Introduction

The latest decennial census revealed that most big cities become populous by spreading over a large land area. Only 12 of the 50 largest U.S. cities in 2020 had population densities as high as 7,500 per square mile—the U.S. big-city average in 1950, the last census before suburbanization, urban renewal, and the construction of the interstate highway system permanently redistributed the U.S. population away from dense, transit-rich urban areas.

This paper looks at those 12 cities, most of which have had significant population increases in the past two decades. Dense cities are important to the nation as focal points of economic and cultural innovation, as well as areas where residents voluntarily adopt housing prototypes and lifestyle patterns that have lower-than-average carbon emissions. As these cities grew, they raised U.S. labor productivity, slowed the U.S. contribution to climate change, and provided Americans with increased choices for how and where to live.

Overall, relatively dense U.S. cities have followed two distinct paths to growth. One is “grand bargain” planning: municipalities faced with the need for more housing but widespread opposition from neighborhood activists direct new housing (and thus population growth) to a small number of neighborhoods, in and near downtown, that do not have sizable preexisting populations that can object. The areas that can be redeveloped in these neighborhoods may include open parking lots, now-underutilized but once-industrial sites, public property no longer needed for its original purpose, or areas cleared of residents under long-ago urban renewal plans.

While pragmatic, “grand bargain” planning to achieve population growth suffers from several flaws. It fosters dependency on the costliest high-rise housing prototypes, requiring that most new units be targeted to high-income households. Most other households compete for the inadequate stock of older units, as well as the relatively few subsidized income-restricted new units.
that the city manages to construct. Furthermore, grand bargains lead to similarity of development, as new housing is built at much the same time, for much the same population, in a few locations. Such neighborhoods may adapt poorly to changing populations and lifestyles over time.

An alternative, more difficult path to growth tries to disperse new housing over a broad area of the city. Such “distributed growth” plans cause changes where sizable populations already live, potentially creating controversy over land-use decisions. Some strategies to disperse growth include Seattle’s “urban villages,” still leading to concentrated growth but affecting more parts of the city; Boston’s construction of new housing affordable to middle-income households, without subsidies, near dispersed transit stations; and Minneapolis’s designation of commercial corridors for growth, as well as permitting up to three units on all single-family lots. Dispersed growth is perhaps more easily accomplished through a comprehensive planning process to secure public buy-in, with upgraded transit and attention to the quality of other neighborhood infrastructure and amenities. The rewards for cities that succeed in this endeavor include more gradual and varied neighborhood change, new housing affordable at a wider range of incomes without subsidies, and greater perceived equity in the distribution of the burdens of population growth.

America’s Densest Cities in 2020

**Figure 1** lists the 12 American cities among the top 50 in 2020 population¹ that had a population density of 7,500 persons or more per square mile² in 2020. Nearly all of them gained population and housing units over the 2000–10 and 2010–20 decades. Chicago, which lost population from 2000 to 2010 and remained below its 2000 population despite growth in the 2010–20 decade, is the exception. However, Chicago gained housing units in both decades.

Even within this unusual group of American cities, Seattle, Washington, D.C., and Miami stand out. The populations of these three cities grew over two decades by more than 20% (in Seattle’s case, more than 30%), and the number of housing units increased by 36.1%, 27.5%, and 43%, respectively. Four other cities gained more than 10% in population over the two decades—San Francisco, Boston, Oakland, and Minneapolis. New York City’s population grew 9.9%, but its numerical gain, about 796,000, was larger than the entire population of all but the 17 largest American cities.

**Contacts**

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How Large Cities Can Grow Denser and Flourish: What the 2020 Census Reveals About Urban Sprawl

Figure 1

America’s Densest Cities (in the Top 50 by Population) in 2020

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<tr>
<td>New York</td>
<td>8,804,190</td>
<td>8,175,133</td>
<td>8,008,278</td>
<td>795,912</td>
<td>9.9%</td>
<td>3,618,635</td>
<td>3,371,062</td>
<td>3,200,913</td>
<td>417,722</td>
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<td>3,694,820</td>
<td>203,927</td>
<td>5.5%</td>
<td>1,496,453</td>
<td>1,413,995</td>
<td>1,337,654</td>
<td>158,799</td>
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<td>2,746,388</td>
<td>2,695,598</td>
<td>2,896,016</td>
<td>(149,628)</td>
<td>-5.2%</td>
<td>1,262,612</td>
<td>1,194,337</td>
<td>1,152,868</td>
<td>109,744</td>
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<td>1,526,006</td>
<td>1,517,550</td>
<td>86,247</td>
<td>5.7%</td>
<td>726,797</td>
<td>670,171</td>
<td>661,958</td>
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<td>873,965</td>
<td>805,235</td>
<td>776,733</td>
<td>97,232</td>
<td>12.5%</td>
<td>406,628</td>
<td>376,942</td>
<td>346,524</td>
<td>60,101</td>
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<td>737,015</td>
<td>608,660</td>
<td>563,374</td>
<td>173,641</td>
<td>30.8%</td>
<td>368,308</td>
<td>308,516</td>
<td>270,524</td>
<td>97,784</td>
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<td>689,545</td>
<td>601,723</td>
<td>572,059</td>
<td>117,486</td>
<td>20.5%</td>
<td>350,364</td>
<td>296,719</td>
<td>274,845</td>
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<td>461,522</td>
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<td>179,530</td>
<td>176,032</td>
<td>171,632</td>
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<td>4.6%</td>
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<td>Miami</td>
<td>442,241</td>
<td>399,457</td>
<td>362,470</td>
<td>36,980</td>
<td>10.3%</td>
<td>121,164</td>
<td>119,318</td>
<td>116,326</td>
<td>18,040</td>
<td>15.0%</td>
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<td>Oakland</td>
<td>440,646</td>
<td>390,724</td>
<td>399,484</td>
<td>41,162</td>
<td>10.3%</td>
<td>176,469</td>
<td>169,710</td>
<td>157,508</td>
<td>20,212</td>
<td>13.0%</td>
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<td>Minneapolis</td>
<td>429,954</td>
<td>382,578</td>
<td>382,618</td>
<td>43,362</td>
<td>11.4%</td>
<td>178,287</td>
<td>168,606</td>
<td>158,894</td>
<td>30,712</td>
<td>18.1%</td>
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Why Population Density Is Important

