



RESEARCH REPORT

Meeting the Washington Region's Future Housing Needs

A Framework for Regional Deliberations

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Executive Summary

The Washington region faces serious housing challenges that undermine the well-being of many residents. Regulatory constraints on how much new housing can be built, what types of housing are added to the stock, and where that housing is located limit production and increase its cost.

Constrained housing supply, coupled with regional growth, pushes up rents and prices for existing housing. These pressures cause especially steep housing cost increases and displacement in some communities that have historically been home to people with low and moderate incomes and people of color.

Recommended Actions

- The region's leaders join together to establish 10-year targets:
 - » Shrink the current affordability gap
 - » Increase the pace of new housing production
 - » Align additional housing units with expected household needs and resources
 - Local governments contribute to the achievement of regional targets:
 - » Adopt or strengthen evidence-based policy tools tailored to local needs and capacities
 - State governments support the capacity of local governments to achieve targets:
 - » Authorize increased public funding and regulatory authority
 - Business and philanthropy use their influence and to build and sustain regional commitment:
 - » Monitor progress toward targets
 - » Contribute to public-private partnerships with greatest potential
-

The arrival of new businesses, jobs, and residents could intensify today's housing challenges unless the region's leaders come together to address them. Absent a substantial increase in the supply of housing, more households competing for an already constrained stock of units will further increase prices and rents and exacerbate displacement pressures.

Inaction on the challenges of housing affordability could ultimately undermine the region's future economic growth and prosperity. Rigorous research shows that housing challenges such as those facing the Washington region can undermine worker productivity, increase the difficulty businesses face in attracting and retaining employees, and discourage businesses from locating in the region.

Recent trends in jobs and population for the Washington region suggest that housing constraints and affordability challenges may already be contributing to outmigration and slower employment growth.

To ensure the region's housing market serves all its residents well and supports economic prosperity, leaders in the public, private, and nonprofit sectors should establish 10-year targets:

- **Shrink the current affordability gap.** Today, the number of housing units in the low-cost range falls short of household needs by 264,000.
- **Increase the pace of new housing production.** At the economic growth rate currently projected by the Metropolitan Washington Council of Governments, the region needs 374,000 additional housing units by 2030; faster growth would require more.
- **Align additional housing units with expected household needs and resources.** To match the expected distribution of additional households, the region needs at least 40 percent of additional housing units to fall in the middle-cost range.

Meeting these targets requires local governments across the region to strengthen or expand existing policies and adopt new policies to advance three key objectives. First, they need to make targeted investments that **preserve** existing housing units affordable for households with low incomes. They should also enable and incentivize the private sector to **produce** more housing across the affordability spectrum, especially in the middle cost range. And finally, they should **protect** both renters and homebuyers from discrimination and involuntary displacement.

These challenges don't have a single, simple solution. Every jurisdiction should pursue a portfolio of policies and investments tailored to its needs and capacities. Local governments can draw upon tools that deploy their **regulatory authorities**, their **funding resources**, and their **leadership and convening capacities**. Many are already implementing some promising approaches, but some may need additional funding resources or regulatory authority from the states. And they should take full advantage of available federal housing programs and funding. Analysis of the estimated contribution of all available policy tools highlights 12 with high potential for the Washington region. Expanding or strengthening these in the jurisdictions they already exist, and implementing them where they do not, should be a priority for consideration.

The region's philanthropic and business leaders also have critical roles to play. They can prioritize a regionwide perspective and a focus on the future, promote strategic planning and goal setting, help build public understanding and support, and monitor progress over time toward regionwide targets. Their capacities for convening and thought leadership can help build a durable, cross-sector commitment to

addressing the region's current and future housing challenges. And in some cases, they may have resources they can invest in targeted, high-impact public-private partnerships.

High-Potential Local Policy Tools to Implement, Expand, or Strengthen

Preserve

- Loans for repairs and rehabilitation
- Preservation network and inventory
- Public housing rehabilitation
- Financing for acquisition and rehabilitation

Produce

- Land value taxation
- Zoning for higher densities
- Reduced parking requirements
- Equitable transit-oriented development funds

Protect

- Home purchase assistance
 - Land trusts, cooperatives, and shared-equity ownership
 - Emergency rental assistance
 - Local housing vouchers
-

Building on the evidence and analysis presented in this report, leaders from local and state governments, the business community, nonprofit housing organizations, and philanthropy are well positioned to join together, agree on a shared vision and 10-year targets, and commit to evidence-based actions each can take toward a healthy housing market that effectively serves all the region's residents and supports shared prosperity.

Meeting the Washington Region's Future Housing Needs

Communities across the United States face serious housing challenges, and the Washington region is no exception. Home prices and rents are climbing out of reach for a growing share of households. New construction disproportionately serves the affluent. Housing subsidies benefit only a fraction of those in need. Market pressures and gentrification are pushing people with lower incomes out of their communities. In the decades ahead, growth in jobs and population could worsen these challenges, further stretching family budgets, threatening people's stability, and potentially undermining the region's economic prosperity.

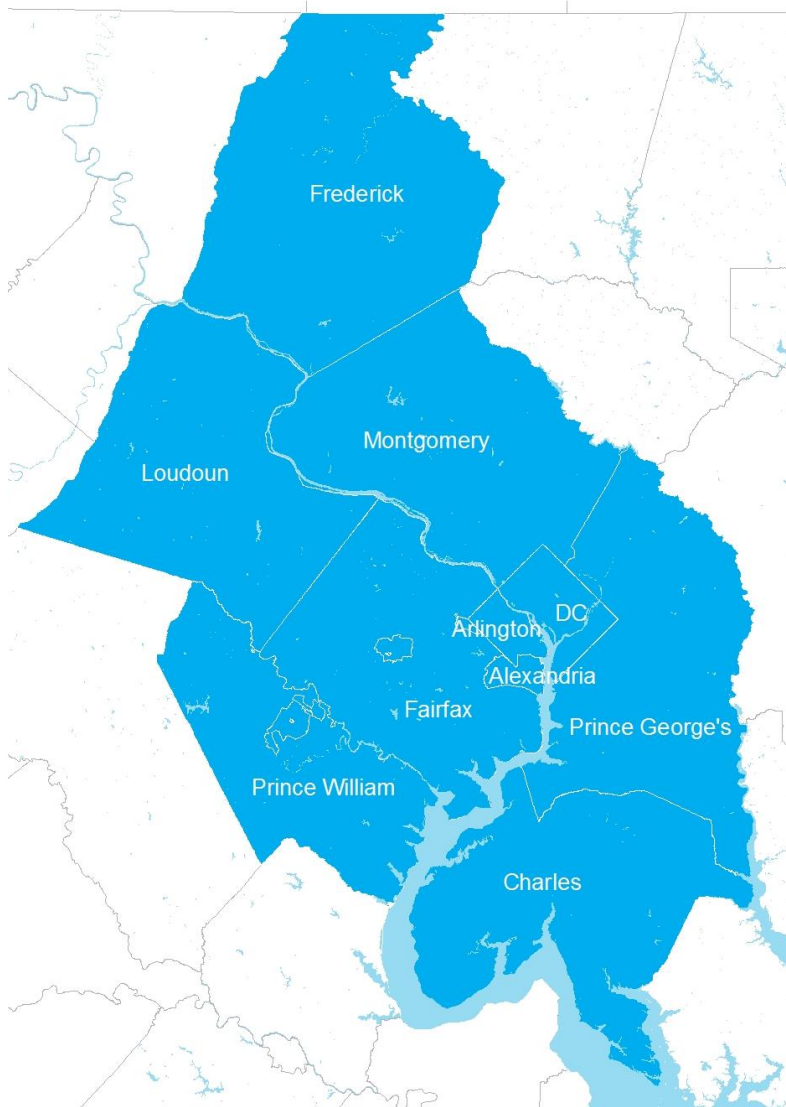
Many leaders in the region's public, private, and nonprofit sectors are now focused on the region's housing affordability challenge. Collectively, they wield substantial knowledge, resources, and capacity to tackle the challenge. And many are committed to working together to develop and implement regional solutions that strengthen the housing market so it better meets the needs of current and future residents.

This report aims to provide a shared framework of data and analysis they can build upon as they work to achieve a shared vision and identify actionable strategies each can pursue, including

- current analysis of **housing needs** in the Washington region;
- **regionwide estimates** of future housing needs; and
- a menu of **possible policy tools** for strengthening the region's housing market.

All data and analysis are reported for the Washington region as defined by the Metropolitan Washington Council of Governments (MWCOC), which includes the District of Columbia; Montgomery, Prince George's, Frederick, and Charles Counties in Maryland; and Arlington, Alexandria, Fairfax, Loudoun, and Prince William Counties and Fairfax, Falls Church, Manassas, and Manassas Park Cities in Virginia (figure 1). Data for individual jurisdictions within the region are provided in appendix tables.

FIGURE 1
The Washington Region



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Source: Urban Institute.

In this report, we do not provide all the data decisionmakers will need going forward, nor do we spell out recommended actions and investments for each jurisdiction. Instead, we provide a basic foundation of evidence—a starting point for jurisdictions, businesses, housing advocates, and philanthropies working together to achieve a shared vision and actionable strategies for a healthy regional housing market that meets the needs of residents of all incomes.

- In the Housing Matters section, we summarize rigorous research evidence that the health of the housing market matters to the growth and prosperity of the regional economy.
- In the Regional Market Trends and Conditions section, we provide key indicators of current housing market conditions and trends.
- In the Looking to the Future section, we examine what the coming years might hold for the Washington region, including estimates of growth in the number of households and the additional housing units required to accommodate them.
- In the Power and Partnership section, we discuss the potential roles and capacities of key regional stakeholders working in partnership to meet the region's housing needs.
- In the Policy Tools and Contributions section, we present housing policy options that the region's cities and counties can consider for addressing local and regional housing needs and provide evidence about the potential contribution of each one.
- In the Summary and Recommendations section, we highlight key findings and recommendations, including 12 local policy tools offering the greatest potential for impact over the next decade.

Housing Matters

Key Takeaways

- Rigorous research demonstrates that a well-functioning housing market strengthens regional economies.
 - Employers need a diversity of talent to fill a variety of positions, and the ability to attract, retain, and develop such a workforce depends on the availability of housing to fit all household types and affordability levels.
-

A well-functioning housing market—one that meets the needs of households of all incomes—is widely understood to provide important benefits for the stability, health, economic progress, and well-being of individuals and families. Households with unaffordable housing costs make tough trade-offs between food, child care, medication, and transportation.¹ Rigorous research demonstrates that housing also matters to a region's economic health and prosperity.

Employers need a diverse workforce to fill low-, middle-, and high-wage positions, and the ability to attract, retain, and develop such a workforce depends on the availability of housing that fits a variety of household types, lifestyles, and incomes. Research analyzing the relationship between employment and housing prices over time finds that employment growth is slower in areas with high home prices relative to median incomes and that employment declines during the years after housing prices rise rapidly (Glaeser 2006; Wardrip, Williams, and Hague 2011). Analysis of California data from 1993 to 2004 indicates that every one-unit increase in the ratio of median home price to median household income leads to 2 percent slower employment growth over two years (Chakrabarti and Zhang 2014). Currently, the ratio of median home price (\$375,000) to median household income (\$100,000) in the Washington region is approximately 4:1.² This is near the region's home price to income ratio in 2003 and around one unit higher than the ratio from the prior two decades.³

Research identifies six reasons why a well-functioning housing market would strengthen the Washington region's economy:

1. Housing costs factor significantly into employers' decisions about where to locate.
2. Employers often pay workers more to remain competitive despite high housing costs, but higher wages do not yield net income gains for lower-paid workers.

3. When housing is available at prices and rents people can afford, employers more easily attract and retain employees across all levels.
4. Suitable housing options and the spatial alignment of housing and employment centers improve job access and reduce sprawl.
5. Affordable, stable housing across income levels supports worker productivity.
6. A well-functioning housing market generates economic activity, through both construction and residual income.

Housing Costs Factor Significantly into Employers' Decisions about Where to Locate

Companies deciding whether to locate in a metropolitan region cite housing availability and costs as two of the most important quality-of-life factors, ranking behind only crime rate and health care facilities but ahead of schools, climate, recreational opportunities, and cultural opportunities (Gambale 2009). This reflects the fact that high housing costs limit who can afford to live in a region and therefore how much employers expect to spend in wages or turnover costs.

Employers Often Pay Workers More to Remain Competitive Despite High Housing Costs, but Higher Wages Do Not Yield Net Income Gains for Lower-Paid Workers

Absent affordable housing, employers must pay more to attract and retain workers. Although all classes of workers may garner higher pay in high-cost regions, the benefits for workers in lower-wage roles are negated once higher housing costs are factored in.⁴ As a result, the rising tide only benefits the higher-wage employees who can already afford to live in high-cost metropolitan areas. This lack of additional income has implications for workers' families as well. For example, when parents spend more time and money on housing and commuting to work, they have less time to spend with their families and less money to spend on enrichment activities for their children.

When Housing Is Available at Prices and Rents People Can Afford, Employers More Easily Attract and Retain Employees across All Levels

High housing costs and housing supply shortfalls limit who can afford to live in a region; discourage younger workers, people with low incomes, or other outsiders from moving into a high-cost region; and displace lower-wage workers who already live in the region (Ganong and Shoag 2017; Glaeser 2006). This makes it more difficult to attract and retain workers in lower-wage roles and can inhibit companies'

abilities to attract and retain talent. In a survey of companies with more than 100 employees, two-thirds of those that reported a shortage of affordable housing near their location said that shortage hurt their recruitment and retention of entry- and midlevel employees (Wardrip, Williams, and Hague 2011). Similarly, nearly 75 percent of employers in Greater Boston reported finding it “extremely or somewhat difficult” to recruit or retain employees, and two-thirds cited the cost of housing as a major barrier (Altali, Hillman, and Tekleab 2017).

Suitable Housing Options and the Spatial Alignment of Housing and Employment Centers Improve Job Access and Reduce Sprawl

If households are not able to afford housing near employment centers, they often move to the outskirts of the region, increasing their commute times. Most people have a tolerable commute threshold of 30 to 45 minutes each way (Angel and Blei 2015). If their commutes become too long, some workers might seek employment opportunities closer to their new homes, exacerbating the spatial mismatch between a region’s employment centers and the residential neighborhoods where many workers live. And because these more affordable neighborhoods are typically not as well-served by public transit, congestion on roads and highways worsens (Sturtevant 2017). In the 2017 VoicesDMV survey, respondents said that the aspect of life in the Washington region that they disliked the most, by far, was traffic (Tatian, Hendey, and Bogle 2017). Recent research on spatial mismatch between employers and hourly workers found misalignment between hourly employers and job seekers in the Washington region. This misalignment can hinder employers’ ability to fill these roles and create long commutes for workers who accept them.⁵

Long commutes add further costs and pressures that impede employee retention. Almost two-thirds of workers earning less than \$50,000 report that they would consider a lateral employment move if it would shorten their commute (Wardrip, Williams, and Hague 2011). The share of higher-earning workers (earning more than \$50,000) is similar (60 percent). And 58 percent of larger companies that acknowledged a lack of affordable housing report that employees cite long commute times as a reason they left the company (Wardrip, Williams, and Hague 2011).

Affordable, Stable Housing across Income Levels Supports Worker Productivity

Whether because of long commutes or the stresses of housing instability, housing markets that lack affordable housing can impede employee productivity. A study of 34,000 workers in the United Kingdom found that those who commute under 30 minutes a day gain seven days of productive time a year compared with those who commute over an hour a day.⁶ People who commute longer also

experience higher rates of depression, financial concern, and stress. The combination of high housing and transportation costs also contribute to housing instability. Because people working in low-wage jobs often do not have flexible scheduling or leave, housing instability can create economic instability when housing emergencies or a difficult commute force them to miss time at work. Further, their performance at work might suffer because of the additional stress of dealing with an eviction and finding a new place to live (Desmond and Gershenson 2016).

When high housing costs lead to the displacement of households with lower incomes, it leads to lost productivity and reduced employee retention. In a recent survey of Washington-area residents, 29 percent of respondents said they knew someone who had to move from their jurisdiction in the past two years for a reason other than their own choice, and the reason given most frequently for why they had to leave was that they could not afford to stay where they were living (Tatian, Hendey, and Bogle 2017). Other data show that low-income workers face an increased likelihood of losing their jobs after being forced to move out of rental housing (Desmond and Gershenson 2016).

A Well-Functioning Housing Market Generates Economic Activity, through Both Construction and Residual Income

Housing construction, renovation, and rehabilitation are important components of the construction industry, which is projected to be one of the fastest growing industries between 2016 and 2026.⁷ Housing construction and rehabilitation create direct spending through increased construction jobs, which have ripple effects through the economy. Construction firms spend money, often locally, to purchase supplies for the construction sites, and construction employees spend their wages in the local economy. Economic impact models show that the number of jobs created or supported through housing development far outpaces the number of rental or for-sale homes added (Wardrip, Williams, and Hague 2011). A recent estimate, using a proprietary input-output model, found that the construction of 100 units of housing can create 120 jobs during the construction phase as well as 30 new jobs in retail, health care, and local government (NAHB 2015). These homes continue to contribute to the economy once operational because households moving into new homes spend 60 percent of their income on locally produced goods and services, generating continued local income and jobs each year (NAHB 2015).

In addition to the jobs created by housing construction, excess spending on housing can crowd out spending that would otherwise go toward the local economy. Between 2004 and 2014, aggregate incomes in the US grew 34 percent; aggregate spending on housing grew 40 percent. Spending on food, entertainment, clothing and services, education, and other categories fell over that time (Schwartz 2016).

Regional Market Trends and Conditions

Key Takeaways

- Despite a recent slowdown in employment and population growth, rents and house prices are rising rapidly.
 - Since 2010, the region has added housing units at only 56 percent of the rate produced in the 2000s, contributing to higher housing costs and worsening transportation challenges.
 - The number of housing units in the lowest cost bands falls far short of needs.
 - A growing share of households in the middle cost bands also pay high housing cost burdens.
-

The Washington region ranks sixth among mid-large metropolitan areas on employment growth since 2000 but has fallen behind similarly sized metropolitan areas over the past decade. Further, net domestic outmigration in recent years has slowed the region's population growth, and the growth in households has slowed even more. Because a household is defined as people living together in the same housing unit, the decline in housing production since the Great Recession, particularly housing that is affordable and provides good access to jobs and transit, may be preventing people from forming new households. Moreover, the region's housing stock provides too few units affordable for households with the lowest incomes and those with middle incomes. Consequently, many people in the region, especially renters, find it hard to afford housing and have to pay unaffordable costs, live further from employment centers and endure longer commutes, live in substandard housing, or leave the region entirely.

Employment Growth Has Fallen Behind Similarly Sized Metropolitan Areas since 2010

The Washington, DC, metropolitan area is the fifth-largest employment market in the US, with 3.1 million jobs in 2017.⁸ Among the 10 metropolitan areas with between 1.9 and 3.5 million jobs in 2017 (mid-large metropolitan areas),⁹ the Washington, DC, metropolitan area was ninth in employment growth since 2010, with an annual rate of 1.3 percent, which was only slightly ahead of the Philadelphia metropolitan area (table 1). Although the Washington region did not experience as large a loss of employment during the Great Recession as many of the other metropolitan areas (it ranked second in job growth over the period), more recent growth has fallen back to a below-average pace.

TABLE 1**Washington, DC, Metropolitan Area Growth in Employment Compared with Other Mid-Large Areas**

1990–2000	
Growth	37,600 jobs a year
Annual growth rate	1.5% (7th out of 10 mid-large metros)
Average mid-large area annual growth rate	2.2%
2000–2010	
Growth	21,500 jobs a year
Annual growth rate	0.8% (2nd out of 10 mid-large metros)
Average mid-large area annual growth rate	0.1%
2010–2017	
Growth	37,200 jobs a year
Annual growth rate	1.3% (9th out of 10 mid-large metros)
Average mid-large area annual growth rate	2.2%

Source: Urban–Greater DC analysis of the Bureau of Labor Statistics annual average employment data for metropolitan areas.

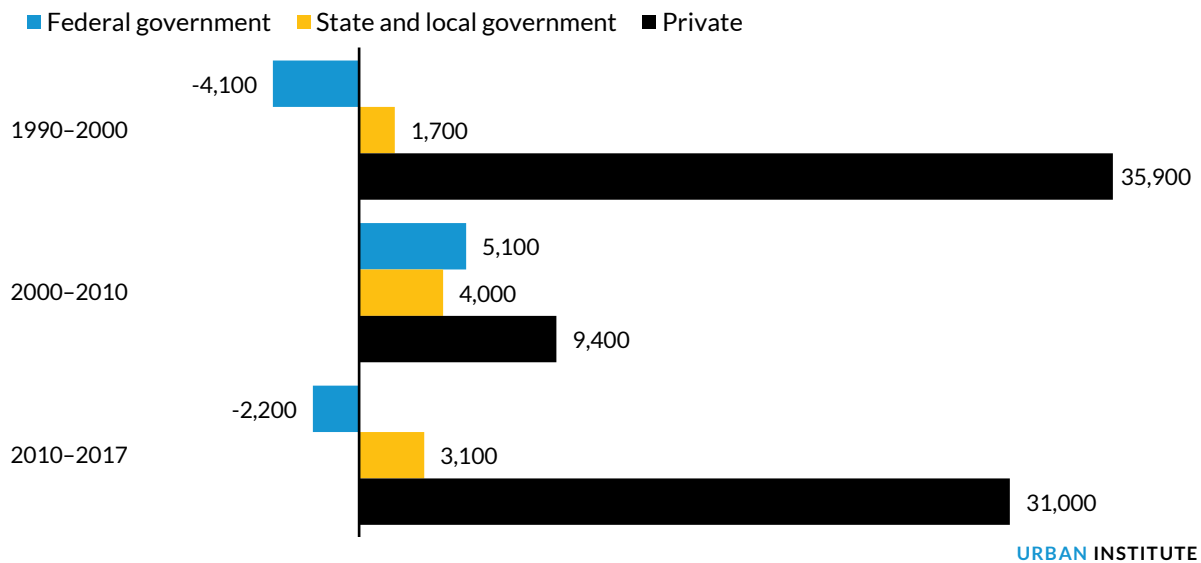
Notes: Mid-large metropolitan areas are (in descending order by size of job market) Dallas, Washington, Houston, Philadelphia, Boston, Atlanta, Miami, San Francisco, Phoenix, and Seattle.

Sector employment trends help explain the Washington region’s more uniform but moderate job growth over the past 25 years. Direct federal employment, which constituted 17 percent of jobs in 1990, declined by 4,100 jobs a year by 2000, while the number of private-sector jobs grew by 35,900 annually (figure 2). A significant part of the trend in the 1990s was the federal government’s shift from relying on direct hiring to procuring services from private contractors (Fuller 2002). The federal government added back another 5,100 jobs a year in the next decade (which included the Great Recession), and another 4,000 state and local government jobs annually helped soften the blow of the national economic downturn. Nonetheless, private-sector job growth in the 2000s slowed considerably. And although private sector employment growth has picked up in recent years, annual growth in private-sector jobs since 2010 is slower than private-sector employment growth in the 1990s. Further, direct federal employment has fallen by 2,200 jobs a year since 2010 and, at present, the decline in federal jobs seems likely to continue.

The professional and business service industry provides the largest share of private-sector jobs in the Washington region and has been a major contributor to job growth. Since 2000, over 133,000 jobs in this industry were added to the region. Additional strong sectors are the education and health services industry, which grew by 131,400 jobs, and the leisure and hospitality industry, which added 93,700 jobs and had the largest employment growth since 2010. The biggest employment decline in the region since 2000 was in the information services industry, which fell by 54,500 jobs.¹⁰

FIGURE 2

Annual Change in Employment by Sector, Washington Region



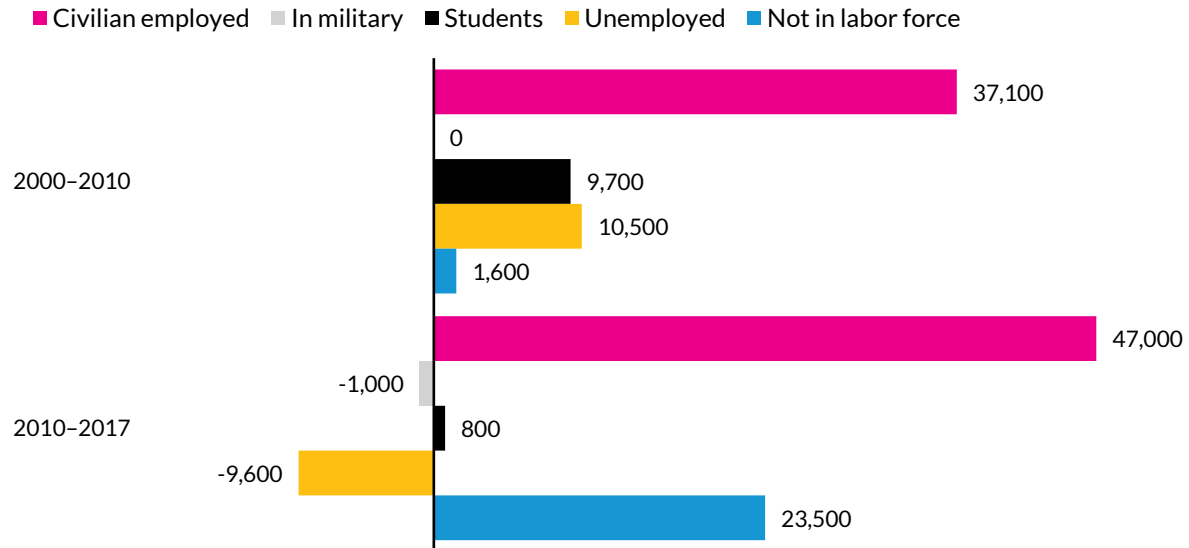
Source: Urban-Greater DC analysis of decennial census and American Community Survey microdata from IPUMS-USA, University of Minnesota.

With the growth in jobs, the number of employed adults has increased as well, and overall employment has dropped (figure 3). Civilian employment has increased by 700,500 jobs since 2000, with a faster annual growth rate of 47,000 jobs since 2010. Although the number of people who were unemployed grew as well, this population has declined by almost 9,600 a year since 2010. The number of students in the region rose by 9,700 a year in the 2000s but has grown only slightly since then. A significant recent trend is an increase in adults not in the labor force, which is consistent with an aging population both nationally and locally.

Employment growth in the Washington region has been most pronounced in low- and high-wage jobs. Between 2000 and 2010, half the total new full-time, year-round jobs in the region were low wage, and another 39 percent were high wage (figure 4). Since 2010, job growth has been more evenly distributed, but still only one-quarter of total new jobs have been middle wage. And the annual rate of high-wage job creation is higher since 2010 than in the previous decade.

FIGURE 3

Annual Change in Adults Ages 18 and Older by Employment Status, Washington Region

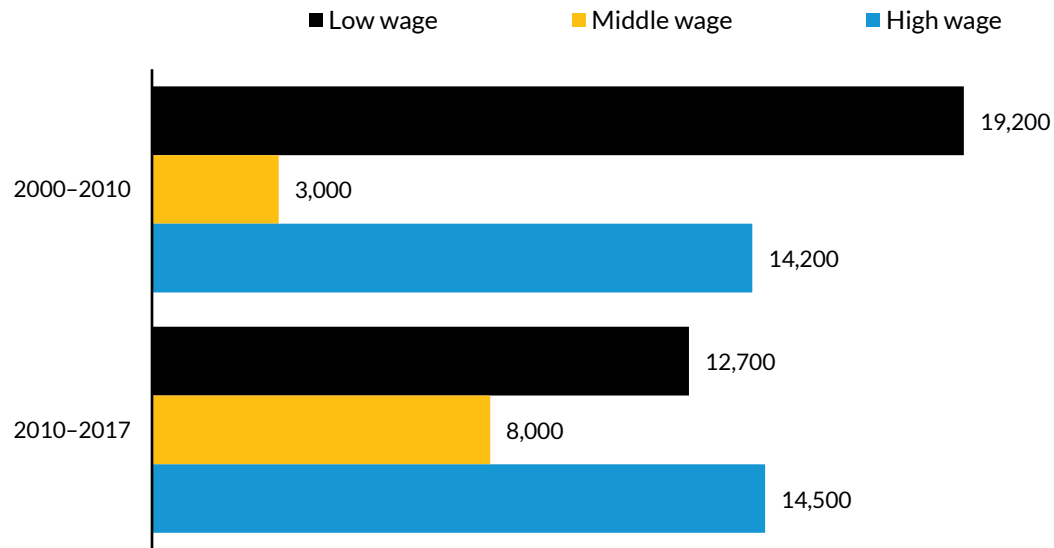


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Source: Urban-Greater DC analysis of decennial census and American Community Survey microdata from IPUMS-USA, University of Minnesota.

FIGURE 4

Annual Change in Full-Time, Year-Round Workers by Wage Level, Washington Region



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Source: Urban-Greater DC analysis of decennial census and American Community Survey microdata from IPUMS-USA, University of Minnesota.

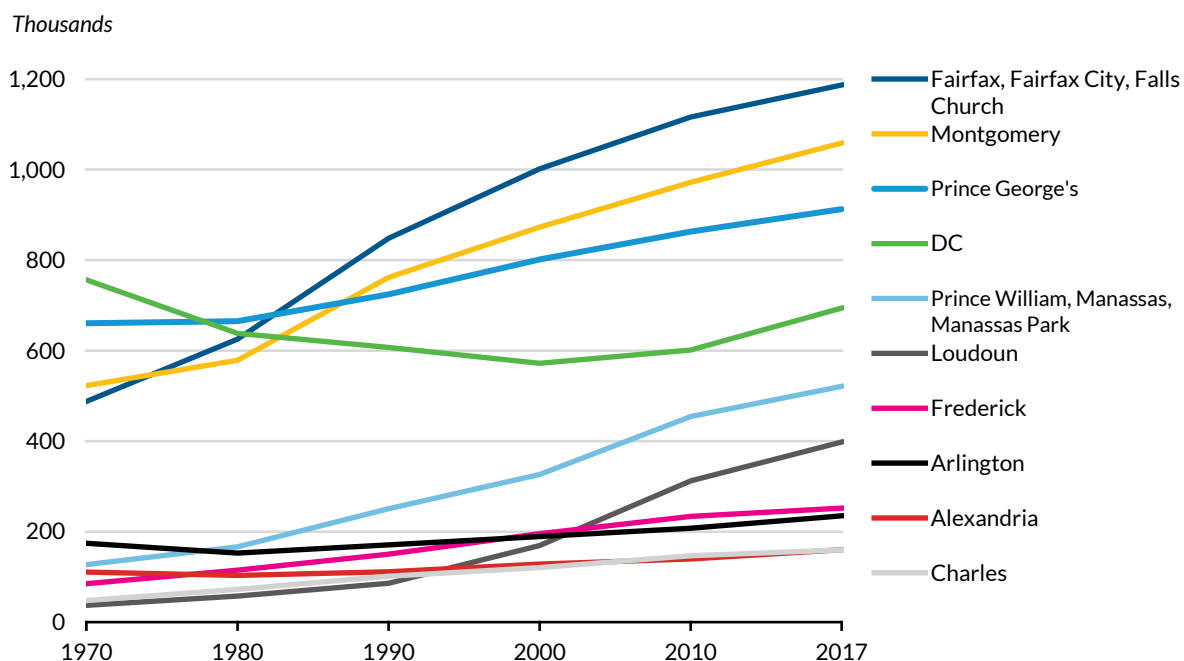
Notes: Low-wage jobs are those that paid one-third below the median salary for full-time, year-round workers in the region, or less than \$43,400 (about \$21 an hour), in 2017. People with low-wage jobs earned at or below the living wage for a family with two working adults and three children, based on the Massachusetts Institute of Technology Living Wage Calculator. High-wage jobs are those with annual salaries one-third higher than the median, or more than \$86,000 (about \$41 an hour), in 2017.

The Region's Population Growth Has Also Slowed, but Growth in Households Has Slowed Even More

The Washington region has experienced strong population growth over the past five decades, growing by almost 2.6 million people since 1970. Most of that growth has been in the suburban jurisdictions of Fairfax, Montgomery County, and Prince George's County, which collectively increased by almost 1.5 million people (figure 5). Several outlying suburbs have also attracted significant new population. Loudoun County has grown over 10 times since 1970, while Prince William County, Manassas, and Manassas Park have seen their populations more than triple.

The District of Columbia stands in contrast to the rest of the region. Similar to other older, eastern cities, DC continued its postwar population decline through the late 1990s but has since been growing, although that growth has slowed in recent years (DC Office of the Chief Financial Officer 2019, 7). The District's population has almost returned to its 1970 level, reaching 694,000 according to the latest US Census Bureau estimates, and the DC Office of Planning forecasts that the District may be home to close to 900,000 people by 2035.

FIGURE 5
Washington Region Population by Jurisdiction

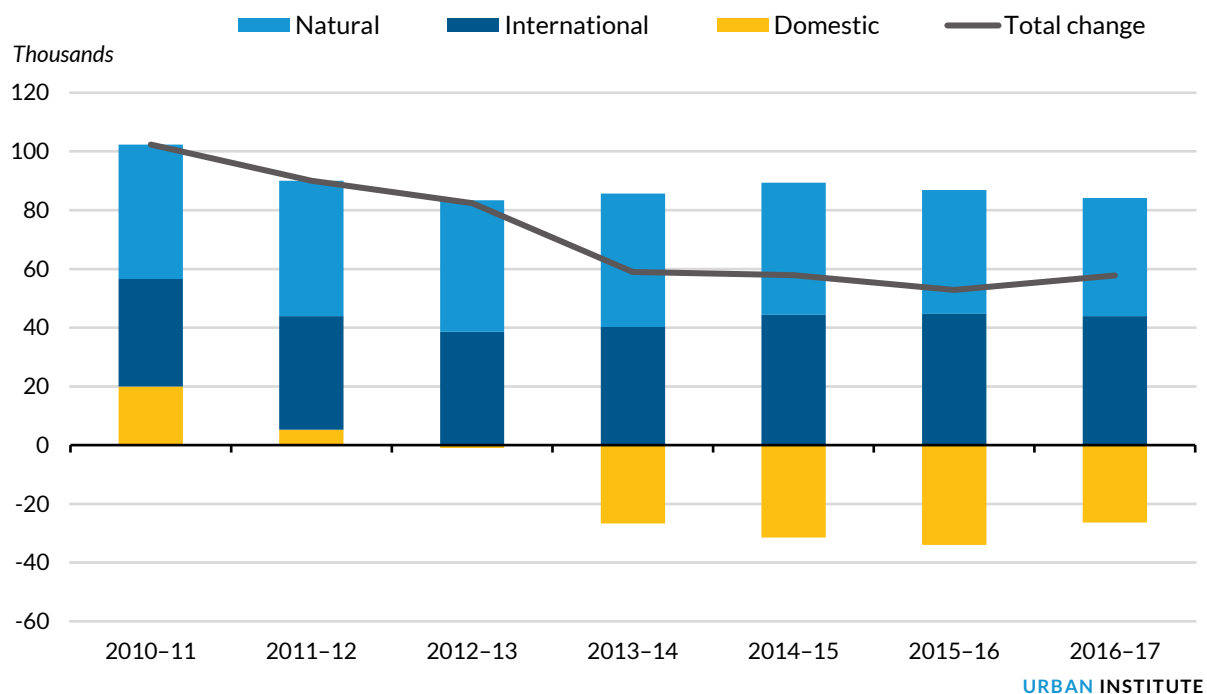


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Source: Urban–Greater DC analysis of US Census Bureau decennial census and population estimates data.

Natural population changes (births and deaths) and international migration have been consistent sources of population growth for the region, but in recent years net domestic outmigration has slowed the region's growth (figure 6). Although the number of people moving to the Washington region from other places in the US was positive between 2010 and 2012, the number turned negative after that. At the same time, natural population growth has been fairly constant, between 40,000 and 46,000 a year, while international in-migration has trended upward to about 44,000 people a year since 2014.¹¹

FIGURE 6
Components of Population Change in the Washington Region

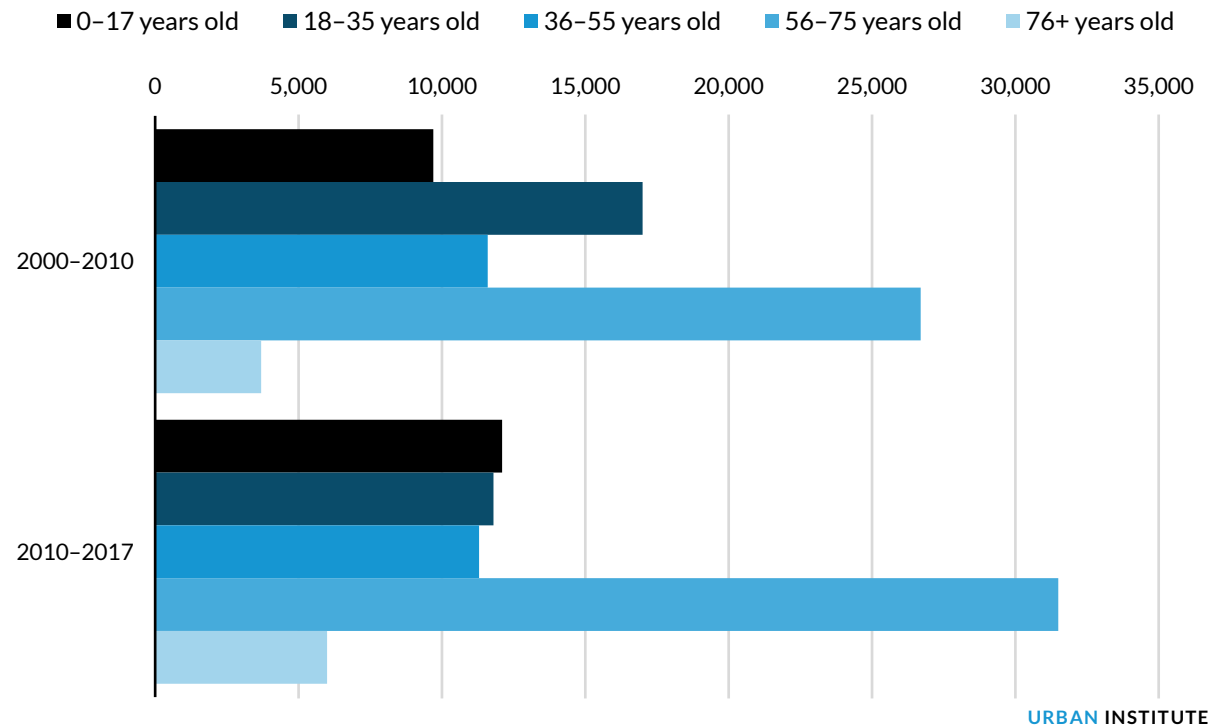


Source: Urban–Greater DC analysis of US Census Bureau components of population change data.

