
HOUSING AFFORDABILITY ANALYSIS

A. INTRODUCTION AND METHODOLOGY

1. Purpose of Study

Like many other communities in the nation, housing affordability is one of the major pressing issues that Prince William County faces, which requires a holistic analysis to quantify the existing housing supply, demand, and affordability in the County. This study compares the housing supply and demand in the County for households in each income bracket which is expressed as a percentage of the Area Median Income (AMI) determined by the Department of Housing and Urban Development (HUD). Housing supply and demand gaps are then calculated and quantified for each AMI bracket for four housing submarkets as well as the County as a whole to determine how housing affordability varies for households with different income levels and across the County. This study also aims to discuss analysis implications and provide recommendations for the County to increase housing affordability.

2. Methodology

This study examines the supply and demand of Prince William County's housing market, which is the County's rental unit and ownership home distributions by monthly gross rent and home value, as well as the household income distribution by renter and owner household. The household incomes, gross rents, and home values were obtained from the American Community Survey (ACS) 2019 five-year estimates. RKG compared the household incomes to the County's Area Median Income (AMI) and redistributed them into six income bands using HUD's Area Median Income limits. The AMI limits for a three-person household are used for both renter and owner households in the County, as the average household sizes of both renter and owner households approximate three people in 2019 according to ACS 2019 five-Year Estimates, and the Area Median Income thresholds of both 2010 and 2019 were examined (Table 3-1).

Table 3-1
HUD Area Median Income (AMI) Limits
Prince William County, VA

AMI Threshold	Owner Household (3-Person)		Renter Household (3-Person)	
	Lower Limit	Upper Limit	Lower Limit	Upper Limit
FY 2010				
30% of AMI (Extremely Low Income) and Below	\$0	\$27,950	\$0	\$27,950
31%-50% of AMI (Very Low Income)	\$27,951	\$46,600	\$27,951	\$46,600
51%-80% of AMI (Low Income)	\$46,601	\$58,000	\$46,601	\$58,000
81%-100% of AMI	\$58,001	\$93,200	\$58,001	\$93,200
101%-120% of AMI	\$93,201	\$111,840	\$93,201	\$111,840
121% of AMI and Above	\$111,841		\$111,841	
FY 2019				
30% of AMI (Extremely Low Income) and Below	\$0	\$32,800	\$0	\$32,800
31%-50% of AMI (Very Low Income)	\$32,801	\$54,600	\$32,801	\$54,600
51%-80% of AMI (Low Income)	\$54,601	\$69,850	\$54,601	\$69,850
81%-100% of AMI	\$69,851	\$109,200	\$69,851	\$109,200
101%-120% of AMI	\$109,201	\$131,040	\$109,201	\$131,040
121% of AMI and Above	\$131,041		\$131,041	

Source: Department of Housing and Urban Development (HUD) & RKG Associates, Inc., 2021

RKG assumed households pay no more than 30% of their annual household incomes on housing costs (including rents and utilities) to avoid being “cost-burdened”, which is defined by HUD as paying “more than 30 percent of their income for housing” and “may have difficulty affording necessities such as food, clothing, transportation, and medical care”. The maximum affordable monthly gross rents for all the AMI brackets were then calculated for each AMI band by assuming 30% of the household incomes minus utility costs are spent on rents. The monthly utility allowance for a two-bedroom unit (a three-person household will usually need at least a two-bedroom unit) in a walkup/garden style apartment in Prince William County which was estimated by HUD was used to approximate the monthly utility cost for renters. The maximum affordable home value for each AMI income band was also calculated using a similar method for both the FHA lending and conventional loan lending scenarios. In addition, other related housing costs associated with homeownership were also considered, such as mortgage costs, real estate taxes, home insurance costs, etc. that are specific to Prince William County and were estimated by RKG by using local sources such as Bankrate.com, Zillow.com, and the County’s website. It should be noted that utilities are not included in ownership home affordability calculations because HUD only requires principal, interest, homeowners’ insurance and taxes to judge ownership affordability. RKG then redistributed the numbers of rental units and ownership homes into the six AMI brackets by using the maximum affordable rent/value for each AMI band as the cutoff threshold (Table 3-2, Table 3-3).

Table 3-2

**Maximum Affordable Monthly Rent by HUD AMI Income Threshold, 2019
 Prince William County, VA**

AMI Threshold	Renter Household (3-Person)		
	Lower Limit	Upper Limit	Max. Rent
2019			
30% of AMI (Extremely Low Income) and Below	\$0	\$32,800	\$541
31%-50% of AMI (Very Low Income)	\$32,801	\$54,600	\$1,086
51%-80% of AMI (Low Income)	\$54,601	\$69,850	\$1,467
81%-100% of AMI	\$69,851	\$109,200	\$2,451
101%-120% of AMI	\$109,201	\$131,040	\$2,997
121% of AMI and Above	\$131,041		\$2,998+

Source: Department of Housing and Urban Development (HUD) and RKG Associates, Inc., 2021

Table 3-3

**HUD Income Limits & Affordable Single Family Home/Condominium Maximum Value
 Prince William County, VA**

AMI Threshold	Income Limit	FHA BUYER				CONVENTIONAL BUYER			
		Single Family		Condo		Single Family		Condo	
		Annual Cost	Max. Home Value	Annual Cost	Max. Home Value	Annual Cost	Max. Home Value	Annual Cost	Max. Home Value
30%	\$32,800	\$10,168	\$138,495	\$10,168	\$94,929	\$9,840	\$168,556	\$9,840	\$113,749
50%	\$54,600	\$16,926	\$230,543	\$16,926	\$186,977	\$16,380	\$280,584	\$16,380	\$225,777
80%	\$69,850	\$21,654	\$294,935	\$21,654	\$251,369	\$20,955	\$358,953	\$20,955	\$304,146
100%	\$109,200	\$33,852	\$461,086	\$33,852	\$417,520	\$32,760	\$561,169	\$32,760	\$506,362
120%	\$131,040	\$40,622	\$553,304	\$40,622	\$509,737	\$39,312	\$673,403	\$39,312	\$618,595

Source: HUD, Bankrate.com, Zillow.com, Prince William County, and RKG Associates, Inc., 2021

Once the number of households by household incomes, rental units by gross rents, and the number of ownership homes by home values are allocated into the six HUD Area Median Income brackets, RKG then compared the supply (housing units by rent and by home value) to the demand (households by income) by AMI bands and calculated the gaps between the housing supply and demand in the County and the submarkets for each AMI bracket. RKG has excluded Quantico from this study, as the housing stock in this community is not generally available to the public and is usually limited to military personnel.

