

**HOUSING A DIVERSE AND
INCLUSIVE COMMUNITY IN
ARLINGTON COUNTY:
AN ANALYSIS OF CURRENT AND
FUTURE HOUSING NEEDS**

SEPTEMBER 2014

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Executive Summary

Arlington County is conducting a three-year study to create a shared community vision for affordable housing in Arlington and to develop a comprehensive affordable housing strategy. Having a sufficient supply of affordable housing is vital to the economic, social and cultural sustainability of the Arlington community. With this affordable housing study and the development of strategic policies and programs, the County is proactively working to ensure Arlington remains a diverse, inclusive and sustainable community that offers a broad set of housing choices for all its residents. With support from the County Manager, the study will culminate in the development of an affordable housing element of the County's comprehensive plan.

As part of the affordable housing study, this report analyzes current housing conditions and affordability, forecasts future household growth and household characteristics, and discusses the County's greatest housing needs. This needs assessment provides the background necessary to develop a comprehensive affordable housing policy that meets the needs of current and future residents and ensures that Arlington lives up to the values of diversity, inclusivity, choice and sustainability.

Population and Housing Market Trends in Arlington County

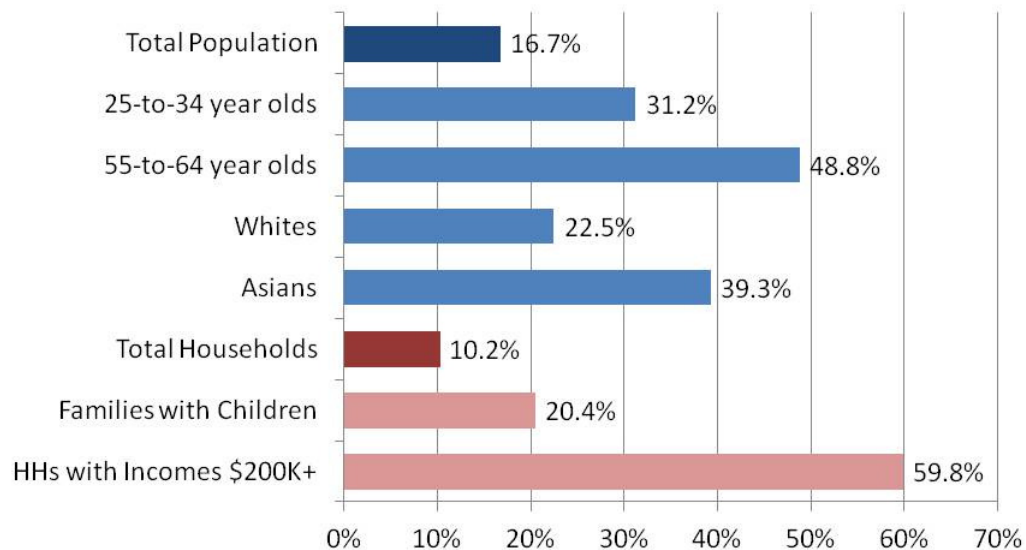
The county's growing and changing population reflects its character as a mature, urban community.

Several population trends have shaped the growth and changing character of Arlington County in recent years:

- Over the past 12 years, the oldest cohort of the **Millennials** reached their 20s and 30s. At the same time, the Washington DC region, and Arlington County, in particular, became a magnet for young, professional workers. As a result of these factors, the number of 25-to-34 year olds in the county surged, increasing by 32.1 percent over 12 years, compared to an increase of 16.7 percent for the overall population. In fact, in 2012, Arlington had a higher share of 25-to-34 year olds than any other county in the nation.
- The aging of the **Baby Boomers** also has implications for population change in Arlington. The number of 55-to-64 year olds, which includes a large share of the Baby Boom population, grew by 48.8 percent between 2000 and 2012. This population shift foreshadows the growth ahead in the county's senior population.
- Arlington County became somewhat less racially and ethnically diverse over the past 12 years. The **white** population grew faster than the overall population (22.5 percent versus 16.7 percent) and the number of Hispanic residents living in Arlington declined. In no other jurisdiction in the Washington, DC region was there a drop in the Hispanic population. (Note that in Arlington, the number of Hispanic households did increase, which suggests a Hispanic population living in smaller household sizes.) The **Asian** population also grew quite fast (39.3 percent), though Asians make up a relatively small share of the overall population in 2012.

- The number of **families with children** increased more than twice as fast as the overall number of households (20.4 percent versus 10.2 percent). This trend reflects the aging of the large Millennial population into marriage and child bearing age. But the trend may also be indicative of the increasing likelihood of families remaining in the county after children are born.
- The increase in some high-wage jobs in the region and the fact that Arlington is an attractive place to live have meant that the county has attracted high-wage workers and experienced a significant increase in the number of **high-income households**. For example, the number of households with incomes of \$200,000 or more increased by 59.8 percent between 2000 and 2012, compared with an increase of just 10.2 percent for all households.

Population and Household Change, 2000-2012 Selected Groups



Source: 2000 Census, 2012 American Community Survey

Arlington’s housing market has been characterized by escalating rents and homes prices over the past decade. While rents and home prices increased all across the region, they increased faster in Arlington and, in general, the County was insulated from the housing market downturn. Between 2000 and 2013, the average home sale price in Arlington increased by 140.3 percent while the average rent increased by 90.9 percent.

The number of homes—including both rental and homeownership—affordable to low- and moderate-income households has declined precipitously since 2000. Homes affordable to households earning below 60 percent of area median income took a particular hit, as thousands of market rate affordable

rental homes were lost from the county' housing stock through rent increases, condo conversion, and redevelopment.

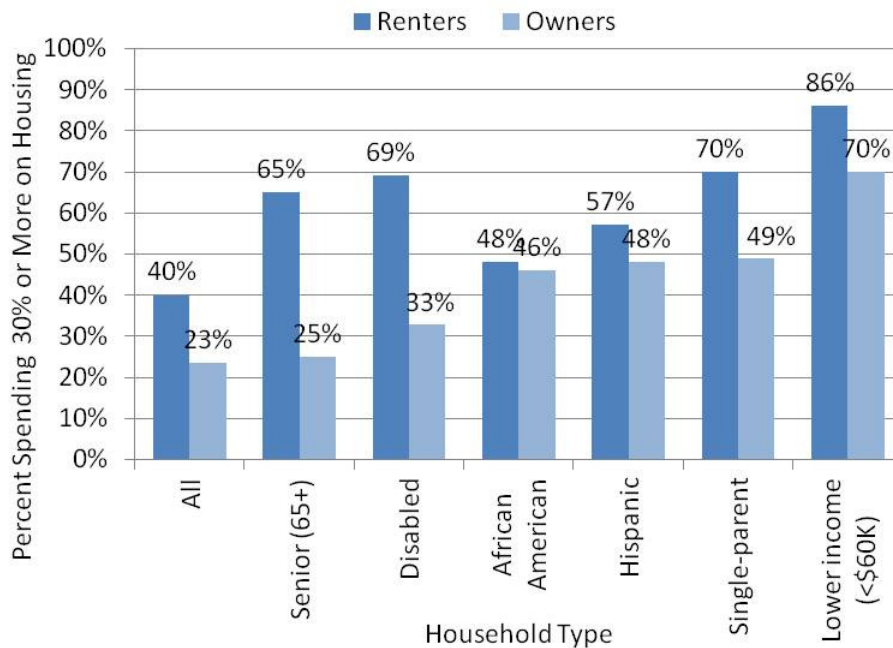
Primarily as a result of the County's coordinated land use and transportation policies that encourage higher intensity development along transit corridors, new residential construction has been dominated by multi-family housing within the county's Metro station areas. Since 2000, three-fourths of all new residential units have been built along the county's Rosslyn-Ballston and Jefferson Davis Metro corridors. Only a very small share—about six percent—of all new housing units built since 2000 were single-family detached homes or townhouses.

Housing Affordability in Arlington County

Affordability has declined dramatically in Arlington over the past 12 years, primarily as a result of surging housing costs but also because of flat or declining incomes among some groups. While finding affordable housing is a challenge for many households, several key populations face particular challenges in Arlington:

- **Older renters** have higher cost burdens than households headed by someone under age 65. Nearly two-thirds of senior renters pay more than 30 percent of their income on housing, compared with 40 percent of all renter households. In addition, low-income senior households on fixed incomes face growing financial stress around rent and condo fee increases. Many seniors say they want to remain in Arlington County for the rest of their lives but many are worried that rising housing costs or difficulty finding affordable housing will force them to leave.
- **Racial or ethnic minority households** are much more likely than white households to face affordability challenges. Nearly half of African American households—including both renters and owners—are cost burdened; 57 percent of Hispanic renters and 48 percent of Hispanic owners are cost burdened. In fact, nearly one out of five Hispanic and African American households said they have already moved out of a home in Arlington because they could no longer afford the cost of living there. Many feel certain they will not be able to remain in Arlington over the coming years.
- **Families with children**, especially single-parent families, face higher cost burdens than other types of households. Seventy percent of single-parent renters spend more than 30 percent of their income on housing. In addition, many families with children struggle to find housing in the county that is large enough to meet their families' needs.
- Arlington's **low-income households** face the most serious affordability challenges and often face stark choices when it comes to finding ways to pay for housing. Many low-income households spend less on food, transportation, utilities and other necessities in order to cover housing costs. Small increases in rents can have a major impact on these families' budgets.

Selected Cost Burdened Households, 2012



Source: 2010-2012 American Community Survey microdata file

Arlington County's Current and Future Housing Needs

Based on an analysis of the number of households at different incomes compared to the amount of housing at different rents and prices, the county's rental stock appears to be serving fairly well both families and single-person households who have incomes above 80 percent of area median income, and the homeownership market serves well only higher income households. However, the current stock is far below what would be needed to meet the demand of renters—particularly families—with incomes below 60 percent of area median income. Between 2000 and 2013, the supply of market rate affordable rental housing (MARKs) affordable at 60 percent of area median income or below dropped by nearly 15,000. The County's committed affordable (CAF) program created less than 3,000 units over that time.

On the homeownership side, rising home prices and limited new supply have put homeownership out of reach for all but the highest income households. In 2013, 60 percent of all homes sold in the county sold for \$450,000 or higher, a price generally affordable to households earning at least \$100,000 or more.

