AN AGENDA FOR ABUNDANT HOUSING

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Key takeaways

• The United States is experiencing its second crisis of housing scarcity. Unlike the first, which arose in fast-growing 19th century cities before the advent of tall buildings and modern transit, this one is purely political.

• Today, the housing supply is limited by the twinned problems of anti-density regulations and difficulties scaling up mass transit.

• Suburban housing restrictions have their roots in racial exclusion. Restrictions in legacy urban cores are the result of postwar policies to “renew” these cities into lower-density, car-oriented forms, followed by efforts to curb abuses of urban renewal and mitigate the population loss it drove.

• The conventional wisdom is that both sets of restrictions survive because incumbents seek to defend property values and/or “neighborhood character” against an influx of low-income residents and automobiles — a logic that assumes transit will not scale and costs will be locally concentrated.

• But this conventional wisdom misses crucial political dynamics. Land values for many homeowners in hot markets would rise, not fall, at higher densities; meanwhile, renters often resist such density even though it would lower their costs. These gaps in the standard model point to possibilities for new arguments and coalitions to strengthen the emerging YIMBY (Yes In My Backyard) cause.

• These coalitions should seek to move zoning decisions to higher levels of government that serve wider areas and therefore can better realize the benefits of density while sharing its costs over a larger population. At the same time, local communities experiencing rapid growth should receive the support they need for the sake of fairness — and to prevent a voter backlash.

• Reformers should also tackle a host of regulations that drive construction costs for both housing and transit far higher than they must be; for transit in particular, U.S. expenses are well above international norms.
The facts of America's housing crisis are well-known. Housing costs for both owners and renters have increased faster than the broad cost of living. American families devote an increasing share of their budgets to housing.

The crisis pinches hardest in the most productive urban areas. Cheap housing is scarce where good jobs are abundant while good jobs are scarce where housing is cheap. Income gaps between U.S. regions have stopped shrinking after a century of income convergence. Until the 1980s, the country’s most productive areas attracted workers from less productive areas. The labor markets those workers left behind tightened, raising wages and contributing to a convergence of regional incomes. But since 1980, high-wage regions have exported cost-of-living refugees to lower-wage regions with cheap housing.

Another indicator of the crisis: Home prices are rising faster than construction costs (excluding the cost of land) for an increasing number of metropolitan areas. Often, as we will see, that is a result of land use regulations that ban apartments and mandate excessive use of extremely expensive land per home. Quite simply: Productive urban land costs millions of dollars for a single acre. Growth controls such as single-family zoning limit the number of homes that can be stacked on an acre of land to spread that cost over more units. With high land prices and regulatory bans on using less land per unit, urban homes cost millions even though new apartments could otherwise affordably be stacked on the same lot without having to use any more land.

No one is happy about these trends. Housing is a truly transpartisan crisis, with detrimental impacts on both progressive and conservative goals. Progressives see the housing crisis as shutting low-income and minority workers out of the most dynamic labor markets. They see land use controls as tools of redlining and of segregation by race and income. Progressives also object to urban sprawl, deficient mass transit, and excessive dependence on automobiles, all of which contribute to urban air pollution and climate change.

Conservatives, who have long emphasized the perverse outcomes of excessive regulation, attribute the housing crisis to constraints on property rights and individual liberty. They fear that unaffordable urban housing undermines family formation and contributes to a culture of childlessness. In rural areas, land is plentiful, but incomes tend to be lower. Many states forbid the titling of deeply affordable manufactured homes as “real property” instead of as motor vehicles, which means potential buyers can’t access traditional mortgage financing for these lowest-cost types of

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1. From 1880 to 1980, high-wage U.S. regions saw faster population growth than those with lower wages, and incomes were converging across U.S. regions. Following a tightening of urban growth controls between 1960 and 1980, migration patterns reversed. The highest-wage regions began exporting workers to cheaper, but lower-wage and less productive, regions of the country, which had more flexible housing supplies. Land use regulation undermines income convergence through two channels: reduced wage-arbitrage migration and skill-sorting. When housing poses no barrier to migrating between regions, people of all skill levels leave lower-wage labor markets, leaving behind a smaller labor pool that can command higher wages. Their arrival in higher-wage labor markets expands those labor pools, restraining wage growth. Gating the supply of housing reduces the benefits of migration especially for low-skilled workers, thereby creating the second channel: skill-sorting. Housing costs in gated cities are high enough to chew up the urban wage premium for low-education workers, but not for high-education workers. As a result, college graduates find it profitable to continue concentrating in New York, Boston, San Francisco, Washington, D.C., and Seattle while non-college graduates move to cheap, lower-wage, but freely-growing Sunbelt boomtowns. This regional income and education polarization dynamic is a defining feature of the housing crisis. See Peter Ganong and Daniel Shoag “Why Has Regional Income Convergence in the U.S. Declined?” Journal of Urban Economics 102 (Nov. 2017): 76-90.

new homes. Reform of housing policy offers conservatives a great opportunity to use regulatory relief to solve important social problems.

Progressives and conservatives alike lament the drag that the housing crisis places on growth of the national economy. Slower and less equal income growth, in turn, fuels populist discontent, political polarization, and ideological radicalization that serve no one’s long-run advantage.

The sections that follow explore the housing crisis from five key perspectives.

The first section provides a historical overview. This is not the first time America has faced a housing crisis. In fact, today’s crisis is in large part an outgrowth of policies adopted in response to housing and urban problems of the past. The path that policies have taken over time, in turn, constrains the options that are open today, but it does not doom us to perpetual housing scarcity. The second section explores the modern system of growth controls that shape the supply of housing and determine the character of our cities and suburbs. Those controls are a large part of the reason that home prices have risen faster than inflation while the prices of many other goods, from refrigerators to televisions to automobiles, have fallen in real terms.

The third section explores the political economy of housing policy. The housing crisis is a collective action problem in which good things can be attained by working together, but local incentives are not always consistent with the greater good. One key to resolving this problem in a democracy committed to federalism is to ensure that decision-making powers rest with the lowest level that faces the full costs and benefits of the policies that are established.