3. Submarket Boundaries

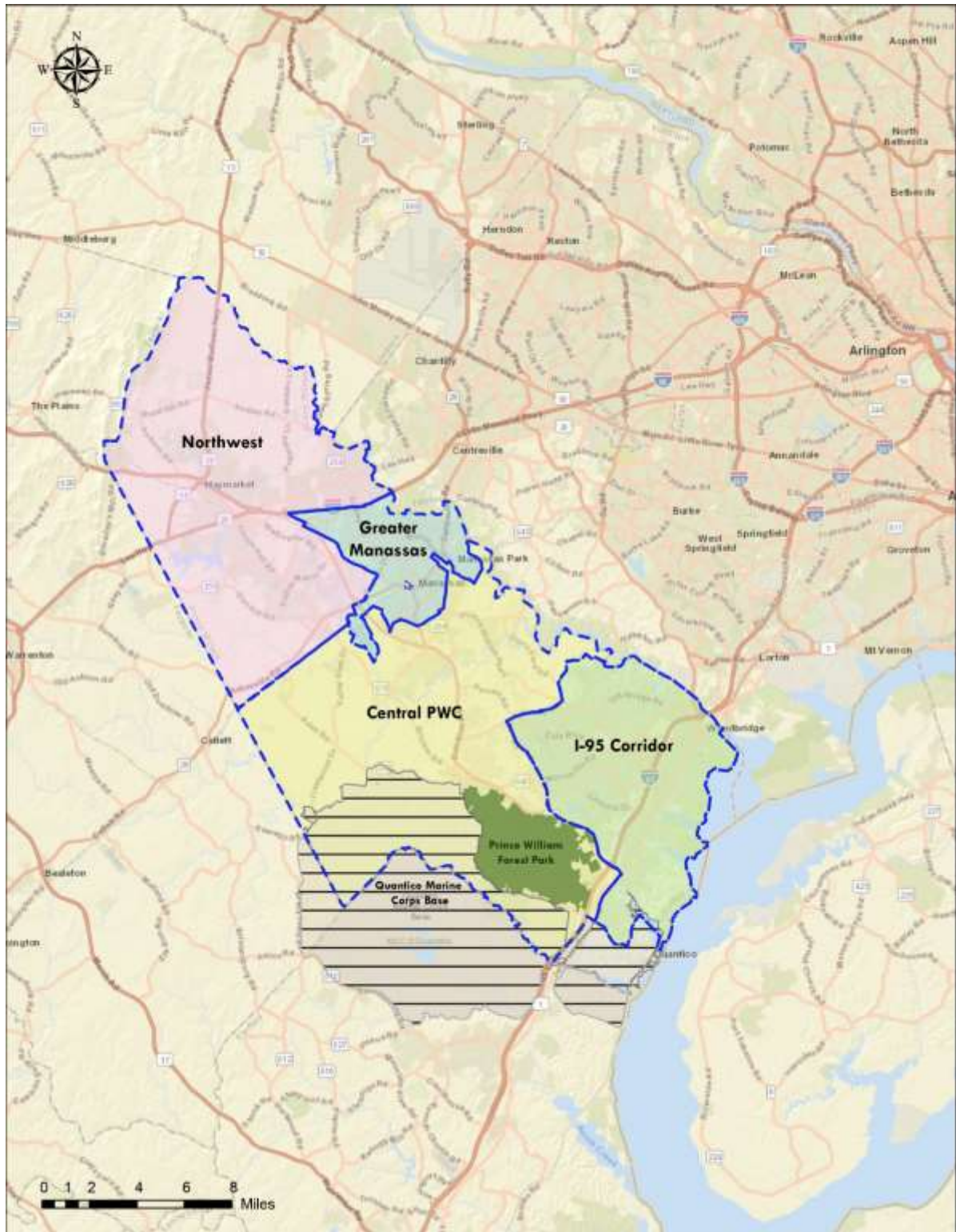
Through discussions with the County staff, RKG divided the County into four housing submarkets (excluding Quantico) to further examine and assess the housing affordability levels in different communities within the County. The boundaries of these submarkets were determined based on County staff's knowledge, differences in these communities' characters and housing market dynamics, census tract boundaries as well as natural barriers such as major highways and roads. The four housing submarkets are (Map 3-1):

- Northwest Submarket,
- Greater Manassas Submarket,
- Central PWC Submarket, and
- I-95 Corridor Submarket.

4. Glossary of Terminology

- HUD - United States Department of Housing and Urban Development
- AMI - Area Median Income, which is used as the basis for income limits in several HUD programs, such as the Public Housing and Section 8 Housing Choice Voucher program
- Extremely Low Income - 30% of AMI and below
- Very Low Income - 31% to 50% of AMI
- Low Income - 51% to 80% of AMI
- Moderate Income - 81% to 100% of AMI
- ACS - U.S. Census American Community Survey
- FHA Mortgage Loan - A U.S. Federal Housing Administration (USFHA) mortgage insurance backed loan that is provided by an FHA-approved lender with a 3.5% down-payment requirement.
- Conventional Mortgage Loan - A conventional home mortgage loan with a 20% down-payment and 80% mortgage loan.
- MSA - Metropolitan Statistical Area, a geographical region with a relatively high population density at its core and close economic and labor force commuting links throughout a region, defined by the U.S. Office of Management and Budget (OMB), and used by the Census Bureau and other federal government agencies for statistical purposes
- Housing Cost Burden - According to HUD's definition, cost-burdened households or individuals are those "who pay more than 30 percent of their income for housing" and "may have difficulty affording necessities such as food, clothing, transportation, and medical care." Severe rent burden is defined as paying more than 50 percent of one's income on housing costs.
- Housing Tenure - Refers to the financial arrangements under which someone has the right to live in a house or apartment. The two types of housing tenure used in this study include renter-occupied and owner-occupied housing.

Map 3-1



Source: RKG Associates, Inc., 2021

B. SUMMARY OF FINDINGS

The affordable housing analysis compares the cost of for-sale and rental housing in Prince William County, in relationship to the median income of local households. Household's ability-to-pay for housing is based on the assumption that no households should pay more than 30% of their gross monthly income on housing costs. Those include mortgage principal and interest, taxes, insurance and HOA/condo fees for homeowners and base rent and utilities for renters.

- Like Much of Northern Virginia, Prince William County Households have Higher Median Household Income Levels
Over half (57.2%) of the owner households in the County are the highest income households earning 100% of the AMI and above in 2019. This is especially true in the Central PWC submarket where 71.5% of homeowners are at this level. However, 42% of the County's renter households are low- and moderate-income earning 50% of the Area Median Income and below, with the highest percentage (50.1%) in the Greater Manassas submarket.
- Homeowners at the Lowest Income and Renters at the Highest Income are the Fastest Growing Households
Lower income owner households earning 30% of AMI and below and renter households making 100% of AMI and above increased the fastest between 2010 and 2019. This may speak to the need for some form of homeowner assistance, perhaps for elderly homeowners who don't have money to make housing repairs. In addition, the growth in higher income renter households make increase demand for higher priced rental options.
- Prince William County is Experiencing a Shortage of Rental Housing at the Low and High Ends of the Income Brackets Based on Local Housing Pricing
The County and its submarkets have a shortage of rental supply at both the lowest and the highest income brackets (shortage of 13,760 units and 6,329 units, respectively) indicating a need for more affordable housing for the lowest-income renters earning 50% of AMI and below, and more rental options for the households earning 100% of AMI and above. As the I-95 Corridor and the Greater Manassas submarkets have the largest number of rental units, most of the rental shortages come from these two submarkets.
- Given the Higher Incomes of County Households, There is a Shortage of Housing at the Higher Price Points, Which is Creating Competition at Lower Housing Price Points
There is a shortage of ownership home supply for households at both the lowest and the highest income brackets. A shortage of 2,107 homes exists for the households earning 30% AMI and below, but the larger shortage of 45,547 homes is occurring at the high end of the housing market. When there is a lack of housing priced at the top of the market, the households with the greatest ability to pay, compete for housing that is priced below their ability-to-pay. This ultimately puts competitive pressure on households that have lower income and fewer housing choices. As the I-95 Corridor

and Northwest submarkets have the highest shares of the ownership homes in the County, most of the ownership home shortages come from these two submarkets.