High-density cities represent an urban planning ideal that many less dense cities are trying to emulate. Dense cities are at the center of many of the nation’s high-productivity metropolitan areas (particularly those not associated with the capital-intensive energy industry). Urban density is associated with facilitating the exchange of information and innovation, particularly in industries requiring a high degree of skill and education.

This chain of virtuous linkages—where urban density is associated with higher economic productivity, highly educated workers, and the nation’s most exciting and innovative industries—goes a long way toward explaining why many cities want the kinds of dense, mixed-use urban neighborhoods associated with social immersion, spontaneous interaction, and economic and cultural innovation. Such neighborhoods are thought to attract the highly educated professionals who power high-productivity economies.

A second argument for the importance of America’s dense cities is that they point the way to a future of environmental sustainability. Residents of dense cities drive shorter distances, use public transit more, and tend to have smaller housing units that are located in more energy-efficient attached or multifamily buildings. The possibility of achieving significant reductions in carbon-dioxide emissions by constructing housing in dense urban locations, where at least a portion of the population wants to live, is attractive to city planners. Unlike other emissions-reduction strategies that call for new subsidies, taxes, or regulations, urban densification can occur at low cost, particularly where cities have legacy transit and wastewater infrastructure with
excess capacity, or new urban in-migrants come from the higher-income professional groups. Such households can afford newly constructed private-market housing and pay taxes to support their infrastructure and service needs, and still leave cities better off financially.9

Grand Bargain vs. Distributed Growth Planning

Each of America’s densest cities has unique qualities, but every city faces a similar dilemma in confronting growth pressures. All cities try to attract businesses and add jobs, and if they do that successfully, the labor force will also grow. New workers bring spouses and children, as well as more workers to provide them all with services. Thus does a population grow, and that growth runs up against a housing supply that is inelastic in the short term. High market rents and housing prices, well above the replacement cost of existing housing, indicate that the demand for housing outstrips supply in many neighborhoods. But the current residents of these neighborhoods will often fight any attempt to add to the housing supply by lifting zoning and other restrictions and allowing private developers to build.

City governments seem to respond to these conditions in one of two ways.10 One is what the Canadian city planner Gordon Price calls the “Grand Bargain.”11 In this bargain, new housing is concentrated at high densities in areas near downtown, on former industrial sites, and any other available land where there are few preexisting residents. Low-density residential neighborhoods are spared growth, preserving high home values and their desirable “neighborhood character.”

I have previously written about how New York City in the Michael Bloomberg mayoral administration pursued a version of “grand bargain” planning, negotiating with the city council for a small number of highly successful rezonings, mostly in nonresidential areas near the city’s core, while making the zoning more restrictive over broad swaths of the city’s residential neighborhoods.12 The bargain powered housing growth in the 2010–20 decade, as the city’s population increased by 629,000.13 The city’s population growth was concentrated in a handful of its 59 community districts, while many other districts with strong housing markets were protected from growth by restrictive zoning and widely mapped historic districts.

Washington, D.C., with its rapidly growing Sixth Ward forming a crescent north, east, and southwest of the Capitol, and its static, affluent, expensive Northwest, is another good example of grand bargain planning. San Francisco is another, with its growth concentrated in a handful of neighborhoods along the shoreline downtown and south of the Bay Bridge. Established residential neighborhoods in other parts of the city, in contrast, saw little growth. Miami, with high-rise development in a strip between I-95 and the shoreline, is yet another example.

This kind of planning has much to recommend: the city gets growth and benefits economically. Planners and mayors are pragmatic, and they focus on what is possible. However, there are downsides to grand bargains. One is that new housing is focused on the most expensive type of housing to build—large, often high-rise, apartment buildings. The housing types that are easier to finance, less costly to build, and potentially offer lower market rents and sales prices—such as small walkups, garden apartments, and infill apartment buildings—have limited opportunities to locate within the city. These housing types, sometimes labeled as “missing middle” housing,14 were widely found in American cities before 1950, but as zoning became more specific and restrictive, they could no longer be built in many neighborhoods. Allowing such lower-cost
housing once again expands the income range of households that can rent or buy new housing without public subsidies. Minneapolis’s legalization of up to three units per lot is an example of a city trying to revive this missing middle housing category.

