# Bailey's Crossroads & Seven Corners: Assessing Opportunities for Affordable Homeownership

**Prepared by Thamar Bailey, Dominick Fiorentino, Taylor Gauthier, Kathryn Posko**
**Carnegie Mellon University**
**Heinz College Washington, DC**

# A Letter from the Executive Director

**Homeownership is one of the primary mechanisms of wealth generation in the US, but it is increasingly unattainable for many low and moderate income households**. Historic and present day discrimination in marketing and lending practices, and land use policies have also created a racial gap in homeownership rates, which has widened due to the disparate impact of the COVID-19 pandemic. Creating affordable homeownership opportunities is essential to expanding housing choice, and ensuring equitable access to the benefits of homeownership, including increased housing stability and the ability to build assets to pass on to future generations. In high cost, highly developed areas like Northern Virginia, changes to zoning and land use policy to increase housing supply, coupled with innovative financial strategies will be needed to support low and moderate income homebuyers. These strategies must be explicit in their intent to deconstruct structural barriers to homeownership among people of color.

To better understand the dearth of affordable homeownership opportunities in the Northern Virginia region, and to identify policy recommendations to increase access to homeownership, NVAHA sponsored this research in partnership with a graduate student research team from the Carnegie Mellon University Heinz College of Information Systems and Public Policy for their capstone project. This report examines opportunities for affordable homeownership in the Bailey's Crossroads/Seven Corners Corridor in Fairfax County, Virginia.

The Bailey's Crossroads/Seven Corners Corridor is home to a racially and economically diverse population, and offers a range of affordable housing types along an inner suburban transit corridor. This area shares characteristics common to much of the Northern Virginia region, principally traditional suburban and auto-centric land use and zoning patterns that are ill-equipped to meet the housing and infrastructure demands of a diverse and growing population and economy. While this area has not yet attracted significant new investment, its proximity to Amazon's HQ2 and Virginia Tech's Innovation Campus create threats to affordability. If proactive steps are not taken to preserve affordability in the Corridor, the thousands of low and moderate income renters who call the area home may be priced out.

The challenges faced by Corridor residents reflect broader homeownership challenges for low and moderate income households and people of color in the Northern Virginia region, making this report a pertinent case study with recommendations that can be considered for communities across Northern Virginia. The following trends identified in the report mirror trends seen across Northern Virginia:

- Single family homeownership is unattainable to low and moderate income households. Less than 20% of single family homes in the Corridor are affordable to households earning 100% AMI for the DC metro area assuming a conventional mortgage with a 20% down payment.

- Down payments present a significant barrier to homeownership. Households earning 100% of AMI for the Corridor would need to save for upwards of *four decades* to afford a 20% down payment on a single family home.

- There is an affordability gap for households of color. There are fewer homes affordable to Black and Hispanic households, given prevailing income and wealth gaps by race and ethnicity.

- Condos are a more affordable alternative to single family homeownership. Nearly 100% of condominiums in the Corridor are affordable to households earning 100% AMI for the DC metro area.

- Single family zoning limits housing supply and diversity. The majority of residential parcels in the Corridor are zoned for the most expensive building type: single family housing. NVAHA found the same pattern region-wide in our report, *Building Northern Virginia's Future: Policies to Create a More Affordable, Equitable Housing Supply*.

We believe the following recommendations in this report should receive further consideration from jurisdictions across Northern Virginia. They include:

- Allow for gentle-density, infill development (such as townhomes and condos) in single family zoned areas.

- Adopt mixed-use development for underutilized commercial parcels.

- Center racial equity and address intergenerational wealth disparities through tailored asset building education and expanded access to down payment assistance and home loan programs.

This report is intended to serve as a jumping off point for a series of research products on affordable homeownership in Northern Virginia. This series will include:

- One-pagers highlighting barriers to homeownership and potential policy solutions

- Presentations to local government agencies, advisory boards, commissions and other regional stakeholders on opportunities to increase access to homeownership

Given trends of decreasing housing production and increasing housing prices, it is imperative that Northern Virginia jurisdictions take steps to preserve the region's remaining pockets of affordability like the Bailey's Crossroads Corridor.

**Michelle Krocker, Executive Director**
SEPTEMBER 2021

## Acknowledgements

We gratefully acknowledge Thamar Bailey, Dominick Fiorentino, Taylor Gauthier and Kathryn Posko, the graduate student researchers who compiled this report.

The team also benefitted from the insights and expertise of an advisory committee representing policy, planning and market analysis experts, for-profit and nonprofit developers, members of academia and the faith communities. Committee members are identified on page 6 of this report.

# Table of Contents

## Abstract

Located in Fairfax County, Virginia, the Route 7 Corridor of Bailey's Crossroads and Seven Corners remains a pocket of affordability in the Washington, DC metropolitan area. Due to the area's proximity to major job centers and the relative affordability of its housing stock, it risks losing this affordability. This area is home to a large non-White and immigrant community. The area has a lower level of educational attainment than the county as a whole as well as a higher proportion of limited English-speaking households. Our analysis found that many of the existing single-family homes are unaffordable, and existing land use regulations prevent the construction of more affordable housing types. We also found a large affordability gap even for families earning 100 percent of the Washington-Arlington-Alexandria, DC-VA-MD-WV metropolitan area median income. This gap was even larger for non-White households. Given these findings, we recommend that Fairfax County:

- Allow gentle-density infill development in existing single-family zones,
- Modify zoning to encourage multi-family housing in underutilized commercial areas, and
- Partner with local non-profit organizations to provide equitable access to homebuyer resources to address the racial wealth gap.

Additionally, we recommend that the state of Virginia change debt and income requirements for accessing the down payment assistance and home loan program.


## Project Description

Fairfax County, VA is a jurisdiction in the Washington, DC metropolitan region that is undergoing rapid change. Initially developed in the quintessential suburban form, change is being driven by a range of factors, including but not limited to:

- housing demand and affordability pressures as the population and economy grows, and increasingly people are priced out of the urban core;
- major "urbanizing" infrastructure investments; and
- Amazon and Virginia Tech's decision to locate new facilities in sections of Arlington County and the City of Alexandria that are near Fairfax County neighborhoods and workers.

While some development policies have been updated to proactively facilitate these changes, much of Fairfax County's land use/zoning framework and housing policy structure should further evolve to meet demand pressures, population trends, and the needs of today's workforce. Many policies also reflect the prior legacy of segregation and redlining that has contributed to systematic barriers to housing choice and opportunity for marginalized communities. The major economic, demographic, and housing market changes present an opportunity to reform Fairfax County's development policies.

The Heinz College research team analyzed the demographics, housing stock and other factors of the Route 7 Corridor between Bailey's Crossroads and Seven Corners, which serves as a microcosm of the challenges facing Fairfax County. Our analysis centered on investigating and addressing barriers to homeownership and in turn bolster the Northern Virginia Affordable Housing Alliance's (NVAHA) mission to promote healthy, sustainable, and equitable communities.

### Research Team


- Thamar Bailey
- Dominick Fiorentino
- Taylor Gauthier
- Katie Posko

## Client

NVAHA is a 501c3 nonprofit focused on housing, equity, infrastructure, and economic development to promote healthy, sustainable, and equitable communities. NVAHA's staff consists of Michelle Krocker, Executive Director and Nora Daly, Director of Programs and Community Engagement. NVAHA hopes to use the research presented in this report to continue advocacy for equitable affordable homeownership in the Northern Virginia area.

## Project Advisory Committee and Acknowledgements

- Michael Spotts, Research Team Faculty Advisor, Founder of Neighborhood Fundamentals LLC, and NVAHA Board member
- Regina Coyle, Department of Housing and Community Development for Fairfax County
- Steven Moore, Pastor at First Christian Church
- Soledad Portilla, Director of Land Acquisition at Beazer Homes
- Noemi Riveria, Director of Real Estate Development at Habitat for Humanity Northern Virginia
- Fred Selden, Former Planning Director of Fairfax County
- Bill Sermons, National Director of Research and Evaluation for Catholic Charities USA and Adjunct Professor at Carnegie Mellon University
- Kyle Talente, Managing Principal at RKG Associates
- Matt Weber, State and Local Policy Specialist at Grounded Solutions

The research team would like to thank our advisors for their invaluable insights and guidance on this project. Additionally, we would like to acknowledge the contributions of Jill Norcross and Regina Pinkney of the Virginia Housing Development Authority. We would also like to acknowledge the 2020 Heinz College research team, Stephen Berry, Rachel Hanes, Peter Huether, Jessica Mendieta, Rachel Simms, and Ian Snyder, whose research provided the groundwork for this report.

## Project Scope

The research team was tasked with identifying barriers to affordable homeownership in the Route 7 Corridor between Bailey's Crossroads and Seven Corners. This report focuses on the demand for affordable homeownership in the study area, as well as the existing supply of affordable homes available for ownership. For the purposes of this report, affordable homeownership will be defined in two ways. The first will be defined as matching the supply of market-rate homes with the demand for homeownership among households earning incomes at or slightly below the regional median. The second will be defined as increasing the supply of homes provided to households earning less than the regional median via subsidies, inclusionary zoning, or other government intervention. To refer to this second definition, we will use the term "income-restricted." The guiding questions for our research were:

- What are the barriers to creating and maintaining the supply of affordable owner-occupied housing?
- What are the unmet demands for affordable homeownership in Bailey's Crossroads and Seven Corners?
- Of existing attainable owner-occupied housing, what criteria indicates possible loss of affordability?
- What policies could help remove barriers to affordable homeownership?

## What Are the Characteristics of the Study Area?

Our research focuses on the Route 7 Corridor of Bailey's Crossroads and Seven Corners. Located in Fairfax County, VA, the study area sits in the Mason District which is one of nine districts in the county. Geographically, it borders Arlington County and the City of Alexandria and lies on the eastern side of Fairfax (see *figure 1* and *figure 2*). It is located roughly eight miles from Washington, DC and about six miles from the Pentagon. Additionally, the Route 7 corridor provides easy access to employment centers such as Amazon's HQ2, the Virginia Tech Innovation Campus, Tysons Corner, and Dulles Airport. See **Appendix 1** for a map of study area ZIP codes.

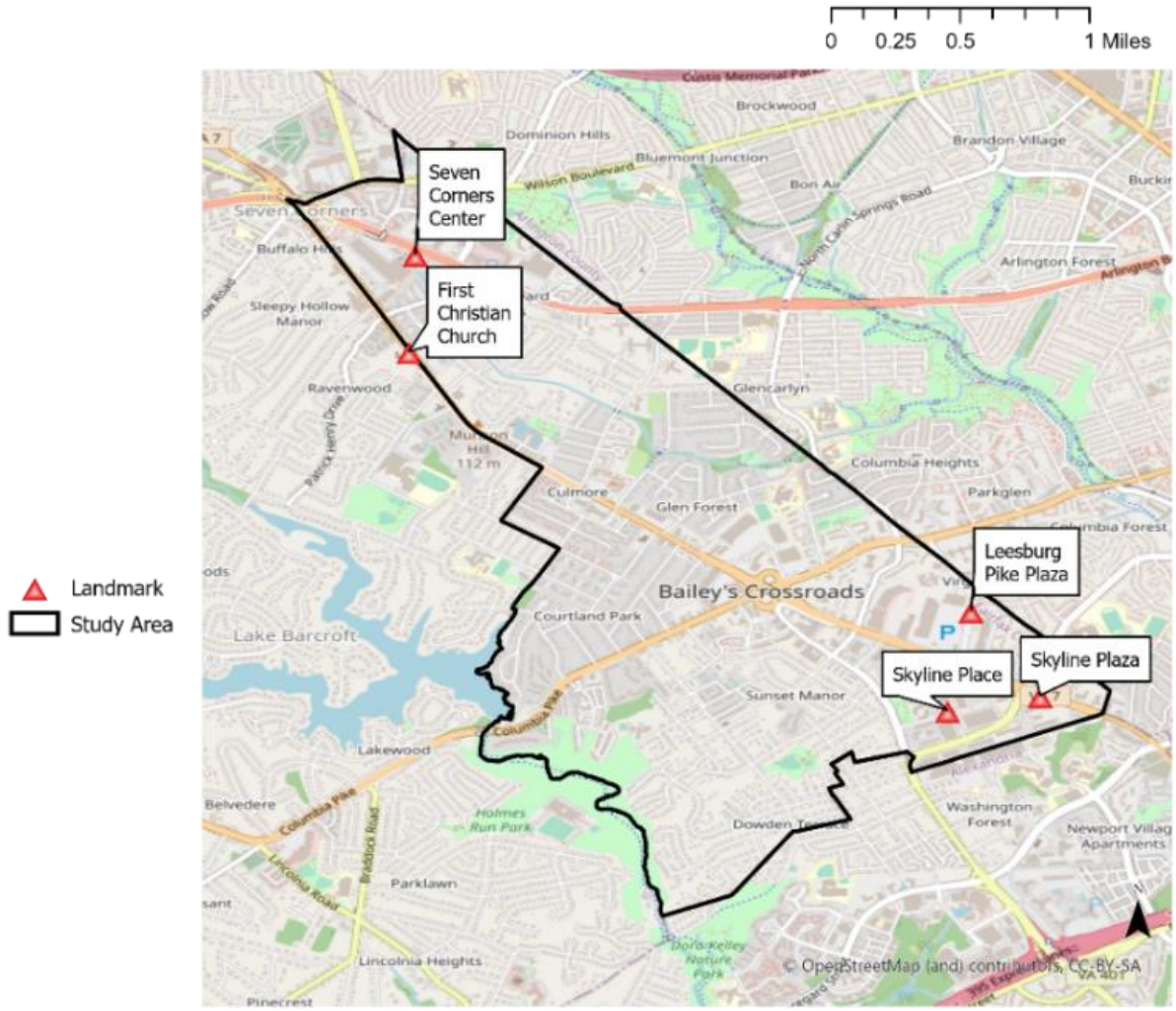



***Figure 1**: The Study Area and Local Landmarks.*

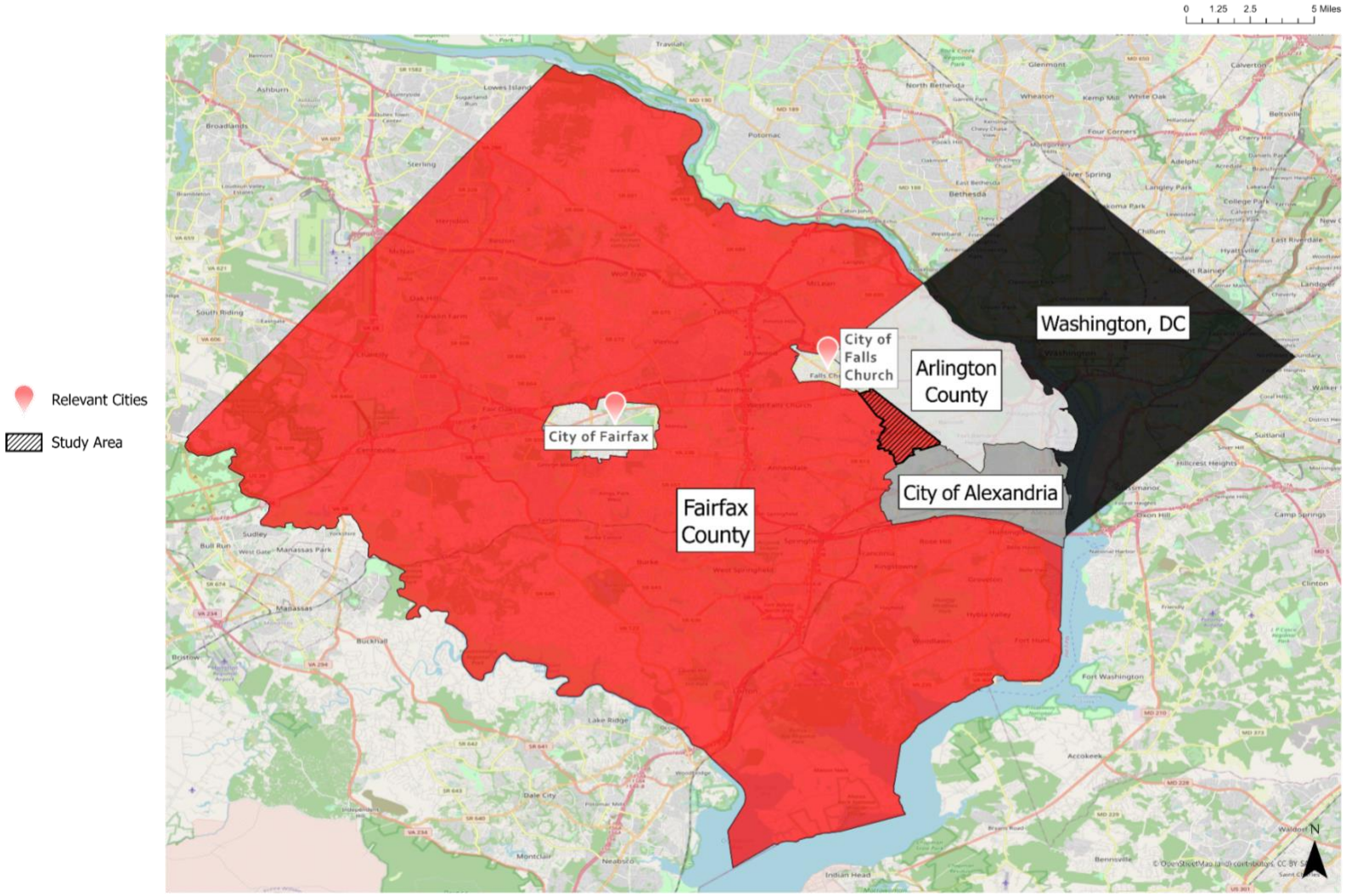



***Figure 2**: Study area in proximity to neighboring areas.*

## Study Area Residents Are More Diverse and Lower Income than the Fairfax County as a Whole as well as Surrounding Areas.

An analysis of demographic data derived from the U.S. Census Bureau suggests that the study area, is considerably more racially and ethnically diverse than Fairfax County and neighboring areas.[1] The study area has a total population of approximately 33,447 individuals. Of the total population, approximately 32 percent identify as White alone[2], which is 18.9 percentage points lower than Fairfax County. The study area is also more diverse than neighboring areas (see *figure 3*).

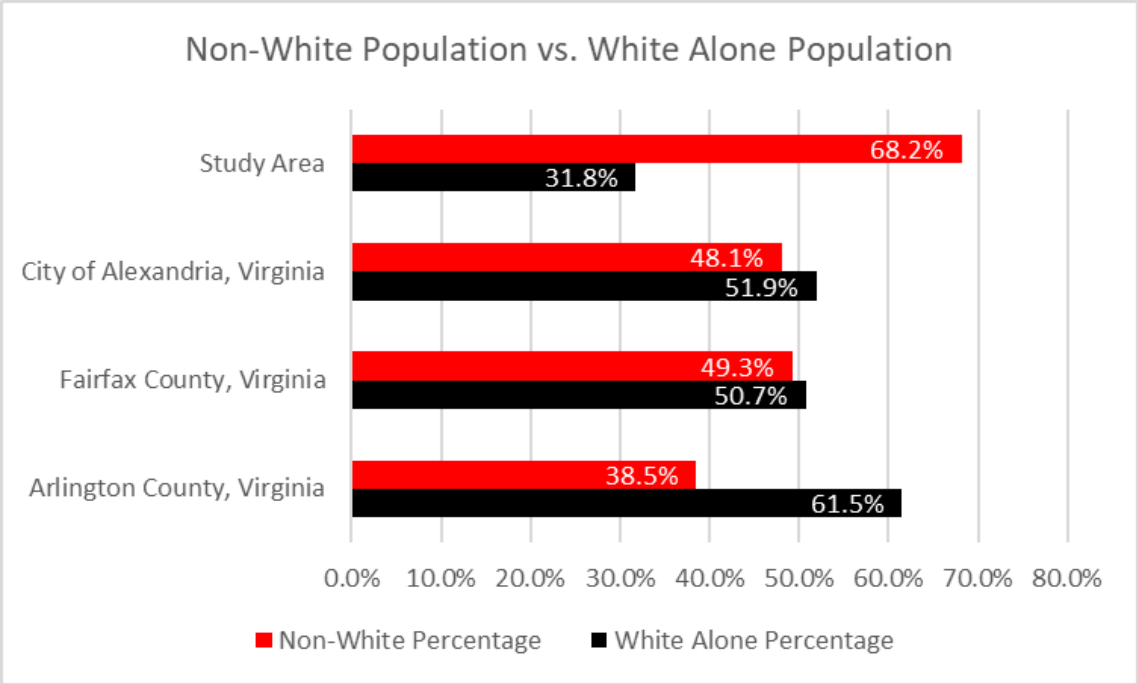



***Figure 3**: Percentage of non-White and White Populations for the Study Area and Neighboring Areas. Source: US Census Bureau Data*

### Study Area Race, Ethnicity, and Population Growth

Of the approximately 66 percent of the study area that identifies as non-White:

- 35.6 percent identifies as Hispanic,
- 14.1 percent identifies as Black alone,
- 14.6 percent identifies as Asian Alone,
- 3.5 percent identifies as two or more races, and
- Less than 1 percent identifies as some other race alone.

As for historical population trends, the study area's total population is increasing at a slightly higher rate than the county level, but generally at a lower rate compared to neighboring areas. According to an analysis of population data derived from the U.S. Census Bureau between 2010 and 2019, the study area saw a nearly 11 percent increase in total population, while Fairfax County saw a population uptick of approximately 8 percent. Arlington County and the City of Alexandria each saw a population increase of nearly 15 percent. An in-depth examination of these population trends suggests that the study area as

[1] Note: Our analysis draws on 2019 5-year American Community Survey data.

[2] Note: When race is phrased as "alone" we are referring to individuals that solely identify as one race. For example, "White alone" refers to individuals who identify as White but not Hispanic.

well as neighboring area's population growth is predominantly the result of a relative increase in non-White individuals. (See **Appendix 2** for more information on population growth in the study area as well as changes in population by race and ethnicity).

