Population, Prices, and Amenities

To make housing more affordable, we need to understand what makes some places hot, others not.

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The author thanks Heidi Artigue and Svyatoslav Karnasevych, who cowrote the working paper on which this article is partially based, and Samuel Jagolinzer, who helped process the data for this article.

The views expressed in this article are not necessarily those of the Federal Reserve.

Housing affordability has emerged as an important public concern, but housing rents have not increased the same in all locations. Rents have soared in large American cities such as New York and San Francisco, but smaller metropolitan statistical areas (MSAs)[1] have been able to grow with a more modest increase in rents.[2] The supply of new housing has failed to keep pace with demand in many large cities, causing some households to move to locations that provide a high quality of life but at a lower cost.

Typically, housing affordability is a function of supply and demand. When the demand for housing in a location is met with new housing, the local population grows. When it isn't, local rents rise. The more difficult it is to add housing to a high-demand location, the more likely it is that rents—rather than the population—will increase there.

Demand for housing in different places is driven by household demand for location characteristics—most notably, high-paying jobs and amenities. And different households have different preferences. Working-age adults may place more value

on access to high-paying jobs whereas retirees may place more value on local amenities.

In this article, I explore how rapidly evolving demographics and employment arrangements are changing the relative importance of amenities for households choosing where to live. Policymakers should consider the rising importance of amenities as they seek solutions to the affordability crisis in large coastal cities.

How Rents and Population Have Changed in Recent Decades

Historically, housing rents are significantly higher in large cities (Figure 1). In 1980, the 10 most populous MSAs had rents 26 percent higher than the national median. Between 1980 and 2019, rents rose more rapidly in these large metropolitan areas—by 71 percent after adjusting for inflation. In metropolitan areas ranked between the 11th and 200th most populous in 1980, the median inflation-adjusted rent increased by 55 percent, and in the remaining counties rents grew by only 45 percent.[3] House prices are more volatile and subject to macroeconomic conditions, but they followed a similar pattern.

But while rents were rising fastest in the largest cities, population growth was largest in midsize cities. MSAs ranked between the 11th and 200th most populous in 1980 grew by 61 percent. The 10 largest metros in 1980 grew by only 35 percent, and MSAs ranked below the 200th and nonmetro rural counties grew by only 26 percent. As a result, the largest and smallest cities (as well as nonmetro rural counties) saw their respective shares of the total population decline after 1980 (Figure 2). These population trends reflect demand for different types of locations as well as housing supply constraints.

*See **Population and Price Dynamics in the Philadelphia Region.***

Population and price growth also varied by region. From 1980 to 2019, population growth was strongest in the West, which grew by 82 percent. This compares to 66 percent in the South, 16 percent in the Midwest, and 14 percent in the Northeast. During the same period, however, rents rose fastest in the Northeast and slowest in the Midwest. Meanwhile, in coastal regions, inflation-adjusted rents increased 68 percent and population increased 49 percent, but these increases varied based on the initial population. The largest coastal cities saw more growth in prices, whereas less-populated coastal counties saw more growth in population.

Drivers of Demand for Local Housing

One driver of demand for local housing is access to high-paying jobs. These jobs are provided by firms. Firms decide where to operate based on a location's advantages. A location may offer many advantages, including access to a port, natural resources, and a central location. But large cities offer an advantage that other locations can't offer: agglomeration economies—that is, efficiencies or innovation that arise from the colocation of firms, jobs, and other economic activity.[4] The benefits of agglomeration arise from the sharing of production inputs, a deep local labor pool, and interaction and knowledge diffusion between workers—all of which lead to increased productivity and innovation.

However, recent research suggests that as real incomes rise, amenities increasingly drive household location decisions, too. MSAs with more desirable amenities have grown faster in recent decades, with much of the growth predicted by natural amenities such as the local climate.[5] But not all households are making the same location choices. Inner cities have reversed their 20th century decline and grown in both prices and population thanks to young, educated households seeking urban amenities such as nightlife and restaurants.[6] Meanwhile, retirees, a rapidly growing demographic, are increasingly choosing to move to high-amenity locations away from expensive urban areas. Because their income is not tied to their location of residence, they are less sensitive to the availability of job opportunities found in large, productive cities.