Consistent with national trends, as the baby boomers age, the largest increases in population since 2000 in the Washington region have been among people ages 56 to 75 (figure 7). This group has also become a larger share of population growth, constituting 39 percent of total new people in the region since 2010. People 18 to 35 years old, who made up 25 percent of population growth in the 2000s, are now only 16 percent of growth since 2017. As the region's population continues to age, this shift will have implications for both economic growth and housing.

FIGURE 7

Annual Change in Population by Age, Washington Region

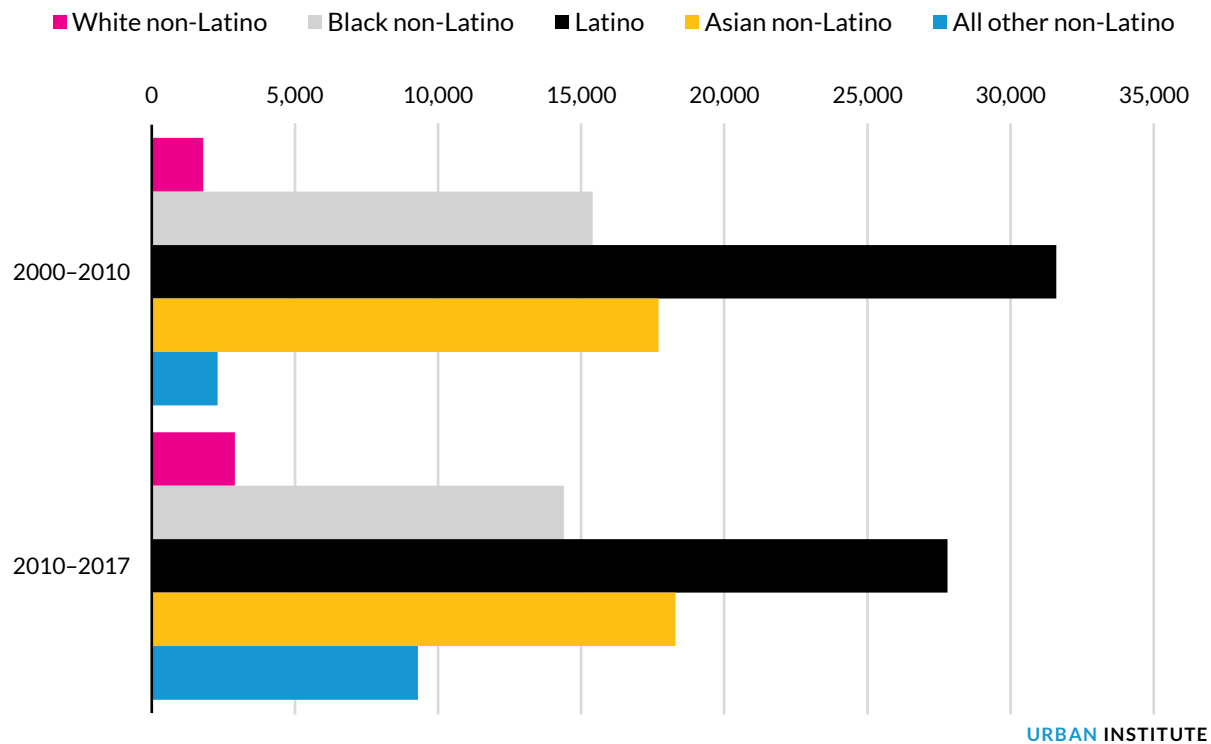


Source: Urban–Greater DC analysis of decennial census and American Community Survey microdata from IPUMS-USA, University of Minnesota.

Again mirroring national trends,¹² racial and ethnic diversity in the region has increased, with the number of Latino and Asian people climbing the most (figure 8). Latinos have grown from 10 to 17 percent of the region’s population since 2000, and Asians have increased from 7 to 11 percent. And although the numbers of African American people and people of other backgrounds have increased as well, the share of non-Latino white people in the region has decreased.

FIGURE 8

Annual Change in Population by Race and Ethnicity, Washington Region



Source: Urban–Greater DC analysis of decennial census and American Community Survey microdata from IPUMS-USA, University of Minnesota.

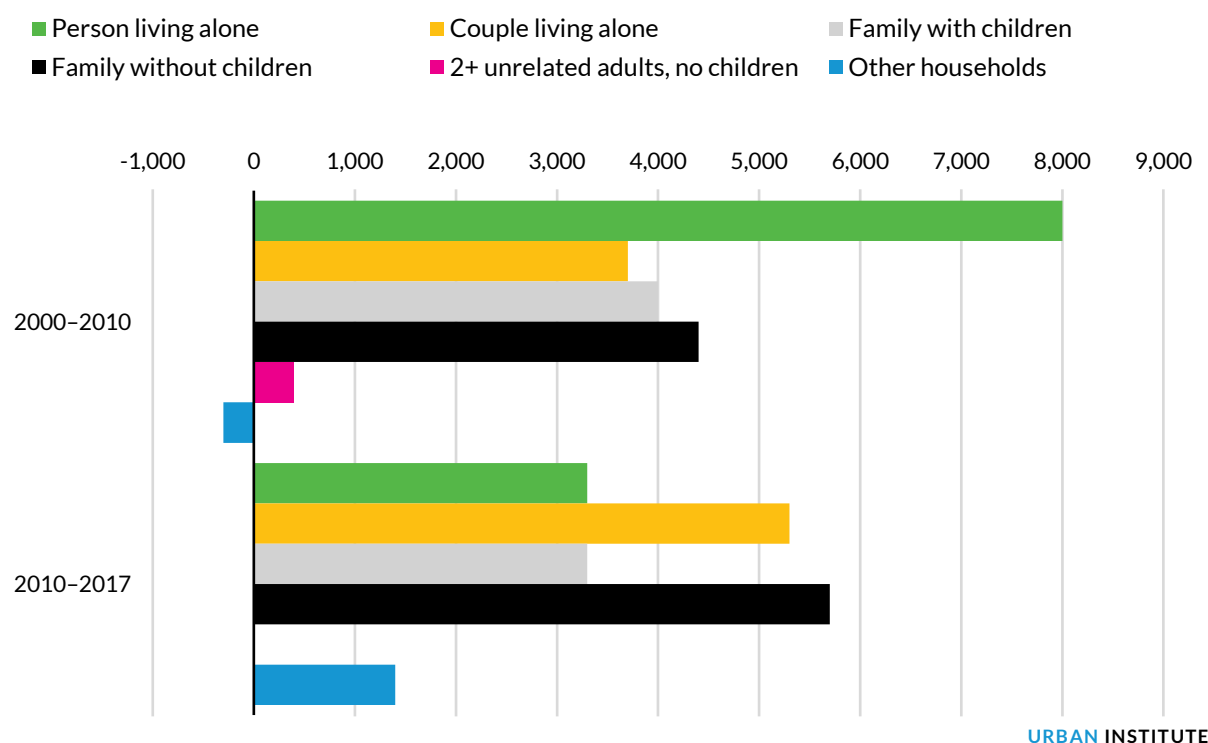
Until 2010, the region’s household growth largely mirrored population trends, but since then household growth has been relatively flat. After growing from 939,700 to 1,887,000 households between 1970 and 2010, the number of households in the Washington region only reached 1,918,000 by 2017. Put differently, households grew just 2 percent since 2010 while population increased 11 percent. This is reflected in the slower growth in one- and two-person households, with three- or four-person households making up a larger share of the growth since 2010. One possible explanation is that rising housing costs (discussed further on pages 19–21) discourage young people from moving out of their families’ homes to form separate households. High costs may also encourage young people to move to other, less expensive areas, contributing to the Washington region’s net domestic outmigration. And evidence suggests more people may be taking in roommates to help with higher housing costs.¹³

These possible explanations of slower new household formation are consistent with a substantial change in the growth of different household types in recent years. People living alone accounted for 40 percent of total new households between 2000 and 2010, but less than 20 percent since 2010 (figure 9).

Couples living alone accounted for a relatively larger share of net new households in recent years, with growth in families with children falling off. Families without children and other types of households with mixes of family and nonfamily members also have grown at a faster rate since 2010.

FIGURE 9

Annual Change in Households by Type, Washington Region



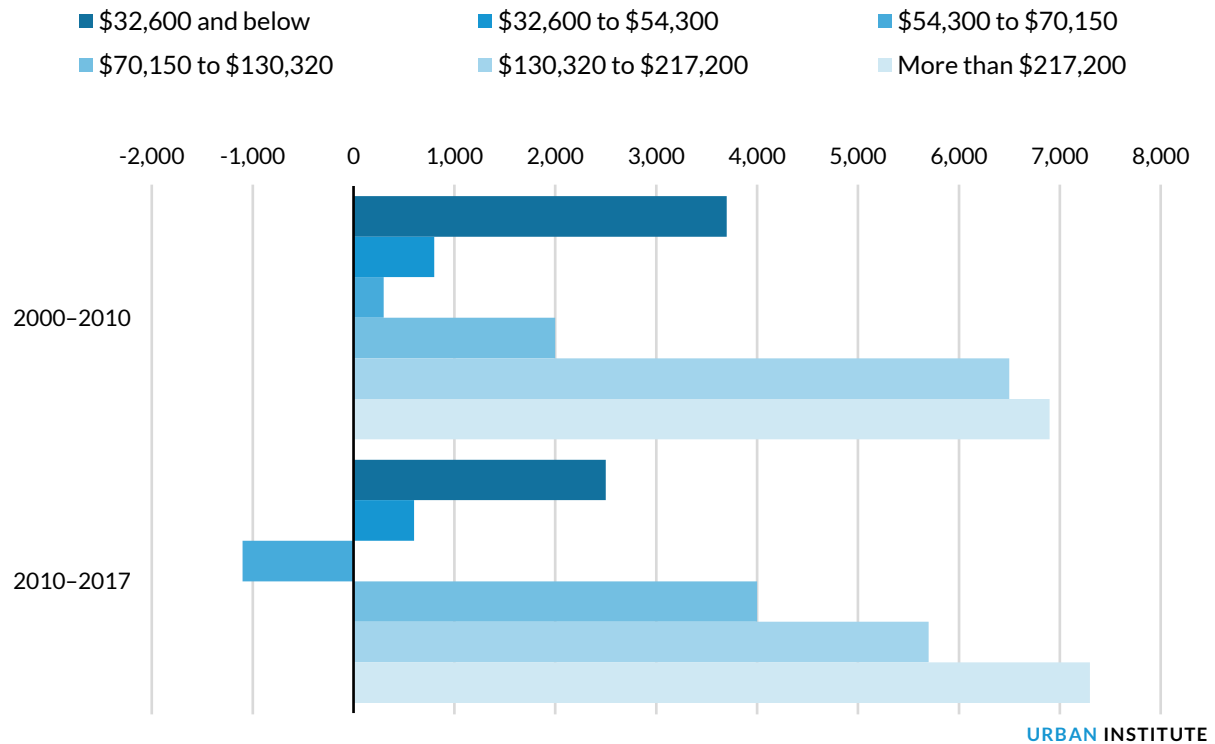
URBAN INSTITUTE

Source: Urban–Greater DC analysis of decennial census and American Community Survey microdata from IPUMS-USA, University of Minnesota.

Household growth has been concentrated at the bottom and top of the income distribution (figure 10), particularly in the 2000s. The largest growth has been among households with annual incomes of \$70,150 or higher, who made up two-thirds the households in the region in 2017. Households with incomes \$32,600 and below, who were 15 percent of households in 2017, had the third-largest increase in the 2000s, but their growth slowed since 2010. Households with incomes between \$32,600 and \$70,150 experienced very slow growth in the 2000s and have declined since 2010.

FIGURE 10

Annual Change in Households by Income, Washington Region



Source: Urban–Greater DC analysis of decennial census and American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org.

Housing Production Has Fallen Short of Past Performance, Leading to Tighter Markets

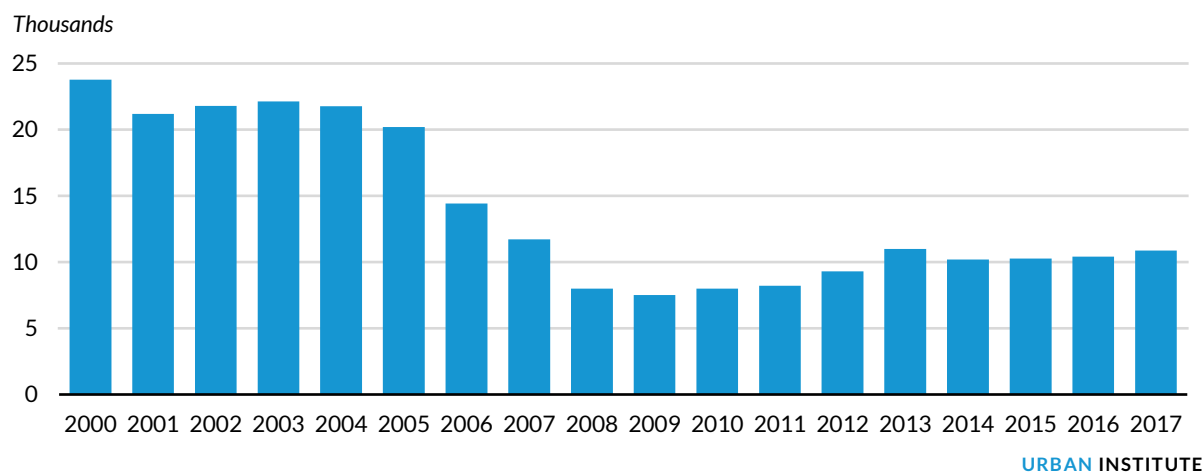
The number of housing units in the Washington region has increased by over 399,000, or 23,500 a year, since 2000. Since 2010, however, the region has added an average of 16,100 a year, only 56 percent of the 28,700 units a year produced in the 2000s. Although housing production is down in all jurisdictions, Fairfax County had the largest drop off, adding only 1,200 units a year since 2010 compared with 5,500 annually in the prior decade.

Building permits confirm the slowdown in new housing production compared with prerecession levels, particularly for single-family dwellings (figure 11). From 2000 to 2005, between 20,000 and 24,000 building permits were issued a year in the Washington region. After 2005, those numbers dropped to 7,500 in 2009 and have only returned to about 10,000 a year since then, half their prerecession level.

Building permits for larger multifamily buildings (five or more units) had a similar drop in volume, from an annual high of 331 in 2000 to only 70 in 2010 (figure 12). Since then the numbers have rebounded somewhat, fluctuating between 150 and 210 a year. Permits for smaller multifamily properties (two to four units) average about 50 a year but reached 160 in 2012.

FIGURE 11

Building Permits Issued for Single-Family Dwellings, Washington Region

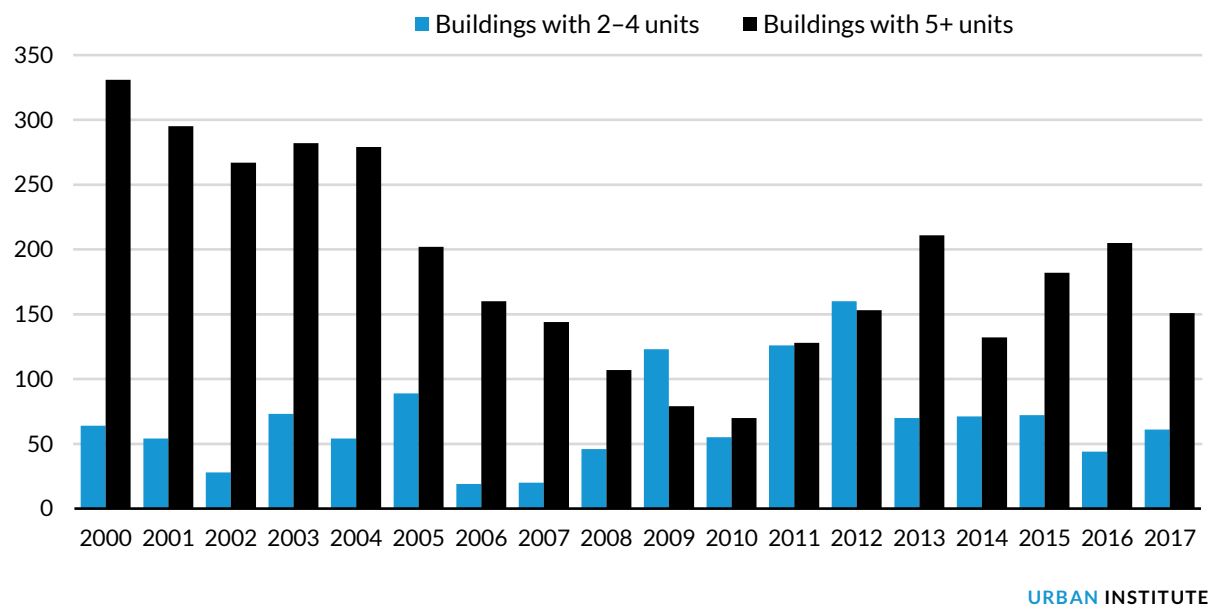


Source: Urban–Greater DC analysis of US Census Bureau building permits survey data.

Notes: Single-family dwellings include fully detached and semidetached houses, row houses, and townhouses.

FIGURE 12

Building Permits Issued for Multifamily Buildings, Washington Region

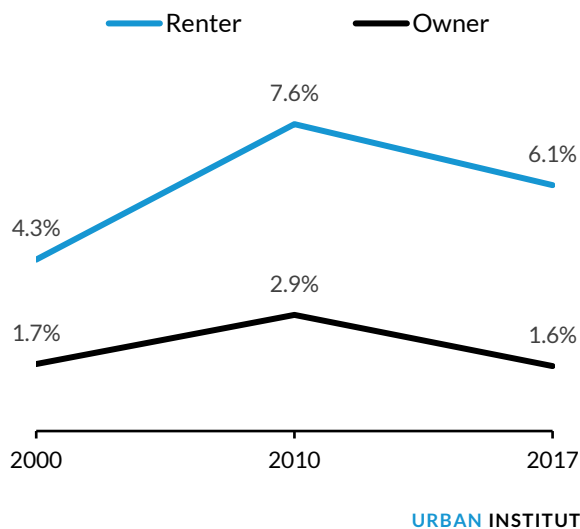


Source: Urban–Greater DC analysis of US Census Bureau building permits survey data.

Note: Multifamily buildings are residential structures containing units built one on top of another and those built side-by-side that do not have a ground-to-roof wall or have common facilities (attic, basement, heating plant, plumbing, etc.).

The slowdown in production has led to lower vacancy rates in both the renter and owner markets (figure 13). Rental vacancy rates (the share of unoccupied housing available for rent) were 7.6 percent in 2010 but have since declined to 6.1 percent. The tightest rental market in the region was in Loudoun County, where only 3.8 percent of apartments were vacant in 2017. Charles County and Prince William, Manassas, and Manassas Park had the highest rental vacancy rates at 10 and 9.7 percent, respectively.

FIGURE 13
Vacancy Rates by Housing Tenure, Washington Region



Source: Urban–Greater DC analysis of decennial census and American Community Survey microdata from IPUMS-USA, University of Minnesota.

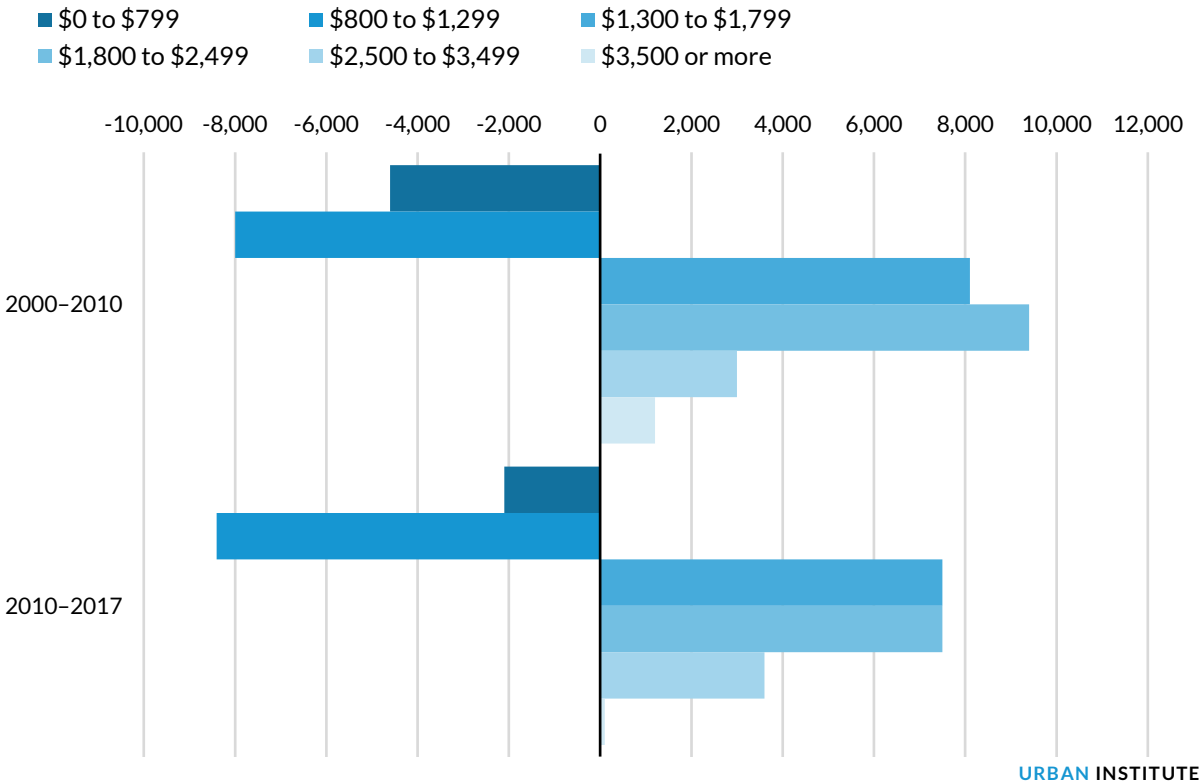
Owner-occupied/for-sale housing usually has lower vacancy rates than rental housing, and that holds true in the Washington region. The share of unoccupied housing for sale, out of all owner-occupied and vacant for-sale housing, was 2.9 percent in 2010, but that has since fallen to 1.6 percent in 2017. The only places in the region where owner vacancy rates increased were Charles County (2.1 to 2.5 percent between 2010 and 2017) and Alexandria (2.7 to 2.8 percent). The tightest homeowner market in the region in 2017 was in Loudoun County, which had a vacancy rate of 0.9 percent; the District of Columbia had the highest vacancy rate at 2.9 percent.

Housing Costs Are Rising Rapidly

The combination of increasing demand and declining housing production has tightened the housing market and raised housing costs. Compared with 2000, the Washington region had over 126,000 fewer rental units renting for less than \$1,300 a month in inflation-adjusted 2016 dollars, losing an average of

12,600 such units annually between 2000 and 2010 and 10,500 annually between 2010 and 2017 (figure 14). In contrast, the largest increases have been in housing renting for between \$1,300 and \$2,500 a month.

FIGURE 14
Annual Change in Renter Housing Units by Monthly Cost, Washington Region

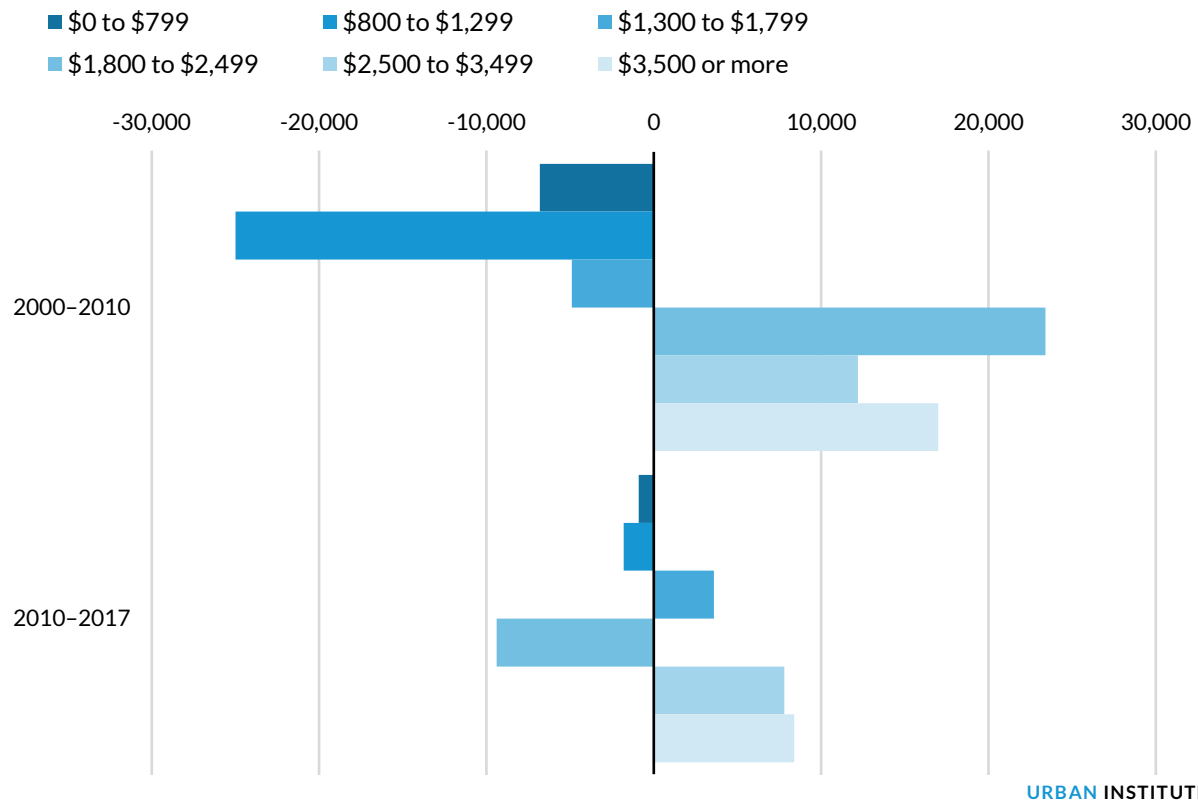


Source: Urban–Greater DC analysis of decennial census and American Community Survey microdata from IPUMS-USA, University of Minnesota.
Notes: Costs are in 2016 dollars. Rental costs include the contractual monthly rent payment plus any additional costs to the tenant for utilities and fees.

The shift to higher-cost units in the owner-occupied housing market (which includes single-family dwellings as well as units in condominiums and cooperatives) has been just as pronounced. Between 2000 and 2010, the region lost over 367,000 units, an average of 36,700 a year, that would be affordable to first-time homebuyers for below \$1,800 a month in inflation-adjusted 2016 dollars (figure 15). Although the disappearance of these lowest-cost units has abated since 2010, the region lost another 65,800 units, about 9,400 a year, affordable to homebuyers at between \$1,800 and \$2,500 a month. Most of the growth in owner-occupied housing since 2010 has been in units affordable to homebuyers at \$2,500 or more a month.

FIGURE 15

Annual Change in Owner-Occupied Housing Units by Monthly Cost for First-Time Homebuyers, Washington Region



Source: Urban–Greater DC analysis of decennial census and American Community Survey microdata from IPUMS-USA, University of Minnesota.

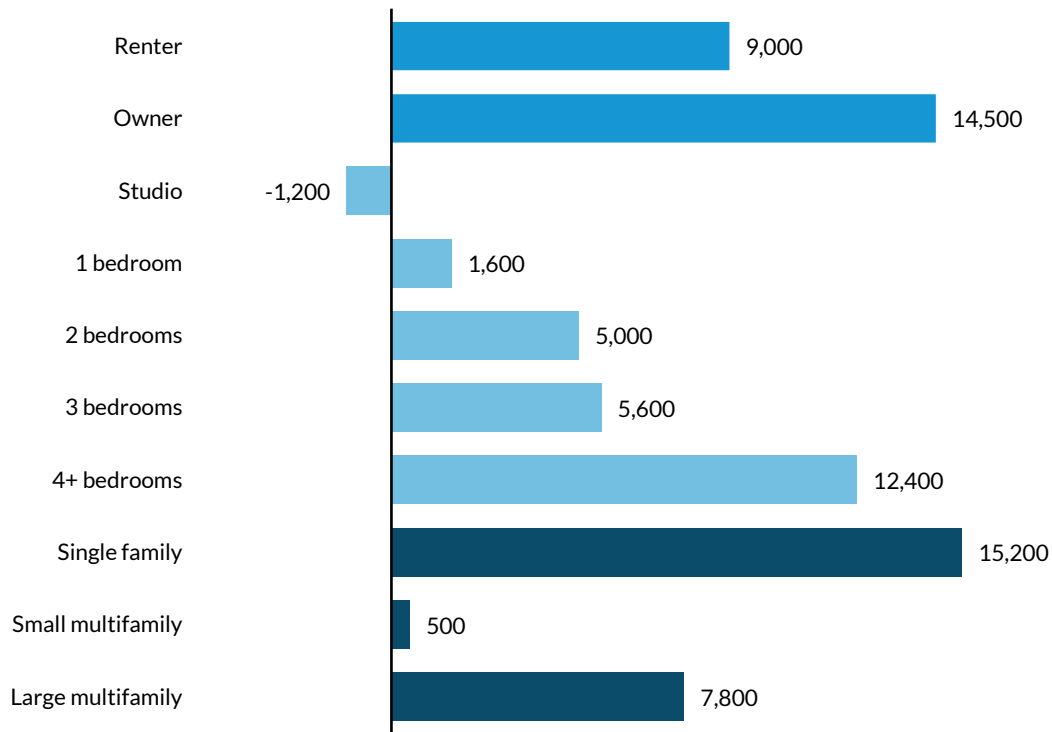
Notes: Costs are in 2016 dollars. Costs for owner-occupied housing were calculated as the monthly payment for a 30-year fixed rate mortgage for 90 percent of the market value of the unit, along with estimates of other monthly costs, including taxes, utilities, and fees.

The Types and Locations of Housing Also Contribute to Higher Costs

In addition to insufficient new construction, the types and locations of housing have also contributed to higher costs. Most housing growth in the region since 2000 has been in owner units (either owner-occupied or vacant for sale housing), units with four or more bedrooms, and single-family dwellings (figure 16). These types of housing are likely to be more expensive relative to other housing types in similar locations. Lower-density housing development contributes not only to high housing costs but also to sprawling development patterns, which exacerbate transportation challenges for people in the region.

FIGURE 16

Annual Change in Housing Units by Characteristics, Washington Region, 2000–17



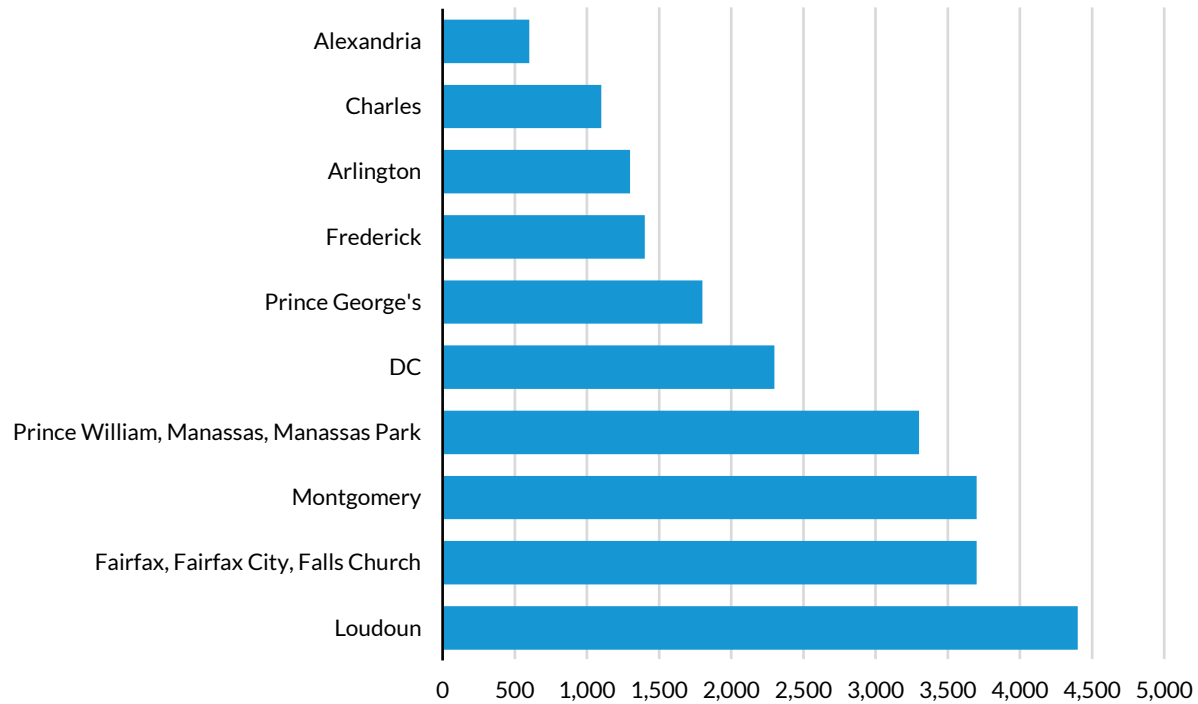
URBAN INSTITUTE

Source: Urban–Greater DC analysis of decennial census and American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org.

Most of the region’s new housing development has occurred outside the District of Columbia. Loudoun County, Montgomery County, Fairfax, and Prince William, Manassas, and Manassas City have added the most units since 2000, combining for over 15,000 units a year (figure 17). Loudoun County also had the largest percentage change in housing units, growing 130 percent over the past 15 years. However, much of the growth in these jurisdictions occurred in the prior decade. For example, Fairfax went from adding 5,500 housing units a year from 2000 to 2010 to only 1,200 a year since then. Montgomery County and Prince William, Manassas, and Manassas Park experienced similar falloffs in housing production.

FIGURE 17

Annual Change in Housing Units by Jurisdiction, Washington Region 2000–17



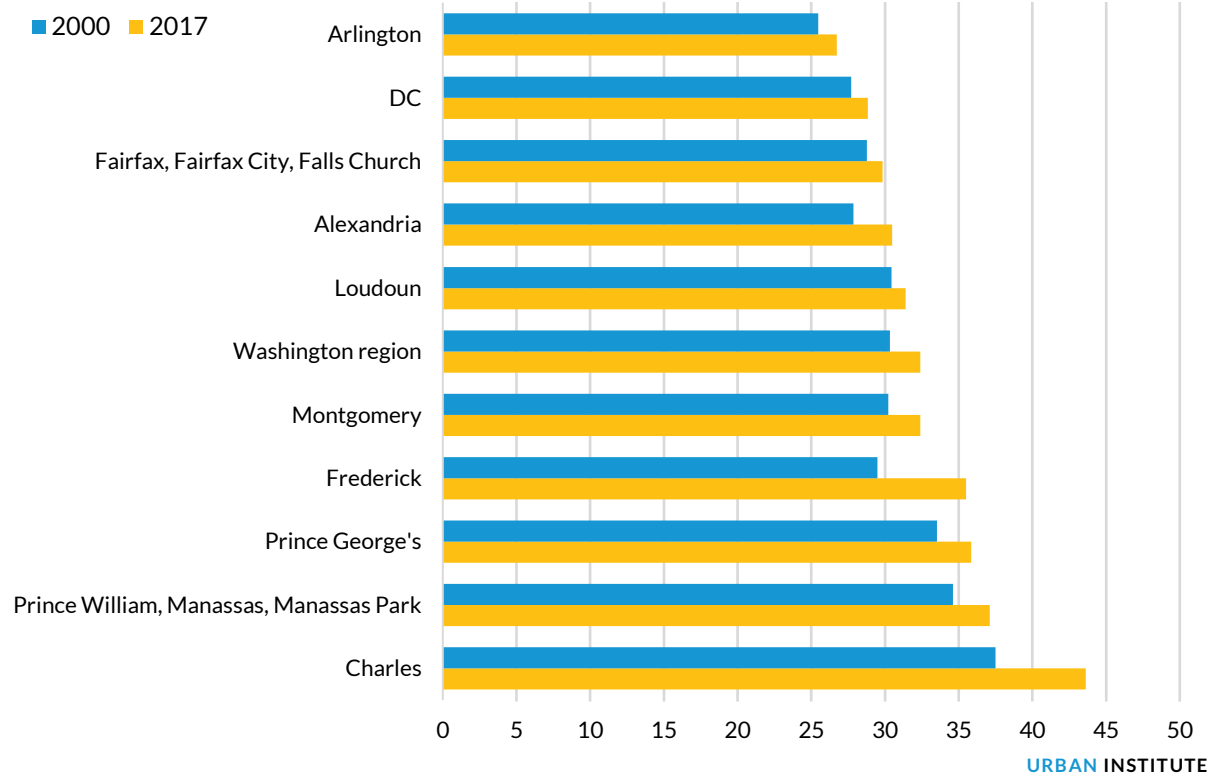
URBAN INSTITUTE

Source: Urban–Greater DC analysis of decennial census and American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org.

Several factors have contributed to the patterns of housing growth in the Washington region. Over time, a combination of federal and local policies (e.g., highway and transportation funding, subsidized mortgage lending for suburban homebuying, and low-density land use zoning) have promoted a pattern of largely suburban development that may not easily sustain future growth. This pattern of development is reflected in the average commuting times within the region, which were shorter for people living in DC and closer-in suburbs than the regional average (figure 18). In contrast, commuting times are longer in some areas with the largest growth in population and housing, such as Montgomery County, Prince George’s County, and Prince William, Manassas, and Manassas Park. And throughout the region, commuting times have increased since 2000. As noted in the Housing Matters section, long commutes add further costs and pressures that, along with higher housing costs, can create hardship for workers.

FIGURE 18

Average Commuting Time by Home Jurisdiction for All Workers in the Washington Region, 2000 and 2017



Source: Urban–Greater DC analysis of decennial census and American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org.

Notes: Times are self-reported based on daily commute from the jurisdiction where people live to their place of work based on the means of transportation they typically used.

The Region's Housing Stock Provides Too Few Units Affordable for Households with Low and Middle Incomes

Although the higher costs described previously affect almost everyone in the Washington region, households with low and middle incomes face the most acute challenges, and many are unable to meet basic needs. In the 2017 VoicesDMV survey, nearly 20 percent of households reported that they had not been able to pay for food or housing in the past 12 months (Tatian, Hendey, and Bogle 2017). Most households in the region with incomes below \$54,300, more than 500,000 households, pay more than 30 percent of their income toward their rent or mortgage (table 2), a level that the US Department of Housing and Urban Development considers burdensome. These income levels include people with full-time jobs as nursing assistants, food preparation workers, and paramedics. Even many households with middle incomes, including occupations such as teachers and software developers, have housing cost burdens.

TABLE 2

Households in the Washington Region by Annual Income Level, 2015

Level	Annual income	Occupations with average wages meeting income level	Number of households	Share of households	Share with housing cost burden
Lowest	Less than \$32,600	Nursing assistants, parking attendants, food preparation workers	307,000	15%	84%
Low	\$32,600 to \$54,300	Substance abuse counselors, postal service clerks, or paramedics	248,000	12%	68%
Low-middle	\$54,300 to \$70,150	Firefighters, crane operators, graphic designers	183,000	9%	47%
Middle	\$70,150 to \$130,320	Registered nurses, teachers, software developers	577,000	29%	19%
High	\$130,320 to \$217,200	Human resource managers, aerospace engineers, lawyers	425,000	21%	5%
Highest	More than \$217,200	Chief executive officers, surgeons, psychiatrists	272,000	14%	1%
Total			2,012,000	100%	32%

Source: Urban–Greater DC analysis of the 2013 to 2017 American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org. Occupations from the Bureau of Labor Statistics' Occupational Employment Statistics survey (2017) for the Washington, DC, metropolitan area.