### Language

U.S. Census Bureau data suggest our study area has a relatively high number of "limited English" speaking households. In other words, there is no resident above the age of 14 who speaks only English or a non-English language and English "very well" in said household. Nearly 17 percent of study area households are considered "limited English," which is 4 percentage points higher than the county level. Furthermore, the study area has more than three times the number of limited English households than the City of Alexandria and Arlington County which have a limited English household rate of 5.2 percent and 4.8 percent, respectively.

### Educational Attainment

Regarding educational attainment, U.S. Census Bureau data suggests nearly 22 percent of study area residents above the age of 18 have not received a high school diploma or equivalent. At the county level, the rate is nearly three times less at approximately 8 percent. Neighboring areas, including the City of Alexandria and Arlington County also have significantly lower rates compared to the study area at 7 percent and 5 percent, respectively.

### Area Median Household Income

Fairfax County is one of the wealthiest counties in the country with an area median income of $121,133.[3] Additionally, the surrounding counties are also considered affluent, with Arlington County following with $117,374 median income and the City of Alexandria at $96,733.

While the study area sits in Fairfax County, our study area is different in economic make up compared to the overall metropolitan area and Fairfax County overall. According to the U.S. Census Bureau, the average U.S. household is comprised of roughly 3 people.[4] Our study area's median household income, $63,390, is over $50,000 less than 100 percent of the Washington-Arlington-Alexandria, DC-VA-MD-WV Metro Area (henceforth referred to as DC Metro) Area Median Income (AMI) for a household size of three (see *Figure 4*).

| | DC Metro AMI | | | |
|---|---|---|---|---|
| **Household Size** | **70%** | **80%** | **90%** | **100%** |
| **1** | $ 62,903 | $ 71,889 | $ 80,876 | $ 89,862 |
| **2** | $ 71,889 | $ 82,159 | $ 92,429 | $ 102,699 |
| **3** | $ 80,876 | $ 92,429 | $ 103,983 | $ 115,537 |
| **4** | $ 89,862 | $ 102,699 | $ 115,537 | $ 128,374 |
| **5** | $ 97,051 | $ 110,915 | $ 124,780 | $ 138,644 |

***Figure 4:*** *Area Median Income for the District of Columbia, Maryland, and Virginia Metropolitan Statistical Area*
*Source: United States Department of Housing and Urban Development (HUD) data*

[3] Emmie Martin, "This Is the No. 1 Highest-Earning Region in the US, and It Isn't in New York or California," CNBC, March 20, 2019, https://www.cnbc.com/2019/03/20/the-highest-earning-region-in-the-us-isnt-in-new-york-or-california.html.

[4] U.S. Census Bureau, Historical Households Tables. Households by Type: 1940 to Present. https://www.census.gov/data/tables/time-series/demo/families/households.html.

An analysis of U.S. Census Bureau household income data shows a clear disparity between the incomes for White and non-White households. The largest disparity exists between White households who have an average median income of approximately $100,000 and Hispanic households, who have an estimated median income of less than $44,000. Furthermore, study area median income is anywhere between 25 and 56 percentage points less than the DC Metro median income for each racial and ethnic group (see *Figure 5).* Please see **Appendix 3** for more information on median income by race.

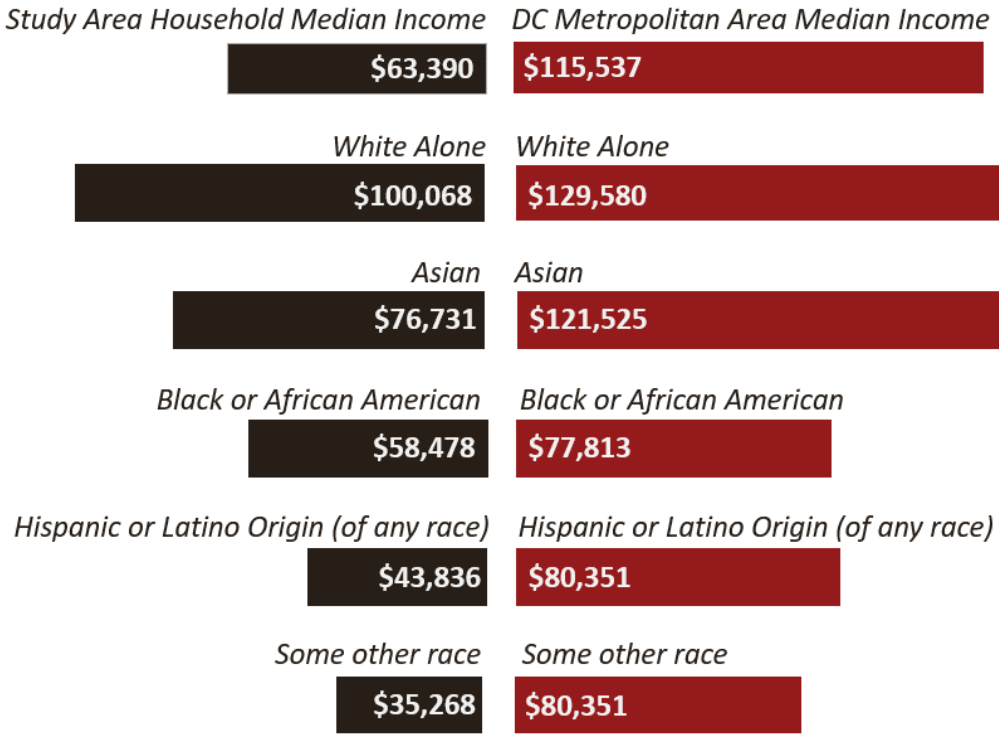



***Figure 5****: Study Area and DC Metro 2019 AMI. Source: U.S. Census Bureau Data*

While this income analysis does not account for the intersectionality of race and education, U.S. Census Bureau educational attainment data notes that study area residents aged 25 and above with less than a high school degree have an estimated median income of $25,000, which amounts to less than half of the expected median income for individuals with a bachelor's degree (see *Figure 6*).

| Average Median Income in 2019 | |
|---|---|
| Less than high school graduate | $ 25,276.71 |
| High school graduate (includes equivalency) | $ 21,832.26 |
| Some college or associate's degree | $ 31,198.44 |
| Bachelor's degree | $ 62,778.94 |
| Graduate or professional degree | $ 81,838.56 |

***Figure 6:*** *Study area average 2019 median income based on educational attainment level Source: U.S. Census Bureau data*

Further acknowledging differences in household incomes, it should be noted that as of 2019 there were approximately 8,000 renters and 5,000 homeowners in our study area. Study area renters have a median income of approximately $51,000, which amounts to roughly half the median income of homeowners. Our analysis notes that of those 8,000 renters, about half are rent-burdened, or spend more than 30 percent of their household income on rent. Furthermore, we found that 34 percent of all renters are severely burdened, spending more than half of their household income on rent. Please see **Appendices 4 and 5** for more information on renters and homeowners in the study area.

In sum, our analysis suggests the study area has a relatively low median income compared to surrounding jurisdictions and these disparities widen when we account for race, educational attainment, and household type. These subgroups within the study area face higher barriers to entry as it relates to having the financial standing to afford to own a home.

## Housing in the Study Area is Relatively Affordable Compared to Surrounding Areas

According to our analysis, Bailey's Crossroads and Seven Corners are still relatively affordable compared to surrounding jurisdictions (*see figure 7*). Despite the relative affordability of the area, the homeownership rate in the corridor is roughly 39 percent, compared to 68 percent for all of Fairfax County.[5] This relative affordability provides an opportunity for Fairfax County policy makers to preserve existing affordability and create new affordable homeownership opportunities.

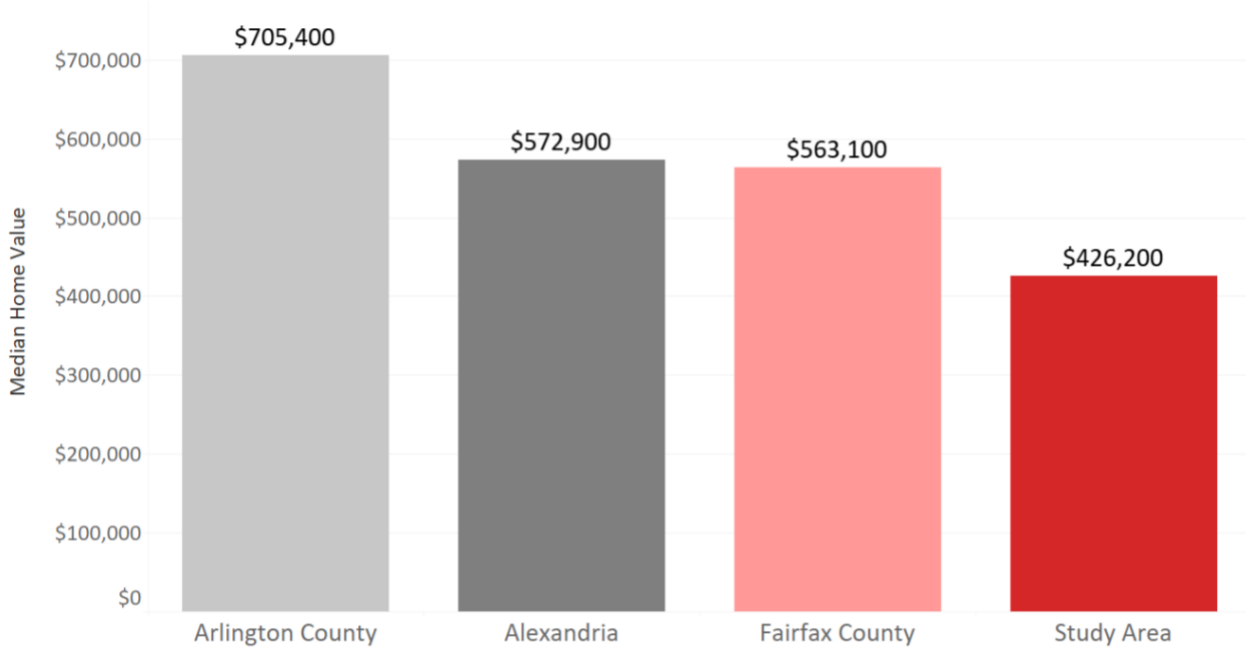



***Figure 7:*** *Study Area Median Home Value Compared to Alexandria, Arlington, and Fairfax. Source: Policy Map*

[5] "Homeownership Rate (5-Year Estimate) for Fairfax County, VA," St. Louis Fed, December 10, 2020, https://fred.stlouisfed.org/series/HOWNRATEACS051059.

## Trends in Study Area Home Sales

Based on sales data for homes in the study area, home sales and median sales prices reached their peak in the early 2000s, and then experienced a significant downturn due to the recession in 2008. The median sale price and number of home sales has seen an upward trajectory over the last decade but still has not reached pre-recession levels. The last two years have seen a sharp increase in median sale prices, reflecting national trends of increasing home prices around the country (see *figure 8*).[6]

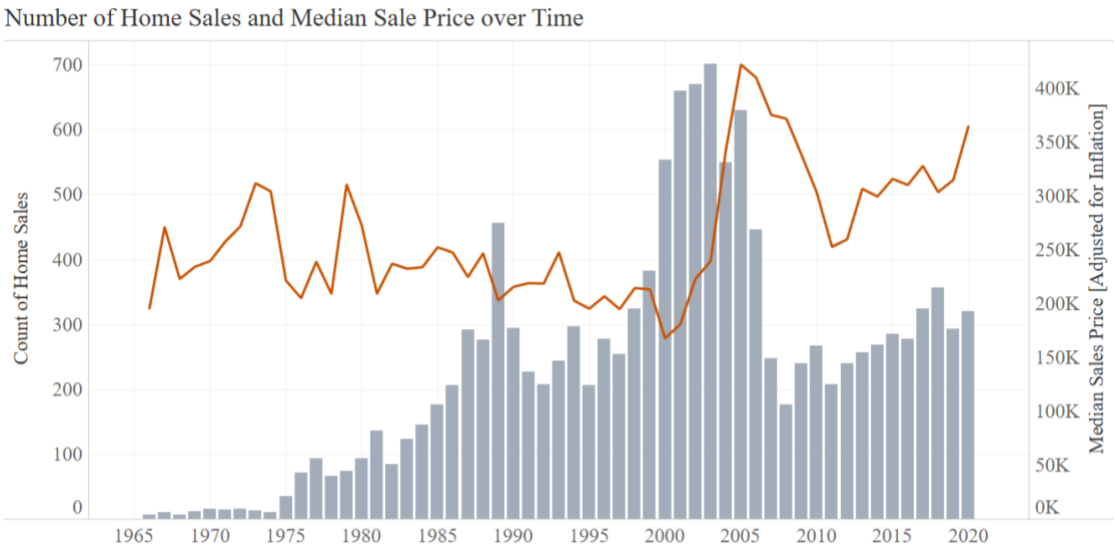



***Figure 8:*** *Number of Home Sales and Median Sales Prices (1965 to 2020). Source: Fairfax County Open Data*

> ***Areas for Further Exploration:*** The composition of types of homes sold over time was not available through Fairfax County Open Data sources. The corridor has a large number of condos in the study area and recovery has been slower in that sector. The type of housing can make a major difference in the recovery of housing markets. Further analysis is needed to understand the impact that the composition of the housing market can have.

## Homes Available for Ownership in the Study Area

Based on our analysis of the housing available for ownership in the study area (excluding rental housing), there are currently 7,313 units available for homeownership. Of the 7,313 units; 4,889 were condominiums; 804 were townhomes; and 1,620 were single family homes. The median estimated sale price across all ownership units is $343,083. For a detailed methodology on how estimated sales prices were calculated, please see **Appendix 6.** The following analysis is disaggregated by study area census tract. Please use *figure 9* as a reference points for the analysis.

[6] Tim Ellis, "Homes Sold in November Went Off Market at the Fastest Pace in At Least 8 Years," Redfin Real Estate News, December 17, 2020, https://www.redfin.com/news/november-housing-market-update-14-pct/.

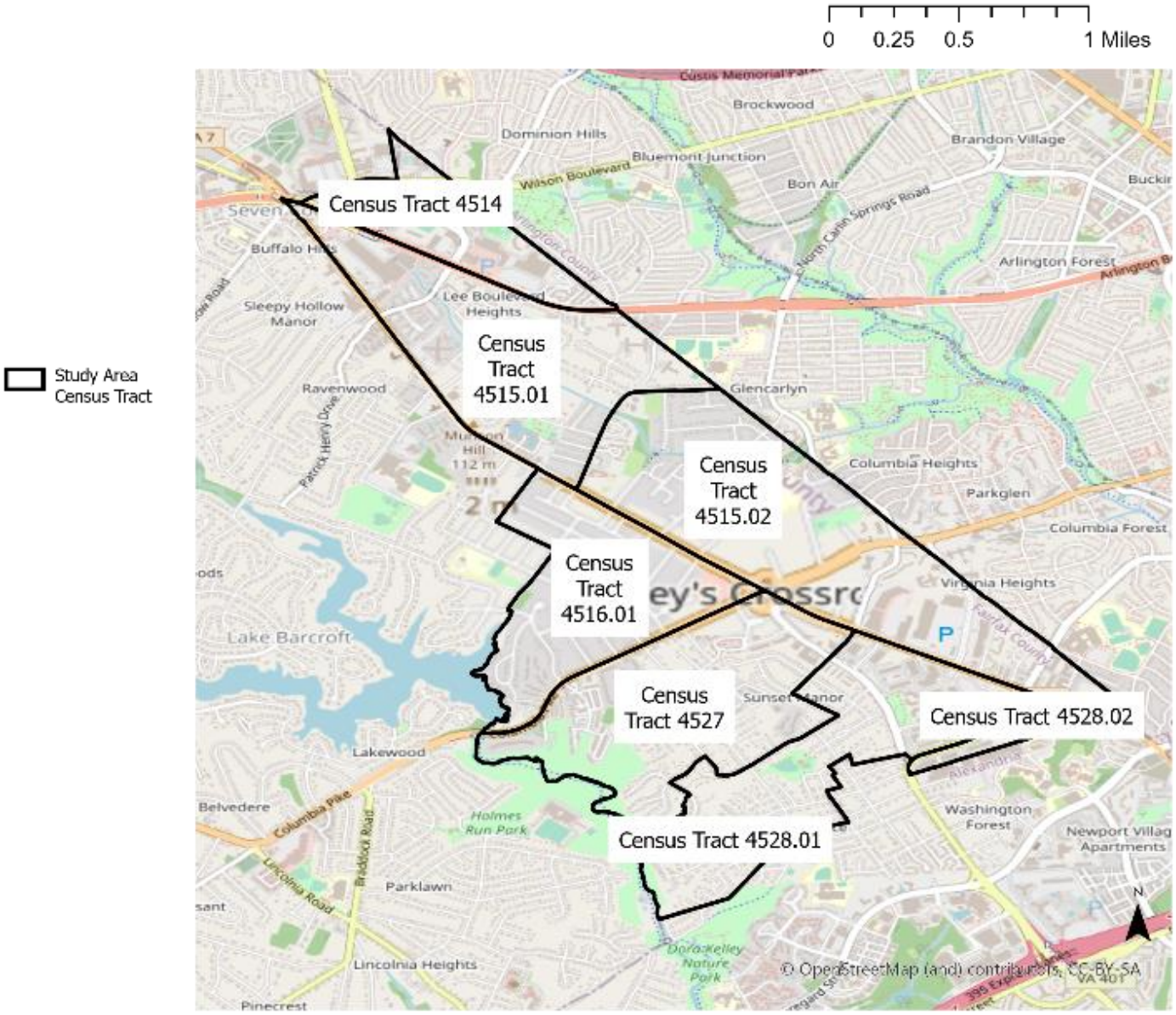



***Figure 9**: Study Area Census Tracts.*

There is significant variability among the median estimated sales price for the three types of housing in our study area. The variability is shown in the table below and details the estimated sales price based on type and square footage of the home (see *figure 10*).

Median Estimated Sale Price by Home Type/Size

| | under 1000 sq ft. | 1000-1499 sq ft. | 1500-1999 sq ft. | 2000-2499 sq ft. | 2500-2999 sq ft. | 3000 sq ft and above |
|---|---|---|---|---|---|---|
| Condo | $226,839 | $324,534 | $385,458 | $498,411 | N/A | N/A |
| Detached Single Family Homes | $473,652 | $580,106 | $666,529 | $780,570 | $845,352 | $954,821 |
| Townhouse | N/A | $534,623 | $637,814 | $652,103 | N/A | N/A |

***Figure 10:*** *Median Estimated Sale Price by Home Type/Size Data. Source: Fairfax County Open Data*

The table below breaks down housing types and key features by census tract. Based on these tables, there is variability between census tracts for all types of housing. The census tracts with a higher concentration of condos tend to be the most affordable, while concentration of single-family homes does not necessarily correspond with the highest median estimated sales price. The size and age of the homes in each census tract also correspond to prices, with larger homes being more expensive and older homes being less expensive (see *figure 11, figure 12,* and *figure 13*).

| | Number of Single-Family Homes | Median Estimated Sales Price | Median Price per SQFT | Median Age | Median Square Footage | Median Lot Size in Acres |
|---|---|---|---|---|---|---|
| **Study Area** | **1620** | **$666,830** | **$386.16** | **57** | **2008** | **0.29** |
| Census Tract 4514 | 0 | N/A | N/A | N/A | N/A | N/A |
| Census Tract 4515.01 | 377 | $646,239 | $413.48 | 67 | 1,507 | 0.26 |
| Census Tract 4515.02 | 302 | $673,574 | $412.19 | 62 | 1,582 | 0.31 |
| Census Tract 4516.01 | 243 | $642,451 | $407.95 | 67 | 1,642 | 0.32 |
| Census Tract 4527 | 301 | $763,779 | $319.38 | 37 | 2,394 | 0.27 |
| Census Tract 4528.01 | 397 | $670,346 | $368.29 | 65 | 1,742 | 0.3 |
| Census Tract 4528.02 | 0 | N/A | N/A | N/A | N/A | N/A |

***Figure 11:*** *Single Family Homes Characteristics by Census Tract. Source: Fairfax County Open Data*

| | Number of Townhomes | Median Estimated Sales Price | Median Price per SQFT | Median Age | Median Square Footage | Median Lot Size in Acres |
|---|---|---|---|---|---|---|
| **Study Area** | **804** | **$600,018** | **$381.68** | **33** | **1,628** | **0.03** |
| Census Tract 4514 | 139 | $669,485 | $396.10 | 35 | 1,684 | 0.03 |
| Census Tract 4515.01 | 97 | $479,402 | $423.53 | 35 | 1,108 | 0 |
| Census Tract 4515.02 | 259 | $598,413 | $376.37 | 50 | 1,512 | 0.06 |
| Census Tract 4516.01 | 0 | N/A | N/A | N/A | N/A | N/A |
| Census Tract 4527 | 309 | $591,746 | $361.91 | 19 | 1,648 | 0.03 |
| Census Tract 4528.01 | 0 | N/A | N/A | N/A | N/A | N/A |
| Census Tract 4528.02 | 0 | N/A | N/A | N/A | N/A | N/A |

***Figure 12:*** *Townhome Characteristics by Census Tract. Source: Fairfax County Open Data*

| | Number of Condos | Median Estimated Sales Price | Median Price per SQFT | Median Age | Median Square Footage |
|---|---|---|---|---|---|
| **Study Area** | **4,889** | **$268,959** | **$267.83** | **49** | **918** |
| Census Tract 4514 | 244 | $215,912 | $300.71 | 69 | 718 |
| Census Tract 4515.01 | 1,327 | $205,107 | $263.04 | 49 | 785 |
| Census Tract 4515.02 | 58 | $233,518 | $240.23 | 57 | 989 |
| Census Tract 4516.01 | 0 | N/A | N/A | N/A | N/A |
| Census Tract 4527 | 666 | $348,722 | $258.91 | 38 | 1,252 |
| Census Tract 4528.01 | 1,102 | $314,521 | $289.48 | 37 | 1,060 |
| Census Tract 4528.02 | 1,492 | $294,726 | $252.50 | 46 | 1,194 |

***Figure 13:*** *Condo Characteristics by Census Tract. Source: Fairfax County Open Data*

## The Historic Legacy of Segregation as well as Current Discriminatory Practices Limit Non-White Homeownership in the Study Area

The racial disparities in income, educational attainment, and homeownership within the study area, as well as the surrounding region, stem, in part, from the legacy of segregation as well as current discriminatory practices.