- Affordable Housing Strategy Should Address Housing Market Shortages for Lower Income Rental Housing and Relieve Competitive Pressures for Median Priced Ownership Housing

The County's affordable housing strategy should consider ways to increase the supply of rental units with a monthly rent at or below \$1,086. These would require some form of public subsidy to be achieved (i.e., Section 8, Low Income Housing Tax Credit, etc.). On the ownership side, the County should consider housing developments that increase the supply of homes priced at or above \$410,000 (which is approximately the price of a condo unit affordable for households earning at 100% of AMI in the FHA scenario), to relieve competition for homes priced affordable for households earning below 100% of the AMI (approximately below \$410,000).

Implications of Findings

To achieve greater housing affordability, the County will need to develop a comprehensive set of strategies designed to deliver affordable units from a variety of different sources. This typically requires a combination of land resources, regulatory and financial inducements to encourage the public, nonprofit and private sectors to create these opportunities. While this should be the focus, there are other factors at play in Prince William County that are constraining the supply of affordable housing. There appears to be a lack of housing at the higher price points to serve the needs of households with greater incomes. As a result, higher income homebuyers or renters looking for housing are forced to compete for housing that is priced below what they can afford. This creates competition for homes and apartments priced in the mid-range housing values, in which there is currently a surplus of units. However, this surplus is being consumed by people at higher income levels who can effectively out-bid lower income homebuyers and renters.

- There are proportionally more higher-income households among owners in the County, and proportionally more renters are challenged with lower income levels and a lack of affordable housing options, like many other communities in the nation.
- Owner households being challenged by low incomes in the County have been growing between 2010 and 2019.
- The County has seen growing renter households on both the lowest and the highest ends of the income brackets between 2010 and 2019, with an influx of higher-income renter households during this period.
- Less than a quarter of the ownership homes in the County are affordable to households earning at or below 50% of AMI (\$54,600), and less than 6% for households at 30% of AMI (\$32,800) or below.
- The County has very limited rental housing priced affordable to households at both the lowest and the highest income brackets, and this holds true across submarkets.
- there is a shortage of ownership home supply for households at both the lowest and the highest income brackets, a surplus concentrating at the 50% to 100% AMI brackets.

- As the I-95 Corridor and Northwest submarkets have the highest shares of the ownership homes in the County, most of the ownership home shortages come from these two submarkets.
- A shortage of rental housing supply also exists for renter households at both the lowest and the highest income brackets in the County, with a surplus of rental units concentrating at the 51% to 100% of AMI brackets.
- As the I-95 Corridor submarket has the largest number (53%) of rental units within the County, most of the rental shortages come from this submarket.

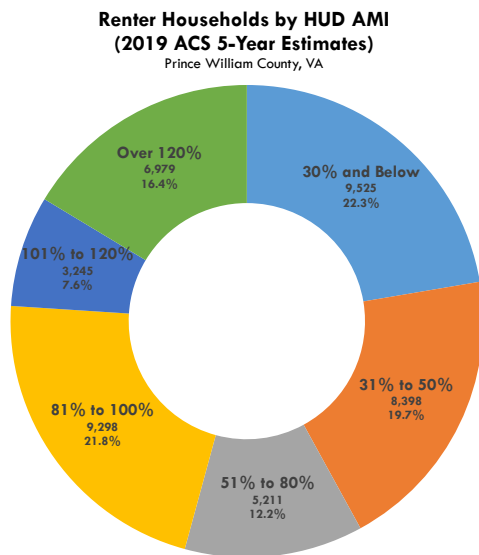
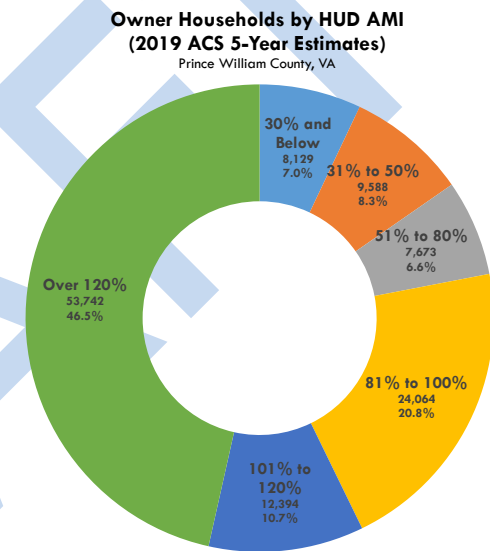
C. DEMAND ANALYSIS BY AREA MEDIAN INCOME (AMI)

1. Owner Household Demand

Not surprisingly, there are proportionally more higher-income households among owners in the County, like many other communities in the nation. Over half (57.2%) of the owner households in the County earned the highest income at 100% of the AMI (\$109,200) and above in 2019. This is followed by 20.8% of owner households earning at 81% to 100% of AMI, and 10.7% earning at 101% to 120% of AMI. Only 15.3% of the owner households in the County earned at or less than 50% of the AMI (\$54,600) in 2019, which is categorized as very low income or extremely low income (Figure 3-1).

However, owner households being challenged by low incomes in the County have been growing between 2010 and 2019. The share of moderate- and higher-income owner households earning above 80% of AMI (\$69,851 or above annually) has been declining between 2010 and 2019, while the County has seen a larger portion of lower-income owner households earning at or below 80% of AMI during these nine years. In fact, the lowest-income owner households earning at 30% of AMI (\$32,800) and below has been increasing the fastest by 38% between 2010 and 2019, or at 4.2% per year in the County compared to owner households in other income

Figure 3-1



Source: HUD, ACS 2019 and RKG Associates, Inc., 2021

brackets. This likely suggests a potentially growing need for ownership housing financial and policy assistance (Figure 3-2, Figure 3-3).