Notes: Numbers may not sum because of rounding. Income breaks match the US Department of Housing and Urban Development Income Limits in 2016 for a family of four in the Washington, DC, region; the income limits are relative to the median income for the metropolitan area, \$108,600. The number of households has been weighted to match the Metropolitan Washington Council of Governments 2015 household estimate.

Households and people experiencing homelessness also clearly have housing needs that are not being met. Many who are chronically homeless need units in permanent supportive housing facilities, but most people experiencing homelessness need conventional affordable rental housing (Hendey, Tatian, and MacDonald 2014). In the region, an average of 5,300 households each year between 2013 and 2017 were homeless and required less expensive housing to meet their needs rather than permanent supportive housing.¹⁴

Table 3 shows, across six cost bands, the distribution of all housing units based on the monthly cost to the current occupants or listed monthly cost for vacant units, as well as vacant units held off the market. Monthly costs for renters are based on gross rent, which includes contract rent plus utilities. For homeowners, monthly costs are based on mortgage payments, real estate taxes, fees (such as for condominiums), and utilities. These cost bands roughly align with the six income bands defined in table 2. For example, a household in the lowest income band can have a maximum income of \$32,600. If that household spends 30 percent of their income on rent, they would pay \$815, just over the maximum of the lowest housing cost band. Further up the income distribution, households have more choices about their housing, and most choose to spend far less than 30 percent of their income each month. For example, the average household in the highest income category, with incomes above \$217,200, spent only 12 percent of their income on housing.

TABLE 3

Housing Units in the Washington Region by Cost Level, 2015

Monthly housing cost	Category	Number of units	Share of units
\$0 to \$799	Lowest	274,000	13
\$800 to \$1,299	Low	340,000	16
\$1,300 to \$1,799	Low-middle	483,000	23
\$1,800 to \$2,499	Middle	494,000	23
\$2,500 to \$3,499	High	315,000	15
\$3,500 and above	Highest	179,000	8
Seasonal or otherwise vacant and not for rent or sale		61,000	3
Total		2,147,000	100

Source: Urban–Greater DC analysis of the 2013 to 2017 American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org.

Notes: Numbers may not sum to total because of rounding. For occupied units the monthly costs reflect the actual costs paid by the occupants. For vacant rental units, costs reflect the listed rent, but for vacant for sale units the monthly cost reflects the mortgage, insurance, and tax cost of the unit to a first-time homebuyer. The number of housing units has been weighted to the Metropolitan Washington Council of Governments 2015 household estimate.

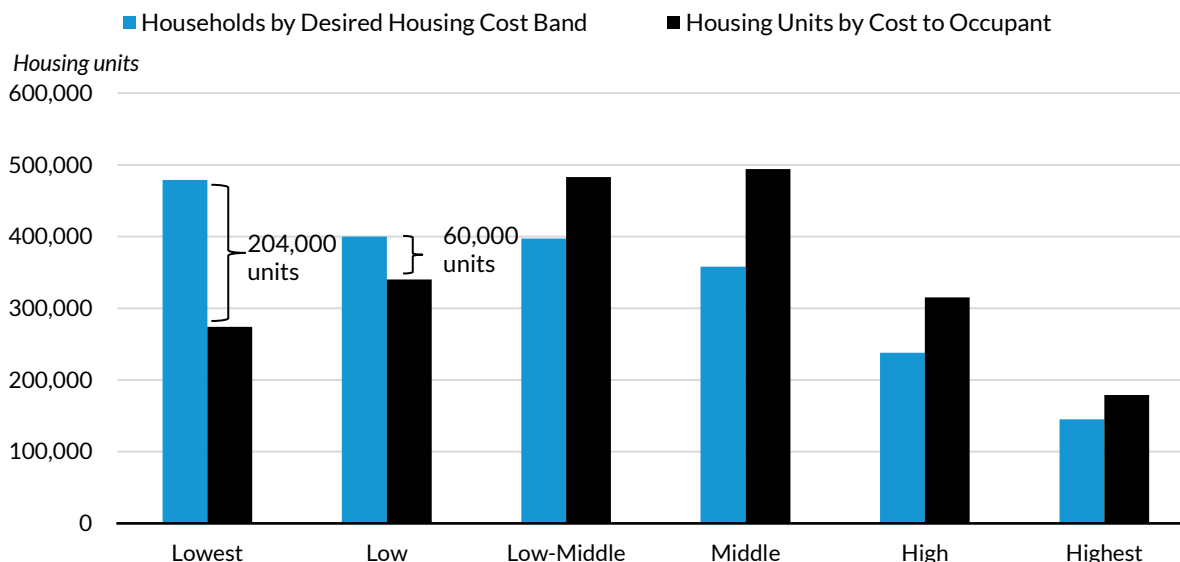
Based on households' income, we calculated what housing costs would be "affordable" for those with incomes eligible for housing assistance—30 percent of monthly income—or, if they had middle or higher incomes, what they were likely to pay, i.e. "desired costs" (see the appendix for more details). As might be expected given the high rates of housing cost burden for households shown in table 2, comparing households' housing needs (that is, what they can afford or are likely to pay as a share of income each month), to actual costs paid by the occupants of the housing stock reveals a serious mismatch (figure 19). At the bottom, there are gaps of 204,000 units to meet the needs of the households that can only afford the lowest-cost units and a gap of 60,000 units for those who could afford low-cost units.

Every jurisdiction in the Washington area had a gap between housing needs and supply for the lowest-cost units (see the appendix for tables by jurisdiction). All jurisdictions except DC also had a gap between housing needs and supply at the low-cost band.

Further, households in both the low- and middle-income bands face competition from households that may be able to pay more for housing. Three-quarters of households living in a unit with housing costs below \$800, the lowest cost band, could afford to pay more for housing (figure 20), as could more than half of households living in low-cost units. Similarly, 37 percent of households living in units the low-middle cost band and 21 percent of households living in units in the middle cost band could afford to pay more. This explains why so many households in the low-middle and middle income bands pay high housing cost burdens. And it indicates that over time, adding quality units in the low-middle and middle cost bands could relieve some of the competition for the lowest-cost units.

FIGURE 19

Housing Needs and Housing Supply by Housing Cost Band, 2015



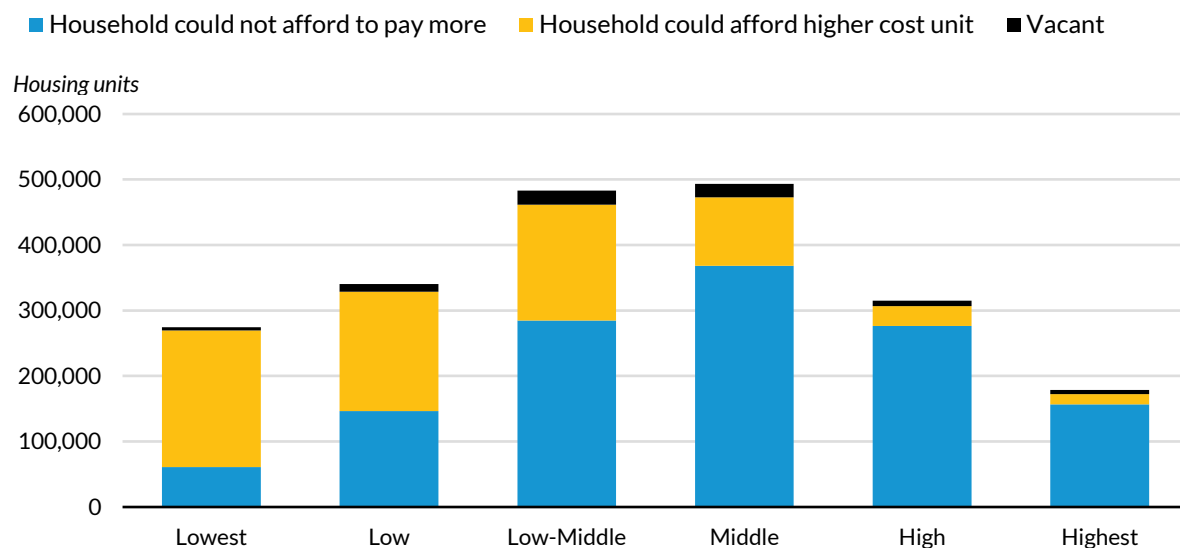
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Source: Urban–Greater DC analysis of the 2013 to 2017 American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org.

Notes: The number of households and housing units has been weighted to match the Metropolitan Washington Council of Governments 2015 household estimate.

FIGURE 20

Housing Stock by Occupants' Ability to Pay by Cost Band, 2015



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Source: Urban–Greater DC analysis of the 2013 to 2017 American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org.

Notes: The number of households and housing units has been weighted to match the Metropolitan Washington Council of Governments 2015 household estimate. See the appendix for details on the estimation how much a household could afford to pay.

Looking to the Future

Key Takeaways

- The region expects to add 363,000 households by 2030, with faster growth of households with lower incomes.
 - A net increase of 374,000 housing units is needed to accommodate expected household growth.
 - The mix of housing across cost bands must shift to align with future needs.
 - Preservation of both subsidized and unsubsidized affordable housing is critical to meeting future housing needs.
 - Communities facing market pressures need protection from displacement.
-

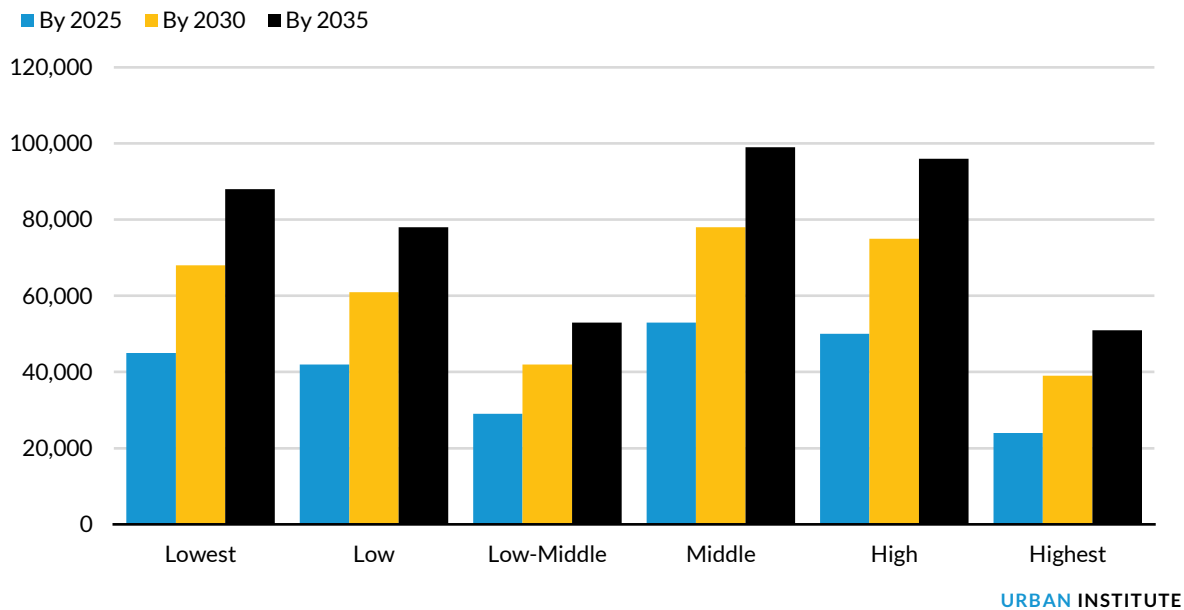
In this section, we estimate the increase in the number of households by 2030 and offer possible targets by cost band for the Washington region's housing stock. Achieving these targets would better align the stock to meet current and future housing needs. We also estimate the scale of the challenge of preserving affordable housing units and of protecting households who may be vulnerable to displacement as market pressures intensify in their communities.

The Region Expects to Add 363,000 Households by 2030, with Faster Growth of Households with Lower Incomes

MWCOG and its member jurisdictions regularly forecast the region's employment, population, and housing growth to facilitate better planning for transportation, housing, infrastructure, and economic development. The most recent forecast estimates that the region will grow from just over 2 million households in 2015 to nearly 2.5 million households by 2035 (MWCOG 2018b). To accurately plan for the region's future housing needs, we need to both forecast how many housing units will be needed to accommodate new households and understand how much those households could afford to pay for housing. Using recent demographic trends, migration patterns, and rates of household formation by age and race, we projected household growth for each income category. (For detailed information on the projection methodology, see the appendix.) More than one-third of households added to the region will likely fall in the lowest- and low-income categories (figure 21).

FIGURE 21

Additional Washington-Region Households by Projected Income Band



Source: Urban–Greater DC projections from American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org, and Metropolitan Washington Council of Governments, *Round 9.1 Growth Trends to 2045: Cooperative Forecasting in Metropolitan Washington* (Washington, DC: Metropolitan Washington Council of Governments, 2018).

The number of households at the low end of the income spectrum will likely grow faster than the number with middle or high incomes. By 2030, for example, the number of households in the lowest income category will grow 22 percent; the number in the highest category will grow only 14 percent. Two trends drive this forecast. The first is the impending retirement of most of the baby boomers, who turn 65 between 2011 and 2029. In the Washington region, more than 600,000 households are currently headed by baby boomers. As these households stop working, their incomes will fall, moving more households into the lower income categories.¹⁵ The second trend is the in-migration of people of color, both domestic in-movers and immigrants. On average, recent immigrant households and households headed by people of color have lower incomes. These projections assume no major changes in the ability of households to move up the income distribution in the face of the barriers created by structural racism.

The Region Would Need to Expand Housing Production Capacity to Accommodate Faster Growth

Over the past 25 years, the Washington region has annually added between 21,000 and 28,000 units to the housing stock after accounting for production, preservation, and loss. If the region’s future growth

matches MWCOG's 2030 cooperative forecast, the region needs about 25,000 net additional units annually to meet the housing demand. This is well in line with what the region has been able to produce historically. But some are calling to increase production beyond this level to accommodate faster growth or to achieve other goals. For example, MWCOG estimated that the region needs more than 100,000 new housing units by 2045, on top of the current forecast, to significantly improve transportation system performance (MWCOG 2018b).¹⁶

MWCOG's forecasted employment growth over the next two decades is at about 1 percent annually, which is in line with historical growth rates in the region. Over the past five years, employment in the Washington, DC, metropolitan area grew at an annualized rate of 1.66 percent, slower than all but 2 of the largest 15 metropolitan areas. However, the region's economic growth could accelerate over the coming 10 to 15 years. Increased job growth would mean additional households would be added to the region, increasing the need for housing. To estimate housing needs if economic growth accelerates, we projected the number of households that would be added to the region if the Washington, DC, metropolitan area matched the average recent growth rate of the largest 15 metropolitan areas, 2.41 percent. The Washington region would add 520,000 households by 2035 with faster job growth, 157,000 more than the baseline growth scenario. With faster growth, the region would add more households in each income category.

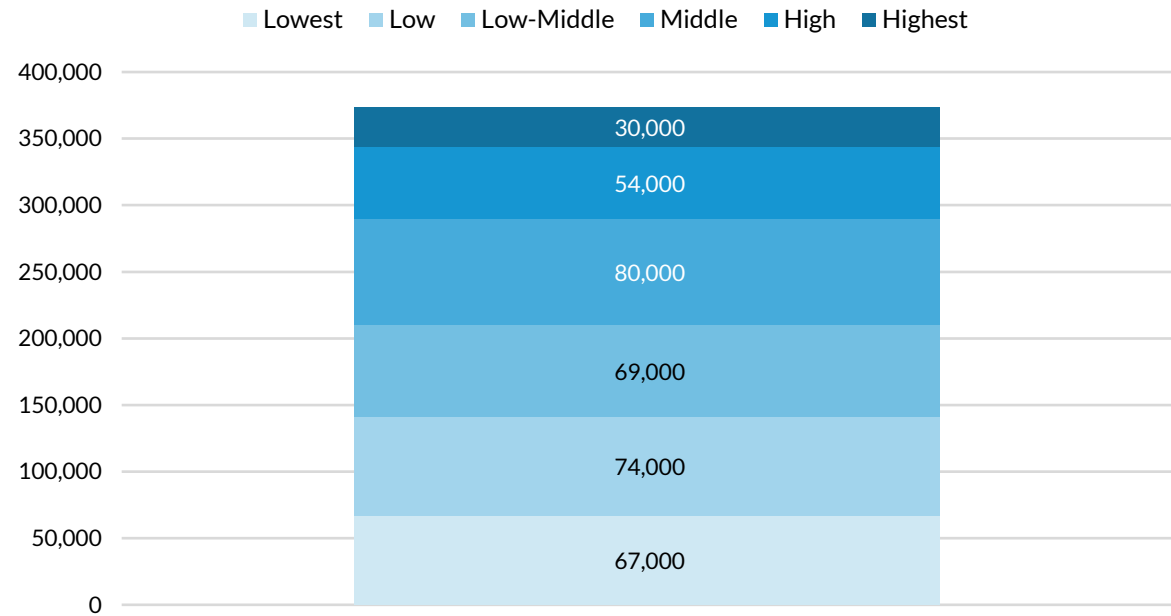
The Stephen S. Fuller Institute projects growth in the gross regional product of 2.2 percent from 2019 to 2030 and estimates that the Washington, DC, metropolitan area would need to add 28,595 units annually to meet that growth rate.¹⁷ In a scenario with faster economic growth of 4.1 percent, substantially ramping up housing production would be required, at 34,365 units annually. Our household projections assuming faster job growth yield similar results: about 36,000 total additional units annually.

The Mix of Housing across Cost Bands Would Need to Shift to Align with Future Households

Increased attention and engagement to the Washington region's crisis in housing affordability, combined with the potential for faster economic growth, creates an opportunity to plan to accommodate the region's future housing needs and better align the housing supply with the incomes of households in the region. Doing so will improve the functioning of the housing market and ensure that households at all income levels have housing they can afford.

Figure 22 shows what that distribution of the 374,000 housing units needed to accommodate household growth by 2030 would look like if it matched the housing needs of those households. This assumes that no households would need to pay more than 30 percent of their income for housing (see the appendix for details). Forty percent of these units would need to be in the low-middle and middle cost bands, with another 38 percent in the lowest- and low-cost bands.

FIGURE 22
Housing Units by Cost Band Needed to Accommodate Household Growth by 2030



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Source: Urban–Greater DC projections from the Neighborhood Change Database, the American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org, and Metropolitan Washington Council of Governments, *Round 9.1 Growth Trends to 2045: Cooperative Forecasting in Metropolitan Washington* (Washington, DC: Metropolitan Washington Council of Governments, 2018).

Notes: Growth in units that are vacant and for sale or for rent is assumed to match the overall growth in units needed to accommodate households to maintain current vacancy rates. Units that were seasonal or vacant and being held off the market at baseline are not included in this figure.

Adding 67,000 of the lowest-cost units represents a significant challenge, even if many were higher-cost units with housing vouchers or other subsidies available to make them affordable to tenants. The lowest-cost units are not produced by the market without considerable subsidies given the high cost of land and construction. And funding from the federal government for vouchers and public housing is unlikely to increase substantially in the current political climate. If the region experiences faster employment growth, more units are needed in every cost band to align with household needs. With an

average employment growth rate of 2.41 percent, the region would need to add an additional 534,000 units, with 91,000 in the lowest cost band, to keep pace with the growth in households and maintain vacancy rates.

Preservation of Both Subsidized and Unsubsidized Affordable Housing Is Critical to Meeting Future Housing Needs

Our projections of households by income band indicate that by 2030, more than 730,000 households will need housing units in the lowest and low-cost bands (under \$1,300 a month in 2016 dollars). At baseline, the Washington region has only 487,000 units priced at this level. Preservation of low-cost units is cheaper than producing new units at this cost level. The market does not usually produce low-cost housing units without public subsidies. The region must preserve as much of this low-cost stock as possible.

Federally subsidized housing plays a critical role in meeting the needs of households in the lowest cost bands. Table 4 shows that the region has only 41,691 federally assisted units in public housing and Section 8 properties that are affordable to households with the lowest incomes. Another 51,944 units have federal subsidies that make the units affordable to households with low or low-middle incomes. Nearly 70 percent of the region's federally assisted units are located in DC, Montgomery County, and Prince George's County (see the appendix for tables by jurisdiction).

TABLE 4
Estimated Housing Units with Federal Subsidies in the Washington Region, 2018

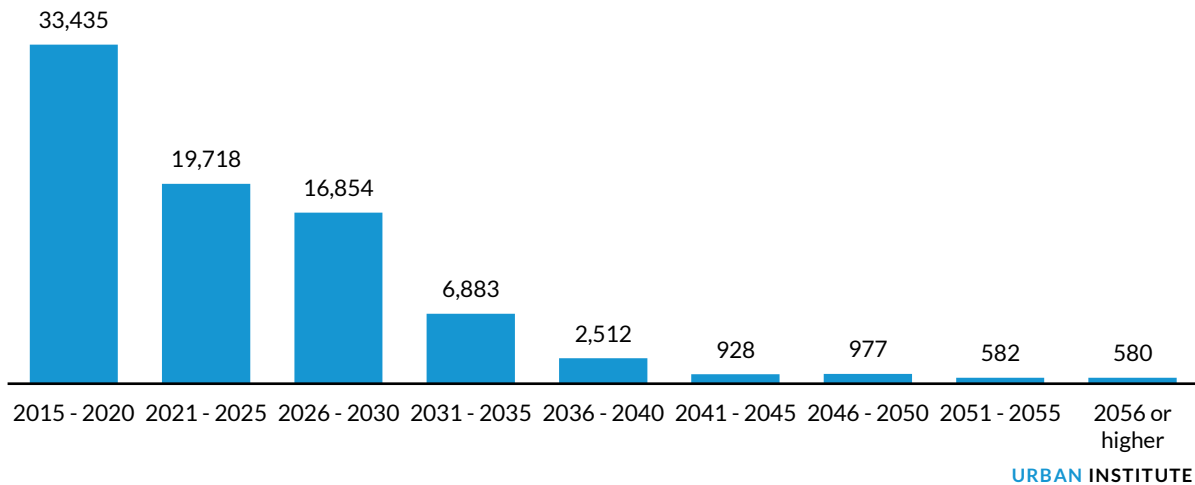
Subsidy type	Number of developments	Estimated units
Public housing	84	10,208
Public housing and other subsidies	18	2,621
Section 8 only	164	9,426
Section 8 and HUD mortgage (FHA or Section 236) only	56	8,675
Section 8 and other subsidy combinations	104	10,761
<i>Total with deep subsidies</i>	426	41,691
Low income housing tax credit only	288	34,513
Low income housing tax credit and other subsidies	103	12,805
HOME only	61	743
Rural housing subsidy only	7	126
HUD-insured mortgage only	22	2,816
All other subsidy combinations	20	941
Total federally subsidized units	927	93,635

Source: Urban–Greater DC analysis of the National Preservation Database.

Notes: In some developments, multiple types of subsidies are used to provide affordable units. Whether those subsidies are applied to the same units or spread out across units is unknown. The total number of assisted units in the region may vary by 204.

FIGURE 23

Federally Assisted Housing Units by Year of Affordability Restriction Expiration

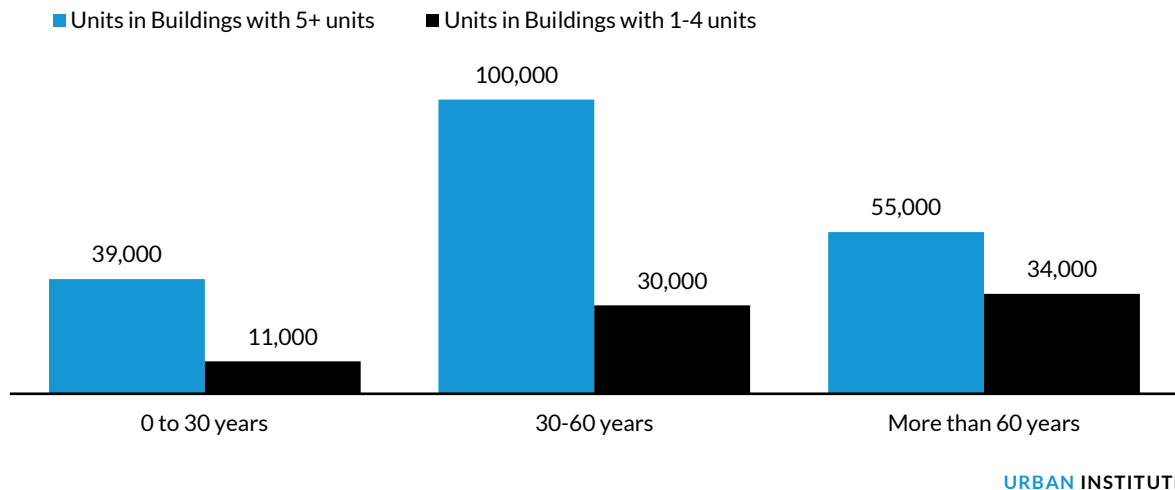


Source: Urban–Greater DC analysis of National Preservation Database.

Notes: Public housings do not have affordability restrictions that expire. 958 units missing data on expiration dates are excluded from this chart. Chart includes 15-year compliance or 30-year subsidy end dates for units subsidized by LIHTC.

FIGURE 24

Units with Rents below \$1,300 by Age of Building, 2013–17



Source: Urban–Greater DC analysis of the American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org.

Notes: Subsidized units are included in the figure.

By 2035, nearly 77,000 units (82 percent) in the region’s federally assisted rental stock will reach the end of their current affordability commitments, at which point some owners may choose to raise the property’s rent or renovate and redevelop it to a market-rate development (figure 23). About 30

percent of the 53,000 units set to expire before 2025 have Section 8 contracts. Most of the Section 8 property owners renew their contracts but typically renew them for only one or two years, making these units vulnerable in hot housing markets with significant price appreciation.

Though affordability is not time limited for public housing units, the age, physical deterioration, and lack of capital for maintenance and renovations put these units at risk of exiting the affordable housing stock. We estimate that about one-quarter of public housing units in the region were built at least 50 years ago and need major renovation. Another 23 percent of units were built at least 30 years ago and may also need system repairs and upgrades. Federal funding for public housing is widely acknowledged to have been insufficient to maintain and upgrade these properties.¹⁸ As a result, much of the stock is in poor condition, and many units are uninhabitable.

The majority of the region’s existing low-cost rental stock is unsubsidized, meaning no public funding is keeping the rents low. These units play a critical role in meeting housing needs, and preserving them (at their current affordability levels) should be a priority. Though data are not available to precisely define unsubsidized affordable rental housing, the Washington region has 269,000 units renting for less than \$1,300. We estimate a minimum of 100,000 of these units are in buildings with five or more units that are not subsidized and 75,000 are in buildings with one to four units, which are also unlikely to be subsidized. Most units in low-cost rental buildings are more than 30 years old (figure 24). Twenty-eight percent of units in buildings with five or more units and 45 percent in buildings with one to four units are more than 60 years old. As these units age, need major systems replaced, or physically deteriorate, they may be lost from the housing stock altogether, or they may be renovated and their rents raised to market levels.

TABLE 5
Rental Units That May Need Intervention to Preserve Affordability before 2030

	Number of units
Federally assisted housing stock with subsidies expiring by 2030	70,000
Public housing units	10,000
Likely unsubsidized affordable units in 5+ unit buildings estimated to be more than 30 years old (80 percent)	80,000
Likely unsubsidized affordable units in 1-4 unit buildings older than 30 years	64,000
Total	224,000

Source: Urban–Greater DC analysis of National Preservation Database and the American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org.
Notes: Data are rounded to the nearest thousand.

We estimate that 224,000 rental units in the Washington region that are currently affordable to households with the lowest and low incomes will likely require an intervention of some kind before

2030 to maintain affordability, including renovation, major rehabilitation, subsidy renewals, or refinancing (table 5). Preserving as many units as possible in both the subsidized and unsubsidized rental housing stock will be critical to better aligning the region's future housing to stock to meet the needs of its residents.

Communities Facing Market Pressures Need Protection from Displacement

Given intensifying housing market pressures, households in communities where property values are increasing rapidly may be at risk of displacement as rents and property taxes rise. We identified 296 communities across the region where displacement appears most likely (table 6). To identify these communities, we classified census tracts based on their recent housing market conditions and the trajectory of change since 1990, as well as on their demographic change since 2000 and the presence of populations that are more vulnerable to housing displacement. For more details on this classification, see the appendix.

TABLE 6
Summary of Displacement Risk, 1990 to 2013–17

Risk level	Number of tracts	Number of households	Households with incomes below \$75,000
Vulnerable	103	168,000	99,000
At risk of displacement	296	493,000	220,000
Not at risk	713	1,129,000	356,000
Excluded	112	165,000	68,000

Sources: Urban–Greater DC analysis of the Neighborhood Change Database, the 2013–17 American Community Survey.

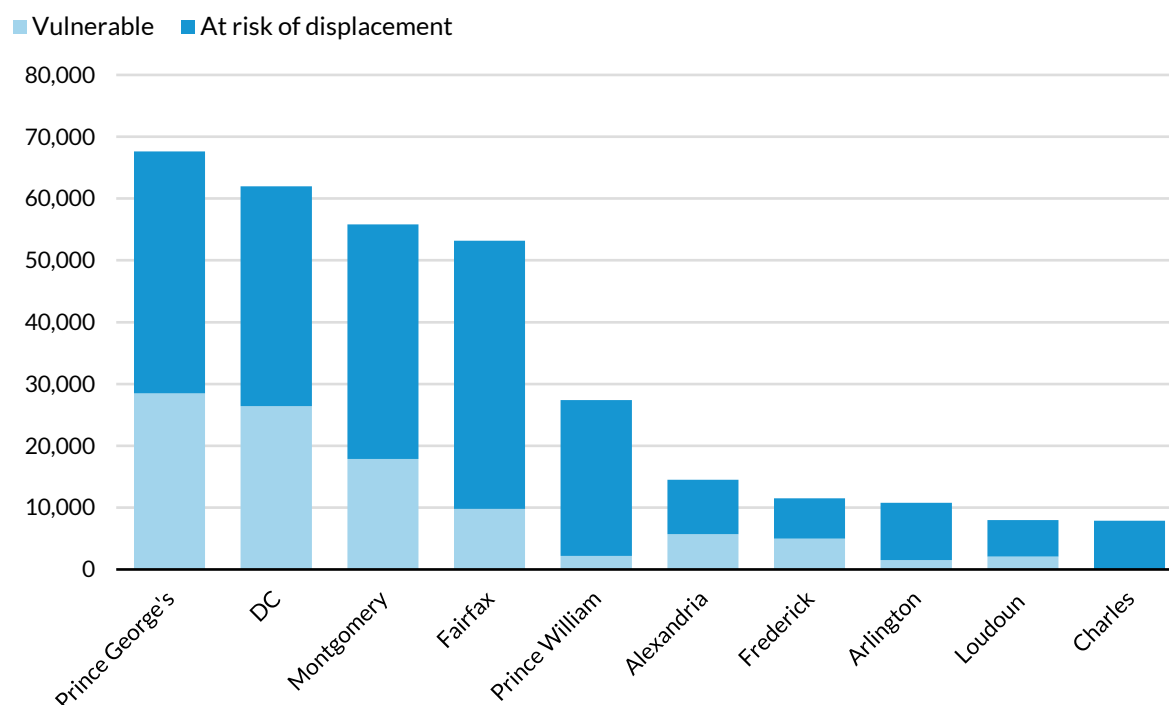
Notes: Data were analyzed for each jurisdiction separately at the census tract level then summarized. Households may not sum because of rounding.

Households with incomes below \$75,000, meaning households in the lowest, low, and low-middle income bands, are likely to be particularly sensitive to changes in housing costs. Overall, 220,000 households with incomes below \$75,000 live in these communities and may be at risk of displacement because of housing market pressures. Another 99,000 households with incomes below \$75,000 live in communities that do not currently appear to face market pressures and have low or moderate home values but where the risk of displacement may rise as the region grows. Communities that appear to not be at risk already have high home values relative to other areas in their jurisdiction or have smaller populations that are vulnerable to displacement. Nevertheless, these areas still have households that need protections from rising rents or discrimination in the housing market.

Every jurisdiction in the region has households vulnerable to displacement (figure 25). As expected, given their relatively large populations, four jurisdictions account for three-quarters of households with incomes below \$75,000 living in communities that may become or already are at risk of displacement because of market pressures. Fairfax County and the cities of Fairfax and Falls Church account for the largest number of these households (43,400).

FIGURE 25

Households with Incomes under \$75,000 Living in Tracts Vulnerable to Displacement, by Jurisdiction, 2013–17



URBAN INSTITUTE

Sources: Urban–Greater DC analysis of the Neighborhood Change Database, the 2013–17 American Community Survey.

Notes: Data were analyzed for each jurisdiction separately at the census tract level. Households may not sum because of rounding. Fairfax includes Fairfax County and the cities of Fairfax and Falls Church. Prince William includes Prince William County and the cities of Manassas and Manassas Park.

Power and Partnership

Key Takeaways

- The region's governments can all contribute, but capacities differ.
 - Large employers can use their considerable influence to help lead regional partnerships.
 - Local philanthropies bring essential capacities and perspectives in elevating the needs of the region's most vulnerable communities.
-

Strategic actions in response to the region's current and future housing challenges can set the region on the path to a healthy housing market. Every jurisdiction's government has the capacity to contribute toward the region's targets by using their regulatory powers, providing public funding and in-kind resources, and being a voice and convener of other stakeholders. And nongovernmental institutions also wield substantial capacities. This section highlights key opportunities and constraints for jurisdictions, regional employers, and philanthropy to contribute to a regionwide partnership aimed at achieving ambitious housing goals over the next decade.

The Region's Governments Can All Contribute, but Capacities Differ

As jurisdictions weigh their potential contributions to the regional targets, they should assess their own housing gaps across the income spectrum. Ideally, every jurisdiction would have sufficient housing across cost bands to meet the needs of current and future residents. Mismatches in any jurisdiction can add costs for households, impede productivity through extended commutes, and reduce equitable access to public goods and services. A healthy regional housing market offers opportunities for households to find a reasonable place to live in a community that fits their needs. But just as housing needs and market challenges vary across the region's jurisdictions, governments have different powers and resources and face different constraints. Consequently, contributions across jurisdictions toward the region's housing targets will vary.

REGULATORY POWERS

Many local jurisdictions face constrained powers under Dillon's rule, which only permits municipalities to enact policies expressly allowed by the state. Jurisdictions with home rule have greater latitude to enact policies independently of the state. The Washington region includes a complex mix of jurisdictions that follow Dillon's rules and home rule:

- Although technically a Dillon’s rule state, Maryland provides its municipalities and counties with forms of home rule (National Association of Counties 2010). Frederick, Montgomery, and Prince George’s counties are charter counties, which means they are allowed to and have adopted home rule (Department of Legislative Services 2018).
- Virginia is a Dillon’s rule state, so the state government must grant authority to enact local laws. For example, Loudoun County, the City of Alexandria, the City of Fairfax, and Arlington County are granted more expansive, flexible inclusionary zoning laws, while all other jurisdictions in the state are subject to a much more limited enabling statute.¹⁹
- Washington, DC, has home rule and authority to pass local laws, but all its ordinances and budgets are subject to approval by Congress.²⁰

POWER OF THE PURSE

Even with the authority to enact new housing policies and amend regulations, jurisdictions inevitably face revenue constraints that impede the adoption of evidence-based solutions. Increasing the availability of housing subsidies and assistance programs often calls for raising new revenues, and doing so sustainably requires revenue sources dedicated to housing programs. State or local housing trust funds provide key mechanisms for aggregating resources dedicated to housing preservation and production. To be most effective, housing trust funds need a dedicated revenue source, which gives the program a reliable pool of funding to allocate each year. Examples of funding sources for housing trust funds include the following:

- **Local, county, or state taxes:** Real estate transfer taxes, hotel taxes, restaurant taxes, and other steady revenue streams can provide a reliable dedicated revenue source for housing trust funds.
- **Document recording fees:** Cities and counties often levy small fees when developers or homeowners submit documents, such as mortgages, deeds, or other legal records. These fees, although small per document, provide an important and consistent source of revenue.
- **In-lieu fees:** Many inclusionary zoning policies allow developers to pay into an affordable housing trust fund instead of building the units directly. The fees may add substantially to a trust fund, but they will fluctuate more than the previous two sources.
- **Linkage fees:** Market-rate commercial or residential developments may pay linkage fees to help subsidize the creation or preservation of affordable units. Although linkage fees on commercial

development ebb during development downturns, they can provide a boost to housing subsidies when commercial growth catalyzes an increase in housing demand.

- **Tax increment financing:** A method of funding infrastructure or development needs by borrowing against the projected increase in tax revenue within a specific geographic boundary. Allowable uses of tax increment financing may include subsidizing housing development or preservation.
- **Demolition fees:** Some communities may charge a fee when approving certain types of residential demolition, especially if demolition is expected to reduce affordability in the area.
- **General obligation bonds:** These bonds, issued by the city or county, are repaid from future government revenues and are used for a wide variety of capital projects, including capitalizing a housing trust fund. Although bonds can add resources quickly, they do not provide a sustainable source for housing trust funds over time.

Currently, Maryland, Virginia, the District of Columbia, the cities of Alexandria and Fairfax, and Arlington, Fairfax, and Montgomery Counties have housing trust funds. Further, housing finance agencies control additional revenue sources, such as low-income housing tax credits, that can support jurisdictions in preserving and producing affordable housing and protecting residents from displacement.

THE FEDERAL ROLE

The federal government plays a critical role in providing housing subsidies. Ideally, the federal government would provide significantly more resources to help close the gap at the bottom of the housing cost distribution. In fact, state and local governments may be unable to completely close that gap without an expanded federal contribution. But federal spending on housing subsidy for households with low incomes has decreased in real dollars since the mid-1990s (Theodos, Stacy, and Ho 2017). Therefore, it is critical for jurisdictions to take full advantage of the federal resources that are available, such as preservation of existing public housing stock and strategic use of housing vouchers, HOME Investment Partnerships, Community Development Block Grant funding, and Low Income Housing Tax Credits.

Large Employers Can Help Lead Regional Partnerships

As discussed, a well-functioning housing market matters to the region's employers, who need to attract, retain, and develop people to fill low-, middle-, and high-wage roles in their workforce. And as noted,

recent trends for the Washington region suggest that housing constraints and affordability challenges may already be posing significant challenges in this regard, creating a drag on employment growth. Large employers can play an influential role in a regionwide effort to address these challenges, bringing a regional perspective, a focus on the future, and a commitment to measurable goals.