The fourth section discusses the many unintended spillover effects of restrictive housing policy beyond the obvious, direct consequences for housing prices and scarcity. Housing has a powerful influence on social and economic equality, the environment, family formation, and other important policy issues.

The final section deals with potential solutions to the housing crisis. Housing policy is a highly complex issue with innumerable connections to other social and economic subsystems. Still, it is possible to list some general principles and specific policy recommendations that offer a potential transpartisan resolution of the crisis.

**Historical overview: How did we get here?**

Although small towns and even rural areas have their housing problems, American cities are the epicenter of the housing crisis. Urban land is inherently scarce, yet urbanization has been a defining feature of economic growth since the Industrial Revolution. Most people in the developed world choose to live in cities, towns, and their suburbs.

Modern economies urbanize because there are benefits to production and consumption from specialized networks of people living and working together. Economists call this “urban agglomeration.” Agglomeration explains why so many of the best jobs, highest wages, specialized goods and services, art, culture, science, technology, and the like are concentrated in cities. The bigger and denser they are, the more they have of all the above.
19th century urbanization and Georgism

There is nothing new about urban land scarcity. America has faced the problem before and overcome it. Before builders first combined the steel frame skyscraper with the Otis safety elevator in the late 19th century, the practical limit on building height was seven floors. During the Industrial Revolution, higher wages drew workers into cities, but urban growth eventually ran up against practical limits of available space. Migration from rural areas and abroad produced a combination of crowded tenements and high urban land prices.

By the 1880s, these conditions stirred a mass movement whose prophet was the political economist Henry George, author of the 1879 book *Progress and Poverty*. The Georgist movement advocated a different kind of property tax, one that heavily taxes land but exempts structures. Because landowners do not create land, Georgists reasoned, its supply cannot change no matter how high the tax rate — in contrast to buildings supplied by builders. Taxing land but not buildings would encourage holders of vacant land to build structures that would produce immediate revenue instead of holding it on speculation of future appreciation.

However, beginning in the 1880s, vertical building and horizontal transport technologies helped alleviate the scarcity of urban land. Elevator-served, steel-framed skyscrapers (debuted 1884) dramatically increased the floor space that could be built on a given urban plot. About the same time, streetcars (launched 1888) and rail rapid-transit networks stretched out from city centers to increase the residential land that workers could access from a given urban core. Vertical growth of steel-frame skyscrapers was remarkable. Horizontal expansion along transportation corridors drove even more growth. Manhattan’s population plunged from 2.33 million in 1910 to 1.87 million in 1930 as the outer boroughs rapidly expanded along new subway lines.

This rapid vertical and horizontal expansion relieved the tenement crowding and upward pressure on land prices that drove Georgism and other social upheavals of the Gilded Age. The Georgist movement gradually declined after its namesake’s premature death in 1897, but it has never entirely died out. A visitor to Twitter today can easily verify that Georgism is alive and well in a modern version, at least in discourse.

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3. In economic terms, naturally endowed land has no “supply side,” but structures do. As a result, Georgists argued a land tax would not only spur construction but also raise revenue for the provision of local government infrastructure and services without distorting economic activity or reducing the economic competitiveness of the jurisdiction. In this regard, the Georgists were dedicated to combating economic rent-seeking and building state capacity — causes that motivate much of the Niskanen Center’s work today. See Henry George, *Progress and Poverty* (Garden City, NY: Doubleday, Page, and Company, 1879).

4. The first horse-drawn street railways started in New Orleans and New York City in 1832 but were slow. The first elevated urban steam-powered rapid transit began in NYC around 1870; the first electric streetcar in Richmond, Va., in 1888; and the first electric subway in Boston in 1897.

5. In 2020, Manhattan’s population was just 1.7 million. That was 630,000 below its population in 1910, a net decline of nearly as many people as live in the city of Seattle today. After the city’s housing stock reached a new equilibrium in response to the new subway and highway networks, Manhattan would have begun to grow again but for modern growth controls that were passed in 1961.
Backlash to growth and the rise of zoning

Rapid urban growth alleviated the acute urban land problem that drove movement Georgism — but growth also sowed the seeds of an elite backlash.

Urban elites cringed at the aesthetic shock of the first skyscrapers. Elevator-equipped residential buildings empowered working- and middle-class tenants to outbid even the Vanderbilt family’s effort to protect Fifth Avenue’s mansion district. At the same time, the invention of trucking and modern paved roads freed manufacturing to mix with other uses on cheaper land at the edges of cities. Before that, heavy industry was logistically confined to areas around urban waterfronts, barge canals, and railheads.

These infrastructural shocks were accompanied by rapid racial and ethnic change. Mass immigration enabled by faster and cheaper steamships brought Catholics and Jews from Southern and Eastern Europe to the East Coast and Asians to California in unprecedented numbers. Somewhat later, Black Americans embarked on the Great Migration away from Jim Crow and rural poverty into northern industrial cities.

Amid this tumult, many Americans sought to restore predictability to urban and suburban growth – but not only with noble intentions. Zoning emerged as the mechanism to control not only unwanted economic activity – for example, the defensible purpose of limiting areas in which industry could settle – but also unwanted neighbors. The classic example was Euclid, Ohio, the Cleveland suburb where the Supreme Court first validated the separation of uses into exclusive zones, today called “Euclidian zoning.”

Euclidian Zoning was, on its face, race-neutral, but earlier iterations had been more explicit about race. Racial zoning was first implemented in 1910 in Baltimore to map racially separated zones without otherwise regulating the size or use of buildings. Berkeley, California, took a different tack: There, zoning proponents in 1916 were also explicit about identifying “negroes and Orientals” as undesirables to be separated from desirable white neighborhoods, but they sought to achieve that goal by zoning white neighborhoods for single-family, detached housing, which they assumed would be unaffordable for most nonwhite households.