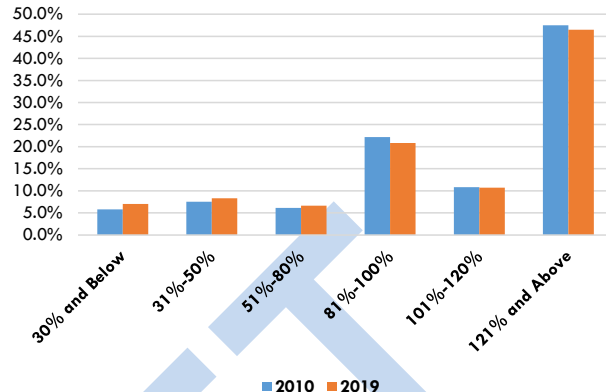
Within the County, the Central PWC submarket has proportionally more high-income households among its owners than other submarkets. It had the highest share of its owner households earning at 100% of AMI (\$109,200 annually) or above (71.5%) in 2019, followed by the Northwest submarket at 68.8%. In contrast, the Greater Manassas submarket has seen the highest share (21.8%) of its owner households challenged by very low income or extremely low income earning at or below 50% of AMI (\$54,600) within the County in 2019 (Table 3-4).

2. Renter Household Demand

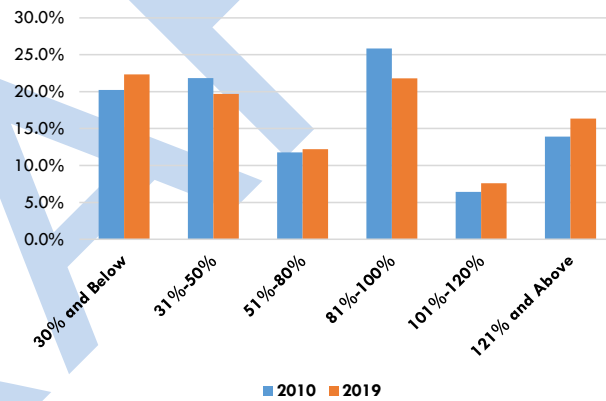
In contrast, proportionally more renter households are challenged by low income than owner households in Prince William County. 42% of the renter households were very-low- or extremely-low-income households earning 50% of the AMI (\$54,600) and below in the County in 2019, compared to only 15.3% among the owner households. Additionally, only 24% of the renter households earned above 100% of AMI (\$109,200 annually) compared to 57.2% among the owner households in 2019 (Figure 3-1).

In addition, the 2010 to 2019 data suggest that the County has seen growing renter households on both the lowest and the highest ends of the income brackets, with an influx of higher-income renter households during this period. The shares of renter households earning at 30% of AMI (\$32,800) and below as well as those earning above 100% of AMI (\$109,200) have been gaining between 2010 and 2019 in the County. Renter households at the highest income brackets above 100% of AMI (\$109,200) have increased the fastest by 48% between 2010 and 2019, or at 5.3% annually in the County (Figure 3-2, Figure 3-3). This likely indicates a potentially growing demand for rental housing at both the lowest and the highest price points, especially higher-priced rental options in the County (Figure 3-2, Figure 3-3).

Figure 3-2
Owner Household by HUD Area Median Income Limit, 2010-2019
 Prince William County, VA



Renter Household by HUD Area Median Income Limit, 2010-2019
 Prince William County, VA

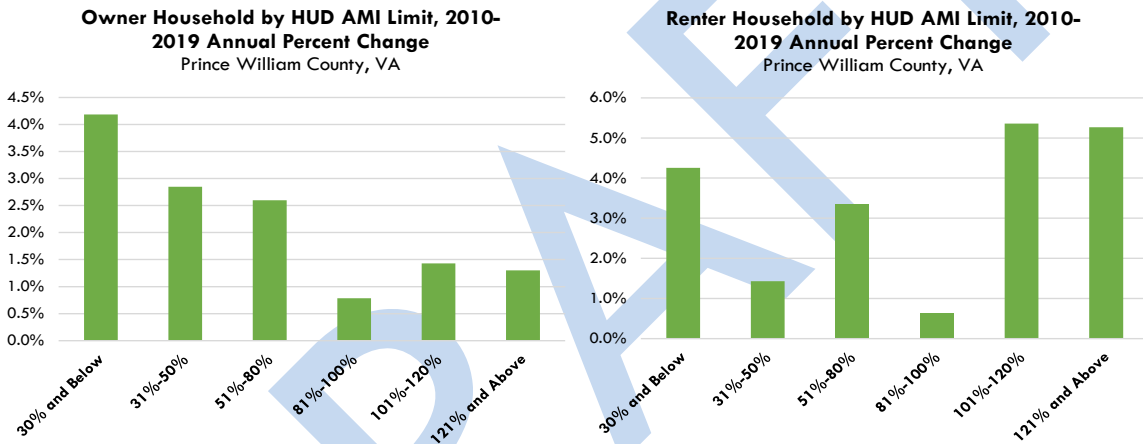


Source: HUD, ACS 2019 and RKG Associates, Inc., 2021

Within the County, the Northwest submarket had proportionally more (41.6%) higher-income renter households earning above 100% of AMI in 2019 than other submarkets, followed by the Central PWC submarket at 28.5%. In contrast, the Greater Manassas submarket had half (50.1%) of its renter households earning at or less than 50% of the AMI (\$54,600) in 2019, the highest share among all submarkets, followed by the I-95 Corridor submarket at 40.5%. As discussed above, the Greater Manassas submarket also has the highest share (21.8%) of its owner households earning at or less than 50% of AMI within the County. This aligns with the fact that the Greater Manassas submarket has the lowest median household income and per capita income, in addition to the highest share of the Hispanic population (Table 3-4).

This likely suggests that households in the Greater Manassas submarket, especially renter households, are the most challenged with low incomes in the County.

Figure 3-3



Source: HUD, ACS 2019 and RKG Associates, Inc., 2021

Table 3-4

**Household by Tenure by HUD AMI Income Threshold, ACS 2019 5-Year Estimates
 Prince William County (Excluding Quantico), VA**

AMI Threshold	Owner Household (3-Person)		Renter Household (3-Person)	
	Count	Percent	Count	Percent
Northwest				
Total	26,640	100.0%	3,846	100.0%
30% of AMI (Extremely Low Income) and Below	1,238	4.6%	414	10.8%
31%-50% of AMI (Very Low Income)	1,415	5.3%	467	12.1%
51%-80% of AMI (Low Income)	1,195	4.5%	417	10.8%
81%-100% of AMI	4,474	16.8%	947	24.6%
101%-120% of AMI	2,972	11.2%	348	9.1%
121% of AMI and Above	15,347	57.6%	1,253	32.6%
Greater Manassas				
Total	18,994	100.0%	14,471	100.0%
30% of AMI (Extremely Low Income) and Below	1,904	10.0%	3,910	27.0%
31%-50% of AMI (Very Low Income)	2,241	11.8%	3,340	23.1%
51%-80% of AMI (Low Income)	1,776	9.3%	1,886	13.0%
81%-100% of AMI	4,879	25.7%	2,830	19.6%
101%-120% of AMI	1,961	10.3%	831	5.7%
121% of AMI and Above	6,234	32.8%	1,674	11.6%
Central PWC				
Total	15,154	100.0%	1,836	100.0%
30% of AMI (Extremely Low Income) and Below	630	4.2%	481	26.2%
31%-50% of AMI (Very Low Income)	821	5.4%	190	10.4%
51%-80% of AMI (Low Income)	581	3.8%	192	10.4%
81%-100% of AMI	2,289	15.1%	451	24.6%
101%-120% of AMI	1,495	9.9%	183	10.0%
121% of AMI and Above	9,338	61.6%	339	18.5%
I-95 Corridor				
Total	54,801	100.0%	22,503	100.0%
30% of AMI (Extremely Low Income) and Below	4,357	8.0%	4,721	21.0%
31%-50% of AMI (Very Low Income)	5,111	9.3%	4,400	19.6%
51%-80% of AMI (Low Income)	4,121	7.5%	2,716	12.1%
81%-100% of AMI	12,423	22.7%	5,070	22.5%
101%-120% of AMI	5,966	10.9%	1,883	8.4%
121% of AMI and Above	22,823	41.6%	3,713	16.5%