The County is mandated to plan for affordable housing to meet the current and future needs of its residents. Based on this review of past demographic and housing market trends, current housing shortages and affordability challenges, and anticipated household growth the County's most pressing current and future housing needs include the following:

- **Rental housing for very low-income (<60% AMI) and extremely low income (<30% AMI) households is needed to close the current housing gap and meet future needs.** This group of individuals and families includes many workers who serve the Arlington community and economy, and the lower-wage jobs they work in will comprise a larger share of the region's overall employment in the years to come. This group of households faces the most stress associated with rent increases, and the supply of housing that is affordable to this group has declined sharply over the past decade. Based on forecasts of household growth, between 2010 and 2040, the county will add 3,700 households with incomes below 30 percent of area median income and 3,700 households with incomes between 30 and 60 percent of area median income. Currently, neither the market nor the County's full set of affordable housing policies is sufficient to meet the housing needs of these households. Without ensuring a sufficient supply of lower cost housing, or providing direct financial assistance to families and individuals, low-income households will find it difficult to live in Arlington and the county will risk diminishing its economic diversity.
- **Families with children will need homes with two, three or more bedrooms.** Families with children make up a growing segment of the Arlington community. They are also more likely than other types of households to face affordability challenges and to find housing that meets their families' needs. Based on forecasts of household growth, the county is expected to add 7,700 households with three or more people between 2010 and 2040. While the county will continue to attract single-person households in large numbers, the number of larger households will increase at a slightly faster rate during the first decade of the forecast period. In addition, the number of homes with three or more bedrooms in the county has shrunk over the past 13 years, leaving larger households particularly underserved. Many of these larger households will be families with children. These families often have children in Arlington County public schools and benefit from the services and amenities available in the county.
- **The number of senior households will grow substantially over the coming decades, and they will have a wide range of housing and service needs.** Based on household forecasts, the number of households is expected to grow three times faster than the number of households headed by someone under age 65. The county is expected to add 9,200 senior-headed households between 2010 and 2040. This group will have a variety of needs but many will need new housing options to be able to remain in Arlington or will need assistance—either with physical modifications or financial assistance—to age in place in their homes. Many long-term residents of Arlington will be entering retirement and many will want to remain in their community.
- **The growing number of persons with disabilities will need housing to enable them to live independently in the community.** Among the most vulnerable populations in Arlington are low-income people with disabilities. Between 2010 and 2040, it is anticipated that the number of households with a disabled person will increase by 3,900 households. These households include people with a range of disabilities, including physical, cognitive and self-care or independent living disabilities. This disabled population will have a variety of housing needs, but critical to being an inclusive community is providing opportunities to this population to live independently within the community and to take advantage of the county's amenities.

- **Homeownership for moderate-income households will be needed to create opportunities that have diminished in recent years.** Rising home prices over the past 12 years has made it very difficult for moderate-income households to afford to buy a home in the county. The desire for homeownership remains strong, even among the Millennial population. In order for a range of households to have choices with regards to homeownership in the county, there is need for expanded homeownership opportunities for moderate-income households and first-time homebuyers. According to the forecasts, between 2000 and 2040 the county will add 5,500 households with incomes between 80 and 120 percent of area median income.
- **Permanent and supportive housing is needed for homeless and near homeless individuals and families to help promote well-being and self-sufficiency.** Based on recent counts of the homeless population, there are several hundred individuals and families in Arlington without a place to live. Some of these individuals are chronically homeless, and need intensive supportive services to help with health care issues, substance abuse and other difficulties. As the county grows and prospers in the future, it will be important to ensure that the most vulnerable of the community have a place to call home.

Forecasts of Household Growth by Selected Characteristics, 2010-2040

Household Type	No. of Households 2010	Change 2010-2040	Percent Change
All Households	98,100	30,500	31%
Household Income			
<30% AMI	10,100	3,700	37
30-60% AMI	10,100	3,700	37
60-80% AMI	9,000	3,000	33
80-100% AMI	9,900	2,400	24
100-120% AMI	9,100	3,100	34
120%+ AMI	49,700	14,800	30
Household Size			
1-person	40,500	12,000	30
2-person	31,700	11,000	35
3-person	11,600	3,400	29
4+-person	14,200	4,300	30
Age of Household Head			
65 or older	12,300	9,200	75
Under 65	85,700	21,400	25
Disability Status			
With a disabled member	9,100	3,900	43
With no disabled member	89,000	26,600	30
Tenure (Rent/Own)			
Rental units	55,600	21,000	38
Ownership units	42,500	9,500	22

Source: GMU/CHP. Numbers may not sum due to rounding.

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Introduction

Arlington County is conducting a three-year study to create a shared community vision for affordable housing in Arlington and to develop a comprehensive affordable housing strategy. Having a sufficient supply of affordable housing is vital to the economic, social and cultural sustainability of the Arlington community. With this affordable housing study and the development of strategic policies and programs, the county is proactively working to ensure Arlington remains a diverse, inclusive and sustainable community that offers a broad set of housing choices for all its residents. With support from the County Manager, the study will culminate in the development of an affordable housing element of the County's comprehensive plan.

As part of the affordable housing study, this report analyzes current housing conditions and affordability, forecasts future household growth and household characteristics, and discusses the county's greatest housing needs. This needs analysis is a critical step in the affordable housing study process. In order to create a set of comprehensive affordable housing policies that will support Arlington's vision, it is critical to understand the housing needs of the community—not just the needs of current residents, but also the housing needs of future residents who will shape the growth of the county.

This analysis is based on data from Arlington County, the U.S. Census Bureau and other public data, along with data collected through a countywide poll of Arlington residents, a survey of non-resident in-commuters, and a series of focus groups and targeted interviews with key stakeholder groups in Arlington. In addition, the analysis benefitted tremendously from discussions with county staff members and with members of the Affordable Housing Working Group.

The main goals of this needs analysis are:

- To describe the characteristics of Arlington County's population and to analyze demographic, economic, and housing market trends;
- To examine current housing affordability and housing needs in the county, and to better understand the current gap between needs and supply;
- To forecast housing demand to 2040; and
- To estimate and evaluate current and future housing needs to serve as a basis for the development of housing priorities and strategies.

Profile of the Arlington Community

Population

According to data from the U.S. Census Bureau’s American Community Survey (ACS), Arlington County had a population of 221,045 in 2012.¹ The county’s population is racially and ethnically diverse, relatively young and relatively high income, and its growing and changing population reflects its character as a mature, urban community.

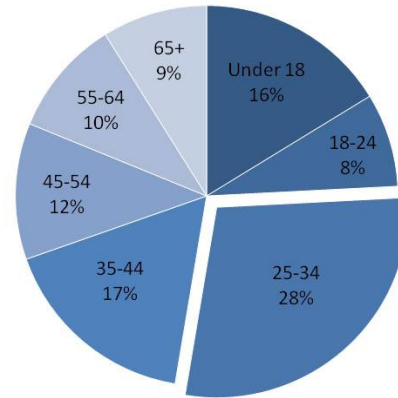
Arlington has a higher share of 25-34 year olds than any other jurisdiction in country.² Over the past decade, the population of 25-34 year olds—a group that includes people often referred to as Millennials or Generation Y—has grown twice as fast as the overall population. Young workers, drawn to the Washington, DC region for jobs, are attracted to the amenities, transit access and overall quality of life available in Arlington.

The other growing age group has been the population age 55 to 64 years old. Although 55-to-64 year olds comprise just 10 percent of the county’s population, this age group increased three times faster than the overall population since 2000. In the coming decade, the 65+ population will be the fastest growing age group in the years to come as the Baby Boom population ages. (The leading edge of the Baby Boomers turns 68 in 2014.)

While Arlington’s population remains racially and ethnically diverse compared to many suburban jurisdictions, it has a higher share of white residents compared with other close-in jurisdictions in the region, and the non-white population has grown relatively slowly in recent years. In fact, Arlington was the only place in the region where the Hispanic population did not increase over the past decade. In 2000, Hispanics comprised about 19 percent of the county’s population. In 2012, the share had dropped to 15 percent. Asians make up 10 percent of the county’s population and African Americans comprise about nine percent.

Figure 1.

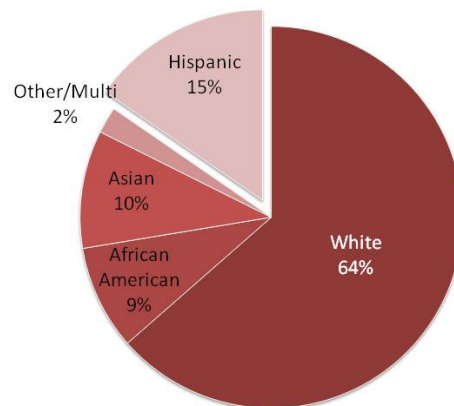
Age



Source: 2012 American Community Survey

Figure 2.

Race/Ethnicity

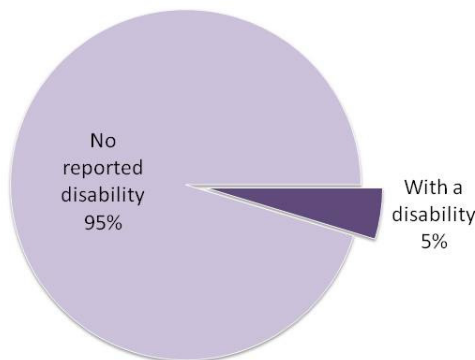


Source: 2012 American Community Survey

¹ Unless otherwise noted, the data presented in this section are from the 2012 American Community Survey. Detailed population and household data are included in the Appendix. The 2012 population and household figures from the ACS are higher than the estimates produced by the Arlington County Planning Division.

² U.S. Census Bureau, 2012 American Community Survey 1-year file, Table S0101. The city of Alexandria, Virginia, has the second highest share and New York is third.

Figure 3.
Disability Status



Source: 2012 American Community Survey

About five percent of Arlington County residents live with a disability.³ This figure includes more than a quarter of seniors and 2.5 percent of people under age 65. Independent living difficulties are the most common disability, followed by ambulatory difficulties.

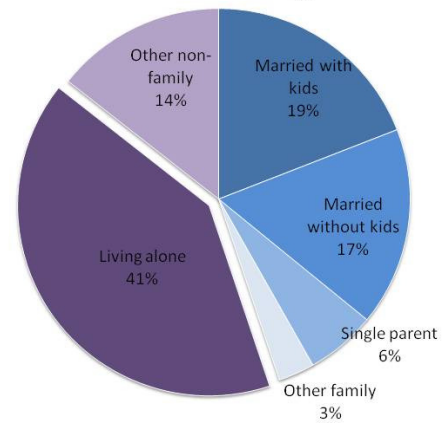
Households

According to the ACS, there were an estimated 95,369 households in Arlington in 2012. More than half of Arlington households are non-family households, which are defined as households where no one is related by

birth, marriage or adoption, and includes people living alone, people living with roommates, and unmarried partners living together (if there are no children). Forty percent of all Arlington households are people living alone. These one-person households include many young adults, but also over 6,000 seniors who live by themselves. About 17 percent of households in Arlington are married couples with children, and this group has grown about twice as fast as the overall population since 2000. The relatively fast growth in the number of married couples with children reflects demographic change—overall there are more people in their upper 20s and lower 30s, which is typically when people get married and have children—but also potentially the growing tendency for young families to stay in Arlington after they have children.

