et al., "Folk Economics and the Persistence of Political Opposition to New Housing," April 29, 2024, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4266459.
[196] Galen D. Newman et al., "A Current Inventory of Vacant Urban Land in America," *Journal of Urban Design* 21, no. 3 (2016): 302–19, https://doi.org/10.1080/13574809.2016.1167589.
[197] *Land Use Analysis* (City of Dallas, 2006), https://dallascityhall.com/departments/pnv/Pages/comprehensive-plan.aspx.
[198] "ForwardDallas 2.0," Revised Draft #5 (City of Dallas, July 2024), https://dallascityhall.com/departments/pnv/Forward-Dallas/Documents/FD%20Plan%20CPC%20Final_Draft%205_July%202024%20-%20PolicyPlan.pdf

[199] Adam Burgess et al., "Q1 2024 U.S. Industrial Real Estate Market Report," Plante Moran, April 26, 2024, https://www.plantemoran.com/explore-our-thinking/insight/2024/plante-moran-realpoint/industrial-real-estate-market-report-2024-q1.
[200] Antonio Pequeño IV, "California Fires: Here's the Data Behind the Historic Blazes That Have Burned Through 40,000 Acres," *Forbes*, January 21, 2025, https://www.forbes.com/sites/antoniopequenoiv/2025/01/21/california-fires-heres-the-data-behind-the-historic-blazes-that-have-burned-through-40000-acres/.
[201] Whitney Hodges et al., "State and Local Executive Orders Suspend Time-Consuming Permitting and Review Requirements for Rebuilding Los Angeles," *The National Law Review* 15, no. 41 (January 15, 2025): https://natlawreview.com/article/state-and-local-executive-orders-suspend-time-consuming-permitting-and-review.
[202] "Hillwood Announces New Denton Residential, Mixed-Use Development," press release (Hillwood, July 18, 2024), https://www.hillwood.com/newsroom/press-releases/hillwood-announces-new-denton-residential-mixed-use-development/.
[203] Steve Brown, "A Monster Boom Is Taking Shape in Dallas' Uptown and Turtle Creek Areas," *The Dallas Morning News*, February 25, 2024, https://www.dallasnews.com/business/real-estate/2024/02/25/a-monster-boom-is-taking-shape-in-dallas-uptown-and-turtle-creek-areas/.
[204] Author's calculations based on U.S. Census data.
[205] "What Percentage of Americans End Up in Assisted Living?," Rocky Mountain Assisted Living, March 18, 2024, https://rockymountainassistedliving.com/what-percentage-of-americans-end-up-assisted-living/.
[206] *2023 Profile of Older Americans*, Administration for Community Living, May 2024, https://acl.gov/sites/default/files/Profile%20of%20OA/ACL_ProfileOlderAmericans2023_508.pdf; Alicia Lasek, "AHCA Offers 'Wake-Up Call' on Bed and Facility Counts: 446,000 Residents May Be Displaced," McKnights Long-Term Care News, August 24, 2023, https://www.mcknights.com/news/ahca-offers-wake-up-call-on-bed-and-facility-counts-446000-residents-may-be-displaced/.
[207] Deb Hipp and Alena Hall, "Assisted Living Statistics and Facts in 2025," *Forbes*, January 11, 2024, https://www.forbes.com/health/senior-living/assisted-living-statistics.
[208] *HUD 2023 Continuum of Care Homeless Assistance Programs Housing Inventory Count Report* (U.S. Department of Housing and Urban Development, December 6, 2023), https://files.hudexchange.info/reports/published/CoC_HIC_NatlTerrDC_2023.pdf.
[209] *HUD 2023 Continuum of Care Homeless Assistance Programs Homeless Populations and Subpopulations* (U.S. Department of Housing and Urban Development, November 19, 2023), https://files.hudexchange.info/reports/published/CoC_PopSub_NatlTerrDC_2023.pdf.
[210] Marohn and Herriges, *Escaping the Housing Trap*, 95; Glaeser, *Triumph of the City*, 161; Schuetz, *Fixer-Upper*, 30; Anika Singh Lemar, "The Public Hearing Process for New Housing Is Broken. Here's How to Fix It," Brookings Institution, May 4, 2022, https://www.brookings.edu/articles/the-public-hearing-process-for-new-housing-is-broken-heres-how-to-fix-it/; Janis Bowdler et al., *Building Equitable Cities: How to Drive Economic Mobility and Regional Growth* (Urban Land Institute, 2018), 79.
[211] Karan Kaul et al., *The Role of Single-Family Housing Production and Preservation*.
[212] "New Energy Codes Mandate a Blow to Housing Affordability," National Association of Home Builders, April 26, 2024, https://www.nahb.org/blog/2024/04/new-energy-codes-mandate-blow-to-housing-affordability.
[213] Tobias Peter and Arthur Gailes, *Anaheim, CA: A Case Study in Unleashing Natural Housing Abundance* (AEI Housing Center, April 2024), https://www.aei.org/wp-content/uploads/2024/05/Anaheim-Mixed-Use-Overlay-FINAL.pdf?x85095; Asher Price, "Austin City Hall Speeds Its Developmental Review," Axios Austin, April 1, 2024, https://www.axios.com/local/austin/2024/04/01/austin-development-review-city-council; Alayna Alvarez, "How Denver Plans to Fix Its Slow Building Permit Process," Axios Denver, November 28, 2023, https://www.axios.com/local/denver/2023/11/28/building-permits-backlog-affordable-housing-mayor-johnston; Owen Minott, "Pioneering Zoning Reforms in Grand Rapids, MI," Bipartisan Policy Center, September 7, 2023, https://bipartisanpolicy.org/blog/zoning-reforms-grand-rapids/; Jeremy Duda, "Phoenix Seeks Input to Improve Planning and Development Process for Builders," Axios Phoenix, November 28, 2023, https://www.axios.com/local/phoenix/2023/11/28/planning-development-process-builders; Cristina Flores, "Provo Takes Big Steps to Tackle Utah's Housing Shortage Crisis," 2KUTV, January 24, 2024, https://kutv.com/news/eye-on-your-money/provo-takes-big-steps-to-tackle-utahs-housing-shortage-crisis; Tony Semerad, "SLC Clears New Rules for Housing Infill, Row Houses, Cottages, and Other Smaller Homes," *The Salt Lake Tribune*, December 7, 2023, https://www.sltrib.com/news/2023/12/07/slc-embraces-monumental-new/.
[214] Peter and Gailes, *Anaheim, CA*.
[215] Everton Bailey, Jr., "Dallas Still Takes Months to Review Building Permits, and One Council Member Is Pushing for Change," *The Dallas Morning News*, April 26, 2022, https://www.dallasnews.com/news/politics/2022/04/26/dallas-still-takes-months-to-review-building-permits-and-one-council-member-is-pushing-for-change/.
[216] Emily Hamilton et al., "Housing Reform in the States: A Menu of Options for 2024," policy brief (Mercatus Center at George Mason University, August 23, 2023), https://www.mercatus.org/research/policy-briefs/housing-reform-states-menu-options-2024.
[217] "Pushed Out: How Arbitrary Government Red Tape Raises Housing Costs by Limiting Supply," Beacon Center of Tennessee, accessed January 31, 2025, https://www.beacontn.org/zoning/; "Planning & Zoning," Town of Smyrna, Tennessee, accessed January 31, 2025, https://www.townofsmyrna.org/departments/planning_zoning/index.php.
[218] Nate Rau, "Nashville Zoning Limits Multi-Family Developments, Report Finds," Axios Nashville, June 5, 2023, https://www.axios.com/local/nashville/2023/06/05/nashville-zoning-multi-family-developments-report.
[219] Marohn and Herriges, *Escaping the Housing Trap*, 158; Marohn, *Strong Towns*, 163–7.
[220] "Walkable Oriented Development," American Enterprise Institute, accessed January 31, 2025, https://www.aei.org/wod/.
[221] Tobias Peter and Hanlu Zhang, *How Zoning Policies Affect the Housing Supply: City of Denver Case Study* (AEI Housing Center, May 2024), https://www.aei.org/wp-content/uploads/2024/05/Denver-Case-Study-final-May-2024-Final.pdf?x85095.
[222] Rachel Riley, "El Paso County Welcomes Tiny Homes in Unincorporated Areas," *The Denver Post*, December 13, 2017, https://www.denverpost.com/2017/12/13/el-paso-county-tiny-homes/; Lexi Wilson, "'We Wanted to Be Proactive Instead of Reactive' | Rezoning in Gaston County Creates Opportunities for Tiny Homes," WCNC Charlotte, March 2, 2022, https://www.wcnc.com/article/money/markets/real-estate/affordable-housing-crisis/rezoning-gaston-county-tiny-homes/275-930fe90d-27d4-47e6-b96e-6607bdb0bd64.
[223] Semerad, "SLC Clears New Rules."
[224] Emma Waters and Stephanie Espinoza, "Increasing Residential Density Across Montana," Bipartisan Policy Center, January 22, 2024, https://bipartisanpolicy.org/blog/increasing-residential-density-across-montana/.
[225] "Explore and Learn," ATL Zoning 2.0, accessed January 31, 2025, https://atlzoning.com/explore-and-learn/.
[226] Amrita Kulka et al., "How to Increase Housing Affordability: Understanding Local Deterrents to Building Multifamily Housing," Working Paper no. 22-10 (Federal Reserve Bank of Boston, 2022), https://www.bostonfed.org/publications/research-department-working-paper/2022/how-to-increase-housing-affordability-understanding-local-deterrents-to-building-multifamily-housing.aspx.