VOICE AND INFLUENCE

As businesses recognize the need for affordable housing to maintain a competitive workforce, they can use their voices to advocate for local public policy changes. When business leaders join with grassroots housing advocates and others to make the economic case for expanding the availability of low- and moderate-cost housing, they have the potential to overcome long-standing inertia and fear of change and to build momentum for significant policy reform and expanded public funding. To illustrate, Microsoft recently helped to persuade city councils in Seattle's suburbs to allow for more density in their zoning code, and Salesforce chief executive officer Marc Benioff donated \$2 million to support a San Francisco measure that later passed, raising \$300 million annually to provide more funding for homelessness programs.²¹

EMPLOYER-ASSISTED HOUSING

A growing number of firms across the country are establishing employer-assisted housing programs because they offer benefits for both employees and employers. Employees can better afford housing near work, and employers use the programs to attract and retain workers.²² Programs often offer down-payment assistance, but they may also include housing counseling and rental subsidies (PolicyLink 2007).²³ For example, the University of Chicago provides an interest-free loan of \$5,000 to \$10,000 to help eligible employees with down payments and closing costs and provides up to \$2,400 annually for employees renting in targeted neighborhoods.²⁴

FINANCING FOR PRODUCTION, PRESERVATION, AND PROTECTION

Large employers may also contribute to local partnership vehicles that advance production, preservation, or protection goals. Program designs may focus on charitable giving objectives, impact investing with modest expected returns, or traditional institutional investment goals. Here we offer four examples of local partnerships where employers play critical roles:

- Healthy Neighborhoods Healthy Families in Columbus, Ohio, is a partnership between the Nationwide Children's Hospital, city and community groups, and United Way. Through this partnership, Healthy Neighborhoods Healthy Families has restored vacant homes, built new

low- and moderate-cost housing, and provided funding for homeowners to complete renovations or repairs.²⁵

- In Massachusetts, the Boston Medical Center and a dozen community partners are investing \$6.5 million in various low- and moderate-cost housing initiatives, including a stabilization fund that will provide grants to community-based organizations to help families avoid eviction, the creation of a housing stabilization program for people with complex medical problems, and the rehabilitation of permanent supportive housing units.²⁶
- The City/County of Denver launched the Lower Income Voucher Equity (LIVE) Pilot Program in response to a housing shortage for individuals and families with low-to-moderate incomes.²⁷ The pilot involves a public-private-partnership among the City, Denver Housing Authority, employers,²⁸ foundations, apartment building owners, and downtown Denver civic groups. The pilot program aims to open up to 400 existing vacant rental units for Denver's lower-income working residents by buying down market-rate rents on participating buildings. The funding goal is \$2 million, and private money will be matched by public and philanthropic funding.
- Local real estate developer JBG Smith and the Federal City Council partnered to create the Washington Housing Initiative. The initiative creates a capital investment vehicle to provide secondary financing for the production and preservation of housing affordable to households with incomes between 60 and 100 percent of the area median income in locations that are affordable today but may soon be subject to market pressures.²⁹
- Microsoft is spending \$500 million on low- and moderate-cost housing in the Seattle region, including \$225 million in loans to build housing for families making between \$62,000 and \$124,000, \$250 million in loans for housing that serves families making up to 60 percent of the area median income, and \$25 million to local organizations that work with the homeless.³⁰

Local Philanthropies Also Bring Essential Capacities and Perspectives

Philanthropic funders, such as large employers, often bring to public-private partnerships a regional perspective and a willingness to commit to long-term strategic planning and action. Further, many philanthropies prioritize the needs of the most vulnerable members of the community and highlight critical challenges to racial equity.

THOUGHT LEADERSHIP

Both national and local philanthropy can convene experts and advise efforts aimed at increasing the availability of low- and moderate-cost housing. Nationally, the [Funders for Housing and Opportunity](#) hope to catalyze long-term change by supporting advocacy across all levels of government, elevate knowledge about why housing matters across several systems, and fund evidence-based housing solutions. Examples of how local philanthropy can effect change within targeted geographies include the following:

- The Orcas Island Community Foundation (OICF) in Washington State identified low-cost housing as the most pressing need within its area and has provided funding to local housing projects and supported ballot initiatives to raise additional revenue for San Juan County.³¹
- Similarly, the Boston Foundation has brought together housing and health care organizations to highlight the importance of stable housing on health outcomes and fund interventions that can improve outcomes for both systems. The Boston Foundation funded planning grants to develop key performance indicators before funding four partnerships to implement their ideas. The foundation will use the results of this implementation phase to inform future work.³²
- The Housing Leaders Group of Greater Washington, composed of public and private sector leaders, including several in the philanthropic community, formed in 2014 to examine the nature of the shortage of affordable housing and strategies that could increase the availability of such housing in the Washington region. They have served as a key regional convener across sectors and jurisdictions on housing issues and recently launched the 2019 Capital Region Housing Challenge to secure \$1 billion in private- and public-sector investments in housing.

CAPITAL AGGREGATION AND CAPACITY-BUILDING INVESTMENTS IN NONPROFITS

Philanthropy can also pool capital through funder networks to increase the size of investments into affordable housing. For example, the Housing Partnership Equity Trust is a real estate investment trust that offers nonprofit housing developers low-cost capital to increase their multifamily portfolio (Schiff and Dithrich 2017, 28–31). The trust is sponsored by the Housing Partnership Network and is funded by a mixture of financial institutions and foundations. The equity investments enable the nonprofit developers in the trust to purchase at-risk multifamily units and preserve their affordability.

CREDIT ENHANCEMENT AND GUARANTEES

Credit guarantees involve a promise from a third party to make payments if a borrower cannot. These mechanisms are used to improve the risk profile of an investment, reducing the interest rate or improving the chances of loan approval (Schiff and Dithrich 2017). Philanthropy could provide a guarantee to help developers secure financing for low- and moderate-cost housing, protect against

vacancies in innovative types of residential properties (e.g., mixed-income developments, microhousing, or multifamily properties serving larger families), or funding shortfalls for essential services in supportive housing developments (Brennan et al. 2017). For example, the Annie E. Casey Foundation, the Abell Foundation, the Goldseker Foundation, and the Maryland Housing Fund provided Healthy Neighborhoods, Inc., a Baltimore nonprofit that builds homeowners' assets by providing special below-market loans to homebuyers and homeowners, with a guarantee to cover the first 10 percent of losses of each loan for their \$40 million loan pool. This guarantee reduced risks associated with lending in neighborhoods with high vacancy rates and with launching a new initiative (Schiff and Dithrich 2017, 18–20).

FUNDERS COLLABORATIVE

The Partnership for the Bay's Future is a regional funders collaborative aimed at increasing affordable housing in the Bay Area. Launched with the support of the [San Francisco Foundation](#), the [Chan Zuckerberg Initiative](#), the [Ford Foundation](#), [Local Initiatives Support Corporation](#), [Facebook](#), [Genentech](#), [Kaiser Permanente](#), the [William and Flora Hewlett Foundation](#), the [David and Lucile Packard Foundation](#), and [Silicon Valley Community Foundation](#), the collaborative is responding to Governor Newsom's call for more private and philanthropic sector action by raising \$500 million to support low- and moderate-cost housing. The money, which will be administered by LISC, will cover uses ranging from preserving affordability to building new homes to "supporting middle-income workers with housing costs,"³³ all with the goal of developing or preserving 8,000 affordable homes in the region.³⁴

FUNDING FOR ADVOCACY EFFORTS

Philanthropy can also fund efforts to build resident voice and advocate for policy change at the city and state levels. These efforts include grants for neighborhood engagement during planning processes, the creation of new sources of funding for housing, or building support for new low- or moderate-cost housing developments (Armenta and Benjamin 2018). For example, the Meyer Memorial Trust recently announced a request for proposals to support advocacy efforts in Oregon. It calls for proposals at two stages of policy change: building early support for housing policy change in general and focusing on specific policy or systems changes.³⁵ The MacArthur Foundation, through its Windows of Opportunity initiative, helped create the Stewards for Affordable Housing for the Future, a nonprofit collaborative of multi-state nonprofit low cost housing providers which advocate for federal policies to preserve and improve affordable rental housing.³⁶ Stewards for Affordable Housing for the Future was later the recipient of a Kresge Foundation grant to develop its Outcomes Initiative, an effort to "establish and utilize indicators related to resident outcomes."³⁷

Policy Tools and Contributions

Key Takeaways

- No one policy tool can solve the region's housing challenges; jurisdictions will need to pursue a portfolio of policy tools to achieve housing targets
 - The region's jurisdictions should choose policy tools that strategically deploy their regulatory authority, funding resources, and leadership capacities
 - The mix of policies should aim to produce more housing across the affordability spectrum, preserve existing affordability, and protect households from housing discrimination, instability, and hazards
 - Twelve local policy tools offer high potential for the Washington region to implement, expand, or strengthen
-

Whether through laws and regulations, public funding, or in-kind resources, or as a voice and convener, every county and city has a role in achieving regional housing targets. The scope and diversity of the housing challenge call for an array of policy tools calibrated for maximum effectiveness. While many housing policy tools already exist in the region, localities will need to deploy their technical and political expertise to adopt policies that fill strategic gaps, expand current policies' reach, and strengthen policies to achieve results at the magnitude needed.

In this section, we describe an array of tools that could allow the region to reach its targets. For each of three overarching goals (preservation, production, and protection), we describe strategies that align with distinct aspects of the goal. We then present descriptions and evidence about a set of policy tools suited to each strategy and goal. After applying analytic criteria, as described in the appendix, we narrow the list of policies to 12 with high potential to address the region's housing needs.

We conclude that the region would benefit from implementing, expanding, or strengthening the following 12 local policy tools:

Preserve

1. Loans for repairs and rehabilitation
2. Preservation network and inventory
3. Public housing rehabilitation
4. Financing for acquisition and rehab

Produce

5. Land value taxation
6. Zoning for higher densities
7. Reduced parking requirements
8. Equitable Transit Oriented Development funds

Protect

9. Home purchase assistance
10. Land trusts, co-ops, and shared equity ownership
11. Emergency rental assistance
12. Local housing vouchers

As jurisdictions weigh their potential contributions to the regional targets, they should assess their own housing gaps across the income spectrum. The appendix includes tables of housing units, needs, and gaps by jurisdiction within each housing cost band. Every jurisdiction can implement or strengthen policies to provide housing across cost bands both to address today's needs and to plan for projected regional growth. Mismatches in any single jurisdiction can add costs for households, impede productivity through extended commutes, and reduce equitable access to public goods and services. A healthy housing market benefits the whole region and enables a strong and inclusive economy.

Housing Strategies and Policy Tools for Regional Success

While housing policy experts often speak of the goals of *preservation* and *production* in tandem, more recent reports and toolkits have added a third P, *protection* (ChangeLab Solutions 2015). Each goal contributes to meeting regional housing targets. Preserving the current supply of low-cost housing ensures that the current and projected gaps between supply and demand do not become even wider through supply loss. Housing production—whether through new construction or adaptive reuse of non-residential structures—can then go toward filling the gap, rather than simply replacing lost supply. Meanwhile, protections against displacement and discrimination facilitate equitable access to the current and future supply.

This section describes strategies for preservation, production, and protection and offers tools that can advance these strategies. Our descriptions of each policy tool include a brief explanation of how the

policy operates and a rough estimate of its potential contribution to meeting the region’s housing needs. In some cases, we also highlight opportunities for aligning two or more policy tools to improve their results or offer regional context. Any examples of policies are non-exhaustive. For an inventory of existing housing policies in the Washington region, we recommend *A Guidebook for Increasing Housing Affordability in the Greater Washington Region* (Sturtevant 2017).

Jurisdictions do not need to adopt all the policies described in this report, but they likewise will not make sufficient progress in meeting their current and projected housing needs by advancing a single policy tool. Instead, they should consider the strategies that align with local needs and build a portfolio of suitable policies to implement or strengthen. Our approach to summarizing and grouping the policies under strategies may clarify when jurisdictions need a new or stronger tool, when existing tools need more resources, and when enabling legislation can help.

Preserve Existing Housing Affordability

Though conversations about filling the housing gap often focus on new construction, the preservation of existing low- and moderate-cost units is an essential—and often cost-effective—complementary strategy. Large supply gaps in the lowest cost bands underscore the importance of preservation to enable both production and protection strategies that achieve more substantial gains. Under the right circumstances, preservation can keep housing affordable at low incomes in areas with high land values, bypass debates about the impacts of new development, and prevent the displacement of current residents (Treskon and McTarnaghan 2016).

This section describes policy tools that counties and cities can apply, sustain, or strengthen in advancing three preservation strategies:

1. empower mission-driven acquisition of at-risk rental properties,
2. maintain and improve the physical condition of low- and moderate-cost housing, and
3. incentivize current owners to maintain low or moderate rents.

TABLE 6

Policy Menu: Preserve Existing Housing Affordability

Strategies	Policy tools
Empower mission-driven organizations to acquire low and moderate cost rental properties at risk of loss	<p>Laws and regulations</p> <ul style="list-style-type: none"> ■ Enact right of first refusal—to allow mission-driven organizations an advance window to acquire properties. <p>Public funding/resources</p> <ul style="list-style-type: none"> ■ Provide financing for acquisition and/or rehabilitation—to enable nimble and lower-cost acquisition. <p>Voice/convening power</p> <ul style="list-style-type: none"> ■ Create preservation networks and inventories—to enable advance preparation by public and nonprofit actors.
Maintain and improve the physical condition of low- and moderate-cost housing	<p>Public funding/resources</p> <ul style="list-style-type: none"> ■ Fund light rehab programs—to finance required improvements in rented or owned housing. ■ Fund moderate to substantial rehab programs—to address deferred maintenance and extensive repairs. ■ Create energy-efficiency programs—to reduce ongoing operating costs and enable spending on upkeep. ■ Rehabilitate public housing—to stop public housing units from going vacant because of disrepair. <p>Voice/convening power</p> <ul style="list-style-type: none"> ■ Provide technical assistance and training—to help property owners identify feasible solutions.
Incentivize current property owners to maintain low or moderate rents	<p>Laws and regulations</p> <ul style="list-style-type: none"> ■ Identify preservation-oriented subsidy priorities—to facilitate owners' commitment to low and moderate cost housing. <p>Public funding/resources</p> <ul style="list-style-type: none"> ■ Enact property tax incentives for preservation—to reduce landlord costs in return for rent limits.

EMPOWER MISSION-DRIVEN ORGANIZATIONS TO ACQUIRE PROPERTIES AT RISK OF LOSS.

Sales of multifamily properties can decrease the lower-cost rental supply as owners opt to either redevelop or reposition apartments at higher rents. By acquiring lower-cost rental properties as they become available, mission-driven organizations can keep rents down to levels that households with lower incomes can afford. While this strategy is mainly suited for older apartment complexes and subsidized rental buildings nearing the expiration of their affordability obligations, the stock of lower-cost single-family rentals could also call for mission-driven preservation. Policy tools that advance this strategy include the following three.

Enact right of first refusal. A right of first refusal can help nonprofits, tenants, or public agencies, who might otherwise be at a disadvantage competing against private developers to buy an affordable

property. Currently, rights of first refusal are a matter of law in some states or localities but are a term of a property's deed in other places. A current resident, public agency, or other entity granted the right of first refusal has an exclusive window for making or matching a purchase offer. First refusal rights may be triggered by specific events, such as (1) an owner of a subsidized building decides to exit the subsidy program, (2) any sale of a multifamily building, or (3) any sale of a single or multifamily rented property (Local Housing Solutions 2018).

Policy contribution: *Enables preservation when financing is available. In DC, tenants or their designees used TOPA to preserve more than 1,000 units since 2002.*

Opportunities for alignment: The right of first refusal can bring more properties to mission-driven actors for preservation with low-cost acquisition funds. In addition, the process can buy time for resident protection activities, such as locating new housing and connecting residents with related services.

In the region: The Tenant Opportunity to Purchase Act (TOPA) and District Opportunity to Purchase Act (DOPA) provide tenants or the District government, respectively, the right of first refusal. To increase the feasibility of residents acting on their rights under TOPA, DC funds groups to work with tenants on purchase deals. In Virginia, deed terms may convey the right of first refusal, such as for properties supported with public funds.

Provide financing for acquisition and/or rehabilitation. Acquisition funds can employ housing trust fund dollars, private equity, or other funding sources to help nonprofit developers purchase and improve properties in exchange for continued or perpetual affordability (Grounded Solutions Network 2018). An effective property acquisition fund allows a mission-driven entity to compete with the capital speed of the private market (ChangeLab Solutions 2015; Williams 2015).

Policy contribution: *\$8 million in local funds could support the preservation of more than 7,000 units over 10 years, based on the New York City Acquisition Fund's results.*

Opportunities for alignment: The New York City Acquisition Fund uses \$8 million of city trust fund loans as part of the credit enhancement for a revolving below-market debt fund that has made nearly \$250 million in loans and preserved more than 7,000 units over 10 years (Williams 2015).

In the region: the DC Department of Housing and Community Development has contributed \$8 million to Enterprise Washington's \$28 million Preservation Loan Fund (Enterprise 2009). The fund provides acquisition and predevelopment loans for the preservation of subsidized and unsubsidized multifamily housing for households with low and low-middle incomes in DC, as well as parts of Maryland and Virginia. A newer regional effort, the Washington Housing Initiative, includes an acquisition loan pool for preserving affordability in areas with rising demand.³⁸

Create preservation networks and inventories. Advocates, nonprofits, jurisdictions, and other interested parties can use a preservation inventory to monitor the status of lower-rent buildings and intervene to preserve affordability when necessary. By working together as a network, stakeholders can also coordinate their response. Once an inventory is in place, local jurisdictions and partners can use it to determine the appropriate scope and scale of other preservation programs.

Policy contribution: Enables timely response via other policy tools.

Opportunities for alignment: A preservation network and inventory can enable success for each preservation strategy, especially ones that require nimble acquisition efforts.

In the region: The DC Preservation Catalog, which combines national and local data sources to show properties at risk because of expiring subsidies or disrepair, informs the work of the DC Preservation Network.

MAINTAIN AND IMPROVE THE PHYSICAL CONDITION OF LOW- AND MODERATE-COST HOUSING

Whether subsidized or unsubsidized, housing requires ongoing maintenance and periodic major repairs to stay viable. Most major housing systems need replacement on 10-to-20-year cycles. Multiple policy tools can help cost-effectively address capital needs and prevent either deterioration or sharp price increases. While most housing preservation tools focus on renters, homeowners with low incomes or low equity—often older adults—may also lack money for repairs—putting their housing security and health at risk and reducing the stock of move-in-ready-for-sale housing in the future. Policy tools that advance this strategy include the following four.

Fund light rehab programs. Jurisdictions can help keep lower-cost housing viable and affordable by providing low-cost small-value loans to subsidize minor repairs.³⁹ Such loans may go to homeowners or

to owners of smaller rental properties who may lack sufficient cash flow and defer maintenance to control expenses.

Policy contribution: *Although not all would require assistance, up to 11,000 rental units could benefit from light rehab loans (based on 1–4-unit rental buildings up to 30 years old with rents below \$1,300 See figure 24 on page 34).*

Opportunities for alignment: Localities can offer light rehab loans to boost resident protection efforts in areas where current residents are at high risk of displacement or in concert with infrastructure improvements or other place-based investments.

Fund moderate to substantial rehab programs. Low-cost loans and grants can allow non-profit housing owners to make moderate to substantial repairs. The goal of these programs is to assist property owners who would not otherwise be able to maintain their properties while keeping the rents affordable for households with low or low-middle incomes. Governments, philanthropy, and nonprofits can collaborate to improve access to loans and grants for moderate and substantial repairs. Alternatively, jurisdictions can offer tax abatements or incentives to help property owners reduce the costs of substantial renovations (Local Housing Solutions).

Policy contribution: *Could preserve 80,000 to 144,000 unsubsidized affordable rental units (see table 5 on page 35)*

Opportunities for alignment: Similar to the light rehab loans, local jurisdictions can opt to prioritize these loan funds to boost resident protection efforts in areas where vulnerable people are at high risk of displacement or in concert with infrastructure improvements or other place-based investments.

In the region: Washington, DC, invested \$10 million in local funds in its Housing Preservation Fund in 2017 and 2018. The fund offers short-term bridge funding that allows borrowers to pay for acquisition and pre-development costs.⁴⁰

Create energy-efficiency programs. Technical and financial assistance for energy-efficiency improvements can reduce ongoing operating costs for both rental properties and homeowners (Local Housing Solutions 2018). Often energy efficiency programs are carried out by local or state governments using federal funding, with the potential for layering additional incentives or technical

assistance. Research on cost benefits in the mid-Atlantic would help determine the potential resident savings and return on investment.

Policy contribution: *Can reduce average multifamily electricity bills by 18–22 percent in hot or humid climates (Taylor, Searcy, and Jones 2015).*

Opportunities for alignment: Energy-efficiency programs can be an element of broader property rehabilitation funds. Energy upgrades can deliver additional health benefits for residents through better air quality.

In the region: Both Maryland and DC supplement federal weatherization resources with special multifamily energy efficiency programs. The Maryland Department of Housing and Community Development (DHCD) has a variety of programs that fund energy conservation in lower-cost multifamily rental properties.⁴¹ Among DHCD's efforts is a loan program for energy retrofits in buildings with other DHCD rental financing or buildings applying for DHCD support for acquisition and rehab. DC has provided rebates for multifamily property owners to purchase and install more efficient equipment, such as furnaces, boilers, and lighting.⁴²

Rehabilitate public housing. Public housing provides deeply subsidized apartments for households with the lowest incomes. But consistently insufficient federal funds for the public housing capital budget have resulted in diminishing housing quality and many units becoming uninhabitable—exacerbating affordable housing shortages. Jurisdictions can support public housing preservation through policy attention to ensure continued operations by reputable owners and vocal leadership to advance resident protections during rehabilitation. In some cases, jurisdictions may prioritize repairs and rehabilitation of the public housing stock when allocating their housing subsidy funds.

Policy contribution: *Up to 10,200 units, based on approximate public housing inventory in the region (see table 4 on page 33).*

Currently, the federal response to public housing's capital needs backlog is the Rental Assistance Demonstration (RAD) program. RAD allows housing authorities to convert public housing and various legacy subsidy programs to project-based vouchers or rental assistance, while retaining ongoing affordability requirements.⁴³ Doing so allows properties to leverage public and private sources of rehab and preservation funds not available to public housing. While this program could lead to much-needed

repairs, housing authorities and other stakeholders should plan and implement the program with care to minimize the risk of displacement and ensure that temporarily displaced residents have low barriers to return.

Opportunities for alignment: If local housing authorities opt for preservation through RAD, local preservation loans offer an additional tool for ensuring perpetual affordability commitments and resident protections.

In the region: The Fairfax County Redevelopment and Housing Authority converted its entire public housing portfolio into 1,060 units of project-based vouchers through RAD.⁴⁴ A legislative effort in DC would allocate \$30 million from sports and convention authority reserves toward public housing repairs.⁴⁵

Provide technical assistance and training. Targeted outreach and technical assistance, whether provided directly by a local agency or through a partnership, can connect property owners with information and resources to preserve lower cost rental properties. In Chicago, for example, technical assistance and capacity building were major elements of the twenty-year Window of Opportunity preservation initiative. Localities may not offer assistance directly, but can develop partnerships with nonprofits and regional networks to deliver assistance to property owners.

Policy contribution: *Enables stronger results via other policy tools.*

Opportunities for alignment: Technical assistance can strengthen property owners' outcomes when using local preservation funding.

INCENTIVIZE CURRENT PROPERTY OWNERS TO COMMIT TO LOW OR MODERATE RENTS

Rising operating costs or expiring subsidy commitments may lead current property owners to raise rents beyond the level that their residents and other households with low incomes in the region can afford, particularly in markets where property values and rents are rising. Expiring subsidy commitments present a particularly important preservation opportunity since the rents could otherwise increase substantially if owners opt out of ongoing participation. Policies to retain affordability in high demand areas may extend beyond preservation tools. For example, the production and protection goals include policy tools that enable longer-term affordability. Policy tools that advance this strategy include the following two.

Identify preservation-oriented subsidy priorities. Local governments can use their existing subsidy programs to encourage rental preservation. For example, localities could channel subsidy resources toward properties with expiring affordability commitments. In addition, technical support could help owners renew subsidy contracts or identify other financing options for maintaining affordability.

Policy contribution: *Could support preservation of nearly 77,000 units of federally assisted housing whose subsidies will expire by 2035 (see table 4 on page 33).*

Opportunities for alignment: This policy relies on the presence of local control over subsidy resources in order to channel them toward preservation rather than other uses.

Enact property tax incentives for preservation. Property tax reductions, such as through tax abatements and exemptions, may be offered to owners in exchange for continuing to provide housing at below-market rents. In Cook County, Illinois, multifamily properties renewing US Department of Housing and Urban Development (HUD) subsidy contracts are assessed at a lower tax rate.⁴⁶

Policy contribution: *Varies with owners' business models and tax incentive level.*

Opportunities for alignment: Local governments can use property tax incentives to stem the loss of subsidized housing in specific areas, such as near growing job centers, high-performing neighborhood schools, or neighborhoods with high displacement risks.

In the region: Property tax relief is more commonly given as an affordability incentive during rental production or to assist homeowners who are older and/or have disabilities directly. In DC, new multifamily mixed-income developments can receive 10 years of tax abatements in exchange for 20 years of committed affordability. The Commonwealth of Virginia allows localities to establish property tax exemptions to help homeowners who are older or disabled and have restricted incomes remain in their properties (Local Housing Solutions 2018).

Produce More Housing across the Affordability Spectrum

Policy action to find and remove production impediments across affordability levels plays an essential role in filling the region's supply gap. Building more homes—whether single-family or multifamily, rented or owned—can alleviate market pressures that keep home prices and rents high. However, new housing

production does not relieve market pressure across the board. For example, new production of low-middle- and middle-cost housing may shift market pressures for households with low, low-middle, and middle incomes, but is unlikely to attract households with higher incomes or reduce supply pressures for households with the lowest low-incomes.⁴⁷ New production strategies will generate the greatest benefit if they are targeted to the housing cost levels and locations experiencing supply shortages, with some spillover benefits radiating from there. When aligning supply to demand does not sufficiently bring down housing prices, policies can directly improve affordability by reducing the cost of development or offering project-level subsidies.

This section describes policy tools that counties and cities can apply, sustain, or strengthen in advancing three production strategies:

1. increase the locations and density of housing development,
2. shorten the timeline for delivering new housing, and
3. support affordability and inclusion.

TABLE 7

Policy Menu: Produce More Housing across the Income Spectrum

Strategies	Policy tools
Increase the locations and density of housing development	<p>Public funding/resources</p> <ul style="list-style-type: none"> ■ Designate housing as a priority use for public land—to increase available space for housing. <p>Laws and regulations</p> <ul style="list-style-type: none"> ■ Establish land value taxation—to create a disincentive for speculative land holding, especially of vacant parcels. ■ Implement infill authorization or incentives—to put more parcels to use. ■ Enact up-zoning and density-enabling regulations—to enable more housing production. ■ Prioritize added density in approved areas—to use more parcels to their allowable density. ■ Facilitate single-family conversions and accessory dwellings in every neighborhood—to increase density in keeping with community design.
Shorten the timeline for delivering new housing	<p>Laws and regulations</p> <ul style="list-style-type: none"> ■ Streamline impact assessments and environmental review—to improve the timeline without losing essential reviews. ■ Expedite permitting for designated housing types—to prioritize development of needed homes. ■ Increase predictability of approvals—to reduce costly delays. <p>Voice/convening power</p> <ul style="list-style-type: none"> ■ Develop skilled labor and quicker construction options—to improve productivity and reach move-in more quickly.
Support affordability and inclusion	<p>Laws and regulations</p> <ul style="list-style-type: none"> ■ Eliminate or reduce parking requirements—to allow developers to create more housing units at lower cost. ■ Implement mandatory inclusionary zoning—to require low- or moderate-cost units with new residential development. ■ Create developer incentives—to waive fees, increase allowable greater density, or offer other incentives in exchange for the production of low or moderate cost units. ■ Enact fair share requirements—to establish, monitor, and enforce targets for including lower-cost housing. <p>Public funding/resources</p> <ul style="list-style-type: none"> ■ Fund local development subsidy programs—to support the production and operation of housing at low or moderate rent levels. ■ Fund transit-oriented development—to bring down the minimum feasible rents near transit. ■ Provide committed project-based subsidies—to improve financial viability of development that serves lower incomes. ■ Allow public purchase of inclusionary units—to enable very low-cost housing in scattered sites.

INCREASE THE LOCATIONS AND DENSITY OF HOUSING DEVELOPMENT

Through adding incentives or removing barriers, local policies can enable new or higher-density housing in high-demand, convenient, or amenity-rich locations. Prime neighborhoods for added housing may be

near job centers, transit, schools, health care facilities, and other vital services. This strategy is particularly applicable to jurisdictions with few available parcels and with substantial single-family or low-density zoning. Policy tools that advance this strategy include the following.

Designate housing as a priority use for public land. Local governments own or control a significant number of parcels, whether as surface parking or real estate owned by municipal agencies or land banks. Because of the high cost of land in the area, the donation of publicly owned land is a sizeable subsidy—at a low direct budgetary cost. When donating public land, governments can stipulate the terms, including a guarantee that the developer will build affordable housing and/or maintain affordable rents in perpetuity. To start, jurisdictions can inventory their real estate holdings, noting parcels in residential zones that are either buildable or can accommodate mixed-use redevelopment. Instead of donating public land, governments can pursue mixed-use development that includes a public agency site located with affordable housing.

***Policy contribution:** Extensively used through the US with varying affordability requirements, but lacking rigorous impact estimates. The regional potential could be calculated through (1) taking an inventory of publicly owned parcels in or near multifamily zones, minus parks; (2) estimating the allowable units feasible on vacant parcels in these areas, and (3) estimating the additional feasible units through adaptive reuse and/or co-location of housing on used sites.*

Opportunities for alignment: Land donations can increase the feasibility of new construction at rent prices affordable at low and low-middle incomes. Local governments can further strengthen affordability through pairing publicly owned land with other development subsidies or transit-oriented development funds.

In the region: Arlington, Fairfax, and other jurisdictions have donated public land for specific developments and generated housing developments affordable at or below 60 percent of area median income (NVAHA 2013). In DC, new multifamily developments built on formerly public land must set aside 30 percent of their units toward affordable housing.

Establish land value taxation. Common property tax methods in the US assess taxes on the land and structures together, but real property taxes could separate the value of the land from that of structures. Land value taxation would eliminate taxes on structures and solely tax the land, while split-rate taxation would charge a higher tax rate for land than for structures.⁴⁸ Adopting either of these approaches might reduce investors' motivation to underuse parcels since the value of the structure would either have no impact on property taxes or would lead to less added tax than acquiring a new parcel.

Policy contribution: *Strong theoretical case but few US examples. Economic models have shown higher development activity in places with land value taxation compared with total value taxation, with some exceptions.*

Opportunities for alignment: Land value taxation could boost the incentives for density whether through infill, up-zoning, or other policies. The approach could also incentivize investment in parts of the region with lower current land values, such as counties farther from the core or neighborhoods that face disinvestment because of structural racism. As a result, consideration of land value taxation should include awareness of complementary policy tools that protect residents and promote social equity.

In the region: In 2002, Virginia gave the city of Fairfax the ability to implement split-rate taxation (Dye and England 2010). In 2013, the District of Columbia Tax Revision Commission reviewed the idea of split rate taxation and developed estimated tax rates that would remain revenue neutral.⁴⁹

Implement infill authorization or incentives. Multifamily zones often contain vacant lots. Jurisdictions can improve developers' ability to add housing on these parcels. For example, jurisdictions could provide property tax abatements or fund infrastructure improvements near the properties (Woetzel et al. 2016). Jurisdictions could also address other common barriers like obsolete zoning codes for infill parcels and difficult parcel assembly (PolicyLink 2001).

Policy contribution: *Using methods described in the appendix, we estimated that the current buildable vacant lots zoned for multifamily use could accommodate more than 32,000 or more new multifamily units in DC, Arlington, Fairfax, and Montgomery Counties.*

Opportunities for alignment: The rationale for infill development gets stronger with additional policies that support density, such as land value taxation or up-zoning. Infill incentives can further provide opportunities for generating not just more housing, but more housing affordable at the housing cost levels facing a shortage.

Enact up-zoning and density-enabling regulation. To accommodate population growth and reduce sprawl, jurisdictions can modify zoning to enable higher residential density. The benefits of up-zoning grow stronger near existing or planned transit, in areas with strong public amenities, or with affordability requirements or incentives. Reforming other regulations, such as lot size requirements or unit-mix guidelines, can also support density and allow higher-density living for all household sizes.

Policy contribution: By our calculations, up-zoning residential parcels by 20 percent in transit nodes and/or activity centers in DC, Arlington, Fairfax, and Montgomery Counties would enable between 47,000 and 59,000 new residences (see appendix).

Opportunities for alignment: Up-zoning can increase development in general, but not necessarily at the affordability levels needed. The policy would combine well with transit-oriented development funds for properties that ensure below-market rents or home prices.

In the region: Single-family housing accounts for 96 percent of all residential land in Montgomery County, 95 percent in Fairfax County, 80 percent in DC, and 73 percent in Arlington.

Prioritize added density in approved areas. In areas already zoned for higher densities, jurisdictions can prioritize permits that would convert parcels to use more of the allowable density (Woetzel et al. 2016). Prioritizing permits in this way allows parcels to more quickly convert to their most productive use. Parcels that could already have added more units for a higher density are therefore termed “underutilized.”

Policy contribution: The underutilized multifamily lots on which it is more likely to be economically feasible to add density could accommodate 22,000 or more added units in DC, Arlington, Fairfax, and Montgomery Counties (see our assumptions and methods in the appendix).

Opportunities for alignment: Prioritization by itself is unlikely enough to persuade developers to build. Therefore, jurisdictions should combine with policies like waived fees, low-cost financing, or tax incentives to encourage developers to densify. Where building does occur, jurisdictions must put in place protections to enable large-scale redevelopment without displacing current residents (Woetzel et al. 2016).

Facilitate single-family conversions and accessory dwellings. In neighborhoods with a large amount of single family housing, conversions from single-family to multifamily, including the creation of attached or detached accessory dwelling units can add density in ways that blend into single-family neighborhoods. By opening properties up to a second structure, jurisdictions could use their existing land and infrastructure to support additional density.

Policy contribution: *One study in California posited that accessory unit policies could add one secondary structure for every 20 single-family homes (Woetzel et al. 2016).*

Opportunities for alignment: Homeowners may need low-cost loans or other assistance to complete conversions. When paired with limits on short-term rentals, this policy tool has a greater likelihood of adding housing supply.

In the region: Washington, DC, is among several jurisdictions that have amended zoning regulations to allow for the construction of accessory dwelling units on a wider variety of properties.

SHORTEN THE TIMELINE FOR DELIVERING NEW HOUSING

Jurisdictions can adopt changes that make the development process quicker and more predictable, allowing developers to produce more housing in a shorter time or reduce the cost of holding land before development. Projects often go through multiple rounds of review as developers conduct impact assessments and seek permits and approvals from city or county commissions, neighborhood groups, and other interested entities. Once permitted, the construction methods (i.e., site-built versus factory-built) and availability of labor also affect the timeline (Woetzel et al. 2016). Policy tools that advance this strategy include the following four.

Streamline impact assessments and environmental review. Pre-development assessment and review requirements can provide important protections for communities and the environment, but they also add costs to projects. Streamlining the review process avoids duplication of effort and adds certainty to the development process. Jurisdictions can identify housing types or locations where a streamlined process for impact assessments and environmental reviews would offer the intended protections with less delay and cost. For example, jurisdictions could expedite the environmental review process if projects are consistent with other densities in the area (Local Housing Solutions 2018).

Policy contribution: *Moderate case for Washington regional contribution but no rigorous evidence to estimate the impact.*

Opportunities for alignment: If land value taxation or other policies are enacted to press land owners to put parcels to use, additional streamlining could demonstrate a good faith effort to support profit-motivated actors.

In the region: Delays and costs from impact assessments and review requirements are not as burdensome in the DC region overall as other approval issues.⁵⁰

Expedite permitting for designated housing types. A fast-track process for designated housing products could reduce unpredictability or unforeseen delays. Since housing for households with lower-incomes operates on tight margins, expedited permitting for below-market housing could reduce the need for additional subsidies to cover expenses during pre-development. Fast-tracking may entail prioritization of qualifying projects or a brief informal review to identify any concerns that need resolution before the project goes to a public forum.⁵¹

Policy contribution: *Can reduce construction time by 25 percent (Woetzel et al. 2016).*

Opportunities for alignment: Paired with other regulatory reforms, expedited permitting could enable more mixed-income or middle-income development without direct financial subsidy.

Increase predictability of approvals of needed housing. “By-right development” refers to projects that are allowed under current zoning regulations and thus do not need any additional approvals by legislative bodies or zoning boards. When more of the region’s needed housing types and densities are allowed by right, the zoning process is more straightforward and less susceptible to delays from hearings, negotiations, and lawsuits. Local governments can amend laws to allow more multifamily housing, higher densities, or other needed housing types by right.

Policy contribution: *When Philadelphia adopted a new code with more options available through standard zoning, by-right permit approvals of zoning permits rose 11 percent, variances declined in some districts, and builders reported satisfaction with the streamlined code (Burnett and Morrill 2015).*

Opportunities for alignment: Localities can combine this policy with financial incentives for affordability.

In the region: New developments may opt to build only up to level allowed by right, even if demand exists for more units, because of the time and expense of approvals. The Urban Land Institute found that approval processes could take more than two years and was unlikely to take less than 9 months. A two-year approval timeline adds around \$2 million in expenses regardless of the size of the development (Urban Land Institute Washington 2019).

Develop skilled labor and quicker construction options. Shortages of construction labor since the Great Recession have not rebounded, and demand for construction firms and labor exceeds supply. If there were a bigger talent pipeline, construction companies could staff up projects more quickly, leading to increased units and decreased costs. Jurisdictions can partner with building and trades associations to overcome production barriers that occur after permitting. For example, the public and private sectors can help build the pipeline of trained workers and construction firms to relieve shortages in high-demand trades within the construction industry (Woetzel et al. 2016).

Policy contribution: Strong theoretical case but unclear timeline or scale of benefits.

Opportunities for alignment: Supporting access to a strong construction workforce and essential materials would strengthen both production and preservation writ large.

In the region: While construction is happening through the region, development types with lower and higher profit margins are competing for limited labor and available construction firms. Lower-cost housing may go from permitting to completion more quickly if labor access is easier. A longer-term regional solution for improving construction timelines might entail attracting a modular construction facility to a Beltway-adjacent location to make factory-built housing more cost effective and specialize in higher-density modular formats that fit regional needs.

SUPPORT AFFORDABILITY AND INCLUSION

While more locations and density and shorter timelines for development can improve both affordability and inclusion, the two prior strategies can span all income levels and types. Additional policy tools focus on bringing costs down or ensuring that lower-cost housing options exist throughout a community or the region. Jurisdictions can offer subsidies and incentives at the property level to allow new housing to deliver very low rents. Policy tools covered in the protection section can further subsidize at the household level to allow access to more housing. Policy tools that advance this strategy include the following nine.