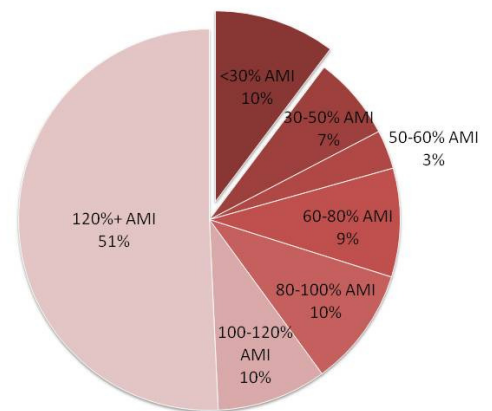
Arlington households have relatively high incomes compared to both the region and the nation.⁴ Over 60 percent of the county’s households have incomes above the region’s area median income (AMI), which was \$107,500 for a family of four in 2012.⁵ About 20 percent of households in Arlington have incomes between 80 and 120 percent of AMI, a range typically referred to as “moderate-income households.” Even with relatively high incomes, about 10 percent of Arlington’s households have incomes below 30 percent of AMI, which are typically termed “extremely low income households,” and another 10 percent

Figure 4.
Household Type



Source: 2012 American Community Survey

Figure 5.
Household Income



Source: 2010-2012 American Community Survey, GMU tabulations of AMI

³ Includes only people not living in institutions, such as nursing homes.

⁴ According to the 2012 American Community Survey, Arlington County ranked as the 5th wealthiest county in the country as measured by household income. Loudoun County, VA; Howard County, MD; and Fairfax County, VA ranked 1st, 2nd, and 3rd, respectively.

⁵ U.S. Department of Housing and Urban Development’s 2012 income limits, available at <http://www.huduser.org/portal/datasets/il/il12/index.html>.

have incomes between 30 and 60 percent of AMI, which are often defined as “very low income households”.⁶

Over the past 12 years, there has been a substantial increase in the number of higher income households living in Arlington, while the number of low- and moderate-income households has declined. For example, the number of households with incomes of \$200,000 or higher grew by 60 percent between 2000 and 2012, while the number with incomes of less than \$60,000 declined by 10 percent. Part of the reason for this shift is related to the evolution of the Washington, DC area economy over the past few decades, which has expanded the number of higher wage, professional and technical service jobs. The growth also reflects Arlington’s continued attractiveness to a broad set of households, as well as growing interest in more urban living.

The homeownership rate in Arlington is lower than the national and regional rate, which reflects its relatively urban character and its population demographics. According to the 2012 American Community Survey, about 43 percent of Arlington’s households are homeowners and 57 percent are renters. By contrast the national homeownership rate was 65 percent and the regional homeownership rate was 63 in 2012.

A widely accepted measure of housing affordability is when households spend no more than 30 percent of their incomes on housing costs.⁷ In Arlington, 40 percent of renters—or more than 20,600 households—were cost burdened in 2012.^{8,9} Some households are able to spend a relatively higher share of their incomes on housing because living in Arlington allows them to spend less on transportation costs. According to recent released data from the U.S. Department of Housing and Urban Development (HUD) and the Department of Transportation (DOT),¹⁰ a four-person Arlington family with two commuters and an income of \$89,826 spends 42 percent of its income on combined housing plus transportation costs.

As Table 1 shows, on average, households living in closer-in jurisdictions in the region tend to have lower total transportation costs, likely as a result of being close to job centers and transit. HUD and DOT have suggested that households should spend no more than 45 percent of their income on housing plus transportation costs in order to leave enough for other expenses. The typical Arlington household falls below that threshold, while the typical Fairfax County and Montgomery County household spends more.

⁶ Data on income as a percentage of area median income (AMI) are based on the 2012 American Community Survey 3-year file and represents the average characteristics of Arlington households over the 2010-2012 period. See text box later in the text for more information on AMI definitions.

⁷ See “Who Can Afford To Live in a Home?: A look at data from the 2006 American Community Survey” by Mary Schwartz and Ellen Wilson available at <http://www.census.gov/hhes/www/housing/special-topics/files/who-can-afford.pdf> for a discussion of why 30 percent of income is a standard for housing affordability.

⁸ Cost burden data were tabulated from the 2010-2012 American Community Survey 3-year microdata file.

⁹ Residents in Arlington’s Committed Affordable Units (CAFs) and households receiving County housing grants are required to put 40 percent of their incomes towards rent, with the programs making up the difference between that amount and the actual rent. So, using the 30 percent definition of affordability, these households would technically be cost burdened.

¹⁰ See <http://www.locationaffordability.info/> for more information and to access housing and transportation cost data from HUD and DOT.

Table 1. Combined Housing Plus Transportation Costs, 2010
For a family of four with two commuters and a household income of \$89,826

Jurisdiction	% of income spent on housing	% of income spent on transportation	% of income spent on housing and transportation combined
Arlington County	30	12	42
City of Alexandria	29	12	41
District of Columbia	28	12	40
Fairfax County and the Cities of Fairfax and Falls Church	32	15	47
Montgomery County	32	15	47

Source: HUD and DOT Location Affordability Portal

Severely cost burdened households are defined as those that spend more than half of their income on housing costs. About 9,600 renting households or 19 percent of all renters in Arlington County are severely cost burdened. The share of cost burdened households has increased substantially over the past 12 years. In 2000, 13 percent of renters spent half or more of their income on rent; the share was 16.5 percent in 2006.¹¹ Despite this increase, the share of severely cost burdened renters in Arlington County is lower than in most other local jurisdictions.

Table 2. Severely Cost Burdened Renters, 2012

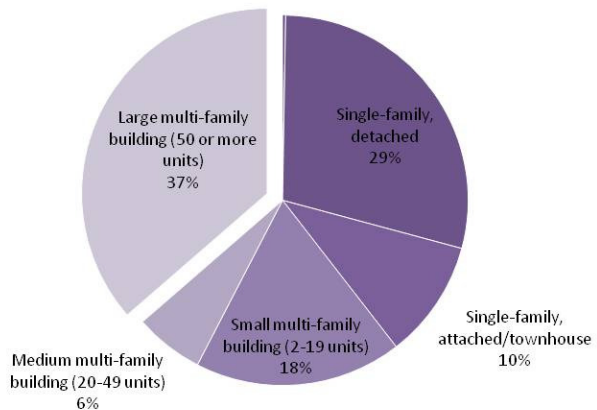
Jurisdiction	% of renters spending half or more of their income housing
Arlington County	19
City of Alexandria	20
District of Columbia	26
Fairfax County and the Cities of Fairfax and Falls Church	18
Montgomery County	25

Source: 2012 American Community Survey

Arlington County is a mature, urbanizing suburb. As a result, its housing stock includes a mix of single-family homes, apartments and condominiums. More than a third (37 percent) of the housing units in Arlington are part of large-, multi-family buildings with 50 or more units. The number of units in large multi-family buildings increased by 31 percent between 2000 and 2012. The fastest growth, however, was seen among units in medium sized multi-family buildings, where the number of units increased by

¹¹ The 2000 rate is from the decennial Census and the 2006 rate is from the 2006 American Community Survey.

Figure 6.
Unit Type



Source: 2012 American Community Survey

76 percent. The overall number of housing units in the county grew by 10 percent between 2000 and 2012.

According to data from the Arlington County Planning Division, half of all of the nearly 17,200 net new housing units that were built between 2000 and 2013 were built in the Rosslyn-Ballston Corridor. Another 25 percent were built within the Jefferson-Davis Corridor and six percent along Columbia Pike. The remaining 19 percent of net new housing units were constructed in other parts of the county.

The pace of residential construction in Arlington over the past decade has been greater than in most other jurisdictions in the region. About 15 percent of all of the housing units in the county were constructed after 1999, and nine percent

have been built since 2005. The vast majority of this new construction has been multi-family.

The current occupied housing stock in Arlington is split roughly in thirds based on bedroom size, with 37 percent zero or one bedroom homes, 29 percent two-bedroom homes and 34 percent three-or-more bedroom homes. Arlington has a higher share of one-bedroom homes than any other jurisdiction in the region, including Washington, DC (though DC has more efficiencies).

Demographic and Housing Market Trends

Demographic Trends

Arlington's population has changed significantly over the past 12 years, partially as a result of larger, national demographic trends, but also as a result of local economic and housing market conditions. As highlighted above, there are several key groups that have become a larger share of the Arlington County population since 2000:

- Millennials.** Since 2000, the number of Arlington residents between the ages of 25 and 34 increased by 31 percent, which is an addition of about 15,000 people in this age cohort over the 12-year period. Part of this growth is related to the age structure of the population broadly. But Arlington has been a magnet for young professional workers, particularly in the years following the recent recession, as they have come to the Washington, DC region for employment and have settled in Arlington for the access to employment, amenities and quality of life.
- Baby Boomers.** The population age 55 to 64 grew by 49 percent between 2000 and 2012 which is an increase of about 7,200 people. This growth largely reflects the county's Baby Boom

population aging into their late 50s and early 60s, rather than new people moving into the county.

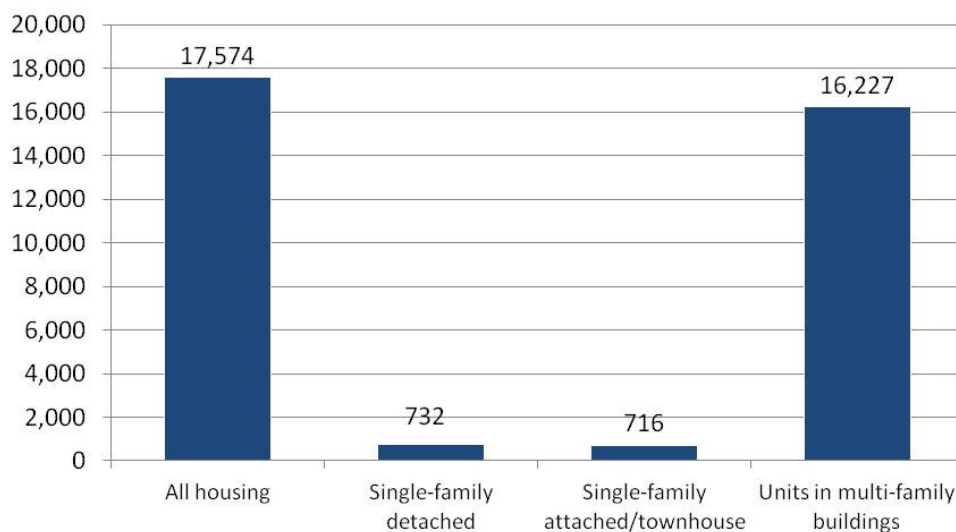
- **Whites.** Between 2000 and 2012, Arlington became somewhat less racially and ethnically diverse. In 2000, the non-Hispanic white population made up 61 percent of the county's total population; in 2012, the share was 64 percent. Over the same period, the county saw a decline in its Hispanic population and the African American population grew more slowly than average. While the Asian population is only about 10 percent of Arlington's total population, it grew faster than other racial and ethnic groups between 2000 and 2012.
- **Families with children.** There are more families with children in Arlington in 2012 than there were in 2000. The number of households with married couples and children grew at a rate more than twice as fast as the overall household growth rate. The number of single-parent families also grew faster than the overall average rate of growth. Part of this is due to the aging of the large Millennial population into marriage and child bearing age. But the trend may also reflect the increasing likelihood of families remaining in the county after children are born. According to school enrollment figures from Arlington County Public Schools, the number of children in the public school system has increased steadily since 2005, with the biggest increases in the number of children enrolled in kindergarten through grade four.
- **Higher income households.** Average household income increased in Arlington over the past decade, and part of that increase was due to higher income households moving into the county and lower-income households moving out. In 2000, 13 percent of Arlington's households had incomes of \$200,000 or more; in 2012, that share had risen to 18 percent. At the same time, the share of households in the county with incomes under \$60,000 fell from 32 percent of all households in 2000 to 26 percent in 2012.