[227] Salim Furth and M. Nolan Gray, "Do Minimum-Lot-Size Regulations Limit Housing Supply in Texas?" (Mercatus Center at George Mason University, May 2019), https://www.mercatus.org/research/research-papers/do-minimum-lot-size-regulations-limit-housing-supply-texas.
[228] Joseph Gyourko and Sean McCulloch, "Minimum Lot Size Restrictions: Impacts on Urban Form and House Price at the Border," Working Paper 31710 (National Bureau of Economic Research, September 2023), https://www.nber.org/papers/w31710. For other studies of how minimum lot size restrictions affect home development and prices, see Edward Glaeser et al., "How Large Lot Zoning and Other Regulations Are Driving Up Home Prices," *Commonwealth Beacon*, January 1, 2006, https://commonwealthbeacon.org/uncategorized/how-large-lot-zoning-and-other-town-regulations-are-driving-up-home-prices/; Jeffrey Zabel and Maurice Dalton, "The Impact of Minimum Lot Size Regulations on Housing Prices in Eastern Massachusetts," *Regional Science and Urban Economics* 41, no. 6 (2011), 571–83; Glaeser and Gyourko, "The Economic Implications of Housing Supply."
[229] Author's calculations of net additions based data on gross additions in Alex Horowitz and Tara Roche, "Lot Size Reform Unlocks Affordable Homeownership in Houston," Pew Research, September 14, 2023, https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2023/09/lot-size-reform-unlocks-affordable-homeownership-in-houston; Edward Pinto and Tobias Peter, "Light-Touch Density: City of Houston Case Study," American Enterprise Institute, December 15, 2023, https://www.aei.org/wp-content/uploads/2024/04/Light-Touch-Density_City-of-Houston.pdf?x85095; Owen Minott, "Reducing Minimum Lot Sizes in Houston, TX," Bipartisan Policy Center, September 21, 2023, https://bipartisanpolicy.org/blog/reducing-minimum-lot-sizes-in-houston-texas/; Raheem Chaudhry, "The Effects of Minimum Lot Sizes on Housing Markets, Neighborhoods, and Individuals," blog post, December 2023, https://raheemchaudhry.com/publication/houston/.
[230] Author interviews with Houston real estate leaders. See also Paul Takahashi, "Houston Business Journal: A Tale of Two Cities: Houston Real Estate Development Moves East amid Oil Slump," Generation Park, May 1, 2024, https://www.generationpark.com/news/houston-business-journal-a-tale-of-two-cities-houston-real-estate-development-moves-east-amid-oil-slump.
[231] Alex Horowitz and Ryan Canavan, "More Flexible Zoning Helps Contain Rising Rents," Pew, April 17, 2023, https://www.pewtrusts.org/en/research-and-analysis/articles/2023/04/17/more-flexible-zoning-helps-contain-rising-rents.
[232] See also Emily Hamilton and Sloane Argyle, "Case Studies on Smart Zoning Reforms, Part Three: Tysons, Virginia's Transit-Friendly Development," Mercatus Center, February 17, 2022, https://www.mercatus.org/economic-insights/expert-commentary/case-studies-smart-zoning-reforms-part-three-tysons-virginias.
[233] Andrew Keatts, "San Diego's big year of affordable housing may not last," Axios San Diego, May 9, 2024, https://www.axios.com/local/san-diego/2024/05/08/affordable-housing-construction-development-boom-future-drop-off.
[234] Moskowitz, *How to Kill a City*, 178–9.
[235] Nall et al., "Folk Economics and the Persistence of Political Opposition."
[236] Jeff Speck, *Walkable City Rules: 101 Steps to Making Better Places* (Island Press, 2018), 14.
[237] Emma Waters, "Converting Vacant Offices to Housing: Challenges and Opportunities," Terwilliger Center for Housing, July 31, 2023; Arpit Gupta et al., "Converting Brown Offices to Green Apartments," Brookings Institution, November 3, 2023, https://www.brookings.edu/articles/converting-brown-offices-to-green-apartments/; Tracy Hadden Loh et al., "Myths About Converting Offices into Housing – and What Can Really Revitalize Downtowns," Brookings Institution, April 27, 2023, https://www.brookings.edu/articles/myths-about-converting-offices-into-housing-and-what-can-really-revitalize-downtowns/.
[238] Salim Furth and Eli Kahn, "Office Overhauls and 'God's Backyard': Reforms for Housing in Commercial Zones and Faith Land," policy brief (Mercatus Center at George Mason University, May 1, 2024), https://www.mercatus.org/research/policy-briefs/office-overhauls-and-gods-backyard-reforms-housing-commercial-zones-and.
[239] Minott, "Pioneering Zoning Reforms in Grand Rapids, MI."
[240] Jenney Schuetz, "Minneapolis 2040: The Most Wonderful Plan of the Year," Brookings Institution, December 12, 2018, www.brookings.edu/blog/the-avenue/2018/12/12/minneapolis-2040-the-most-wonderful-plan-of-the-year/; Linlin Liang et al., "Minneapolis Land Use Reforms Offer a Blueprint for Housing Affordability," Pew Research, January 4, 2024, https://www.pewtrusts.org/en/research-and-analysis/articles/2024/01/04/minneapolis-land-use-reforms-offer-a-blueprint-for-housing-affordability; Marohn and Herriges, *Escaping the Housing Trap*, 128.
[241] "Florida's Live Local Act: What It Means for Communities," Halff, October 11, 2023, https://halff.com/news-insights/insights/floridas-live-local-act-for-communities/.
[242] Waters, "Increasing Residential Density Across Montana."
[243] Jeremy Duda, "Arizona Bill Aims to Ease Housing Shortage by Overriding City Control," Axios Phoenix, February 21, 2023, https://www.axios.com/local/phoenix/2023/02/21/bill-arizona-housing-shortage-overriding-city-control.
[244] Nate Rau, "Nashville's Plan to Fix the Middle-Class Housing Crisis," Axios Nashville, January 31, 2024, https://www.axios.com/local/nashville/2024/01/31/housing-crisis-market-affordability-middle-class-metro-council.
[245] Andreea Neculae, "From Boardrooms to Bedrooms: A Record 55K Office-to-Apartment Conversions Expected in Major Cities," RentCafe, March 11, 2024, https://www.rentcafe.com/blog/rental-market/adaptive-reuse-office-to-apartments-2024.
[246] David Harrison, "America Has Too Much Parking. Really," *Wall Street Journal*, April 2, 2023, https://www.wsj.com/articles/parking-problem-too-much-cities-e94dcecf; Owen Minott, "Ten Actions Cities can Take to Improve Housing Affordability," Bipartisan Policy Center, August 10, 2022, https://bipartisanpolicy.org/blog/10-actions-to-housing-affordability/; author interviews with real estate professionals and experts.
[247] Harrison, "America Has Too Much Parking. Really."
[248] See also Speck, *Walkable City Rules*.
[249] Donald Shoup, *The High Cost of Free Parking* (Routledge, 2011).
[250] Marohn and Herriges, *Escaping the Housing Trap*, 119–20.
[251] Harrison, "America Has Too Much Parking. Really."
[252] Marohn and Herriges, *Escaping the Housing Trap*, 130.
[253] Jenny Schuetz and Eve Devens, "ADUs Could Expand the Affordable Housing Toolkit – if Local Governments Can Work Through Some Growing Pains," Brookings Institution, April 29, 2024, https://www.brookings.edu/articles/adus-could-expand-the-affordable-housing-toolkit-if-local-governments-can-work-through-some-growing-pains/.
[254] Marohn and Herriges, *Escaping the Housing Trap*, 130.
[255] Douglas Newby, "Backyard Rental House/Granny Flat Zoning Threatens Trees, Breezes, Birds and Neighborhoods," Douglas Newby Insights, Musings, Reflections, accessed January 31, 2025, https://douglasnewby.com/2018/06/backyard-rental-houses-devastate-neighborhoods/.
[256] Jeremy Duda, "Arizona Senate Passes Housing Bills," Axios Phoenix, May 10, 2024, https://www.axios.com/local/phoenix/2024/05/10/senate-middle-housing-adu-legislation; Anika Singh Lemar, "How Owner-Occupancy