In summary, the two underlying drivers of demand for a location are its production advantages and amenities. In locations that are more productive, firms are willing to pay higher wages, and in places that have more desirable amenities, households are willing to pay higher rents.

How Rents Respond to Increased Demand

A location needs housing to accommodate growing demand. However, not all locations can add housing at the same rate, and these differences determine whether demand is tempered by increased prices or accommodated through increased housing. In high-demand locations where housing can be added easily, population growth will follow. But in high-demand locations where housing is difficult to add, prices will rise instead. The ability to adjust the supply of housing is known as *supply elasticity* and varies greatly across locations for many reasons. These reasons include geographic constraints such as mountainous terrain and bodies of water, and legal constraints such as zoning and historic preservation laws.

One key determinate of housing supply elasticity is the size of a city. Generally, in less densely populated locations, land is plentiful and housing can be added relatively cheaply and easily. As cities grow in population, land becomes scarcer and construction costs and congestion increase. Therefore, large cities generally have a lower elasticity of housing supply, so increasing demand results in rents that are higher than in midsize cities or small towns. The relationship between housing supply elasticity and city size is predicted by theory and has been measured empirically by researchers.[7]

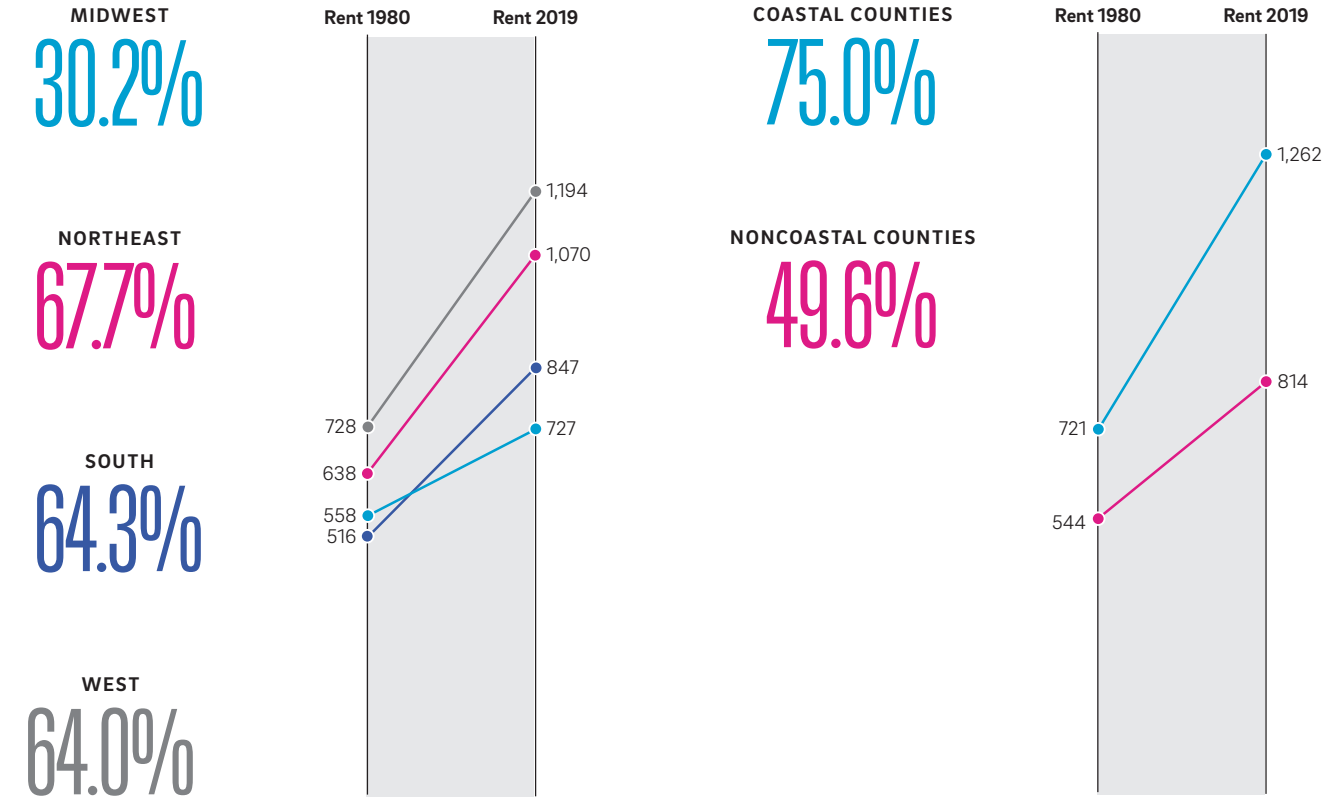
How Amenities Affect Housing Rents

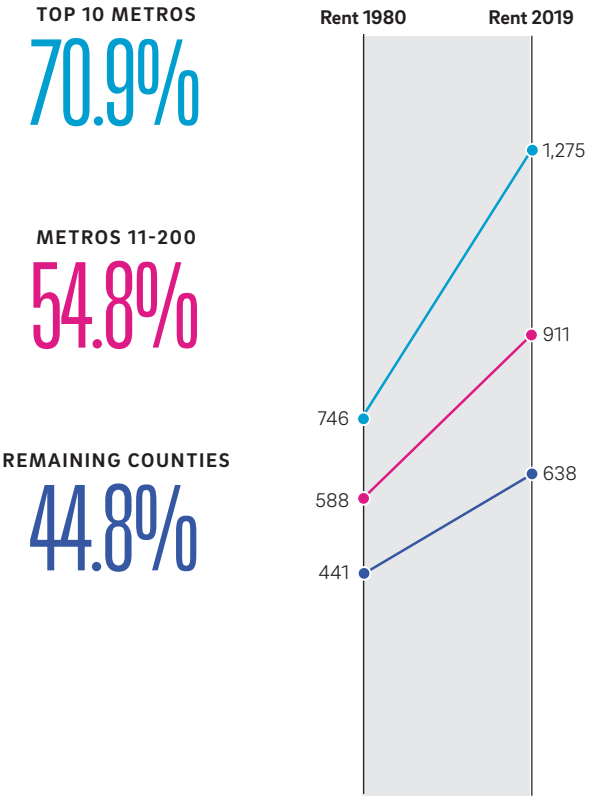
Increasing incomes have led to increased demand for location amenities. As real incomes have grown, both overall and for certain segments of the population, households have been able to spend more of their income on nonessential items. One consequence is that households have become more willing to pay higher prices to live in "nice" locations, thus increasing demand for local amenities.

FIGURE 1

Rents Rose Fastest in the Most Populous Metros, in Coastal Counties, and in the Northeast

Population-weighted median rent of counties in each group, 2019 dollars adjusted using the Consumer Price Index, % change





Data Sources: 1980 U.S. Decennial Census and 2019 U.S. Census American Community Survey

Different locations will absorb this increased demand differently. In large cities, housing supply constraints in turn constrain population growth. Less-populated areas have room to grow. Thus, we expect to see bigger price increases in high-amenity big cities and faster population growth in high-amenity small towns and midsize cities. In a recent working paper, my coauthors and I documented and analyzed these patterns.[8]