Source: HUD AMI 2010, HUD AMI 2019, ACS 2010 Estimates, ACS 2019 Estimates and RKG Associates, Inc., 2021

D. SUPPLY ANALYSIS BY AMI

1. Ownership Housing Supply

Less than a quarter of the ownership homes in the County are affordable to households earning at or below 50% of AMI (\$54,600), and less than 6% for households at 30% of AMI (\$32,800) or below. Only 12.7% and 23.8% of the homes were affordable to households earning at or less than 50% of AMI (\$54,600) in the FHA and conventional lending scenario, respectively. In contrast, proportionally more ownership homes in the County are affordable to households earning above 80% of AMI (\$69,850) with 72.2% and 55.7% of the homes priced affordable for households in this income bracket in 2019 in the FHA and conventional scenarios, respectively.

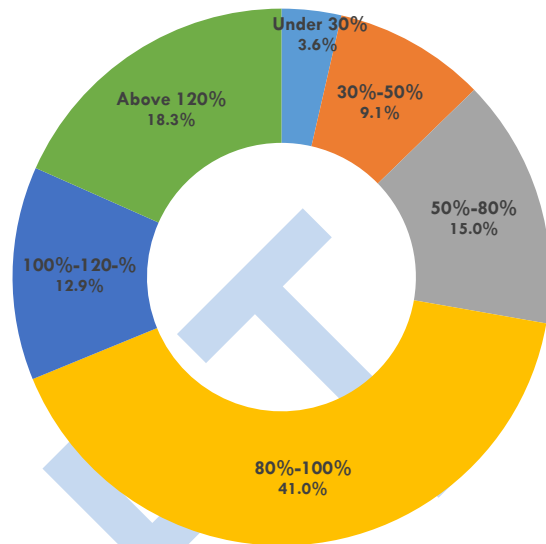
Within the County, according to the American Community Survey 2019 five-year estimates, 47% of the ownership homes cluster in the I-95 Corridor submarket, followed by 23% in the Northwest submarket, 16% in the Greater Manassas submarket, and 13% in the Central PWC submarket.

In both the FHA and conventional lending scenarios, the Northwest submarket had proportionally fewer (3.4% in the FHA scenario and 7.3% in the conventional scenario) homes affordable to households earning at or below 50% of AMI (\$54,600). In terms of the actual numbers, in the FHA scenario, the Northwest submarket had the smallest number (918 units) of homes priced for households earning 50% of AMI and below, while in the conventional lending scenario, the Central PWC submarket had the least homes (1,551 units) under this income bracket. In contrast, the Greater Manassas submarket had proportionally more (22.3% in the FHA scenario and 38% in the conventional scenario) homes affordable to households in this income bracket compared to other submarkets in the

Figure 3-4

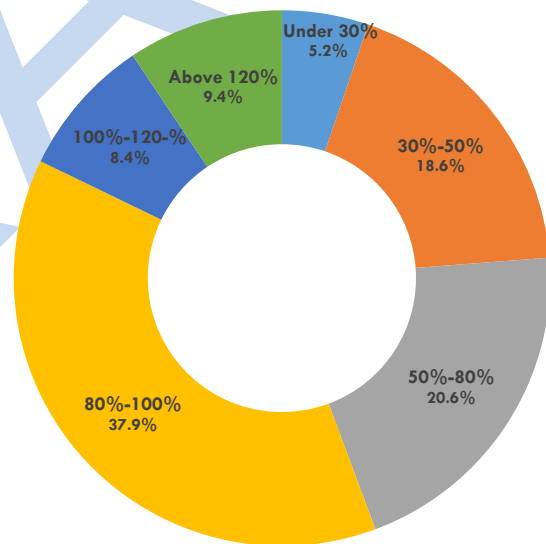
Owner Housing Supply by HUD AMI; FHA

Prince William County, VA



Owner Housing Supply by HUD AMI; Conventional

Prince William County, VA



Source: HUD, ACS 2019 and RKG Associates, Inc., 2021

County in 2019. However, as the I-95 Corridor submarket accounts for 47% of the homes in the County, it also has the largest number of homes priced at or below 50% of AMI.

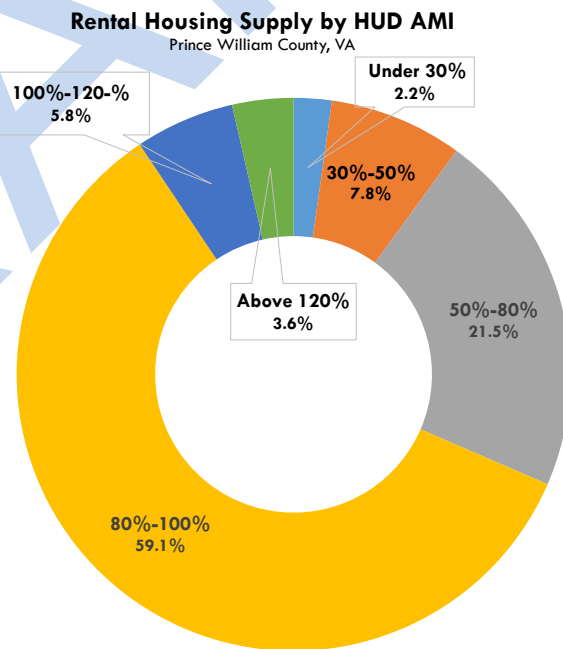
Additionally, the Northwest submarket also had the highest percentage of homes that can be afforded by households earning above 100% of AMI (\$109,200) (54.3% in the FHA scenario and 33.8% in the conventional lending scenario), followed by the Central PWC submarket (51% in the FHA scenario and 31.4% in the conventional lending scenario). The Northwest submarket also had the largest number of homes priced above 100% of AMI in the County (14,466 in the FHA scenario and 9,013 in the conventional scenario).

The majority of the Northwest submarket homes were affordable for households earning above 80% of AMI (\$69,850) (91.1% in the FHA scenario and 80.1% in the conventional lending scenario), and this is the same with the Central PWC submarket (88.7% in the FHA scenario and 76.8% in the conventional lending scenario). In comparison, proportionally more homes in the Greater Manassas submarket and the I-95 Corridor submarket were priced affordable for households earning at 51% (\$54,601) to 80% of AMI (\$69,850) (Figure 3-4).