Another critique is that “grand bargains” encourage neighborhoods built up at the same time and based on the pursuit of a similar market segment—in the last decade, often young, affluent urban professionals. Such uniform neighborhoods may not adapt well to social and demographic changes over time. Washington urbanist Payton Chung cites Jane Jacobs’s celebration, in *The Death and Life of Great American Cities*, of the incremental change that takes place in urban neighborhoods, permitting diversity and adaptation to new conditions.\(^{15}\) Jacobs was critiquing the uniformity of urban renewal. But privately initiated large-scale real-estate developments, influenced by zoning constraints and design guidelines imposed by the local planning commission and city council, can have the same flaws.

A third problem with grand bargain planning is that growth makes continued adherence to the grand bargain impossible. As the politically easier sites are used, the neighborhoods once exempted from growth must share in the burden of housing a growing population. Cities do not have an unlimited supply of no-longer-needed industrial sites or disused public facilities to redevelop with housing. Yet they will continue to grow. Even if a city succeeds in building all the housing that the comprehensive plan projects will be needed in the foreseeable future, another future looms, in which yet more housing needs to be built, and some other category of sites needs to be identified.

Moreover, political pressures will mount to enact bad housing policies that ostensibly address affordability issues. Most of the cities discussed in this paper have high levels of “rent burden,” the term that applies to households that pay more than 30% of their income for housing (FIGURE 2). The Minneapolis rent-control referendum, authorizing the city to enact such a law, is one such example of a potentially damaging policy. Voters in the neighboring city of St. Paul concurrently approved the nation’s strictest rent-control ordinance.\(^ {16}\) While the details of any rent-control law matter, rent controls are fundamentally intended to keep existing tenants in place, exacerbating shortages and placing an even greater burden on new construction to accommodate demand.
Figure 2

Rent-Burdened Households in the U.S. and Selected U.S. Cities, 2019

| Gross Rent Exceeding 30% of Household Income, U.S. and Selected U.S. Cities, 2019 |
|---------------------------------|--------------------------------|
| % of Rent-Burdened Occupied Units |
| U.S. 48.5                        |
| New York 50.1                    |
| Los Angeles 57.2                 |
| Chicago 46.5                     |
| Philadelphia 54.7                |
| San Francisco 32.5               |
| Seattle 42.8                     |
| Washington 42.7                  |
| Boston 48.8                      |
| Long Beach 57.4                  |
| Miami 62.6                       |
| Oakland 49.5                     |
| Minneapolis 44.3                 |

Source: U.S. Census Bureau, American Community Survey, 2019

California cities are also pressured by the Regional Housing Needs Allocation (RHNA) / Housing Element process mandated by state law, which requires cities to plan for a specified housing construction goal. All these factors create an impetus for cities to move away from grand bargains.

The alternative to “grand bargain” planning is distributed growth, which is much more difficult to achieve politically. By spreading growth to multiple neighborhoods throughout the city with a range of urban densities, this approach can be fairer in distributing the burdens of growth and better able to respond to changing conditions as the redevelopment of any one neighborhood is spread over a longer period. Seattle, for example, has pursued an “urban village” strategy in its comprehensive plan that has resulted in significant multifamily housing growth in far-flung neighborhoods. The city’s latest tracking report indicates that from the beginning of 2016 to June 30, 2021, housing units increased by 28.9% in Urban Centers—the densest areas, including neighborhoods near downtown. Housing units also increased by 21.7% in Hub Urban Villages and 20.1% in Residential Urban Villages. However, the city is already closing in on its 2035 housing goals for these areas and will need to expand their boundaries or select new growth locations.

Boston’s comprehensive housing plan takes a different, but relatively effective, approach to distributing growth. By setting a goal for market-generated middle-income housing, the plan induces the government to issue construction permits in areas farther from downtown, where land costs are lower and lower-cost housing prototypes are appropriate. Boston’s latest progress report, for 2020, indicates that from 2011 through 2020, the city issued permits for 7,584
market-rate middle-income units, compared with 35,955 units permitted overall.\textsuperscript{21} The Minneapolis 2040 plan’s focus on transit corridors and higher densities, even in single-family areas, is another way of achieving distributed growth.\textsuperscript{22}

Getting from grand bargains to distributed growth requires determined and enlightened leadership and a credible public consultation so that the final result is seen to be fair. In many cities, this takes the form of a citywide comprehensive plan that considers the typical concerns that are raised by citizens and elected officials in the context of proposed housing growth. One such concern is that transit services be commensurate with the added population burdens. Older cities such as Boston have legacy rail transit systems that can serve a growing population, particularly with upgraded signaling and modern rolling stock. Boston’s comprehensive transportation plan, Go Boston 2030, includes a list of proposed improvements, particularly to speed up bus service.\textsuperscript{23} Cities without a legacy rail transit system, like Seattle, have built, and are expanding, light rail.\textsuperscript{24} The Minneapolis 2040 plan also calls for bus upgrades, including priority bus lanes and signal timing priority.\textsuperscript{25}

Another public concern that city officials typically hear is a commitment to achieve a share of new housing as affordable. City housing plans often establish affordable housing goals. In New York City, the only housing goal that local government tracks is for affordable housing—which results in distorted priorities as enormous public resources are funneled to meet income-level targets without any consideration of overall population growth. Boston, by contrast, tracks affordable housing as a subcategory of all housing permits. Seattle tracks overall housing construction and separately produces an annual report on affordable housing production.\textsuperscript{27}