### The Legacy of Redlining and Segregation

The historic legacy of housing segregation contributes to the present-day racial wealth gap.[7] De jure segregation was enforced by residential zoning ordinances until a 1917 Supreme Court case ruled the practice unconstitutional.[8] In the wake of the Buchanan v. Warley decision, de facto segregation continued via the practice of redlining. In the 1930s, the Home Owners' Loan Corporation (HOLC), a former government-sponsored corporation tasked with expanding home buying opportunities, graded neighborhoods' mortgage lending risk based on proximity to "undesirable" properties and residents' ethnic and racial composition, among other factors.[9] The graded system resulted in a color-coded map, which ranked areas in accordance with the perceived financial risk they posed to bank lenders.[10] These discriminatory lending practices precluded non-White families from qualifying for mortgages.[11] After World War II, government programs such as the GI Bill were created to boost homeownership. While non-White households were not explicitly excluded from these programs, in practice they were barred from homeownership due to discriminatory lending practices and racial covenants in new housing developments.[12] The Fair Housing Act of 1968 outlawed discriminatory lending practices and the use of racial covenants, allowing non-White families full access to the housing market. However, due to their exclusion from earlier homebuying programs, non-White families were not accorded the same opportunities to accrue generational wealth through homeownership. This lack of intergenerational wealth limits the ability of non-White households to enter the housing market.

### Examples of Current Discriminatory Practices

Over the last sixty years the United States has implemented laws such as the Fair Housing Act (1968), Equal Credit Opportunity Act (1974) and the Community Reinvestment Act (1977) that forbid racial discrimination in the housing market. However, modern-day discriminatory practices persist. According to an Urban Institute study conducted on mortgage lending discrimination, there are large differences in loan denial rates between non-White and White applicants, when other factors remain equal. Furthermore, the study found that even among institutions with "good intention," non-White customers still may not receive equal treatment.[13]

---

[7] Michele Lerner, "One home, a lifetime of impact," The Washington Post, July 23, 2020, https://www.washingtonpost.com/business/2020/07/23/black-homeownership-gap/?arc404=true.
[8] "Buchanan v. Warley," Oyez, accessed April 19, 2021, https://www.oyez.org/cases/1900-1940/245us60.
[9] "University of Richmond Digital Scholarship Lab. "Mapping Inequality: Redlining in New Deal America: Introduction accessed April 22, 2021, https://dsl.richmond.edu/panorama/redlining/.
[10] Ibid.
[11] Michele Lerner, "One home, a lifetime of impact," The Washington Post, July 23, 2020, https://www.washingtonpost.com/business/2020/07/23/black-homeownership-gap/?arc404=true.
[12] "A 'Forgotten History' Of How the U.S. Government Segregated America," NPR.org, accessed April 19, 2021, https://www.npr.org/2017/05/03/526655831/a-forgotten-history-of-how-the-u-s-government-segregated-america.
[13] Margery Austin Turner and Felicity Skidmore, "Mortgage Lending Discrimination: A Review of existing Evidence," The Urban Institute, page 4, https://www.urban.org/sites/default/files/publication/66151/309090-Mortgage-Lending-Discrimination.PDF.

Aside from mortgage lending discriminatory practices, non-White individuals also experience discrimination in the homebuying process, which limits their ability to accrue housing equity. In a study conducted at the University of New Mexico, results indicated that White sellers would not sell to non-White individuals for fear of lowering property values for their neighbors.[14] Furthermore, in some instances, realtors tended to steer non-White families away from predominantly White neighborhoods. According to an Urban Institute report, Black households are not accruing the same home wealth as their White counterparts. The report found that "homes of similar quality in neighborhoods with similar amenities are worth 23 percent less ($48,000 per home on average, amounting to $156 billion in cumulative losses) in majority Black neighborhoods, compared to those with very few or no Black residents."[15]

Due to the large non-White population of Bailey's Crossroads and Seven Corners, it is likely that the legacy of de jure and de facto segregation as well as modern discriminatory practices have contributed to the racial wealth gap. In Fairfax County, Black and Hispanic borrowers are less likely to be approved for conventional loans than White borrowers and "high-cost loans appear to be increasingly targeted to African American and Hispanic families."[16] Additionally, it is important to note that while immigrant households may not experience the historic legacy of segregation and redlining in the same way, they are subject to many of the same modern-day discriminatory practices. For this reason, any housing policies undertaken by Fairfax County should account for these existing disparities and seek to achieve equitable homeownership opportunities.

## Fairfax County Seeks to Address the Legacy of Housing Discrimination via the One Fairfax Resolution

Adopted in November of 2017, the One Fairfax Resolution acknowledges the historic legacy of segregation as well as the current the racial inequities in the county. The resolution defines how Fairfax County can use a racial equity lens when drafting and implementing policies. It also serves as a framework for how the county can address racial inequities in existing policies and services.[17] In order to promote equity in Fairfax County, the authors also identified five process areas including:

- emphasizing community engagement by facilitating community dialogue and public engagement,
- training capacity and building by addressing implicit bias and racism,
- application of equity tools such as impact and disparity studies,
- racial and social equity action planning through Fairfax County departments and organizations within the public school system and government, and

[14] Leah Binkovitz, "Study: When Looking for and Buying a House, Racial Inequality and Discrimination Compound," Rice Kinder Institute for Urban Research, July 12, 2018, https://kinder.rice.edu/2018/07/11/study-when-looking-and-buying-house-racial-inequality-and-discrimination-compound.

[15] Andre M. Perry, Jonathan Rothwell, and David Harshbarger, "The Devaluation of Black Assets in Neighborhoods," Brookings Institute, November 27, 2018, https://www.brookings.edu/research/devaluation-of-assets-in-black-neighborhoods/

[16] "Fairfax County, VA Consolidated Annual Performance and Evaluation Report," Fairfax County (Fairfax County Department of Housing and Community Development), accessed April 20, 2021, pg. 65, https://www.fairfaxcounty.gov/housing/sites/housing/files/assets/documents/caper/fy%202020/fy_2020_caper_hud_submission.pdf.

[17] One Fairfax Policy, https://www.fairfaxcounty.gov/topics/sites/topics/files/assets/documents/pdf/one-fairfax-policy.pdf.

- an accountability framework where Fairfax County Government and Public Schools will utilize data to evaluate how they are meeting the equity goals outlined in its' action plan.[18]

## Proximity to Existing and Future Employment Centers May Exert Upward Pressure on Housing Prices

Due to the location of the study area, numerous external forces serve as potential drivers of the housing market. As mentioned previously, the study area is relatively affordable compared to neighboring areas. However, due to the proximity of both existing and emergent employment centers, infrastructure investments, and an infusion of forecasted employment opportunities, external forces are likely to increase demand for housing in the study area.

### Transportation Options and Commute Times

One of the external forces includes the study area's proximity to employment centers. Using a midpoint in the study area that sits between Bailey's Crossroads and Seven Corners along Route 7, we approximated that commuting times by car to major employment centers is approximately thirty minutes (see *figure 14*). As a comparison point, by car, the average DC commute time is approximately 43 minutes.[19] Travel times increase if the commuter uses the bus as a mode of transportation. For example, in order to get to the Pentagon and Tyson's Corner by bus, it takes approximately 40 minutes. Commuting to Rosslyn, Virginia, or Amazon HQ2, we see approximately 50 minutes in commuting times, while it takes roughly 60 minutes to reach the Virginia Tech Innovation Campus or downtown Washington, DC, respectively.[20]

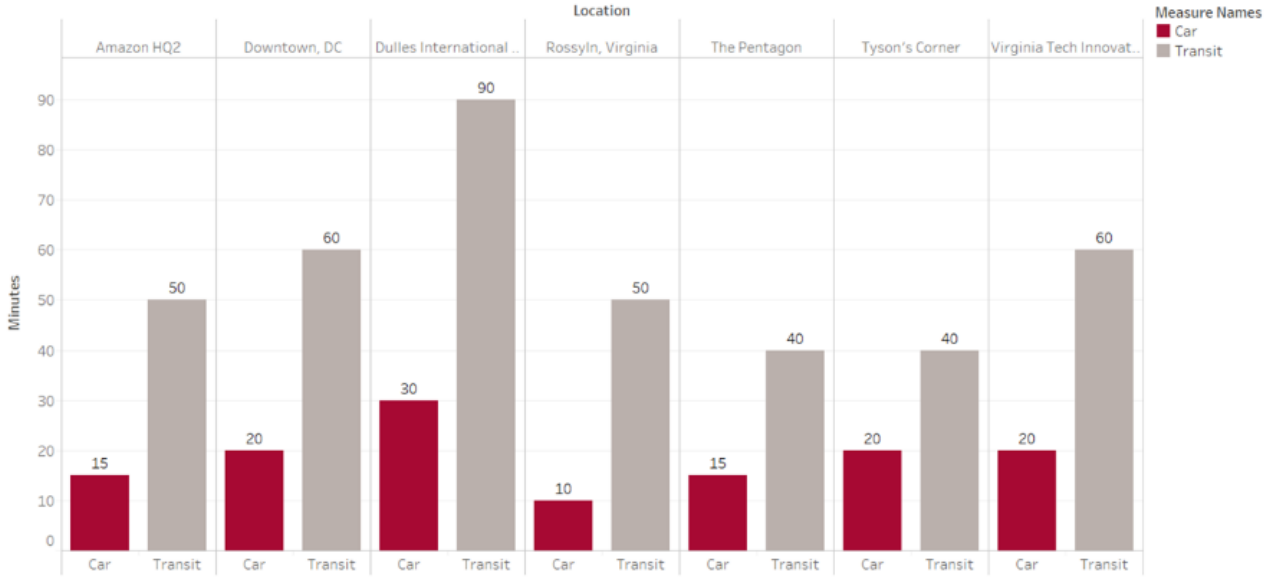



***Figure 14:*** *Car and Transit Times for Nearby Employment Areas. Data Source: Google Maps*

[18] One Fairfax Policy, pages 3-4.

[19] Eliza Berkon, "D.C. Has Some Of The Longest Commutes In The Country. What Help Is Available?," January 24, 2020, https://www.npr.org/local/305/2020/01/24/799292338/d-c-has-some-of-the-longest-commutes-in-the-country-what-help-is-available#:~:text=Commutes%20here%20are%20among%20the,more%20to%20work%20every%20day.

[20] Note: These calculations were made via Google Maps. However, due to the reduced travel during the pandemic these commuting times may underestimate what commuting times might be in a post-pandemic scenario.

The Route 7 Bus Rapid Transit (BRT) plan may serve as another factor that will increase demand for housing. The new transit route is expected to link the Mark Center to Tysons Corner which will cut through Bailey's Crossroads and Seven Corners. The new transit system is expected to attract new residents by increasing the public transportation options. [21]

### Employment Access

The final two external driving forces include Amazon's HQ2 located in Crystal City and the Virginia Tech Innovation Campus in Potomac Yard. The new Amazon headquarters is expected to bring close to 25,000 jobs by the end of the decade. Furthermore, many of the Amazon jobs are expected to offer high wages, which could lead those workers to bid up the prices of existing housing in the absence of additional supply. [22]

Ultimately, given the proximity to employment centers noted above, the study area displays characteristics of an area that may attract larger demand for housing. Even without the implementation of the BRT, housing demand may increase due to the study area's proximity to many employment opportunities. In the absence to additional housing supply, the increase in employment opportunities could place upward pressure on housing prices, limiting the availability of affordable housing opportunities in Northern Virginia.[23]

## The Impacts of COVID-19 on the Study Area Housing Market Remain Undetermined

While the data used in this report is derived prior to the Coronavirus (COVID-19) pandemic, it should be noted that COVID-19 has disrupted the financial health and/or stability of households across the United States. According to a 2021 literature review conducted by the Urban Land Institute Terwilliger Center for Housing[24], there is a continued disparity between high- and low-income workers and households of color. Researchers noted that low wage earners tend to be workers of color (disproportionally Black and Hispanic individuals) who live in high poverty areas. The research also notes low wage earners are more likely to lack the finances to stay afloat amid a financial crisis. The COVID-19 crisis has only served to exacerbate existing disparities between low wage earners and high wage earners.

A high-level occupational analysis of 107 U.S. regions noted that occupations predisposed to income disruption i.e., retail workers, janitors, and stock movers, among others struggled to afford "modest" rental housing prior to the pandemic – this trend has only served to worsen since the crisis.[25] Nonetheless, while these individual realities persist, the report notes the data remains unclear on the long-term effects of consumer behavior as it relates to housing demand.

---

[21] "Envision Route 7," Northern Virginia Transportation Commission, Accessed March 31, 2021, https://novatransit.org/programs/route7/.
[22] "What does Amazon's HQ2 Mean for the Washington Region's Housing Market?," The Stephen S. Fuller Institute for Research on the Washington Region's Economic Future, November 13, 2018, https://sfullerinstitute.gmu.edu/2018/11/13/amazon-housing-impacts/.
[23] Patrick Sisson, "Amazon's arrival in Virginia adds stress to strained housing market," Curbed, July 16, 2019, https://archive.curbed.com/2019/7/16/20694936/amazon-virginia-hq2-arlington-alexandria.
[24] Michael A. Spotts, "UTLI Terwilliger Center 2021 Home Attainability Index: Housing, Health, and the COVID-19 Crisis," Urban Land Institute (2021), 3.
[25] Michael A. Spotts, 12.

With respect to Virginia's homeowner financial health, an analysis of Census Bureau household data from September 2020 to March 2021, suggests that the majority of Virginia homeowners are current on their monthly mortgage payment. On average, approximately 6 percent of Virginia homeowners are not current on their mortgage. This is comparable to the national trend which also shows that an average of 6 percent of homeowner are behind on their mortgage. The data also shows a relatively constant trend on the number of individuals unable to pay their mortgage (see *figure 15*). Given the 2020 and 2021 economic impact payments and increase in unemployment benefits, which may have been used to cover monthly mortgage costs, the effect of the pandemic on the housing market might be understated in the Census Bureau data.

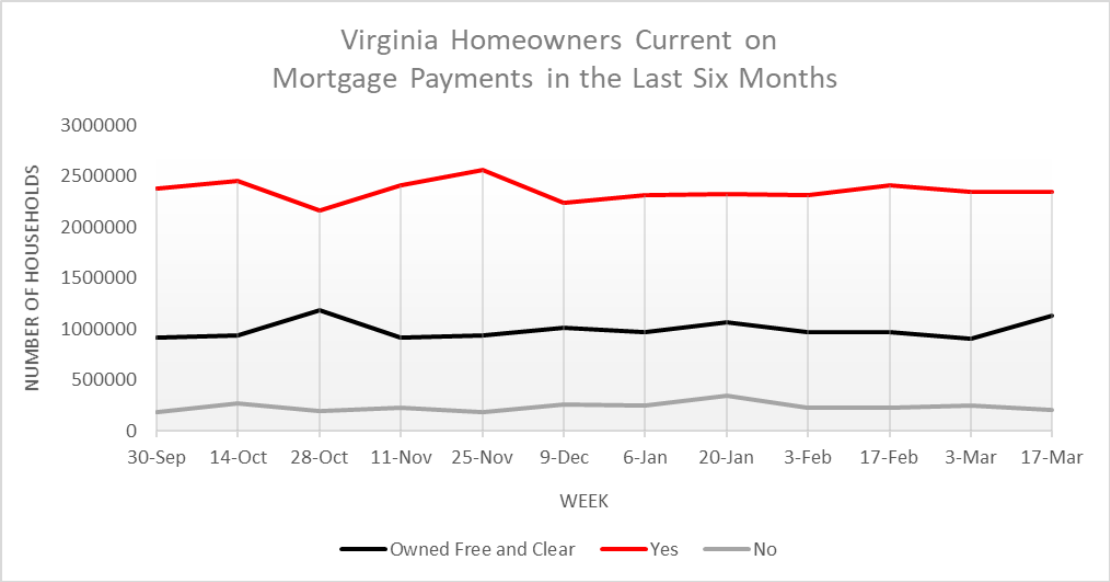



***Figure 15:*** *Virginia homeowners current on mortgage payments in the last six months. Source: U.S. Census Bureau Household Pulse Survey data*

In sum, there is no conclusive evidence that COVID-19 has impacted the finances of homeowners in our study area. However, a significant portion of study area residents is made up of renters and they are more likely to suffer adverse financial impacts. The disparity between low-income wage earners and high earners has worsened during the pandemic and this may create an additional barrier to entry into the homeownership market.

## Key Findings

- The study area is more racially and ethnically diverse than the county as a whole as well as surrounding areas. In turn, the historic legacy of segregation and present-day discriminatory practices limit access to homeownership for non-White households.
- Study area incomes are lower than those of the county as a whole as well as the metropolitan area. This trend worsens when we account for race, ethnicity, and educational attainment.
- The study area is relatively affordable, but its proximity to employment centers may lead to higher housing prices.
- Existing single-family zoning, as well as other land use regulations, limits the supply of affordable housing. Condos are the most affordable and most abundant type of home available for ownership in the corridor and single-family homes are the most expensive.

## What is the Gap Between Study Area Housing Prices and What Potential Homeowners Can Afford?

We have qualitatively assessed the characteristics of the existing study area housing stock. Additionally, we have analyzed the limitations on access to homeownership caused by the legacy of segregation and current-day discriminatory practices, which contributes to the existing racial income disparities. This is particularly important given the diversity of the study area and Fairfax County's commitment to improving racial equity. In the following section, we will quantitatively assess the affordability gaps facing potential homeowners as well the disparate impact race and ethnicity has on these gaps.

### Our Affordability Model Finds that Existing Homes Are Out of Reach for Many Potential Homebuyers, with Large Racial Disparities

Before determining the percentage of homes that could be considered affordable in our study area, we first defined affordability for the demographic groups residing in both the study area, and within the DC metro area. To do so, we created a housing affordability model that follows the process outlined below (see *figure 16*). The output of this model provides the maximum attainable home purchase price at given levels of AMI across demographic groups and allows us to calculate the gap between the maximum attainable purchase price and the median estimated sales prices of homes within the study area.

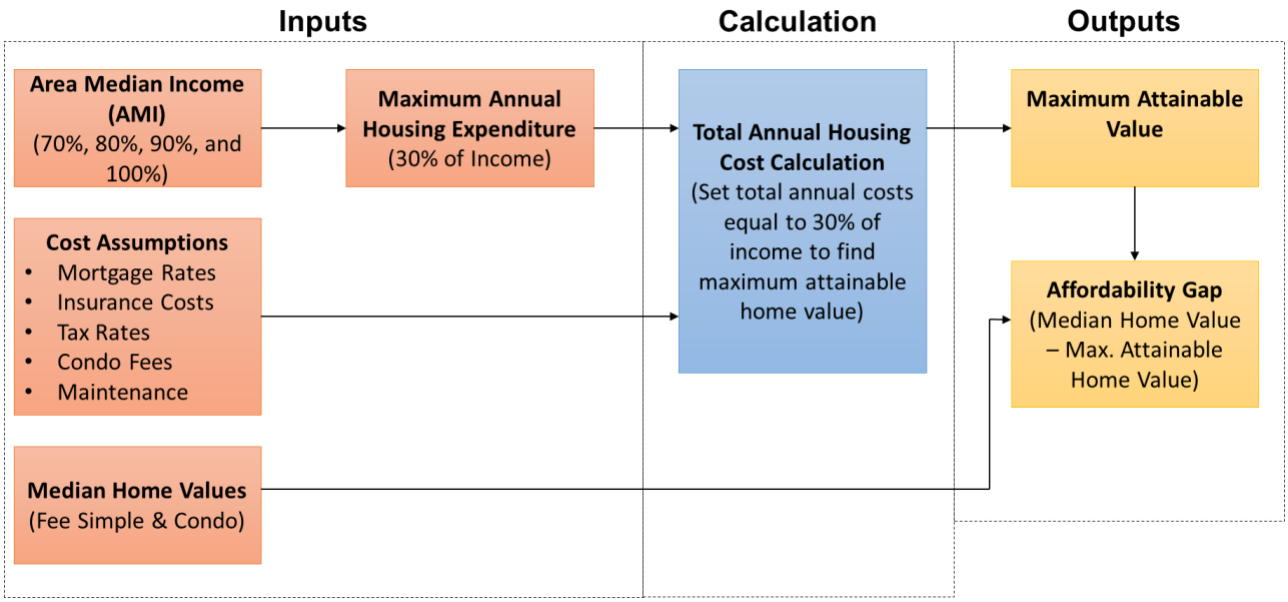



***Figure 16:*** *Housing Affordability Model Process Flow. Source: Created by CMU Research Team*

The housing affordability model relies on a set of inputs and assumptions related to the cost of housing. Because homebuyers can make a range of possible down payments, this model considers two 30-year mortgage scenarios: a 20 percent down payment and a 3.5 percent down payment. These thresholds were selected because 20 percent is the minimum down payment most lenders require to avoid paying for private mortgage insurance, and 3.5 percent is the minimum down payment required for Federal

Housing Authority (FHA) insured mortgages. [26] While lower down payments are more achievable for moderate- to lower-income households, the mortgage insurance required at these down payment levels increases costs and may limit the range of affordable homes. At each of these down payment levels, the model also accounts for the cost differences between fee-simple and condominium (condo) ownership.

### Model Inputs

The first input of the affordability model was AMI. Our primary analysis focused on households in the DC metro area ranging in size from one to five persons at 70, 80, 90, and 100 percent of AMI. Our initial calculations relied on the DC metro AMIs because the housing market, and in particular the pool of potential homebuyers, encompasses the entire region. To determine whether homeownership was attainable for those currently living within the study area, which has a large population of renters, we re-ran the calculation using the study area AMI. Finally, we disaggregated 100 percent of AMI at the DC metro-level and at the study area-level by race to identify disparities in homeownership opportunity.