Eliminate or reduce parking requirements. Zoning codes usually stipulate a ratio of parking spaces to housing units for new developments. These ratios vary greatly within the region, with some areas requiring more than one parking space per home and others allowing new housing units to outnumber parking spaces.⁵² Parking requirements add costs—and can reduce the housing supply even when parking requirements seem minimal. A 2012 study found that the construction cost of parking in

Washington, DC, ranges between \$22,000 and \$29,000 per space, depending on whether the spot is aboveground or underground.⁵³

Policy contribution: *Could add 2 to 3 percent more multifamily units in areas with low parking requirements—and 17 to 20 percent more in areas that currently require large parking ratios (MacDonald 2016). Could reduce rents 17 percent (Gabbe and Pierce 2017).*

A more robust version would eliminate any required parking and allow developers to decide based on their market analysis. Elimination of parking requirements would not eliminate new parking, but would allow greater flexibility about parking spaces rather than allowing the cost of a parking deck to define how much housing to build.

Opportunities for alignment: Local jurisdictions can align parking reductions with transit-oriented development funds. If households are better supported by public transit, the demand for parking should be lower.

In the region: Alexandria, Arlington, and Washington, DC, all have substantially reduced parking requirements. For example, Arlington County (2017) reduced off-street parking requirements for multifamily developments near its transit corridors.

Implement mandatory inclusionary zoning. Mandatory inclusionary zoning includes low- and moderate-cost units in construction of developments over a certain size. The goal of inclusionary zoning is to leverage market-rate construction activity to generate additional below-market housing at the same time and typically in the same development. By locating in the same area, jurisdictions can achieve a better mix of incomes and can help unlock access to high-opportunity areas for residents with lower incomes.

Policy contribution: *Varies with market context and policy design. To estimate additional lower-cost units generated in a specific hypothetical building, see a calculator from Grounded Solutions Network.⁵⁴*

Opportunities for alignment: Policies typically offer density bonuses or other concessions to the developer as part of the deal. Some jurisdictions also allow in-lieu fees for developers who are unable or unwilling to include inclusionary units in their developments. These fees are important revenue sources for affordable housing trust funds, which fund preservation and production activities.

In the region: Jurisdictions with inclusionary zoning policies in Maryland, Virginia, and DC have used the program to add as few as 40 or as many as 400 units a year (Sturtevant 2016). Montgomery County's inclusionary zoning (or moderately priced dwelling unit) law is among the oldest in the nation and has unique features that enable deep affordability, discussed later. DC's inclusionary zoning program requires that 8–10 percent of the residential floor area be set aside for affordable units for all developments that include more than 10 units.⁵⁵ DC's program created 402 units over the program's first nine years.⁵⁶ Most of Virginia is subject to a limited enabling statute for inclusionary zoning policies.⁵⁷ Arlington and Loudoun Counties, and the cities of Alexandria and Fairfax have more flexibility about the types of policies and their reach.

Create developer incentives. Incentive-based inclusionary zoning aims to persuade developers to add below-market-rate housing rather than requiring it. For example, many jurisdictions offer density bonuses that increase the total number of units or floors on a site. Incentives may also waive or reduce the fees for infrastructure or service connections.

Policy contribution: Will generate fewer units than mandatory inclusionary zoning.

Opportunity for alignment: In locations that cannot require inclusionary zoning, an incentive-based approach could be paired with deeper supports to increase the likelihood of developers' opting in.

Enact fair share requirements. Under fair share requirements, each community has a target level of low-to-middle-income housing. Communities with insufficient amounts of low- to middle-cost housing may get help in the form of flexible permitting standards⁵⁸ or face the threat of losing local zoning control. Chapter 40B in Massachusetts led to 58,000 new housing units since 2010, of which 31,000 were for households with low- and low-middle incomes.⁵⁹

Policy contribution: Could generate thousands of lower-cost units, but requires accountability and enforcement measures not currently in place in the Washington region.

In the region: While fair share can be a highly effective tool, the policy would likely face major obstacles because of the lack of a single strong enforcement body for the region. Fair share requirements adopted and enforced at the state level could offer partial assistance. Entities with regional oversight could likewise offer effective enforcement support. For example, the National Capital Region Transportation Planning Board creates the region's transportation plans and inclusion in

the plans is a prerequisite for receiving federal funds.⁶⁰ Insufficient housing for households with low-to-middle incomes could adversely affect the transportation and air quality goals within their mandate.

Fund local development subsidy programs. Development subsidies may take many forms, including equity, reduced interest-rate loans, and tax abatements. Local governments can offer various subsidies to support housing development, especially of below-market rental properties. Funding may come from federal resources, such as HOME or CDBG, or local sources like an affordable housing trust fund.

Policy contribution: *Varies with design and subsidy level.*

Opportunities for alignment: Local development subsidies can help developers fill gaps despite access to subsidies from other sources, such as Low-Income Housing Tax Credits.

In the region: Many housing trust funds in the region apply their resources to fund low-cost loan programs. The Housing Leaders Group of Greater Washington's Capital Region Housing Challenge seeks expanded capital commitments, which could add to local development subsidies.

Fund transit-oriented development. Transit-oriented development (TOD) funds support residential, commercial, and community development projects near transit through low-cost loans for acquisition and predevelopment costs. Well designed and effectively targeted TOD funds can expand the stock of low- and moderate-cost housing in areas with high land values. Although few TOD funds have undergone strong evaluation, the policy tool has numerous examples across the US, both with and without an affordability emphasis. In Denver, 8 properties have been acquired using the \$15 million TOD Fund with the goal of preserving or creating 626 affordable homes⁶¹. In Atlanta, the Atlanta Beltline Affordable Housing program is allocating \$8.8 million raised from bonds with the goal of developing 5,600 units of affordable housing over 25 years.⁶²

Policy contribution: *Can leverage new transit for added affordability and housing supply. Many examples can be found in the region and US, but often with minimal affordability requirements or evaluation of impacts.*

Opportunities for alignment: TOD funds can support greater affordability of housing created through public land, up-zoning or other means.

In the region: With the new Purple Line set to open in the region in 2022, creating or strengthening TOD funds can pair the new transit investment with added (or preserved) affordability and inclusion in the hottest parts of the regional market.

Provide committed project-based subsidies. Many housing developments also need ongoing financial support to reduce operating costs enough to offer low or moderate rents. Project-based subsidy commitments can be especially helpful to house populations who require additional services. For example, to serve people experiencing chronic homelessness, developers would need both operating support and dedicated service funding (Handelman, Jawaid, and Brennan 2013).

Opportunities for alignment: Project-based subsidies for operating costs could bring rents down more or reach higher risk populations if combined with development subsidies and service funding.

Policy contribution: *Varies with subsidy level and method.*

Allow public purchase of inclusionary units. While most inclusionary zoning policies add housing affordable at middle and/or low-middle income levels, inclusionary zoning programs can provide the right to attach deeper subsidies to a portion of the units, allowing rents to become affordable to even households with the lowest incomes.

Policy contribution: *From 1974 to 2011, Montgomery County added approximately 1,500 public housing units in mixed-income buildings (Schwartz 2011).*

Opportunities for alignment: This policy can enable public housing authorities to add units and diversify their portfolio across different locations. Tight housing authority budgets may limit the expected impact of this policy if adopted elsewhere, but this policy approach can add newly built housing specifically for the lowest income bands.

In the region: In Montgomery County, the Housing Opportunities Commission has the option to purchase or lease up to 33 percent of available moderately priced dwelling units generated through the county's inclusionary zoning program. The units then become a scattered-site form of public housing, accessible to even households with the lowest incomes (HUD 2012).

Protect Households from Housing Discrimination, Displacement, and Hazards

When fostering a housing market that can meet current and future needs, strategies and policy tools to protect households—particularly people with low incomes, people of color, and other marginalized groups—are as important as those to preserve and produce housing units. Otherwise, discrimination, displacement, and substandard conditions will sustain and exacerbate inequities in the housing market that impede both individual and regional success (Galvez et al. 2017).⁶³

This section describes policy tools that counties and cities can apply, sustain, or strengthen in advancing three protection strategies:

1. Reduce instability and displacement pressure.
2. Enable fair and equitable access to housing.
3. Prevent hazardous and unhealthy living conditions.

TABLE 8

Policy Menu: Protect Households from Discrimination and Displacement

Strategies	Policy tools
Reduce instability and displacement pressure	<p>Laws and regulations</p> <ul style="list-style-type: none"> ■ Enact rent stabilization—to establish and enforce limits on rent increases. ■ Establish lease term and renewal rights—to adopt laws that increase stability for renters in good standing. ■ Provide tenant relocation assistance requirements—to create a disincentive for displacing renters. ■ Limit short-term rentals—to balance periodic income support with the need for a year-round housing supply. <p>Public funding/resources</p> <ul style="list-style-type: none"> ■ Provide home purchase assistance—to increase residential stability among households with low incomes and first-time owners. ■ Allow land trust, co-op, and/or shared equity homeownership—to open the door to homeownership in extremely high-cost areas. ■ Create assessment limits—to reduce owners' displacement pressures from rising property tax bills. ■ Establish local housing vouchers—to supplement federal vouchers and increase access to housing among people with extremely limited means. ■ Fund emergency rental assistance—to reduce evictions. ■ Provide mediation and legal services—to provide renters with low incomes with a right to mediation and/or a publicly-funded attorney for eviction matters.
Enable fair and equitable access to housing	<p>Laws and regulations</p> <ul style="list-style-type: none"> ■ Expand antidiscrimination protections—to ensure fair housing for groups that face access disparities. <p>Public funding/resources</p> <ul style="list-style-type: none"> ■ Increase testing and enforcement of fair housing laws—to reduce barriers for renters and home buyers. <p>Voice/convening power</p> <ul style="list-style-type: none"> ■ Support fair housing education programs—to increase voluntary compliance. ■ Conduct landlord outreach—to reduce discrimination against people with rent vouchers.
Prevent hazardous and unhealthy living conditions	<p>Laws and regulations</p> <ul style="list-style-type: none"> ■ Commit to ending homelessness—to make explicit commitments and fund proven strategies to achieve the goal. ■ Establish proactive rental inspections—to reduce the possibility of retaliation when renters press for essential repairs. ■ Require rental registration and licensing—to improve accountability and enforcement capacity. <p>Public funding/resources</p> <ul style="list-style-type: none"> ■ Provide rapid rehousing assistance—to identify and house people as they become homeless.

REDUCE INSTABILITY AND DISPLACEMENT PRESSURE

The fear of losing one's home or becoming uprooted from a community imposes burdens on people living in high cost or rapidly changing markets—especially people without an ownership stake in the land. Instability and displacement pressure also affect communities and regions—destabilizing workers and in some cases exacerbating economic or racial tensions. Policies' potential to improve individual outcomes and reduce societal costs related to the ripple effects of residential instability on health, education, criminal justice, and child welfare systems may help open doors to funding and political will. If an intervention's benefits need additional evidence, jurisdictions could use social finance structures to test assumptions about outcomes and costs. Policy tools that advance this strategy include the following ten.

Enact rent stabilization. Whether referred to as rent control or stabilization, policies that limit rent increases can reduce residents' risk of economic displacement. Policies may stipulate a maximum annual rent increase percentage. Weaker versions of the policy may exempt various property types and allow property owners to appeal and enact a larger rent increase. Stricter forms of rent control may have a firm price ceiling or a review board process to approve rent increases based on changes in operating costs or documentation of substantial upgrades. Properties may exit rent controls after the rents reach a threshold level or when residents move out.

***Policy contribution:** Multiple studies have found that renters are less likely to move if they are in a rent-controlled apartment than an apartment with no rent limits, and that rents for controlled apartments are lower than uncontrolled apartments. However, the additional stability for occupants of rent controlled units may come at the cost of supply constraints or higher rents for others in the market (Rajasekaran, Treskon, and Greene 2019).*

Opportunities for alignment: Limits on rent increases could be applied at the property level in conjunction with financing assistance or tax relief to keep rents aligned to a specific household income band. Doing so, however, would not guarantee that the households renting the stabilized units are in the income group that most needs them.

In the region: Rent stabilization would require state enabling legislation in Virginia. In Maryland, the city of Takoma Park has rent stabilization for all multifamily housing.⁶⁴ Montgomery County publishes annual voluntary rent guidelines, which suggest a reasonable rent increase based on cost-of-living changes.⁶⁵ In DC, a rent control law in place since 1985 applies to a subset of properties—primarily unsubsidized multifamily properties built after 1975 owned by a for-profit with at least 5 units.⁶⁶ As of a

2011 rent control report, fewer than 80,000 units were likely subject to rent control in DC (Tatian and Williams 2011).

Establish lease term and renewal rights. The end of a lease creates a window for displacement. Policies known as “just cause eviction laws” require landlords to offer a renewed lease to any renter in good standing. Jurisdictions may also implement landlord-tenant laws that require property owners to offer a one-year or even two-year lease, or may automatically renew leases for another term unless the expiration is accompanied by a move-out notice.

***Policy contribution:** This policy would have the greatest benefits for ongoing stability for renter households at low-middle income levels or higher since they are less likely to face financial pressures that lead to late rent payments.*

Opportunities for alignment: Rights to renewals and longer lease terms can support other policies for rental stability. For example, the option of longer leases can reduce displacement from unsubsidized rental properties by giving renters more time before their lease terms could change. Rent stabilization can add continued affordability for renters with a right to renew.

In the region: Rental property owners in Montgomery County are required to offer two-year leases and renewal terms, but owners do not need to provide a reason for nonrenewal of leases. If renters choose to move before the lease term ends, the owner can only charge reasonable losses—not the full remainder of the lease.

Provide tenant relocation assistance requirements. Already required when the redevelopment of a federally owned or funded project would displace residents, relocation assistance could be added in other cases, such as redevelopment of any occupied rental property or conversion from rented apartments to condominiums. Relocation assistance may consist of information and advice, a preset payment, or moving expense reimbursement. In Seattle, renters with low incomes are eligible for a relocation payment in the event of displacement due to various causes, with different payment levels and responsibilities based on the reason for relocation. For redevelopment or demolition, the required payment is currently around \$3,800, paid half by the city and half by the property owner.⁶⁷

Policy contribution: *The policy may either help renter households move with minimal harm or reduce plans for disruptive redevelopment. In Seattle, 1,881 renter households received relocation payments between 2004 and 2017.*⁶⁸

Opportunities for alignment: Relocation assistance adds protections during major rehabilitation or redevelopment and could be added to preservation policies for properties without federal funding.

In the region: DC law requires property owners seeking to vacate a building for renovations or demolition to pay renters \$300 in relocation assistance for each room in the rental unit.⁶⁹

Limit short-term rentals. The conversion of single-family homes, apartments, and accessory dwellings into short-term rentals increases pressure in already tight housing markets by reducing the supply of residences and increasing the supply of vacation accommodations. To reduce this risk while allowing short-term rental services under more limited circumstances, jurisdictions may require registration of short-term rentals and/or institute limits on non-residential use.

Policy contribution: *Could increase housing supply by up to 9,000 units in DC alone or generate around \$1,500 in annual taxes per unit (summing to \$15 million in potential annual DC trust fund revenue).*⁷⁰

Opportunities for alignment: Collection of a special tax on short-term rentals or fines paid from violation of zoning laws could be allocated to an affordable housing trust fund.

In the region: In October 2018, the DC Council passed a bill approving new licensing requirements for rental housing, putting a prohibition on property owners renting out secondary homes on a short term basis and an annual 90-day ceiling on rentals of primary residences when the homeowner is not present.⁷¹

Provide home purchase assistance. Homeownership can provide residential stability that households with low incomes often struggle to attain. Local housing agencies or nonprofits may offer down payment assistance, low-interest loans, financial education, or other supports for new home buyers (Local Housing Solutions 2018). Prior Urban Institute analysis found that nearly 1.1 million people under the age of 40 in the Washington metropolitan statistical area have good enough credit to qualify for a mortgage and do not yet have a one. Of these, 83 percent (or more than 900,000) could afford the payment for a median-priced home using a 30-year fixed-rate mortgage with a 10 percent downpayment (Goodman et al. 2018).

Policy contribution: *Tight lending environments and high home prices may reduce the impact of home purchase assistance on its own, or require larger ownership subsidies per household.*

Opportunities for alignment: Home purchase assistance combined with improved access to credit and ongoing homeownership affordability policies can increase stability over time.

In the region: In DC, Maryland, and Virginia combined, 154 programs reduce home purchase costs.⁷² Buyers can combine low interest rate loans with down payment loans or grants.

Allow land trust, co-op, and/or shared equity homeownership. In high-cost areas or communities facing rising demand, jurisdictions can adopt policies that make homeownership affordable—and allow homes to remain affordable for future buyers. Community land trusts, for example, offer a way to maintain the perpetual affordability of housing located on land held by the trust. Whether a land trust, co-op, or other shared equity model, the homeownership terms include a method for building some equity that stays with the owner after the home's resale.⁷³

Policy contribution: *Can add residential stability for households with low- and low-middle incomes and create permanent affordability in appreciating markets.*

Opportunities for alignment: Shared equity requirements may be added to home purchase to allow larger subsidies that can remain with the home for future buyers. A 2017 Urban Institute evaluation of nine shared equity programs across the country found that shared equity purchasers received around 39 percent of the home's value in subsidies and had smaller mortgages and lower monthly payments than other, similar homebuyers (Theodos et al. 2017).

In the region: City First Homes established the Douglass Community Land Trust as a way to create permanently affordable rental and homeownership housing and prevent displacement of residents with low incomes.⁷⁴

Create assessment limits. Informally known as circuit breakers, assessment limits can reduce property taxes for homeowners whose taxes exceed a target percentage of their income (Institute on Taxation and Economic Policy 2017). This policy can help older homeowners and those with lower incomes remain in neighborhoods that are experiencing rapid growth in prices. Owners with more home equity or other assets may tap into their assets instead of needing property tax breaks. Communities can also

cap how much property taxes can increase in a given year or cap property tax based on income level (ChangeLab Solutions 2015).

Policy contribution: *Primarily benefits homeowners with low assets and limited incomes.*

Opportunities for alignment: Homeowners seeking limited repair assistance may also benefit from assessment limits to bring down their ongoing housing costs.

In the region: Washington, DC, has a refundable property tax credit for residents with low incomes, which is claimed on the DC income tax return. The credit can be claimed by homeowners and renter households living in taxable properties who make below \$51,000 and seniors with incomes up to \$62,000 (Kohanzadeh 2018).

Establish local housing vouchers. Similar to federal vouchers, local housing vouchers subsidize rents in the private market. Local vouchers typically assist renters within incomes below 80 percent of the local median income but may prioritize households with much lower income levels who would find rents impossible to afford otherwise. Only a few jurisdictions nationwide, including some in our region, offer local vouchers.

Policy contribution: *Income-based rental assistance, such as through housing vouchers, has proven benefits for reducing family homelessness and housing instability (Fischer 2015). Adding local vouchers, seeking expanded federal rental assistance, and facilitating use of federal housing vouchers are the primary evidence-based ways to close the affordability gap for households at the low and lowest income levels.*

Opportunities for alignment: Housing vouchers programs are more effective with landlord outreach, housing counseling, and small area rents. The impact of this policy would be strongest in a market with more rental supply and protections from source of income discrimination. Jurisdictions can take regulatory steps that enable lower market rents and improve affordability in the low-middle income band in order to get the most of any additional voucher funds.

In the region: DC operates a Local Rent Subsidy Program that provides 700 vouchers, which holders must use in the District.⁷⁵ As of 2011, Arlington's Housing Grants program funded 1,200 local vouchers (Hendey, Tatian, and McDonald 2014).⁷⁶ Montgomery County also operates a Rental Assistance Program, which provides a \$50 to \$200 monthly rent subsidy.⁷⁷

Fund emergency rental assistance. Renters can face eviction for extremely small amounts of past-due rent. Many communities use emergency financial assistance funds to pay the past-due rent and avoid an eviction. These funds may operate as a grant or as a loan. Loans can provide additional benefits as a means of credit-building, but they are most suitable for temporary financial crises rather than structurally unaffordable rents.

***Policy contribution:** When paired with social services, emergency financial assistance can reduce family homeless shelter stays by an estimated 22.6 nights (Rolston, Geyer, and Locke 2013).*

Provide mediation and legal services. Renters often face information and power imbalances in landlord-tenant disputes, leading to unnecessary court hearings and disparities in outcomes. Jurisdictions across the country are seeking ways to remedy this, including offering mediation as an alternative to the typical court process or increasing resources for tenant legal representation. In a randomized trial of free legal assistance in New York City, tenants who received assistance were twice as likely to avoid displacement (Galvez et al. 2017). Legal services can reduce municipal costs by more than \$12 for every \$1 spent on legal assistance (Stout Risius Ross 2018).

***Policy contribution:** In a DC pilot, renters were five times less likely to have a writ authorizing their eviction if they had legal representation.⁷⁸ A review of earlier research on eviction prevention approaches showed short-term benefits of both mediation and legal services (Baird 2004).*

Opportunities for alignment: Mediation and legal assistance need supplemental policies to ensure that renters can remedy an eviction risk before court or have a viable defense.

In the region: Virginia recently passed a law allowing tenants to recover reasonable attorney fees from their landlords if the court finds in favor of the tenant in eviction hearings.⁷⁹ In DC, the Housing Right to Counsel Project added resources for renters in subsidized housing in DC to have free legal representation in eviction hearings.⁸⁰ The City Council later funded a pilot that would expand access to free legal representation for households with low incomes in various civil cases, including eviction hearings.⁸¹

ENABLE FAIR AND EQUITABLE ACCESS TO HOUSING

Even when the housing supply is well-aligned with demand, many households face serious access barriers. Despite more than 50 years of fair housing protections, discrimination by race, national origin,

family status, disability, and other factors persists.⁸² By adding or strengthening the policy tools described here, jurisdictions can better protect households at risk and ensure more equitable access to housing. Policy tools that advance this strategy include:

Expand antidiscrimination protections. States and localities can enact protections beyond those required federally. Examples include laws prohibiting housing discrimination based on sexual orientation, gender identity, and source of income. Source of income protections would require landlords to equally accept housing vouchers, child support, and any other legal funds (Cunningham et al. 2018b). Anti-discrimination protections may also extend to individuals with justice system involvement, such as those with prior arrests, old convictions, or convictions for non-serious offenses (HDC 2016).

Opportunities for alignment: Expanded anti-discrimination protections will be more effective with a sufficient rental supply and expanded resources for testing and enforcement.

Policy contribution: A recent Urban Institute study found that only 71 percent of landlords in DC, which has source of income protection, accepted vouchers (Cunningham et al. 2018a).

In the region: The DC Human Rights Act prohibits housing discrimination based on 18 traits, including source of income.⁸³ Despite protection against source of income discrimination, a recent study found that 15 percent of landlords in DC refused to accept vouchers, though DC still had the lowest rate of rejection among the five jurisdictions in the study. Neither Maryland or Virginia have state statutes prohibiting source of income discrimination in housing, but Montgomery County has had a source of income law since 1991.

Increase testing and enforcement of fair housing laws. Federal fair housing laws seek to protect tenants and homeowners from discrimination on the basis of race, color, religion, sex, familial status, national origin, or disability. Local and state agencies can supplement funding for fair housing testing and enforcement activities to prevent and address discrimination by federal, state, or local protected classes.

Policy contribution: As a supplemental policy tool, the contribution of increased testing and enforcement resources could add capacity to fair housing organizations for additional monitoring and testing—leading to greater results when state and federal fair housing funding is low.

Opportunities for alignment: Testing of fair housing laws, both proactive and in response to discrimination complaints, can be coupled with increased landlord outreach and education, and legal representation resources.

In the region: From 2000 to 2016, 522 fair housing cases were filed in DC, with 156 conciliations and settlements.⁸⁴

Support fair housing education programs. Fair housing education programs inform parties to a real estate transaction about how to recognize and report discrimination.⁸⁵ Individuals on both sides of a real estate transaction may be unaware of fair housing protections. Jurisdictions can distribute educational materials or host workshops to increase knowledge about fair housing requirements and protections.

***Policy contribution:** Enables fair housing enforcement resources to go further by reducing inadvertent noncompliance.*

Opportunities for alignment: Fair housing education programs can be coupled with increased testing and enforcement of fair housing laws and tenant protections to ensure compliance. In addition, jurisdictions could require completion of fair housing education for property owners and developers seeking public subsidy, including tax breaks.

In the region: Montgomery County provides training for landlords, property managers, and other housing professionals. In addition, Montgomery County schools have incorporated fair housing curriculum into high school social studies classes.⁸⁶

Conduct landlord outreach. Direct outreach to landlords may improve their willingness to rent to people with housing vouchers or rental histories with gaps or evidence of prior problems. Many cities are also encouraging landlords, through subsidies, inspection, and rental assistance programs, to rent to and avoid evicting harder to serve populations.

***Policy contribution:** Improves outcomes from other discrimination protections.*

Opportunities for alignment: Housing authorities in some jurisdictions pair outreach with incentives. Marin County, CA, for example, boosts security deposits with an additional loss mitigation guarantee.⁸⁷ Pittsburgh operates a preferred owners program in which landlords get vacancy payments between tenants and have quicker and less frequent inspections.⁸⁸

In the region: In 2017, the Bowser administration launched the Landlord Partnership Fund with the Coalition for Non-Profit Housing and Economic Development and the DowntownDC BID to cover certain costs incurred by landlords of tenants whose rent is subsidized by DHS Homeless Services Intervention, such as rapid rehousing or permanent supportive housing.⁸⁹

PREVENT HAZARDOUS AND UNHEALTHY LIVING CONDITIONS

People with low incomes face a tradeoff between substandard housing conditions and the risk of displacement or homelessness when they lack the credit, income, assets, or background to compete for available homes. The only housing available at the bottom of the market may have lax maintenance, health or safety hazards, or other deficiencies; yet, people with weak credit or a prior eviction filing may see few other options. Meanwhile, people experiencing homelessness face extreme hazards whether living in the shelter system or in places not meant for habitation. Policy tools that advance this strategy include the following four.

Commit to ending homelessness. The increase in plans to end homelessness has attracted public, private, and philanthropic partners and moved people from chronic homelessness into stable housing. Jurisdictions with commitments to end homelessness have targeted and leveraged existing resources to offer individualized and voluntary supports to people experiencing homelessness and more efficiently identify and address new homelessness risks.

Policy contribution: *Supports coordination and prioritization of related policy tools.*

Opportunities for alignment: A commitment to end homelessness could be stronger with added local housing vouchers.

In the region: Recently, the Greater Washington Community Foundation and DC's Interagency Council on Homelessness launched a Partnership to End Homelessness in DC.⁹⁰ The partnership is aligned with Homeward DC's goal to make homelessness rare, brief, and non-recurring by focusing on services as well as on system reform.⁹¹ So far, the greatest success has been around decreasing family homelessness, which the program attributes to prevention assistance, enhanced shelter programming, and the availability of a housing resource for every family entering a shelter.

Establish proactive rental inspections. Housing codes require that landlords deliver habitable properties, but complaint-driven code enforcement can create landlord-tenant conflict. As an alternative, many jurisdictions conduct proactive rental inspections on a regular cycle (Housing

Development Consortium 2016). In Greensboro, North Carolina, the city's rental registration program reduced housing code complaints 61 percent from 1,427 in 2005 to 871 complaints in 2007 (Way, Trinh, and Wyatt 2013).

Policy contribution: *Varies with the housing code requirements and inspection practices.*

Opportunities for alignment: Paired with strategic code enforcement, proactive rental inspections can significantly reduce the amount of substandard housing and health-related violations (Stacy et al. 2018).

In the region: In DC, multifamily rental properties are randomly inspected to ensure they are up to standards.⁹²

Require rental registration and licensing. Rental registration and licensing policies increase opportunities for jurisdictions to coordinate with landlords, provide education on local laws, and offer incentives or other mechanisms for accountability.⁹³

Policy contribution: *Could support outreach with landlords in jurisdictions that do not yet have licensing requirements.*

Opportunities for alignment: Licensing programs may incorporate proactive rental inspections to ensure that rental properties meet acceptable standards.

In the region: Prince George's County, Montgomery County, and DC already have rental licensing.⁹⁴

Provide rapid rehousing assistance. Rapid re-housing is a short- to mid-term crisis intervention for individuals or families who might otherwise experience homelessness. Assistance, which includes rent subsidy and services, usually lasts between 3 and 24 months.

Policy contribution: *The Metropolitan Washington Council of Governments Homeless Services Planning and Coordinating Committee 2018 Point-in-Time (PIT) Enumeration produced a total count of 10,480 literally homeless people (MWCOG 2018a).*

Opportunities for alignment: Given the quick turnaround needed for rapid re-housing, the policy requires an adequate rental supply. The National Alliance to End Homelessness's Rapid Rehousing Toolkit has resources for landlord recruitment specifically for rapid rehousing units (National Alliance to End Homelessness 2016).

In the region: In 2018, 6,360 formerly homeless people were rapidly re-housed, a 16 percent increase from 2017 (Metropolitan Washington Council of Governments 2018).

High-Potential Policy Tools for the Washington Region

The menus and policy tool descriptions above provide a structure and primer for non-technical stakeholders to engage in local and regional housing policy conversations, but the menus say little about which policies may have the greatest benefit for the Washington region. For each policy tool, we searched for high-quality research about its efficacy so we could point decisionmakers and advocates toward approaches that can preserve, produce, and/or protect at the scale that the region needs. Employers, advocates, and elected representatives from around the region could then come together with technical housing and planning experts to build a regional policy agenda, consider political viability across and within jurisdictions, and identify alternate policy choices that could yield similar results.

Our goal was to estimate the contribution that each policy tool could make toward regional targets, however the empirical basis for such projections is relatively weak. Evidence about housing policies' outcomes—especially related to preservation and production—may draw from descriptive research, but lack the type of controls or sensitivity analyses to allow us to project the outcomes of replication in the Washington region for this project.

In addition, policy interventions do not enter a vacuum. Any policy change will enter an environment where parcels are already used, people hold strong opinions about policies and politics, and complex interactions may emerge between new policies and the existing policy and market context. Many jurisdictions in the Washington region have already enacted housing policies described in this report (Sturtevant 2017). Our policy analysis incorporates a combination of parcel level data when available and input from regional advisors to ground the recommendations in the existing context, but we erred on the side of delivering informed guidance in a timely manner rather than creating a model that can account for an array of regional variation and policy interactions.

Despite gaps in the quantitative estimates, sufficient practical expertise and descriptive research exists to support the development of policy agendas that could improve the future of housing in the Washington, DC, region. We describe our selection criteria and results in the appendix.

To build an effective regional policy agenda, we recommend beginning by assessing the potential to implement, expand, or strengthen the twelve evidence-based policy tools we identified. Doing so will likely generate a greater contribution to the region's housing needs than efforts to build a novel solution.

Summary and Recommendations

The Washington, DC, region faces serious and substantial housing challenges. Regulatory constraints on how much new housing can be built, what types of housing are added to the stock, and where it is located limit production and increase its cost. Population growth—especially at higher income levels—pushes up rents and prices for existing housing. Consequently, a growing share of households pay housing costs that are considered unaffordable by federal standards. Market pressures cause especially steep housing cost increases in some communities that have historically been home to people with low and moderate incomes and people of color.

These challenges have consequences for Washington-area residents and for the prosperity of the region as a whole. Unaffordable housing costs cause financial hardship and instability for many households, disrupting their lives and undermining children's well-being. Runaway market pressures threaten to displace families with low incomes and people of color from communities that have long been their homes. Constraints on new housing production in locations where it is needed contribute to unsustainable sprawl and worsening traffic congestion. If left unaddressed, today's housing challenges could undermine the region's prospects for robust economic growth and shared prosperity in the decades ahead.

Many leaders in the region's public, private, and philanthropic sectors recognize the severity of the housing challenges facing the Washington, DC, region, and discussions are under way about how to effectively address them. And there is reason for optimism. Although serious, the housing challenges here are not as extreme as those facing some other high-cost markets. And collectively, the region has the expertise, capacity, and resources to develop and implement a portfolio of solutions that strengthen the housing market so it better meets the current and future residents.

Recommendations

No single action or investment can overcome the housing challenges facing the Washington, DC, region, and progress will not be instantaneous. But through bold leadership and collaboration over the next decade, government, business, and philanthropy can plan and execute an evidence-based strategy to (1) preserve existing affordable housing in all communities, including opportunity-rich and revitalizing areas; (2) produce more housing across the income spectrum and in communities throughout the region; and (3) protect both renters and homebuyers from discrimination and involuntary displacement.

THE REGION'S LEADERS SHOULD JOIN TOGETHER TO ESTABLISH 10-YEAR TARGETS

These targets should be based on solid evidence about current market conditions and trends and should include three quantitative goals:

1. Shrinking the current 264,000-unit shortage of housing affordable for households in the lowest and low income bands.
2. Expanding the housing stock by at least 374,000 units by 2030 (assuming the MWCOG economic growth rate) or more if economic growth accelerates.
3. Aligning the additional housing units with expected households' needs and resources, with at least 40 percent of new housing needed in the middle cost band to match the expected distribution of additional households.

LOCAL GOVERNMENTS SHOULD STRENGTHEN OR EXPAND EXISTING POLICIES AND ADOPT NEW POLICIES TO MEET THESE TARGETS

Every jurisdiction should develop its own portfolio of policies and investments that are tailored to its specific needs and capacities. Local governments have considerable resources to deploy, including regulatory authorities, funding resources, and leadership and convening capacities. The menu of potential tools (presented in the previous section) available to local governments is diverse and substantial, and all warrant consideration. Analysis highlights 12 tools that offer high potential for the Washington, DC, region and should be priorities for expansion in jurisdictions where they already exist and for implementation where they do not:

- Preserve existing housing units affordable for households with low incomes
 1. Provide **loans for property repairs and rehabilitation** so owners of low- and moderate-cost rental housing can maintain and improve their physical condition while maintaining affordability.

2. Maintain an **inventory of properties at risk of loss** to support quick identification and coordination of action by a network of public and nonprofit organizations to preserve the availability, quality, and affordability of this stock.
 3. Provide **low-cost capital for property acquisition** and optional rehab to enable nimble intervention and preservation of residential properties by mission-driven organizations that will maintain their availability, quality, and affordability.
 4. Invest local resources in the **rehabilitation of public housing** to ensure that the existing public housing stock remains available to meet the needs of households with the lowest incomes.
- Produce more housing across the affordability spectrum
 5. Impose **land value taxation** to discourage speculative land holding, especially of vacant parcels, so that more housing is produced more quickly.
 6. Implement **up-zoning** and other density-enabling regulations to enable more housing production at lower costs, especially in areas accessible to economic activity centers.
 7. Eliminate or **reduce parking requirements** to allow developers to create more housing units at lower cost.
 8. Establish **equitable transit-oriented development funds** to ensure that new development projects near transit include housing affordable for households in the low and middle income bands.
 - Protect both renters and homeowners from discrimination and involuntary displacement
 9. Offer **home purchase assistance** to increase residential stability among households with low incomes and first-time buyers.
 10. Create **land trusts, cooperatives, and shared equity ownership** to ensure that opportunities for homeownership remain affordable to households in the low and low-middle income bands, even in extremely high-cost areas.
 11. Provide **emergency rental assistance** to reduce evictions and homelessness among households with the lowest incomes.
 12. Fund **local housing vouchers** to make existing rental housing affordable for households with the lowest incomes.

STATE GOVERNMENTS SHOULD SUPPORT THE CAPACITY OF LOCAL GOVERNMENTS

In some cases, local governments may lack the authority or the resources to take needed action. So Maryland and Virginia play an essential role, providing supplemental funding resources and authorizing regulatory innovations that local governments need to meet their share of regional targets. The federal government is a critical partner as well. The existing stock of public and assisted housing, federally funded housing vouchers, and federal resources delivered through tax credits and block grants all help meet the region's housing needs, particularly those of households in the lowest income bands. Completely closing the affordability gap for the households with the lowest incomes would require an expansion of federal housing assistance. But even absent a substantial increase in federal housing assistance, local governments can and should maximize their participation in federal programs and leverage the federal resources available.

BUSINESS AND PHILANTHROPY SHOULD DEPLOY THEIR INFLUENCE AND CONVENING POWERS

Philanthropic and business leaders bring essential perspectives and capacities to the region's housing challenge. They can prioritize a regionwide perspective and a focus on the future, promote strategic planning and goal setting, help build public understanding and support, and monitor progress over time toward regionwide targets. Their capacities as influencers, investors, and conveners in the region can help build a durable, cross-sector commitment to addressing the region's current and future housing challenge—generating an impact larger than any single business or philanthropy could have on its own. While their influence is often their biggest asset, they may have resources they can invest in targeted, high-impact public-private partnerships, to build and sustain the regional commitment.

Building on the evidence and analysis presented here, we urge leaders from local and state governments, the business community, nonprofit housing organizations, and philanthropy to join together in a serious and sustained deliberative process, to agree upon a shared vision and targets, to commission additional fact finding and analysis, and to commit to the evidence-based actions each can take to contribute to an effective regionwide strategy.

Appendix: Methodology, Sources, and Data Tables, by Report Section

Regional Market Trends and Conditions

TABLE A.1

Growth in Employment for Ten Mid-Large Metropolitan Areas
1990–2000

Rank	City	Employment		Average annual change	
		1990	2000	1990–2000	%
1	Phoenix	1,018,940	1,584,172	56,523	4.5%
2	Atlanta	1,519,842	2,178,338	65,850	3.7%
3	Dallas	1,965,407	2,712,017	74,661	3.3%
4	Houston	1,719,570	2,209,073	48,950	2.5%
5	Seattle	1,263,914	1,613,141	34,923	2.5%
6	Miami	1,734,497	2,101,265	36,677	1.9%
7	Washington	2,264,458	2,640,321	37,586	1.5%
8	San Francisco	1,881,715	2,139,405	25,769	1.3%
9	Boston	2,141,088	2,419,441	27,835	1.2%
10	Philadelphia	2,416,833	2,614,380	19,755	0.8%
	TOTAL	17,926,264	22,211,553	428,529	2.2%

2000–2010

Rank	City	Employment		Average annual change	
		2000	2010	2000–2010	%
1	Houston	2,209,073	2,478,444	26,937	1.2%
2	Washington	2,640,321	2,855,038	21,472	0.8%
3	Phoenix	1,584,172	1,654,915	7,074	0.4%
4	Dallas	2,712,017	2,806,620	9,460	0.3%
5	Miami	2,101,265	2,112,640	1,138	0.1%
6	Seattle	1,613,141	1,616,600	346	0.0%
7	Philadelphia	2,614,380	2,566,259	-4,812	-0.2%
8	Atlanta	2,178,338	2,135,967	-4,237	-0.2%
9	Boston	2,419,441	2,329,776	-8,967	-0.4%
10	San Francisco	2,139,405	1,909,317	-23,009	-1.1%
	TOTAL	22,211,553	22,465,576	25,402	0.1%

2010-2017

Rank	City	Employment		Average annual change	
		2010	2017	2010-17	%
1	San Francisco	1,909,317	2,371,849	66,076	3.1%
2	Dallas	2,806,620	3,452,693	92,296	3.0%
3	Atlanta	2,135,967	2,566,957	61,570	2.7%
4	Seattle	1,616,600	1,942,316	46,531	2.7%
5	Phoenix	1,654,915	1,987,127	47,459	2.6%
6	Miami	2,112,640	2,516,411	57,682	2.5%
7	Houston	2,478,444	2,900,126	60,240	2.3%
8	Boston	2,329,776	2,639,424	44,235	1.8%
9	Washington	2,855,038	3,115,379	37,192	1.3%
10	Philadelphia	2,566,259	2,757,934	27,382	1.0%
TOTAL		22,465,576	26,250,216	540,663	2.2%

Source: Urban-Greater DC analysis of the Bureau of Labor Statistics Annual Average Employment data for metropolitan areas.