Affordable housing is an added expense that needs, in most cases, to be borne to a large extent by the public sector so that private developers can still achieve a threshold rate of return. Since public resources are limited, many cities resort to zoning-based inclusionary housing programs, in which developments are incentivized or required to include affordable units. A poorly designed mandatory program, like that of New York City, acts as a brake on housing production.\textsuperscript{28} New York’s policy applies to any development of more than 10 units seeking a zoning change. Boston’s Inclusionary Development Program (IDP), which applies to any development of more than 10 units seeking a variance—a common occurrence in that city for new multifamily housing—is more flexible than New York’s. It requires a smaller percentage of the development to be affordable, establishes generally higher income limits for those units, and allows offsite construction and cash-out payments in lieu of providing affordable units within new buildings where other units are market-rate.\textsuperscript{29} Boston’s planning agency explicitly states that “the City sets IDP requirements at a level that will assure the creation of income restricted units, without discouraging developers from building the market rate housing that Boston also needs.”\textsuperscript{30}

In recent years, Seattle has implemented a Mandatory Housing Affordability program in areas rezoned to permit more development capacity.\textsuperscript{31} While this program is too recent to have affected the 2020 census results, the city reports that it was widely used in 2020, the first full year of operation. Like Boston’s, but unlike New York’s, Seattle’s program has a relatively low requirement for the percentage of new units that must be affordable in an otherwise market-rate development, although income-level affordability requirements are more stringent. Seattle also has an allowance for a cash contribution in lieu of providing on-site affordable units.

A plethora of additional demands—for parks, schools, and other infrastructure—also need to be addressed by a city’s planning process. A thorough analysis is needed of zoning controls that potentially thwart theoretically permitted higher-density development—parking requirements, floor area controls, height and setback controls, unit-size controls, and so forth. Minneapolis, for example, eliminated minimum parking requirements citywide in May 2021.\textsuperscript{32} San Francisco did so in 2019.\textsuperscript{33} New York City, by contrast, continues to require off-street parking for residences and ground-floor retail in many areas of the city well served by public transit.\textsuperscript{34}
Procedural impediments, including environmental reviews and discretionary reviews by planning boards and city councils, need to be replaced with predictable standards. In Boston, for example, the Zoning Board of Appeals variance process has become a common mechanism for approving new housing. While this may be practical and effective, the lack of clear rules about future development makes this procedure controversial.35

For cities that achieve their housing goals, there are many rewards, both local and societal. Distributed growth is good for choice—new, denser housing in cities is marketable because some people want that lifestyle. It's good for economic and cultural innovation as well. And not least, because people who live in dense cities drive less, walk, and use transit more, and need less energy to heat and cool their more compact homes, it's good for mitigating the effects of climate change. Undertaken on a broad enough basis, without instituting other regulations that undercut its effectiveness, distributed growth offers the only hope of mitigating America's urban affordability problems. As more cities move toward accepting distributed growth, the ranks of America's dense cities may be less thin in 2030.
Appendix A: Central City Density in 1950 and 2020

The 2020 census portrays a country with many cities but generally low urban density. New Yorkers live in a city with a population density of 29,298 persons per square mile, but what they have is almost unique. New York City’s closest peers, among cities with more than 100,000 people, are two northern New Jersey cities, Jersey City and Paterson, neither in the top 50 in terms of population and both with more than 19,000 persons per square mile. Among the top 50 cities, San Francisco comes next, at 18,635. After that, city densities fall off rapidly.

America has long been understood as a land of sprawl. In 1950, 32.8% of Americans lived in central cities and 23.3% in suburbs. By 2000, 50% of Americans lived in suburbs and 30.3% in cities. That was a low point for central cities. By 2010, the percentage living in suburbs had continued to grow, to 51%, but the percentage living in central cities also began to grow, reaching 33%.

As central cities declined in population share relative to the suburbs, the built density of central cities also declined, as the growing central cities employed land-use patterns more akin to suburbs than to the central cities of previous decades. In 1950, central cities had about 49.6 million residents and a population density of 7,517 per square mile. By 2000, the population of central cities had grown to 85.3 million, but the density per square mile had declined to 2,716.

*Figure A-1* compares the 2020 census population and population density for the 50 largest cities with the same cities in 1950. Older cities that were large and dense in 1950 have, in many cases, lost population. Cities that were small but, in some cases, relatively dense in 1950 became large cities by annexing land or merging with the surrounding county. However, most remained—or, once expanded, became—very low-density.
Figure A-1

50 Largest American Cities in 2020, with 1950 Population and Population Density (Persons per Square Mile)

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<td>New York</td>
<td>New York</td>
<td>8,804,190</td>
<td>300.5</td>
<td>29,298</td>
<td>7,891,957</td>
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<td>Los Angeles</td>
<td>California</td>
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<td>469.5</td>
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<td>1,970,358</td>
<td>450.9</td>
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<td>Illinois</td>
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<td>12,061</td>
<td>3,620,962</td>
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<td>139.6</td>
<td>13,249</td>
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<td>Memphis</td>
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<td>2,402</td>
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<td>Baltimore</td>
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<td>80.9</td>
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<td>949,708</td>
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In 2020, 12 of the nation’s top 50 cities by population had a population density above the approximate average in 1950 for all central cities of 7,500 per square mile: New York City, Los Angeles, Chicago, Philadelphia, San Francisco, Seattle, Washington, Boston, Long Beach, Miami, Oakland, and Minneapolis. Sixteen of the top 50 cities in 2020 had a population density of more than 7,500 in 1950, but only seven overlap with the list of high-density cities in 2020—New York, Chicago, Philadelphia, San Francisco, Washington, Boston, and Minneapolis. Six others (Columbus, Indianapolis, Nashville, Louisville, Sacramento, and Atlanta) have expanded greatly from their original boundaries but at much lower population densities. Much of their legacy-built density near downtown is gone now, thanks to highway building, urban renewal, and the insatiable demand for open parking lots. Detroit, Baltimore, and Milwaukee have suffered population losses that brought their population density below the threshold of 7,500 per square mile.