Regulations Are Contributing to the Housing Crisis," Brookings Institution, October 27, 2022, https://www.brookings.edu/articles/how-owner-occupancy-regulations-are-contributing-to-the-housing-crisis/.
[257] Bertaud, *Order Without Design*, 279–85; Veuger, *Housing and the American Worker*.
[258] Author interviews with real estate leaders and experts; study by New York Department of Housing Preservation and Development, cited in Bertaud, *Order Without Design*, 285; Kulka et al., "How To Increase Housing Affordability."
[259] Tracy Hadden Loh et al., "Diverse Neighborhoods Are Made of Diverse Housing," Brookings, February 8, 2022, https://www.brookings.edu/articles/diverse-neighborhoods-are-made-of-diverse-housing/.
[260] MaryJo Webster and Michael Corey, "When You Look at These Neighborhoods, What Do You See?," *Minneapolis Star-Tribune*, August 7, 2021; Yonah Freemark and Lydia Lo, "Effective Zoning Reform Isn't as Simple as it Seems," Bloomberg, May 24, 2022, https://www.bloomberg.com/news/articles/2022-05-24/the-limits-of-ending-single-family-zoning; Kulka et al., "How to Increase Housing Affordability"; Owen Minott, "Comprehensive Zoning Reform in Minneapolis, MN," Bipartisan Policy Center, October 3, 2023, https://bipartisanpolicy.org/blog/comprehensive-zoning-reform-in-minneapolis-mn/; Liang et al., "Minneapolis Land Use Reforms Offer a Blueprint"; Edward Glaeser and Atta Tarki, "California Housing Development Remains Abysmal Despite Reforms. Here's What's Missing," opinion, *Los Angeles Times*, February 19, 2023, https://www.latimes.com/opinion/story/2023-02-19/california-housing-developers-los-angeles; Owen Minott and Julia Selby, "Eliminating Single-Family Zoning and Parking Minimums in Oregon," Bipartisan Policy Center, September 26, 2023, https://bipartisanpolicy.org/blog/eliminating-single-family-zoning-and-parking-minimums-in-oregon/.
[261] Nall et al., "Folk Economics and the Persistence of Political Opposition."
[262] Alexandria Sands, "Charlotte May Require Single-Family Homes Under Potential Development Rule Change," Axios Charlotte, February 5, 2024, https://www.axios.com/local/charlotte/2024/02/05/udo-development-regulations-eliminating-single-family-only-zoning-city-council; Patrick Spauster, "How Backlash Reversed a Florida City's Reforms to Allow Denser Housing," Bloomberg, February 2, 2023, https://www.bloomberg.com/news/articles/2023-02-02/how-gainesville-s-yimby-zoning-reform-was-undone?cmpid=BBD020223_CITYLAB.
[263] Jenny Schuetz et al., "Silver Bullet or Trojan Horse? The Effects of Inclusionary Zoning on Local Housing Markets in the United States," *Urban Studies* 48, no. 2 (2011): 297–329, https://journals.sagepub.com/doi/abs/10.1177/0042098009360683; Richard Florida, *New Urban Crisis*, 200; Moskowitz, *How to Kill a City*, 199–200; Marohn and Herriges, *Escaping the Housing Trap*, 140; Paul Kupiec and Edward Pinto, "The High Cost of 'Affordable Housing' Mandates," *Wall Street Journal*, February 13, 2018; Bertaud, *Order Without Design*, 278; Howard Husock, "Let Housing Markets Work," *City Journal*, February 3, 2023, https://www.city-journal.org/article/let-housing-markets-work.
[264] "Oregon, the Rent Control State," editorial, *Wall Street Journal*, March 4, 2019.
[265] Tobias Peter, *Expanding Housing Supply with Light-Touch Density: City of Seattle Case Study* (American Enterprise Institute, January 24, 2024), https://www.aei.org/research-products/report/expanding-housing-supply-with-light-touch-density-city-of-seattle-case-study/.
[266] "Is Inclusionary Housing Legal?," Inclusionary Housing, Grounded Solutions Network, accessed January 31, 2025, https://inclusionaryhousing.org/inclusionary-housing-explained/what-are-the-downsides/is-it-legal.
[267] *Comprehensive Housing Market Analysis: Denver-Aurora-Lakewood, Colorado* (U.S. Department of Housing and Urban Development, Office of Policy Development and Research, January 1, 2021), https://www.huduser.gov/portal/publications/pdf/DenverAuroraLakewoodCO-CHMA-21.pdf.
[268] Jennifer Rios, "Broomfield Approves Affordable Housing Ordinance," *Broomfield Enterprise*, March 11, 2020, https://www.broomfieldenterprise.com/2020/03/11/broomfield-approves-affordable-housing-ordinance/.
[269] Marohn and Herriges, *Escaping the Housing Trap*, 117.
[270] "Regional Housing Need Allocation (RHNA)," SV@Home, accessed January 31, 2025, https://siliconvalleyathome.org/resources/regional-housing-need-allocation-rhna.
[271] Austan Goolsbee and Chad Syverson, "The Strange and Awful Path of Productivity in the U.S. Construction Sector," Working Paper 30845 (National Bureau of Economic Research, January 2023), https://www.nber.org/papers/w30845.
[272] See also Gina Potthoff Kacik, "U.S. Construction Has a Productivity Problem," *Chicago Booth Review*, July 25, 2023, https://www.chicagobooth.edu/review/us-construction-has-productivity-problem; Sriram Changali et al., "The Construction Productivity Imperative," McKinsey Productivity Sciences Center, June 2015, https://www.mckinsey.com/capabilities/operations/our-insights/the-construction-productivity-imperative; "Efficiency Eludes the Construction Industry," *The Economist*, August 19, 2017, https://www.economist.com/business/2017/08/19/efficiency-eludes-the-construction-industry.
[273] Karan Kaul and Daniel Pang, *The Role of Manufactured Housing in Increasing the Supply of Affordable Housing* (Housing Finance Policy Center, July 2022), https://www.urban.org/sites/default/files/2022-07/The%20Role%20of%20Manufactured%20Housing%20in%20Increasing%20the%20Supply%20of%20Affordable%20Housing.pdf.
[274] Kaul et al., "The Role of Single-Family Housing Production and Preservation in Addressing the Affordable Housing Supply Shortage"
[275] Michela Zonta, *Increasing Affordable Housing Stock Through Modular Building* (Center for American Progress, February 6, 2024), https://www.americanprogress.org/article/fact-sheet-using-modular-building-to-increase-affordable-housing-stock.
[276] *3D Printing Is a Revolution: Just Not the Revolution You Think* (Deloitte, 2015), https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Technology-Media-Telecommunications/gx-tmt-pred15-3d-printing-revolution.pdf.
[277] Jefferson Lilly, "Mobile Homes Are a Crucial Source of Affordable Housing. Politicians Are Trying To Zone Them Out of Town," *Reason*, August 9, 2022, https://reason.com/2022/08/09/mobile-homes-are-a-crucial-source-of-affordable-housing-politicians-are-trying-to-zone-them-out-of-town/.
[278] Doug Ryan, "Manufactured housing," National Low Income Housing Coalition, https://nlihc.org/sites/default/files/AG-2019/06-04_Manufactured-Housing.pdf.
[279] "Fact Sheet: Using Modular Building to Increase Affordable Housing Stock" (Center for American Progress, March 13, 2024), https://www.americanprogress.org/article/fact-sheet-using-modular-building-to-increase-affordable-housing-stock; Michael Hendrix, "Modular Housing Is Affordable Housing," The National Review, March 25, 2019, https://www.nationalreview.com/magazine/2019/03/25/modular-housing-is-affordable-housing/.
[280] Zonta, *Increasing Affordable Housing Stock*.
[281] Greg Parlier, "Woodfin Loosens Manufactured Housing Rules," *Mountain Xpress*, March 21, 2024, https://blog.mhvillage.com/top-cities-for-mobile-homes/; "Eight of the Nation's Top Cities for Mobile Homes," MHVillager, accessed January 31, 2025, https://blog.mhvillage.com/top-cities-for-mobile-homes/.
[282] "States Loosen Manufactured Housing Restrictions," The Council of State Governments, May 30, 2024, https://www.csg.org/2024/05/30/states-loosen-manufactured-housing-restrictions/.