Note: Mid-large metropolitan areas are those with between 1.9 and 3.5 million jobs in 2017.

FIGURE A.1

Components of Population Change by Jurisdiction

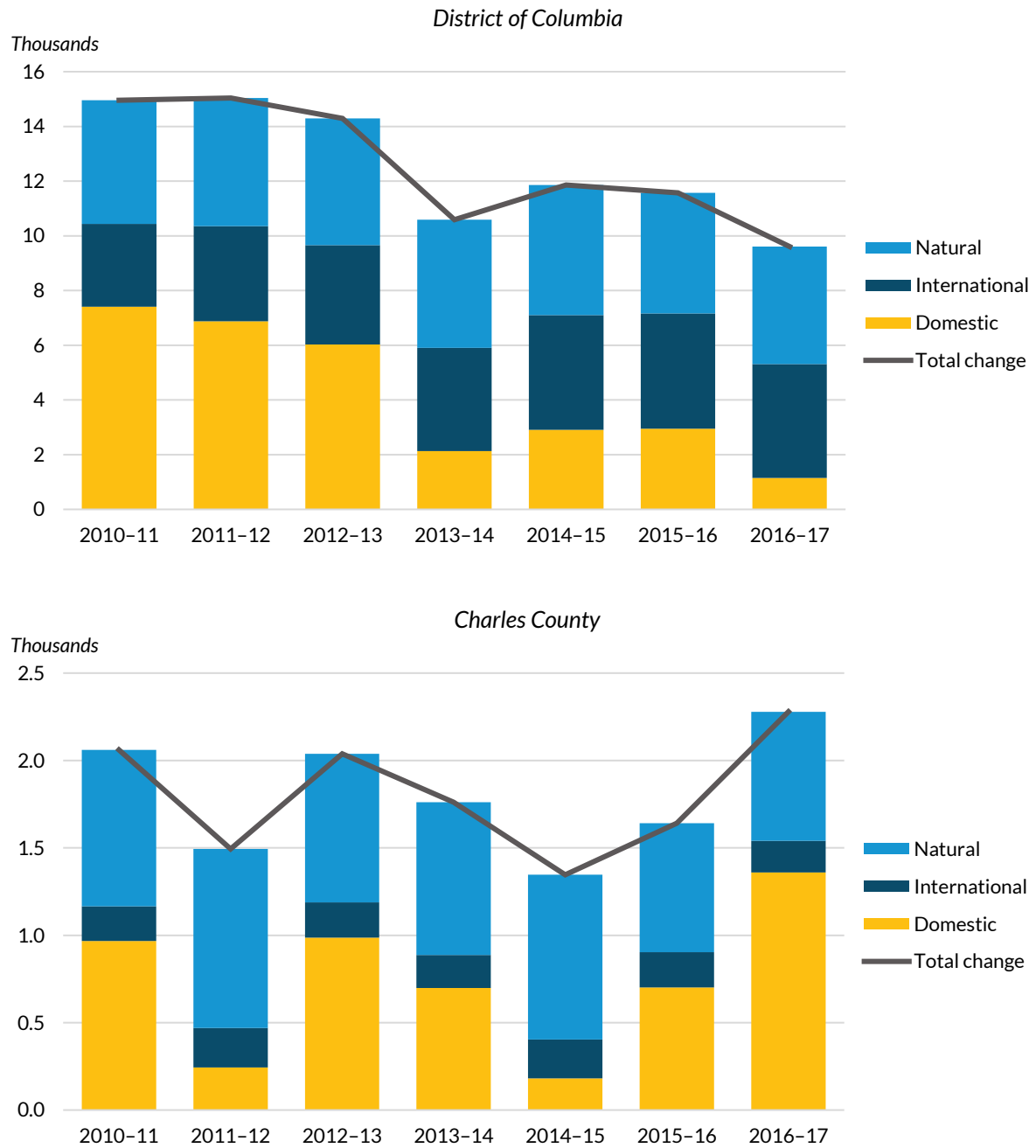


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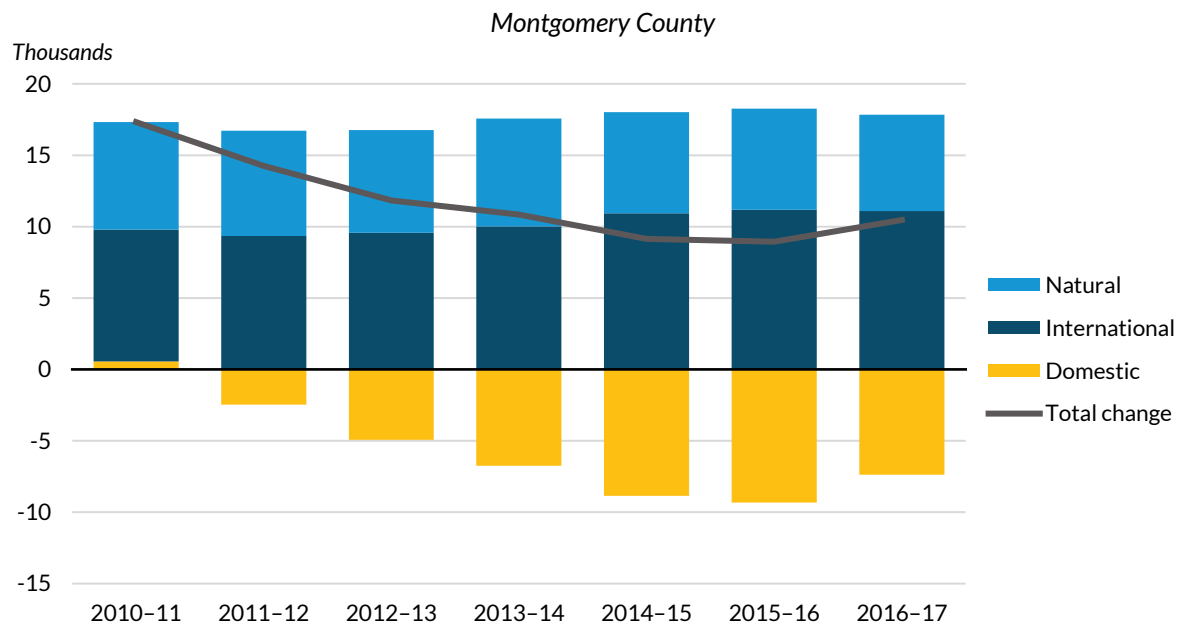
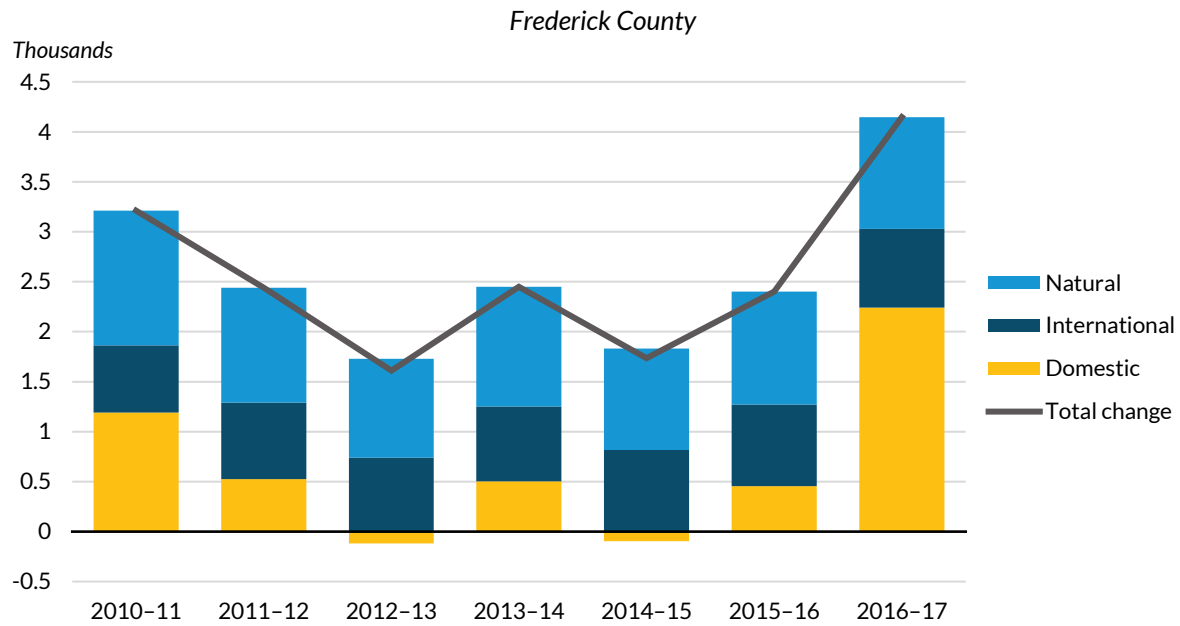


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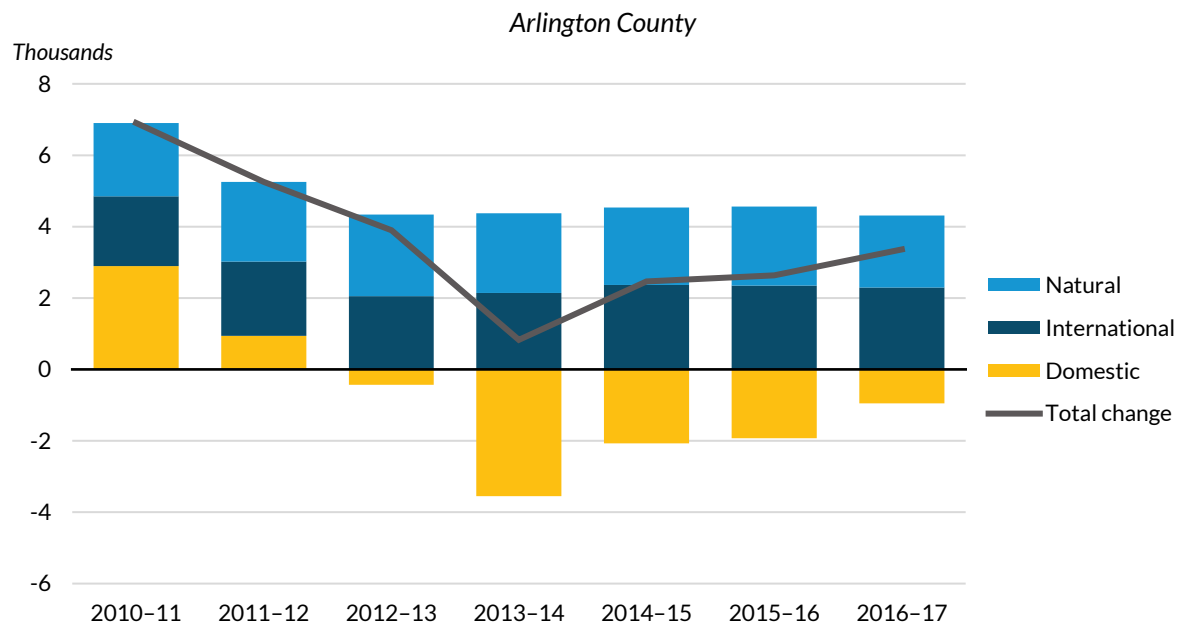
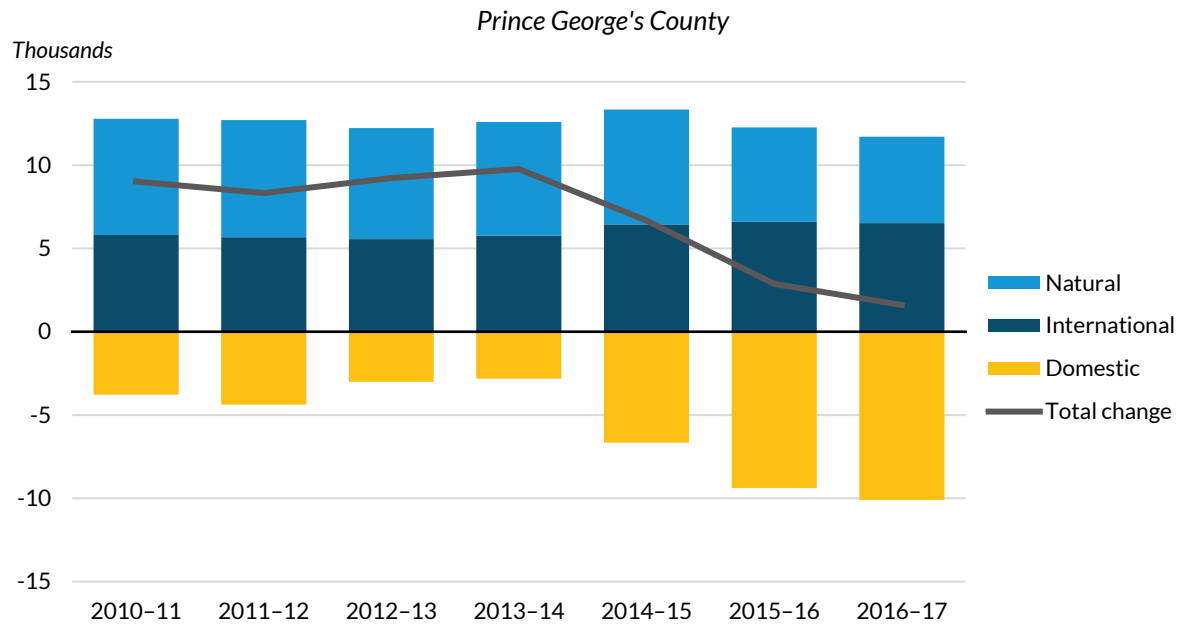


FIGURE A.1 (CONT'D)

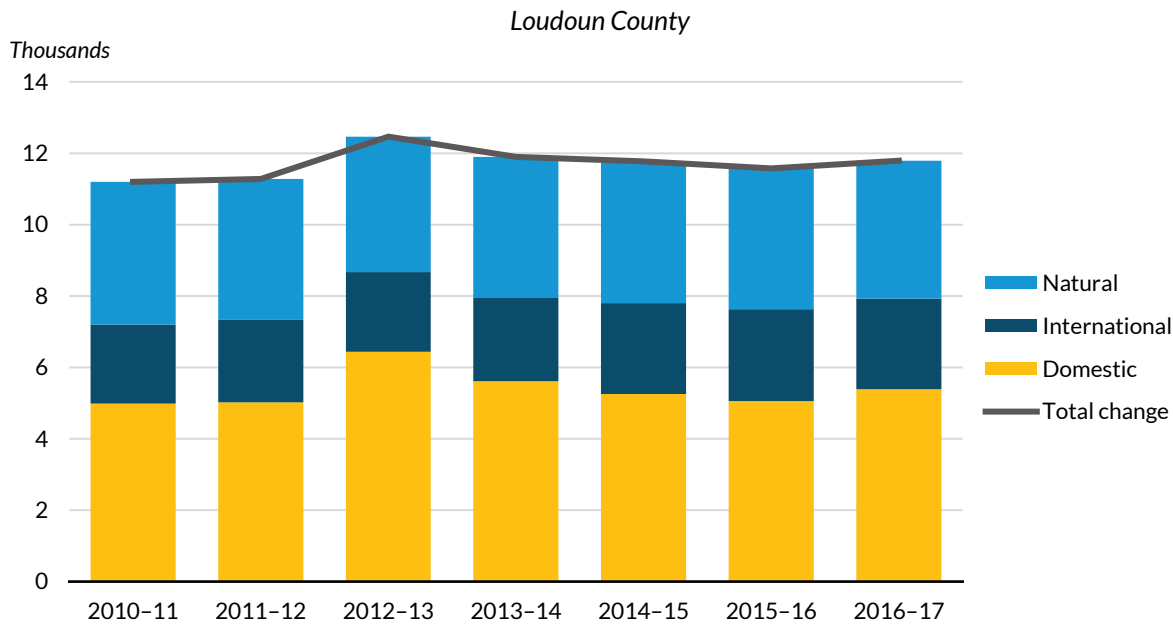
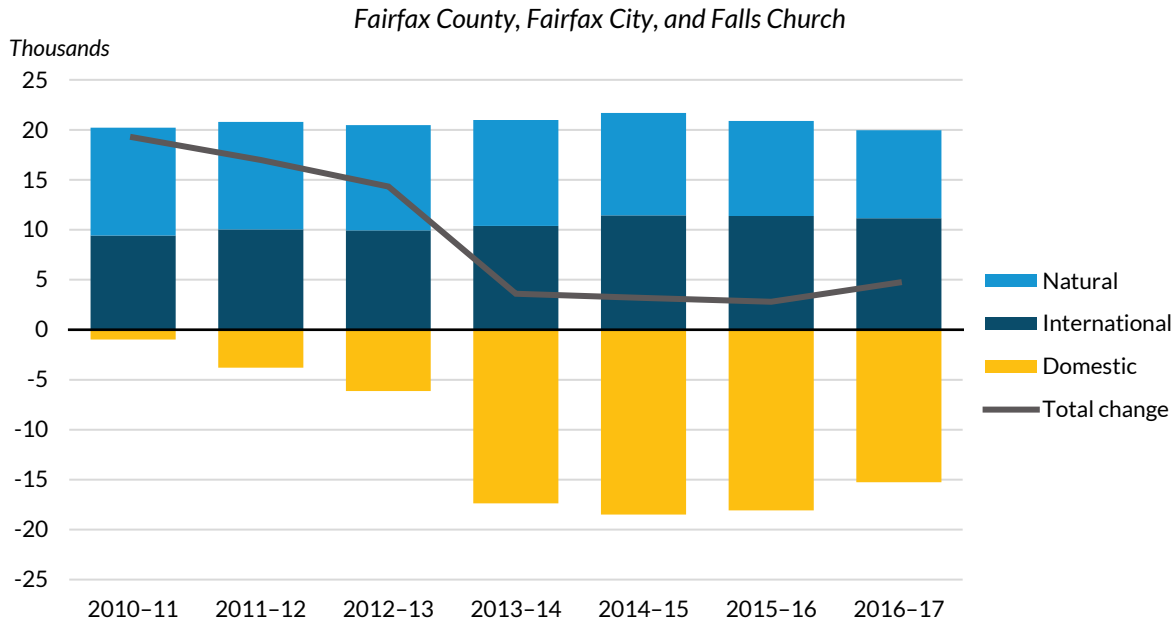
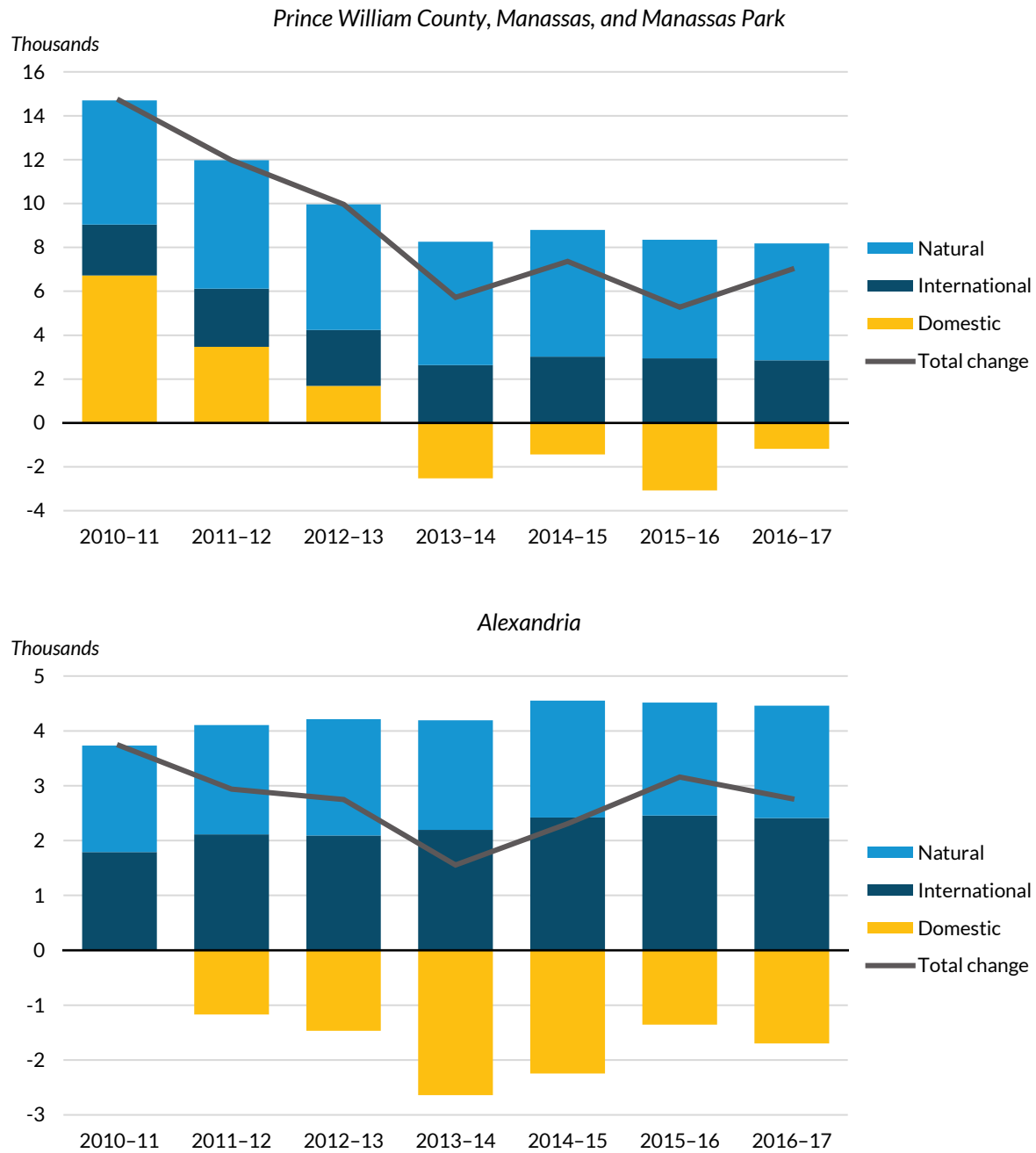


FIGURE A.1 (CONT'D)



Source: Urban-Greater DC analysis of U.S. Census Bureau components of population change data.

The Region's Housing Stock Provides Too Few Units Affordable for Households with Low and Middle Incomes (pp. 24–29)

METHODOLOGY NOTES

Homeless households needing affordable housing. This number was averaged across 2013–17 and was calculated with the following formula:

- number of literally homeless households composed of single adults–number of chronically homeless single adults + number of literally homeless families–number of chronically homeless families

Sources: Table 17 in the 2017 Point-In-Time Report, Tables 5, and 11 from 2013 to 2017, and communication from Hilary Chapman.

Housing cost needs. To calculate housing costs needs—the cost that households desire or could afford—we used the actual costs paid for households who were not housing cost burdened and a maximum affordable cost based on income using the 2016 HUD Income Limits and area median (AMI) income bands and the following assumptions:

- 0 to 80 percent of AMI: 30 percent of monthly income
- 80 to 120 percent of AMI: 25 percent of monthly income (the band average)
- 120 to 200 percent of AMI: 18 percent of monthly income (the band average)
- Above 200 percent of AMI: 12 percent of monthly income (the band average.
- If a household above 120 percent of AMI was spending more than the average for their AMI band, their maximum desired housing cost was assumed to be their current housing cost, regardless of housing cost burden.

Ability to pay. Using the maximum housing cost defined by the housing cost need above, if a household's current monthly payment plus 10 percent was less than the maximum that they could pay, that household was considered to be able to spend more on housing.

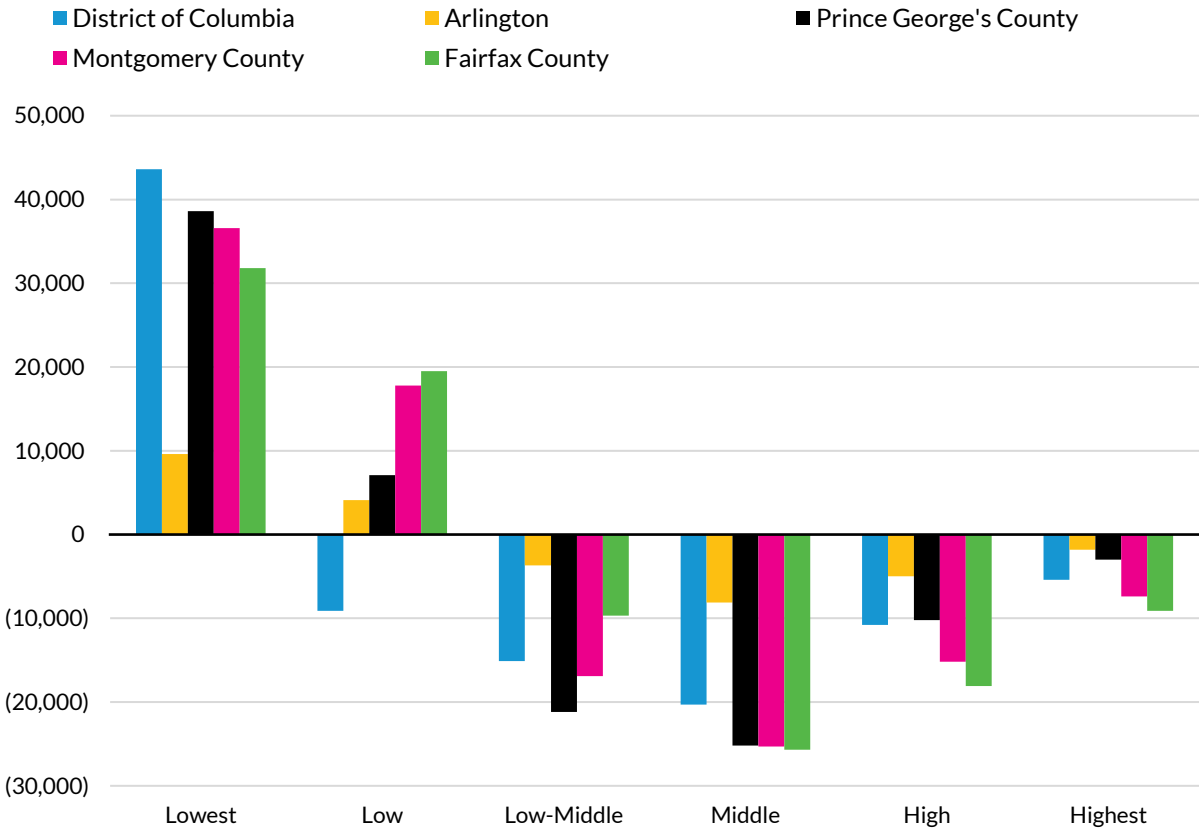
TABLES AND FIGURES

Comparison of housing needs and supply by housing cost band for each jurisdiction based on Urban–Greater DC analysis of the 2013 to 2017 American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org. The numbers of housing units and households have been

weighted to the MWCOG 2015 household estimate. Data on homeless households were not available for Charles County, Maryland.

FIGURE A.2

Housing Gaps and Surplused by Housing Cost by for Selected Jurisdictions, 2015



Source: Urban-Greater DC analysis of the 2013 to 2017 American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org.

Notes: The number of households and housing units has been weighted to match the Metropolitan Washington Council of Governments 2015 household estimate.

TABLE A.2

Housing Units, Needs, and Gaps by Housing Cost Band by Jurisdiction, 2015

	Total	Number of Units by Monthly Cost					
		\$0– \$799	\$800– \$1,299	\$1,300– \$1,799	\$1,800– \$2,499	\$2,500– \$3,499	\$3,500+
		District of Columbia					
Total households (occupied units)	297,100	58,800	63,500	57,000	55,900	38,100	23,800
Vacant units (non-seasonal)	17,100	1,800	3,900	2,900	4,300	2,400	1,800
Vacant units (seasonal or other)	15,700						
Total units	329,900	60,600	67,400	59,900	60,200	40,500	25,600
Households by cost needs	297,100	104,200	58,300	44,900	39,900	29,600	20,300
Homeless HH needing aff. hsg.		3,300					
Housing needs gap or (surplus)		46,900	(9,100)	(15,000)	(20,300)	(10,900)	(5,300)
		Charles County, Maryland					
Total households (occupied units)	53,700	9,000	7,600	12,200	14,900	7,900	2,100
Vacant units (non-seasonal)	1,600	300	300	500	300	100	100
Vacant units (seasonal or other)	2,200						
Total units	57,500	9,300	7,900	12,700	15,200	8,000	2,100
Households by cost needs	53,700	13,900	9,600	11,600	11,200	5,800	1,500
Homeless HH needing aff. hsg.		n.a.					
Housing needs gap or (surplus)		4,600	1,700	(1,100)	(4,000)	(2,200)	(600)
		Frederick County, Maryland					
Total households (occupied units)	89,500	19,100	16,300	21,000	19,300	10,800	3,000
Vacant units (non-seasonal)	1,700	100	600	600	300	100	0
Vacant units (seasonal or other)	3,100						
Total units	99,100	19,200	16,900	21,600	19,600	10,900	3,000
Households by cost needs	89,500	26,600	18,400	18,300	15,700	8,100	2,400
Homeless HH needing aff. hsg.		100					
Housing needs gap or (surplus)		7,500	1,500	(3,300)	(3,900)	(2,800)	(600)
		Montgomery County, Maryland					
Total households (occupied units)	374,900	48,200	56,800	88,400	85,700	56,900	38,900
Vacant units (non-seasonal)	10,400	200	900	3,000	3,000	1,900	1,300
Vacant units (seasonal or other)	7,900						
Total units	393,100	48,400	57,700	91,400	88,700	58,800	40,200
Households by cost needs	374,800	85,000	75,500	74,500	63,400	43,700	32,900
Homeless HH needing aff. hsg.		600					
Housing needs gap or (surplus)		37,200	17,800	(16,900)	(25,300)	(15,100)	(7,300)

		Number of Units by Monthly Cost					
	Total	\$0- \$799	\$800- \$1,299	\$1,300- \$1,799	\$1,800- \$2,499	\$2,500- \$3,499	\$3,500+
Prince George's County, Maryland							
Total households (occupied units)	321,100	43,300	73,400	89,200	72,800	31,000	11,500
Vacant units (non-seasonal)	13,900	1,100	3,800	5,400	2,800	400	400
Vacant units (seasonal or other)	11,000						
Total units	346,000	44,500	77,100	94,600	75,600	31,400	11,800
Households by cost needs	321,100	83,100	84,200	73,400	50,400	21,300	8,800
Homeless HH needing aff. hsg.		300					
Housing needs gap or (surplus)		38,900	7,100	(21,200)	(25,200)	(10,100)	(3,000)
City of Alexandria							
Total households (occupied units)	71,200	6,500	10,600	21,400	17,200	9,900	5,600
Vacant units (non-seasonal)	4,100	200	400	1,300	1,600	300	300
Vacant units (seasonal or other)	3,200						
Total units	78,600	6,600	11,000	22,800	18,800	10,200	5,900
Households by cost needs	71,200	13,900	15,400	15,800	12,900	8,200	4,900
Homeless HH needing aff. hsg.		100					
Housing needs gap or (surplus)		7,400	4,400	(7,000)	(5,900)	(2,000)	(1,000)
Arlington County, Virginia							
Total households (occupied units)	103,800	6,800	14,300	23,200	28,400	19,400	11,600
Vacant units (non-seasonal)	4,800	300	200	1,000	1,600	1,100	500
Vacant units (seasonal or other)	5,000						
Total units	113,600	7,100	14,500	24,300	30,000	20,500	12,200
Households by cost needs	103,800	16,700	18,600	20,600	21,900	15,500	10,400
Homeless HH needing aff. hsg.		100					
Housing needs gap or (surplus)		9,700	4,100	(3,700)	(8,100)	(5,000)	(1,800)
Fairfax County, City of Fairfax, and City of Falls Church, Virginia							
Total households (occupied units)	418,400	45,700	50,200	88,700	105,900	78,500	49,400
Vacant units (non-seasonal)	11,100	400	300	2,900	4,500	1,500	1,600
Vacant units (seasonal or other)	8,700						
Total units	438,200	46,100	50,500	91,600	110,300	80,000	51,000
Households by cost needs	418,400	77,900	70,000	82,000	84,700	61,900	41,900
Homeless HH needing aff. hsg.		500					
Housing needs gap or (surplus)		32,300	19,500	(9,600)	(25,600)	(18,100)	(9,100)
Loudoun County							
Total households (occupied units)	121,100	12,300	12,300	20,200	30,700	28,000	17,600
Vacant units (non-seasonal)	2,700	100	300	700	900	300	400
Vacant units (seasonal or other)	2,300						

	Total	Number of Units by Monthly Cost					
		\$0– \$799	\$800– \$1,299	\$1,300– \$1,799	\$1,800– \$2,499	\$2,500– \$3,499	\$3,500+
Total units	126,100	12,400	12,600	20,900	31,700	28,300	18,000
Households by cost needs	121,100	18,500	17,500	20,100	26,500	23,400	15,200
Homeless HH needing aff. hsg.		100					
Housing needs gap or (surplus)		6,200	4,900	(800)	(5,200)	(4,900)	(2,800)
Prince William County, City of Manassas and City of Manassas Park, Virginia							
Total households (occupied units)	161,100	19,900	24,000	40,300	42,000	26,000	8,800
Vacant units (non-seasonal)	6,100	300	700	2,900	1,500	500	200
Vacant units (seasonal or other)	2,200						
Total units	169,300	20,200	24,800	43,200	43,500	26,500	9,000
Households by cost needs	161,100	33,600	32,700	35,600	31,800	20,200	7,200
Homeless HH needing aff. hsg.		200					
Housing needs gap or (surplus)		13,600	7,900	(7,600)	(11,700)	(6,300)	(1,800)

Source: Urban–Greater DC analysis of the 2013 to 2017 American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org.

Notes: Numbers may not sum because of rounding. For occupied units, the monthly costs reflect the actual costs paid by the occupants. For vacant rental units, costs reflect the listed rent, but for vacant for sale units the monthly cost reflects the mortgage, insurance, and tax cost of the unit to a first-time homebuyer. The numbers of housing units have been weighted to the Metropolitan Washington Council of Governments 2015 household estimate.

Looking to the Future

The Region Expects to Add 363,000 Households by 2030, with Faster Growth of Households with Lower Incomes (pp. 29–30)

Household projections by income. The household projections and household income projections are based on projected age and race/ethnic populations, combined with current data on householder/household income distributions conditional on age, race, and ethnicity. These projections allow users to simulate additional demand for housing at different cost levels.

- Data: Geographic, age, race, and ethnicity data to make population projections are from the American Community Survey (ACS) single year estimates from the standard tabulations for 2010–2017 (United States Census Bureau / American FactFinder, 2018). Geographic, age, race, ethnicity, householder status, and household income data to make household and household income projections are from the 2013–2017 single-year estimates for American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org.

Data used to calibrate our population and housing projections are the Metropolitan Washington Council of Governments Cooperative Forecasts: Employment, Population, and Household Forecasts by Transportation Analysis Zone: Round 9.1.

- Geography (10 jurisdictions or combinations of jurisdictions form the Washington, DC, region used in this study):
 - » District of Columbia
 - » In Maryland: Charles, Frederick, Montgomery, and Prince George's Counties
 - » In Virginia, Arlington and Loudoun counties, City of Alexandria, Fairfax County including the cities of Fairfax and Falls Church, and Prince William County including the cities of Manassas and Manassas Park
- 18 age categories for five-year age groups from 0–4 to 85+ were used.
- Race and ethnic categories are defined as:
 - » Hispanic ethnicity, any race
 - » Not Hispanic ethnicity, white only race
 - » Not Hispanic ethnicity, black only race
 - » Not Hispanic ethnicity, American Indian and Alaska Native only race, Asian only race. Hawaiian and Pacific Islander only race, or two or more race categories selected.
- Householder and household income categories use the 2016 HUD Income Limits for a family of 4:
 - » Not a householder
 - » Householder with household income $\leq 30\%$ of AMI for household of 4
 - » Householder with household income 30% to $<50\%$ of AMI for household of 4
 - » Householder with household income 50% to $<80\%^*$ of AMI for household of 4
 - » Householder with household income $80\%^*$ to $<100\%$ of AMI for household of 4
 - » Householder with household income 100% to $<120\%$ of AMI for household of 4
 - » Householder with household income 120% to $<200\%$ of AMI for household of 4
 - » Householder with household income $>200\%$ of AMI for household of 4

*The HUD standard for a low-income household in a Metropolitan Statistical Area (MSA) is 80% of the AMI for the MSA, or the national AMI, whichever is lower. For metro DC, the national AMI is used, so this bound does not correspond exactly to 80%.