Other cities that were large and dense in 1950 were far less so in 2020. Cleveland, St. Louis, Pittsburgh, and Buffalo, like Detroit (Figure A-1), had lost more than half their populations by 2020 (Figure A-2). As a result, their population density went from well above the national average for central cities in 1950 to well below. These cities are, in some cases, troubled as much by vacant lots as parking lots, but the result is the same—much of the onetime dense city no longer exists.
How Large Cities Can Grow Denser and Flourish: What the 2020 Census Reveals About Urban Sprawl

Figure A-2

Large Cities in 1950 Whose Population Loss Exceeded 50% by 2020

<table>
<thead>
<tr>
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<td>Cleveland</td>
<td>Ohio</td>
<td>372,624</td>
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<td>Buffalo</td>
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<td>6,890</td>
<td>580,132</td>
<td>39.4</td>
<td>14,724</td>
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</tbody>
</table>

Source: U.S. Bureau of the Census, 2020 census, and County and City Data Book, 1952

Most of the large U.S. cities in 2020 have expansive land areas. New York City, whose five boroughs cover more than 300 square miles, is only eighth among the top 10 cities in terms of land area. Only Chicago and Philadelphia, the two other cities in the top 10 that were also large and dense in 1950, have a smaller land area. Houston, the largest by land area, is more than twice the size of New York City. Effectively, American cities become large by sprawling.

Cities that were dense in 1950 had built trolley and subway lines and dispersed their population into undeveloped land along those routes. New housing was relatively dense by postwar suburban standards, to meet workers’ demand for housing within walking distance of public transit. But the housing used low-cost prototypes—such as small-lot detached homes, attached housing, and small apartment buildings—to keep prices and rents affordable for most households. Contemporary cities often find those established neighborhoods and their elected representatives resistant to adding much denser new housing to meet current demand. Despite their diversity, many cities have hit on the same solution to growth—concentrating density in a few designated development areas, downtown and near downtown, where there was not an established residential presence. Only a few have successfully dispersed growth into existing residential neighborhoods.
Appendix B: How America’s Densest Cities Grew in the 2010–20 Decade

An urban planning ideal for achieving dense growth is to build a transit system linking downtown and other important employment nodes, including peripheral business centers, colleges and universities, hospitals, and the airport, to dense residential neighborhoods radiating out to the edges of the city. The 12 cities listed in Figure 1 have rail and bus transit systems that at least approximate the ideal coverage, but the radial growth of dense residential neighborhoods along transit lines has been harder to achieve. Instead, cities develop growth plans based on targets of opportunity—often neighborhoods that have few residents or businesses and therefore relatively less opposition to dense growth. This pattern works as long as such neighborhoods remain available. As the capacity for this type of growth is used up in the more economically robust cities, the choices become harder. The imperative to continue growing brings local planners into conflict with established homeowner communities. For cities still well below their 1950 population, more underutilized land may be available, and such conflicts can be pushed further into the future.

New York City

New York’s growth in the 2010–20 decade was largely a consequence of a series of rezonings initiated by the Rudolph Giuliani and Michael Bloomberg mayoral administrations between 2001 and 2012.39 These rezonings focused on areas that had few residents and low business density but were proximate to the city’s legacy subway system or an extension to Manhattan’s West Side that opened in 2015.

Much of the rezoned land was in manufacturing zones where new residences were not permitted and land values had stagnated during the city’s long industrial decline. However, proposed large-scale rezonings of the residual land in this category require careful examination, as industrial space is now in high demand due to the growth of online retailers.40 New York City’s next round of rezonings will need to be within established residential neighborhoods. Like other cities that have been more receptive to this type of growth, New York has many retail corridors that have probably declined in value post-pandemic and would be strengthened by redevelopment that includes new housing above street-level retail establishments.41

Los Angeles

Los Angeles recorded a relatively small population gain of 2.8%—from 3.8 million in 2010 to 3.9 million in 2020.42 Population gains were largest in the downtown area, where the population increase was about 24,000. Playa Vista, the redevelopment of the former Hughes Aircraft Company property on the city’s Westside, gained more than 7,000 residents; Woodland Hills in the west San Fernando Valley, site of another planned development, Warner Center, gained 8,200. By contrast, predominantly Hispanic and Asian areas on the city’s Eastside recorded population losses, raising fears of an undercount from city officials.
Chicago

Chicago also had a small population gain of about 50,000, or 1.9%, from 2010 to 2020. This masked sharp contrasts by neighborhood, as those in and near the city’s downtown gained population while more outlying neighborhoods, particularly on the South Side, lost population and, in some cases, housing units. The downtown Loop’s population increased by 13,000 and housing units by 7,900. The adjacent Near North Side grew even more, gaining 15,000 housing units and 25,000 residents. Large gains were also recorded in the Near West Side and Near South Side areas, also adjoining the Loop and nearby West Town.