2. Rental Housing Supply

The County has very limited rental housing priced affordable to households at both the lowest and the highest income brackets, and this holds true across submarkets. The vast majority of the rental units in the County were priced affordable to households earning 51% (\$54,601) to 100% of AMI (\$109,200) in 2019, with 80.6% of the rental units falling under this bracket with a monthly gross rent between \$1,087 and \$2,451. However, only 2.2% of the rental units were priced affordable for extremely low-income households earning at or below 30% of AMI (\$32,800), which charge at or below \$541 per month. Only 7.8% of all rental units were priced affordable for households earning 31% (\$32,801) to 50% (\$54,600) of the AMI, charging between \$542 and \$1,086 per month. Additionally, only 9.4% of the County's rental stock is priced for the highest-income households earning above 100% of AMI (\$109,200+), with a monthly gross rent above \$2,451 (Figure 3-5).

Figure 3-5



Source: HUD, ACS 2019 and RKG Associates, Inc., 2021

Within the County, 53% of the rental stock cluster in the I-95 Corridor submarket, followed by 34% in the Greater Manassas submarket, 9% in the Northwest submarket, and 4% in the Central PWC submarket according to the American Community Survey 2019 five-year estimates.

The Northwest submarket had proportionally fewer (2.9%) rental units priced affordable for households earning at or below 50% of AMI, and proportionally more (31.3%) rental units priced for households earning above 100% of AMI compared to other submarkets in 2019. The Northwest submarket also had the smallest number of units (108 units) priced at or below 50% of AMI. However, as over half of the rental units cluster in the I-95 Corridor, this submarket actually has the largest share of rental units within the County that are priced above 100% of AMI even though only 8.5% of its own rental stock fall under this bracket. Similarly, though the Central PWC submarket had the highest share of its rental stock (18.2%) priced affordable for households at or below 50% of AMI, the I-95 Corridor submarket actually accounts for the most rental units (2,226) in this income band though it only had 10.1% of its rental units that fall under this bracket.

E. OWNER DEMAND-SUPPLY GAP ANALYSIS

RKG then compared the supply of ownership homes and rental units in each AMI bracket to the number of households by AMI and calculated the differences between the supply and demand by tenure.

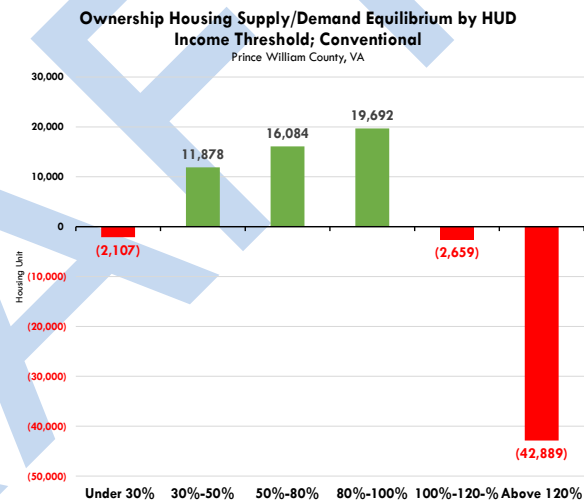
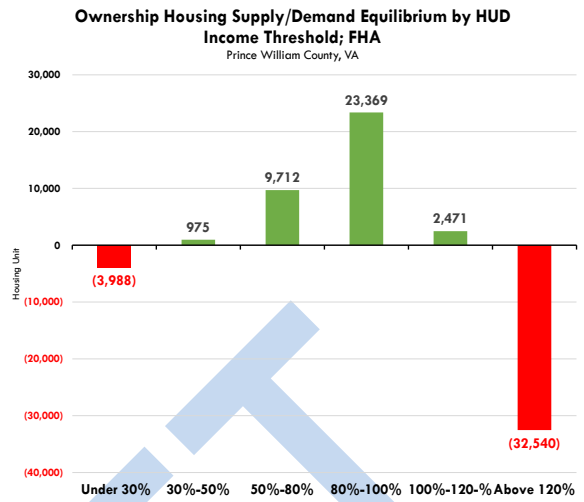
Like a lot of other communities in the nation, there is a shortage of ownership home supply for households in both the lowest and the highest income brackets. There is a shortage of 2,107 homes for the households earning at 30% of the AMI (\$32,800) and below, and 45,547 homes for households earning above 100% of the AMI (\$109,200) in the conventional lending scenario. Only 5.2% of the ownership units in the County are affordable to households earning at or below 30% of the AMI, which have a maximum home value of \$168,556 for a single-family home and \$113,749 for a condo unit. However, the County has 7% of its owner households falling under this income bracket (\$32,800 and below), with the demand exceeding the supply. In addition, 57.2% of the owner households in the County earned above 100% of AMI in 2019, but only 17.8% of the homes in the conventional lending scenario were priced for this income range at above \$561,169 for a single-family home and above \$506,362 for a condo unit.

In the FHA lending scenario, there is a larger shortage of 3,988 units for households earning at or below 30% of AMI, and a shortage of 30,068 units for households earning at or above 100% of the AMI in the County. With 7% of the owner households earning at or below \$32,800 per year, only 3.6% of the ownership homes in the County are affordable to potential home buyers under this income bracket. Also, with 57.2% of the owner households in the County earning above \$109,200 annually (100% of AMI), only 31.2% of the homes in the FHA scenario were priced for this income range at above \$461,086 for a single-family home and above \$417,520 for a condo unit.

There is also a surplus concentrating at the 50% to 100% AMI brackets. In the FHA lending scenario, there is a surplus of 36,527 homes for households earning above 30% of AMI and at or below 120 % of AMI. In the conventional lending scenario, there is a surplus of 47,654 homes for owner households earning above 30% of AMI and at or below 100% of AMI. This means that home buyers earning at or below 30% of AMI (\$32,800) must buy homes priced above their maximum affordable price points, and those earning above 120% of AMI (\$131,040) will most likely buy down and compete with homebuyers earning 50% to 100% of AMI even though they can afford a higher price point because of the lack of available homes priced appropriate to their income levels. This downward pressure will most likely further tighten the market and reduce affordable home options for households in the lower-income brackets, especially those earning at or below 30% of AMI.

As the I-95 Corridor and Northwest submarkets have the highest shares of the ownership homes in the County, most of the ownership home shortages come from these two submarkets. The Northwest submarket even has a housing shortage at the 31% to 50% of AMI bracket in both lending scenarios (975 units short in the FHA lending scenario and 44 units short in the conventional lending scenario, respectively). The Central PWC submarket, in general, has the least ownership housing supply-demand shortage compared to other submarkets, once again resonating with the fact that owner households in this submarket generally have higher income levels, therefore more buying power, and available housing options (Figure 3-6, Table 3-5).