The Baltimore approach of explicitly racial zoning was declared unconstitutional in the 1917 Supreme Court case Buchanan v. Warley. (The Court continued to permit so-called “racial deed

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6. Unregulated cities had always evolved over time, with the old “mansion district” periphery steadily redeveloped into higher-density housing as the city grew and land values rose, and a new mansion district growing on the new periphery. The speed and scale of urban expansion picked up amid mass immigration and new transport technology in the late 19th Century: The records of the American Planning Association’s predecessor describe growing alarm that this redevelopment cycle had shrunk in some cases to years instead of decades—pushing the wealthy ever farther out. The inventor of the suburban subdivision, J.C. Nichols, in 1912 complained: “The factory, the railroad, the business house, first command the locations most desirable for their particular uses. Even the wealthiest men of the city simply get the ground that is left over for the home and the family”. Before government-run growth controls, a volatile mix of “voluntary” racial deed restrictions, bullying, and extrajudicial violence were the only tools available to enforce neighborhood boundaries—and when those failed, the only alternative for the privileged group was to leave. Future growth controls would empower inner-ring suburbs to retain their elite character regardless of how large the city grows, what new people come, or how high land prices rise.


restrictions,” which prevented property owners from selling or renting property to certain classes of people, all the way until 1948). Cities following the invalidated Baltimore approach instead adopted the Berkeley method: White-zoned districts were rezoned as single-family detached districts. This indirect form of exclusionary zoning passed constitutional muster by leveraging class distinctions that correlate with race.  

The transformative effect of the automobile

The racially-driven rise of exclusionary zoning had a decisive impact on the next major development in American land use policy: the rise of the automobile. In the early post-World War II period, the new Interstate Highway System made vast tracts of suburban land accessible to residential development. The rate of suburban construction now outpaced population and job growth. As a result, swaths of aging housing in older cities became undesirable. Many of these homes, and even entire neighborhoods, were torn down or abandoned. Meanwhile, the combination of exclusionary zoning and racist lending practices made it much harder for minorities who were already economically disadvantaged to join the exodus.

Highways, automobiles, and trucks freed America from the land scarcity constraints of the nineteenth century, but at the cost of further entrenching housing segregation and embedding dynamics that make dense living more difficult. Aside from the inherent nuisances of pollution, noise, and congestion, automobiles posed a thorny “scaling problem.” In densely populated cities, mass transit has increasing returns to scale over time.  

The more people who use a mass transit system, and the more everyone’s origins and destinations are concentrated, the better. Hourly bus service gives way to half-hourly, then to bus rapid transit, then to light rail. Elevated heavy rail or subways then follow with two, three, or even four tracks to allow express trains.

In contrast, as anyone who has ever been stuck in a traffic jam or hunted for a parking spot knows, automobile transportation suffers from decreasing returns to scale. The more cars are on the road at any one time, the worse it is for everyone using them. Not only drivers, but everything else on the street is affected. Buses and streetcars slow down and cannot maintain a predictable schedule. Road widenings, slip lanes, higher speed limits, and other methods to improve auto traffic flow also make streets more dangerous and less pleasant for other users. Designing cities to prioritize

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10. At one author’s home in Queens, travel times to midtown Manhattan fell from an estimated 40-minute walk, railroad, and ferry ride before 1917 to 20 minutes by local elevated rail in 1917 to just 12 minutes by four-track express subway in 1933 — still faster than driving, even in 2022. Without unbridled density and unconstrained housing growth, progressively adding more and faster trains to the same neighborhood would never have been economically feasible. This dynamic was well-understood at the time in growth-friendly reporting in the New York Times, in sharp contrast to modern growth-skeptical discourse. See “NEW SUBWAY LINK BENEFIT TO QUEENS; Increased Home Demand Is Predicted in Jackson Heights Area,” The New York Times, June 25, 1933.
11. For example, when Manhattan widened its elevated railroads in the early 20th century, adding a third track to enable faster express service, it didn’t just add capacity for new residents: The new express track made transportation faster for incumbents too. Frontier work in urban economics should explore the phenomenon in more detail. Current models assume transportation by car, which gets worse as a linear function of city size, whereas mass transit can improve with city size.
driving also cuts U.S. life expectancy by adding to the death toll of the developed world’s deadliest road system.\textsuperscript{12}

Once the automobile becomes the dominant form of transportation, cities encounter difficult tradeoffs. Density makes it harder, less pleasant, and more expensive to drive. But retrofitting cities to make driving easier makes density less pleasant to live in. The tension between cars and transit has given rise to a “missing middle” in many American cities. The term refers to a lack of mid-rise multifamily housing in walkable neighborhoods that fit between high-rise urban housing and single-family suburbs. Ideally, rapid transit would connect such neighborhoods to the urban core. However, there is little incentive to build the transit until the multifamily housing already exists. Where the housing is proposed before the transit is provided, in turn, it has often been rejected because of traffic and parking impacts—a circular phenomenon we call the “middle density trap.”

In this transition from a car-oriented, low-density suburb to an urban, walkable neighborhood with enough density to support nearby retail amenities and improved transportation alternatives, quality of life for existing residents can temporarily get worse with more density before it gets better. Pushing through that temporary nuisance requires trust in the local government’s capacity to design a quality public realm and to scale municipal services with growth. When that trust is lacking, it’s hard to get the virtuous circle of initial higher density and eventually improved local amenities started—and so housing supply remains frozen. Drivers effectively hobble density by making mass transit less viable and making urban cores less attractive to live in. And they impose these costs not only for free, but while enjoying the subsidies provided by federal highway funds.

One way to break out of the dilemma between driving and density would be to price street parking and highway congestion—imposing on road space the same price system we use to manage and allocate other scarce resources. Doing that would both discourage excessive driving and generate revenues for alternatives to driving.\textsuperscript{13} But instead of pricing the social cost of excess driving and parking, and supplying high-quality mass transit, policymakers have chosen to cap housing densities and raise housing prices to unsustainable levels. Unwilling to price out cars, American cities have chosen to price out people.

\textbf{Growth controls tighten in the urban core}

The 1955-1980 interstate-building binge directly depopulated neighborhoods through eminent domain both for the highways themselves and for parking lots and garages where they emptied...
into urban cores. Indirectly, the automobile and highways enabled suburban housing to grow faster than the population — what is today called “sprawl without growth.” For example, Erie County, New York, which includes the city of Buffalo, has roughly the same population it did in 1950, but the population of Buffalo proper cratered from 580,000 in 1950 to just 255,000 in 2020.