By contrast, many peripheral areas, such as the city’s South Side, lost population. The hardest hit was Englewood, which lost 6,300 people and 1,900 housing units, and West Englewood, which lost 5,900 people and 1,000 housing units. These neighborhoods have been troubled by disinvestment, predatory lending that led to home foreclosures, and widespread home demolitions.

The proliferation of new high-rise rental apartments in Chicago’s “Super Loop” to serve an influx of young professional adults working in an advanced service economy while predominantly black neighborhoods deteriorate creates a sharp, racially charged contrast. The city’s long decline left large tracts of vacant and underutilized land near downtown that have been the focus of private investors. The city government’s response is “INVEST South/West,” an economic development initiative that focuses on commercial corridors in 10 communities. The initiative combines $750 million in public funding over three years with private and philanthropic investments. Chicago’s experience indicates that the growth of a dense, high-productivity urban core, while an economic boon, can happen while the effects of past urban decline persist.

Philadelphia

As in Chicago, Philadelphia’s population gain of about 78,000 was greatest in the core of the city. Also as in Chicago, the poor black and Hispanic majorities in north and west Philadelphia census tracts lost population. In 2019, Philadelphia continued to have the highest poverty rate among the nation’s largest cities.

Philadelphia’s Center City housing boom is a consequence of younger professionals working in the expanding services sector. The greater Center City area population grew by 16% from 2010 to 2020, while the remainder of Philadelphia grew by 3%.

New housing construction was spurred by the availability of a 10-year, 100% property-tax exemption. In response to the stark contrast between the growing and declining areas of the city, the property-tax exemption will be scaled back for projects applying after January 1, 2022, so that the 100% exemption is available only in the first year and declines by 10% in each year thereafter. In addition, for applications after the same date, a 1% tax will be imposed on the value of construction. This “Development Impact Tax” will help fund the city’s Neighborhood Preservation Initiatives, which will subsidize affordable housing and neighborhood business corridor revitalization, as well as support first-time homebuyers.

San Francisco

San Francisco’s population grew by about 69,000, and this growth was concentrated in a few neighborhoods located downtown and along San Francisco Bay. These neighborhoods include Financial District / South Beach (a population increase of about 9,800), South of Market (8,600), Mission Bay (8,300), Potrero Hill (4,700), and Bayview Hunters Point (7,200). In the first four of these areas, population growth was dominated by Asians; and in the last, by white non-Hispanics.
San Francisco’s growth neighborhoods are largely a consequence of redevelopment plans for large, formerly nonresidential areas. These include Hunters Point Shipyard and Candlestick Point, Mission Bay, Transbay, Bayview Hunters Point, and Rincon Point. Other parts of the city, representing established residential neighborhoods, changed little in population.

Seattle

As in other cities, Seattle’s largest neighborhood population gains between 2010 and 2020 were in neighborhoods near downtown: Queen Anne (10,500), Cascade/Eastlake (15,700), Capitol Hill (8,000), and First Hill (5,100). Large gains were also recorded in more dispersed neighborhoods: the University District gained 6,100 and West Seattle Junction / Genesee Hill 5,600. Smaller gains were recorded in many other neighborhoods.

Seattle’s Comprehensive Plan designates Urban Centers, Hub Urban Villages, and Residential Urban Villages where growth is to be concentrated, with a conceptual hierarchy of scale from very dense to more moderate. Focusing growth in these areas, covering 17% of the city’s land area, facilitates the growth of transit use and pedestrian activity. The urban village strategy appears to overcome, more effectively than other cities have been able to do, the chronic inability to increase densities in established residential neighborhoods.

Seattle’s rapid growth has been facilitated by voter-approved regional transit plans in 1996, 2008, and 2016. These have led to the construction of a light rail network and improved bus rapid transit and commuter rail services.

Washington

From 2010 to 2020, the District of Columbia’s largest population gain, almost 32,000, was in Ward 6, which forms an arc to the north, east, and southwest of the Capitol. Like other cities, Washington targeted areas with no or few existing residents for new housing growth. The growing neighborhoods in Ward 6 include Navy Yard, a redeveloped former federal facility southeast of the Capitol; NoMa, a one-time industrial area north of Union Station; and The Wharf, an area along the waterfront in Southwest Washington that had been cleared decades ago of its former residents and businesses by urban renewal.

Washington has the advantages of federal government ownership of surplus land, as well as the potential for federal agencies to serve as anchor tenants in redevelopment projects. Both were important in the early stages of the Navy Yard redevelopment—specifically, the relocation of the Naval Sea Systems Command and the U.S. Department of Transportation to the area; and the designation of a private developer for a federally owned property. The Wharf redevelopment also benefited from federal land ownership. In the case of NoMa, key public investments included a new Metro station on the existing Red Line and public parks.