- **Population projection procedure:** Populations are projected for the Washington region and separately for the 10 jurisdictions. Each projection series includes separate projections by 5-year age groups within each race and ethnic category. The procedure for each projection by age is a modification of a Hamilton-Perry cohort procedure (Hamilton and Perry 1962; see also Swanson, Schlottmann, and Schmitt 2010) that proceeds as follows:

- » As an initial step, all age and race/ethnicity counts for each jurisdiction in the 2013–17 ACS are calibrated to match the 2015 population estimate for that jurisdiction as reported by MWCOG.
- » For the 5-year age group $a = 0-4$, the population projection for 2020, 2025, 2030, and 2035 are projected to be the ACS average for 2013–2017.

$$P_{(0-4,2020)} = P_{(0-4,2025)} = P_{(0-4,2030)} = P_{(0-4,2035)} = P_{(0-4,ACS\ 2013-2017)}$$

- » For 5-year age groups $a = 5-9$ through $40-44$, the population a for 2020 is projected to be the population estimate for one age group younger $a-5$ in ACS 2013–2017, plus the *average* progression difference for the age group, calculated as a weighted average of (the ACS population age a in 2017 minus the ACS population age $a-5$ in 2012), (the ACS population age a in 2016 minus the ACS population age $a-5$ in 2011), and (the ACS population age a in 2015 minus the ACS population age $a-5$ in 2010), with the 2017–12, 2016–11, and 2015–10 differences weighted by a factor of 3, 2, and 1, respectively, to emphasize the most recent population trends. The procedure is then repeated for 2025, 2030, and 2035.

$$P_{(a,2020)} = P_{(a-5,ACS\ 2013-2017)} + [3*(P_{(a,ACS\ 2017)} - P_{(a-5,ACS\ 2012)}) + 2*(P_{(a,ACS\ 2016)} - P_{(a-5,ACS\ 2011)}) + (P_{(a,ACS\ 2015)} - P_{(a-5,ACS\ 2010)})]/6$$

$$P_{(a,2025)} = P_{(a-5,ACS\ 2020)} + [3*(P_{(a,ACS\ 2017)} - P_{(a-5,ACS\ 2012)}) + 2*(P_{(a,ACS\ 2016)} - P_{(a-5,ACS\ 2011)}) + (P_{(a,ACS\ 2015)} - P_{(a-5,ACS\ 2010)})]/6$$

$$P_{(a,2030)} = P_{(a-5,2025)} + [3*(P_{(a,ACS\ 2017)} - P_{(a-5,ACS\ 2012)}) + 2*(P_{(a,ACS\ 2016)} - P_{(a-5,ACS\ 2011)}) + (P_{(a,ACS\ 2015)} - P_{(a-5,ACS\ 2010)})]/6$$

$$P_{(a,2035)} = P_{(a-5,2030)} + [3*(P_{(a,ACS\ 2017)} - P_{(a-5,ACS\ 2012)}) + 2*(P_{(a,ACS\ 2016)} - P_{(a-5,ACS\ 2011)}) + (P_{(a,ACS\ 2015)} - P_{(a-5,ACS\ 2010)})]/6$$

- » For 5-year age groups $a = 45-49$ through $80-84$ and $85+$, the population a for 2020 is projected as above but with an additional adjustment for mortality. Before the 5-year progression difference is calculated, each 5-year age group is reduced by a fraction as indicated by age-specific death rates from the Center for Disease Control's Life Table

estimates for 2015. (Arias and Xu 2018), rounded to the nearest percentage point as follows. The five-year survival rates are set to:

- age 40–44 to 45–49: 99 percent
 - age 45–49 to 50–54: 98 percent
 - age 50–44 to 55–59: 97 percent
 - age 55–59 to 60–64: 96 percent
 - age 60–64 to 65–69: 94 percent
 - age 65–69 to 70–74: 92 percent
 - age 70–74 to 75–79: 87 percent
 - age 75–79 to 80–84: 80 percent
 - the 5-year progression for top-coded category age 85+ is set to the same ratio as across the previous 5 years.
- » After this mortality adjustment, the progression differences are calculated as in the above step, to produce the “pre-rake” population projections.
 - » The “pre-rake” population projections are summed across age categories and across race/ethnic groups for each projection year and within each jurisdiction and for the entire MWCOG region. The MWCOG Round 9.1 Cooperative forecast for each projection year and jurisdiction is then divided by the corresponding “pre-rake” sum to produce a calibration ratio.
 - » Each pre-rake population projection for age group and race/ethnic group is multiplied by the calibration ratio to produce the MWCOG-calibrated population projection.
 - » To prepare projections for household incomes, we generate a matrix of household income categories by age group and race/ethnicity of householder, from each jurisdiction in ACS 2013–17.
 - » Next, we obtain our (calibrated) population projections by Age and Race/Ethnic Group for the same jurisdiction from the matrix, and collapse from the 5-year age groups in the population projections into 20-year or so age categories for the household projections.
 - » Then we multiply the household income cell category percentages from the 2013–17 ACS by the projected row counts from our 2025 population projections, to produce our “pre-rake” projections of households by household income category.
 - » The first “rake” to calibrate the household percentages is to adjust for shifts in the median income. First, we determine how far the median has shifted in the population of householders for the whole MWCOG region. (For example, in 2013–17 ACS, say 56.8 percent of householders had household incomes below 100 percent of AMI, while in the

2025 pre-rake household incomes projections, 58.2 percent had household incomes below 100% AMI, for a shift of 1.4 percent.) Next, we assume incomes are distributed uniformly within each income level, we simulate how far the value of the median household income would shift in response to the distributional shift in age and race/ethnicity, and we shift the distributions of all categories proportionately. (For example, in ACS 2013–17, say 9.3 percent of all householders had household income category 100 to 119.9 percent of AMI which is a width of 20 percent of AMI, so the simulated shift in the median income would be the relative shift in the population distribution (1.4 percent) times the width of the income category (1.4 percent/9.3 percent) * 20 percent or 3.1 percent. Then, if income category 30 percent of AMI or below had say 16.7 percent of the prerake household income distribution, the adjusted share would be 16.7 percent * (100 percent-3.1 percent) = 16.2 percent). *The result of this median adjustment is that any shifts in the projected proportions in each income category reflect only shifts in the shape of the income distribution around the median, NOT any changes in the median income itself.*

- » The second and final “rake” is to additionally calibrate all household counts to match the MWCOG household projections for the jurisdiction (this calibration does not affect the relative distribution of the household income categories within the jurisdiction).

TABLE A.3

Net Additional Households Projected by Income Level between 2015 and 2030 by Jurisdiction

Income level	District of Columbia	Charles	Frederick	Montgomery	Prince George's	Alexandria	Arlington	Fairfax	Loudoun	Prince William	Region
Lowest	8,500	4,200	5,300	11,500	8,500	2,700	3,500	10,800	4,200	7,000	68,000
Low	7,000	3,400	5,900	10,100	8,700	2,300	2,800	9,300	4,000	7,900	61,000
Low-Middle	5,100	2,100	3,300	7,000	5,800	1,400	1,800	7,700	3,100	5,100	42,000
Middle	13,500	5,500	6,300	9,800	5,700	2,300	3,500	14,600	9,000	8,400	78,000
High	15,800	3,200	3,600	8,000	5,100	2,500	4,700	15,900	10,500	5,800	75,000
Highest	15,400	900	1,200	1,200	600	1,700	3,700	6,300	6,000	2,100	39,000
Total	65,400	19,300	25,600	47,500	34,300	12,900	20,100	64,600	36,900	36,400	363,000

Sources: Urban–Greater DC projections based on analysis of the 2013 to 2017 American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org, and Metropolitan Washington Council of Governments, *Round 9.1 Growth Trends to 2045: Cooperative Forecasting in Metropolitan Washington* (Washington, DC: Metropolitan Washington Council of Governments, 2018).

Notes: Fairfax includes Fairfax County and the cities of Fairfax and Falls Church; Prince William includes Prince William County and the cities of Manassas and Manassas Park. Data are rounded to the nearest hundred. Because of rounding, columns and rows may not sum. The number of households to match the 2030 household estimate reported in the Round 9.1 Forecast for each jurisdiction and the region.

The Mix of Housing across Cost Bands Would Need to Shift to Align with Future Households (pp. 31–33)

Future housing cost needs. To estimate future housing needs, we used the current distribution of households and the maximum housing costs each household could afford or would desire to pay based on their income and applied it to the number of households expected to be added in each income band. This distribution does differ from that presented in current housing needs as it places every household in the housing cost category appropriate to their income level rather than only those households who are cost burdened; the current housing needs assumes the actual housing costs of those not cost burdened are their desired costs. The following assumptions, which incorporate the 2016 HUD Income Limits, were used to calculate the maximum that a household could or would pay to determine future needs:

- 0 to 80 percent of AMI: 30 percent of monthly income
- 80 to 120 percent of AMI: 25 percent of monthly income (the band average)
- 120 to 200 percent of AMI: 18 percent of monthly income (the band average)
- Above 200 percent of AMI: 12 percent of monthly income (the band average).
- If a household above 120 percent of AMI was spending more than the average for their AMI band, their maximum desired housing cost was assumed to be their current housing cost, regardless of housing cost burden.

TABLE A.4

Additional Housing Units Needed by Cost to Accommodate Household Growth from 2015 to 2030 by Jurisdiction

Housing cost level	Monthly housing cost (2016\$)	District of Columbia	Charles	Frederick	Montgomery	Prince George's	Alexand-ria	Arlington	Fairfax	Loudoun	Prince William	Region
Lowest	\$0 to \$799	8,700	4,300	5,200	11,300	8,400	2,700	3,400	10,700	4,100	6,900	67,000
Low	\$800-\$1,299	8,800	3,900	6,200	11,800	10,200	2,700	3,600	11,100	4,500	9,000	74,000
Low-Middle	\$1,300 to \$1,799	10,100	3,600	5,500	9,500	7,000	2,200	2,900	12,100	5,700	7,400	69,000
Middle	\$1,800 to \$2,499	14,800	4,800	5,400	8,600	5,500	2,500	4,100	14,800	9,200	7,100	80,000
High	\$2,500 to \$3,499	12,500	2,300	2,600	4,500	2,700	1,700	3,500	10,400	8,400	4,600	54,000
Highest	More than \$3,500	10,900	500	700	1,800	600	1,300	2,700	5,600	4,900	1,300	30,000
Total		68,800	19,800	26,100	48,700	35,700	13,600	20,900	66,200	37,700	37,700	374,000

Sources: Urban–Greater DC projections based on analysis of the 2013 to 2017 American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org, and Metropolitan Washington Council of Governments, *Round 9.1 Growth Trends to 2045: Cooperative Forecasting in Metropolitan Washington* (Washington, DC: Metropolitan Washington Council of Governments, 2018).

Notes: Fairfax includes Fairfax County and the cities of Fairfax and Falls Church; Prince William includes Prince William County and the cities of Manassas and Manassas Park. Data are rounded to the nearest hundred. Because of rounding, columns and rows may not sum. This table includes units needed for households as well as additional units to maintain current vacancy rates. The number of households and housing units has been weighted to match the 2030 household estimate reported in the Round 9.1 Forecast for each jurisdiction and the region.

Preservation of Both Subsidized and Unsubsidized Affordable Housing Is Critical to Meeting Future Housing Needs (pp. 33–36)

TABLE A.5

Estimated Housing Units with Federal Subsidies in the Washington Region, 2018

Subsidy type	DC	Charles	Frederick	Montgomery	Prince George's
Public housing	7,225	0	421	603	543
Public housing and other subsidies	2,501	0	60	0	0
Section 8 only	3,626	492	225	1,019	1,110
Section 8 and HUD mortgage (FHA or Section 236) only	3,088	0	0	2,073	2,286
Section 8 and other subsidy combinations	4,845	179	449	2,571	619
<i>Total with deep subsidies</i>	<i>21,285</i>	<i>671</i>	<i>1,155</i>	<i>6,266</i>	<i>4,558</i>
Low income housing tax credit only	11,568	266	303	4,048	3,525
Low income housing tax credit and other subsidies	2,610	183	323	2,637	4,002
HOME only	361	9	21	133	92
Rural housing subsidy only	0	111	15		
HUD-insured mortgage only	105	0	0	2,085	608
All other subsidy combinations	0	0	0	353	338
Total federally subsidized units	35,929	1,240	1,817	15,522	13,123

Subsidy type	Alexandria	Arlington	Fairfax	Loudoun	Prince William
Public housing	666	0	750	0	0
Public housing and other subsidies	36	0	24	0	0
Section 8 only	1,103	365	1,223	0	263
Section 8 and HUD mortgage (FHA or Section 236) only	0	114	885	0	229
Section 8 and other subsidy combinations	24	551	1,332	191	0
<i>Total with deep subsidies</i>	<i>1,829</i>	<i>1,030</i>	<i>4,214</i>	<i>191</i>	<i>492</i>
Low income housing tax credit only	1,262	3,505	4,192	2,154	3,690
Low income housing tax credit and other subsidies	207	461	832	299	1,251
HOME only	0	0	115	0	12
Rural housing subsidy only	0	0	0	0	0
HUD-insured mortgage only	0	0	18	0	0
All other subsidy combinations	0	0	130	0	120
Total federally subsidized units	3,298	4,996	9,501	2,644	5,565

Source: Urban–Greater DC analysis of National Preservation Database.

Notes: FHA = Federal Housing Administration; HOME = the HOME Investment Partnerships program; HUD = the US Department of Housing and Urban Development. Fairfax includes Fairfax County and the cities of Fairfax and Falls Church; Prince William includes Prince William County and the cities of Manassas and Manassas Park. In some developments, multiple types of subsidies are used to provide affordable units. The extent to which those subsidies are applied to the same units or spread out across units is unknown. We estimate the total number of assisted units in the region may vary by 204 units.

TABLE A.6

Number of Rental Units in Buildings with 5 or More Units, Renting for Less than \$1,300, 2015

Jurisdiction	Total	Age of Unit		
		0-30 years	30-60 years	More than 60 years
District of Columbia	63,700	9,300	24,500	29,900
Montgomery	25,800	5,700	14,400	5,700
Prince George's	49,300	9,100	30,200	10,000
Frederick	6,300	1,700	3,600	1,100
Charles	2,400	1,000	1,000	300
Arlington	8,200	1,800	3,200	3,200
Alexandria	8,600	800	5,500	2,200
Fairfax, Fairfax City, Falls Church	16,500	4,000	10,800	1,800
Loudoun	3,400	2,000	1,100	300
Prince William, Manassas, Manassas Park	9,900	3,400	5,600	900
Washington, DC, Region	194,000	39,000	100,000	55,000

Sources: Urban–Greater DC projections based on analysis of the 2013 to 2017 American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org, and Metropolitan Washington Council of Governments, *Round 9.1 Growth Trends to 2045: Cooperative Forecasting in Metropolitan Washington* (Washington, DC: Metropolitan Washington Council of Governments, 2018).

Notes: Data are rounded to the nearest hundred. Because of rounding, columns and rows may not sum. The number of housing units has been weighted to match the 2015 household estimate reported in the Round 9.1 Forecast for each jurisdiction and the region.

TABLE A.7

Number of Rental Units in Buildings with 1-4 Units, Renting for Less than \$1,300, 2015

Jurisdiction	Total	Age of Unit		
		0-30 years	30-60 years	More than 60 years
District of Columbia	25,600	2,600	6,300	16,700
Montgomery	9,400	1,500	4,800	3,100
Prince George's	12,500	1,600	5,800	5,000
Frederick	5,700	800	2,000	3,000
Charles	2,800	600	1,600	600
Arlington	2,300	400	800	1,100
Alexandria	2,000	300	800	1,000
Fairfax, Fairfax City, Falls Church	8,200	1,500	4,700	2,000
Loudoun	3,200	700	1,400	1,000
Prince William, Manassas, Manassas Park	4,200	1,200	2,100	900
Washington, DC, Region	75,000	11,000	30,000	34,000

Sources: Urban–Greater DC projections based on analysis of the 2013 to 2017 American Community Survey microdata from IPUMS-USA, University of Minnesota, www.ipums.org, and Metropolitan Washington Council of Governments, *Round 9.1 Growth Trends to 2045: Cooperative Forecasting in Metropolitan Washington* (Washington, DC: Metropolitan Washington Council of Governments, 2018).

Notes: Data are rounded to the nearest hundred. Because of rounding, columns and rows may not sum. The number of housing units has been weighted to match the 2015 household estimate reported in the Round 9.1 Forecast for each jurisdiction and the region.

Communities Facing Market Pressures Need Protection from Displacement (pp. 36–37)

To estimate the risk of displacement we adapted a methodology from Bates (2013) to classify census tracts in the region based on their housing market conditions in 2013–17 and how they have changed since 1990 and the presence of populations more vulnerable to housing displacement in 2013–17. We used the Neighborhood Change Database and the 2013–17 American Community Survey to derive the needed indicators.

Tracts were considered to have vulnerable populations in 2013–17 if they had higher share than their jurisdiction’s share on three out of four indicators:

- households who are renters,
- people of color,
- adults ages 25 and older without bachelor’s degrees, or
- households with incomes below \$75,000.

To assess housing market conditions, we used tract median home values for owner-occupied homes. The 1990 and 2000 Census data in the Neighborhood Change Database includes median home value for only specified owner-occupied units. Specified units are single-family homes on less than 10 acres that do not have a business on the property, which would exclude condominium units in multifamily properties. The American Community Survey reports the median home value for all owner-occupied units. The inclusion of condominium units in 2013–17 would, on average, likely decrease the median value of homes and may slightly bias the change in market conditions downward. Median values from 1990 and 2000 were adjusted for inflation to 2017 dollars before comparing change over time. The median value for a tract in each time period was set to missing if there were fewer than 50 specified owner-occupied or owner-occupied units, as appropriate. This means that all tracts with fewer than 50 owner-occupied units in 2013–17 were excluded from the analysis as were those that had values in the top two quintiles in 2013–17 but were missing 1990 data or had values in the bottom three quintiles in 2013–17 but were missing 2000 data.

Housing market conditions that may indicate risk of displacement were defined for tracts relative to their jurisdictions as:

- Adjacent—tract was in the bottom three quintiles for median home value for 2013–17, median home value appreciation between 2000 and 2013–17 was in the bottom three quintiles, and it

bordered at least one tract, either in its own jurisdiction or bordering jurisdiction, with median home values in the top two quintiles in 2013–17 or median home value appreciation between 2000 and 2010 in the top two quintiles.

- Accelerating—tract was in the bottom three quintiles for median home value for 2013–17 and in the top two quintiles for median home value appreciation between 2000 and 2013–17.
- Appreciated—tract was in the bottom three quintiles for median home value in 1990, in the top two quintiles for median home value in 2013–17, and in the top two quintiles for median home value appreciation between 1990 and 2013–17.

At risk of displacement tracts were defined as those with vulnerable populations and one of the three housing market conditions defined above are considered to have risk of displacement. Additionally, tracts with appreciated markets and that do not meet the threshold for vulnerable populations but had an increasing share of white residents and adults with bachelor's degrees since 2000 also have are considered at risk of displacement as there may be vulnerable households remaining.

Vulnerable tracts were defined as those that did not meet the housing market conditions described above, had home value for 2013–17 in the bottom three quintiles, but did have vulnerable populations. Tracts were defined as *not at risk* if they did not meet the criteria for at risk or vulnerable as described. Generally, these tracts either had median home values in the top two quintiles in 2013–17 or had below average shares of vulnerable populations for their jurisdiction.

Policy Tools and Contributions

We applied a mix of methods to estimate the contributions that policy tools can make toward regional goals of preservation, production, and protection. In the interest of collecting evidence in time to support strategic decisions by regional leaders and representatives, we applied the best available evidence, whether through our own calculations from local data or based on program impact reports and estimates from other research. Many local housing policy tools have not undergone a rigorous evaluation with sensitivity to market contexts, so we began by documenting what we know about each policy tool and sought high-quality research on their contributions. When such research was available, the reports typically note statistical significance but not the scale of the impact. For each policy tool, we graded the estimated contribution based on how close we got to a regional numeric impact estimate and iterated to improve the estimates.

Preservation Contributions

We estimated the potential contribution of preservation tools by matching the type of preservation approach with the segment of the housing supply that the policy would address. We did not identify a reliable way to estimate the percent of eligible properties that the region could expect to preserve—only the set of properties likely to be eligible for preservation via each tool. Therefore, the actual number of units preserved will almost certainly be lower than the “scope of need” estimates. We have added illustrative examples about many of the preservation policy tools to indicate the results achieved either in parts of the Washington, DC, region or in other regions.

To narrow to the top four preservation tools, we first looked at the numeric “scope of need” estimates and compared them with our finding that the Washington, DC, region needs to preserve the affordability of approximately 224,000 rental units. Of the policy tools that directly enable ongoing affordability, we estimate that the largest contributions could come from loans for moderate rehabilitation (around 100,000 units) and preservation subsidy priorities (around 70,000 units). However, additional preservation policies on the list address critical time periods—enabling awareness and action through preservation inventories, reducing the level of repair needs by supporting lighter rehab, or preventing the loss of the region’s public housing stock.

Although moderate repair and rehabilitation loans differ in key ways from light rehab and are therefore separated in the policy menu and analysis, effective light rehab activity can reduce the need for moderate rehab in the future. As a result, we merged the two on our top tools list as “loans for repairs and rehabilitation.” While more housing currently needs moderate rehab, we see high potential for creating sets of loan products that address both light and moderate needs. In lieu of preservation subsidy priorities, we opted to elevate the importance of a preservation inventory and network. This policy tool can enable nimble use of subsidy priorities, rehab loans, and other acquisition financing. The third policy tool to rise to our high potential list is public housing rehabilitation since housing affordable to renters with extremely low incomes is rare and costly to create anew. Finally, we included financing for acquisition and/or rehab on the high potential list because of its potential to help with the speed of preservation, the shortage of existing policy tools for preserving properties with greater financial than physical risks, and the opportunity for leverage exhibited in the acquisition fund example from New York.

Production Contributions

We produced numeric and regionally specific impact estimates for a limited set of policy tools, each of which intends to increase housing production: infill authorization or incentives, zoning for higher density, and prioritization of added density in approved areas. For these three tools, the estimates are based on our analysis of local administrative data and zoning codes. The data assembled and methods used to produce those estimates are described at the end of this section.

For the remaining policy tools for production, we either created rough estimates building on prior research, such as Closing California's Housing Gap (Woetzel et al. 2016), or applied evidence from illustrative cases. We estimated that the policy tools that would make the largest contributions to the regional production need of 374,000 more rental or owned homes are up-zoning (between 46,000 and 59,000 units), infill (around 30,000 or more units), and prioritizing added density in already approved places (around 22,000 or more units). Reduced parking requirements, allowing more development types by-right, and expedited permitting could boost production between 10 and 20 percent in portions of the region. Other policy tools either resulted in smaller contributions or had unclear numeric contributions but some prior policy examples to draw upon.

Based on a combination of existing literature and input from external advisors, we decided that land value or split-rate taxation merited inclusion on the high potential list. The approach could reduce the economic rationale for holding infill locations vacant and building to less than the allowable density—two important concerns in the region. We also selected up-zoning since we estimate that the added density could enable between 46,000 and 59,000 more units. Reducing (or perhaps eliminating) parking requirements rose to the high potential list as another potential explanation for underutilization of parcels, as well as a substantial cost driver. Finally, in recognition of connection between transit, activity centers, and housing, we determined that equitable transit oriented development funds—particularly if applied in concert with the other recommended production tools—could take advantage of the purple line and other new transit investments and ensure that the region's households with low and low-middle incomes can benefit from increasingly accessible locations.

Protection Contributions

For contribution estimates related to resident protections, we largely summarized the state of the literature. Some resident protection policy tools add protections to all renter households or to other specific household groups. Others of the policy tools have contributions that directly vary with the amount of funding for the program. We therefore relied mainly on identifying critical, time-sensitive

issues and then narrowing among the policy tools based on the strength of the evidence from prior examples, income groups assisted, and feasibility.

Two of the policy tools that we selected as high potential would enable access to sustainable homeownership by households with low-middle incomes (or below). Owning a home is associated with a lower risk of displacement in gentrifying areas. Home purchase assistance can help households make the first step into homeownership in a high-cost market. Land trusts and shared equity approaches can allow long-term homeownership affordability and recycle subsidies to assist multiple households over time while still generating asset growth for households at rates that exceed many other investment opportunities. The other two high potential policy tools we selected would address the needed protections among households with the lowest incomes in the region. Emergency rental assistance can prevent evictions and reduce new homelessness risks. Local housing vouchers could enable more of households with the lowest incomes to afford the rent, and could pair with new lower cost development to allow the vouchers to go further.

Creating the Production Contributions Dataset

We used public records as of June 2018 aggregated by Black Knight Financial Services to create a dataset with a unique observation for every single-family home or townhome and multifamily development (regardless of ownership type). Properties with multiple parcels but one shared address were collapsed (predominately condominium units and mixed-use parcels). We then supplemented the dataset with local administrative data available on jurisdictions' open data portals or websites when possible to enhance the quality of the data on lot size, the number of units per property, and the land use description.

Because of time and budget constraints, we limited this analysis to the District of Columbia, Montgomery County in Maryland, and Arlington and Fairfax Counties in Virginia. The project team reviewed each jurisdiction's zoning code and merged on factors from the zoning code to the property data for the analyses including: lot area minimum, minimum lot area per unit, maximum density, maximum floor area ratio, height restrictions, and maximum lot coverage ratio.

Most municipalities that are in the counties listed above and have their own zoning authority were excluded from the vacant lots and soft sites analysis. This includes the towns of Poolsville, Barnsville, and Laytonsville in Montgomery County, and Clifton, Herndon, and Vienna in Fairfax County. Zoning codes were reviewed for Rockville and Gaithersburg in Montgomery County.

Housing Unit Potential for Vacant Lots

To estimate the number of units that could be built on vacant lots, we used the current zoning code by-right parameters and the lot size. Parcels were considered vacant if they were classified as vacant by the local land use definitions and had no improved assessment value as of our data. It is possible that development permits have already been filed or construction begun on some of these lots. In the case of the District, shapefiles on local and national parks, and data on tax type were also used to remove parcels classified as vacant according to their land use but that are part of educational facilities, parks, and cemeteries.

A number of assumptions were used:

- Buildable lots are those that meet minimum lot size standards in the zoning code. Site area minimums were not used. We did not assume contiguous lots could be merged.
- Setbacks were not estimated; instead the lot coverage ratio and/or floor area ratio were used to determine the buildable area on the lot.
- Lots zoned for single-family that were large enough for multiple individual structures were subdivided.
- Parking requirements were not incorporated into the estimates.
- If multiple types of housing were permissible in a zone, we assumed the densest housing permissible by-right would be built.

In Arlington County, we calculated our estimates using both the by-right zoning code and the special exceptions that are articulated in Arlington's zoning code. Most new multi-family housing in Arlington is built per the special exceptions in the zoning code.

Table A.8 displays all vacant lots and the number that are zoned for multifamily, how many are buildable and the potential units for each jurisdiction. We found more than 1,028 vacant lots that are currently zoned for multifamily housing and are buildable, with potential unit capacity of more than 30,000.

TABLE A.8

Summary of Vacant Lots and Potential for Multifamily Development

Jurisdiction	All lots	Vacant lots	Vacant lots zoned for multifamily	Buildable multifamily lots	Potential multifamily units
DC	140,430	9,851	786	574	12,561
Montgomery (excluding Rockville & Gaithersburg)	279,665	9,160	766	208	1,673
Rockville	16,254	288	64	33	2,934
Gaithersburg	14,931	356	89	87	2,607
Arlington – <i>by right</i>	42,046	2,224	82	51	3,507
Arlington–special exceptions	42,046	2,224	206	104	11,922
Fairfax	306,499	9,307	196	22	494
Summary	799,825	31,186	2,107	1,028	32,191

Sources: Urban Institute analysis of data from Black Knight Financial Services and local zoning code and administrative data on parcels and addresses.

Notes: Estimates for counties with municipalities that have zoning authority do not include those municipalities. Summary uses Arlington–special exceptions.

Underutilization of Multifamily Parcels

Using the same assumptions described for vacant lots, we determined the maximum units that could be built on each parcel, per the current by-right zoning code. Then, using the number of units currently on the parcel, we identified lots that were underutilized under several different thresholds. We included only structures with more than three units. Existing multifamily condominiums and apartment buildings are both included here. We found 1,363 parcels, or less than 10 percent of multifamily parcels that had complete information on lot size and number of units, in the four jurisdictions are underutilized at all (table A.9). We estimate that an additional 22,000 units could be added on multifamily parcels that are less than 30 percent utilized.

TABLE A.9

Underutilized Multifamily Parcels by Jurisdiction

Jurisdiction	Total MF parcels (not vacant)	Total MF units	Underutilized Multifamily Parcels			Additional Units if MF Parcels Were 100% Utilized		
			Less than 30%	Less than 50%	Less than 100%	Only parcels under 30%	Only parcels under 50%	All
<i>Arlington by right</i>	1,748	76,788	0	2	167	0	58	2,005
<i>Arlington–special exception</i>	1,748	76,788	36	69	278	4,477	7,590	11,289
DC	9,749	163,375	22	120	713	1,497	3,834	8,742
Fairfax	1,262	40,333	20	47	259	13,491	14,367	19,176
Gaithersburg	74	7,233	4	4	19	1,043	1,043	1,303
Montgomery	581	32,586	5	8	70	659	922	2,234
Rockville	60	6,463	2	10	24	1,279	2,327	2,669
Summary	13,474	326,778	89	258	1,363	22,446	30,083	45,413

Sources: Urban Institute analysis of data from Black Knight Financial Services and local zoning code and administrative data on parcels and addresses.

Notes: Estimates for counties with municipalities that have zoning authority do not include those municipalities. Summary uses Arlington–special exceptions.

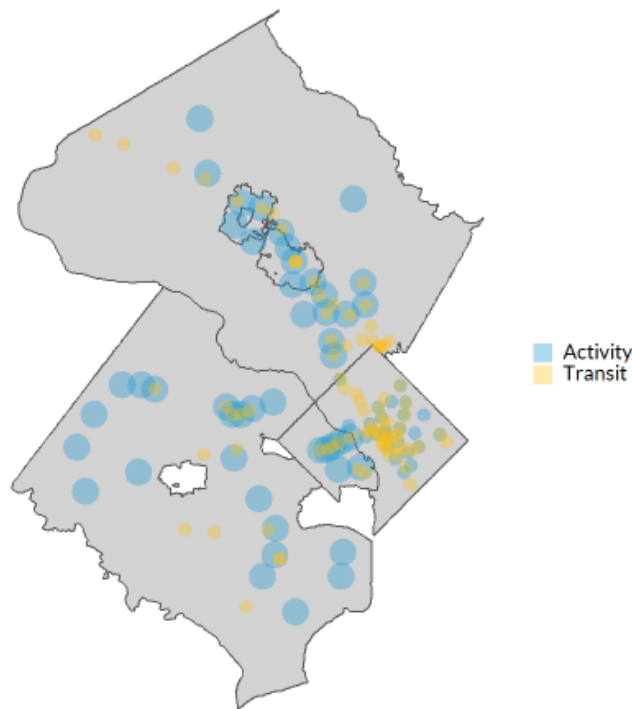
Up-Zoning around Transit and Activity Centers

We estimated the impact of increased density in areas that are within a quarter-mile from rail transit stops and a half-mile from MWCOG-designated activity centers. In DC a quarter mile was also used for activity centers because of their proximity to one another. Stops included those on the Metrorail (which includes the Silver Line extension), MARC commuter rail, the Purple Line, Amtrak, and VRE commuter rail lines. Stops that are duplicated were excluded if the two stops have the same geographic coordinates (for example: the Bethesda Metro stop and the Bethesda Purple Line station).

In the analysis, we only included transit stop and activity centers, referred to as nodes, that were entirely contained in the jurisdictions where we have cleaned parcel data: the District of Columbia, Arlington County, Montgomery County, and Fairfax County. We concatenated the parcel data from each jurisdiction to allow for density calculations for nodes that cross jurisdictional borders between the four counties that were included in the analysis. Nodes that were included are shown in figure A.3.

FIGURE A.3

Transit and Activity Center Nodes



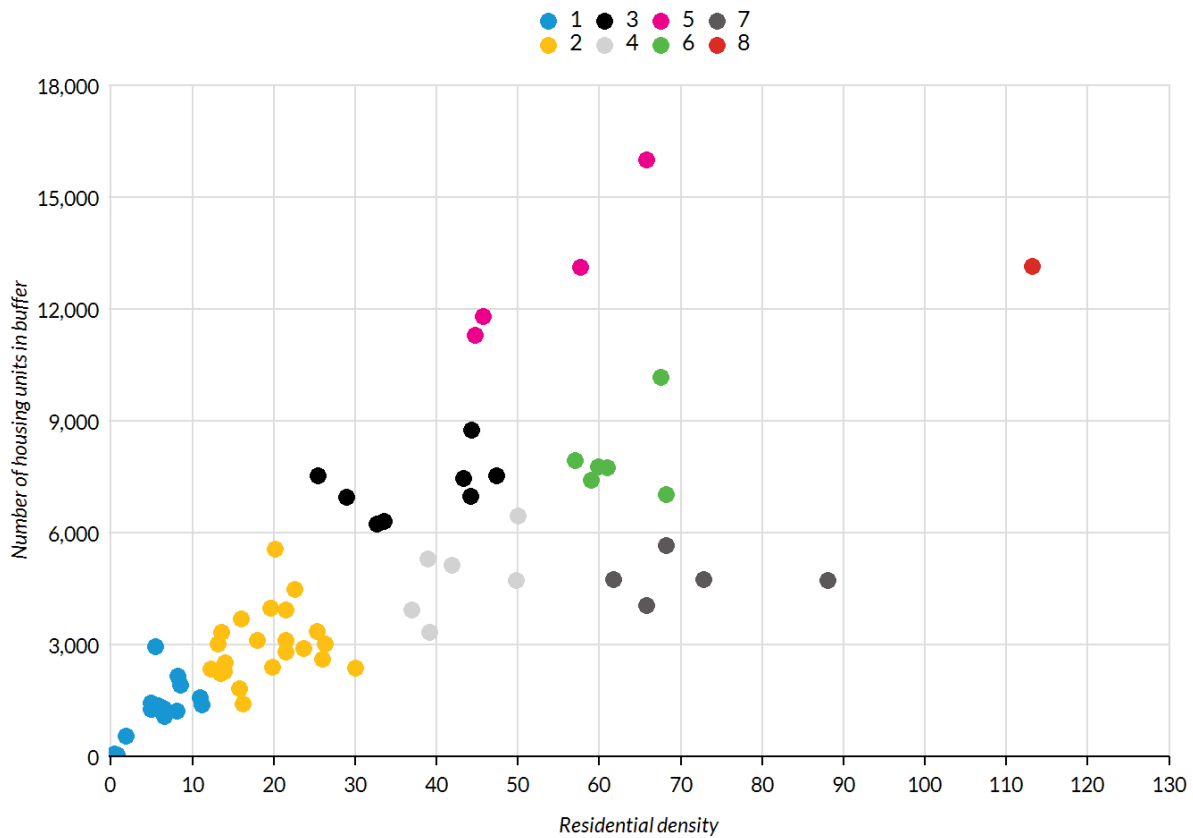
Source: Metropolitan Washington Council of Governments and open data portals.

To calculate the density in each node, we divided the total number of existing housing units by the total acres of residential land, defined by parcels that currently have a residential land use. Parcels that had incomplete data on lot area or the number of units were excluded from the density calculation. We then used k-means clustering to group the nodes by residential density and number of units. The results of the clustering for transit nodes is shown in Figure A.4. For most nodes, we estimated the impact of increasing residential density by 20 percent, with a few exceptions:

- For transit nodes, Group 1, the least dense group, was up-zoned to 10 units per acre.
- For Transit nodes with the highest density or of more than 11,000 housing units, no increase in density was assumed.
- For Activity Centers, nodes with the highest density or of more than 24,000 housing units, no increase in density was assumed.

FIGURE A.4

Results of K-Means Clustering for Transit Nodes



Sources: Urban Institute analysis of data from Black Knight Financial Services and local zoning code and administrative data on parcels and addresses. Shapefiles on transit stops and activities centers were obtained from MWCOG and open data portals.

Note: Residential density is measured in units per residential acre.

As many of the nodes overlapped, to arrive at an unduplicated count of new units that could be added with increased density, we calculated a weight for each node. This weight was based on the share of the node that was not contained in any other node. If multiple nodes overlapped, the overlapping area was designated as part of the node with the higher residential density. These weights were then multiplied by the number of new units that would have been added for the whole node, and summed across nodes to get the total units added across the study area. We estimate about 9,000 units could be added with up-zoning in the four jurisdictions in and around activity centers or more than 47,000 around transit stops (table A.10). The two estimates should not be added as the nodes were analyzed separately by type and activity centers and transit nodes do overlap.

TABLE A.10

Potential Units with Up-Zoning Transit Stops or Activity Centers

Type of node	Total new units
Activity centers	58,697
Transit	46,679

Sources: Urban Institute analysis of data from Black Knight Financial Services and local zoning code and administrative data on parcels and addresses. Shapefiles on transit stops and activities centers were obtained from MWCOC and open data portals.

Notes: Totals cannot be summed across activity centers and transit because of overlap. The total numbers only include Arlington County, Fairfax County, Montgomery County, and the District of Columbia.

Criteria and Analysis of Policy Options

We assessed policy tools' potential contribution to the region's needs using multiple criteria.

Specifically, we applied the following criteria for reviewing and comparing each policy tool:

1. How much would this policy tool contribute one of the three overarching goals?
2. What is the scope of the need that this policy tool addresses?
3. Does this policy directly address a critical issue with a limited time window for action or offer amplification benefits for other policies?
4. Are similar policies in place in the region or elsewhere? And are they considered effective?
5. Is the policy feasible across the region?
6. Which income groups would the policy tool directly assist?

For each of the three strategies (preserve, produce, protect), we used these criteria to select four policy tools with high potential to meet the region's needs, whether through implementation, expansion, or strengthening.

Our selection method began with a review of the available numeric estimates of the contribution a policy tool would make or the size of the specific need it would address. Policy tools that we estimated would address approximately 10 percent or more of the region's target—or would apply to a similar portion of regional needs—made the “high-potential” list. When quantitative estimates were unavailable or too low, we then reviewed for policy tools that address critical, time-sensitive issues. If a policy met one of these three threshold criteria, we then considered the following additional factors: (1) the presence of prior examples, (2) the political and legal feasibility across the region, and (3) the policy tool's potential to improve housing options in the low-middle, low, or lowest income bands.

Through these criteria, we identified the following 12 policy tools as having high potential. Below each policy tool is a summary of our assessment of its threshold criterion and the three additional factors.