Cities responded to this catastrophic population collapse with a variety of approaches that all contribute to our modern-day problems. The urban-renewal coalition that had championed the involuntary razing of urban neighborhoods for highway projects sought to further “retrofit” cities for the age of the automobile, but bogged down after early, highly visible involuntary mass demolitions in cities across the country. The excesses of urban renewal brought together community coalitions that fought back against grandiose builders like Robert Moses and established policy tools to require environmental review, slow down decision-making, and add veto points to such projects. Meanwhile, advocates more concerned with the well-being of the left-behind city residents called for a “downzoning” that would spread the remaining population more evenly throughout the urban core.

Besides these policy shifts, there were also critical organizational consequences. Elite and popular resistance to the overreach of the planners exploded into a movement now remembered as the highway revolts or freeway revolts.14 The highway revolts built the social networks, ideology, and political power that underlie the contemporary anti-growth movement. The old saying, “You can’t fight city hall”, became today’s reality “Anyone can fight city hall over anything, at any time, and win.”15

Vying to compete with new low-density suburbs, inner-city land use regulators began to tighten growth controls. Proponents hoped growth controls would encourage the demand that remained for urban housing to spread out into the rehabilitation of less desirable, older neighborhoods. New York’s 1961 downzoning permanently capped the residential population and floor area for the first time, limiting the city to a theoretical maximum of 12 million and a practical cap well below that.16 Los Angeles downzoned itself in phases from 1960 to 1980, capping itself at a theoretical maximum

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15. Although the revolts became a national and even international phenomenon, the most famous episode was the fight between Jane Jacobs and Robert Moses over the fate of Manhattan. As elsewhere, success of the anti-growth element was uneven. Race and class often determined the winners and losers. Jane Jacobs beat Robert Moses’ proposed “LoMex” highway in bourgeois Greenwich Village, but his Cross-Bronx Expressway and others did get built. Today, its legacy for the low-income and minority residents of South Bronx are the city’s highest asthma rates. See Jason Barr, “Saint Jane and the Moses Myth: Revisiting the Robert Moses-Jane Jacobs Debate,” Building the Skyline, April 18, 2022; Michael Dnes, “London’s Lost Ringways,” Works in Progress, April 2022.; Rae Zimmerman. “Asthma Symptoms Linked to Soot Particles From Diesel Trucks in South Bronx,” NYU Wagner, October 16, 2006.
of 4.33 million despite its vast land area. 17 San Francisco downzoned several neighborhoods and eventually the whole city in the 1970s. 18 These efforts achieved their desired end to the extent that housing demand was spread out, stimulating renovation and repopulation of partially abandoned neighborhoods. But the growth controls were never lifted, even as the economics of urban decline began to shift. New York and San Francisco no longer suffer from a shortage of residents; they attract more than they can house.

In short, the community heroes of the 1960s who saved human-centered urbanism from auto-oriented destruction became the anti-heroes of the modern housing crisis. The powerful Manhattanites, Bostonians, and San Franciscans who learned how to say “no” to highways metastasized into a coalition that said “no” to any changes, regardless of their merits. Displacement and scarcity would gradually surpass abandonment as the leading housing issue in these cities.

In retrospect, urban progressives drew the wrong lessons from the highway revolts. Yes, it is bad to disproportionately foist nuisances upon the poor and the powerless. But some progressives came to see even the voluntary addition of new housing in the same terms as involuntary eminent domain for highways – almost as a form of hazardous waste. Families and their homes are not nuisances. The ideological heirs of the highway revolters should view them as deserving of support, not as a blight to control.

The result of this long history — from zoning designed for racial segregation to urban depopulation to the comeback of major cities — is that growth controls bind access to the suburbs just about everywhere in the country, and to the city in the most productive regions. In regions with low or middling growth, like St. Louis or Baltimore, suburbs sparkle while the city, though offering pockets of urban prosperity that may eventually test the supply limits imposed by growth control, is largely left to concentrate the poorest residents. In superstar regions like Boston or San Francisco, housing has become unaffordable not only in the suburbs but also throughout the urban core.

The “tale of two cities,” and the related story of “rich neighborhoods and poor neighborhoods,” has been a problem for centuries: sorting and exclusion from jobs access, the best public services, and opportunity generally. The new crisis layered on top of it is a general housing shortage so acute that poor neighborhoods are increasingly squeezed out of superstar cities altogether.

How supply restrictions work

With most urban land subject to growth regulations, the supply of metropolitan-area housing in America is one of the most regulated activities in the United States. That control goes far beyond where housing can be built and how many units are permitted per building. In most jurisdictions, the law—including both building codes and zoning codes—prescribes every aspect of construction.

Housing codes regularly specify minimum off-street parking, minimum lot size, and impermeable surface coverage. They specify height, ratio of floor area to ground surface, minimum and average unit size, and the mix of bedrooms. They also cover the number of fire egress points, curb cuts, bedroom window access, courtyard size, street frontage, kitchen ventilation, allowable energy sources, roof pitch, solar panel placement, and rules for habitable cellars.

In cities with “by-right” permission for any project that meets regulations, the physical controls, however detailed, are at least set out in black and white. However, in jurisdictions with discretionary design review, even the smallest, superficial feature of design is subject to government approval on a case-by-case basis.

The combined effects of zoning and building codes on housing supply explain why the price of housing has not fallen (when adjusted for inflation) in the same way that the prices of consumer goods like refrigerators and cars have. Think of the price of a home as consisting of two parts.

The first part is the cost of land. As stressed earlier, urban and commutable suburban land is inherently limited, so it is understandable that its price has risen as the economy has grown and family incomes have risen. However, growth controls—single family zoning and apartment bans—prevent builders from spreading land costs over more units on a given plot of land, keeping the land cost per housing unit high. Even if you can build an $80,000 starter house on a $1,000,000 lot, the home plus the land will still cost $1,080,000. Increasing the effective supply of land by allowing more homes per acre is the logical way to mitigate the problem of land costs.