Figure 3-6



Source: HUD, ACS 2019 and RKG Associates, Inc., 2021

Table 3-5

**Ownership Housing Supply and Demand by HUD AMI Income Threshold, ACS 2019 5-Year Estimates
 Prince William County (Excluding Quantico) and Submarkets, VA**

AMI Threshold	Upper Income Limit	Ownership Supply (No. of Owner-Occupied Units)				Ownership Demand (No. of Owner Households)		Gap	
		FHA BUYER		CONVENTIONAL BUYER		Count	Percent	FHA	CONVENTIONAL
		Count	Percent	Count	Percent			Count	Count
County Total (Quantico Excluded)									
Total		115,589	100.0%	115,589	100.0%	115,589	100.0%	0	0
30% of AMI (Extremely Low Income) and Below	\$32,800	4,141	3.6%	6,022	5.2%	8,129	7.0%	(3,988)	(2,107)
31%-50% of AMI (Very Low Income)	\$54,600	10,563	9.1%	21,466	18.6%	9,588	8.3%	975	11,878
51%-80% of AMI (Low Income)	\$69,850	17,385	15.0%	23,757	20.6%	7,673	6.6%	9,712	16,084
81%-100% of AMI	\$109,200	47,433	41.0%	43,756	37.9%	24,064	20.8%	23,369	19,692
101%-120% of AMI	\$131,040	14,865	12.9%	9,735	8.4%	12,394	10.7%	2,471	(2,659)
121% of AMI and Above		21,202	18.3%	10,853	9.4%	53,742	46.5%	(32,540)	(42,889)
Northwest									
Total		26,640	100.0%	26,640	100.0%	26,640	100.0%	0	0
30% of AMI (Extremely Low Income) and Below	\$32,800	478	1.8%	586	2.2%	1,238	4.6%	(760)	(652)
31%-50% of AMI (Very Low Income)	\$54,600	440	1.7%	1,371	5.1%	1,415	5.3%	(975)	(44)
51%-80% of AMI (Low Income)	\$69,850	1,464	5.5%	3,356	12.6%	1,195	4.5%	269	2,161
81%-100% of AMI	\$109,200	9,792	36.8%	12,314	46.2%	4,474	16.8%	5,318	7,840
101%-120% of AMI	\$131,040	5,196	19.5%	4,066	15.3%	2,972	11.2%	2,224	1,094
121% of AMI and Above		9,270	34.8%	4,947	18.6%	15,347	57.6%	(6,077)	(10,400)
Greater Manassas									
Total		18,994	100.0%	18,994	100.0%	18,994	100.0%	0	0
30% of AMI (Extremely Low Income) and Below	\$32,800	806	4.2%	1,517	8.0%	1,904	10.0%	(1,098)	(387)
31%-50% of AMI (Very Low Income)	\$54,600	3,431	18.1%	5,695	30.0%	2,241	11.8%	1,190	3,454
51%-80% of AMI (Low Income)	\$69,850	4,062	21.4%	5,060	26.6%	1,776	9.3%	2,286	3,284
81%-100% of AMI	\$109,200	8,604	45.3%	6,028	31.7%	4,879	25.7%	3,725	1,149
101%-120% of AMI	\$131,040	1,382	7.3%	308	1.6%	1,961	10.3%	(579)	(1,653)
121% of AMI and Above		709	3.7%	386	2.0%	6,234	32.8%	(5,525)	(5,848)
Central PWC									
Total		15,154	100.0%	15,154	100.0%	15,154	100.0%	0	0
30% of AMI (Extremely Low Income) and Below	\$32,800	590	3.9%	673	4.4%	630	4.2%	(40)	43
31%-50% of AMI (Very Low Income)	\$54,600	440	2.9%	878	5.8%	821	5.4%	(381)	57
51%-80% of AMI (Low Income)	\$69,850	681	4.5%	1,967	13.0%	581	3.8%	100	1,386
81%-100% of AMI	\$109,200	5,708	37.7%	6,878	45.4%	2,289	15.1%	3,419	4,589
101%-120% of AMI	\$131,040	2,818	18.6%	2,321	15.3%	1,495	9.9%	1,323	826
121% of AMI and Above		4,917	32.4%	2,437	16.1%	9,338	61.6%	(4,421)	(6,901)
I-95 Corridor									
Total		54,801	100.0%	54,801	100.0%	54,801	100.0%	0	0
30% of AMI (Extremely Low Income) and Below	\$32,800	2,267	4.1%	3,246	5.9%	4,357	8.0%	(2,090)	(1,111)
31%-50% of AMI (Very Low Income)	\$54,600	6,252	11.4%	13,522	24.7%	5,111	9.3%	1,141	8,411
51%-80% of AMI (Low Income)	\$69,850	11,178	20.4%	13,374	24.4%	4,121	7.5%	7,057	9,253
81%-100% of AMI	\$109,200	23,329	42.6%	18,536	33.8%	12,423	22.7%	10,906	6,113
101%-120% of AMI	\$131,040	5,469	10.0%	3,040	5.5%	5,966	10.9%	(497)	(2,926)
121% of AMI and Above		6,306	11.5%	3,083	5.6%	22,823	41.6%	(16,517)	(19,740)

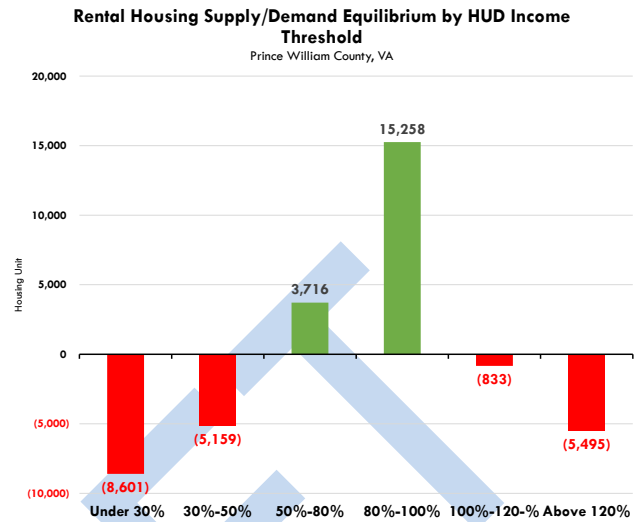
Source: HUD AMI 2019, ACS 2019 Estimates, Prince William County Property Assessment and RKG Associates, Inc., 2021

F. RENTER DEMAND-SUPPLY GAP ANALYSIS

Similarly, a shortage of rental housing supply also exists for renter households at both the lowest and the highest income brackets in the County, which is at or below 50% of AMI and above 100% of AMI (shortage of 13,760 units and 6,329 units, respectively). 42.0%, or 17,923 of the renter households earned at or below 50% of AMI (\$54,600), but only 10.0%, or 4,163 of the rental units were priced affordable to these households with a maximum monthly gross rent of \$1,086, creating a shortage of 13,760 rental units. In addition, 24%, or 10,225 of the renter households in the County earned above 100% of AMI (\$109,200+), while only 9.4% or 3,896 of the rental units were priced above \$2,451 per month. This equates to a shortage of 6,329 rental units for this highest income bracket.

There is also a surplus of 18,975 rental units concentrating at the 51% to 100% of AMI brackets. This means that renter households earning at or below 50% of AMI (\$54,600) must rent units priced higher than their maximum affordable rent of \$1,086 monthly and therefore being cost-burdened. In addition, those earning above 100% of AMI (\$109,200+) will most likely rent units that are priced for renters earning at 51% to 100% of AMI even though they could afford more because of a lack of rental options priced above \$2,451 per month. This will create downward pressure and further reduce affordable rental options for renter households in the lower income brackets, especially those earning at or below 50% of AMI.