[283] Sofia Jeremias, "This Technology Could Help Build More Houses, Faster. The Legislature Wants to Get Involved," *The Salt Lake Tribune*, January 27, 2024, https://www.sltrib.com/news/homeprices/2024/01/27/this-technology-could-help-build/.
[284] Jessica Boehm, "See the Solar-Powered Homeless Shelter Made from Shipping Containers," Axios Phoenix, July 28, 2023, https://www.axios.com/local/phoenix/2023/07/28/phoenix-homeless-shelter-shipping-containers.
[285] "Arizona's PropTech Sandbox Program Is Accepting Applications," Arizona Commerce Authority, accessed January 31, 2025, https://www.azcommerce.com/proptech/.
[286] Evan Garcia, "World's Largest 3D-Printed Neighborhood Nears Completion in Texas," Reuters, August 8, 2024, https://www.reuters.com/world/us/worlds-largest-3d-printed-neighborhood-nears-completion-texas-2024-08-08/.
[287] Jacobs, *Death and Life*.
[288] Jacobs, *Death and Life*, 187, 241.
[289] Jacobs, *Death and Life*, 30–7, 50; Jane Jacobs, *The Economy of Cities* (Vintage, 1970).
[290] Christiane Bird, *A Block in Time: A New York City History at the Corner of Fifth Avenue and Twenty-Third Street* (Bloomsbury Publishing, 2022), ix–xi, 63–72.
[291] Jacobs, *Death and Life*, 165.
[292] Bertaud, *Order Without Design*, 56–7.
[293] Bertaud, *Order Without Design*, 59, 326–31.
[294] Jennifer A. Kingson and Megan Rose Dickey, "SFUSD Braces for Looming 'Enrollment Cliff,'" Axios San Francisco, July 5, 2024, https://www.axios.com/local/san-francisco/2024/07/05/sfusd-public-school-enrollment-cliff.
[295] Glaeser, *Triumph of the City*, 148–50; Tanner, *Inclusive Economy*, 205.
[296] See Shane Phillips, *The Affordable City: Strategies for Putting Housing Within Reach (and Keeping It There)* (Island Press, 2020); Doug Trumm, "The Case for Rent Control," The Urbanist, August 5, 2019, https://www.theurbanist.org/2019/08/05/the-case-for-rent-control/; Mark Paul, "Economists Hate Rent Control: Here's Why They're Wrong," *The American Prospect*, May 16, 2023, https://prospect.org/infrastructure/housing/2023-05-16-economists-hate-rent-control/; Dougherty, *Golden Gates*, 124.
[297] Edgar O. Olsen, "An Econometric Analysis of Rent Control," *Journal of Political Economy* 80, no. 6 (1972): 1081–100; Edward L. Glaeser, "The Social Costs of Rent Control Revisited," Working Paper no. 5441 (National Bureau of Economic Research, 1996); Stephen Malpezzi, "Welfare Analysis of Rent Control with Side Payments: A Natural Experiment in Cairo, Egypt," *Regional Science and Urban Economics* 28, no. 6 (1998): 773–95; Edward L. Glaeser and Erzo F.P. Luttmer, "The Misallocation of Housing Under Rent Control," *American Economic Review* 93, no. 4 (2003): 1027–46; Dirk W. Early and Jon T. Phelps, "Rent Regulations' Pricing Effect in the Uncontrolled Sector: An Empirical Investigation," *Journal of Housing Economics* 10, no. 2 (1999): 267–85; David H. Autor et al., "Housing Market Spillovers: Evidence from the End of Rent Control in Cambridge, Massachusetts," *Journal of Political Economy* 122, no. 3 (2014): 661–717; Rebecca Diamond et al., "The Effects of Rent Control Expansion on Tenants, Landlords, and Inequality: Evidence from San Francisco," *American Economic Review* 109, no. 9 (2019): 3365–94; Rebecca Diamond, "What Does Economic Evidence Tell Us About the Effects of Rent Control?" Brookings Institution, October 18, 2018, https://www.brookings.edu/articles/what-does-economic-evidence-tell-us-about-the-effects-of-rent-control/; Eric Kober, "The Return of 'Key Money,'" *City Journal*, June 9, 2022, https://www.city-journal.org/article/the-return-of-key-money.
[298] Author interview with the CEO of a leading West Coast multifamily development firm.
[299] Nick Halter, "Minneapolis, St. Paul Housing Construction Could Take a Dive," Axios Twin Cities, June 22, 2022, https://www.axios.com/local/twin-cities/2022/06/22/minneapolis-st-paul-housing-construction-halt.
[300] Brookings Institution economists also urge caution on going too far on tenant protections. See Jenny Schuetz and Sarah Crump, "What the U.S. Can Learn from Rental Housing Markets around the Globe," Brookings Institution, April 20, 2021, www.brookings.edu/essay/intro-rental-housing-markets/.
[301] "Rent Control Laws by State," National Apartment Association, accessed February 10, 2025, https://naahq.org/rent-control-policy.
[302] For evidence of proposals to ban single-family rentals, see Roshan Abraham, "Blockbusting the Big Boys: Bill Would Ban Hedge Funds from Owning Single-Family Homes," Shelterforce, March 22, 2024, https://shelterforce.org/2024/03/22/bill-would-ban-hedge-funds-from-owning-houses/; Shannon Thaler, "Lawmakers Want to Ban Wall Street from Buying Up More Single-Family Homes Across the U.S.," *New York Post*, April 29, 2024, https://nypost.com/2024/04/29/business/lawmakers-want-to-ban-wall-street-from-buying-single-family-homes/.
[303] Ben Bernanke, "Housing Markets in Transition," speech to 2012 National Association of Homebuilders International Builders' Show, Orlando, February 10, 2012, https://www/federalreserve.gov/newsevents/speech/bernanke202202a.htm/.
[304] Alexandra Both, "The Build-to-Rent Housing Boom: New Single-Family Rentals Reach All-Time High, With Another 45,000 on the Way," RentCafe, April 18, 2024, https://www.rentcafe.com/blog/rental-market/market-snapshots/build-to-rent-single-family-homes-construction-2024.
[305] Stephen Averill Sherman et al., *2023 State of Housing in Harris County and Houston* (Kinder Institute for Urban Research, July 2023), https://kinder.rice.edu/research/2023-state-housing-harris-county-and-houston.
[306] Sherman et al., *2023 State of Housing in Harris County and Houston*.
[307] Tobias J. Peter, "Briefing on Institutional Landlords" (American Enterprise Institute, May 2024), https://www.aei.org/wp-content/uploads/2024/05/Briefing-on-institutional-landlords-FINAL.pdf?x85095.
[308] Dougherty, *Golden Gates*.
[309] Dougherty, *Golden Gates*, 26–8, 38, 125, 131, 190, 229.
[310] Steven Malanga, "Anti-Gentrifiers Gone Wild," *City Journal*, Summer 2023, https://www.city-journal.org/article/anti-gentrifiers-gone-wild.
[311] Steven Malanga, "Just Say No … to Parks?!," *City Journal*, Winter 2021, https://www.city-journal.org/article/just-say-no-to-parks; Malanga, "Anti-Gentrifiers Gone Wild"; Alexandria Sands, "How West End Can Evolve Without Displacing Businesses and Residents," Axios Charlotte, June 26, 2023, https://www.axios.com/local/charlotte/2023/06/26/west-end-development-displacement-growth-332120.
[312] See evidence presented in Florida, *New Urban Crisis*, 67–8, 76. See also "Report Analyzes New York City's Gentrifying Neighborhoods and Finds Dramatic Demographic Shifts," *The Stoop* (blog), NYU Furman Center, May 9, 2016, https://furmancenter.org/thestoop/entry/new-report-analyzes-new-york-citys-gentrifying-neighborhoods-and-finds-dram.
[313] T. William Lester and Daniel A. Hartley, "The Long Term Employment Impacts of Gentrification in the 1990s," *Regional Science and Urban Economics* 45, (March 2014): 80–9, https://doi.org/10.1016/j.regsciurbeco.2014.01.003; Florida, *New Urban Crisis*, 72; Lance Freeman and Frank Braconi, "Gentrification and Displacement in New York City in the 1990s," *Journal of the American Planning Association* 70, no. 1 (March 2004): 39–52, http://dx.doi.org/10.1080/01944360408976337; "Greenpoint-Williamsburg Community Update," New York City Department of City Planning, November 7, 2019, https://www.nyc.gov/assets/planning/download/pdf/planning-level/housing-economy/greenpoint-williamsburg_19.11.07.pdf.
[314] Moskowitz, *How to Kill a City*, 37–8.

[315] Bertaud, *Order Without Design*, 314; Florida, *New Urban Crisis*, 72, 241; Mac Taylor, "Perspectives on Helping Low-Income Californians Afford Housing" (California Legislative Analyst Office, 2016), http://clkrep.lacity.org/onlinedocs/2014/14-0268-S3_pc_2_2-17-16.pdf; Karen Chapple and Taesoo Song, "Can New Housing Supply Mitigate Displacement and Exclusion? Evidence from Los Angeles and San Francisco," *Journal of the American Planning Association* 91, no. 1 (March 2024): 1–15, https://doi.org/10.1080/01944363.2024.2319293.
[316] Jacobs, *Death and Life*, 115, 135–40, 336.
[317] Bowdler et al., *Building Equitable Cities*, 51, 66; Dougherty, *Golden Gates*, 36; author interview with George Washington University professor Christopher Leinberger.
[318] Cullum Clark, "Frisco Is Setting the Pace for Pro-Growth City Policies," *The Dallas Morning News*, November 11, 2023, https://www.dallasnews.com/opinion/commentary/2023/11/11/frisco-pro-growth-housing-policies/.
[319] See discussion in Dougherty, *Golden Gates*, 36.
[320] Florida, *New Urban Crisis*, 47; Jacob Sweet, "Shaping Cities: Stephen Gray Pioneers Equitable Urban Design," *Harvard Magazine*, March–April 2021.
[321] Sweet, "Stephen Gray Pioneers Equitable Urban Design."
[322] Bertaud, *Order Without Design*, 306.
[323] Glaeser, *Triumph of the City*, 260.
[324] Joel Kotkin, *The City: A Global History* (Modern Library, 2006), 198; Katz and Nowak, *New Localism*, 25.
[325] Joanna Putnam, "Minneapolis PD Grapples with Officer Shortage, Crime Spike," Police1, May 16, 2024, https://www.police1.com/staffing/minneapolis-pd-grapples-with-officer-shortage-crime-spike; "Quarterly Update to Public Health and Safety Committee" (Minneapolis Office of Community Safety, June 20, 2024), https://lims.minneapolismn.gov/Download/FileV2/45830/Office-of-Community-Safety-Quarterly-Update-Staff-Presentation.pdf. See also Jenny Gross and John Eligon, "Minneapolis City Council Votes to Remove $8 Million from Police Budget," *The New York Times*, December 10, 2020, https://www.nytimes.com/2020/12/10/us/minneapolis-police-funding.html.
[326] Nicole Gelinas, "Regressives," *City Journal*, Winter 2024, https://www.city-journal.org/article/regressives; Jason C. Johnson, "Prosecutors like Krasner Go Soft-on-Crime and It Has Consequences for Cities," Law Enforcement Legal Defense Fund, accessed January 31, 2025, https://www.policedefense.org/prosecutors-like-krasner-go-soft-on-crime-and-it-has-consequences-for-cities/; "1 Year Under Mayor Brandon Johnson Yields a More Expensive, More Violent Chicago," press release, Illinois Policy Institute, May 15, 2024, https://www.illinoispolicy.org/press-releases/1-year-under-mayor-brandon-johnson-yields-a-more-expensive-more-violent-chicago/; Heather Mac Donald, "The Great Abdication," *City Journal*, accessed January 31, 2025, https://www.city-journal.org/article/the-great-abdication; Eric Piza and Nathan T. Connealy, "The Effect of the Seattle Police-Free CHOP Zone on Crime: A Microsynthetic Control Evaluation," *Criminology & Public Policy* (January 11, 2022), https://www.crimrxiv.com/pub/n8lhb37h/release/1; Charles Fain Lehman, "This Is Your City on Fentanyl," *City Journal*, Summer 2023, https://www.city-journal.org/article/this-is-your-city-on-fentanyl.
[327] Steven Malanga, "The Return of Urban Retail Deserts," *City Journal*, September 13, 2023, https://www.city-journal.org/article/the-return-of-urban-retail-deserts.
[328] Ronny Reyes, "Fleeing the Scene of the Crime," *Daily Mail*, November 1, 2022, https://www.dailymail.co.uk/news/article-11377347/More-20-residents-NYC-San-Fran-LA-looked-homes-different-cities.html; Evan Symon, "Half of All Americans Now View San Francisco as Unsafe, New Poll Finds," *California Globe*, August 9, 2024, https://californiaglobe.com/fl/half-of-all-americans-view-san-francisco-as-unsafe-new-poll-finds/; Henry Grabar, "One-Way Traffic," *Slate*, February 22, 2021, https://slate.com/business/2021/02/us-cities-shrinking-why-new-york-los-angeles.html.
[329] Marohn, *Strong Towns*, 154; Raghuram Rajan, *The Third Pillar: How Markets and the State Leave the Community Behind* (Penguin, 2019), xxii–xxiii; Jessica Boehm, "Phoenix Begins Clearing 'The Zone' Homeless Encampment," Axios Phoenix, May 11, 2023; Michael Shellenberger*, San Fransicko: Why Progressives Ruin Cities* (Harper, 2021), 27–32; Eugenia C. South et al., "Association Between Structural Housing Repairs for Low-Income Homeowners and Neighborhood Crime," *JAMA Network Open* 4, no. 7 (July 2021): article e2117067; Charles C. Branas et al., "Citywide Cluster Randomized Trial to Restore Blighted Vacant Land and Its Effects on Violence, Crime, and fear," *Proceedings of the National Academy of Sciences* 115, no. 12 (2018): 2946–51; Alison J. Culyba et al., "Modifiable Neighborhood Features Associated with Adolescent Homicide," *JAMA Pediatrics* 170, no. 5 (2016): 473–80; Michelle C. Kondo et al., "Neighborhood Interventions to Reduce Violence," *Annual Review of Public Health* 39 (2018): 253–71; Jacobs, *Death and Life*, 30–7.
[330] Howard Husock, "Suburban Government and the Virtues of Local Control," in Alan Berger et al., eds., *Infinite Suburbia* (Princeton Architectural Press, 2017), 662–5.
[331] Glaeser, *Triumph of the City*, 195. See also Rajan, *Third Pillar*, 223–4.
[332] J.H. Cullum Clark, *The Evolving Geography of Opportunity: Leading Cities of the past, Present, and Future* (George W. Bush Institute, January 28, 2022), https://www.bushcenter.org/publications/the-evolving-geography-of-opportunity-leading-cities-of-the-past-present-and-future.
[333] Marohn, *Strong Towns*, 70–7, 114, 142–5.
[334] Joshua D. Rauh and Ryan Shyu, "Behavioral Responses to State Income Taxation of High Earners: Evidence from California" (SSRN, May 5, 2022), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3461513. See also Glaeser, *Triumph of the City*, 59; Stephanie Marken and Zac Auter, "In U.S., State Tax Burden Linked to Desire to Leave State," Gallup, February 12, 2016, https://news.gallup.com/poll/189176/state-tax-burden-linked-desire-leave-state.aspx.
[335] Alain de Botton, *The Architecture of Happiness* (Pantheon Books, 2006), 219–21.
[336] de Botton, *The Architecture of Happiness*, 166; Jacobs, *Death and Life*, 187-194.
[337] Michael Oluf Emerson and Kevin T. Smiley, *Market Cities, People Cities: The Shape of Our Urban Future* (New York University Press, 2018), 142.
[338] Hicks, *The Mayor*, 11, 17, 21, 119–20, 124-125, 133–7, 140, 154, 159–61, 182, 230–6, 277–9, 321.
[339] Author interview with William Fulton.
[340] Christopher B. Leinberger, *The WalkUP Wake-Up Call*: *Atlanta* (Center for Real Estate and Urban Analysis, George Washington University), https://smartgrowthamerica.org/wp-content/uploads/2016/08/walkup-wake-up-atlanta.pdf; Tracy Hadden Loh and Christopher B. Leinberger, *The WalkUP Wake-Up Call: Dallas–Fort Worth*, (Center for Real Estate and Urban Analysis, George Washington University, January 2019), https://img1.wsimg.com/blobby/go/fc8e845f-502e-4637-b2d7-9fe6cfe37480/downloads/DFW-WalkUP-Wake-Up-Call-2019-vjel01.pdf?ver=1664990139507; Emily Hamilton and Eli Dourado, *The Premium for Walkable Development Under Land-Use Regulations* (Mercatus Center, 2018), https://www.mercatus.org/research/research-papers/premium-walkable-development-under-land-use-regulations; Shannon H. Rogers et al., "Examining Walkability and Social Capital as Indicators of Quality of Life at the Municipal and Neighborhood