The effective supply of housing is further restricted by limits on traditional attic, garage, and basement “granny flats,” known formally as “Accessory Dwelling Units.” The ability to build more units per lot is also restricted by requirements to provide subsidized parking even if occupants don’t own cars. Controls on the number of unrelated adults who can share an apartment are another limitation on density that restrict the effective supply of housing.

The second part of the price is the cost of the structure itself. At its most basic, a house is not all that different from a refrigerator. Houses and refrigerators are both just big boxes with doors. The

house may need to be hauled to your lot in more than one piece, but that is just a logistical detail.

Houses, like refrigerators, can be built in factories. Such “manufactured homes” or “HUD code” homes, are the most affordable form of housing in many areas today. They are especially popular in small towns and unincorporated rural areas where land prices are cheaper and land use controls are not always as tight as in cities. Still, there is no need for them to be excluded from urban areas. But regulatory reform is needed to increase their supply and realize their potential.

A shortage of skilled tradespeople in the housing sectors is a final part of the supply equation. For a generation or more, public schools have deemphasized career and technical education. However, better training programs make little sense unless wages in construction trades are high enough to attract candidates. High wages, in turn, are consistent with abundant and affordable housing only if productivity is high. There is a natural complementarity here between training and reform of regulations for manufactured homes. A more permissive approach to manufactured homes would boost the productivity of on-site construction labor.

We could allow ourselves to leverage advances like factory-built “manufactured homes” with their inherent efficiencies for places where construction speed is paramount or skilled workers are in short supply. We could relieve restrictions on density. At the most fundamental level, supply-side housing policy is a matter of letting people live where and how they choose, without unnecessary interference from regulators.

**The political economy of housing**

Fixing the modern housing crisis should be technically simple: Make homes more like refrigerators. Roll back postwar growth control laws. Let new homes flood upward onto the “virtual land in the sky” in city centers and outward along transit lines and congestion-priced highways. Provide enough income support to allow families with lower incomes to afford safe and dignified homes. But those who would like to see less restrictive housing policies face a major challenge: The barriers to their proposed reforms are largely political, not technical.

**Fiscal zoning and the homevoter hypothesis**

Any path to reform must reckon with the political economy of the system we have: Whom it empowers, whom it enriches, and who might be cross-pressured or ambivalent. Failing to answer these questions fully will make it hard to rally opinion-shapers and decision-makers behind reform and leave those who do take the lead vulnerable to backlash. It also risks potentially producing perverse results as the complex of cultural assumptions, fragmented government, and market incentives that drives our housing crisis finds ways to circumvent new laws intending to sustainably unlock growth.

The problem is that the leading framework for answering these basic questions about “who benefits” and “how can we win them over” is incomplete, especially as it has been translated into conventional wisdom. It flattens the complexities of place and economy into a set of assumptions that, taken at face value, make real progress appear hopeless.

The leading theory, articulated best by Dartmouth economist William A. Fischel, is anchored by
the concepts of fiscal zoning and the homevoter hypothesis. Fischel defines fiscal zoning as the deployment of land use regulation to enhance the local tax base. Under Fischel's theory, enhancing the tax base typically means excluding small houses and multifamily units. The idea is that insisting on single-family homes and large lot sizes effectively restricts the availability of housing to buyers who will pay at least as much in local taxes as they consume in public services, such as schools.

Gating the municipal boundary in this fashion turns public schools and all other local services into “club goods” enjoyed by all local taxpayers. Instead of creating private schools that exclude nonpayers at the entrance, exclusive communities turn themselves into de facto “private cities” that charge admission at the municipal border, using growth controls to prevent the construction of homes “too affordable” to pay their full way in property taxes. This policy, in turn, will keep tax rates for well-off homeowners low by preventing fiscal redistribution to lower-income households in those “too-affordable” homes. The homevoter hypothesis holds that homeowners are motivated to participate in politics to defend the values of their homes, making them more likely than renters to turn out in local elections.

What's more, homeowners support keeping densities low: They believe that fiscal zoning will suppress tax rates and that low density is more attractive to potential buyers. As the Supreme Court infamously declared in upholding such a zoning scheme in the 1926 case Euclid, Ohio, v. Ambler Realty, apartment buildings were “mere parasites” constructed only to take cheap advantage of the amenities and “character” of high-quality single-family neighborhoods. Such cynicism is extreme, but homeowners’ defensive posture is understandable insofar as a home is the most valuable asset owned by many American families.

The key to this deeply rooted anti-density dynamic is the fact that the same local level of government that is responsible for decisions on zoning and property taxes also supplies schools and other public services (even though these responsibilities are often split among multiple elected boards). If decisions on housing policy were made at a higher level of government, the situation would be different. Higher levels of government, which draw their revenues from sales and income taxes rather than property taxes, have an interest in economic growth rather than an interest in exclusions and supply restrictions.

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21. “[T]he apartment house is a mere parasite, constructed in order to take advantage of the open spaces and attractive surroundings created by the residential character of the district. Moreover, the coming of one apartment house is followed by others...and bringing, as their necessary accompaniments, the disturbing noises incident to increased traffic and business, and the occupation, by means of moving and parked automobiles, of larger portions of the streets, thus detracting from their safety and depriving children of the privilege of quiet and open spaces for play, enjoyed by those in more favored localities—until, finally, the residential character of the neighborhood and its desirability as a place of detached residences are utterly destroyed.” Euclid v. Ambler, 272 U.S. 365 (1926)

22. There is also a perverse feedback effect here. As home prices rise, there is less room in family budgets for other forms of saving without giving up on homeownership altogether. Keeping one’s home price at an elevated level thus becomes an even more important financial goal for homeowners with undiversified portfolios.
Compare the political economy of housing supply to that of refrigerator supply. Refrigerators, like housing, are subject to regulation for safety, energy efficiency, and so on, but those decisions are the responsibility of state or federal governments. If they were instead controlled locally, communities might well impose a requirement that every house have a $10,000 super-luxury refrigerator as a way of excluding low-income “free-riding” families. Indeed, if refrigerator bans — instead of apartment bans — were the key policy tool in excluding low-income “free-riding” families from America’s highest-status neighborhoods, America might well have a refrigerator shortage instead of a housing shortage.