PRESERVE

1. Loans for repairs and rehabilitation⁹⁵
 - » Calculated need of 11,000 units through light rehab loans and up to 144,000 units through moderate to substantial rehab loans
 - » Multiple examples of widespread preservation lending, including the Housing Preservation Fund in the District of Columbia
 - » Feasible throughout the region
 - » Can preserve low- and low-middle-cost housing
2. Preservation network and inventory
 - » Addresses the critical issue of improving the speed of preservation activity
 - » Multiple examples, including the DC preservation catalog
 - » Feasible throughout the region
 - » Supports preservation of lowest-, low-, and low-middle-cost housing
3. Public housing rehabilitation
 - » Addresses the critical issue of preserving the region's 10,200 public housing dwellings despite high capital needs
 - » Examples in the region and nation, however their effectiveness is unclear
 - » Political feasibility is uncertain and requires attention
 - » Only tool that can preserve dedicated rental supply for households with the lowest incomes
4. Financing for acquisition and/or acquisition-rehab
 - » Addresses the critical issue of improving the speed of preservation activity, especially of properties with greater financial than physical risks
 - » Limited examples with documented outcomes, such as NYC Acquisition Fund
 - » Feasible throughout region
 - » Can address low and low-middle income needs

PRODUCE

5. Land value taxation

- » Addresses critical issue of speculative land holding and underdevelopment, especially in areas with higher land values
- » Limited examples in practice in the US
- » May face feasibility challenges under Dillon's rule
- » Does not directly address housing needs at lower income levels, unless combined with other tools

6. Zoning for higher densities

- » Estimated to add 45,000 to 58,000 units in DC, Arlington, Fairfax, and Montgomery counties
- » Multiple examples of upzoning, including allowing multifamily in all residential areas
- » Champions needed to navigate political feasibility because of resident opposition in both higher-income and displacement-risk areas
- » Does not directly address housing needs at lower income levels, unless combined with other tools

7. Reduced parking requirements

- » Estimated 20 percent boost in units in locations with relatively high parking requirements
- » Examples of in several US locations, including Arlington, Alexandria, and DC
- » Feasible throughout the region
- » Does not directly address housing needs at lower income levels, unless combined with other tools

8. Equitable Transit Oriented Development funds

- » Addresses critical issue of current transit expansion, i.e. Purple Line, development window, and can allow up-zoning to reach lower incomes
- » Various affordable housing TOD funds in US, but few with strong evaluation
- » Feasible throughout the region
- » Can address low and low-middle income needs

PROTECT

9. Home purchase assistance

- » Could enable home purchases by up to 900,000 mortgage-ready people under the age of 40 in the Washington MSA.
- » Multiple examples of low-interest loans, downpayment grants, and homebuyer tax credits
- » Feasible throughout the region
- » Can address low and low-middle income needs

10. Land trusts, co-ops, and shared equity ownership

- » Estimated contribution varies with funding, but evaluation shows effectiveness in generating both assets for owners and a stock of affordable homeowner housing
- » Examples throughout the US and region with varying rules about asset growth, re-sale, and qualifying incomes
- » Feasible throughout the region
- » Can address low and low-middle income needs

11. Emergency rental assistance

- » Addresses critical issue of ongoing rental crises, eviction, and homelessness risk
- » Examples throughout the US and region with varying rules and administration
- » Feasible throughout the region
- » Supports lowest and low income housing needs

12. Local housing vouchers

- » Addresses critical issue of housing shortage at the lowest income levels and related health and safety risks
- » Multiple examples in the region and other US cities
- » Feasible throughout the region
- » Supports lowest and low income housing needs

Notes

- ¹ For more research on the value of affordable and inclusive housing, see <https://www.HowHousingMatters.org>.
- ² “Washington-Arlington-Alexandria Metro Home Prices & Values,” Zillow, accessed August 19, 2019, [zillow.com/washington-arlington-alexandria-metro-dc_r395209/home-values/](https://www.zillow.com/washington-arlington-alexandria-metro-dc_r395209/home-values/). See also Table B19013 generated using the 2017 American Community Survey 1-Year Estimates from “American FactFinder,” US Census Bureau, accessed December 3, 2018, <http://factfinder.census.gov>.
- ³ “Home Price-to-Income Ratios,” Joint Center for Housing Studies, accessed June 5, 2019, <https://www.jchs.harvard.edu/home-price-income-ratios>.
- ⁴ Richard Florida, “More Losers Than Winners in America’s New Economic Geography,” *CityLab*, January 30, 2013, <https://www.citylab.com/life/2013/01/more-losers-winners-americas-new-economic-geography/4465/>.
- ⁵ Christina Stacy, Terry-Ann Craigie, Brady Meixell, Graham MacDonald, Sihan Vivian Zheng, and Christopher Davis, “Too Far from Jobs: Spatial Mismatch and Hourly Workers,” Urban Institute, February 21, 2019, <https://www.urban.org/features/too-far-jobs-spatial-mismatch-and-hourly-workers>.
- ⁶ “Long Commutes Costing Firms a Week’s Worth of Staff Productivity,” press release, Mercer, May 17, 2017, <https://www.uk.mercer.com/newsroom/britains-healthiest-workplace-flexible-working-and-commuting.html>.
- ⁷ “Construction and Extraction Occupations,” Bureau of Labor Statistics, last modified April 12, 2019, <https://www.bls.gov/ooh/construction-and-extraction/home.htm>.
- ⁸ To compare with other areas, the employment trend data use the entire Washington metropolitan area as defined by the Office of Management and Budget, rather than the smaller Washington, DC, region used in the rest of this report.
- ⁹ This comparison group excludes the New York, Los Angeles, and Chicago metropolitan areas, which had significantly more than 3.5 million jobs in 2017.
- ¹⁰ Information service–industry jobs do not include people who are employed in information technology positions in other industries.
- ¹¹ The components of population change have played out differently across the region. See the appendix for components of population change charts for individual jurisdictions.
- ¹² William H. Frey, “The US Will Become ‘Minority White’ in 2045, Census Projects,” *The Avenue* (blog), Brookings Institution, March 14, 2018, <https://www.brookings.edu/blog/the-avenue/2018/03/14/the-us-will-become-minority-white-in-2045-census-projects/>.
- ¹³ Cheryl Young, “First Comes Love, Then Comes Marriage, Then Comes... a Roommate?” Trulia, February 6, 2019, <https://www.trulia.com/research/married-with-roommates/>.
- ¹⁴ This average was calculated based on MWCOG’s published reports on the point-in-time count (H. Chapman 2019).
- ¹⁵ The retirement of the baby boomers is expected to cause significant changes in housing markets nationwide as preferences, housing needs, and income levels change. See Joint Center for Housing Studies (2016) for a discussion of the issue nationally and J. Chapman (2018) for a look at the potential effects on the Washington region.
- ¹⁶ Chuck Bean (executive director, Metropolitan Washington Council of Governments), letter to Metropolitan Washington Council of Governments board of directors, “Meeting the Region’s Current and Future Housing

Needs,” September 5, 2018, <https://www.mwcog.org/documents/2018/09/12/regional-housing-memo-to-cog-board-cog-board-affordable-housing-housing/>.

- ¹⁷ Stephen S. Fuller, “Roadmap Update: Where We Were; Where We Are; and Where We Need to Go,” PowerPoint presentation, May 9, 2019, https://sfullerinstitute.gmu.edu/wp-content/uploads/2019/05/SFI_2030Update_0519.pdf.
- ¹⁸ Susan J. Popkin, Diane K. Levy, and Corianne Payton Scally, “America’s Public Housing Program Faces an Uncertain Future,” *Urban Wire* (blog), Urban Institute, December 17, 2018, <https://www.urban.org/urban-wire/americas-public-housing-program-faces-uncertain-future>.
- ¹⁹ “Inclusionary Zoning: An Important Avenue to More Affordable Housing,” Virginia Poverty Law Center, January 30, 2018, <https://vpplc.org/inclusionary-zoning-an-important-avenue-to-more-affordable-housing/>.
- ²⁰ The Home Rule Act and a history of the city’s home rule movement are available on the Council of the District of Columbia website: <https://dccouncil.us/dc-home-rule/>.
- ²¹ See the fact sheet at “Ensuring a Healthy Community: The Need for Affordable Housing,” Microsoft, accessed June 13, 2019, <https://news.microsoft.com/affordable-housing/>; and Andrea Nakano, “Salesforce CEO Gives \$2 Mil. Supporting Prop C,” *CBS SF BayArea*, October 21, 2019, <https://sanfrancisco.cbslocal.com/2018/10/21/salesforce-ceo-gives-2-mil-supporting-prop-c/>.
- ²² Note that employer-assisted housing programs with a “live near your work” component may boost demand and competition for housing in the targeted neighborhoods, potentially generating concerns about rising housing costs and displacement.
- ²³ See also “Employee-Assisted Housing Programs Overview,” Local Housing Solutions, accessed August 18, 2019, <https://www.localhousingolutions.org/act/housing-policy-library/employer-assisted-housing-programs-overview/>.
- ²⁴ Alana Semuels, “Should Urban Universities Help Their Neighbors?,” *The Atlantic*, January 19, 2015, <https://www.theatlantic.com/business/archive/2015/01/should-urban-universities-help-their-neighbors/384614/>; “Employer-Assisted Housing Program: Frequently Asked Questions,” University of Chicago Facilities Services, Office of Civic Engagement, accessed August 16, 2019, https://humanresources.uchicago.edu/benefits/retirefinancial/EAHP-FAQ_final_11%2030%2015.pdf.
- ²⁵ Paul Chisholm, “Why Hospitals Are Getting into the Real Estate Business,” *Health Shots*, NPR, August 19, 2018, <https://www.npr.org/sections/health-shots/2018/08/19/639415302/why-hospitals-are-getting-into-the-real-estate-business>; “Affordable Housing,” Nationwide Children’s Hospital, accessed August 16, 2019, <https://www.nationwidechildrens.org/about-us/population-health-and-wellness/healthy-neighborhoods-healthy-families/affordable-housing>.
- ²⁶ Boston Medical Center, “Boston Medical Center to Invest \$6.5 Million in Affordable Housing to Improve Community Health and Patient Outcomes, Reduce Medical Costs,” press release, December 7, 2017, <https://www.bmc.org/news/press-releases/2017/12/07/boston-medical-center-invest-65-million-affordable-housing-improve>.
- ²⁷ “City and County of Denver Lower Income Voucher Equity (LIVE) Pilot Program,” fact sheet, July 2017, https://www.denvergov.org/content/dam/denvergov/Portals/728/documents/Documents/Lower%20Income%20Voucher%20Equity%20Initiative%20Fact%20Sheet_08092017.pdf.
- ²⁸ Jon Murray, “Chipotle could join Denver affordable housing program that aims to buy down rents on 400 apartments,” *Denver Post*, August 8, 2017, <https://www.denverpost.com/2017/08/08/chipotle-denver-affordable-housing/>.

- ²⁹ For more information, see “Washington Housing Initiative – Overview,” JBG Smith, accessed August 19, 2019, <https://www.jbgsmith.com/about/washington-housing-initiative>.
- ³⁰ Karen Weise, “Microsoft Pledges \$500 Million for Affordable Housing in Seattle Area,” *New York Times*, January 16, 2019, <https://www.nytimes.com/2019/01/16/technology/microsoft-affordable-housing-seattle.html?action=click&module=Top%20Stories&pgtype=Homepage>; Microsoft, “Microsoft commits \$500 million to tackle affordable housing crisis in Puget Sound region,” news release, January 16, 2019, <https://news.microsoft.com/2019/01/16/microsoft-commits-500-million-to-tackle-affordable-housing-crisis-in-puget-sound-region/>.
- ³¹ Julia Travers, “The Affordable House Next Door: Local Philanthropy’s Expanding Role in the Housing Crisis,” *Inside Philanthropy*, <https://www.insidephilanthropy.com/home/2018/12/17/the-orkas-island-community-foundation-affordable-housing>.
- ³² “Health Starts at Home: Demonstrating the Positive Benefits of Stable, Affordable Housing on Children’s Health Outcomes,” The Boston Foundation, accessed August 16, 2019, <https://www.tbf.org/what-we-do/special-initiatives/health-starts-at-home>.
- ³³ “The Opportunity,” Partnership for the Bay’s Future, accessed August 19, 2019, <https://www.baysfuture.org/the-opportunity/>.
- ³⁴ Elle Anzilotti, “The Chan Zuckerberg Initiative Has a \$500 Million Plan to Ease the Bay Area Housing Crisis,” *Fast Company*, January 24, 2019, <https://www.fastcompany.com/90294576/the-chan-zuckerberg-initiative-has-a-500-million-plan-to-ease-the-bay-area-housing-crisis>.
- ³⁵ Michael Parkhurst, “Apply Soon: Housing Advocacy RFP,” *Meyer Voices* (blog), Meyer Memorial Trust, January 17, 2019, <https://mmt.org/news/apply-soon-housing-advocacy-rfp>.
- ³⁶ “Preserving Affordable Rental Housing,” press release, MacArthur Foundation, September 11, 2018, <https://www.macfound.org/press/40-years-40-stories/preserving-affordable-rental-housing/>.
- ³⁷ “Building to Impact: A Data-Based Narrative Supporting Housing as a Platform,” Stewards of Affordable Housing for the Future, accessed August 20, 2019, <https://www.sahfnet.org/our-impact>.
- ³⁸ For more information, see “Washington Housing Initiative – Overview,” JBG Smith, accessed August 19, 2019, <https://www.jbgsmith.com/about/washington-housing-initiative>.
- ³⁹ Average spending by homeowners in the US on any type of system replacement was approximately \$6,000. Systems commonly replaced include major appliances, flooring/paneling, plumbing, HVAC, and windows/doors (JCHS 2019).
- ⁴⁰ See “Housing Preservation Fund,” DC.gov, accessed August 19, 2019, <https://dhcd.dc.gov/page/public-private-affordable-housing-preservation-fund>.
- ⁴¹ “Multifamily Energy Efficiency Improvement Programs,” Maryland.gov, accessed August 19, 2019, <https://dhcd.maryland.gov/HousingDevelopment/Pages/EnergyEfficiencyWeatherization.aspx>.
- ⁴² “Sustainable Energy Utility – Commercial and Multifamily Energy Efficiency Rebate Program,” DSIRE, last updated June 10, 2019, <https://programs.dsireusa.org/system/program/detail/22092>.
- ⁴³ “The Rental Housing Assistance Program,” Local Housing Solutions, accessed July 3, 2019, <https://www.localhousingsolutions.org/act/housing-policy-library/the-rental-assistance-demonstration-rad-program-overview/the-rental-assistance-demonstration-rad/>.
- ⁴⁴ “Rental Assistance Demonstration (RAD) Project-Based Voucher Program (formally known as Public Housing),” Fairfax County, Virginia, government, accessed July 5, 2019, <https://www.fairfaxcounty.gov/housing/rentalhousing/rad>.

- ⁴⁵ Martin Astermuhle, “Bowser and the DC Council Agree to Invest in Affordable Housing, but Not on How,” *DCist*, May 17, 2019, <https://dcist.com/story/19/05/17/bowser-and-the-d-c-council-agree-to-invest-in-affordable-housing-but-not-on-how/>.
- ⁴⁶ “Tax Abatements or Exemptions,” Local Housing Solutions, accessed July 3, 2019, <https://www.localhousingsolutions.org/act/housing-policy-library/tax-abatements-or-exemptions-overview/tax-abatements-or-exemptions>.
- ⁴⁷ Rick Jacobus, “Why Voters Haven’t Been Buying the Case for Building,” *Shelterforce*, February 19, 2019, <https://shelterforce.org/2019/02/19/why-voters-havent-been-buying-the-case-for-building/>.
- ⁴⁸ “Land Value Taxation,” Local Housing Solutions, accessed August 19, 2019, <https://www.localhousingsolutions.org/act/housing-policy-library/land-value-taxation-overview/land-value-taxation/>.
- ⁴⁹ “Commission Deliberations,” Washington, DC, Tax Revision Commission, accessed August 19, 2019, <http://www.dctaxrevisioncommission.org/commission-deliberations>.
- ⁵⁰ “‘Increasing Housing Supply and Attainability: Improving Rules and Engagement to Build More Housing’–2019 Real Estate Trends Conference,” Urban Land Institute blog, May 10, 2019, <https://washington.uli.org/3878-2/>.
- ⁵¹ “Expedited Permitting for Qualifying Projects Overview,” Local Housing Solutions, accessed July 3, 2019, <https://www.localhousingsolutions.org/act/housing-policy-library/expedited-permitting-for-qualifying-projects-overview/>.
- ⁵² A right-size parking calculator (<https://rightsizeparking.org/index.php>) estimates how much parking is necessary for locations in the Seattle area, but the calculator does not extend to this region.
- ⁵³ See Shoup (2014). Since the study did not estimate the full cost of delivering a parking space, just its *construction* cost, this estimate of the total cost to a developer is low. Other research from the US estimates the cost per parking space nationwide could be as high as \$35,000 (Gabbe and Pierce 2017).
- ⁵⁴ Grounded Solutions Network, “Inclusionary Housing Calculator,” accessed August 20, 2019, <https://calc.inclusionaryhousing.org/ihc/>.
- ⁵⁵ “Inclusionary Zoning Affordable Housing Program,” DC Department of Housing and Community Development, accessed July 5, 2019, <https://dhcd.dc.gov/service/inclusionary-zoning-affordable-housing-program>.
- ⁵⁶ Benjamin Schneider, “CityLab University: Inclusionary Zoning,” CityLab, July 18, 2018, <https://www.citylab.com/equity/2018/07/citylab-university-inclusionary-zoning/565181/>.
- ⁵⁷ “Inclusionary Zoning: An Important Avenue to More Affordable Housing,” Virginia Poverty Law Center, January 30, 2018, <https://vplc.org/inclusionary-zoning-an-important-avenue-to-more-affordable-housing/>.
- ⁵⁸ See “Adopt Fair-Share Requirements for Affordable Housing,” Smart Growth America, accessed August 19, 2019, <http://old.smartgrowthamerica.org/guides/smart-growth-at-the-state-and-local-level/housing-policy/adopt-fair-share-requirements-for-affordable-housing/>.
- ⁵⁹ “Chapter 40B Planning and Information,” Mass.gov, accessed August 20, 2019, <https://www.mass.gov/chapter-40-b-planning-and-information>.
- ⁶⁰ “Roles and Responsibilities: About TPB,” Metropolitan Washington Council of Governments, accessed August 19, 2019, <https://www.mwcog.org/transportation/about-tpb/roles-and-responsibilities/>.
- ⁶¹ “Denver Transit-Oriented Development Fund,” Urban Land Conservancy, accessed August 20, 2019, <https://www.urbanlandc.org/denver-transit-oriented-development-fund/>.

- ⁶² “Affordable Housing,” Atlanta BeltLine, accessed August 19, 2019, <https://beltline.org/progress/affordable-housing/>.
- ⁶³ “The Cost of Segregation,” Urban Institute, last updated March 19, 2018, <https://www.urban.org/policy-centers/metropolitan-housing-and-communities-policy-center/projects/cost-segregation>.
- ⁶⁴ “Rent Stabilization,” City of Takoma Park, Maryland, accessed August 19, 2019, <https://takomaparkmd.gov/government/housing-and-community-development/rental-housing/rent-stabilization/>.
- ⁶⁵ “Landlord-Tenant > Voluntary Rent Guideline,” Montgomery County Government, accessed August 19, 2019, https://montgomerycountymd.gov/DHCA/housing/landlordtenant/voluntary_rent_guideline.html.
- ⁶⁶ “Rent Control,” Washington, DC, Department of Housing and Community Development, accessed August 19, 2019, <https://dhcd.dc.gov/service/rent-control>.
- ⁶⁷ “Tenant Relocation,” Seattle Department of Construction and Inspections, accessed August 20, 2019, <http://www.seattle.gov/sdci/codes/common-code-questions/tenant-relocation>.
- ⁶⁸ Erica C. Barnett, “How Effective Is Seattle’s Tenant Relocation Assistance Law,” *South Seattle Emerald*, January 22, 2018, <https://southseattleemerald.com/2018/01/22/how-effective-is-seattles-tenant-relocation-assistance-law/>.
- ⁶⁹ D.C. Code § 42-3507 (Relocation Assistance for Tenants Displaced by Substantial Rehabilitation, Demolition, or Housing Discontinuance).
- ⁷⁰ Washington, DC, has an estimated 9,000 short term rentals (see Kate Rabinowitz, “The Knowns and Unknowns of Airbnb in DC,” DC Policy Center, March 1, 2018, <https://www.dcpolicycenter.org/publications/the-knowns-and-unknowns-of-airbnb-in-d-c/>). A short-term rental tax, such as one considered in Oakland, California, was estimated to collect \$2 million a year from taxes on approximately 1,200 units (Carbajal 2015).
- ⁷¹ Andrew Glamborne, “DC Approves Regulations on Short-Term Rentals Like Those Available through Airbnb,” *Curbed*, October 2, 2018, <https://dc.curbed.com/2018/10/2/17928946/airbnb-vrbo-dc-regulations-short-term-rentals>.
- ⁷² “Access and Affordability: Interactive Map and Research on 3 Barriers to Homeownership,” Urban Institute, last updated September 19, 2018, <https://www.urban.org/policy-centers/housing-finance-policy-center/projects/access-and-affordability-interactive-map-and-research-3-barriers-homeownership>.
- ⁷³ “Community Land Trusts,” Community-Wealth.org, accessed August 19, 2019, <https://community-wealth.org/strategies/panel/clts/index.html>.
- ⁷⁴ Mary Hui, “In Bid to Keep Homes Affordable, Anacostia Will Have Its First Community Land Trust,” *Washington Post*, September 24, 2017, https://www.washingtonpost.com/local/in-bid-to-keep-homes-affordable-anacostia-will-have-its-first-community-land-trust/2017/09/24/5be5e0c0-9bc0-11e7-9083-fb6dd6804c2_story.html. See also <http://www.DouglassCLT.org>.
- ⁷⁵ “Housing Choice Voucher Program,” District of Columbia Housing Authority, accessed August 19, 2019, <http://www.dchousing.org/topic.aspx?topid=2&AspxAutoDetectCookieSupport=1>.
- ⁷⁶ “Housing Grants,” Arlington County Government, accessed August 19, 2019, <https://housing.arlingtonva.us/get-help/rental-services/local-housing-grants/>.
- ⁷⁷ “Rental Assistance Program (RAP),” Montgomery County Government, accessed August 19, 2019, <https://www.montgomerycountymd.gov/HHS-Program/SNHS/SNHSRental-p743.html>.
- ⁷⁸ “Housing Right to Counsel Project,” District of Columbia Bar, accessed August 19, 2019, <https://www.dcbbar.org/about-the-bar/index.cfm>.

- ⁷⁹ See the Acts of Assembly Chapter text at “HB 1923: Virginia Residential Landlord and Tenant Act; Noncompliance with Rental Agreement, etc.,” Virginia’s Legislative Information System, accessed August 19, 2019, <https://lis.virginia.gov/cgi-bin/legp604.exe?191+sum+HB1923>.
- ⁸⁰ “Housing Right to Counsel Project,” District of Columbia Bar, accessed August 19, 2019, <https://www.dcbbar.org/about-the-bar/index.cfm>.
- ⁸¹ Pro Bono Institute, “Advancing Right to Counsel in Housing,” *PBEye* (blog), December 20, 2018, <http://thepbeye.probonoinst.org/2018/12/20/advancing-right-to-counsel-in-housing/>.
- ⁸² “Exposing Housing Discrimination,” Urban Institute, accessed August 19, 2019, <https://www.urban.org/features/exposing-housing-discrimination>.
- ⁸³ “Protected Traits in DC,” Washington, DC, Office of Human Rights, accessed August 19, 2019, <https://ohr.dc.gov/protectedtraits>.
- ⁸⁴ “Fair Housing Act Cases Filed by Year and State,” Data.gov, last updated February 22, 2019, <https://catalog.data.gov/dataset/fair-housing-act-cases-filed-by-year-and-state>.
- ⁸⁵ “Education and Outreach,” National Fair Housing Alliance, accessed August 19, 2019, <https://nationalfairhousing.org/education-outreach/>.
- ⁸⁶ “Fairhousing,” Montgomery County Government, accessed August 19, 2019, <https://www.montgomerycountymd.gov/humanrights/divisions/fairhousing.html>.
- ⁸⁷ “Marin County/Marin Housing Authority Landlord Partnership,” California State Association of Counties, accessed August 19, 2019, https://www.counties.org/sites/main/files/file-attachments/marin_county_-_landlord_partnership.pdf.
- ⁸⁸ “Landlord Resources,” Housing Authority of the City of Pittsburgh, accessed August 26, 2019, <https://hacp.org/doing-business/landlord-resources/>.
- ⁸⁹ “Mayor Bowser Announces Landlord Partnership Fund,” press release, Washington, DC, Office of the Mayor, October 6, 2017.
- ⁹⁰ “Mayor Bowser and Greater Washington Community Foundation Launch Public-Private Partnership to End Homelessness in DC,” press release, Greater Washington Community Foundation, June 6, 2019, <https://www.thecommunityfoundation.org/news/mayor-bowser-and-greater-washington-community-foundation-launch-public-private-partnership-to-end-homelessness-in-dc>.
- ⁹¹ Grace Collins, “In Progress Report, ICH Looks at Success and Shortcomings of Plan to End Homelessness,” *Street Sense Media*, April 17, 2019, <https://www.streetsensemedia.org/article/in-progress-report-ich-looks-at-successes-and-shortcomings-of-plan-to-end-homelessness>.
- ⁹² “Proactive Inspection Program,” Washington, DC, Department of Consumer and Regulatory Affairs, accessed August 19, 2019, <https://dcra.dc.gov/service/dcra-proactive-inspections>.
- ⁹³ “Tool 1: Rental Registration/Licensing,” Center for Community Progress, accessed August 19, 2019, <https://www.communityprogress.net/tool-1--rental-registration--licensing-pages-207.php>.
- ⁹⁴ “Multifamily Rental Licensing,” Prince George’s County, Maryland, accessed August 19, 2019, <https://www.princegeorgescountymd.gov/1225/Multifamily-Rental-Licensing>; “Single-Family, Townhome and Condominium License Procedures,” Montgomery County Government, accessed August 19, 2019, <https://montgomerycountymd.gov/dhca/housing/licensing/apply.html>; and “Get an Apartment License,” Washington, DC, Department of Consumer and Regulatory Affairs, accessed August 19, 2019, <https://dcra.dc.gov/service/get-apartment-license>.
- ⁹⁵ This recommendation blends the policy tools for light rehab and moderate to substantial rehab to allow for both early intervention before serious preservation risks and intervention for properties more likely to face an immediate preservation need.

References

- Altali, Wael, Jonathan Hillman, and Sarah Tekleab. 2017. "Assessing Affordable Housing Availability and its Effects on Employers' Ability to Recruit and Retain Employees in Greater Boston." Boston: Northeastern University & Massachusetts Housing Partnership.
- Angel, Shlomo, and Alejandro Blei. 2015. "Commuting and the Productivity of American Cities: How Self-Adjusting Commuting Patterns Sustain the Productive Advantage of Larger Metropolitan Labor Markets." New York: Marron Institute.
- Arias, Elizabeth, and Xu Jiaquan. 2018. "United States Life Tables, 2015." National Vital Statistics Report volume 67, number 7. Hyattsville, MD: National Center for Health Statistics.
- Arlington County Department of Environmental Sciences. 2017. "[Off-Street Parking Guidelines for Multi-Family Residential Projects](#)." Presentation. Arlington, VA: Arlington County Department of Environmental Sciences.
- Armenta, Alex, and Cassandra Benjamin. 2018. Protecting, Preserving and Increasing Production Affordable Housing in Silicon Valley: Philanthropic Activity and Opportunities. David and Lucile Packard Foundation.
- Baird, Patricia A. 2004. "[Analysis of Landlord/Tenant Mediation & Disparate Impact Towards Low-Income People](#)." Master's thesis, University of Michigan-Flint.
- Brennan, Maya, Pamela Blumenthal, Laurie Goodman, Ellen Seidman, and Brady Meixell. 2017. [Housing as an Asset Class: Opportunities for Systems Change to Enhance Social Equity and Inclusion](#). Washington, DC: Urban Institute.
- Burnett, Kimberly, and Tyler Morrill. 2015. [Development Process Efficiency: Cutting Through the Red Tape](#). Washington, DC: National Association of Home Builders.
- Carbajal, Dessi Mia. 2015. [The Impact of Short Term Rentals on Affordable Housing in Oakland: A Report and Recommendations](#). Oakland, CA: Community Economics and East Bay Housing Organizations.
- Chakrabarti, Ritashree, and Junfu Zhang. 2014. "Unaffordable Housing and Local Employment Growth: Evidence from California Municipalities." *Urban Studies* 52 (6): 1134–51.
- ChangeLab Solutions. 2015. [Preserving, Protecting, and Expanding Affordable Housing: A Policy Toolkit for Public Health](#). Oakland, CA: ChangeLab Solutions.
- Chapman, Hilary. 2019. [Homelessness in Metropolitan Washington: Results and Analysis from the Annual Point-in-Time \(PIT\) Count of Persons Experiencing Homelessness](#). Washington, DC: Metropolitan Washington Council of Governments.
- Chapman, Jeannette. 2018. [Demographic and Economic Factors Affecting the Upcoming Home Sales Market in the Washington Region](#). Arlington, VA: George Mason University, Schar School of Policy and Government, Stephen S. Fuller Institute for Research on the Washington Region's Economic Future.
- Cunningham, Mary, Martha M. Galvez, Claudia Aranda, Robert Santos, Douglas A. Wissoker, Alyse D. Oneto, Rob Pitingolo, and James Crawford. 2018a. "[Do Landlords Accept Housing Choice Vouchers? Findings from Washington, DC](#)." Washington, DC: Urban Institute.
- . 2018b. [A Pilot Study of Landlord Acceptance of Housing Choice Vouchers](#). Washington, DC: Urban Institute.
- DC Office of the Chief Financial Officer. 2019. "[District of Columbia Economic and Revenue Trends: January/February 2019](#)." Washington, DC: Government of the District of Columbia.
- Department of Legislative Services. 2018. [Overview of Maryland Local Governments: Finances and Demographic Information](#). Annapolis, MD: Department of Legislative Services, Office of Policy Analysis.
- Desmond, Matthew, and Carl Gershenson. 2016. "Housing and Employment Insecurity among the Working Poor." *Social Problems* 63 (1) 46-67.

- Dye, Richard F., and Richard W. England. 2010. *Assessing the Theory and Practice of Land Value Taxation*. Cambridge, MA: Lincoln Institute of Land Policy.
- Enterprise (Enterprise Washington Preservation Loan Fund). 2009. "Preserving Affordable Housing in the Washington Metropolitan Region." Columbia, MD: Enterprise.
- Fischer, Will. 2015. *Research Shows Housing Vouchers Reduce Hardship and Provide Platform for Long-Term Gains among Children*. Washington, DC: Center on Budget and Policy Priorities.
- Fuller, Stephen S. 2002. "The Impact of Federal Procurement on the National Capital Region." Washington, DC: National Capital Planning Commission.
- Gabbe, C. J., and Gregory Pierce. 2017. "Hidden Costs and Deadweight Losses: Bundled Parking and Residential Rents in the Metropolitan United States." *Housing Policy Debate* 27 (2): 217–29.
- Galvez, Martha, Maya Brennan, Brady Meixell, and Rolf Pendall. 2017. *Housing as a Safety Net: Ensuring Housing Security for the Most Vulnerable*. Washington, DC: Urban Institute.
- Gambale, Geraldine. 2009. The 24th Annual Corporate Survey and 6th Annual Consultants Survey. Westbury, NY: Area Development.
- Ganong, Peter, and Daniel Shoag. 2017. "Why Has Regional Convergence in the U.S. Declined?" Working Paper 23609. Cambridge, MA: National Bureau of Economic Research.
- Glaeser, Edward L. 2006. *The Economic Impact of Restricting Housing Supply*. Cambridge, MA: Harvard University.
- Goodman, Laurie, Alanna McCargo, Bing Bai, Edward Golding, and Sarah Storchak. 2018. "Barriers to Accessing Homeownership Down Payment, Credit, and Affordability – 2018." Washington, DC: Urban Institute.
- Grounded Solutions Network. 2018. *What about Housing? A Policy Toolkit for Inclusive Growth*. Portland: Grounded Solutions Network.
- Handelman, Ethan, Sarah Jawaid, and Maya Brennan. 2013. *Veterans Permanent Supportive Housing: Policy and Practice*. Washington, DC: National Housing Conference and Center for Housing Policy.
- Hamilton, C. Horance, and Josef Perry. 1962. "A Short Method for Projecting Population by Age from One Decennial Census to Another." *Social Forces* 41 (2): 163–170.
- Hendey, Leah, Peter A. Tatian, and Graham MacDonald. 2014. *Housing Security in the Washington Region*. Washington, DC: Urban Institute.
- Housing Development Consortium. 2016. *Creating Affordability Locally: A Guide for Cities, Counties, and Advocates in Washington State*. Seattle: Housing Development Consortium.
- HUD (US Department of Housing and Urban Development). 2012. *Expanding Housing Opportunities through Inclusionary Zoning: Lessons from Two Counties*. Washington, DC: US Department of Housing and Urban Development, Office of Policy Development and Research.
- Institute on Taxation and Economic Policy. 2017. "Property Tax Circuit Breakers in 2017." Washington, DC: Institute on Taxation and Economic Policy.
- JCHS (Joint Center for Housing Studies). 2016. *Projections and Implications for Housing a Growing Population: Older Households 2015–2035*. Cambridge, MA: Harvard University, Joint Center for Housing Studies.
- . 2019. *Improving America's Housing 2019*. Cambridge, MA: Joint Center for Housing Studies.
- Kohanzadeh, Hannah. 2018. *Taxes in the District: The Evolution of DC Tax Rates Since the Early 2000s*. Washington, DC: DC Fiscal Policy Institute.
- MacDonald, Graham. 2016. *The Effect of Local Government Policies on Housing Supply*. Berkeley: University of California, Berkeley, Turner Center for Housing Innovation.

- MWCOG (Metropolitan Washington Council of Governments). 2018a. *Homelessness in Metropolitan Washington: Results and Analysis from the Annual Point-in-Time (PIT) Count of Homeless Persons*. Washington, DC: Metropolitan Washington Council of Governments.
- . 2018b. *Round 9.1 Growth Trends to 2045: Cooperative Forecasting in Metropolitan Washington*. Washington, DC: Metropolitan Washington Council of Governments, Cooperative Forecasting and Data Subcommittee.
- National Association of Counties. 2010. *County Authority: A State by State Report*. Washington, DC: National Association of Counties..
- NAHB (National Association of Home Builders). 2015. “The Economic Impact of Home Building in a Typical Local Area Income, Jobs, and Taxes Generated.” Washington, DC: NAHB.
- National Alliance to End Homelessness. 2016. *Rapid Rehousing Toolkit*. Washington, DC: National Alliance to End Homelessness.
- NVAHA (Northern Virginia Affordable Housing Alliance). 2013. *Leveraging Public Land for Affordable Housing in Northern Virginia: A Primer*. NVAHA.
- PolicyLink. 2001. *Infill Incentives: Equitable Development Toolkit*. Oakland: PolicyLink.
- . 2007. *Employer Assisted Housing: Equitable Development Toolkit*. Oakland: PolicyLink.
- Rajasekaran, Prasanna, Mark Treskon, and Solomon Greene. 2019. “Rent Control: What Does the Research Tell Us about the Effectiveness of Local Action?” Washington, DC: Urban Institute.
- Rolston, Howard, Judy Geyer, and Gretchen Locke. 2013. *Evaluation of the Homebase Community Prevention Program: Final Report*. Bethesda, MD: Abt Associates.
- Schiff, Hannah, and Hannah Dithrich. 2017. *Scaling the Use of Guarantees in U.S. Community Investing*. New York: Global Impact Investing Network.
- Schwartz, David. 2016. “The Importance of Affordable Housing to Economic Competitiveness.” *Economic Development Journal* 15 (1): 40-46.
- Schwartz, Heather L., Liisa Ecola, Kristin J. Leuschner, and Aaron Kofner. 2012. *Is Inclusionary Zoning Inclusionary? A Guide for Practitioners*. Washington, DC: Rand.
- Shoup, Donald. 2014. “The High Cost of Minimum Parking Requirements.” In *Parking Issues and Policies: Transport and Sustainability*, vol. 5, edited by Stephen Ison and Corinne Mulley. Bingley, UK: Emerald Group Publishing.
- Stacy, Christina Plerhoples, Joseph Schilling, Steve Barlow, Ruth Gourevitch, Brady Meixell, Stephanie Modert, Christina Crutchfield, Esther Sykes-Wood, and Richard Urban. 2018. *Strategic Housing Code Enforcement and Public Health*. Washington, DC: Urban Institute.
- Stephen S. Fuller Institute. 2017. *The Roadmap for the Washington Region’s Economic Future: Comparative Performance of Regional and National Clusters*. Arlington, VA: George Mason University, Schar School of Policy and Government, Stephen S. Fuller Institute for Research on the Washington Region’s Economic Future.
- Stout Risius Ross. 2018. Economic Return on Investment of Providing Counsel in Philadelphia Eviction Cases for Low-Income Tenants. McLean, VA: Stout Risius Ross.
- Sturtevant, Lisa. 2016. “Separating Fact from Fiction to Design Effective Inclusionary Housing Programs.” Washington, DC: National Housing Conference.
- . 2017. *A Guidebook for Increasing Housing Affordability in the Greater Washington Region: Local Resources and Strategies for Housing Production and Preservation*. Washington, DC: Housing Leaders Group of Greater
- Swanson, David A., Alan Schlottmann, and Bob Schmidt. 2010. “Forecasting the population of census tracts by age and sex: An example of the Hamilton–Perry method in action.” *Population Research and Policy Review* 29 (1): 47–63.

- Tatian, Peter, Leah Hendey, and Mary Bogle. 2017. "Voices of the Community: DC, Maryland, and Virginia." Washington, DC: Greater Washington Community Foundation.
- Tatian, Peter, and Ashley Williams. 2011. *A Rent Control Report for the District of Columbia*. Washington, DC: Urban Institute.
- Taylor, Nicholas W., Jennison K. Searcy, and Pierce H. Jones. 2015. "Multifamily Energy-Efficiency Retrofit Programs: A Florida Case Study." *Energy Efficiency* 9 (2): 385–400.
- Theodos, Brett, Rob Pitingolo, Sierra Lathan, Christina Plerhoples Stacy, Rebecca Daniels, and Breno Braga. 2017. *Affordable Homeownership: An Evaluation of Shared Equity Programs*. Washington, DC: Urban Institute.
- Theodos, Brett, Christina Plerhoples Stacy, and Helen Ho. 2017. "Taking Stock of the Community Development Block Grant." Washington, DC: Urban Institute.
- Urban Land Institute Washington. 2019. *Increasing Housing Supply and Attainability: Improving Rules & Engagement to Build More Housing*. Washington, DC: Urban Land Institute Washington.
- Wardrip, Keith, Laura Williams, and Suzanna Hague. 2011. *The Role of Affordable Housing in Creating Jobs and Stimulating Local Economic Development: A Review of the Literature*. Washington, DC: Center for Housing Policy.
- Way, Heather K., Stephanie Trinh, and Melissa Wyatt. 2013. "An Analysis of Rental Property Registration in Austin." Austin: University of Texas at Austin, School of Law, Entrepreneurship and Community Development Clinic.
- Williams, Stockton. 2015. *Preserving Multifamily Workforce and Affordable Housing: New Approaches for Investing in a Vital National Asset*. Washington, DC: Urban Land Institute.
- Woetzel, Jonathan, Jan Mischke, Shannon Peloquin, and Daniel Weisfield. 2016. *A Tool Kit to Close California's Housing Gap*. Washington, DC: McKinsey Global Institute.

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In addition to research on neighborhoods across the country, Hendey has led several projects focused on the Washington, DC, region, including a recent survey on residents' perceptions and attitudes and studies on foreclosure, affordable housing needs, and racial inequities. She has also been deputy director for Urban's evaluation of the US Department of Housing and Urban Development's Choice Neighborhoods initiative and helped lead the econometric analysis for a study on public housing transformation and crime in Chicago. Hendey holds a master of public policy degree from the McCourt School of Public Policy at Georgetown University.

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Brennan has written about ending family homelessness, engaging investors in equitable and inclusive housing, and envisioning housing systems changes that could reduce hardship and promote well-being. Other interests include community-based partnerships, eviction prevention, and community change. She strives for solutions that enhance individuals' self-efficacy and build equitably and inclusively on neighborhood assets to close long-standing disparities.

Brennan holds a BA in liberal arts from St. John's College in Santa Fe, New Mexico, and an MS in urban policy analysis and management from the New School, where she received the Jacob Kaplan Award. She was a member of the research team at the National Housing Conference and a vice president of the Urban Land Institute Terwilliger Center for Housing.

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