Scales," *Journal of Applied Research in Quality of Life* 6, no. 2 (2011): 2013; Donald Appleyard et al., *Livable Streets* (University of California Press, 1981); Robert D. Putnam, *Bowling Alone: The Collapse and Revival of American Community* (Simon & Schuster, 2000).
[341] John Boyanoski and Knox White, *Reimagining Greenville: Building the Best Downtown in America* (The History Press, 2013).
[342] James Fallows and Deborah Fallows, *Our Towns: A 100,000-Mile Journey into the Heart of America* (Pantheon Books, 2018), 84–99.
[343] Alex Golden, "Downtown Fayetteville's Big Construction Plans," Axios Northwest Arkansas, August 4, 2023, https://www.axios.com/local/nw-arkansas/2023/08/04/downtown-fayettevilles-construction-plans.
[344] Rich Laden, "Investment in Downtown Colorado Springs Soars to $2.2 Billion Since 2013," *The Denver Gazette*, April 8, 2022, https://gazette.com/investment-in-downtown-colorado-springs-soars-to-2-2-billion-since-2013/article_40f50e1c-b5fb-11ec-9f75-67fb4c0e9cbf.html
[345] Author interviews with Fort Worth and Dallas leaders; "1 big thing: Salt Lake is modeling downtown success," Axios Salt Lake City, August 3, 2023.
[346] J.H. Cullum Clark, *Engines of Opportunity: How Eds and Meds Institutions Can Become More Powerful Drivers of Prosperity in America's Cities* (George W. Bush Institute, 2024), https://www.bushcenter.org/publications/engines-of-opportunity.
[347] Florence Williams, *The Nature Fix: Why Nature Makes Us Happier, Healthier, and More Creative* (W.W. Norton & Company, 2017); Roger S. Ulrich, "View Through a Window May Influence Recovery from Surgery," *Science* 224 (1984): 4647, 420–21; Frances E. Kuo et al., "Fertile Ground for Community: Inner-City Neighborhood Common Spaces," *American Journal of Community Psychology* 26, no. 6 (1998): 823–51; Michelle C. Kondo et al., "The Association Between Urban Tree Cover and Assault: A Case-Control and Case-Crossover Study," *American Journal of Epidemiology* 186, no. 3 (July 10, 2017): 289–96, https://doi.org/10.1093/aje/kwx096; Sara F. Jacoby et al., "The Enduring Impact of Historical and Structural Racism on Urban Violence in Philadelphia," *Social Science and Medicine* 188 (February 2018): 87–95, https://doi.org/10.1016/j.socscimed.2017.05.038; Matthew Carmona, "Place Value: Place Quality and Its Impact on Health, Social, Economic, and Environmental Outcomes," *Journal of Urban Design* 24 (June 2019): 1–48, https://doi.org/10.1080/13574809.2018.1472523; *The Case for Healthy Places* (Project for Public Places, 2016), https://www.pps.org/product/the-case-for-healthy-places; *Economic Value and Benchmarking Study of the Dallas Park System* (HR&A Advisors, 2016), https://www.hraadvisors.com/wp-content/uploads/2021/09/HRA-Economic-Value-of-Dallas-Parks-Study-Final.pdf; Sarah Nichols and John Crompton, "The Impact of Greenways on Property Values: Evidence from Austin, Texas," *Journal of Leisure Research* 37, no. 3 (2005): 321–41, https://www.nrpa.org/globalassets/journals/jlr/2005/volume-37/jlr-volume-37-number-3-pp-321-341.pdf.
[348] Jacobs, *Death and Life*, 76–97.
[349] "How Does Your City's ParkScore Rating Stack Up?," Trust for Public Land, accessed January 31, 2025, https://www.tpl.org/parkscore.
[350] Emerson and Smiley, *People Cities, Market Cities*, 59.
[351] Katz and Nowak, *New Localism*, 83–4; Richard Florida, *Cities and the Creative Class* (Routledge, 2004), 59–60.
[352] Nate Rau, "Nashville Mayor's Office Unveils East Bank Development Agreement," Axios Nashville, February 26, 2024, https://www.axios.com/local/nashville/2024/02/26/nashville-mayor-east-bank-development-agreement; Katie Peralta Soloff, "Employers Are Leaving Uptown for Southend," Axios Charlotte, February 19, 2022, https://www.axios.com/local/charlotte/2022/02/20/employers-are-leaving-uptown-for-south-end-288605.
[353] Ellen Dunham-Jones, *Retrofitting Suburbia: Urban Design Solutions for Redesigning Suburbs* (Wiley, 2011); Florida and Ozimek, "Remote Work Is Reshaping America's Urban Geography"; "The End of Commuterland," *The Economist*, September 12, 2020; Albert Saiz and Arianna Salazar Miranda, "Real Trends: The Future of Real Estate in the United States," Research Paper 5 (MIT Center for Real Estate, 2017), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3100934; Jenny Scheutz, *Fixer-Upper: How to Repair America's Broken Housing Systems* (Brookings Institution Press, 2022), 56; "1 big thing: Everyone wants in on downtown Cary," Axios Raleigh, July 25, 2024; author interviews with Houston- and Dallas-area real estate, think tank, and civic leaders; Naheed Rajwani-Dharsi, "Prosper Developing a 35-Acre Arts District," Axios Dallas, June 27, 2024, https://www.axios.com/local/dallas/2024/06/27/prosper-texas-arts-district-dallas; George Packer, "What Will Become of American Civilization?" *The Atlantic*, June 10, 2024, https://www.theatlantic.com/magazine/archive/2024/07/phoenix-climate-drought-republican-politics/678494/.
[354] Christopher Mims, "Tech Talent Says Goodbye to the Coast," *Wall Street Journal*, Special section, "Journal Report: Technology," October 22, 2021.
[355] Bertaud, *Order Without Design*, 143–53.
[356] Jacobs, *Death and Life*, 339.
[357] Bertaud, *Order Without Design*, 163–4; "Ridership Report," American Public Transportation Association, First Quarter 2024, https://www.apta.com/research-technical-resources/transit-statistics/ridership-report; "Mass Transit Is at a crossroads," The National Observer, The Business Journals, March 20, 2023.
[358] Author's calculations based on American Community Survey data, 2022 five-year estimates (U.S. Census).
[359] Author's calculations of commuting times by mode of commuting based on American Community Survey data, 2022 five-year estimates (U.S. census); "Back That Mass up: The T's Bad Grades," Axios Boston, September 14, 2023; "The Number of BART's Canceled Trains Nearly Tripled in 2022. Here's Why," *San Francisco Chronicle*, March 1, 2023, https://www.sfchronicle.com/bayarea/article/bart-cancel-train-2022-17771746.php; "1 Exclusive Thing: Ex-CATS CEO Speaks Out," Axios Charlotte, April 21, 2023; Cuneyt Dil, "Metro Rail and Bus Fares Will Increase Starting Sunday," Axios D.C., June 25, 2024, https://www.axios.com/local/washington-dc/2024/06/25/metro-fares-increase-june-30; Jennifer A. Kingson, "Violent Assaults on Transit Workers Are on the Rise," Axios, January 22, 2024, https://www.axios.com/2024/01/22/crime-violence-public-transportation-statistics-workers; Janet Moore, "Metro Transit: Crime in 2022 on Board Trains, Buses Increased by Half over Previous Year," *Minneapolis Star-Tribune*, January 18, 2023, https://www.startribune.com/metro-transit-crime-in-2022-on-board-trains-buses-increased-by-half-over-previous-year/600244564.
[360] Connor Harris and Nathaniel Barrett, "Dallas-Fort Worth's Sprawling Rail Networks Haven't Worked, so Here's a Better Idea," *Fort Worth Star-Telegram*, February 7, 2020, https://manhattan.institute/article/dallas-fort-worths-sprawling-rail-networks-havent-worked-so-heres-a-better-idea.
[361] Ry Rivard, "Suburban Backlash Threatens Country's Biggest Transit Systems," *Politico*, May 8, 2024, https://www.politico.com/news/2024/05/08/cities-suburbs-transit-funding-00156362.
[362] Esteban L. Hernandez, "East Colfax Transit Project Enters Final Design Phase, Axios Denver, March 8, 2023, https://www.axios.com/local/denver/2023/03/08/denver-east-colfax-bus-rapid-transit-project-final-design-phase; Erin Alberty et al., "How Utah Is Trying to Make Buses More Viable," Axios Salt Lake City, August 16, 2023, https://www.axios.com/local/salt-lake-city/2023/08/16/utah-transit-rapid-bus-riders-denver-phoenix; Zachery Eanes, "Feds Don't want to Help Fund the Triangle's Long-Planned Commuter Rail Plan," Axios Raleigh, July 26, 2023, https://www.axios.com/local/raleigh/2023/07/26/raleigh-durham-commuter-rail-faces-bleak-funding-outlook; jay