The second set of inputs related to the costs of homeownership. Interest rates, down payment size, and loan term were used to calculate annual mortgage payments. Additional housing costs included property taxes, homeowner's insurance, mortgage insurance, estimates of annual maintenance costs as a percentage of total home value, and condo fees. For a complete list of the cost assumptions, please see **Appendix 7.** The median fee-simple and condo estimated sales prices in the study areas, as calculated from Fairfax county tax assessment data, constituted the final inputs for the model.

### Model Calculation

To determine the maximum attainable sales price for households at each level of AMI, the model used the Microsoft Excel's "Goal Seek" function to calculate the home value when total housing costs are equal to 30 percent of gross income. The 30 percent figure is based on the Department of Housing and Urban Development's (HUD) definition of housing burden and represents the upper limit of what households should spend on housing costs.[27]

### Model Outputs

Based on the calculation above, the model returns two outputs. The first is the maximum attainable home value for each AMI group. Second, by comparing the maximum attainable home value to the existing home values in the study area, the model provides the affordability gap for each AMI and demographic group.

> ***Areas for Further Exploration:*** While 30 percent of gross income is the commonly accepted threshold for affordability, it does not account for regional differences in cost of living nor does it account for the tradeoff families make to reduce housing costs (e.g., quality of home and distance from employment). Future research could include alternative measures and thresholds of affordability.

[26] U.S. Department of Housing and Urban Development, "Loans | HUD.Gov / U.S. Department of Housing and Urban Development (HUD)," accessed April 10, 2021, https://www.hud.gov/buying/loans.
[27] Office of Policy Development and Research, "Rental Burdens: Rethinking Affordability Measures | HUD USER," U.S. Department of Housing and Urban Development, accessed April 10, 2021, https://www.huduser.gov/portal/pdredge/pdr_edge_featd_article_092214.html.

## Maximum Attainable Home Values and the Affordability Gap

### *DC Metro*

Our primary analysis focused on potential homebuyers from the DC metro area. The maximum attainable home prices and the resulting affordability gaps were calculated for 70, 80, 90, and 100 percent of AMI, disaggregated by race. The affordability gap for fee-simple homes, assuming a conventional mortgage with a 20 percent down payment, are substantial at all AMI levels (see *figure 17*). This analysis also shows that there are significant racial disparities, with an affordability gap that is over seven times larger for Black households and Hispanic households compared to White households at 100 percent of AMI, for the respective socioeconomic categories. As a 20 percent down payment allows for the purchase of higher valued homes (due to the smaller loan balance), the affordability gap is even larger under the assumption of a 3.5 percent down payment. Due to the lower median estimated sales prices for condos, the affordability gap for these units is smaller. For the complete results of the affordability gap analysis at the DC metro-level, which includes disaggregation by household size, down payment size, and ownership type, please see **Appendices 8 and 9**.

| | Maximum Home Price (Conventional, Fee Simple) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Race | 70% | 80% | 90% | 100% |
| DC Metro Total | $361,506.34 | $417,149.87 | $472,793.40 | $528,436.93 |
| White Alone | $408,849.90 | $471,252.21 | $533,670.57 | $596,072.87 |
| Black | $234,325.72 | $271,796.00 | $309,282.34 | $346,752.62 |
| Hispanic | $242,882.56 | $281,572.95 | $320,279.40 | $358,969.79 |
| Asian | $381,686.35 | $440,219.62 | $498,752.89 | $557,286.16 |
| Other | $211,609.16 | $245,836.51 | $280,079.92 | $314,307.27 |

| | Affordability Gap (Conventional, Fee Simple) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Race | 70% | 80% | 90% | 100% |
| DC Metro Total | $(273,983.81) | $(218,340.28) | $(162,696.75) | $(107,053.22) |
| White Alone | $(226,640.25) | $(164,237.94) | $(101,819.58) | $ (39,417.28) |
| Black | $(401,164.43) | $(363,694.15) | $(326,207.81) | $(288,737.53) |
| Hispanic | $(392,607.59) | $(353,917.20) | $(315,210.75) | $(276,520.36) |
| Asian | $(253,803.80) | $(195,270.53) | $(136,737.26) | $ (78,203.99) |
| Other | $(423,880.99) | $(389,653.64) | $(355,410.23) | $(321,182.88) |

| | Maximum Home Price (Conventional, Condo) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Race | 70% | 80% | 90% | 100% |
| DC Metro Total | $261,305.05 | $321,804.94 | $382,304.82 | $442,804.71 |
| White Alone | $312,780.57 | $380,629.12 | $448,495.12 | $516,343.67 |
| Black | $123,024.58 | $163,765.13 | $204,523.13 | $245,263.68 |
| Hispanic | $132,328.23 | $174,395.37 | $216,479.97 | $258,547.12 |
| Asian | $283,246.30 | $346,888.13 | $410,529.96 | $474,171.79 |
| Other | $ 98,325.41 | $135,539.99 | $172,772.04 | $209,986.62 |

| | Affordability Gap (Condo, Conventional) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Race | 70% | 80% | 90% | 100% |
| DC Metro Total | $(374,185.10) | $(313,685.21) | $(253,185.33) | $(192,685.44) |
| White Alone | $(322,709.58) | $(254,861.03) | $(186,995.03) | $(119,146.48) |
| Black | $(512,465.57) | $(471,725.02) | $(430,967.02) | $(390,226.47) |
| Hispanic | $(503,161.92) | $(461,094.78) | $(419,010.17) | $(376,943.03) |
| Asian | $(352,243.85) | $(288,602.02) | $(224,960.19) | $(161,318.36) |
| Other | $(537,164.74) | $(499,950.16) | $(462,718.11) | $(425,503.53) |

***Figure 17:*** *Affordability Gap (20 Percent Down Payment) DC Metro AMIs*

### *Study Area*

As there are renters within the study area seeking homeownership, we re-ran the model using 100 percent of study area AMI, disaggregated by race. The average median incomes of the study area are lower than those of the DC metro area, so the affordability gap is even larger among all racial groups (see *figure 18*). Additionally, the study area AMI did not disaggregate renter income from homeowner income, so it is likely that the affordability gap for renters in the study area is even more substantial. For the complete results of the affordability gap analysis at the study area-level, which includes disaggregation by down payment size, and ownership type, please see **Appendix 10**.

| Household Race (100% AMI) | Maximum Home Price (Conventional, Fee Simple) |
|---|---|
| White Alone | $ 453,929.83 |
| Black | $ 253,622.75 |
| Hispanic | $ 183,113.12 |
| Asian | $ 341,535.04 |
| Other | $ 141,838.02 |

| Household Race (100% AMI) | Affordability Gap (Conventional, Fee Simple) |
|---|---|
| White Alone | $ (181,560.32) |
| Black | $ (381,867.39) |
| Hispanic | $ (452,377.03) |
| Asian | $ (293,955.11) |
| Other | $ (493,652.13) |

| Household Race (100% AMI) | Maximum Home Price (Conventional, Condo) |
|---|---|
| White Alone | $ 361,794.91 |
| Black | $ 144,005.79 |
| Hispanic | $ 67,342.34 |
| Asian | $ 239,590.72 |
| Other | $ 22,464.90 |

| Household Race (100% AMI) | Affordability Gap (Conventional, Condo) |
|---|---|
| White Alone | $ 84,529.48 |
| Black | $ (133,259.64) |
| Hispanic | $ (209,923.08) |
| Asian | $ (37,674.70) |
| Other | $ (254,800.52) |

***Figure 18:*** *Affordability Gap (20% Down Payment) Study Area AMIs*

## Down Payments are a Significant Barrier to Potential Homeowners, Particularly for Non-White Households.

The maximum attainable home value and the corresponding affordability gap is driven by the size of the down payment. With a 20 percent down payment, a household could afford a more expensive home than they could with a 3.5 percent down payment. Due to the high median sales prices of homes within the study area, the down payment itself may constitute a large financial burden for homebuyers and could serve as a barrier to homeownership. This financial barrier is even higher for non-White households.

### Savings Rate Assumptions

The pre-pandemic national average savings rate (as of January 2020) was 7.6 percent.[28] As this is a percentage of net-income (post-tax), we estimated this to be approximately equivalent to 5.9 percent of gross income by adjusting for average effective state and federal tax rates. We further assumed that households would put 50 percent of their savings (2.95 percent of gross income) towards a down payment. This is a conservative estimate and did not account for the differential growth rates of housing prices compared to wages, so time-to-save for a down payment will likely be higher. For more information about the savings rate assumptions, please see **Appendix 11**.

### Time-To-Save

#### *DC Metro*

We calculated a 3.5 percent and 20 percent down payment for the median condo and fee-simple sales prices in the study area. We then divided the down payment by 2.5 percent of gross income for each level of AMI (in line with the assumptions outlined in the preceding section) to determine the time-to-save for a down payment in years.

[28] U.S. Bureau of Economic Analysis, "Personal Saving Rate," FRED, Federal Reserve Bank of St. Louis (FRED, Federal Reserve Bank of St. Louis), accessed April 14, 2021, https://fred.stlouisfed.org/series/PSAVERT.

The result of the calculation shows that the time-to-save for a fee-simple, 20 percent down payment exceeds 37 years for households earning 100 percent of DC metro AMI. At this down payment level, homeownership is out of reach for households at each level of DC Metro AMI and among all racial groups (see *figure 19*). With a 3.5 percent down payment, the time-to-save is more achievable but is still high for households earning less than 100 percent of DC Metro AMI. Additionally, a lower down payment creates a larger gap between the maximum attainable home value and the median sales price of existing homes in the study area. Finally, for both down payments, large gaps exist between White households and non-White households. For the complete results of the time-to-save analysis at the DC metro-level, which includes disaggregation by household size, down payment size, and ownership type, please see **Appendices 12 and 13**.

| | Years to Save (Conventional 20% Down, Fee Simple) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Race | 70% | 80% | 90% | 100% |
| DC Metro Total | 53.29 | 46.63 | 41.45 | 37.31 |
| White Alone | 47.52 | 41.58 | 36.96 | 33.26 |
| Black | 79.13 | 69.24 | 61.55 | 55.39 |
| Hispanic | 76.63 | 67.05 | 59.60 | 53.64 |
| Asian | 50.67 | 44.33 | 39.41 | 35.47 |
| Other | 86.63 | 75.80 | 67.38 | 60.64 |

| | Years to Save (Conventional 20% Down, Condo) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Race | 70% | 80% | 90% | 100% |
| DC Metro Total | 23.25 | 20.35 | 18.08 | 16.28 |
| White Alone | 20.73 | 18.14 | 16.13 | 14.51 |
| Black | 34.52 | 30.21 | 26.85 | 24.17 |
| Hispanic | 33.43 | 29.25 | 26.00 | 23.40 |
| Asian | 22.11 | 19.34 | 17.19 | 15.47 |
| Other | 37.80 | 33.07 | 29.40 | 26.46 |

| | Years to Save (FHA 3.5% Down, Fee Simple) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Race | 70% | 80% | 90% | 100% |
| DC Metro Total | 9.33 | 8.16 | 7.25 | 6.53 |
| White Alone | 8.32 | 7.28 | 6.47 | 5.82 |
| Black | 13.85 | 12.12 | 10.77 | 9.69 |
| Hispanic | 13.41 | 11.73 | 10.43 | 9.39 |
| Asian | 8.87 | 7.76 | 6.90 | 6.21 |
| Other | 15.16 | 13.27 | 11.79 | 10.61 |

| | Years to Save (FHA 3.5% Down, Condo) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Race | 70% | 80% | 90% | 100% |
| DC Metro Total | 4.07 | 3.56 | 3.16 | 2.85 |
| White Alone | 3.63 | 3.17 | 2.82 | 2.54 |
| Black | 6.04 | 5.29 | 4.70 | 4.23 |
| Hispanic | 5.85 | 5.12 | 4.55 | 4.10 |
| Asian | 3.87 | 3.39 | 3.01 | 2.71 |
| Other | 6.61 | 5.79 | 5.14 | 4.63 |

***Figure 19:*** *Time-to-Save for a Down Payment in Years (DC Metro)*

### *Study Area*

Due to their lower incomes compared to the DC metro area, study area residents have even higher down payment time-to-save rates (see *figure 20*). Time-to-save constitutes a barrier to homeownership for all demographic groups, but it is especially high for non-White households. For the complete results of the time-to-save analysis at the study area-level, which includes disaggregation by down payment size, and ownership type, please see **Appendix 14**.

| Years to Save (Conventional 20% Down, Fee Simple) | |
|---|---|
| **Household Race** | |
| **White Alone** | 43.07 |
| **Black** | 73.71 |
| **Hispanic** | 98.32 |
| **Asian** | 56.17 |
| **Other** | 122.21 |

| Years to Save (Conventional 20% Down, Condo) | |
|---|---|
| **Household Race** | |
| **White Alone** | 18.79 |
| **Black** | 32.16 |
| **Hispanic** | 42.90 |
| **Asian** | 24.51 |
| **Other** | 53.32 |

| Years to Save (FHA 3.5% Down, Fee Simple) | |
|---|---|
| **Household Race** | |
| **White Alone** | 7.54 |
| **Black** | 12.90 |
| **Hispanic** | 17.21 |
| **Asian** | 9.83 |
| **Other** | 21.39 |

| Years to Save (FHA 3.5% Down, Condo) | |
|---|---|
| **Household Race** | |
| **White Alone** | 3.29 |
| **Black** | 5.63 |
| **Hispanic** | 7.51 |
| **Asian** | 4.29 |
| **Other** | 9.33 |

***Figure 20:*** *Time-to-Save for a Down Payment in Years (100 Percent Study Area AMI)*

## Study Area Housing Affordability Varies Based on Home Type as well as Homebuyer Race and Ethnicity

Using the maximum attainable home prices from the model, we created thresholds to determine the percentage of homes within the study area that could be considered affordable. The tables below show the percentage of homes in the study area that are affordable to households with 100 percent of AMI across demographic groups, within the DC metro area. Overall, there are significant disparities between the number of affordable homes available to non-White households, compared to White households.

With respect to conventional mortgages, the majority of condos are affordable for all demographics at the DC metro AMI. For larger families, who may not be able to fit in a condo, there are significantly less affordable townhomes or single-family homes available to them. Although a large percentage of condos are considered affordable based on the model output, the down payment for any of these units with a conventional mortgage will still be a barrier for many families (see *figure 21)*.

| DC Metro | Percent Affordable-SFH | Percent Affordable-Townhomes | Percent Affordable-Condos |
|---|---|---|---|
| DC Metro Total | 17.72% | 13.18% | 99.65% |
| White Alone | 31.30% | 47.39% | 100.00% |
| Black | 0.12% | 0.87% | 76.13% |
| Hispanic | 0.19% | 0.87% | 80.96% |
| Asian | 23.33% | 22.26% | 99.96% |
| Other | 0.06% | 0.87% | 64.7% |

***Figure 21:*** *Percentage of Study Area Homes Affordable, Conventional Mortgage with 20 Percent Down Payment. Source: Fairfax County Open Data*

The percentage of affordable homes decreases among all demographics when using an FHA mortgage with a 3.5 percent down payment. FHA mortgages are more attainable for many, especially those with lower incomes, but the lower down payment decreases the maximum attainable purchase price. Condos remain available for most demographics, though not widely for non-white households. (see *figure 22*).

| DC Metro | Percent Affordable-SFH | Percent Affordable-Townhomes | Percent Affordable-Condos |
|---|---|---|---|
| DC Metro Total | 1.79% | 1.87% | 92.33% |
| White Alone | 0.99% | 1.12% | 89.69% |
| Black | 0.00% | 0.25% | 11.23% |
| Hispanic | 0.00% | 0.37% | 15.40% |
| Asian | 0.25% | 0.87% | 83.27% |
| Other | 0.00% | 0.00% | 2.97% |

***Figure 22:*** *Percentage of Study Area Homes Affordable, FHA Mortgage with 3.5 Percent Down Payment. Source: Fairfax County Open Data*

When looking at the location and features of affordable units in the corridor, a few patterns emerge. First, the affordable units are concentrated in three census tracts, 4515.01, 4528.01, and 4528.02 (see *figure 23*). These census tracts also have the highest concentration of total units and highest percentage of affordable units, suggesting that density can have a positive effect on affordability. For the key features of the homes, both age and size influence the affordability. Smaller and older units tend to be more affordable, and we see that same pattern here. One exception is census tract 4516.01, which only has single family homes. The affordable units within census tract 4516.01 are significantly more expensive than affordable homes in the other census tracts but are not significantly larger. This suggests that housing type cannot be ignored when determining affordability, and that the larger lot sizes of single-family homes contribute to their increased price. (See *figure 24*)[29]

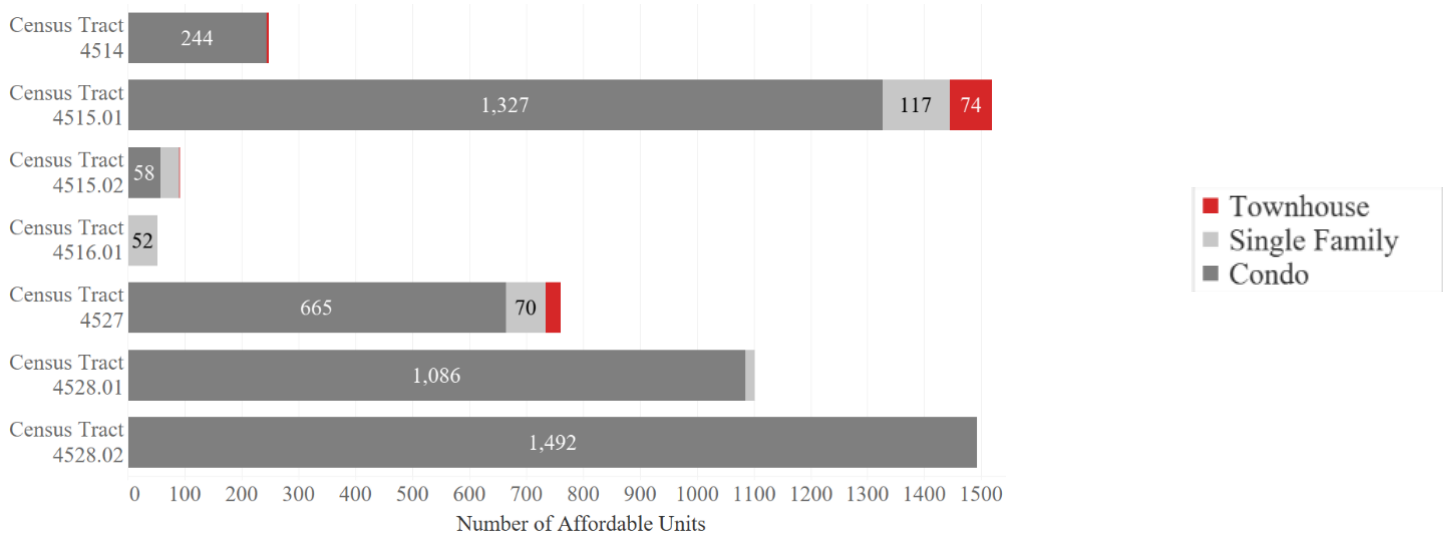



***Figure 23:*** *Distribution of Affordable Units among Census Tracts. Source: Fairfax County Open Data*

[29] Note: This figure was calculated using the affordability threshold for households earning 100 percent of DC Metro AMI with a 20 percent down payment.

| Census Tract | Percentage of Units that are Affordable at 100% DC Metro AMI | Median Estimated Sales Price | Median Age | Median Sq. Ft. |
|---|---|---|---|---|
| 4514 | 65% | $215,912 | 69 | 718 |
| 4515.01 | 84% | $226,246 | 49 | 785 |
| 4515.02 | 15% | $237,584 | 57 | 1,032 |
| 4516.01 | 21% | $504,291 | 67 | 1,264 |
| 4527 | 60% | $354,748 | 38 | 1,252 |
| 4528.01 | 74% | $314,521 | 37 | 1,060 |
| 4528.02 | 100% | $294,726 | 46 | 1,194 |

***Figure 24:*** *Key Features of Affordable Units by Census Tract Source: Fairfax County Open Data*

Figure 25 shows the percentage of units that are affordable to families making 100 percent of AMI within the study area. By breaking down the number of affordable units by demographic, it shows the disparities between what is available for different demographics within our study area. Many families of color who live in the corridor have no affordable options within certain census tracts, particularly in tracts 4516.01, 4527, and 4528.02. Hispanic households who are making 100 percent of study area AMI or less only have significant options for affordable homeownership in two census tracts. Without more affordable options for homeownership, families of color who live in the study area may not be able to attain homeownership without moving elsewhere (see *figure 25)* [30].

| | Study Area White Households | Study Area Black Households | Study Area Hispanic Households | Study Area Asian Households | Study Area Other Race Households |
|---|---|---|---|---|---|
| Census Tract 4514 | 64.8% | 63.7% | 31.3% | 64.8% | 0.0% |
| Census Tract 4515.01 | 73.0% | 53.8% | 10.5% | 69.2% | 0.0% |
| Census Tract 4515.02 | 10.7% | 8.9% | 0.3% | 9.5% | 0.3% |
| Census Tract 4516.01 | 2.5% | 0.0% | 0.0% | 0.0% | 0.0% |
| Census Tract 4527 | 55.2% | 8.2% | 2.0% | 25.4% | 0.0% |
| Census Tract 4528.01 | 71.8% | 13.7% | 0.0% | 43.1% | 0.0% |
| Census Tract 4528.02 | 99.1% | 13.5% | 0.0% | 74.1% | 0.0% |

***Figure 25:*** *Percentage of Affordable Units Available to Study Area Populations. Source: Fairfax County Open Data*

[30] Note: The second column of *Figure* 27 reflects the number of units that are affordable to a three-person household earning 100 percent DC metro AMI. The remaining five columns detail what portion of the houses affordable to a three-person household earning 100 percent of DC metro AMI are affordable for various racial/ ethnicity groups and their respective study area AMIs.