**Fiscal zoning & the homevoter hypothesis do not explain everything**

The homevoter hypothesis has much to commend it. It reasonably reflects the discourse around the real or imagined overuse of schools and local services that one hears from concerned citizens at public meetings. It is consistent with the historic intent of land use legislation – the suppression of perceived nuisances and the income-segregated preservation of property values.

But the homevoter hypothesis and its rational, fiscalized version of NIMBYism faces at least two challenges.

The first challenge at this stage is largely theoretical. Homeowners do seem to generally behave as Fischel describes, but it’s not clear that doing so is actually rational: Restricting growth is not always in their material self-interest. There are life-cycle factors to consider. Housing scarcity limits starter homes for homeowners’ adult children, and limits downsizing options for empty nesters. What’s more, many homeowners in the most desirable core land markets would actually see their present home values jump under less restrictive zoning. The exact distribution of winners and losers would vary tremendously by context. But in the most extreme cases, such as an anti-growth suburban jurisdiction at the heart of Silicon Valley, easing growth controls would clearly raise the total value of existing homeowners’ underlying land, because developers could redevelop the property to fit more buyers. The new buyers would pay lower land costs per housing unit because parcels would be smaller, but their combined price would be well above what a single buyer would pay for the same amount of land.

The second challenge to the homevoter hypothesis is empirical. It comes in the rise of a “left NIMBY-homeowner alliance” between well-educated progressive renters and change-averse homeowners. This coalition has succeeded in tightening or maintaining growth controls in Democratic-supermajority cities on both coasts, but it is most infamous for its victories in California — indeed, the “left NIMBY-homeowner alliance” coinage originated on Twitter among Californian housing reformers. The alliance would seem to go against the interests of renters, who would be the natural beneficiaries of housing growth, more competition among landlords, and less competition among renters for a fixed stock of units. If voters are well-informed and “voting their wallets,” the left NIMBY-homeowner alliance would not be possible. That it does in fact, exist, suggests some mix of economic ignorance and willingness to incur costs in order to preserve a certain “neighborhood character” among renters.

Optimal land use reform should increase the total value of land while driving down costs for...
individuals, meaning the pie should grow overall. Still, there will be winners and losers from reform. We should in theory expect peripheral landowners and incumbent high-rise owners in central neighborhoods to be NIMBYs. As locales closer to the center city allow greater density and more people can afford to live near their sources of work and entertainment, peripheral land will likely drop in value. Similarly, incumbent high-rise owners would suddenly face more competition if other tall buildings were permitted near them. Renters, plus centrally located non-high-rise landowners — especially single-family homeowners with the most attractive developable sites — should be YIMBYs. That is, we should expect a split between homeowners with development options allying with renters to reduce average housing prices, versus homeowners without development options fighting to keep housing prices (and the value of their non-developable asset) high.

An example from Vancouver, British Columbia, provides a striking illustration of the potential gains from denser development. After a long-running dispute, the Canadian government recently transferred ownership of a tract of land just 10 minutes from downtown to the Squamish Nation. Canadian law grants tribes planning authority over their lands, so the city of Vancouver could not limit the right of the tribe to use its land as it sees fit. The tribe plans a skyscraper development that will house its members, unlock the latent value of the land, and generate billions of dollars of rental income. If the project succeeds, it will demonstrate how most residents can benefit financially, and all residents benefit in broader ways, from inclusive growth that increases total well-being, even as higher density moderates housing prices per unit. One would think that the single-family homeowners in nearby neighborhoods might form a committee to study how they, too, could generate billions of dollars while enlivening sleepy neighborhoods.

Unfortunately, it appears likely that many people active in land use politics are not rational and well-informed self-maximizers, but confused about the fundamental economics. That notion finds support in a recent study by Clayton Nall and co-authors, which found that a slight majority of people believe increasing the supply of housing in their area would actually raise prices. Perhaps people are also acting out of deeply embedded cultural assumptions about what makes a neighborhood desirable. But as our review of land use history suggests, such cultural assumptions are malleable — as are understandings of self-interest. That underlying uncertainty provides the opening that housing reformers must work harder to tap into.

23. Optimal land use maximizes aggregate land values, as the net sum of all amenities and benefits of density, minus the drawbacks and congestion costs of density, is maximized. On the capitalization of disamenities and amenities into land prices, and optimal governance coinciding with maximizing land values, see Colin Read, “The Henry George Theorem,” in The Public Financiers (London: Palgrave Macmillan, 2016), 217-19.

The spillover effects of high housing costs

Adequate shelter is one of the most basic human needs. The direct consequences of intentionally constraining urban housing supply are obvious: It makes housing in cities more expensive and scarce, contributing directly to homelessness, overcrowding, more adult roommates, and lower household formation. But the direct effects of expensive housing are only the beginning. The growth controls and restrictive zoning that have brought us high housing costs have spillover effects that aggravate many other vexing problems.

Some of these have already been mentioned: Inter-regional income inequality. Diversion of workers from areas of high opportunity. Segregation of neighborhoods by race and income. But there are many other spillovers, too.

- Weaker cyclical labor market mobility and harder monetary policy tradeoffs.
- Slower national real income growth.
- Rising capital share and falling labor share of income.
- Modern record share of adult children living in their parents’ home and likely lower fertility from lower household formation.
- More cars, more driving, and higher transportation emissions
- Higher residential carbon emissions
- Childhood obesity
- Regional education polarization
- “Opportunity hoarding” of the best local public services

Growth controls on housing slow economic growth overall and make Americans poorer. By one estimate, eliminating growth controls altogether would increase national income by as much as 36 percent in the long run. It would also be likely to change population patterns in a significant way: Without growth controls, the New York City metro area population could be expected to double to 40 million. The next seven largest cities would be larger than New York is today.