As in other cities, Washington’s rapid housing growth, tied to the growth of high-paying service jobs employing college graduates, has generated political pushback from those concerned with the displacement of lower-income households in neighborhoods where market rents are rising. To address such concerns, Mayor Muriel Bowser has targeted an additional $150 million—on top of $100 million already allocated, in fiscal year 2021, as well as $250 million in fiscal year 2022—for the District’s Housing Production Trust Fund, which can be used to produce and preserve affordable housing.
How Large Cities Can Grow Denser and Flourish: What the 2020 Census Reveals About Urban Sprawl

Boston

Boston's growth was better distributed among neighborhoods than in some other cities. The largest absolute population gains were in Dorchester (7,900), South Boston (6,100), and Roxbury (5,000). The largest percentage gains, but smaller absolute gains, were in neighborhoods closer to Downtown. Of these neighborhoods, the largest was South Boston Waterfront (3,700). This redevelopment of a former industrial area, largely with market-rate housing, is more characteristic of other high-density cities’ growth schemes. Chinatown, Downtown, and the West End also had large percentage gains, but smaller absolute gains.

One underpinning for Boston’s greater success in dispersing new housing beyond its Downtown areas is its explicit targeting of middle-income market-rate housing. According to the latest update of the city’s housing plan, “the market is expected to continue producing new units that are unassisted by government but are priced at levels that are affordable to middle-income households. This is particularly the case for new development located in non-Downtown locations. The City’s goal for this category of market-rate middle-income housing [by 2030] is now 20,700 units.”

Middle-income households are defined as those earning $50,000–$125,000 annually. The report includes additional actions to spur construction of unsubsidized housing for this group, including encouraging ADUs (second units on single-family lots); allowing higher unit densities on lots that are well served by transit; and speeding up permitting for small projects. The plan also sets an ambitious goal for the production of income-restricted housing but is vague on funding.

Long Beach

Long Beach achieved its density in previous decades, growing little between 2010 and 2020. The city missed its 2013–21 state-imposed housing goal of 7,000 units and now faces a much larger goal of 26,500 for 2021–29. Long Beach officials point to new pro-housing initiatives, including a pilot program to construct 500 micro-units as small as 300 square feet in the downtown area and Midtown Corridor to the north. More dubiously, the city recently adopted an inclusionary housing ordinance, requiring that a portion of new units in new apartment buildings in the same two areas meet affordability standards. Although the city council adopted provisions to lessen the economic impact of the ordinance on new developments meeting the city’s ambitious housing goals, the requirements may work at cross-purposes and contribute to missing the goal again.

Miami

Miami’s population growth was focused on a tight area in and near downtown and the waterfront, generally east of Interstate 95 and stretching from Interstate 195 in the north to the Brickell neighborhood in the south. The largest gain of any census tract, 4,700, was in census tract 37.10, straddling the MacArthur Causeway and including the city’s performing-arts center.

High-density housing growth was directed into these areas by the Miami 21 zoning code, which went into effect in 2010. Miami 21 is a form-based zoning code, emphasizing controls on the physical form of buildings, with controls on specific uses within buildings a secondary concern. The code promotes mixed uses and a good relationship between buildings and the public realm, leading to walkable neighborhoods and the use of public transit.
Oakland

Oakland’s population gains were concentrated near downtown and a corridor served by the Bay Area Rapid Transit (BART) Blue and Green Lines subway to the southeast. Large areas of the city north of International Boulevard, a major artery running southeast across the city from Lake Merritt, near downtown, experienced little growth. The growth was consistent with the map of Priority Development Areas included in the city’s state-mandated Housing Element for 2015–23. In addition to development around BART stations, Oakland’s growth has taken advantage of formerly industrial land along its waterfront. The Brooklyn Basin plan for the redevelopment of a 64-acre site along the inlet separating Oakland from Alameda is currently approved for 3,100 units, and the city is considering an application to add 600 more.

Minneapolis

The population gains in Minneapolis were focused on a swath of land encompassing the east side of the Mississippi River, which runs diagonally through the city, and the downtown on the west side of the river. The city is well known for its Minneapolis 2040 plan, enacted in 2019, which seeks to spread multifamily housing growth along transit corridors, and up to three units on lots in predominantly single-family areas. The plan was enacted too late in the decade to affect the 2020 census results. However, a precursor of the city’s future with more dispersed population growth can be found in census tract 77, along West Lake Street. With the construction of new apartments in the Uptown neighborhood, the population grew by 3,100, more than doubling between 2010 and 2020.

In November 2021, Minneapolis voters approved a ballot measure authorizing the city council to enact rent control. Mayor Jacob Frey, who won reelection, had opposed rent regulation in the past, pointing to the city’s unprecedented investments in affordable housing during his last term as a better response to public concerns about housing affordability.
Endnotes

1 Appendix A, Figure A-1, lists all 50 cities and their populations and population densities.

2 This is about the U.S. central city average of 7,517 in 1950; see Frank Hobbs and Nicole Stoops, “Demographic Trends in the 20th Century,” U.S. Census Bureau, November 2002, p. 38.

3 Even sprawling Houston is creating a dense, mixed-use neighborhood in the midtown district south of downtown, combining light rail with a tax-increment financing district to fund neighborhood improvements and a management district that provides enhanced public services; see midtownhouston.com.

4 A 2017 study by Joseph Parilla and Mark Muro of the Brookings Institution ranked the nation’s metropolitan areas by labor productivity (gross domestic product per worker), using 2015 data. Ten of the 12 high-population-density cities are at the core of metropolitan areas that rank above the national average of $115,220 (Minneapolis and Miami are the exceptions). See Joseph Parilla and Mark Muro, “Understanding US Productivity Trends from the Bottom Up,” Mar. 15, 2017.