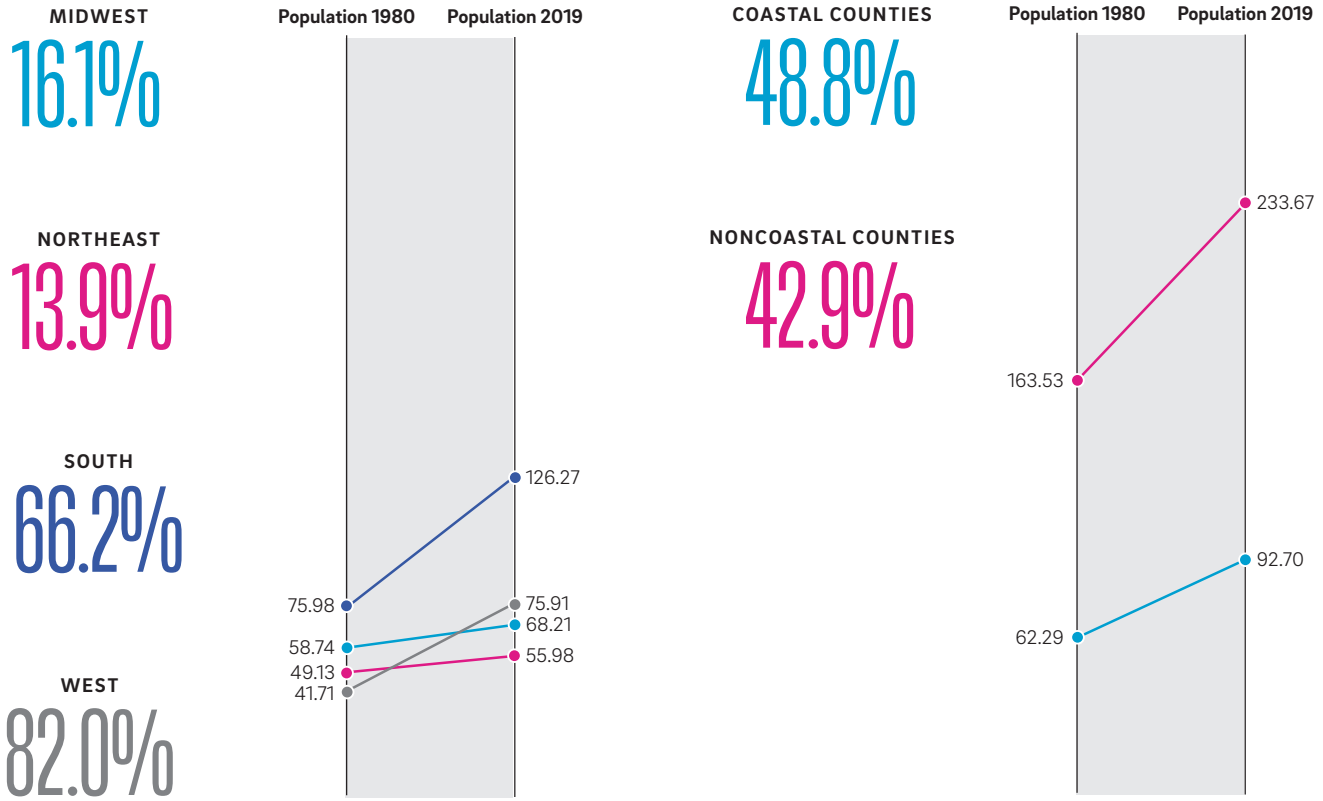
To understand how amenities affect demand, we must first measure amenities in different locations. We can't directly measure *all* of a location's characteristics that are valued by households. Amenities are wide ranging, subjective, and difficult to quantify. Although many people like to live near a beach or in a warm climate, other people care more about restaurants, cultural institutions, open space, and recreational activities. It is impossible to aggregate all these characteristics. Instead, we must produce a proxy for these characteristics.