Residential Construction Trends

The County's land use and zoning policies have been the primary drivers of the patterns of residential construction activity in Arlington. The county has a commitment to harmonizing land use and transit through zoning that is aimed at promoting transit-oriented development, while at the same time remaining committed to the preservation of existing single-family neighborhoods. As a result, the majority of new construction has occurred along transit corridors, particularly the Rosslyn-Ballston and Jefferson Davis corridors. These corridors have been planned for higher densities in order to realize the full potential of the Metrorail stops. Combining the higher densities planned near Metro, and the fact that most single family areas of the county are built out, has resulted in a significant share of multi-family residential development over single-family detached or townhouse development.

Between 2000 and 2013, there were 17,574 net new residential units built in Arlington County. Ninety-four percent, or 16,227 units, were multi-family housing units. Only 716 were single-family attached homes or townhouses, and 732 were single-family detached homes. In addition, according to estimates from the Arlington County Planning Division, as of July 2014 there were approximately 9,000 additional multi-family units currently under construction or in the review process which will be delivered in 2014 through 2017. There are also about 165 townhouse units currently under construction or under review.

Figure 7. Change in the Number of Housing Units by Type, 2000-2013



Source: 2000 Census, Arlington County Planning Division

Rental Housing

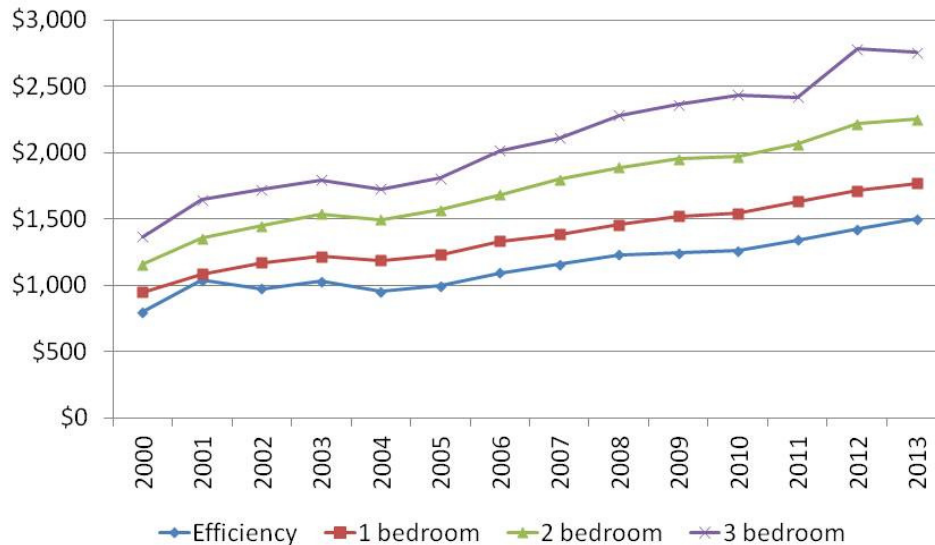
The appeal of the Washington, DC region, and Arlington County, in particular, has increased demand for housing in the county. Changing socioeconomic characteristics of its residents have led to substantial increases in housing costs and changes in the types of housing being built in the county. According to the Arlington County Rent and Vacancy Survey, in 2000, the average rent for an apartment in Arlington was \$1,013.¹² By 2013, the average rent had nearly doubled to \$1,934. Rents increased substantially even as apartment units got smaller. Over 60 percent of the net new apartment units added to the stock between 2000 and 2013 were efficiency (zero bedroom) or one bedroom apartments, while 37 percent were two bedroom units and just two percent had three or more bedrooms.

The limited supply and the steady demand for larger units put tremendous pressure on the rents for larger units, even those in older buildings. For example, the average rent for a three-bedroom home in a garden apartment building increased from \$1,111 in 2000 to \$2,188 in 2013. At the same time, there

¹² Data presented in this section are from the Arlington County Housing Division, Annual Rent and Vacancy. Data exclude CAFs and a small number of market rate rental units.

were 80 fewer garden apartments with three bedrooms in the stock in 2013 than there were in 2000. Over the 13-year period, the county added just 149 net new apartments with three or more bedrooms—all in highrise buildings—while adding over 4,600 units with zero or one bedroom.

Figure 8. Average Rent by Bedroom Size, 2000-2013
(Nominal dollars, not adjusted for inflation)



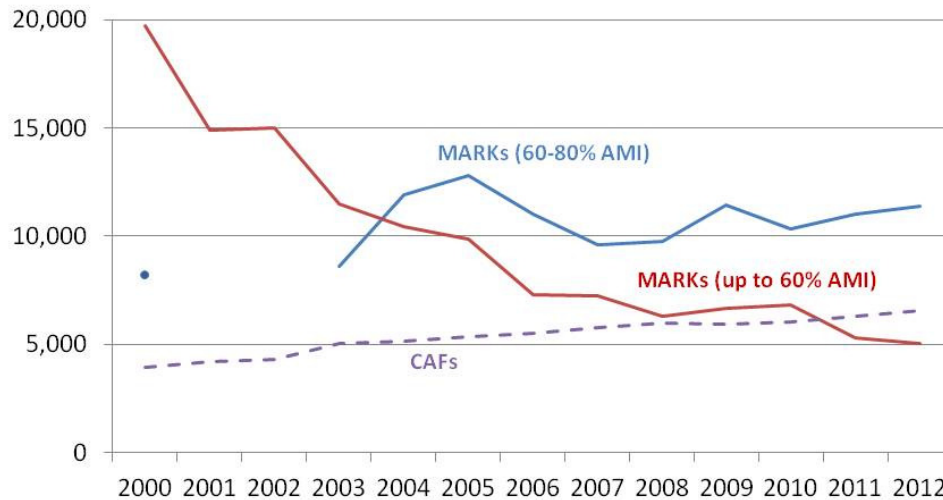
Source: Arlington County Housing Division, Rent and Vacancy Survey

There are two sources of affordable rental housing in Arlington—MARKs (market rate affordable homes) and CAFs (committed affordable homes). MARKs have market rents that are affordable to low- and moderate-income households by virtue of the age, location, condition and/or amenities of the property. These units are not regulated by the county or any other public agency, so there is no assurance that lower-income households live in these lower-rent housing units. In addition, there is no guarantee that these homes will remain affordable to lower-income households. Property owners can raise rents—as the market will bear—and generally can sell and/or redevelop their properties as long as they comply with zoning and other requirements. The number of MARKs that are affordable to households with incomes below 60 percent of AMI has dropped precipitously since 2000. According to the Arlington County Housing Division, in 2000, there were nearly 20,000 market rate affordable rental units affordable to households below 60 percent of AMI; in 2012 there were just over 5,000. The primary means by which MARKs are taken out of the inventory are through rent increases, renovation and condominium conversion. In addition, more than 2,500 MARKs have been converted to Committed Affordable Units (CAFs) with long-term affordability guarantees (see below). The supply of MARKs affordable to households with more moderate incomes, between 60 and 80 percent of AMI, has remained fairly constant since 2003. The fairly constant supply of MARKs affordable to households between 60 and 80 percent of AMI is due in some part to increases in rents that have moved MARKs

that had been affordable to households at or below 60 percent of AMI into the higher income category.¹³

CAFs are rental units that are built by private and non-profit developers with a subsidy from the federal, state and/or local government. These units are covered by legally binding agreements with a public agency that requires that they remain affordable to low- and moderate-income households for a specified period of time. Only households within specified income limits are allowed to rent CAFs, and the County monitors compliance with these regulations. Through the development process, the County has steadily added to the CAF inventory and the number of CAFs has increased from 3,920 in 2000 to nearly 6,600 in 2013.

Figure 9. Affordable Rental Housing Inventory, 2000-2012



Source: Arlington County Housing Division

Despite the commitment of the County to increasing the number of affordable rental units through the development process, the market has taken far more units out of the inventory than the number of CAFs that has been added. While the county added 2,665 CAFs between 2000 and 2012, there has been a loss of 11,547 MARKs, for a net loss of nearly 8,900 rental homes affordable to low- and moderate-income households. The majority of this loss in inventory is among units affordable to households with incomes before 60 percent of AMI.

¹³ Arlington County Housing Division. Data on the number of 60-80% AMI MARKs are not available for 2001 and 2002.

Homeownership

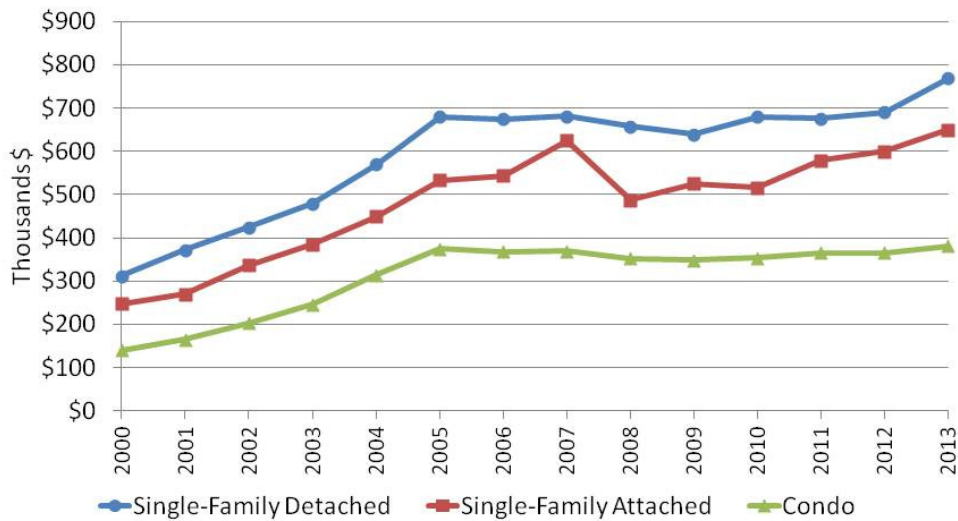
The cost of buying also escalated dramatically in Arlington County since 2000. In 2000, the median home price in Arlington was \$218,500, including single-family detached homes, townhouses and condominiums.¹⁴ By 2013, the average home in Arlington sold for \$525,000, which reflects an increase of 140 percent over 13 years. The Arlington housing market did experience a bit of a downturn in 2008 but it rebounded quickly, returning to above the pre-bust peak by 2012. Compared with the rest of the Washington, DC region, Arlington weathered the housing crisis better, with home prices falling only modestly, and prices in Arlington are among the highest in the area.

Housing costs were up for all housing types and across neighborhoods throughout the county. Condominiums made up more than half of all home sales in 2013, and the average condo price was \$381,500, up from \$140,500 in 2000.¹⁵ Condominium prices in the 22204 ZIP code increased much faster than in the rest of the county, rising from \$85,000 in 2000 to \$296,000 in 2013, an increase of 248 percent.