R. Jordan, "Houston Light Rail Turns 20,"Axios Houston, January 2, 2024, https://www.axios.com/local/houston/2024/01/02/metro-light-rail-houston-history; "Mass Transit Is at a Crossroads," The National Observer, The Business Journals, March 20, 2023; Rivard, "Suburban Backlash Threatens Transit."

[363] Shannon Murray, "Plano Council Votes to Reduce Payments to DART as Ridership Falls," Fox 4 KDFW, updated June 25, 2024, https://www.fox4news.com/news/plano-considers-reducing-payments-dart.

[364] See Adam Mann, "What's Up with That: Building Bigger Roads Actually Makes Traffic Worse," *Wired,* June 17, 2024, https://www.wired.com/2014/06/wuwt-traffic-induced-demand/. For arguments that new highways induce additional demand, but not by enough to add to congestion, see William L. Anderson, "'Induced demand' a Poor Excuse Not to Build Highways," Pacific Research Institute, 2024, https://www.pacificresearch.org/induced-demand-a-poor-excuse-not-to-build-highways; and Steven Polzin, "Examining the Induced Demand Arguments Used to Discourage Freeway Expansion," Reason Foundation, December 22, 2021, https://reason.org/commentary/examining-the-induced-demand-arguments-used-to-discourage-freeway-expansion/.

[365] Charles L. Marohn, Jr., *Confessions of a Recovering Engineer: Transportation for a Strong Town* (Wiley, 2021).

[366] See analysis in Glaeser, *Triumph of the City*, 105; Florida, *New Urban Crisis*, 198.

[367] Jimmy Vielkind and Joseph De Avila, "17 Years, $700 million Wasted: The Stunning Collapse of New York's Traffic Moonshot," *Wall Street Journal*, June 30, 2024.

[368] Cuneyt Dil and Jennifer A. Kingson, "Congestion Pricing Stalled in D.C.," Axios D.C., April 9, 2024, https://www.axios.com/local/washington-dc/2024/04/09/congestion-pricing-stalled-in-d-c#.

[369] "Reporting & Progress," austintexas.gov, accessed January 31, 2025, https://www.austintexas.gov/page/reporting-progress; Jonathan Lee, "With the Help of City Subsidies, Over 3,000 Affordable Homes Are in the Pipeline," *Austin Monitor*, June 17, 2021, https://www.austinmonitor.com/stories/2021/06/with-the-help-of-city-subsidies-over-3000-affordable-homes-are-in-the-pipeline/.

[370] Author interviews with Dallas officials and calculations based on City Council briefing documents. See also Comprehensive Housing Policy, City of Dallas Department of Housing and Neighborhood Revitalization, amended by the Dallas City Council, November 28, 2018, https://dallascityhall.com/departments/housing-neighborhood-revitalization/CHP%20Documents/Comprehensive%20Housing%20Policy_Amended%2011-28-18.pdf.

[371] Spencer Donovan, "As Economic Hurdles Persist, Greenville Affordable Housing Fund Eyes New Tactics in 2024," *The Post and Courier Greenville*, December 6, 2023, https://www.postandcourier.com/greenville/news/greenville-housing-fund-land-trust-affordable-housing/article_db477e44-907b-11ee-92ea-bbe3fda2b74e.html.

[372] Liam Dillon and Ben Poston, "Affordable Housing in California Now Routinely Tops $1 Million per Apartment to Build," *Los Angeles Times*, June 20, 2022, https://www.latimes.com/homeless-housing/story/2022-06-20/california-affordable-housing-cost-1-million-apartment.

[373] Robert Robb, "Robb: The Scandal Behind the Navajo Housing Scandal," Opinion, *AZCentral*, July 26, 2017, https://www.azcentral.com/story/opinion/op-ed/robertrobb/2017/07/26/scandal-behind-navajo-housing-scandal/510031001/.

[374] Comprehensive Housing Policy, City of Dallas.

[375] Jay Weaver, "Miami Developer Greer Sentenced to Three Years in $34 Million Housing Fraud Case," *Miami Herald*, December 4, 2016, https://www.miamiherald.com/news/local/article118344913.html.

[376] Jacobs, *Death and Life*, 323–33; Bertaud, *Order Without Design*, 271.

[377] Stan Veuger, *Housing and the American Worker* (American Enterprise Institute, July 24, 2024), https://www.aei.org/research-products/report/housing-and-the-american-worker.

[378] Author's calculations based on data from Yardi Matrix and the U.S. Census; Haeven Gibbons, "McKinney's affordable housing stock more than twice its Collin County counterparts," *The Dallas Morning News*, October 18, 2023, https://www.dallasnews.com/news/2023/10/18/mckinneys-affordable-housing-stock-more-than-twice-its-county-counterparts/.

[379] Erica Proffer and Joe Ellis, "Affordability in Austin: How Have Previous Housing Bonds Addressed the Issue?," KVUE ABC, November 2, 2022, https://www.kvue.com/article/news/investigations/defenders/austin-350-million-affordable-housing-bond-solve-problem-defenders/269-c1040a33-cdc1-4b07-ad32-ad94c29c7281.

[380] "New Study Looks at Impacts to Construction Labor Wages," Structural Building Components Association, accessed January 31, 2025, https://www.sbcacomponents.com/media/new-study-looks-at-impacts-to-construction-labor-wages; Meghan Townley, "Overcoming Construction Inflation: How to Beat Rising Construction Costs," Buildertrend, updated July 22, 2024, https://buildertrend.com/blog/tips-for-inflation-construction-costs/.

[381] "Essential Single-Family Rehabilitation Program," North Carolina Housing Finance Agency," accessed January 31, 2025, https://www.nchfa.com/current-homeowners/repair-your-home/single-family-rehabilitation-program.

[382] Data for American Community Survey, DP04, Selected Housing Characteristics, from 2022: ACS 1-Year Estimates Data Profiles, United States Census Bureau, accessed January 31, 2025, https://data.census.gov/table/ACSDP1Y2022.DP04?q=DP04:%20SELECTED%20HOUSING%20CHARACTERISTICS.

[383] "State and Local Backgrounders," Urban Institute, accessed January 31, 2025, https://www.urban.org/policy-centers/cross-center-initiatives/state-and-local-finance-initiative/state-and-local-backgrounders/state-and-local-expenditures.

[384] Brentin Mock, "Why Metro Atlanta Is the Poster Child for the US Housing Crisis," Bloomberg, December 8, 2022, https://www.bloomberg.com/news/articles/2022-12-08/metro-atlanta-affordable-housing-crisis-explained-in-new-book.

[385] For accounts of Copenhagen's policies, see Emerson and Smiley, *Market Cities, People Cities*; and Katz and Nowak, *New Localism*. See also Bowdler et al., *Building Equitable Cities*, 69; "7 Lessons to Make a Difference," The Uprooted Project, University of Texas at Austin, https://sites.utexas.edu/gentrificationproject/7-lessons-to-make-a-difference/.

[386] "Economic Value and Benchmarking Study of the Dallas Park System," HR&A Advisors; Nichols and Crompton, "The Impact of Greenways on Property Values: Evidence from Austin, Texas."