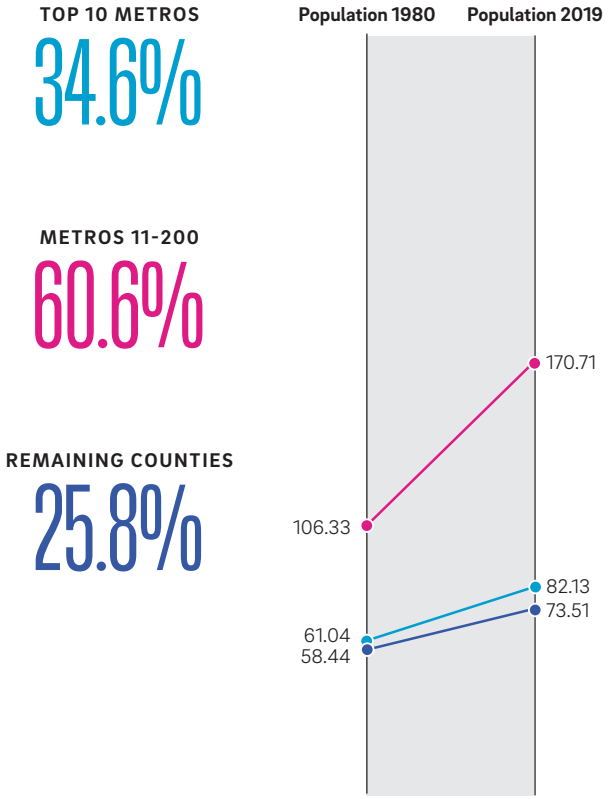
In our working paper, our chosen proxy was a willingness-to-pay measure (that is, a measure of the value people place on living in a location), which we created using local prices and wages. According to this method, households are mobile and choose where to live, so a location must offer them better amenities to compensate for the higher prices they pay for housing or the lower wages they receive for their labor.[9] Although we

FIGURE 2

Population Grew Fastest in Midsize Cities, Some Coastal Counties, and the South

Population in millions, 1980 and 2019





Data Sources: 1980 U.S. Decennial Census and 2019 U.S. Census American Community Survey

cannot create a complete model of location choices using only wages and prices, this method does allow us to estimate a location's level of amenities.

Using this method, we estimated the level of amenities for each U.S. county as of 1980.[10] Our estimates are strongly correlated with location characteristics expected to contribute to the level of amenities, including mountains, coastlines, a comfortable climate, and large universities.

We found that less-populated counties with a high amenity level experienced significantly higher population growth. In small cities and rural areas, a 1 standard deviation higher amenity level was associated with 8 percent higher population growth between 1980 and 2019.

However, in the 10 largest MSAs a 1 standard deviation higher amenity level was associated with 22 percent higher *rent* growth but slower population growth, which suggests that households moving to the largest cities prefer those with the best amenities. And because those cities—like all large cities—struggle to meet increasing demand with new housing, rents rather than population necessarily rise in those cities.

How Demographic Change Affects Housing Rents

Retirees are an important contributor to population growth in high-amenity areas outside of major cities. Although the 65+ population is increasing everywhere, the growth of this demographic is much higher in high-amenity small towns and rural areas. Retirees are less sensitive to the availability of job opportunities found in large, highly productive cities and therefore can take advantage of small towns and rural areas that offer a lower cost of living. This relocation of retirees partially explains why some small towns have grown while others have stagnated.

The number of households that work from home has also increased relatively more in high-amenity areas outside of major cities. Although they represented a small share of households before 2020, this group grew during and after the COVID-19 pandemic.

High-income and college-educated workers exhibited a different trend. Although these highly skilled workers earn a premium in large cities,[11] they are gravitating toward *all* high-amenity locations, not just high-wage urban areas.

These results show that location amenities have become increasingly important in household location decisions, and this increased demand for amenities reveals itself differently based on the local characteristics of each housing market.

Conclusion

As rents continue to rise in supply-constrained cities, some households are seeking lower-cost alternatives that offer a better quality of life. As a result, the population has grown in high-amenity counties outside of urban areas. This growth is driven at least partially by households not dependent on high-paying urban jobs, including retirees and remote workers. Nonetheless, large cities continue to drive overall economic growth and attract particularly young and educated workers in search of high-paying jobs.