In 2013, townhouses sold for an average of more than \$650,000, up 163 percent from \$247,500 in 2000. There is significant variation across the county, however, with an average townhouse price in ZIP code 22209 of over \$1 million and an average of \$406,000 in ZIP code 22206. The average single-family

Figure 10. Median Home Prices, 2000-2013

(Nominal dollars, not adjusted for inflation)



Source: MRIS

¹⁴ The median price is the price where half the homes sold for more and half the homes sold for less.

¹⁵ In the home sales and price data reported by MRIS, condominiums include all housing units with a condominium or coo-op ownership structure, regardless of building type. As a result, there are condominium townhouses included in the condominium data report. All of the data for single-family attached homes are for those with a fee simple ownership structure and include single-family attached homes, townhomes and duplexes. The terms “single-family attached homes” and “townhomes” are used interchangeably

detached home sold for nearly \$770,000 in 2013, a 146 percent increase from \$312,000 in 2000.

The inventory of homes for sale in Arlington remains at a historically low level. As of April 2014, there were only 562 homes for sale in Arlington. Nearly two-thirds had asking prices of \$450,000 or more.

Current Housing Affordability

As the data on rents and home prices indicate, the supply of homes affordable to low- and moderate-income households has declined dramatically since 2000. It has become increasingly challenging for many households to find housing in Arlington that they can afford. While rising housing costs are felt by all households, some groups have been disproportionately impacted.

Older Renters Have High Overall Cost Burdens and Younger Households Have a Harder Time Affording Homeownership

In 2012¹⁶, nearly two-thirds of renters age 65 and older were cost burdened—that is, they spent 30 percent or more of their income on housing costs. Many of these households are on fixed incomes, and any increase in their rent can have a big impact on their monthly budgets. About a quarter of homeowners age 65 and older also report spending more than 30 percent of their income on housing costs.

Housing Cost Burden

Housing cost burden is a measure of housing affordability. If a household spends over 30 percent of its income on housing costs, we say it is cost burdened. If a household spends half or more of its income on housing, we say it is severely cost burdened.

According to our poll of Arlington County residents,¹⁷ more than half of seniors living in Arlington said they would like to remain in the county for the rest of their lives, but more than one-fifth said they think they will have to leave the county within five years because they will not be able to find the kind of housing they want at a price they can afford. Many of Arlington's older residents are long-term residents who have strong ties to the community. According to our poll, about 55 percent of Arlington residents age 65 and older have lived in the county for 30 or more years. In a focus group with low-income seniors living in Arlington,¹⁸ this group values living in Arlington because of its good public transportation system; accessible and abundant County services (e.g. classes, programs); close, walkable retail service; and high quality hospital and doctors nearby. The seniors that participated in the focus group expressed no interest in living in senior-only buildings; living among a diversity of household types was seen as a tremendous benefit.¹⁹

¹⁶ Unless otherwise noted, data presented in this section are from the 2010-2012 American Community Survey 3-year microdata file and represents the average characteristics of Arlington households over the 2010-2012 period. We use data from the 3-year file in order to present more reliable estimates about detailed household characteristics.

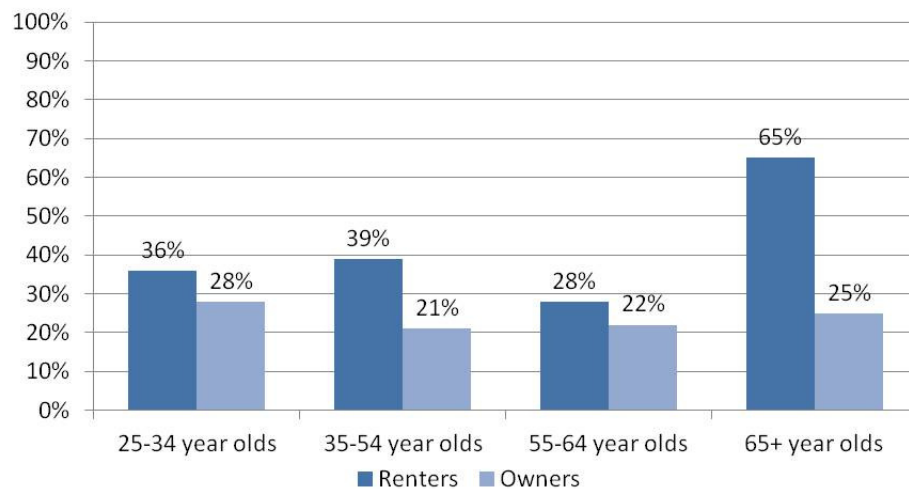
¹⁷ Between April 23 and June 12 2014 we conducted a telephone survey of 1,744 Arlington County residents. The survey data were weighted to provide representative estimates of characteristics of the population. Some basic information and tables from the survey are included in the Appendix. Additional details on the survey methodology and results are available in the report *Arlington County Affordable Housing Study: Arlington Resident Poll Results*.

¹⁸ In June, July and August 2014, we conducted focus groups and targeted interviews with key stakeholder groups in Arlington: Immigrants, Low-Income Seniors, Employers, CAF Residents, Multi-Family Developers, Non-Resident In-Commuters, Homeless Individuals, and People with Disabilities. Detailed information on focus group and interview results are available from the Arlington County Housing Division.

¹⁹ Focus groups and targeted interviews are designed to allow for in-depth conversations and to provide context to the poll results. The individuals that participated in the focus groups and targeted interviews were not necessarily selected to be

During that same focus group, it was clear that many of the low-income seniors participating face tremendous stress around rising housing costs. Rising condo fees and rents, in particular, have big impacts on these households. Many said that they had to make sacrifices, such as doing without air conditioning in the summer or heat in the winter, to keep up with housing costs

Figure 11. Cost Burdened Households by Age, 2012



Source: 2010-2012 American Community Survey microdata file

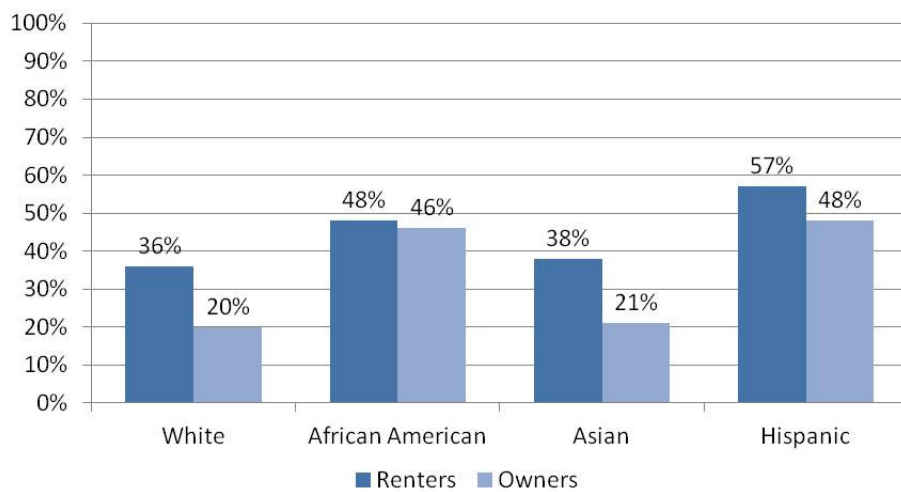
Younger renters, those between the ages of 25 and 34, are somewhat less likely than other age groups to be cost burdened, partially because they tend to live with roommates, and partially because some have higher incomes, particularly compared to senior renters. But this group has a harder time buying a home in the county. About 28 percent of Arlington’s current homeowners age 25 to 34 spend more than 30 percent of their income on housing costs. This is not particularly surprisingly—or necessarily worrying—as this group is near the beginning of their careers and their incomes will likely increase in the coming years. But young adults in Arlington may be less likely to afford to become homeowners. According to the 2012 American Community Survey, 18 percent of Arlington households age 25 to 34 were homeowners compared with 34.5 percent for the Washington DC metropolitan area as a whole. Based on our poll of Arlington residents, 68 percent of 25-to-34 year old renters living in Arlington would like to buy a home in the county at some point. However, this population is pessimistic about staying in Arlington; only 34 percent of renters who would like to buy a home in Arlington think they will be able to. In addition, about three out of five 25 to 34 year olds—including both renter and owners—think it is “very likely” or “somewhat likely” that they will have to move out of Arlington within the next five years because they will not be able to find the kind of housing they want at the prices they can afford.

representative of a particular group in the county. As such, their responses only reflect their individual opinions and not necessarily the opinions of the broader community.

Non-white households experience relatively high housing cost burdens.

More than a third of non-Hispanic white renters and about one-fifth of non-Hispanic white homeowners in Arlington County spend more than 30 percent of their income on housing. But the shares of cost burdened households are substantially higher for African Americans and Hispanics in the county. Nearly half of African Americans—both renters and owners—are cost burdened. Fifty-seven percent of Hispanic renters and 48 percent of Hispanic owners are cost burdened.

Figure 12. Cost Burdened Households by Race/Ethnicity, 2012



Source: 2010-2012 American Community Survey microdata file

Many of these African American and Hispanic households have lived in the county for many years and, according to our poll, many cite the county’s location, low crime, and good schools as key reasons they live in the county. However, about 42 percent of Hispanic households and half of African American households think they will have to move out of Arlington within the next five years because they will not be able to find housing they want at a price they can afford. Nearly one out of five African American and Hispanic households have had to move out of a residence in Arlington because they could no longer afford the cost of living there.

In a focus group with Spanish speaking immigrants living in Arlington, housing costs were a major issue in these residents’ lives. Many stated that a small increase in rents could mean sacrificing food, giving up their car, taking on weekend work or taking in boarders in order to keep up with housing costs.

Families with children—especially single-parent families—are more likely than other households to be cost burdened.

Nearly 70 percent of single-parent family renters pay more than 30 percent of their income on rent, and 49 percent of single-parent homeowners pay more than 30 percent of their incomes on housing costs. The housing cost burdens for this group of households is higher than for other household types. However, other households with children also face difficulties with housing costs. About 42 percent of married couples with children who rent are housing cost burdened, compared to 26 percent of married couples without children who rent.

Non-family households, particularly one-person senior households, are also relatively cost burdened. Forty-one percent of non-family renting households spend more than 30 percent of their income on rent.

Lower-income households have the biggest challenges when it comes to affordability.