5 Jason R. Abel, Ishita Dey, and Todd M. Gabe ("Productivity and the Density of Human Capital," Federal Reserve Bank of New York, Staff Reports, March 2010, revised September 2011) discuss the causes of the positive relationship between urban density and economic productivity, building on earlier research that found urban "economies of agglomeration":

[O]ne of the key benefits of density is that it lowers the costs of generating new ideas and exchanging information. In particular, the close physical proximity of firms and people in dense urban areas facilitates the flow of knowledge by increasing the amount of interaction and face-to-face contact that people experience. Such contact has been shown to enhance productivity when information is imperfect, rapidly changing, or not easily codified—key features of many of the most valuable economic activities today.

Richard Florida ("Why Denser Cities Are Smarter and More Productive," Bloomberg CityLab, Dec. 10, 2012) notes that this study found that not only is higher urban density associated with higher productivity; it “plays a bigger role in cities where levels of skill and human capital are higher,” and “both the effects of density per se and the density of skilled people are highest in knowledge-based and creative industries. This is particularly true in the information, arts and entertainment, professional services, and finance industries where ‘the exchange of information and sharing of ideas are important parts of the production process.’ ”

6 A distinct counterpoint to this argument is the San Jose–Sunnyvale–Santa Clara metro in California, which combines the highest labor productivity in the nation with a distinctly suburban land-use pattern. Some of the nation’s most valuable land is used well below its potential, as most Silicon Valley communities resist dense urbanization. However, Silicon Valley has long relied on San Francisco to provide urban amenities, particularly to younger workers, and these qualities appear to be reemerging after a pandemic-induced exodus. See Robert C. Ellickson, “Zoning and the Cost of Housing: Evidence from Silicon Valley, Greater New Haven, and Greater Austin,” ssrn.com, Jan. 13,

7 A 2014 study by two researchers at the University of Illinois at Urbana-Champaign, based on data from the 125 largest U.S. urbanized areas, found that “increasing population-weighted density by 10% leads to a reduction in CO2 emissions by 4.8% and 3.5% from household travel and residential building energy use, respectively.” See Sungwon Lee and Bumsoo Lee, “The Influence of Urban Form on GHG Emissions in the U.S. Household Sector,” Energy Policy, May 2014.


9 Taking an international perspective, an OECD working paper (Gabriel Ahlfeldt and Elisabetta Pietrosteefani, “Demystifying Compact Urban Growth: Evidence from 300 Studies from Across the World,” Coalition for Urban Transitions, London and Washington, D.C., 2017) reviewed 321 reviewed analyses of 189 studies. Most of the reviewed studies found positive effects to increasing urban density, with the strongest support for increased productivity and innovation but also some support for the environmental effects. Negative effects were also found, including traffic congestion, worse health outcomes, a decline in subjective well-being, and increased residential rents. The authors note the importance of improving public transit and avoiding restrictions on housing supply “to accentuate the good parts of compact urban form while minimizing the downsides.”

10 Appendix B has capsule descriptions of the growth patterns and housing policies for each of the 12 cities.


14 Congress for the New Urbanism, “Missing-Middle Housing.”


17 YIMBY Action, “RHNA & Housing Elements, Explained.”

18 City of Seattle, “Seattle 2035 Comprehensive Plan.” Guidelines for Urban Centers, Hub Urban Villages, and Residential Urban Villages are found on p. 25; map is on p. 31.

19 City of Seattle, “Urban Center / Village Housing Unit Growth Report Through 2nd Quarter 2021.”


Minneapolis 2040, “Land Use and Built Form.”

City of Boston, “Improving Local and Regional Transit Services.”

Sound Transit, “System Expansion.”

Minneapolis 2040, “Transportation.”

City of New York, Department of Housing Preservation and Development, “The Housing Plan.”


Kober, “Can’t Keep a Great City Down.”


Kober, “Barrier to Recovery.”


*Chicago Cityscape*, Place Snapshot Explorer.


Invest South/West, chicago.gov.


City and County of San Francisco Office of Community Investment and Infrastructure (SFOCII), Hunters Point Shipyard and Candlestick Point.

SFOCII, Mission Bay.

SFOCII, Transbay.

SFOCII, Bayview Hunters Point.

SFOCII, Rincon Point.

Seattle Office of Community Planning and Development, Basic Population and Housing Unit Characteristics, decennial census. A map of Seattle Community Reporting Areas can be found at Seattle Geo Data, Community Reporting Areas with PL 94-171 Redistricting Data for 1990–20.


Sound Transit, “History of Voter-Approved Plans.”


Noma Business Improvement District (BID), Noma Neighborhood History.

District Wharf, History.
Capitol Riverfront BID, Development Timeline.

David P. Grosso and Jerome Schuman Jr., “DC Mayor Announces Plans to Invest Record $400 Million into Affordable Housing,” June 10, 2021.


Ibid., p. 17.

Ibid., pp. 28–30.


City Population, USA: Miami–Fort Lauderdale–Pompano Beach MSA.


City Population, USA: San Francisco–Oakland–Berkeley MSA.


City of Oakland, Brooklyn Basin (formerly “Oak to Ninth Mixed Use Development”).

City Population, USA: Minneapolis–St. Paul–Bloomington MSA.

Minneapolis 2040, Land Use and Built Form.