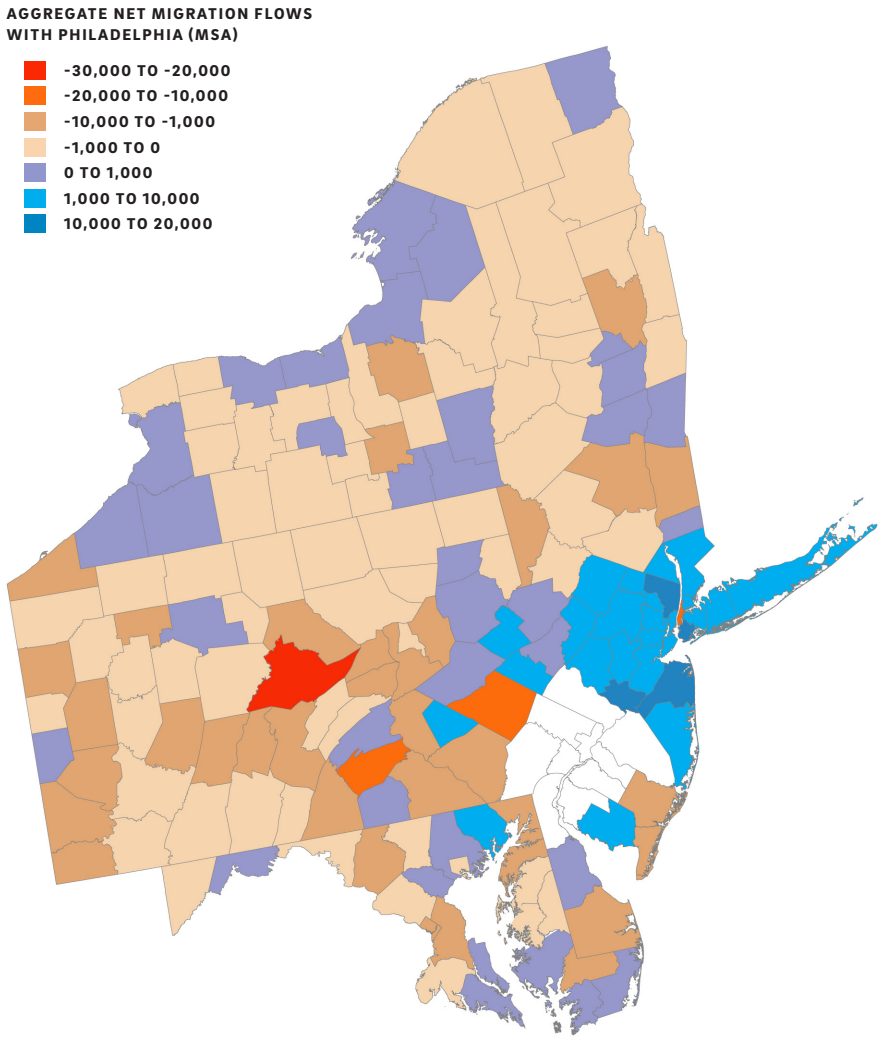
These trends have important implications for future growth and affordability. Policies that increase the supply of housing in large cities should alleviate the affordability crisis. On the other hand, as the population continues to age, a growing number of retirees could seek out high-amenity locations away from expensive cities. Likewise, the growth of remote work could contribute to the growth of these locations. These two trends may alleviate some of the pressure on housing markets in large cities even if those cities don't increase their supply of housing.

FIGURE 3

Many Households Have Moved from Philadelphia to Places Associated with Natural Amenities and Cheaper Housing

But migrants have also moved to Philadelphia from the more expensive counties near Manhattan.