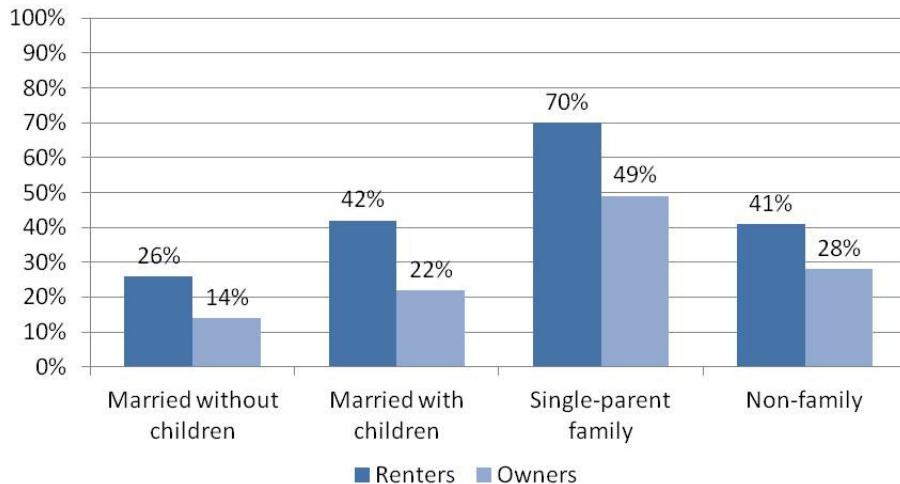
While housing affordability is a challenge for many household types, lower-income households are the hardest hit. About 86 percent of renters with household incomes below \$60,000 are cost burdened; about 70 percent of these lower-income owner households are cost burdened. According to our poll, about 60 percent of lower-income households anticipate that they will have to leave Arlington in the next five years because they will not be able find they type of housing they want at a price they can afford²⁰. About three-quarters of renters with incomes below \$60,000 said they expect that they will be forced to move out of their home at some point because of rising rents. In fact, about 70 percent of renter households with incomes below \$30,000 and 77 percent of households with incomes between \$30,000 and \$60,000 said they have had to move out of a residence in Arlington because they could no longer afford the cost of living there.

In addition, in focus groups with low-income populations, there was concern not only about rising rents but also about displacement when buildings are renovated or redeveloped, and about actual or perceived changes to income rules for housing subsidy programs.

These lower income individuals and families value living in Arlington, and many are long-term residents. When they are asked why they chose to move to Arlington, a relatively large share said it was the county's safety and low crime rate that attracted them. Lower-income households were also somewhat more likely to say they moved to Arlington to be near family or friends or that they grew up in Arlington.

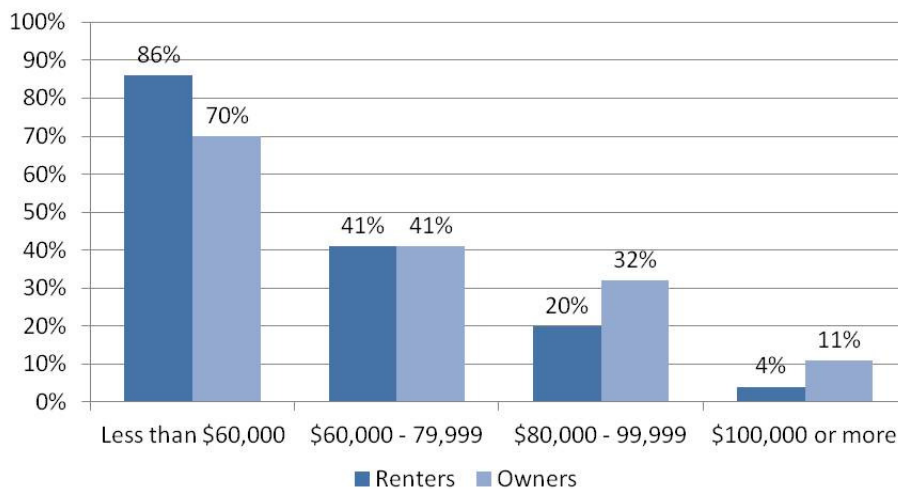
²⁰ This figure is only for households with a head under age 65.

Figure 13. Cost Burdened Households by Household Type, 2012



Source: 2010-2012 American Community Survey microdata file

Figure 14. Cost Burdened Households by Household Income, 2012

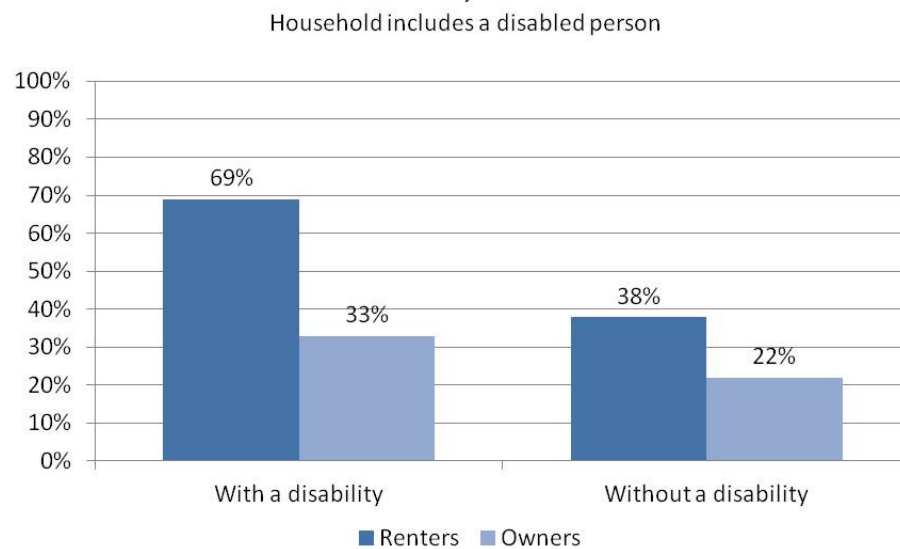


Source: 2010-2012 American Community Survey microdata file

Households headed by a disabled person are much more likely to face housing affordability challenges

Nearly seventy percent of renter households that include a disabled person pay more than 30 percent of their income on housing costs, compared to 38 percent of non-disabled renters. According to our poll, less than five percent of disabled households receive housing assistance. About 38 percent of households headed by a person with a disability indicated in our poll that they would like to remain in their home for the rest of their lives, and more than half of those said that their home will need some type of physical modification to allow for aging in place.

Figure 15. Cost Burdened Households by Disability Status, 2012



Source: 2010-2012 American Community Survey microdata file

When we asked a small group of disabled people living in Arlington and receiving services from the county whether they thought their housing was affordable, more than half said it is. For some of those who said their housing is not unaffordable, high and rising rents make it difficult to pay other bills. Furthermore, in the interviews with disabled people, about half indicated that they have the accessible features in their home that they need to live independently. The other half mentioned they needed physical modifications in their homes.

Despite the County's extensive outreach, there are individuals and families in Arlington without a place to live

According to the Urban Institute's July 2014 report on housing insecurity in the Washington, DC region²¹, there are nearly 500 homeless persons in Arlington County, including 266 single people and 211 people

²¹ Hendey, Leah, Peter A. Tatian, and Graham MacDonald. 2014. *Housing Security in the Washington Region*. Washington DC: Urban Institute. Available online <http://www.urban.org/publications/413161.html>.

living in families.²² Of the 266 single homeless individuals, 156 are chronically homeless and need supportive services. According to our interviews with County staff and a review of the County's homelessness programs, 227 families and 614 individuals were served by Arlington County shelters over the course of 2013.

Most of the homeless individuals we interviewed as part of this study talked about the stress of finding a job, and the added pressure of the high housing costs in Arlington along with the other barriers to employment that they face.

According to the cost burden data presented above, there are thousands of households currently living in Arlington that pay more than 30 percent of their income on housing costs. Some of the county's most vulnerable populations, including seniors, people with disabilities and families with children, are the ones who feel the stress of high housing costs the most. When individuals and families spend a disproportionately high share of their income on housing, there is less left over for other necessities. Indeed, lower-income participants in our focus groups made it clear that they often have to cut back on other necessities, including food, transportation and utilities, to pay for housing. For many low-income households on fixed incomes, even small increases in rent or condo fees, or the costs associated with moving while a building is renovated or redeveloped creates significant stress. Even higher-income households that are less likely to be cost burdened now feel as though they have limited choices when it comes to staying in Arlington.

Current Demand and Supply

This section attempts to better quantify the gap between housing demand and supply that currently exists in the county. By comparing the number of households at different incomes with the amount of housing at different rents and prices we can better understand the extent of the current unmet housing needs in the county.

Table 3 below shows the current inventory of renter-occupied housing units currently in Arlington County. According to analysis of ACS and Arlington County Housing Division data, there are over 57,500 rental units in Arlington, and nearly two-thirds of the rental units in the county rent for \$1,500 or more per month, and 14 percent rent for \$2,500 or more. There are about 20,700 units that rent for less than \$1,500 (affordable to a family of four with an income of \$60,000 or less). Of these units, 68 percent are efficiencies or one-bedroom units, 27 percent are two bedroom units and just five percent have three or more bedrooms. The current inventory of rental homes in Arlington suggests that there is a very limited supply of homes affordable to lower income families.

²² The data on the homeless population in this report were based on data collected by jurisdictions using local Homeless Management Information Systems (HMIS) as well as street surveys conducted in late January 2013 as part of a national Point-in-Time (PIT) count of the homeless coordinated by HUD and an annual count coordinated by the Metropolitan Washington Council of Governments.

What is Area Median Income (AMI)?

Area Median Income (AMI) is the median household income for a metropolitan area. The metropolitan area AMI varies by household size. In FY2012, the AMI for the Washington region was **\$107,500** for a **family of four** and **\$75,300** for a **single person**

Households are often classified by their income level. **Extremely low income** households are those with incomes below 30 percent of AMI. **Very low income** households have incomes between 30 and 60 percent of AMI. (HUD uses a cutoff of 50% of AMI for very low income households but we have used 60 percent for this report.) And **low income households** are households with incomes between 60 and 80 percent of AMI.

Who are these households in Arlington?

Income Group (FY 2012)	What type of household is this?	How much can they afford to spend on housing? (30% of income)
0-30% AMI \$0 - \$32,250 family of four \$0-\$22,600 single person	People who are unable to work due to disability or age. Seniors on fixed incomes. Low-wage workers, including many retail, restaurant and social service workers.	\$0 - \$806 family of four \$0 - \$565 single person
30-60% AMI \$32,250-\$64,200 family of four \$22,600-\$45,180 single person	One person working as an administrative assistant, electrician, or bus driver. Two workers in the retail, restaurant, or social service fields.	\$806 - \$1,605 family of four \$565 - \$1,130 single person
60-80% AMI \$64,200-\$86,000 family of four \$45,180-\$60,240 single person	One or two workers in entry-level professional service, non-profit, government or health professional jobs.	\$1,605 - \$2,150 family of four \$1,130 - \$1,506 single person
80-100% AMI \$86,000-\$107,500 family of four \$60,240-\$75,300 single person	One or two workers in entry- or mid-level professional service, non-profit, government, or health professional jobs.	\$2,150 - \$2,687 family of four \$1,506 - \$1,883 single person

Table 4 below shows the number of current renting households by household income. There are about 17,100 renter households in Arlington with incomes below 60 percent of area median income. This figure includes nearly 3,000 families with four or more people with a household income of \$64,500 or less. At this income level, a household could afford rent generally no higher than \$1,500 per month. However, there only are an estimated 972 rental units with rents below \$1,500 per month with three or more bedrooms to meet the needs of these families. This suggests a current gap of about 2,000 rental units that are needed to meet the needs of low income families in the county (see Figure 16a).

The shortage is even more urgent for extremely low income families, those with incomes below 30 percent of area median income. There are over 1,600 Arlington families with four or more people that have incomes below 30 percent of area median income, or below about \$33,000 per year. These households can afford rents below about \$825 if they spent 30 percent of the income on housing. However, there are just 401 three-or-more bedroom units with rents below \$1,000 per month and fewer than 100 units with rents below \$725 per month.