[387] Judith Retana, "Raleigh Sells Property for $1 in Affordable Housing Deal," CBS17, December 5, 2023, https://www.cbs17.com/news/local-news/wake-county-news/raleigh-sells-property-for-1-in-affordable-housing-deal/; Zachery Eanes, "Protecting Dix Park's Neighbors," Axios Raleigh, January 24, 2023, https://www.axios.com/local/raleigh/2023/01/24/protecting-dix-parks-neighbors-raleigh.

[388] Stephen Malpezzi and Kerry Vandell, "Does the Low-Income Housing Tax Credit Increase the Supply of Housing?" *Journal of Housing Economics* 11, no. 4 (2002): 360–80, https://doi.org/10.1016/S1051-1377(02)00123-7.

[389] Michael D. Eriksen, "The Market Price of Low-Income Housing Tax Credits," *Journal of Urban Economics* 66, no. 2 (2009); 141–9, https://doi.org/10.1016/j.jue.2009.06.001.

[390] See also Everett Stamm, "An Overview of the Low Income Housing Tax Credit (LIHTC)," Tax Foundation, August 11, 2020, https://taxfoundation.org/research/all/federal/low-income-housing-tax-credit-lihtc/.

[391] Author's calculations based on data in Stamm, "An overview of the Low Income Housing Tax Credit (LIHTC)"; and Yonah Freemark, Corianne Payton Scally, "LIHTC Provides Much-Needed Affordable Housing, but Not Enough to Address Today's Market Demands," Urban Institute, July 11, 2023, https://www.urban.org/urban-wire/lihtc-provides-much-needed-affordable-housing-not-enough-address-todays-market-demands.
[392] Marohn and Herriges, *Escaping the Housing Trap*, 141-146.
[393] Kristen Klurfield and Sophia Ayaz, "A Snapshot of Housing Supply and Affordability Challenges in Atlanta," Bipartisan Policy Center, November 30, 2023, https://bipartisanpolicy.org/blog/a-snapshot-of-housing-supply-and-affordability-challenges-in-atlanta/.
[394] Kirk McClure, "What Should Be the Future of the Low-Income Housing Tax Credit Program?" *Housing Policy Debate* 29, no. 1 (2019), https://www.tandfonline.com/doi/abs/10.1080/10511482.2018.1469526.
[395] 2024 Qualified Allocation Plan, 10 TAC Chapter 11, Texas Department of Housing and Community Affairs (2023), https://www.tdhca.texas.gov/sites/default/files/multifamily/docs/24-QAP-10TAC-Ch11.pdf.
[396] Author's calculations based on Yardi Matrix data and author interviews with industry leaders and experts.
[397] Stamm, "An Overview of the Low Income Housing Tax Credit (LIHTC)."
[398] Stamm, "An Overview of the Low Income Housing Tax Credit (LIHTC)"; author's calculation based on project-level data from the U.S. Department of Housing and Development's LIHTC program website.
[399] Grace Reader, "Austinites Voted for More Affordable Housing. Where Did Your Money Go?," KXAN Investigates, updated April 28, 2023, https://www.kxan.com/investigations/austinites-voted-for-more-affordable-housing-where-did-your-money-go/; Danielle Chemtob, "Affordable Housing Is Getting Harder to Build in Charlotte. What's the Solution?," Axios Charlotte, March 30, 2023, https://www.axios.com/local/charlotte/2023/03/30/affordable-housing-is-getting-harder-to-build-in-charlotte-whats-the-solution-325016.
[400] Author's interviews with housing executives and experts. See critique in Paul Cobler, "Houston council OKs rules for creating, expanding, and eliminating tax reinvestment zones," *Houston Landing*, August 30, 2023, https://houstonlanding.org/houston-council-oks-rules-for-creating-expanding-and-eliminating-tax-reinvestment-zones/.
[401] For a discussion of the challenges that grassroots, single-neighborhood community land trusts face in scaling up, see Saiz, "Global Housing Affordability Crisis."
[402] Austin Kelly, "Skin in the Game: Zero Downpayment Mortgage Default," *Journal of Housing Research* 17, no. 2 (2008): 75–99, https://mpra.ub.uni-muenchen.de/12478/1/MPRA_paper_12478.pdf.
[403] William Voegeli, "Public Housing's Most Notorious Failure," *City Journal*, Summer 2018, https://www.city-journal.org/article/public-housings-most-notorious-failure; Jackie Dana, "The Failed Promise of Pruitt-Igoe," *Unseen St. Louis* (blog), https://unseenstlouis.substack.com/p/the-failed-promise-of-pruitt-igoe.
[404] Mihir Zaveri, "Corruption, Sewage, Apathy: A Federal Watchdog on What He Saw at NYCHA," *The New York Times*, March 20, 2024, https://www.nytimes.com/2024/03/20/nyregion/nycha-public-housing-new-york.html.
[405] Melissa Santos, "What's Next for Seattle's Social Housing Initiative, I-135," Axios Seattle, February 21, 2023, https://www.axios.com/local/seattle/2023/02/21/seattle-social-housing-initiative-passes-next-steps.
[406] Tobias Peter, *Does Social Housing Actually Work? Setting the Record Straight on the Vienna Model* (American Enterprise Institute, September 5, 2023), https://www.aei.org/research-products/report/does-social-housing-actually-work-setting-the-record-straight-on-the-vienna-model/.
[407] F. Schilder and Renee Scherpenisse, *Policy and Practice: Affordable Housing in the Netherlands* (Planbureau voor de Leefomgeving, 2018).
[408] Lousie Noring, "Addressing America's Housing Crisis: Lessons from Denmark," opinion, *Governing*, April 17, 2024, https://www.governing.com/urban/addressing-americas-housing-crisis-lessons-from-denmark.
[409]
[410] "East Lake Success a Model for Other Troubled Areas," Purpose Built Communities, October 4, 2012, https://purposebuiltcommunities.org/2012/10/east-lake-success-a-model-for-other-troubled-areas/; Bowdler et al., *Building Equitable Cities*, 42–5; "Dallas, Texas: February 29 – March 4, 2016: A ULI Advisory Services Panel Report," Urban Land Institute, 2016; Brett Theodos, "Atlanta's East Lake Initiative: A Long-Term Impact Evaluation of a Comprehensive Community Initiative," Urban Institute, January 13, 2022, https://www.urban.org/research/publication/atlantas-east-lake-initiative; author interviews with initiative leaders.
[411] Rigel C. Oliveri, "Vouchers and Affordable Housing: The Limits of Choice in the Political Economy of Choice," *Harvard Civil Right-Civil Liberties Review* 54 (2019): 795–811, https://journals.law.harvard.edu/crcl/wp-content/uploads/sites/80/2019/07/54.2-Oliveri.pdf; Glenn Thrush, "With Markets Hot, Landlords Slam the Door on Section 8 Tenants," *The New York Times*, October 12, 2018, https://www.nytimes.com/2018/10/12/us/politics/section-8-housing-vouchers-landlords.html; Michael Stegman and Dennis Shea, "Outdated Inspections Are Eroding the Housing Choice Voucher Program," *The Hill*, April 2, 2024, https://thehill.com/opinion/finance/4567987-outdated-inspections-are-eroding-the-housing-choice-voucher-program/.
[412] Resolution 22-R-4617, City of Atlanta, Georgia (2022), https://atlantacityga.iqm2.com/Citizens/Detail_LegiFile.aspx?Frame=&MeetingID=3648&MediaPosition=&ID=31098&CssClass=; McKenna Schueler, "Landlords Can't Legally Discriminate Against People with Housing Vouchers in Orange County, But They Do It Anyway," Orlando Weekly, August 25, 2023, https://www.orlandoweekly.com/news/landlords-cant-legally-discriminate-against-people-with-housing-vouchers-in-orange-county-but-they-do-it-anyway-34906967.
[413] For discussion of policies to slow or freeze increases in property tax for lower-income homeowners, see Kristen Klurfield and Sophia Ayaz, "A Snapshot of Housing Supply and Affordability Challenges in Atlanta," Bipartisan Policy Center, November 30, 2023, https://bipartisanpolicy.org/blog/a-snapshot-of-housing-supply-and-affordability-challenges-in-atlanta/.
[414] Marohn and Herrriges, *Escaping the Housing Trap*, x, xv.
[415] Patrick Kline and Enrico Moretti, "People, Places, and Public Policy: Some Simple Welfare Economics of Local Economic Development Programs," *Annual Reviews* 6 (2014): 629–62, https://doi.org/10.1146/annurev-economics-080213-041024.
[416] Patrick Kline and Enrico Moretti, "Local Economic Development, Agglomeration Economies, and the Big Push: 100 Years of Evidence from the Tennessee Valley Authority," *The Quarterly Journal of Economics* 129, no. 1 (2014): 275–331, https://doi.org/10.1093/qje/qjt034.
[417] Saiz, "Global Housing Affordability Crisis."
[418] See, for instance, Jenny Schuetz, "Nine Rules for Better Housing Policy," Brookings Institutions, May 2, 2018, https://www.brookings.edu/articles/nine-rules-for-better-housing-policy/.
[419] Eric Jaffe, "How Much Money U.S. Transit Systems Lose per Trip, in 1 Chart," Bloomberg, June 8, 2015, https://www.bloomberg.com/news/articles/2015-06-08/one-chart-showing-how-much-money-major-u-s-public-transportation-systems-lose-per-trip.