Net migration flows to the Philadelphia MSA, by county, 2010–2019



Data Source: U.S. Census American Community Surveys for 2010 and 2019

Population and Price Dynamics in the Philadelphia Region

The mid-Atlantic region and Philadelphia have much in common with the nation, but they also have unique characteristics. Like other large cities, Philadelphia offers increased productivity for firms and access to high-paying jobs for workers. Also like other cities, Philadelphia has transitioned from a manufacturing-based economy to one more dependent on services. But despite (or perhaps because of) this transition, Philadelphia remains an important economic center for the region and the United States, specializing in health care, education, information services, and professional services. Counties in the surrounding region have experienced more varied outcomes, and many lack the same employment opportunities found in large MSAs.

The differences in demand for housing across the region are partially reflected in housing rents. The median rent for housing in the Philadelphia MSA is considerably higher than in the region's smaller cities and rural areas. However, housing is generally more affordable in the Philadelphia MSA relative to the New York and Washington, D.C., MSAs, which also exhibit higher incomes. Notably, these disparities increased between 1980 and 2019. The median rent increased 48 percent in the Philadelphia MSA after adjusting for inflation, compared to 39 percent in Pennsylvania, 71 percent in the Washington, D.C., MSA, and 74 percent in the New York MSA.

Differing trends in housing rents drive domestic migration patterns. Philadelphia has experienced net outmigration to many rural areas in the region, including central Pennsylvania and counties along the shore in New Jersey and Delaware. Many of these places are associated with natural amenities or cheaper housing. However, there has been a consistent inflow of domestic migration from counties in Northern New Jersey and New York. These patterns are mostly consistent with the story that households are seeking lower-cost locations with a relatively good quality of life (Figure 3).

But there are some notable exceptions. There is considerable net migration from the Philadelphia MSA to Manhattan. Manhattan delivers a high quality of life as well as productive firms with high-paying jobs, both of which attract young, educated workers despite Manhattan's higher rents. Likewise, households are also migrating to the Washington, D.C., metro area, despite *its* higher rents. This is due to that MSA's proliferation of upper-middle-class jobs as well as a broader trend of migration to the Southeast.

Finally, domestic migration does not tell the whole story of population dynamics in the Philadelphia MSA. Population growth is also affected by international immigration and the natural increase of the population due to births and deaths. Large cities traditionally act as hubs for immigration. In addition, cities tend to attract younger households, which have higher fertility and lower mortality rates. Philadelphia is no exception. The City of Philadelphia has experienced consistent population growth since 2000 after a long decline starting in 1950. This growth has been driven by immigration and the natural increase from births and deaths.

NOTES

1 Metropolitan statistical areas are defined by the U.S. Office of Management and Budget. Each MSA is a group of counties consisting of a core county with a high population density and surrounding counties with a high degree of economic integration.

2 In this article I use data on median housing rents in different locations. House prices and other local costs follow a similar pattern.

3 Data on median rent and population come from the U.S. Decennial Censuses for 1980, 1990, and 2000, and from the U.S. Census American Community Surveys for 2010 and 2019. Rents are calculated as the population-weighted average rent for all counties in each category and are adjusted to 2019 dollars using the Consumer Price Index (CPI).

4 See Duranton and Puga (2004), Rosenthal and Strange (2004), and Lin (2011) for examples of research on agglomeration benefits.

5 See Glaeser et al. (2001) and Carlino and Saiz (2019) for research that documents the growth of high-amenity locations.

6 Couture and Handbury (2017) and Baum-Snow and Hartley (2020) document and study the revival of U.S. inner cities.

7 See, for example, Capozza and Helsley (1989) and Green et al. (2005).

8 In Artigue, Brinkman, and Karnasevych (2022), we provide a theory for and evidence of the increased demand for high-amenity locations, and we document population, rent, and demographic changes and their correlation with amenities and city size.

9 This method was developed by Roback (1982).

10 As noted earlier, rents, as opposed to house prices, are generally a better measure of contemporary housing costs because house prices are more volatile and sensitive to macroeconomic conditions or speculation.

11 See Baum-Snow and Pavan (2013) for an example of research on the city-size skill premium.

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