## Key Findings

- Fee simple homes are unaffordable at each level of AMI within our scope. Condos become unaffordable to households earning under 80 percent of DC metro AMI.
- There are significant racial disparities in the affordability gap.
- Down payments are a major barrier to affordability.
- Condos are generally the only current homeownership entry point for families of color in the corridor. The vast majority, approximately 95 to 100 percent, of single-family homes are unaffordable for all demographics living in the corridor.
- Affordable homes are clustered in the corridor and tend to be older and smaller homes.
- Families of color have limited, or no options for affordable homeownership in certain parts of the corridor.

## What are the Barriers to Affordable Homeownership in the Study Area?

As described in the previous section, factors such as income, education, race, and ethnicity may limit the availability of homeownership opportunities. In addition to these demand-side factors, structural forces such as zoning, other regulations, development costs, and the characteristics of existing housing limit the supply of affordable homes.

### Existing Zoning and Land Use Regulations Limit the Supply of Housing and Increase Costs

Zoning and other land use regulations limit the supply of available homes. Our literature review, as well as the research justification for NVAHA's "Building Northern Virginia's Future: Policies to Create a More Affordable, Equitable Housing Supply" found that the failure to increase the supply of homes is correlated with decreases in affordability.[31] In particular, a report in the journal *Housing Policy Debate* found that "adding new homes moderates price increases and therefore makes housing more affordable to low- and moderate-income families."[32] The following analysis explores the impact of zoning and land use regulations in the study area.

#### Zoning in the Study Area

Existing zoning classifications limit the types of housing that developers may construct by right in Bailey's Crossroads and Seven Corners. The majority of the study area, approximately 95 percent, is zoned for residential, and 5 percent is zoned for commercial and industrial. The residential areas are predominantly zoned for R-3, which is limited to single-family detached homes as each parcel is on average 0.3 acres. According to a Fairfax County Open Data zoning analysis of the residential land parcels available for homeownership, approximately 87 percent is zoned for single family housing and 13 percent is zoned for townhomes or condos. This does not include commercial areas that could be redeveloped to produce more housing units. The R-3 zoning classification allows for a maximum density of three dwelling unit per acre.[33]

#### Parking Space Minimums

One of the factors that limit the supply of affordable housing is the parking minimums required under Article 11 of the Fairfax County Zoning Ordinance. Parking requirements range from 0.75 spaces per unit to 2 spaces per unit, depending on the zoning category. Surface parking costs about $5,000 to $8,000 per spot to construct, whereas a structured parking space cost about $20,000 to $25,000.[34] When there are opportunities available for developers to build and include affordable units, the parking requirements decrease the amount of space available to add additional units.

#### Fairfax County Entitlement and Rezoning Process

According to a professional in economic and housing development in Fairfax County, the entitlement process may take as long as eight to ten months and often requires land use attorneys. Rezoning is often required to allow for higher density development and the potential construction of affordable homes.

---

[31] Michael A. Spotts, "Supplement to Building Northern Virginia's Future: Policies to Create a More Affordable, Equitable Housing Supply", Northern Virginia Housing Alliance, January 2019, https://nvaha.org/wp-content/uploads/NVAH001_1901_SupplyPapers-JUSTIFICATION-FinalWeb-1.pdf.

[32] Vicki Been, Ingrid Gould Ellen, and Katherine O'Regan, "Supply Skepticism: Housing Supply and Affordability," Housing Policy Debate 29, no. 1 (January 2, 2019): 25–40, https://doi.org/10.1080/10511482.2018.1476899.

[33] Article 3, Fairfax County Zoning Ordinance, page 28, Accessed April 18, 2021, https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/documents/zoning/zoning%20ordinance/art03.pdf.

[34] Note: These statistics are derived from a conversation with a professional in economic development.

To rezone, one must undergo a twelve-step process that requires the plan be open to public comment. After identifying a potential site, the developer ensures their site plan aligns with the Comprehensive Plan and complies with the district's use limitations. Before proceeding to the Planning Commission, the site plan is subject to public input and review from the Land Use Committee.[35] Each district has a supervisor-appointed citizen land use committee, which are primarily composed of members who are not representative of the community. Additionally, an area resident involved in a redevelopment project stated that those attending public input hearings are often unrepresentative of study area demographics and in opposition to increased housing density. Finally, it is important to note the proffer process is often used to obtain concessions from developers (e.g., public space, investments in public schools and infrastructure) in exchange for zoning variances instead of allowing "by-right" development.[36] In turn, developers will often choose the path of least resistance and build fewer units under "by right" zoning.

### Building Heights and Maximum Density Regulations

Given the scope of this report, we have highlighted several land use regulations that limit the supply of housing, but this list is not comprehensive. Regulations such as requirements on building heights, and maximum density requirements leave limited availability to build affordable housing. Under Article 3 of the Fairfax County Zoning Ordinance, each of the fifteen residential zones has maximum height and density regulations. Specific height maximums are listed under its bulk regulation sections and maximum density regulations. Building heights range from 35 feet to 150 feet depending on the zoning category, while maximum density requirements range from 0.2 units per acre to 30 units per acre depending on the zoning category. These regulations constrain the number of housing units that developers are permitted to construct.[37]

## Land Costs and Construction Type Contribute to the Price of New Housing

### Land Costs

Vacant land in the study area is scarce and expensive, making it a barrier to constructing affordable housing. Currently in the study area, there are a little over 20 acres of buildable vacant land, according to Fairfax County Assessment data. Much of this land is owned by faith centers in the area, and by the county park service, making it unlikely to be developed in the future. Even if all available vacant land were developed to produce the maximum amount of housing allowed by zoning, it would only produce another 64 new housing units.[38]

---

[35] "Rezoning Process," Zoning Evaluation Division in Fairfax County Government, https://www.fairfaxcounty.gov/planning-development/zoning/rezoning-process.

[36] Note: "The term 'Use by Right' refers to a property owner's use of property and structures in manners consistent with that which is listed as permissible in the zoning district in which his or her property is located. A 'use by right' is a use permitted in a zoning district and is therefore not subject to special review and approval by a local government."
"Permitted Uses, Aka 'Use by Right' – Community Planning and Zoning," accessed May 2, 2021, https://community-planning.extension.org/permitted-uses-aka-use-by-right/.

[37] Fairfax County Zoning Ordinance, "Article 3," Accessed April 17, 2021, https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/documents/zoning/zoningpercent20ordinance/art03.pdf.

[38] Note: this was calculated by multiplying the maximum amount of housing per acre allowed by zoning by the size of the parcel. For example, if the parcel is 0.3 acres and zoned R-3 it would produce 1 new unit of housing.

## Development Costs

The costs to construct new housing generally fall into the following three categories:

*Land Acquisition Costs:* As discussed above, the lack of vacant land and the high demand for existing housing has increased the cost of land acquisition in the study area. For a single-family home, land acquisition costs can constitute almost 50 percent of total development costs, but this percentage is lower for multi-family housing as the cost is distributed across multiple units.[39]

*Hard Costs:* Hard costs include labor and materials and can be divided into four subcategories: site preparation and substructure, shell and structure, interiors, and services. Hard costs account for 50 percent to 70 percent of construction costs, on average.[40] Hard costs heavily rely on the prices of labor and commodities such as lumber. For example, in the spring of 2021, lumber costs increased by 60 percent, adding more than $28,000 to the average price of a new home.[41]

*Soft Costs:* This category refers to design, engineering, financing, permitting, and impact fees. On average, they constitute 20 to 30 percent of total development costs. Projects that require variances, rezoning, or require substantial community input may face higher soft costs.[42]

## Development Costs by Housing Type

Construction costs vary substantially based on the type of housing constructed due to the use of different materials. Single-family, infill, and low-rise multi-family housing (one to three stories) are typically wood frame construction. This is the least expensive construction type and costs per unit generally decrease as density is added. Mid-rise construction (four to seven stories) is typically wood frame on a concrete podium, with higher per square foot costs than lower-density construction. The number of units allowed by zoning determine whether this construction type makes financial sense for the developer. High-rise buildings require concrete and steel frame construction and have the highest per square foot costs, but these fixed costs as well as land costs may be spread over additional units.[43]

Housing type also affects the efficiency of floorplans which contributes to development costs. Taller buildings typically require more floor space dedicated to hallways, stairwells, elevators, and utilities. As this square footage does not generate revenue, they contribute to higher development costs, but these costs may be distributed across additional units.[44]

## Development Costs for Non-Profit Developers

While the high cost of land remains unavoidable for both for-profit and non-profit developers, it must be noted that developing affordable housing is especially challenging for non-profits as they struggle to compete in the market. A local non-profit developer explained that at her organization their cost

[39] Hannah Hoyt and Jenny Schuetz, "Making Apartments More Affordable Starts with Understanding the Costs of Building Them," Brookings (blog), May 5, 2020, https://www.brookings.edu/research/making-apartments-more-affordable-starts-with-understanding-the-costs-of-building-them/.
[40] Ibid.
[41] "Lumber Frenzy Drives Up Home Prices as Suppliers Can't Keep Up," Bloomberg.Com, April 13, 2021, https://www.bloomberg.com/news/articles/2021-04-13/lumber-frenzy-drives-up-home-prices-as-suppliers-can-t-keep-up.
[42] Hannah Hoyt and Jenny Schuetz, "Making Apartments More Affordable Starts with Understanding the Costs of Building Them," Brookings (blog), May 5, 2020, https://www.brookings.edu/research/making-apartments-more-affordable-starts-with-understanding-the-costs-of-building-them/.
[43] Ibid.
[44] Ibid.

structure begins with considering an affordable sales price for families earning 40 to 80 percent of AMI. Within the limits of that price, the non-profit then works backwards and limits how much they can spend on materials and land, among other factors. The current median appraised value of land for about 1/3 acres is $259,000. In turn, due to the financial constraint of grants and donations, the amount a non-profit can dedicate to land pales in comparison to what is bid by for-profit developers, which can potentially bid higher for land and pass the cost on to the price of the home.

### Key Finding

- Existing single-family zoning, as well as other land use regulations, limits the supply of affordable housing.

## What are Virginia and Fairfax County Currently Doing to Address Affordable Homeownership?

To address barriers to homeownership, Fairfax County is working to expand access to affordable housing by incorporating denser housing into its long-term plans as well as first time ownership programs. The success of these initiatives in targeting the barriers facing the study area are mixed.

### Fairfax County's Vision for the Corridor Seeks to Expand Mixed-Use Development, but also Preserve Current Suburban Areas

Fairfax County planning documents suggest that the county is attempting to maintain the original suburban nature of the area while also providing urban amenities, which include increased retail options and greater walkability. These goals may come into conflict given the area's population growth as well as the disapproval of increased density among certain segments of the public.

#### Bailey's Planning District Comprehensive Plan

The Bailey's Crossroads and Seven Corners study area is historically suburban but is experiencing population growth. The comprehensive plan and existing zoning codes are trying to maintain the historic suburban nature of the area while also acknowledging the area's increasing population. The county's Comprehensive Plan outlines seven major objectives for the study area, which include:

- "preserving residential areas with infill development" that matches current residential uses,
- establishing a clear boundary or "edge" between residential neighborhoods and retail areas,
- advancing the aesthetic and infrastructure of both the Bailey's Crossroads and Seven Corners Community Business Centers (CBC),
- working to "encourage revitalization and redevelopment" and developing the two CBCs to be mixed-use and pedestrian friendly,
- increasing access for pedestrians to commercial areas,
- developing more open space and parks along with seizing environmentally at-risk land through the Environmental Quality Program, and
- working to "preserve heritage resources" through community participation.[45]

The predominant focus of the Comprehensive Plan as it relates to our study area is to protect the areas zoned for single-family detached homes while also focusing on the redevelopment of two CBCs. The two CBCs are intended to serve as primarily commercial and retail centers and will be mixed-use and pedestrian friendly. The CBCs will also create a defined "edge" in which there will be a clear distinction between what is considered commercial and residential (see *figure 26* for zoning areas throughout the study area). It is important to note that the call for mixed-used and pedestrian friendly development within the CBCs conflicts with the existing low-density zoning prevalent in the residential parts of the corridor. While the CBCs will create a defined edge, the contradiction between these two visions could lead to future conflicts in redevelopment.

[45] 2017 Edition Comprehensive Plan – Baileys Planning District, page 3, https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/compplan/area1/baileys.pdf#page=15.

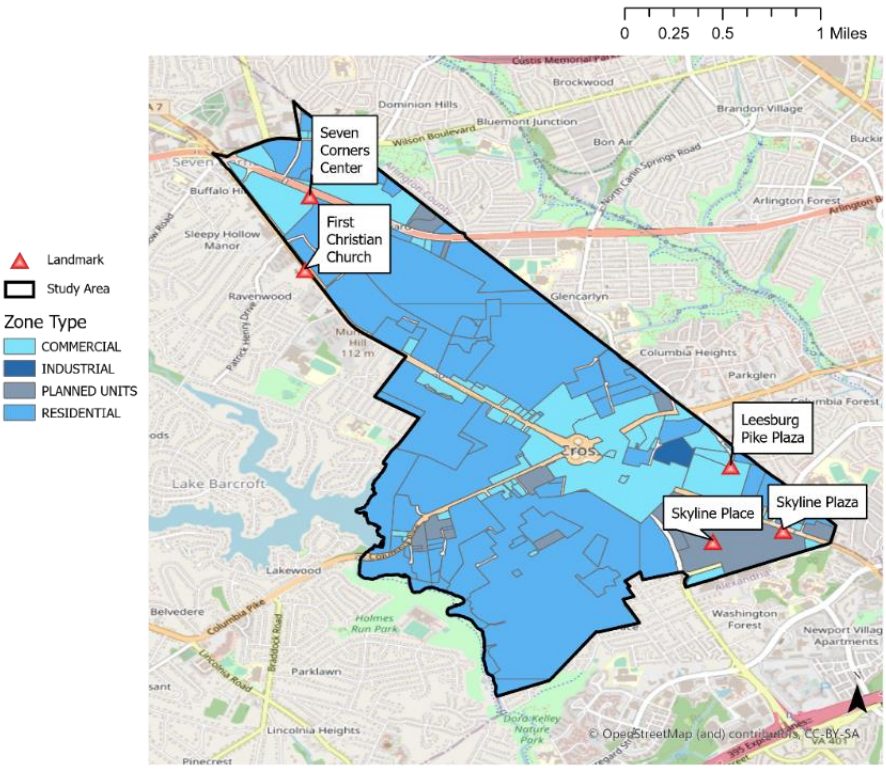



***Figure 26:*** *Study Area Zoning. Source: Analysis conducted by 2020 Heinz College Research Team*

## Bailey's Crossroads and Seven Corners Urban Design Guidelines

The Urban District Design Guidelines build upon Bailey's Planning District Comprehensive Plan recommendations and encourage suburban characteristics with urban-like amenities.[46] For example, both Bailey's Crossroads and Seven Corners are divided into three sections, two of which are expected to experience mixed use redevelopment and one which will remain relatively unchanged. According to the Comprehensive Plan, the study area contains three Opportunity Areas,[47] two of which are intended to be mixed-use while emphasizing the residential atmosphere of the neighborhood. [48]

## Virginia and Fairfax County Have Existing Programs to Bolster Affordable Homeownership Opportunities

Recognizing that the housing market currently does not address the needs of moderate to lower income homebuyers, Fairfax County and Virginia have created programs to increase homeownership opportunities. These programs typically fall into one of two categories: incentives for developers to provide income-restricted units and direct assistance to potential homebuyers.

[46] 2017 Edition Comprehensive Plan – Baileys Planning District, page 120.

[47] Note: Opportunity Areas or Neighborhoods are areas in which the county is prioritizing redevelopment and revitalization. Please view the 2017 Edition of Baileys Planning District Comprehensive Plan pages 108-112 for more information.

[48] Fairfax County Office of Community Revitalization, "Volume II: District Design Guidelines for Baileys Crossroads and Seven Corners," September 2018, slide 18, https://www.fcrevite.org/sites/default/files/Assets/Documents/Baileys-Crossroads-Seven-Corners/Vol2-BC7C-FullDraft-Sept20-2018-AC_A-1a.pdf

## Economic Incentive Program

In September 2020, Fairfax County adopted the Economic Incentive Program (EIP) to incentivize the private sector to invest in revitalization and redevelopment.[49] The intention of the EIP is to incentivize the establishment of businesses in specific areas including Bailey's Crossroads and Seven Corners. The program offers two types of financial incentives. The first is a 10 percent decrease on fees for the site plan. The second incentive is "a partial abatement of the real estate taxes on the difference between the base value of a property and its post-development value."[50] The start date for the study area is July 1, 2022 and will end on June 30, 2032.[51]

### *Repurposing of the Skyline Center*

In March 2021, Fairfax County approved its first EIP application for the repurposing of the Skyline Center.[52] The Skyline Center is located in Bailey's East District and is a significant landmark in the area.[53] The Skyline Center, a former office park, currently contains three buildings and experienced significant devaluation and loss of tenants over time.

The repurpose of the Skyline Buildings is to turn the formerly vacant buildings into Live/Work lofts. The proposal notes that the buildings should include up to 720 units (or 240 units per building). Additionally, the proposal notes that the units can be any combination of office or home with age-restricted units. This redevelopment is expected to include income-restricted units and support small business owners whose income is under 120 percent of AMI. These units will comply with the Fairfax County Workforce Dwelling Unit (WDU) Policy, which will be discussed in greater detail below. The buildings are in an opportunity area and there is a proposal to include up to 43 income-restricted units.[54]

### *Additional Developments*

At a micro level, the vision for the corridor includes newly developed Mission Lofts and a redevelopment project by the First Christian Church. The Mission Lofts were repurposed from a former commercial office building and are in the Bailey's Crossroads area.[55] The First Christian Church project proposed 113 multi-family age-restricted independent living units and ground floor commercial space.[56] Our research

---

[49] Department of Planning and Development Community Revitalization Section, "Revitalization Activity Update," page 2, October 2020 https://www.fcrevite.org/sites/default/files/Assets/Documents/Publications/2020-OCR-Annual-Report.pdf.

[50] Department of Planning and Development Community Revitalization Section, "Revitalization Activity Update," page 2, October 2020 https://www.fcrevite.org/sites/default/files/Assets/Documents/Publications/2020-OCR-Annual-Report.pdf.

[51] Department of Planning and Development Community Revitalization Section, "Revitalization Activity Update," page 2, October 2020 https://www.fcrevite.org/sites/default/files/Assets/Documents/Publications/2020-OCR-Annual-Report.pdf.

[52] "The Fairfax County Board of Supervisors Meeting," March 23, 2021, http://video.fairfaxcounty.gov/player/clip/2040?view_id=7&redirect=true.

[53] 2017 Edition Comprehensive Plan – Baileys Planning District, https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/compplan/area1/baileys.pdf#page=15.

[54] Repurposing of Skyline Buildings 1, 2 and 3 5301, 5303, 5305 Leesburg Pike, Falls Church, VA, slide 113, Accessed February 20, 2021, https://d89a3ed6-8c05-423b-ac11-9e633a3cd9cf.filesusr.com/ugd/11639b_e8194f7bf8674c239fbcd645a14a92e3.pdf.

[55] "Current Projects," 2HSQ, https://www.highlandsquareholdings.com/current-projects

[56] 2019 South County SSPA Process – Nomination PC19-MA-001, "First Christian Church," Planning Division, https://www.fairfaxcounty.gov/planning-development/plan-amendments/sspa/south/track-nomination/pc19-ma-001.

suggests that the county is targeting predominantly working professionals and potential businesses in its redevelopment initiatives.

### Down Payment Assistance Program

To support first-time homebuyers, the state of Virginia offers a down payment assistance program. This program allows participants to receive a Virginia Housing Loan with down payment assistance of 2 to 2.5 percent of the purchase price, if they meet certain income requirements.[57] The program requires the qualifying homes to be less than $525,000 in the Arlington County, City of Alexandria, and Fairfax County area.[58] The minimum credit score required to participate in the program ranges from 620 to 660, and the maximum debt-to-income ratio is 45 percent.[59]

### Inclusionary Zoning Programs

There are two inclusionary zoning programs, the Fairfax County Affordable Dwelling Unit Ordinance (ADU) and the Board of Supervisors Workforce Housing Policy. The Comprehensive Plan requires developments to comply with these two programs and provide a minimum number of income-restricted units.[60]

The ADU program is designed to support affordable housing for people with "low to moderate incomes."[61] It is intended to promote construction of income-restricted dwelling units that are for people that have an income between 50 to 70 percent of the AMI within the DC metro area. The ADU applies when a site contains fifty or more dwelling units. Under the ADU, developers may receive anywhere from 10 percent to 20 percent density bonuses for developments zoned from R-2 through R-30 and for P districts.[62]

The second inclusionary zoning program is the Workforce Dwelling Unit (WDU) Program, which is essentially an overlay on to the existing ADU program. The WDU program intends to provide access to income-restricted homes that are accessible to both transportation and places of employment. The WDU levels were recently amended to focus on households with 60 to 80 percent AMI and a developer is eligible for a density bonus of anywhere from 12 to 20 percent if they meet more than the 8 percent WDU commitment. However, this density bonus only applies in the Tyson's Corner area.[63] The program provides income-restricted units in market rate developments.

---

[57] "Homebuyer Programs," Virginia Housing, accessed April 14, 2021, https://www.vhda.com/Homebuyers/VHDAHomeLoans/Pages/VHDAHomeLoans.aspx.
[58] "Income and Sales Price / Loan Limits," Virginia Housing, accessed April 14, 2021, https://www.vhda.com/Homebuyers/VHDAHomeLoans/Pages/IncomeSalesPriceLoanLimits.aspx.
[59] Virginia Housing, "Down Payment Assistance Grant," Accessed April 1, 2021, https://www.vhda.com/Homebuyers/Pages/DownPayment.aspx.
[60] 2017 Edition Comprehensive Plan – Baileys Planning District, page 5 under "Housing" section, updated 7-16-2019, page 25, https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/compplan/area1/baileys.pdf#page=15.
[61] Fairfax County Zoning Ordinance, Part 8: Affordable Dwelling Unit Program, page 61 of Zoning Ordinance under part 8, Accessed February 11, 2021, https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/documents/zoning/zoningpercent20ordinance/art02.pdf.
[62] Fairfax County Zoning Ordinance, "Article 2 General Regulations," page 61, Accessed April 17, 2021, https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/documents/zoning/zoningpercent20ordinance/art02.pdf.
[63]"February 23, 2021 Final Board of Supervisors Meeting, page 222, https://www.fairfaxcounty.gov/boardofsupervisors/sites/boardofsupervisors/files/assets/meeting-materials/2021/board/feb23-final-board-package.pdf.