At slightly higher incomes, 80 percent of AMI, families still face a shortage of affordable rental housing, but the gap is smaller. There are about 3,600 households with four or more people with incomes below 80 percent of AMI; currently, there are about 2,400 rental units with three or more bedrooms affordable to this group (i.e. with rents below \$2,000 per month).

Table 3. Rental Units by Bedroom Size and Rent Level, 2013

Rent	Bedrooms			Total
	0/1	2	3+	
<\$725	1,348	952	90	2,390
\$725 - \$999	2,025	858	311	3,194
\$1,000 - \$1,249	4,838	1,411	271	6,520
\$1,250 - \$1,499	5,926	2,337	300	8,563
\$1,500 - \$1,749	5,195	2,255	910	8,360
\$1,750 - \$1,999	6,112	2,109	560	8,781
\$2,000 - \$2,499	6,018	3,902	1,857	11,777
\$2,500 - \$2,999	949	1,856	1,052	3,857
\$3,000+	243	2,266	1,626	4,135
Total	32,654	17,946	6,977	57,577

Source: 2010-2012 American Community Survey microdata file; Arlington Housing Division; GMU tabulations

Table 4. Renter Household Income by Household Size and as a Percent of AMI, 2013

Household Income	Household Size				Total
	1 person	2 person	3 person	4+ people	
<30% AMI	4,748	1,946	747	1,626	9,067
30-49% AMI	1,877	1,765	756	1,096	5,494
50-59% AMI	1,493	519	316	247	2,575
60-79% AMI	3,369	1,579	404	682	6,034
80-99% AMI	3,923	2,151	360	306	6,740
100-119% AMI	2,940	2,188	451	392	5,971
120%+ AMI	8,550	9,657	2,252	1,237	21,696
Total	26,900	19,805	5,286	5,586	57,577

Source: 2010-2012 American Community Survey microdata file

Among renting one-person households, there are currently about 4,700 with incomes below 30 percent of AMI. These households can affordably rent a home for \$565 per month or less. Based on the data on existing rental units, there are just 1,348 zero- or one-bedroom rental homes that rent for less than \$725 (see Figure 16b). There is also a gap for individual renters with incomes of below 60 percent of AMI. Currently, there are about 8,000 of these low-income individual renters, but only 3,400 zero- or one-bedroom units that rent for less than \$1,000, a level affordable to this group. For one-person renters with incomes up to 80 percent of AMI, the shortage of affordable zero- and one-bedroom units disappears.

In this analysis, we only look at housing affordability. We do not attempt to identify housing availability. Some of the housing affordable to lower-income households will likely be occupied by higher-income households, making it unavailable. As a result, the calculated gap would be even greater.

According to another analysis by the Urban Institute, there are only 18 affordable and available rental units for every 100 extremely low income renter households in Arlington County, which is the lowest available supply of any jurisdiction in the Washington, DC region, with the exception of the city of Falls Church.²³ When families cannot find affordable housing, they spend a higher share of their income on housing, leaving less for other necessities. Alternatively or in addition, families live in substandard or illegal housing or live in overcrowded conditions.

Table 5. Affordable and Available Units per 100 Extremely Low-income Households²⁴

Jurisdiction	Units
Arlington County	18
District of Columbia	45
City of Alexandria	27
Fairfax County	25
Montgomery County	33

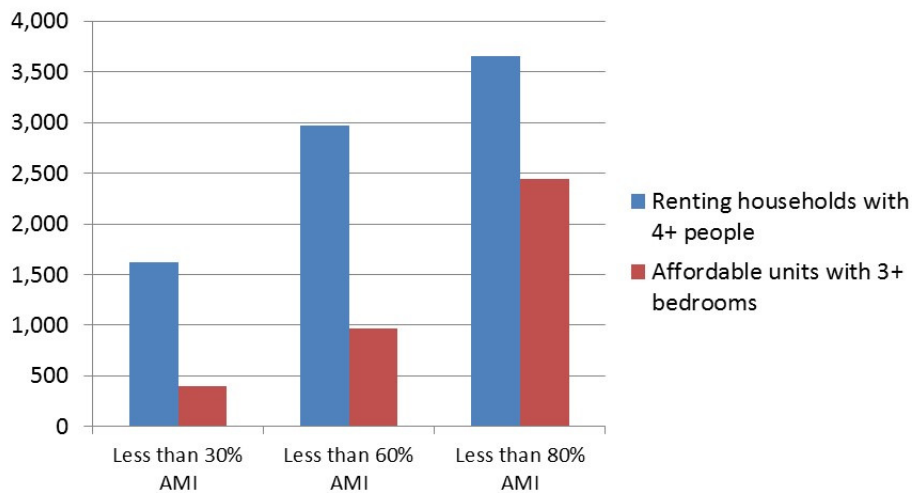
Source: Urban Institute

Near the other end of the rental spectrum, the largest share of rental units (20 percent) in Arlington County rent for between \$2,000 and \$2,499 per month. These are units that are affordable to households with incomes between \$80,000 and \$100,000 per year, which is about 80 to 100 percent of area median income for a family of four or about 100 to 120 percent of area median income for a one- or two-person household. Currently, in Arlington there are about 300 renter households with four or more people earning between 80 and 100 percent of area median income, and there are about 1,900

²³ The Urban Institute's Mapping America's Rental Housing Crisis tool can be accessed at <http://www.urban.org/housingaffordability/>.

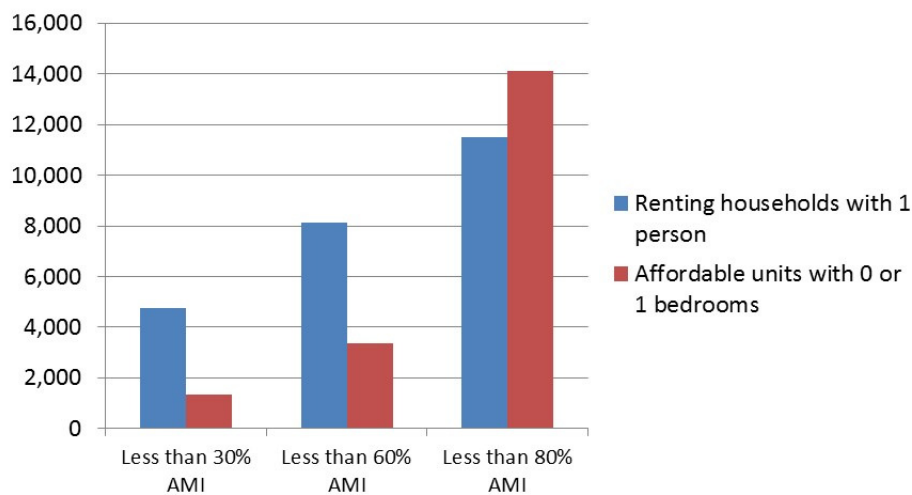
²⁴ See <http://www.urban.org/housingaffordability/> to access the data and for details on how accessible and affordable units were defined.

Figure 16a. Comparing Current Renters with Current Stock of Rental Housing Families



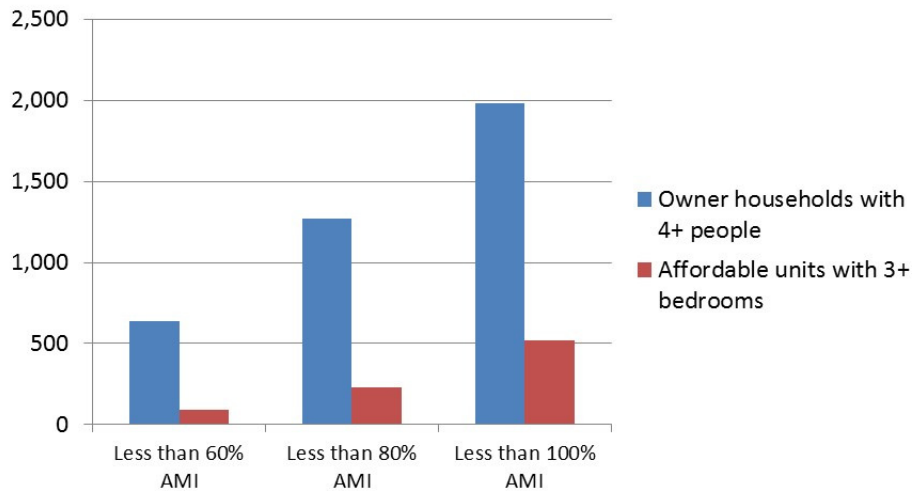
Sources: 2010-2012 ACS; Arlington County Rent and Vacancy Survey; GMU/CHP tabulations

Figure 16b. Comparing Current Renters with Current Stock of Rental Housing Individuals



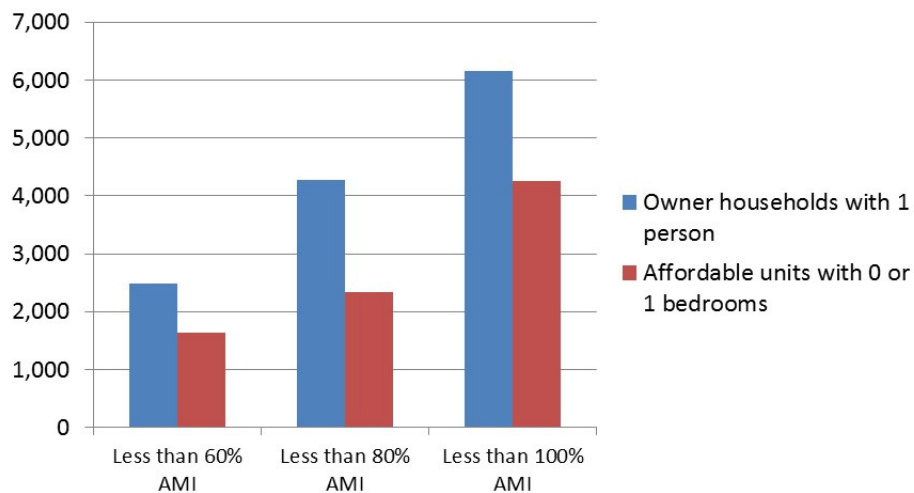
Sources: 2010-2012 ACS; Arlington County Rent and Vacancy Survey; GMU/CHP tabulations

Figure 17a. Comparing Current Owners with Current Stock of Owner Housing Families



Sources: 2010-2012 ACS; Arlington County Office of Real Estate Assessment; GMU/CHP tabulations

Figure 17b. Comparing Current Owners with Current Stock of Owner Housing Individuals



Sources: 2010-2012 ACS; Arlington County Office of Real Estate Assessment; GMU/CHP tabulations

three-or-more bedroom units in this income range. In addition, there are about 5,100 one- and two-person renter households in Arlington earning between 100 and 120 percent of area median income, and there are more than 9,900 efficiency, one- and two-bedroom units renting for between \$2,000 and \$2,500.

Based on this demand and supply analysis, the county’s rental stock appears to be serving fairly well both families and single-person households who have incomes above 80 percent of AMI. However, the current stock is far below what would be needed to meet the demand of families with incomes below 80 percent of AMI and individuals with incomes below 60 percent of AMI.