Although such rapid growth of cities is associated today with emerging markets, it was common in 19th century America before restrictive zoning existed. For example, Chicago grew from a village of 30,000 in 1850 to a city of 1.7 million in 1900, making it one of the 10 most populous cities in the history of civilization up to that time. America is a historically footloose country whose once-high rates of residential mobility have fallen in the era of growth controls— but could revive

25. Gilles Duranton and Diego Puga, “Urban Growth and Its Aggregate Implications,” National Bureau of Economic Research, December 19, 2019. The gains in estimates like these are based only on land price and wage differences between high-output and low-output regions of the country—how much more America could produce if people were free to move to wherever their labor is most productive based on the economy as it exists today. What we don’t know and can’t know is how today’s economy and technological progress might have changed if untapped talents and innovators “stuck on the farm” in today’s America had instead moved to a Silicon Valley permitted to grow as large as Los Angeles or New York over the last half-century.

26. Ibid.

again. Americans once moved to opportunity (think gold rushes, remote lumber and railroad booms, new manufacturing clusters in the Great Lakes) and away from regional ills (think the Dust Bowl or the Great Migration away from Jim Crow). The Forty-Niner gold rush in San Francisco had a modern echo in Silicon Valley’s tech booms, but the explosion of opportunity today brought zero-sum displacement and educational polarization instead of pie-growing mass migration for all classes and incomes.

Restrictive housing policy makes America more unequal on both the national and local levels. Locally, growth controls restrict access to the best schools, infrastructure, and other public services. Nationally, they lock workers out of the most productive regions, thwarting income convergence.

Beyond damaging long-term “structural” growth rates, declining inter-regional mobility weakens America as an “optimal currency area” for the U.S. dollar across the business cycle.\textsuperscript{28} The Federal Reserve sets monetary policy for the whole country, and relies upon a mix of inter-regionally stabilizing fiscal policy and labor mobility between areas with high and low unemployment rates to keep the national economy in sync under one shared currency.

Zoning and growth controls, and the sprawl they engender, make America less environmentally friendly. They add to carbon emissions and degrade natural areas. Multifamily buildings, with their shared walls, are inherently more energy efficient. Public transit — when people are allowed to live near it — reduces carbon emissions compared to travel by car. Even in cities like Los Angeles that rely heavily on automobiles, greater urban density would shorten driving distances and reduce transportation emissions.\textsuperscript{29}

California’s strict growth controls have particularly perverse environmental effects. Uniquely stable weather means that residents of cities like San Diego use less energy for heating and cooling. In fact, that city’s residents have carbon emissions per household similar to New York City, despite having little mass transit and a much higher share of large, detached single-family homes.\textsuperscript{30} From an environmental point of view, policy should encourage population growth in cities like San Diego rather than encouraging people to settle where hot summers or cold winters require greater energy use.

Finally, growth controls weaken the American family and family formation. More young Americans are “failing to launch” and start their own families. The number of adults living with their parents today is the highest since the Great Depression. The limited availability of homes in desir-

\textsuperscript{28} The problem is better-known in Europe, where the EU has embarked upon the extraordinary effort of the Schengen Treaty for free labor mobility between all countries that share the Euro. Inter-regional divergence between southern Europe and northern Europe existentially threatened the Euro in the 2011 crisis. See David Beckworth. “\textit{Is the United States Becoming Less of an Optimal Currency Area?” Seeking Alpha, June 1, 2017.}

\textsuperscript{29} Armlovich. “\textit{Urban, Dense: A Defense.”}

\textsuperscript{30} Ibid.
able locations is a major factor in reducing household formation and likely reduces fertility rates compared to what people say they would prefer. There is no objective measure for the optimal rate of urban household formation, but we do know there are more dogs than children in San Francisco today. That is a troubling indicator for how residents are adapting to high prices for small living spaces.

What do we do? Policy recommendations

Having reviewed the history of land use regulation, the economics of housing supply, the political economy of restrictive zoning, and the spillover effects, it is time to outline some tasks for policymakers. Each of the following three broad principles can serve as the basis for developing specific policies.

1. Land use regulation authority should rest at the level of government that best captures all of its costs and benefits.

At its core, land use policy is a collective action problem. From the point of view of the whole polity, the goal should be to make housing abundant and affordable, with appropriate accommodations available to households and individuals at every level of income. However, unless policy is made at the right level, local interests conflict with the general interest and no one has the right incentives to act.

At the regional and state levels, voters tend to support more housing supply and more housing options — “NIMBY”, after all, was coined to describe people who claim to support affordable housing, just “not in my backyard.” For example, the latest research finds statewide transit-oriented preemption “fairly popular” in California, but changes to local neighborhood zoning remain unpopular. Voters may reject growth if action at the local level disrupts settled ways of life without doing much to alleviate the crisis at the regional level.

Locally, it seems that NIMBYs rule in states like California, but the state’s governor ran and won on a YIMBY platform, and the legislature has implemented over the last five years the nation’s


32. Conventional wisdom among professional YIMBYs holds that governors, big-city mayors, and at-large city councilors lean YIMBY, with ideological exceptions; while small, single-member city council districts lean NIMBY, with ideological exceptions. No single neighborhood can build its way out of a regional housing crisis alone—and attempting to do so unilaterally would be disruptive, with little effect on regional housing costs. High-level YIMBY, local NIMBY seems to be a common pattern among elected officials—but this may change as YIMBYs increasingly make the case that density has local benefits, too, and as more ideological YIMBYs run for office. In metropolitan New York, the mayors of New Rochelle, N.Y., and Jersey City, N.J., have assembled successful coalitions to allow enormous new skyscrapers next to their train stations and once-struggling downtowns. They achieved this even though each city is a only tiny slice of the 20 million person housing market in metro NYC, and so have little hope of moderating regional housing costs unilaterally.

33. Nall et al., “Folk Economics.”
most aggressive policy package to overcome local resistance to housing. Legislation like this is not about reducing democratic accountability, but about enabling a democracy to act decisively at the level of government that takes account of all the costs and benefits at stake.

The ideal balance of centralized v. localized government control over housing policy is regional: Big enough to contain both the positive and negative spillovers of land use and infrastructure planning, but still at the smallest geography consistent with that goal. Powerful regional coordinating authorities like Minnesota’s Metropolitan Council provide a model, although the path to achieving fully regionalized government in the rest of the country remains unclear.