## First-Time Homebuyers Program

The First-Time Homebuyers Program is a Fairfax County program that supports first-time homebuyers by counseling eligible households through the process of buying affordable homes made available through the ADU programs. In order to qualify for the program, candidates must be first-time homebuyers or have not owned a home in the last three years, earn an income of at least $25,000 and have a maximum income between $61,750 and $116,450 (depending on household size), have at least a 620 credit score, as well as have enough saved for a 2 percent down payment.[64]

## Key Findings

- There is a conflict in the county's vision for increased mixed-use development in the corridor while also maintaining its suburban character.
- Inclusionary zoning programs such as the ADU and WDU attempt to increase the number of income-restricted units provided by new developments.
- The county and state attempt to bridge the financial gap experienced by first-time homebuyers via down payment assistance and a first-time homebuyer program.

[64] FTHB and WDU Homebuyers, accessed April 14, 2021, https://www.fairfaxcounty.gov/housing/homeownership/homebuyers.

## Summary of Findings

Our quantitative and qualitative analysis of the barriers to housing affordability in the study area resulted in the following key findings:

**The majority of single-family homes are currently unaffordable for potential homebuyers in the region and risk becoming even less affordable.** Single family homes are the most expensive housing type in each of the seven census tracts that make up the study area. Condos are more affordable and are the most abundant type of home available for ownership in the corridor.

**Current zoning and the county's Comprehensive Plan restricts the construction of more affordable housing types in the majority of the study area.** The majority of the study area is zoned to only allow the construction of single-family homes. Other housing regulations such as setback requirements and minimum parking ratios also increase the price of housing.

**Down payments constitute a barrier to homeownership for households who could otherwise afford monthly mortgage payments.** Time-to-save for a 20 percent down payment exceeds 37 years for households at 100 percent of AMI and is therefore out of reach for most households. Smaller down payments, such as the 3.5 percent FHA minimum, are more attainable, but create a larger gap between the maximum attainable home value and the median sales price of existing homes in the study area.

**Non-White households face additional barriers to affordable homeownership.** The majority of the study area households, nearly 66 percent, identify as non-White. These households on average have a relatively low median incomes compared to their White counterparts. Our analysis suggests there is a substantial affordability gap between non-White and White households.

## What are Policy Solutions to Address the Affordability Gap and Provide Homeownership Opportunities to Underserved Communities?

Our quantitative analysis shows that the existing supply of homes in the study area is unaffordable to many potential homebuyers, even at 100 percent of the DC metro AMI. This affordability gap is particularly large for non-White households. The underlying causes of this affordability gap can be tied to the barriers discussed in our qualitative analysis, which note both restrictions on the supply of housing as well as racial income and wealth disparities. These barriers can be viewed as either supply-driven (e.g., restrictive zoning) or demand-driven (e.g., lack of access to home financing). For this reason, we have developed potential policy solutions for Fairfax County and Virginia that address the supply-side and demand-side barriers, which limit access to affordable homeownership.

### Supply-Side Recommendations

Zoning and other land use restrictions have reduced the supply of housing and constitute barriers to affordable homeownership. The following two recommendations seek to make residential zoning in the study area more flexible, allow for increased construction of both market-rate and income-restricted homes, and remove some redevelopment pressure from existing homes.

#### Recommendation 1: Allow for Gentle-Density, Infill Development in Single-Family Zoned Areas

As discussed in the housing stock analysis, the majority of residential parcels are zoned as single-family. Less than 18 percent of these homes are affordable to households earning 100 percent of DC Metro AMI with a 20 percent down payment. With smaller down payments, even fewer homes are affordable, with even larger affordability gaps for non-White households due to their lower median incomes. Additionally, single-family homes that meet the affordability threshold tend to be older and, therefore, are at greater risk of being redeveloped.

Current zoning only allows for these existing homes to be redeveloped into new single-family homes. By taking the average sales price of newly constructed single-family homes in the study area (constructed between 2018 and 2021), we found that the average sales price was over $1 million (see *figure 27*). Restricting new construction in these areas to single-family homes keeps homeownership out of reach to households earning less than 200 percent of DC metro AMI.

| **Housing Type** | **Single Family** | **Townhome** | **Condo** |
|---|---|---|---|
| **Units** | 1 | 3 | 6 |
| **Per Unit Sales Price** | $ 1,031,071 | $ 814,031 | $502,074 |
| *% of AMI at which market rate unit is affordable* | | | |
| **DC Metro Total** | 195% | 154% | 95% |
| **White Alone** | 173% | 137% | 84% |
| **Black** | 297% | 235% | 145% |
| **Hispanic** | 287% | 227% | 140% |
| **Asian** | 185% | 146% | 90% |
| **Other** | 328% | 259% | 160% |

***Figure 27:*** *Infill Development Affordability by Housing Type. Source: Fairfax County Open Data and Redfin Sales Data*

We performed an additional analysis to determine per-unit prices for new homes if zoning were amended to allow for gentle increases in density via three-unit townhomes or small six-unit condo buildings. Gentle density refers to the missing middle between mid-rise apartments and detached, single-family homes. The average sales price of newly constructed (between 2018 and 2021) townhomes within the study area was over $800,000. While this price is still unaffordable for most households, new townhouse units are 21 percent more affordable than single family homes. As there were no condo units constructed in the study area within the past 3 years, we used an example condo development just outside the study area as a price proxy.[65] Based on the price-per-square foot of this development, we obtained a price of slightly over $500,000 for a newly constructed 1,000 square foot, two-bedroom unit. This price is affordable to households making under 100 percent of DC metro AMI and is 51 percent more affordable than a single-family home.

Based on this analysis, we recommend that Fairfax County modify the single-family residential zones in the study area to allow for the creation of more affordable homeownership options. The city of Portland, Oregon has recently adopted a Residential Infill Project, which can serve as an example for Fairfax County. The Portland City Council, in adopting this program, recognized that "expanding the kinds of housing choices that are available in our residential neighborhoods is an important step to give more people the opportunity to live close to schools, parks, and jobs at a variety of price points."[66]

The market-rate condo and townhome prices, while more affordable than a single-family home, are still out of reach for households earning less than 90 percent of AMI, and this gap is even larger for Black and Hispanic households, as their median incomes are lower than those of the region as a whole. For this reason, we recommend that the infill program allow for density bonuses in return for the provision of income-restricted units. For example, in Portland, infill of up to four units is allowed by right, with a density bonus of up to six units when half of those units are affordable to households earning up to 60 percent of AMI.[67] Fairfax County could adopt a similar policy, with affordability thresholds that suit local conditions.

***Areas for Further Exploration:*** In addition to reassessing the number of residential units allowed in areas currently zoned as single-family, the county should also consider regulations such as setback requirements and parking minimums that might preclude infill development.

### Recommendation 2: Allow the Development of Multi-Family Housing Along the Route 7 Commercial Corridor

In addition to allowing for gentle density, infill development in the single-family zoned areas, the commercial corridor surrounding Route 7 provides an opportunity to increase the housing supply via multi-family development. Converting these areas, currently zoned for commercial uses, to mixed use could allow for the creation of hundreds of new homes, with a mix of both income-restricted and market-rate units.

[65] "1118 South Highland St #1, Arlington, VA 22204 - 2 Beds/1 Bath," Redfin, accessed April 15, 2021, https://www.redfin.com/VA/Arlington/1118-S-Highland-St-22204/unit-1/home/174506199.
[66] "About the Residential Infill Project," Portland.gov, accessed April 15, 2021, https://www.portland.gov/bps/rip/about-project.
[67] Ibid.

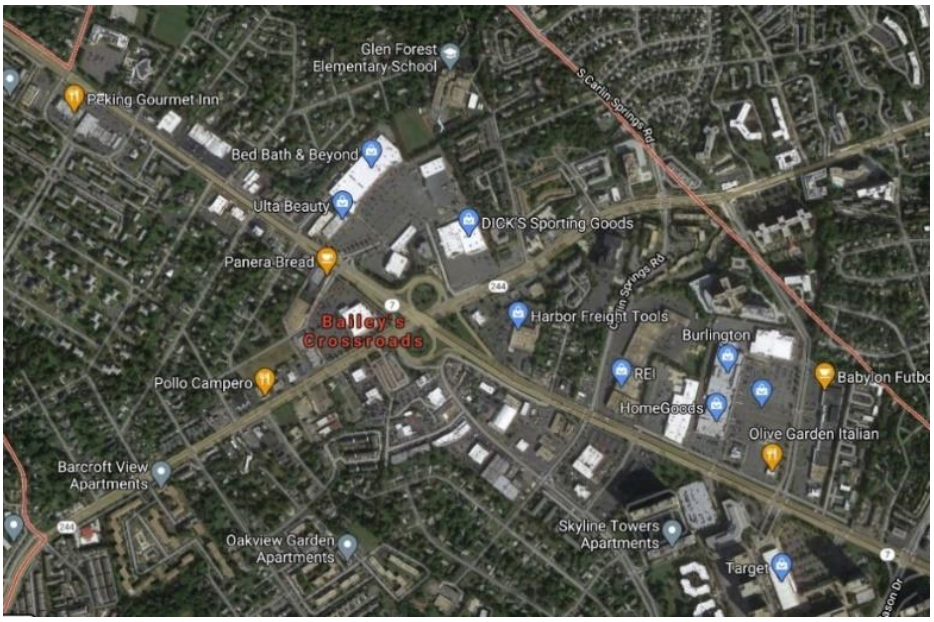



***Figure 28:*** *Route 7 Commercial Corridor. Source: Google Maps*

Currently, the corridor is comprised primarily of commercial developments surrounded by surface parking (see *figure 28*). A 2019 study commissioned by Fairfax County found that only 65 percent of shopping mall parking spots were utilized during the peak holiday season, with average utilization falling well below 50 percent.[68] Given the abundance of surface parking in the area, some of this land could be re-zoned to allow for multi-family residential development.

This type of development has been successfully implemented throughout the region. One example can be found in Arlington in a location along Columbia Pike, just outside the study area. The before and after image below shows how this 36-unit residential development was constructed along the commercial corridor (see *figure 29*). This particular development was constructed on an empty, grass-filled lot rather than on a surface parking lot, but it illustrates the type of residential development along commercial corridors with underutilized space. Another multi-family mixed-use development is planned for the Graham Park Place shopping center on Route 50, also just outside the study area. This project will result in 177 townhomes with 12.5 percent of units categorized as income-restricted.[69] This has the added benefit of adding new customers within walking distance of existing retail and commercial space, potentially boosting economic viability and the resulting tax revenue for Fairfax County.

[68] "Fairfax County Discusses Plans to Repurpose Unused Parking Spaces at Shopping Malls," wusa9.com, accessed April 15, 2021, https://www.wusa9.com/article/news/local/virginia/fairfax-county-discusses-unused-parking-spots/65-d221ffb8-c72f-4d07-9560-4ad3e2eee465.

[69] "Developer Plans to Break Ground on Townhomes at Falls Church Shopping Center This Spring," Tysons Reporter (blog), March 24, 2021, https://www.tysonsreporter.com/2021/03/24/eya-to-break-ground-on-falls-church-graham-park-plaza-townhomes/.


***Figure 29:*** *Example Multi-Family Development on a Commercial Corridor. Source: Google Maps*

To calculate the amount of potential housing that could be created under this policy, we used Fairfax County tax assessment data to determine the amount of commercially zoned area within the study area. We then created a sensitivity analysis assuming a range of possible commercial to multi-use redevelopment (from 5 percent to 25 percent of existing commercial square feet). According to the Fairfax County Ordinance, under R-30 zoning (30 residential units per acre) developers may receive either a 10 percent or a 20 percent density bonus if they set aside 6.25 percent or 12.5 percent of total units as income-restricted, respectively. Given these inputs, we calculated the total number of possible units that could be created under this policy (see *figure 30*). For the list of inputs and assumptions used to calculate the number of housing units created, please see **Appendix 15**.

| **Assume % of Commerical Space Redeveloped as Residential** | 5% | 10% | 15% | 20% | 25% |
|---|---|---|---|---|---|
| Redeveloped Area (sq ft.) | 622,913.90 | 1,245,827.80 | 1,868,741.70 | 2,491,655.60 | 3,114,569.50 |
| Redeveloped Area (acres) | 14.30 | 28.60 | 42.90 | 57.20 | 71.50 |
| R-30 with 10% Bonus Total Units | **472** | **944** | **1,416** | **1,888** | **2,360** |
| Income-Restricted Units with 10% Bonus | ***29*** | ***59*** | ***88*** | ***118*** | ***147*** |
| R-30 with 20% Bonus Total Units | **515** | **1,030** | **1,544** | **2,059** | **2,574** |
| Income-Restricted Units with 20% Bonus | ***64*** | ***129*** | ***193*** | ***257*** | ***322*** |
| Parking Spots 10% Bonus: Current Req. | 755 | 1,510 | 2,265 | 3,020 | 3,775 |
| Parking Spots 10% Bonus: Low Req. | 472 | 944 | 1,416 | 1,888 | 2,360 |
| Parking Spots 20% Bonus: Current Req. | 824 | 1,647 | 2,471 | 3,295 | 4,118 |
| Parking Spots 20% Bonus: Low Req. | 515 | 1,030 | 1,544 | 2,059 | 2,574 |

***Figure 30:*** Commercial-to-Residential Redevelopment, Housing Units Created. Source: Fairfax County Open Data and Fairfax County Zoning Ordinance

If developers utilize the 20 percent density bonus, it is possible to create 515 to 2,574 new housing units, and of these, 64 to 322 would be income-restricted under existing incentives. Fairfax County could also consider increasing the density bonus in exchange for an increased number of income-restricted units.

Under existing requirements, multi-family residential developments require 1.6 parking spaces per unit. In the 20 percent density bonus scenario above, this would necessitate the construction of 824 to 4,118 parking spaces. As a BRT route has been proposed along this corridor, the county should consider lowering these parking requirements. If the requirements were reduced to one space per unit, the number of spaces would drop to 515 to 2,574 spots, lowering development costs and increasing the number of income-restricted units that could be constructed.

Using the same assumptions as recommendation one, we calculated the market price of a 1,000 square foot, two-bedroom condo to be just over $500,000. This price is affordable to households making 95 percent of AMI or above, however, this purchase price is only affordable above 140 percent of the median income for Black and Hispanic households in the region (see *figure 31*).

| **Average Market Rate 2 BD Unit** | 502,074 |
|---|---|
| | *% of AMI at which market rate unit is affordable* |
| **DC Metro Total** | 95% |
| **White Alone** | 84% |
| **Black** | 145% |
| **Hispanic** | 140% |
| **Asian** | 90% |
| **Other** | 160% |

***Figure 31:*** Affordability of Market-Rate Multi-Family Units.

Using Fairfax County's WDU program as an affordability proxy, 6.25 percent to 12.5 percent of the housing units created would be set aside for households making between $68,050 and $136,100.[70] This represents 59 percent to 118 percent of AMI. These thresholds reach a wide range of White and Asian homebuyers, but only reach Black and Hispanic households earning more than 87 percent and 85 percent of AMI, respectively (see *figure 32*). Fairfax County should consider either reassessing the ADU/WDU income requirements to reflect the racial disparities in AMI, or target demand-side homebuyer assistance and education programs to reach these households. It is important to note that homeownership may not be financially sustainable for all low-income households.

[70] "Privately Owned Affordable and Workforce Dwelling Units (ADUs and WDUs) | Housing and Community Development," accessed April 15, 2021, https://www.fairfaxcounty.gov/housing/rentalhousing/adu-and-wdu.

| | Min. | Max. |
|---|---|---|
| **WDU Income Requirements** | $ 68,050 | $ 136,100 |
| *AMI Percentage by Race that Meets Qualification* | | |
| **DC Metro Total** | 59% | 118% |
| **White Alone** | 53% | 105% |
| **Black** | 87% | 175% |
| **Hispanic** | 85% | 169% |
| **Asian** | 56% | 112% |
| **Other** | 96% | 191% |

***Figure 32:*** Affordability of WDU Multi-Family Units. Source: WDU Income requirements from Fairfax County

***Areas for Further Exploration:*** The scope of this report focuses on creating affordable homeownership opportunities. Under current conditions, it is likely that the commercial to mixed-use rezoning will primarily result in rental units as opposed to ownership units. Fairfax County may wish to consider additional incentives to facilitate the development of affordable homeownership in addition to rental units.

## Demand-Side Recommendations

According to our analysis, demand for affordable housing is hindered by equity-related barriers to obtaining financing resources. The following recommendations seek to expand county and state-wide programs to address these barriers.

### Recommendation 3: Expand Programming and Eligibility of the First-Time Homebuyer Program by Partnering with Local Non-Profits.

As discussed in the aforementioned demographic analysis, the population that makes up the Bailey Crossroads and Seven Corners area has a relatively high number of:

- non-White households,
- residents who have not graduated high school,
- limited English speaking households, and
- rent-burdened households.

Our study area also has a relatively low AMI compared to neighboring areas, and non-White households have even lower median incomes. An Urban Institute study found that households with relatively low incomes are more likely to experience financial distress. [71] Furthermore, according to an August 2020 U.S. Financial Pulse trends report, only 15 percent of Black persons and 24 percent of Latinx persons

[71] Steven Brown and Breno Braga, "Financial Distress among American Families: Evidence from the Well-Being and Basic Needs Survey," Urban Institute, 2019, https://www.urban.org/research/publication/financial-distress-among-american-families-evidence-well-being-and-basic-needs-survey/view/full_report

were financially healthy compared to 39 percent of White persons.[72] Given this disparity and our study area's demographic makeup, Fairfax County should tailor programming to support asset building for disproportionately impacted households in an effort to set the foundation for homeownership and financial stability.

In order to be eligible for the benefits made available under the Fairfax County First-Time Homebuyers (FTHB) program, a household must fulfill financial stability markers including: having a credit score higher than 620, and enough savings to cover a 3 percent down payment, closing costs, and a financial cushion.[73] While the FTHB program's income threshold encompasses area median income for the non-White population in the study area, the program is not currently designed to aid families in becoming ready to own a home. Instead, the program is designed to guide families that are already financially stable into the homebuying market.

To fill this gap, we recommend that the county restructure the FTHB program to include asset building programming. Furthermore, to ensure the asset building services are accessible to vulnerable households, the research team recommends waiving the FTHB program credit score and savings requirements. Acknowledging that HUD sponsors housing counseling agencies throughout the state of Virginia, we recommend Fairfax County partner with local non-profits to fund and promote asset building education. Local non-profits including Centro De Apoyo Familiar - Center For Assistance Families, Money Management International, and Latino Economic Development Corporation Brand provide pre-purchase homebuyer education, counseling, and workshops.[74] These educational tools include:

- understanding how to manage and repay credit card debt,
- balancing income and expenses,
- understanding credit reports, and
- managing student loans.

This initiative would support the financial stability of study area households. Although only a fraction of those households would become first-time homebuyers in the short term, this initiative sets the ground for long-term financial stability, which could transition into homeownership. According to the HUD Office of Policy Development and Research, research shows that individuals that undergo a pre-purchase homebuyer education and counseling (HEC) are more likely to avoid delinquency or defaults. A 2013 nation-wide study consisting of nearly 75,000 individuals who obtained a homeownership loan found that individuals who underwent prepurchase HEC (many of which via non-profit services) "were

[72] "U.S. Financial Health Pulse: 2020 Trends Report," Financial Health Network (2020), https://s3.amazonaws.com/cfsi-innovation-files-2018/wp-content/uploads/2020/10/26135655/2020PulseTrendsReport-Final-1016201.pdf

[73] Virginia Housing, "Down Payment Assistance Grant," Accessed April 1, 2021, https://www.vhda.com/Homebuyers/Pages/DownPayment.aspx.https://www.fairfaxcounty.gov/housing/sites/housing/files/assets/documents/homeownership/brochures/english.pdf

[74] U.S. Department of Housing and Urban Development, "HUD Approved Housing Counseling Agencies," April 2021, https://apps.hud.gov/offices/hsg/sfh/hcc/hcs.cfm?&webListAction=search&searchstate=VA#searchArea

one-third less likely to become 90 or more days delinquent during the 2 years after they obtained their loans."[75]

In conclusion, the research team believes a coordinated effort between Fairfax County and local non-profits to deliver HEC services will support financial stability in the Bailey's Crossroads and Seven Corners area and increase long-term demand for affordable housing in the area.

***Areas for Further Exploration:*** The scope of this report focuses on understanding disparities and affordability gaps to contextualize the demand of affordable homeownership. However, Fairfax County should also consider financial distress indicators including short sales and foreclosures, which could provide insight on additional programming and/or resources that could be beneficial to maintaining affordable homeownership opportunities.

### Recommendation 4: Expand Access to Down Payment Assistance and Home Loans by Relaxing Income and Debt Requirements that Disproportionately Affect Non-White Households

In conjunction with expanded homebuyer education, better access to down payment assistance and home loans will ensure that families can overcome barriers to homeownership. Down payments can be a roadblock for otherwise income-ready potential homebuyers and can be especially difficult for families of color to obtain, as they often do not have generational wealth to draw on to cover the down payment as many White families do.[76] Through Virginia Housing (VH), potential homebuyers can qualify for a down payment assistance grant (DPA) of up 2.5 percent of the home purchase price, and home loans with low interest rates, if they meet certain requirements.[77] The DPA is fully forgivable at the time of closing, providing families with essential equity in their home. In addition, the DPA is found to be unrelated to default risk, making it an important resource for borrowers and lenders alike.[78] The income requirements for this program encompass all demographic groups in the study area at 100 percent AMI, allowing families of all demographics access to this important resource.