Figure 3-7



Source: HUD, ACS 2019 and RKG Associates, Inc., 2021

As the I-95 Corridor submarket has the largest number (53%) of rental units within the County, most of the rental shortages come from this submarket. The Northwest submarket even has a shortage of 235 units for households earning at 51% to 80% of AMI. Like the ownership housing market, the rental supply-demand gap is less severe in the Central PWC submarket (Figure 3-7, Table 3-6).

G. IMPLICATIONS

On the supply side, as the supply-demand gap exists for owner households earning at or below 30% of AMI and above 100% of AMI as well as renter households earning at or below 50% of AMI and above 100% of AMI, the County should focus on increasing the supply of housing units that are priced affordable for households at these income brackets, especially in the I-95 Corridor submarket and the Northwest submarket. That means on the ownership side, increasing single-family homes priced below \$138,495 and condo units priced below \$94,929, as well as single-family homes priced above \$561,169 and condo units above \$506,362. On the rental side, the County should increase the supply of rental units with monthly rent at or below \$1,086, as well as rental units priced above \$2,451 monthly.

Table 3-6

**Rental Housing Supply (with Cash Rents) and Demand by HUD AMI Income Threshold, ACS 2019 5-Year Estimates
 Prince William County (Excluding Quantico) and Submarkets, VA**

AMI Threshold	Upper Income Limit	Max. Affordable Monthly Rent	Rental Supply (No. of Renter-Occupied Units with Cash Rents)		Rental Demand (No. of Renter Households)		Gap Count	Supply as a % of Demand
			Count	Percent	Count	Percent		
County Total (Quantico Excluded)								
Total			41,542	100.0%	42,656	100.0%	(1,114)	
30% of AMI (Extremely Low Income) and Below	\$32,800	\$541	924	2.2%	9,525	22.3%	(8,601)	9.7%
31%-50% of AMI (Very Low Income)	\$54,600	\$1,086	3,239	7.8%	8,398	19.7%	(5,159)	38.6%
51%-80% of AMI (Low Income)	\$69,850	\$1,467	8,927	21.5%	5,211	12.2%	3,716	171.3%
81%-100% of AMI	\$109,200	\$2,451	24,556	59.1%	9,298	21.8%	15,258	264.1%
101%-120% of AMI	\$131,040	\$2,997	2,412	5.8%	3,245	7.6%	(833)	74.3%
121% of AMI and Above			1,484	3.6%	6,979	16.4%	(5,495)	21.3%
Northwest								
Total			3,706	100.0%	3,846	100.0%	(140)	
30% of AMI (Extremely Low Income) and Below	\$32,800	\$541	50	1.3%	414	10.8%	(364)	12.1%
31%-50% of AMI (Very Low Income)	\$54,600	\$1,086	58	1.6%	467	12.1%	(409)	12.4%
51%-80% of AMI (Low Income)	\$69,850	\$1,467	182	4.9%	417	10.8%	(235)	43.6%
81%-100% of AMI	\$109,200	\$2,451	2,257	60.9%	947	24.6%	1,310	238.4%
101%-120% of AMI	\$131,040	\$2,997	568	15.3%	348	9.1%	220	163.2%
121% of AMI and Above			591	15.9%	1,253	32.6%	(662)	47.2%
Greater Manassas								
Total			14,096	100.0%	14,471	100.0%	(375)	
30% of AMI (Extremely Low Income) and Below	\$32,800	\$541	419	3.0%	3,910	27.0%	(3,491)	10.7%
31%-50% of AMI (Very Low Income)	\$54,600	\$1,086	1,103	7.8%	3,340	23.1%	(2,237)	33.0%
51%-80% of AMI (Low Income)	\$69,850	\$1,467	3,652	25.9%	1,886	13.0%	1,766	193.6%
81%-100% of AMI	\$109,200	\$2,451	8,485	60.2%	2,830	19.6%	5,655	299.8%
101%-120% of AMI	\$131,040	\$2,997	283	2.0%	831	5.7%	(548)	34.1%
121% of AMI and Above			154	1.1%	1,674	11.6%	(1,520)	9.2%
Central PWC								
Total			1,688	100.0%	1,836	100.0%	(148)	
30% of AMI (Extremely Low Income) and Below	\$32,800	\$541	54	3.2%	481	26.2%	(427)	11.2%
31%-50% of AMI (Very Low Income)	\$54,600	\$1,086	253	15.0%	190	10.4%	63	133.0%
51%-80% of AMI (Low Income)	\$69,850	\$1,467	254	15.0%	192	10.4%	62	132.6%
81%-100% of AMI	\$109,200	\$2,451	692	41.0%	451	24.6%	241	153.5%
101%-120% of AMI	\$131,040	\$2,997	251	14.9%	183	10.0%	68	136.8%
121% of AMI and Above			184	10.9%	339	18.5%	(155)	54.2%
I-95 Corridor								
Total			22,052	100.0%	22,503	100.0%	(451)	
30% of AMI (Extremely Low Income) and Below	\$32,800	\$541	401	1.8%	4,721	21.0%	(4,320)	8.5%
31%-50% of AMI (Very Low Income)	\$54,600	\$1,086	1,825	8.3%	4,400	19.6%	(2,575)	41.5%
51%-80% of AMI (Low Income)	\$69,850	\$1,467	4,839	21.9%	2,716	12.1%	2,123	178.2%
81%-100% of AMI	\$109,200	\$2,451	13,122	59.5%	5,070	22.5%	8,052	258.8%
101%-120% of AMI	\$131,040	\$2,997	1,310	5.9%	1,883	8.4%	(573)	69.6%
121% of AMI and Above			555	2.5%	3,713	16.5%	(3,158)	14.9%

Source: HUD AMI 2019, ACS 2019 Estimates, Prince William County Property Assessment and RKG Associates, Inc., 2021

Increasing the supply of housing priced for the higher end of the market may first seem counter-intuitive for solving the housing affordability issue. However, increasing price diversity and achieving a healthy mix of price points in the housing market can help alleviate the downward pressure and competition from the higher-income households by providing adequate housing options that are priced appropriately for each income bracket, including for those earning above 100% of AMI. This approach can reduce the mismatch between housing supply and demand for each income bracket and encourage people to choose housing products that are priced appropriate to their income levels, therefore improving housing affordability for all. This is supported by a study “Filtering of Apartment Housing between 1980 and 2018” that was conducted by the National Multifamily Housing Council in 2020.

On the housing demand side, as the I-95 Corridor submarket generally has the largest housing supply-demand gap on both the ownership and rental sides, further investigations and studies are necessary to identify the lower-income neighborhoods and populations that are most challenged as well as their specific needs for related assistance, such as housing subsidies, and job training to improve their income levels. Such studies and financial and policy assistance will also benefit lower-income households in the Northwest submarket on the ownership side, as it also experiences a significant mismatch between its affordable housing supply and demand.

DRAFT