[420] "HUD 223(f) Acquisition & Refinancing," Janover HUD Loans, updated November 24, 2024, https://www.hud.loans/fha-223f/.
[421] "Detailed Bill Summary: The Affordable Housing Credit Improvement Act," The ACTION Campaign, accessed January 31, 2025, https://rentalhousingaction.org/wp-content/uploads/2023/05/AHCIA-Detailed-Bill-Summary-May-2023-1.pdf.
[422] *Development Opportunity on America's Public Lands* (Center for Geospatial Solutions, July 2024), https://cgsearth.org/cgs-who-owns-america-government-land-report.
[423] "Surplus Real Property Available for Public Use," U.S. General Services Administration, updated June 7, 2024, https://www.gsa.gov/real-estate/real-estate-services/real-property-disposition/surplus-real-property-available-for-public-use.
[424] Peter, "Government's Policies Are Crowding Out."
[425] Glaeser, *Triumph of the City*, 264; Tanner, *Inclusive Economy*, 212; Carney, *Alienated America*, 287; Collins et al., *The Road to Zero Wealth*; Matthew Desmond, "How Homeownership Became the Engine of American Inequality," *New York Times Magazine*, May 19, 2017, https://www.nytimes.com/2017/05/09/magazine/how-homeownership-became-the-engine-of-american-inequality.html; Saiz, "Global Housing Affordability Crisis"; Howard Gleckman, "The TCJA Shifted the Benefits of Tax Expenditures to Higher-Income Households," Tax Policy Center: TaxVox, October 16, 2018, www.taxpolicycenter.org/taxvox/tcja-shifted-benefits-tax-expenditures-higher-income-households/; William G. Gale et al., "Encouraging Homeownership Through the Tax Code," *Tax Notes* 115, no. 12 (2007): 1171–89, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1758888.
[426] Kamila Sommer and Paul Sullivan, "Implications of US Tax Policy for House Prices, Rents, and Homeownership," *American Economic Review* 108, no. 2 (2018): 241–74, https://doi.org/10.1257/aer.20141751.
[427] Jonathan Gruber et al., "Do People Respond to the Mortgage Interest Deduction? Quasi-Experimental Evidence from Denmark," Working Paper 23600 (National Bureau of Economic Research, July 2017), https://www.nber.org/papers/w23600.
[428] Emma Waters et al., "Is it Time for Congress to Reconsider the Mortgage Interest Deduction?," Bipartisan Policy Center, November 2, 2023, https://bipartisanpolicy.org/explainer/is-it-time-for-congress-to-reconsider-the-mortgage-interest-deduction/.
[429] Tanner, *Inclusive Economy*, 225–8.
[430] "Recent Accomplishments of the Housing and Civil Enforcement Section," Civil Rights Division, U.S. Department of Justice, updated January 27, 2025, https://www.justice.gov/crt/recent-accomplishments-housing-and-civil-enforcement-section.
[431] Affirmatively Furthering Fair Housing, 24 CFR Parts 5, 91, 92, 570, 574, 576, and 903 (2015), https://www.federalregister.gov/documents/2015/07/16/2015-17032/affirmatively-furthering-fair-housing.
[432] Steve Harrison, "After Braxton Winston Says Single-Family Zoning Is A 'Racist Ideology,' One Colleague Calls Him 'Reckless,'" WFAE 90.7, March 4, 2021, https://www.wfae.org/local-news/2021-03-04/after-braxton-winston-says-single-family-zoning-is-a-racist-idealogy-one-colleague-calls-him-reckless; Brian J. McCabe, "Why Buy a Home? Race, Ethnicity, and Homeownership Preferences in the United States," *Sociology and Ethnicity* 4, no. 4 (2018): 452–72; https://doi.org/10.1177/2332649217753648. See also Howard Husock, "A better approach to fair housing," *City Journal*, December 30, 2019, https://www.city-journal.org/article/a-better-approach-to-fair-housing.
[433] Jerusalem Demsas, "Not Everyone Should Have a Say," *The Atlantic*, October 19, 2022, https://www.theatlantic.com/ideas/archive/2022/10/environmentalists-nimby-permitting-reform-nepa/671775/.
[434] Xan Fishman et al., "The Energy Permitting Reform Act of 2024: What's in the Bill," Bipartisan Policy Center, July 30, 2024, https://bipartisanpolicy.org/explainer/the-energy-permitting-reform-act-of-2024-whats-in-the-bill/.
[435] Sophie Huang, "Rebuilding the Construction Trades Workforce," Joint Center for Housing Studies of Harvard University, June 5, 2024, https://www.jchs.harvard.edu/blog/rebuilding-construction-trades-workforce.
[436] Kriston Capps, "Biden Calls for National Rent Caps on Corporate Landlords," Bloomberg, July 16, 2024, https://www.bloomberg.com/news/articles/2024-07-16/biden-calls-for-national-rent-cap-on-large-landlords-to-stem-housing-inflation?cmpid=BBD071624_CITYLAB.
[437] Joshua Vincent, "Non-Glamorous Gains: The Pennsylvania Land Tax Experiment," Strong Towns, March 6, 2019, https://www.strongtowns.org/journal/2019/3/6/non-glamorous-gains-the-pennsylvania-land-tax-experiment.
[438] Gilbert D. Davila, "No Consistency in Valuing Housing Tax Credit Properties," Affordable Housing Finance, January 1, 2006, https://www.housingfinance.com/management-operations/no-consistency-in-valuing-housing-tax-creditproperties_o.
[439] See, for instance, Phillips, *Affordable City*; Jerusalem Demsas, "Colorado's Ingenious Idea for Solving the Housing Crisis – and Why Local Governments Hate It," *The Atlantic*, July–August 2023, https://www.theatlantic.com/magazine/archive/2023/07/local-government-power-nimby-denver/674164/.
[440] Author interviews with advocates for state preemption of restrictive local land-use policies.
[441] Dougherty, Golden Gates, 147; Jenny Schuetz and Eve Devens, "Statewide Zoning Reforms Aren't Making Much of a Dent in Southern California's Housing Affordability or Production Problems – At Least Not Yet," Brookings Institution, June 24, 2024, https://www.brookings.edu/articles/statewide-zoning-reforms-arent-making-much-of-a-dent-in-southern-californias-housing-affordability-or-production-problems-at-least-not-yet.
[442] Marohn and Herriges, *Escaping the Housing Trap*, 111–2.
[443] *Waters of the West*.
[444] Data on S&P CoreLogic Case-Shiller U.S. national Home Price Index, Federal Reserve Bank of St. Louis Economic Data, updated January 28, 2025, https://fred.stlouisfed.org/series/CSUSHPINSA.
[445] Data on S&P CoreLogic Case-Shiller U.S. national Home Price Index, Federal Reserve Bank of St. Louis Economic Data, updated January 28, 2025, https://fred.stlouisfed.org/series/CSUSHPINSA.
[446] "Housing Data," Zillow, accessed January 31, 2025, https://www.zillow.com/research/data/.
[447] Data on City Time Series, Climate at a Glance City Time Series, National Centers for Environmental Information, National Oceanic and Atmospheric Administration, accessed May 2024, https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/city/time-series.
[448] Data on DFW Monthly and Annual Precipitation, National Weather Service, National Oceanic and Atmospheric Administration, accessed May 2024, https://www.weather.gov/fwd/dmoprecip.
[449] Geraldine Orentas, "30 Most Beautiful Cities in the U.S.," *Forbes*, updated March 11, 2024, https://www.forbes.com/home-improvement/features/most-beautiful-cities-united-states/; "The Most Beautiful Cities in the US," Ranker Travel, updated July 1, 2024, https://www.ranker.com/list/most-beautiful-cities-in-the-us/ranker-travel; Guilherme Filipe, "50 Most Beautiful Cities in the US," TourScanner, March 1, 2024, https://tourscanner.com/most-beautiful-cities-in-the-us; "Most Beautiful Cities in the USA," Original Travel, accessed May 2024, https://www.originaltravel.co.uk/travel-blog/most-beautiful-cities-in-the-usa.
[450] "The Best Cities for Hipsters in America," RentBlog, May 12, 2021, https://www.rent.com/blog/best-cities-for-hipsters/; "2024 Best Cities for Young Professionals in America," Niche, accessed May 2024, https://www.niche.com/places-to-live/search/best-cities-for-young-professionals/;

Richie Bernardo, "2022's Best Cities for Hipsters," LawnStarter, updated July 13, 2022, https://www.lawnstarter.com/blog/studies/most-hipster-cities/; Maggie Angst, "The 20 Most Hipster Cities in the US – and Why You Should Consider Moving to One," *Business Insider*, April 10, 2018, https://www.businessinsider.com/most-hipster-cities-in-america-movehub-2018-4; Jamela Adam, "Best Places for Young Professionals to Live in the U.S. in 2024," *Forbes*, May 2, 2024, https://www.forbes.com/advisor/banking/best-cities-for-young-professionals/; Devon Thorsby, "The 25 Best Places for Young Professionals to Live," *U.S. News & World Report*, June 13, 2023, https://realestate.usnews.com/real-estate/slideshows/best-places-to-live-in-the-us-for-young-professionals.

[451] Elizabeth Von Tersch, "Best Food Cities in the U.S.," *U.S. News & World Report*, June 13, 2023, https://travel.usnews.com/rankings/best-foodie-destinations-in-the-usa/; Elizabeth Yuko, "20 Best Food Cities in the U.S., Ranked," Far & Wide, updated on December 10, 2024, https://www.farandwide.com/s/best-foodie-cities-usa-4e6c11276e6c4b18; Darcy Schild, "The 25 Best US Cities for Foodies," *Business Insider*, October 7, 2019, https://www.businessinsider.com/best-cities-in-the-us-for-foodies-2019-10.

[452] Stansel, "Metropolitan Area Economic Freedom."

[453] Joint Economic Committee – Republicans, *The Geography of Social Capital in America* (SCP Report No. 1-18, April 2018), https://www.jec.senate.gov/public/index.cfm/republicans/sci/.

[454] Albert Saiz, "On Local Housing Supply Elasticity," working paper (University of Pennsylvania Wharton School, July 2008), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1193422

[455] "U.S. Population Density Metro Area Rank," USA.com, accessed January 31, 2025, http://www.usa.com/rank/us--population-density--metro-area-rank.htm#google_vignette.

[456] "Glossary of Terms to Affordable Housing," archives, U.S. Department of Housing and Urban Development, accessed January 31, 2025, https://archives.hud.gov/local/nv/goodstories/2006-04-06glos.cfm.

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