*Figure 33* and *figure 34* provide a recalculated time-to-save when assuming a 3.5 percent down payment on an FHA mortgage and a 2.5 percent DPA, meaning households only need to save for a 1 percent down payment. As shown above, the DPA significantly reduces the time-to-save for families of all demographics in both the study area and the DC metro area. The DPA reduces the time-to-save by an average of 5.96 years for all demographics at 100 percent DC metro AMI and 9.84 years for all

[75] Office of Policy Development and Research, "Evidence Matters: Transforming Knowledge Into Housing and Community Development Policy," Housing and Urban Development User, Spring 2016, https://www.huduser.gov/portal/periodicals/em/spring16/highlight2.html

[76] "Paths to Homeownership for Low-Income and Minority Households," Paths to Homeownership for Low-Income and Minority Households | HUD USER, accessed April 14, 2021, https://www.huduser.gov/portal/periodicals/em/fall12/highlight1.html.

[77] "Homebuyer Programs," Virginia Housing, accessed April 14, 2021, https://www.vhda.com/Homebuyers/VHDAHomeLoans/Pages/VHDAHomeLoans.aspx.

[78] Michael A. Stegman, Sarah F. Riley, and Roberto G. Quercia, "How the Presence and Type of Down Payment Assistance Affects the Performance of Affordable Mortgage Loans" (Federal Reserve Bank of St. Louis, October 2019), pg. 13 https://www.stlouisfed.org/~/media/files/pdfs/hfs/assets/2019/stegman_cautionarytalepresenceandtypeofdownpayment_workingpaper_100719.pdf?la=en.

demographics at 100 percent of study area AMI. The DPA is especially beneficial for families of the color in the corridor, as the DPA would reduce their time-to-save by almost 11 years.

**DC Metro**

| | Years to Save (1% Down, Fee Simple) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| **Race** | **70%** | **80%** | **90%** | **100%** |
| **MSA Total** | 2.66 | 2.33 | 2.07 | 1.87 |
| **White Alone** | 2.38 | 2.08 | 1.85 | 1.66 |
| **Black** | 3.96 | 3.46 | 3.08 | 2.77 |
| **Hispanic** | 3.83 | 3.35 | 2.98 | 2.68 |
| **Asian** | 2.53 | 2.22 | 1.97 | 1.77 |
| **Other** | 4.33 | 3.79 | 3.37 | 3.03 |

| | Years to Save (1% Down, Condo) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| **Race** | **70%** | **80%** | **90%** | **100%** |
| **MSA Total** | 1.16 | 1.02 | 0.90 | 0.81 |
| **White Alone** | 1.04 | 0.91 | 0.81 | 0.73 |
| **Black** | 1.73 | 1.51 | 1.34 | 1.21 |
| **Hispanic** | 1.67 | 1.46 | 1.30 | 1.17 |
| **Asian** | 1.11 | 0.97 | 0.86 | 0.77 |
| **Other** | 1.89 | 1.65 | 1.47 | 1.32 |

***Figure 33:*** *Time-to-Save for a 1 percent Down Payment in Years (DC Metro)*

**Study Area**

| Years to Save (1% Down, Fee Simple) | |
|---|---|
| **Household Race 100% Study Area AMI** | |
| **White Alone** | 2.15 |
| **Black** | 3.69 |
| **Hispanic** | 4.92 |
| **Asian** | 2.81 |
| **Other** | 6.11 |

| Years to Save (1% Down, Condo) | |
|---|---|
| **Household Race 100% Study Area AMI** | |
| **White Alone** | 0.94 |
| **Black** | 1.61 |
| **Hispanic** | 2.14 |
| **Asian** | 1.23 |
| **Other** | 2.67 |

***Figure 34:*** *Time-to-Save for a 1 percent Down Payment in Years (Study Area)*

In setting guidelines around down payment assistance, VH should work to provide as many opportunities to aspiring home buyers of color as possible. To achieve this, we recommend VH consider providing guidance to its lenders on how to treat non-traditional sources of income. Non-traditional sources of income and credit, including consistent sources of "gig" economy income, rental income and rental payments, consistent payments on utilities, child/alimony support, student loans or other non-traditional loans, should be prioritized when making lending and DPA decisions. Families of color and immigrant families are more likely to have access to non-traditional sources of credit and earn non-traditional sources of income.[79] Many times, positive payments to non-traditional creditors have no impact on a person's credit score, and borrowers using these services are not seeing the benefits of their consistent payments.[80] This can create additional barriers for aspiring homeowners of color as they seek favorable loan terms and down payment assistance.

As a result, we recommend that VH consider requiring lenders to give equal weight to traditional credit scores, and non-traditional sources of income and credit as a part of the lending and DPA decision. In addition, we recommend VH consider providing guidance to its lenders encourage payment sharing between lenders and borrowers, with borrowers' permission, as a way to proactively establish a positive

[79] Lisa Rice, "Missing Credit: How the U.S. Credit System Restricts Consumers of Color." (House Financial Services Committee, February 26, 2019), pg. https://financialservices.house.gov/uploadedfiles/hhrg-116-ba00-wstate-ricel-20190226.pdf.

[80] Ibid.

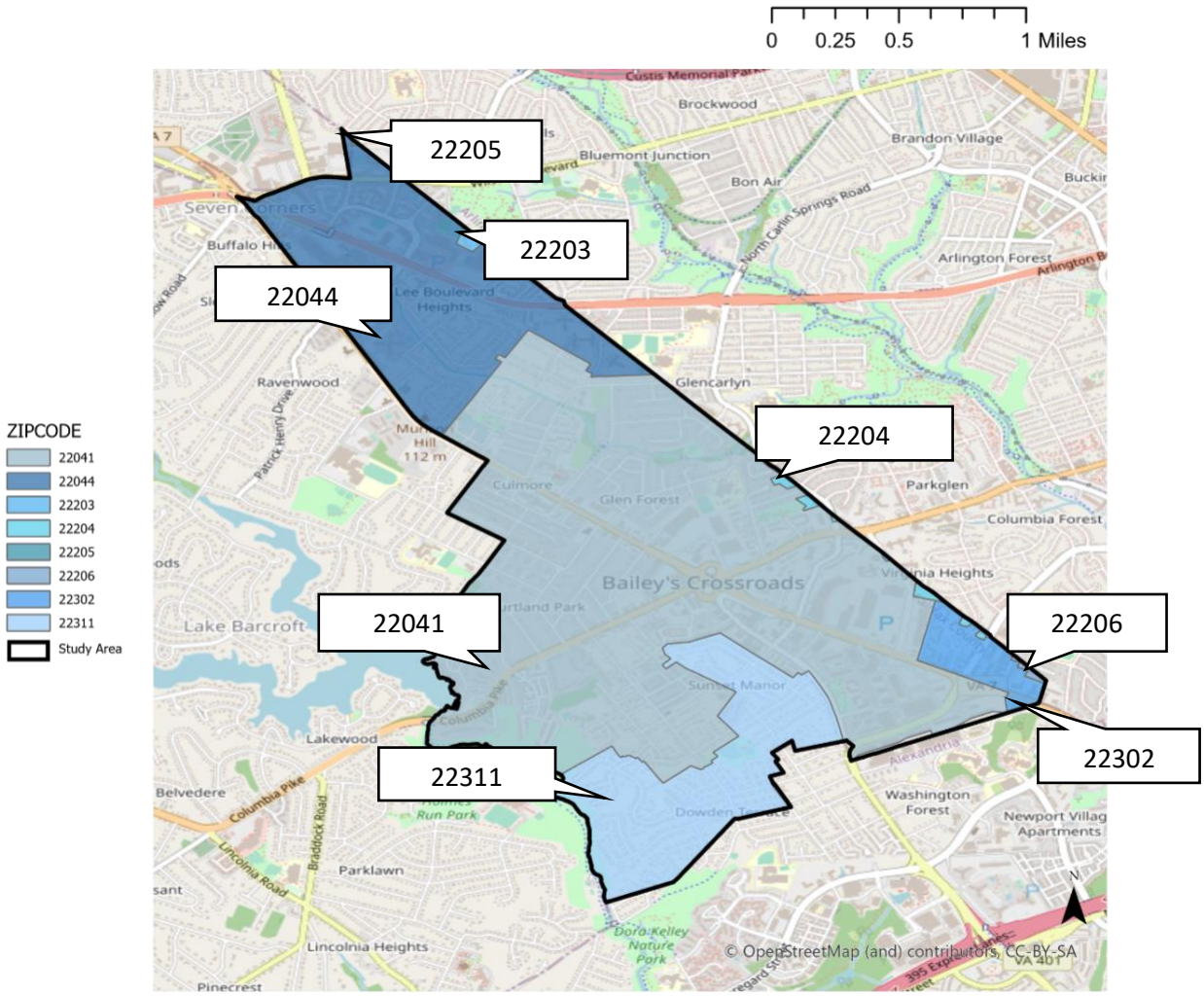
credit history. This will ensure that families of color have equitable access to VH's essential homeownership resources and assistance.

## Conclusion

Bailey's Crossroads and Seven Corners remains a diverse and relatively affordable community that risks losing that affordability. Specifically, our analysis shows that non-White households disproportionately risk being shut out of the homebuying market. At the county level, our recommendations target increasing the supply of affordable homes by eliminating restrictive zoning and increasing the demand for homeownership in an equitable way by building financial stability through education and counseling. At the state level, we recommend relaxing income and debt requirements to enable equitable access to down payment assistance and home loans. The study area provides an opportunity for Fairfax County and the state of Virginia to realize a vision of equitable homeownership.

# Appendix

## Appendix 1: Study Area Map with Zip Codes



## Appendix 2: Population Change and Population Change by Race

*Population Percent Change derived from U.S. Census Bureau American Community Survey data*

| Geographic Area | 2010_Population | 2019_Population | Percent Change |
|---|---|---|---|
| Arlington County, Virginia | 197467 | 233464 | 15.42% |
| Fairfax County, Virginia | 1048554 | 1145862 | 8.49% |
| Alexandria city, Virginia | 133647 | 157613 | 15.21% |
| Study Area | 29833 | 33447 | 10.81% |

*Population Percent Change by Race derived from U.S. Census Bureau American Community Survey data*

| | White Alone | Black Alone | AmericanIndian and Alaska Native Alone | Asian Alone | Native Hawaiian and Other Pacific Islander Alone | Some other race Alone | Two or More Races Alone | Hispanic |
|---|---|---|---|---|---|---|---|---|
| City of Alexandria, Virginia | -2.93% | -0.16% | -0.17% | -0.05% | -0.13% | -0.02% | 1.78% | 1.68% |
| Arlington County, Virginia | -2.35% | 0.44% | 0.03% | 0.78% | 0.05% | -0.53% | 0.87% | 0.71% |
| Fairfax County, Virginia | -5.63% | 0.67% | -0.06% | 1.82% | -0.02% | -0.06% | 1.53% | 1.74% |
| Study Area | -1.36% | 1.02% | -0.22% | 0.03% | -0.10% | -0.43% | 2.27% | -1.22% |

## Appendix 3: Median Income by Race

*Analysis of Median Income by Race using 2019 (5-yr estimates) U.S. Census Bureau American Community Survey Data**

| Census Tract | Household Median income (dollars) | Hispanic or Latino origin (of any race) Households | White alone, not Hispanic or Latino | Black or African American Households | American Indian and Alaska Native Households | Asian Households | Native Hawaiian and Other Pacific Islander Households | Some other race Households | Two or more races Households |
|---|---|---|---|---|---|---|---|---|---|
| 4514 | 43,774 | 38,571 | 64,952 | 0 | 0 | 20,556 | 0 | 37,929 | 0 |
| 4515.01 | 66,932 | 32,537 | 85,405 | 65,284 | 0 | 85,398 | 0 | 0 | 0 |
| 4515.02 | 75,873 | 66,389 | 97,303 | 65,795 | 0 | 72,679 | 0 | 70,893 | 86,806 |
| 4516.01 | 49,544 | 39,069 | 49,803 | 75,625 | 0 | 86,688 | 0 | 27,469 | 0 |
| 4527 | 56,500 | 39,276 | 109,489 | 34,421 | 0 | 73,125 | 0 | 31,513 | 121,364 |
| 4528.01 | 77,244 | 64,129 | 84,844 | 79,097 | 0 | 100,987 | 0 | 0 | 0 |
| 4528.02 | 71,227 | 89,231 | 81,458 | 56,223 | 0 | 0 | 0 | 0 | 59,531 |

| Census Tract | Total Population | Hispanic or Latino origin (of any race) Households_Population | White alone, not Hispanic or Latino_ Population | Black or African American Households_Population | American Indian and Alaska Native Households_Population | Asian Households_Population | Native Hawaiian and Other Pacific Islander Households_Population | Some other race Households_Population | Two or more races Households_Population |
|---|---|---|---|---|---|---|---|---|---|
| 4514 | 3159 | 1708 | 836 | 110 | 0 | 500 | 0 | 1090 | 32 |
| 4515.01 | 5572 | 1626 | 2155 | 373 | 4 | 1224 | 0 | 529 | 222 |
| 4515.02 | 5154 | 1618 | 2005 | 583 | 8 | 809 | 0 | 700 | 155 |
| 4516.01 | 5801 | 4464 | 644 | 94 | 0 | 465 | 0 | 2993 | 46 |
| 4527 | 5510 | 1853 | 1264 | 1434 | 0 | 882 | 0 | 1198 | 187 |
| 4528.01 | 5235 | 344 | 2239 | 1361 | 12 | 796 | 0 | 77 | 511 |
| 4528.02 | 3016 | 300 | 1486 | 879 | 0 | 215 | 0 | 0 | 151 |
| Sum | 33447 | 11913 | 9143 | 4724 | 24 | 4676 | 0 | 5981 | 493 |
| | | | | | | | | | |
| Weighted Average | $ 63,389.52 | $ 43,835.64 | $ 100,067.78 | $ 58,477.76 | $ - | $ 76,731.03 | $ - | $ 35,267.51 | $ 91,560.20 |

**Note: The research team elected to exclude the calculated median incomes for two or more race households from the report due to the low number of reported median incomes for this race category. Furthermore, to calculate the median income by race we took the weighted average using the reported income by race per census tract and the population by race per census tract.*

## Appendix 4: Renter and Homeowner Median Income

### *Analysis of Renter and Owner Median Income using 2019 (5-yr estimates) Household Data Derived from Policy Map*

| Census Tract | Census Tract Name | Estimated number of renters, between 2015-2019. | Median income_ renter occupied households | Estimated number of homeowners, between 2015-2019. | Median income_ owner occupied households |
|---|---|---|---|---|---|
| 51059451502, VA | Census Tract 4515.02 | 1,427 | 66380 | 520 | 167727 |
| 51059452700, VA | Census Tract 4527 | 1,020 | 33523 | 898 | 119375 |
| 51059451501, VA | Census Tract 4515.01 | 1,076 | 34651 | 1200 | 98077 |
| 51059452801, VA | Census Tract 4528.01 | 1,537 | 65821 | 939 | 97102 |
| 51059451601, VA | Census Tract 4516.01 | 1,353 | 47137 | 184 | 133600 |
| 51059451400, VA | Census Tract 4514 | 983 | 39464 | 179 | 146313 |
| 51059452802, VA | Census Tract 4528.02 | 447 | 61477 | 1100 | 74397 |
| Methodology for Row 10 | | SUM(C2:C8) | SUMPRODUCT(C2:C8,D2:D8)/C10 (i.e. Weighted Average) | SUM(E2:E8) | SUMPRODUCT(E2:E8,F2:F8)/E10 ((i.e. Weighted Average) |
| Total Study Area | | 7,843 | $ 50,671.78 | 5020 | $ 106,752.41 |
| | | | | | |
| | | | | | |
| Source: Policy Map *Years 2015-2019* | | | | | |

## Appendix 5: Renter Burden

### *Analysis of Renter Burden using 2019 U.S. Census Bureau American Community Survey Data*

| Label | Census Tract 4514 | Census Tract 4515.01 | Census Tract 4515.02 | Census Tract 4516.01 | Census Tract 4527 | Census Tract 4528.01 | Census Tract 4528.02 | Study Area Total |
|---|---|---|---|---|---|---|---|---|
| Total: | 983 | 1,076 | 1,427 | 1,353 | 1,020 | 1,537 | 447 | 7843 |
| Less than 10.0 percent | 22 | 63 | 98 | 58 | 20 | 127 | 0 | 388 |
| 10.0 to 14.9 percent | 53 | 109 | 90 | 51 | 27 | 53 | 11 | 394 |
| 15.0 to 19.9 percent | 92 | 35 | 121 | 158 | 165 | 128 | 71 | 770 |
| 20.0 to 24.9 percent | 69 | 48 | 103 | 44 | 112 | 250 | 55 | 681 |
| 25.0 to 29.9 percent | 144 | 172 | 261 | 92 | 64 | 231 | 38 | 1002 |
| 30.0 to 34.9 percent | 93 | 37 | 66 | 144 | 129 | 13 | 18 | 500 |
| 35.0 to 39.9 percent | 53 | 166 | 99 | 99 | 27 | 14 | 25 | 483 |
| 40.0 to 49.9 percent | 149 | 29 | 147 | 95 | 70 | 111 | 37 | 638 |
| Severally Cost Burdened (50% or more) | 273 | 399 | 375 | 552 | 406 | 540 | 132 | 2677 |
| Percent Severly Burdened | 27.8% | 37.1% | 26.3% | 40.8% | 39.8% | 35.1% | 29.5% | 34.1% |
| Cost Burdened | 568 | 631 | 687 | 890 | 632 | 678 | 212 | 4298 |
| Percent Cost Burdened | 57.8% | 58.6% | 48.1% | 65.8% | 62.0% | 44.1% | 47.4% | 54.8% |

## Appendix 6: Methodology for Calculating Estimated Sales Price:

To calculate the estimated sales price of each home in our study area, we first analyzed the recent sales price of homes for the years 2020 and 2019. We compared the recent sales price to the appraised value of the home to create a ratio of appraised value to sales price. Based on this analysis we determined that the average ratio for recent sales price to appraised value is 18 percent. We then applied this ratio to the appraised value for all homes, to create an estimated sales price of each home. We used this as a proxy to determine what the likely sales price of the home would be if it were to come onto the market. The estimated sales price was calculated for all ownership parcels: condos, townhomes, and single-family homes.

### *Affordability by Location and Housing Type*

| | Number of Affordable Condos | Percent of Condos that are affordable | Number of Single-Family Homes | Percent of Single-Family Homes that are Affordable | Number of Townhomes | Percent of Townhomes that are Affordable |
|---|---|---|---|---|---|---|
| Census Tract 4514 | 244 | 100.0% | 0 | N/A | 4 | 2.9% |
| Census Tract 4515.01 | 1327 | 100.0% | 117 | 31.0% | 74 | 76.3% |
| Census Tract 4515.02 | 58 | 100.0% | 32 | 10.6% | 2 | 0.8% |
| Census Tract 4516.01 | 0 | N/A | 52 | 21.4% | 0 | N/A |
| Census Tract 4527 | 665 | 99.8% | 70 | 23.3% | 26 | 8.4% |
| Census Tract 4528.01 | 1086 | 98.5% | 16 | 4.0% | 0 | N/A |
| Census Tract 4528.02 | 1492 | 100.0% | 0 | N/A | 0 | N/A |

## Appendix 7: Affordability Model Cost Inputs

| **Inputs** | |
|---|---|
| Conventional Mortgage Rate | 3.08%[81] |
| FHA Mortgage Rate | 3.00%[82] |
| Mortgage Term (Years) | 30 |
| Down Payment (Conventional) | 20.0% |
| Down Payment (FHA) | 3.5%[83] |
| Current Tax Rate | 1.14%[84] |
| Insurance | $1,745[85] |
| Max. Housing Ratio (Total Housing Costs/Gross Income) | 30%[86] |
| Average Condo Fee (Monthly) (See Inputs Below) | $629.00 |
| Average Annual Maintenance Costs (Percent of Home Value) | 1%[87] |
| Average Annual Maintenance Costs (Percent of Condo Value) | 0.5%[88] |
| Mortgage Insurance Premium (FHA) | 0.85%[89] |
| Upfront Mortgage Insurance Premium (UFMIP) | 1.75%[90] |
| *Study Area Condo Fee Inputs* | |
| Name | 2 Bd. Condo Fee |
| SkyLine Square | $554.00[91] |
| Woodlake Towers | $704.00[92] |

[81] "Mortgage Applications Decrease in Latest MBA Weekly Survey | Mortgage Bankers Association," accessed April 10, 2021, https://www.mba.org/2021-press-releases/february/mortgage-applications-decrease-in-latest-mba-weekly-survey-x277429.
[82] Ibid.
[83] "Loans | HUD.Gov / U.S. Department of Housing and Urban Development (HUD)," accessed April 10, 2021, https://www.hud.gov/buying/loans.
[84] "Real Estate Tax Rates | Tax Administration," accessed April 10, 2021, https://www.fairfaxcounty.gov/taxes/real-estate/tax-rates.
[85] "Average Homeowners Insurance Rates by State," Insurance.com, accessed April 10, 2021, https://www.insurance.com/home-and-renters-insurance/home-insurance-basics/average-homeowners-insurance-rates-by-state.
[86] "Rental Burdens: Rethinking Affordability Measures | HUD USER," accessed April 10, 2021, https://www.huduser.gov/portal/pdredge/pdr_edge_featd_article_092214.html.
[87] "How Much Should You Budget for Home Repairs? | Discover," accessed April 10, 2021, https://www.discover.com/online-banking/banking-topics/how-much-should-you-budget-for-home-repairs/.
[88] Assumes 50 percent of maintenance costs relate to interior issues and that condo fees will cover exterior maintenance.
[89] "Mortgage Insurance Premiums," U.S. Department of Housing and Urban Development (HUD), accessed April 10, 2021, https://www.hud.gov/sites/documents/15-01MLATCH.PDF.
[90] Ibid.
[91] "5505 Seminary Rd APT 1204N, Falls Church, VA 22041 | MLS #VAFX1178602 | Zillow," accessed March 14, 2021, https://www.zillow.com/homedetails/5505-Seminary-Rd-APT-1204N-Falls-Church-VA-22041/246582530_zpid/.
[92] Zillow Inc, "3100 S Manchester St APT 305, Falls Church, VA 22044 | MLS #VAFX1171578," Zillow, accessed March 14, 2021, https://www.zillow.com/homedetails/3100-S-Manchester-St-APT-305-Falls-Church-VA-22044/51820170_zpid/.