Short of a revolution in regional government, advocates of reform must work with the governments they have. State government is not always the ideal level for housing policy, but it is large enough to internalize spillovers across smaller jurisdictions. As California shows, a state government can move in the right direction — and may do so even more readily if properly motivated by federal infrastructure funding support. Everything should be on the table. No categories of growth control should automatically be exempt from state preemption, state and federal carrots and sticks, or other policy actions.

The constitutional basis of land use regulation is use of the state’s “police power” to protect public health, safety, and welfare. Whenever growth controls fail to promote those ends, they should be preempted. This includes even “sacred cows” like single-family zoning, accessory dwelling unit bans, and apartment bans near transit.

States should directly preempt growth controls in job- and transit-rich areas. State and federal governments have a compelling interest in ensuring that regional transit investments are fully utilized and financially viable. The federal government should change its grant criteria to provide carrots and sticks to reward transit-oriented development.

2. The benefits of urban growth must be widely shared and negative spillovers must be mitigated.

Although reform of growth controls should yield net benefits, that will be the case only if proponents address the legitimate concerns of those who defend the status quo. Local services, like schools and garbage pickup, must keep up with growth to preserve quality of life. The very real nuisances of automobile dependence should be mitigated and trips diverted to other modes where

State preemption is not about reducing democratic accountability, but about enabling a democracy to act decisively at the level of government that takes account of all the costs and benefits at stake.

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34. The biggest single bill of 2022, AB2011, made it possible to build more multi-unit housing on commercial arterial roads — usually well-served by buses — potentially allowing up to 2 million new homes statewide. The law builds on a full suite of YIMBY reforms passed over the last half-decade to allow ADUs; allow up to four homes on certain single-family lots, effectively ending single-family zoning; eliminate parking requirements near mass transit; and set and enforce regional housing production targets at the state level, implemented under local control. The battle in California is not over yet, but it’s undeniable that state government is leaning YIMBY while many small local governments are still NIMBY.

When reforms preempt local growth controls, there are ethical and political obligations to address any resulting growing pains. Reforms will not survive voter backlash against overcrowded schools and strained local services.

There are local fiscal tools available, in addition to fiscal federalism transfers from higher levels of government. Land value taxation, in various forms, would directly capture and share the windfalls of growth more broadly in the form of improved public services. The land value gain that developers secure when they achieve an upzoning on purchased land infuriates leftists and populists who detest the idea of “developers profiting off of neighborhoods.” That rage dominates popular narratives around urban development — but land value taxation would capture transitional gains to fund public services, resolving distributive fights over “profits for whom” while also solving the question of how to pay to scale public services. Still, the political economy of taxing land remains as challenging today as it was a century ago.

Beside scaling public services, proper management of the negative spillovers of automobile dependency is particularly important to restore the “missing middle.” If not, there will be a citizen revolt against congestion and parking scarcity during the period when infill begins but neighborhoods are still not dense enough to fully support high-quality transit. Congestion pricing, with prices varying to achieve a minimum speed target, can ensure functional traffic flow while making room for quality bus service and other alternatives. Proper pricing of street parking will ensure that spots are always available. That, in turn, will incentivize developers to provide the amount of parking that tenants demand.

The needs of the homeless also merit special attention in the broad participation in the benefits of growth. Many homeless people have complex needs, but without housing, it is hard to provide for those needs. Micro-units, boardinghouses and single-room occupancy hotels should be broadly legal. The aim would not be exactly to replicate boarding houses of earlier centuries, although people should recognize that they did serve a real need as the “bottom rung” of the housing market.

3. Construction costs should be a focus of action on all fronts in all jurisdictions.

Construction costs can’t matter for home prices in any given jurisdiction unless that jurisdiction’s growth control regime freely allows construction in the first place. Construction costs are currently most important where non-land costs are the dominant factor determining the price of housing. That is most often the case in rural areas, declining cities, and Sunbelt boomtowns that have not yet hit their growth control limits. It can also be the case for subsidized housing on publicly owned land in high-cost cities. Wherever growth control reform legalizes construction, however, construction costs will become the binding constraint on housing affordability. That makes construction productivity and costs the “next frontier” of YIMBY housing policy after zoning reform.

36. Pricing all automobile externalities at social marginal cost is still consistent with mass access to automobiles. Even in Tokyo, half of households own cars. In NYC proper, a similar half of households own cars. Outside of the densest megacities, supermajorities of households would very likely continue to own cars even under perfect congestion pricing, carbon pricing, and on-street parking pricing.

Building code regulations that increase costs, reduce quality, and don’t demonstrably produce net benefits should be liberalized. At the same time, regulatory reform should facilitate increased use of manufactured housing, both single-family and multi-family. In the past, mobile homes and kit homes served these needs. Modern versions of those should be legal everywhere. As mentioned earlier, training and apprenticeship programs that increase the supply of skilled workers can also help control costs.

**Conclusion**

The ghost of Henry George is back. Urban land prices are high and home prices are outpacing construction costs. High housing costs are driving people away from our highest-opportunity cities. Collateral damage to family structure, labor markets, GDP and well-being is widespread. But unlike in 1879, this time we created the housing crisis on purpose. The growth controls that are driving the problem are not technological or natural. They are regulatory.

Today, we have far better technologies to address the crisis than we did in the 19th century. We have already invented skyscrapers and mass transit systems that manage the inherent scarcity of raw land in urban cores. We have better technologies for building housing, both on site and in factories. Yet, we have chosen scarcity through growth controls. We have downzoned our cities ever more tightly to achieve municipal income segregation and to blunt the traffic and parking spillovers that arise from the overuse of automobiles at even moderate densities. We have rejected common-sense alternatives such as pricing congestion and parking. These effects are compounded by the mysterious loss of America's capability to cost-effectively build high quality transit and regional rail to support rational growth.

The old Georgist remedy of land value taxation retains great merit as a tool of local public finance to encourage the full use of real estate, capture transitional one-time rezoning windfall profits, and fund the scaling of public services. But even without going that far, we can beat the housing crisis. We must learn from the consequences of the postwar highway and single-family home-building binge, address the legitimate concerns that drive the growth backlash, and dispel the meritless claims of those who fear reform. And then we must build our way out of the problem once more.