## Appendix 8: Affordability Gap Disaggregated by Race, DC Metro

**Results from Housing Affordability Model**

| Race | Maximum Home Price (Conventional, Fee Simple) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| | 70% | 80% | 90% | 100% |
| DC Metro Total | $361,506.34 | $417,149.87 | $472,793.40 | $528,436.93 |
| White Alone | $408,849.90 | $471,252.21 | $533,670.57 | $596,072.87 |
| Black | $234,325.72 | $271,796.00 | $309,282.34 | $346,752.62 |
| Hispanic | $242,882.56 | $281,572.95 | $320,279.40 | $358,969.79 |
| Asian | $381,686.35 | $440,219.62 | $498,752.89 | $557,286.16 |
| Other | $211,609.16 | $245,836.51 | $280,079.92 | $314,307.27 |

| Race | Maximum Home Price (Conventional, Condo) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| | 70% | 80% | 90% | 100% |
| DC Metro Total | $261,305.05 | $321,804.94 | $382,304.82 | $442,804.71 |
| White Alone | $312,780.57 | $380,629.12 | $448,495.12 | $516,343.67 |
| Black | $123,024.58 | $163,765.13 | $204,523.13 | $245,263.68 |
| Hispanic | $132,328.23 | $174,395.37 | $216,479.97 | $258,547.12 |
| Asian | $283,246.30 | $346,888.13 | $410,529.96 | $474,171.79 |
| Other | $ 98,325.41 | $135,539.99 | $172,772.04 | $209,986.62 |

| Race | Maximum Home Price (FHA, Fee Simple) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| | 70% | 80% | 90% | 100% |
| DC Metro Total | $286,103.78 | $330,141.25 | $374,178.72 | $418,216.19 |
| White Alone | $243,115.51 | $295,852.27 | $348,602.59 | $401,339.35 |
| Black | $ 95,623.53 | $127,290.01 | $158,970.05 | $190,636.53 |
| Hispanic | $102,855.00 | $135,552.60 | $168,263.77 | $200,961.38 |
| Asian | $220,159.35 | $269,626.35 | $319,093.34 | $368,560.34 |
| Other | $ 76,425.56 | $105,351.41 | $134,290.83 | $163,216.67 |

| Race | Maximum Home Price (FHA, Condo) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| | 70% | 80% | 90% | 100% |
| DC Metro Total | $203,105.04 | $250,129.89 | $297,154.74 | $344,179.60 |
| White Alone | $243,115.51 | $295,852.27 | $348,602.59 | $401,339.35 |
| Black | $ 95,623.53 | $127,290.01 | $158,970.05 | $190,636.53 |
| Hispanic | $102,855.00 | $135,552.60 | $168,263.77 | $200,961.38 |
| Asian | $220,159.35 | $269,626.35 | $319,093.34 | $368,560.34 |
| Other | $ 76,425.56 | $105,351.41 | $134,290.83 | $163,216.67 |

**Affordability Gap**

| Race | Affordability Gap (Conventional, Fee Simple) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| | 70% | 80% | 90% | 100% |
| DC Metro Total | $(273,983.81) | $(218,340.28) | $(162,696.75) | $(107,053.22) |
| White Alone | $(226,640.25) | $(164,237.94) | $(101,819.58) | $ (39,417.28) |
| Black | $(401,164.43) | $(363,694.15) | $(326,207.81) | $(288,737.53) |
| Hispanic | $(392,607.59) | $(353,917.20) | $(315,210.75) | $(276,520.36) |
| Asian | $(253,803.80) | $(195,270.53) | $(136,737.26) | $ (78,203.99) |
| Other | $(423,880.99) | $(389,653.64) | $(355,410.23) | $(321,182.88) |

| Race | Affordability Gap (Condo, Conventional) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| | 70% | 80% | 90% | 100% |
| DC Metro Total | $(374,185.10) | $(313,685.21) | $(253,185.33) | $(192,685.44) |
| White Alone | $(322,709.58) | $(254,861.03) | $(186,995.03) | $(119,146.48) |
| Black | $(512,465.57) | $(471,725.02) | $(430,967.02) | $(390,226.47) |
| Hispanic | $(503,161.92) | $(461,094.78) | $(419,010.17) | $(376,943.03) |
| Asian | $(352,243.85) | $(288,602.02) | $(224,960.19) | $(161,318.36) |
| Other | $(537,164.74) | $(499,950.16) | $(462,718.11) | $(425,503.53) |

| Race | Affordability Gap (FHA, Fee Simple) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| | 70% | 80% | 90% | 100% |
| DC Metro Total | $ 8,838.36 | $ 52,875.82 | $ 96,913.29 | $ 140,950.76 |
| White Alone | $ (34,149.92) | $ 18,586.84 | $ 71,337.17 | $ 124,073.93 |
| Black | $(181,641.89) | $(149,975.42) | $(118,295.37) | $ (86,628.89) |
| Hispanic | $(174,410.43) | $(141,712.83) | $(109,001.65) | $ (76,304.05) |
| Asian | $ (57,106.08) | $ (7,639.08) | $ 41,827.92 | $ 91,294.92 |
| Other | $(200,839.86) | $(171,914.02) | $(142,974.60) | $(114,048.75) |

| Race | Affordability Gap (FHA, Condo) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| | 70% | 80% | 90% | 100% |
| DC Metro Total | $ (74,160.39) | $ (27,135.54) | $ 19,889.32 | $ 66,914.17 |
| White Alone | $ (34,149.92) | $ 18,586.84 | $ 71,337.17 | $ 124,073.93 |
| Black | $(181,641.89) | $(149,975.42) | $(118,295.37) | $ (86,628.89) |
| Hispanic | $(174,410.43) | $(141,712.83) | $(109,001.65) | $ (76,304.05) |
| Asian | $ (57,106.08) | $ (7,639.08) | $ 41,827.92 | $ 91,294.92 |
| Other | $(200,839.86) | $(171,914.02) | $(142,974.60) | $(114,048.75) |

## Appendix 9: Affordability Gap Disaggregated by Household Size, DC Metro

**Results from Housing Affordability Model**

**Maximum Home Price (Conventional, Fee Simple)**

| Household Size | Percentage of AMI 70% | 80% | 90% | 100% |
|---|---|---|---|---|
| 1 | $274,942.61 | $318,224.47 | $361,506.34 | $404,788.21 |
| 2 | $318,224.47 | $367,687.17 | $417,149.87 | $466,612.57 |
| 3 | $361,506.34 | $417,149.87 | $472,793.40 | $528,436.93 |
| 4 | $404,788.21 | $466,612.57 | $528,436.93 | $590,261.29 |
| 5 | $439,400.86 | $506,185.94 | $572,954.96 | $639,723.99 |

**Maximum Home Price (FHA, Fee Simple)**

| Household Size | Percentage of AMI 70% | 80% | 90% | 100% |
|---|---|---|---|---|
| 1 | $217,595.41 | $251,849.59 | $286,103.78 | $320,357.97 |
| 2 | $251,849.59 | $290,995.42 | $330,141.25 | $369,287.08 |
| 3 | $286,103.78 | $330,141.25 | $374,178.72 | $418,216.19 |
| 4 | $320,357.97 | $369,287.08 | $418,216.19 | $467,145.30 |
| 5 | $347,751.16 | $400,606.28 | $453,448.70 | $506,291.12 |

**Maximum Home Price (Conventional, Condo)**

| Household Size | Percentage of AMI 70% | 80% | 90% | 100% |
|---|---|---|---|---|
| 1 | $167,186.36 | $214,245.70 | $261,305.05 | $308,364.40 |
| 2 | $214,245.70 | $268,025.32 | $321,804.94 | $375,584.55 |
| 3 | $261,305.05 | $321,804.94 | $382,304.82 | $442,804.71 |
| 4 | $308,364.40 | $375,584.55 | $442,804.71 | $510,024.87 |
| 5 | $345,997.91 | $418,611.74 | $491,208.11 | $563,804.48 |

**Maximum Home Price (FHA, Condo)**

| Household Size | Percentage of AMI 70% | 80% | 90% | 100% |
|---|---|---|---|---|
| 1 | $129,949.23 | $166,527.14 | $203,105.04 | $239,682.94 |
| 2 | $166,527.14 | $208,328.51 | $250,129.89 | $291,931.27 |
| 3 | $203,105.04 | $250,129.89 | $297,154.74 | $344,179.60 |
| 4 | $239,682.94 | $291,931.27 | $344,179.60 | $396,427.93 |
| 5 | $268,934.40 | $325,375.08 | $381,802.19 | $438,229.30 |

**Affordability Gap**

**Affordability Gap (Conventional, Fee Simple)**

| Household Size | Percentage of AMI 70% | 80% | 90% | 100% |
|---|---|---|---|---|
| 1 | $(360,547.54) | $(317,265.68) | $(273,983.81) | $(230,701.94) |
| 2 | $(317,265.68) | $(267,802.98) | $(218,340.28) | $(168,877.58) |
| 3 | $(273,983.81) | $(218,340.28) | $(162,696.75) | $(107,053.22) |
| 4 | $(230,701.94) | $(168,877.58) | $(107,053.22) | $ (45,228.86) |
| 5 | $(196,089.29) | $(129,304.21) | $ (62,535.19) | $ 4,233.84 |

**Affordability Gap (FHA, Fee Simple)**

| Household Size | Percentage of AMI 70% | 80% | 90% | 100% |
|---|---|---|---|---|
| 1 | $(417,894.74) | $(383,640.56) | $(349,386.37) | $(315,132.18) |
| 2 | $(383,640.56) | $(344,494.73) | $(305,348.90) | $(266,203.07) |
| 3 | $(349,386.37) | $(305,348.90) | $(261,311.43) | $(217,273.96) |
| 4 | $(315,132.18) | $(266,203.07) | $(217,273.96) | $(168,344.85) |
| 5 | $(287,738.99) | $(234,883.87) | $(182,041.45) | $(129,199.03) |

**Affordability Gap (Conventional, Condo)**

| Household Size | Percentage of AMI 70% | 80% | 90% | 100% |
|---|---|---|---|---|
| 1 | $(110,079.07) | $ (63,019.72) | $ (15,960.38) | $ 31,098.97 |
| 2 | $ (63,019.72) | $ (9,240.11) | $ 44,539.51 | $ 98,319.13 |
| 3 | $ (15,960.38) | $ 44,539.51 | $ 105,039.40 | $ 165,539.28 |
| 4 | $ 31,098.97 | $ 98,319.13 | $ 165,539.28 | $ 232,759.44 |
| 5 | $ 68,732.48 | $ 141,346.31 | $ 213,942.68 | $ 286,539.06 |

**Affordability Gap (FHA, Condo)**

| Household Size | Percentage of AMI 70% | 80% | 90% | 100% |
|---|---|---|---|---|
| 1 | $(147,316.19) | $(110,738.29) | $ (74,160.39) | $ (37,582.49) |
| 2 | $(110,738.29) | $ (68,936.91) | $ (27,135.54) | $ 14,665.84 |
| 3 | $ (74,160.39) | $ (27,135.54) | $ 19,889.32 | $ 66,914.17 |
| 4 | $ (37,582.49) | $ 14,665.84 | $ 66,914.17 | $ 119,162.50 |
| 5 | $ (8,331.02) | $ 48,109.66 | $ 104,536.77 | $ 160,963.88 |

## Appendix 10: Affordability Gap Disaggregated by Race, Study Area

**Results from Affordability Model**

| Household Race (100% AMI) | Maximum Home Price (Conventional, Fee Simple) |
|---|---|
| White Alone | $ 453,929.83 |
| Black | $ 253,622.75 |
| Hispanic | $ 183,113.12 |
| Asian | $ 341,535.04 |
| Other | $ 141,838.02 |

| Household Race (100% AMI) | Maximum Home Price (Conventional, Condo) |
|---|---|
| White Alone | $ 361,794.91 |
| Black | $ 144,005.79 |
| Hispanic | $ 67,342.34 |
| Asian | $ 239,590.72 |
| Other | $ 22,464.90 |

| Household Race (100% AMI) | Maximum Home Price (FHA, Fee Simple) |
|---|---|
| White Alone | $ 359,249.69 |
| Black | $ 200,722.42 |
| Hispanic | $ 144,919.61 |
| Asian | $ 270,298.07 |
| Other | $ 112,253.62 |

| Household Race (100% AMI) | Maximum Home Price (FHA, Condo) |
|---|---|
| White Alone | $ 281,212.97 |
| Black | $ 111,931.63 |
| Hispanic | $ 52,343.30 |
| Asian | $ 186,227.10 |
| Other | $ 17,461.33 |

**Affordability Gap**

| Household Race (100% AMI) | Affordability Gap (Conventional, Fee Simple) |
|---|---|
| White Alone | $ (181,560.32) |
| Black | $ (381,867.39) |
| Hispanic | $ (452,377.03) |
| Asian | $ (293,955.11) |
| Other | $ (493,652.13) |

| Household Race (100% AMI) | Affordability Gap (Conventional, Condo) |
|---|---|
| White Alone | $ 84,529.48 |
| Black | $ (133,259.64) |
| Hispanic | $ (209,923.08) |
| Asian | $ (37,674.70) |
| Other | $ (254,800.52) |

| Household Race (100% AMI) | Affordability Gap (FHA, Fee Simple) |
|---|---|
| White Alone | $ (276,240.46) |
| Black | $ (434,767.73) |
| Hispanic | $ (490,570.54) |
| Asian | $ (365,192.08) |
| Other | $ (523,236.53) |

| Household Race (100% AMI) | Affordability Gap (FHA, Condo) |
|---|---|
| White Alone | $ 3,947.54 |
| Black | $ (165,333.79) |
| Hispanic | $ (224,922.12) |
| Asian | $ (91,038.32) |
| Other | $ (259,804.09) |

## Appendix 11: Savings Rate Assumptions

**Assumptions and Calculations**

| | |
|---|---|
| National Savings Rate (Net Income) | 7.60% |
| Est. Effective Fed Tax Rate (Low End) | 6.60% |
| Est. Effective Fed Tax Rate (High End) | 12% |
| Average Effective Fed Income Tax Rate | 9.30% |
| Est Effective State Tax (Low End) | 5.34% |
| Est Effective State Tax (High End) | 5.56% |
| Average Effective State Income Tax Rate | 5.45% |
| FICA (Employee) | 7.65% |
| Total Tax | 22.40% |
| Savings Rate Adjusted for Gross Income | 5.90% |
| % of Savings for Down Payment | 50% |
| **Savings Rate** | **2.95%** |

| Type | Median Est. Sales Price | 20% Down | 3.5% Down |
|---|---|---|---|
| Fee Simple | $ 635,490 | $ 127,098 | $ 22,242 |
| Condo | $ 277,265 | $ 55,453 | $ 9,704 |

## Appendix 12: Time-to-Save, Disaggregated by Race, DC Metro

| | Years to Save (Conventional 20% Down, Fee Simple) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Race | 70% | 80% | 90% | 100% |
| MSA Total | 53.29 | 46.63 | 41.45 | 37.31 |
| White Alone | 47.52 | 41.58 | 36.96 | 33.26 |
| Black | 79.13 | 69.24 | 61.55 | 55.39 |
| Hispanic | 76.63 | 67.05 | 59.60 | 53.64 |
| Asian | 50.67 | 44.33 | 39.41 | 35.47 |
| Other | 86.63 | 75.80 | 67.38 | 60.64 |

| | Years to Save (Conventional 20% Down, Condo) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Race | 70% | 80% | 90% | 100% |
| MSA Total | 23.25 | 20.35 | 18.08 | 16.28 |
| White Alone | 20.73 | 18.14 | 16.13 | 14.51 |
| Black | 34.52 | 30.21 | 26.85 | 24.17 |
| Hispanic | 33.43 | 29.25 | 26.00 | 23.40 |
| Asian | 22.11 | 19.34 | 17.19 | 15.47 |
| Other | 37.80 | 33.07 | 29.40 | 26.46 |

| | Years to Save (FHA 3.5% Down, Fee Simple) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Race | 70% | 80% | 90% | 100% |
| MSA Total | 9.33 | 8.16 | 7.25 | 6.53 |
| White Alone | 8.32 | 7.28 | 6.47 | 5.82 |
| Black | 13.85 | 12.12 | 10.77 | 9.69 |
| Hispanic | 13.41 | 11.73 | 10.43 | 9.39 |
| Asian | 8.87 | 7.76 | 6.90 | 6.21 |
| Other | 15.16 | 13.27 | 11.79 | 10.61 |

| | Years to Save (FHA 3.5% Down, Condo) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Race | 70% | 80% | 90% | 100% |
| MSA Total | 4.07 | 3.56 | 3.16 | 2.85 |
| White Alone | 3.63 | 3.17 | 2.82 | 2.54 |
| Black | 6.04 | 5.29 | 4.70 | 4.23 |
| Hispanic | 5.85 | 5.12 | 4.55 | 4.10 |
| Asian | 3.87 | 3.39 | 3.01 | 2.71 |
| Other | 6.61 | 5.79 | 5.14 | 4.63 |

## Appendix 13: Time-to-Save, Disaggregated by Household Size, DC Metro

| | Years to Save (Conventional 20% Down, Fee Simple) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Household Size | 70% | 80% | 90% | 100% |
| 1 | 68.52 | 59.96 | 53.29 | 47.96 |
| 2 | 59.96 | 52.46 | 46.63 | 41.97 |
| 3 | 53.29 | 46.63 | 41.45 | 37.31 |
| 4 | 47.96 | 41.97 | 37.31 | 33.58 |
| 5 | 44.41 | 38.86 | 34.54 | 31.09 |

| | Years to Save (Conventional 20% Down, Condo) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Household Size | 70% | 80% | 90% | 100% |
| 1 | 29.90 | 26.16 | 23.25 | 20.93 |
| 2 | 26.16 | 22.89 | 20.35 | 18.31 |
| 3 | 23.25 | 20.35 | 18.08 | 16.28 |
| 4 | 20.93 | 18.31 | 16.28 | 14.65 |
| 5 | 19.38 | 16.95 | 15.07 | 13.56 |

| | Years to Save (FHA 3.5% Down, Fee Simple) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Household Size | 70% | 80% | 90% | 100% |
| 1 | 11.99 | 10.49 | 9.33 | 8.39 |
| 2 | 10.49 | 9.18 | 8.16 | 7.34 |
| 3 | 9.33 | 8.16 | 7.25 | 6.53 |
| 4 | 8.39 | 7.34 | 6.53 | 5.88 |
| 5 | 7.77 | 6.80 | 6.04 | 5.44 |

| | Years to Save (FHA 3.5% Down, Condo) | | | |
|---|---|---|---|---|
| | Percentage of AMI | | | |
| Household Size | 70% | 80% | 90% | 100% |
| 1 | 5.23 | 4.58 | 4.07 | 3.66 |
| 2 | 4.58 | 4.01 | 3.56 | 3.20 |
| 3 | 4.07 | 3.56 | 3.16 | 2.85 |
| 4 | 3.66 | 3.20 | 2.85 | 2.56 |
| 5 | 3.39 | 2.97 | 2.64 | 2.37 |

## Appendix 14: Time-to-Save, Disaggregated by Race, Study Area

| Years to Save (Conventional 20% Down, Fee Simple) | |
|---|---|
| Household Race | |
| White Alone | 43.07 |
| Black | 73.71 |
| Hispanic | 98.32 |
| Asian | 56.17 |
| Other | 122.21 |

| Years to Save (Conventional 20% Down, Condo) | |
|---|---|
| Household Race | |
| White Alone | 18.79 |
| Black | 32.16 |
| Hispanic | 42.90 |
| Asian | 24.51 |
| Other | 53.32 |

| Years to Save (FHA 3.5% Down, Fee Simple) | |
|---|---|
| Household Race | |
| White Alone | 7.54 |
| Black | 12.90 |
| Hispanic | 17.21 |
| Asian | 9.83 |
| Other | 21.39 |

| Years to Save (FHA 3.5% Down, Condo) | |
|---|---|
| Household Race | |
| White Alone | 3.29 |
| Black | 5.63 |
| Hispanic | 7.51 |
| Asian | 4.29 |
| Other | 9.33 |

## Appendix 15: Commercial Corridor Redevelopment Inputs

| **Inputs** | |
|---|---|
| Total Commercial Zoned Space | 12,458,278 |
| R-30 Zoning Units per Acre[93] | 30 |
| R-30 Units per Acre with 10percent Density Bonus[94] | 33 |
| R-30 Units per Acre with 20percent Density Bonus[95] | 36 |
| Fairfax Req. Affordable Units with 10 percent Density Bonus[96] | 6.25% |
| Fairfax Req. Affordable Units with 10 percent Density Bonus[97] | 12.5% |
| Parking Ratio High (Current Fairfax County Requirement for Multi-Family Residential)[98] | 1.6 |
| Parking Ratio Low | 1 |

[93] "The Fairfax County Zoning Ordinance | Planning Development," Article 3 Part 30, pg. 95, accessed April 14, 2021, https://www.fairfaxcounty.gov/planning-development/zoning-ordinance.
[94] "The Fairfax County Zoning Ordinance | Planning Development," Article 2 Part 8, pg. 63, accessed April 14, 2021, https://www.fairfaxcounty.gov/planning-development/zoning-ordinance.
[95] Ibid.
[96] Ibid.
[97] Ibid.
[98] "The Fairfax County Zoning Ordinance | Planning Development," Article 11 Part 103, pg. 11, accessed April 14, 2021, https://www.fairfaxcounty.gov/planning-development/zoning-ordinance.