It is a little more difficult to attempt to analyze a potential gap in the supply and demand for homeownership units. The ability to purchase a home depends on factors beyond income and home price, including credit score, the ability to save for a down payment, and housing preferences. Furthermore, the current price or value of a home can bear little relation to the monthly housing costs of a particular homeowner. Given those caveats, this assessment reveals that the supply of homes in Arlington County affordable to moderate income households to buy is very low.

There are currently over 50,500 owner-occupied units in Arlington County. Only 18 percent of these units are valued below \$300,000, which would be a home price affordable roughly to a household earning about \$80,000 (i.e. a family of four at 80 percent of area median income or a one- or two-person household at 100 percent of area median income). Nearly 63 percent of these units valued at below \$300,000 are efficiency or one-bedroom condominiums, making them an option for one and possibly two person households at 100 percent of AMI but inappropriate for families with four or more people.

Table 6. Owner-Occupied Units by Bedroom Size and Value, 2013

Value	Bedrooms			Total
	0/1	2	3+	
<\$100,000	159	20	-	179
\$100,000-\$149,999	1,473	449	28	1,950
\$150,000-\$199,999	708	384	15	1,107
\$200,000-\$249,999	1,919	429	51	2,399
\$250,000-\$299,999	1,471	1,869	135	3,475
\$300,000-\$349,999	1,434	1,443	291	3,168
\$350,000-\$399,999	1,663	1,652	250	3,565
\$400,000-\$449,500	831	2,766	505	4,102
\$450,000+	4,876	6,250	19,452	30,578
Total	14,534	15,262	20,727	50,523

Source: 2010-2012 American Community Survey microdata file; Arlington County Office of Real Estate Assessment; GMU tabulations.

Table 7. Owner Household Income by Household Size and as a Percent of AMI, 2013

Household Income	Household Size				Total
	1 person	2 person	3 person	4+ people	
<30% AMI	1,126	235	240	176	1,777
30-49% AMI	997	619	220	227	2,063
50-59% AMI	363	257	64	233	917
60-79% AMI	1,786	803	514	635	3,738
80-99% AMI	1,879	653	788	711	4,031
100-119% AMI	1,842	689	377	1,199	4,107
120%+ AMI	9,060	12,992	5,009	6,829	33,890
Total	17,053	16,248	7,212	10,010	50,523

Source: 2010-2012 American Community Survey microdata file

Over 60 percent of the owner-occupied homes in Arlington are valued at \$450,000 or above, a level where a household would need an annual income of at least \$100,000 to be able to afford, provided they had the necessary down payment and access to a home mortgage. About 16 percent of these homes priced at \$450,000 and above are efficiency or one bedroom condominiums. Twenty percent have two bedrooms and 64 percent have three or more bedrooms. As a result of the relatively high home prices, the vast majority of Arlington's recent new homeowners have been those with high incomes.

We can examine current homeowners and the stock of owner-occupied units affordable to households at different income levels. For example, there are currently 636 homeowners with four or more people with incomes below 60 percent of AMI. However, according to our analysis of the values of the current stock of housing, there are only 94 homes with three or more bedrooms that would be affordable to this group (see Figure 17a). This assumes these families could afford a home valued at about four times their income, or about \$250,000 or less. In general, for families with incomes below 100 percent of AMI, the supply of affordable homes with three or more bedrooms is far below what would meet that demand. However, keep in mind, these households are existing homeowners, and some may own their home outright and many others may have purchased their home at a lower price.

There is also an apparent gap between the number of one-person homeowners and the number of zero- and one-bedroom homes affordable to individuals with incomes below 100 percent of AMI (see Figure 17b).

It is important to note that this assessment of the current "gap" between supply and demand only reflects the needs of households currently living in the county. Technically, there is no supply gap in the county, with the exception of the need for housing for the county's homeless population, as all people in the county are living in a home. There is an obvious shortage of lower-cost housing, but individuals and families living in the county have been able to find a way to pay for housing. Many may be paying more than 30 percent of their income on housing, but may have other household expenses that are relatively low.

This analysis does not include any assessment of the amount of housing that would be needed to meet the demand of households that have left Arlington due to high housing costs or that have decided not to move to Arlington because they were not able to find affordable housing. As an example, in our survey of in-commuters, about 27 percent of moderate income workers who work in Arlington but live elsewhere said they would prefer to live in Arlington, but most cited high housing costs as the primary reason why they did not.

In addition, this analysis does not take into account households that are “underhoused.” “Underhoused” households include households paying far below 30 percent of their income for housing costs. Thus, higher income households could live in lower rent units, leaving them unavailable to lower-income households. In addition, we have not taken into account current households that are “overhoused”, meaning people who are living in housing units that are “too large” for their household size (e.g. a single person living in a four-bedroom unit).

Homelessness

While the county serves hundreds of homeless individuals and families each year, there continues to be a gap between the needs of homeless and near homeless people and the services and shelter the county can provide. The needs are greatest for the chronically homeless. According to the Urban Institute’s analysis²⁵, there are 156 chronically homeless people in Arlington but only 68 beds which leaves a gap of 88 beds for chronically homeless individuals.

Future Housing Needs

A key part of developing a comprehensive and strategic affordable housing policy is to understand not only the needs of existing Arlington residents, but also to consider the needs of future residents to ensure the county lives up to its values of diversity, inclusivity, choice and sustainability. To meet those goals, Arlington County will have to plan for ways to increase the supply of housing, to encourage the production of particular types of housing at varying rent and price levels, and to provide services to the county’s most vulnerable populations.

While the county has urbanized considerably in recent decades, there is no indication on the part of the County staff or elected officials that the county should be considered “built out.” Indeed, according to the most recent forecasts by the Arlington County Planning Division, prepared as part of the Round 8.3 Metropolitan Washington Council of Governments (MWCOC) Cooperative Forecasts, the county is expected to add more than 30,000 housing units over the next 30 years. These county-approved forecasts are based on the county’s current General Land Use Plan and an analysis of residential development and redevelopment potential at the block level.

For the purposes of developing forward-looking housing policy, it is important to estimate not only the number of households the county will have in the future, but also the characteristics of those households, particularly the ages, household sizes, and incomes of future households, characteristics that are critical to understanding housing demand, preferences, and ability to afford homes at different rent and price ranges.

As part of this needs analysis, we developed household forecasts for the period 2010 through 2040 using an age-cohort component method, along with independent forecasts of regional job and wage growth. We compared our forecasts with the County’s cooperative forecasts, and reconciled them with assumptions about future household composition, housing and labor market conditions, and other factors.

²⁵ Hendey, Leah, Peter A. Tatian, and Graham MacDonald. 2014. *Housing Security in the Washington Region*. Washington DC: Urban Institute. Available online <http://www.urban.org/publications/413161.html>.

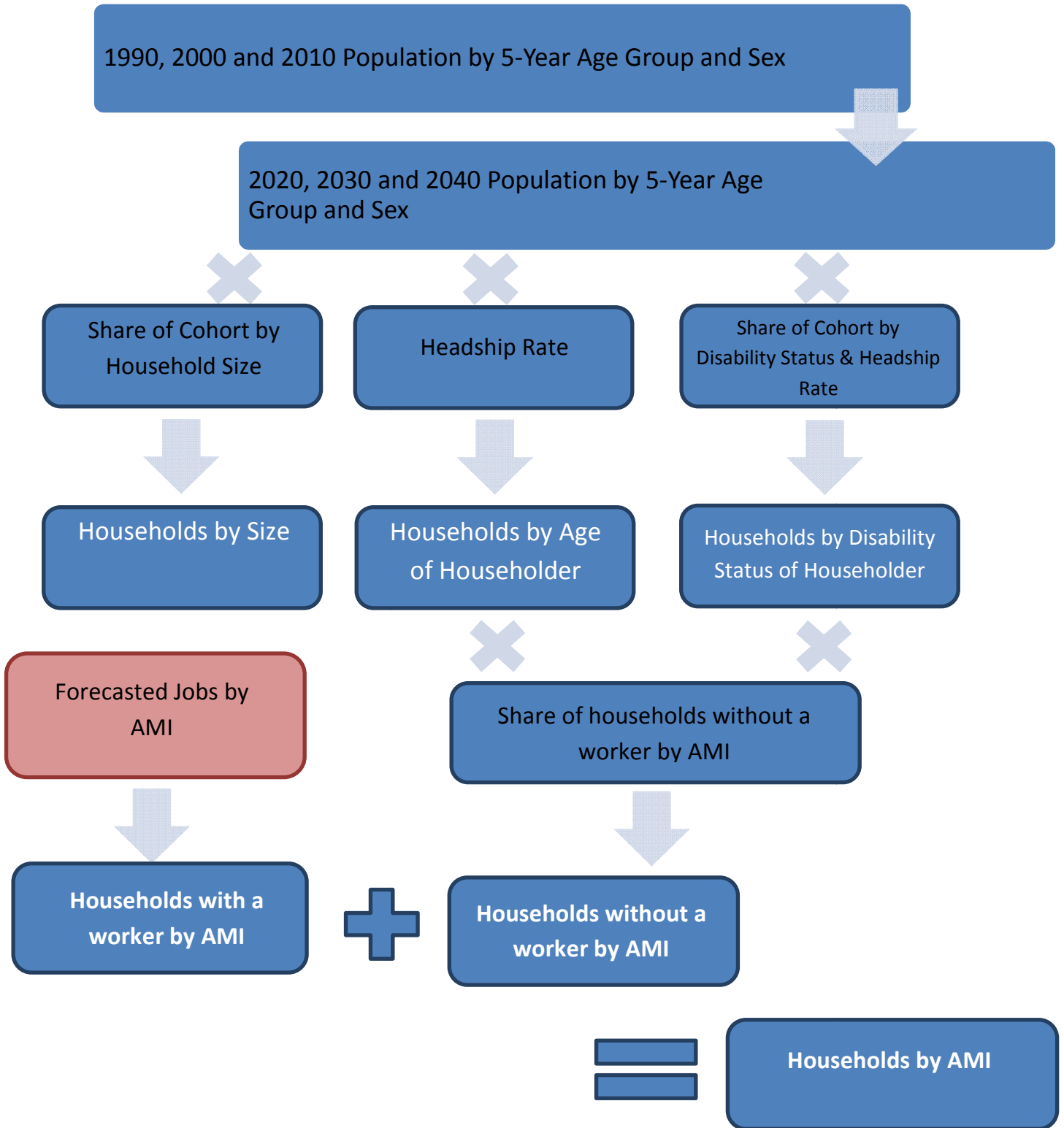
These forecasts are not intended to serve as housing production targets *per se*. Rather, these forecasts are the best estimates we can make about the characteristics and housing needs of Arlington’s future population based on what we know about past demographic conditions, what we can know about future demographic trends, and what we can project with some reliability about future economic and demographic trends. If these future demographic or economic trends are vastly different from what we have assumed or if there are substantial changes to the County’s approach to affordable housing policy, then, of course, these forecasts would change.

The forecasting process, outlined in Figure 18 below, relied on publicly available demographic and economic data, along with assumptions based on past trends and insights into future demographic and economic trajectories. As part of the forecasting process, we asked the following questions:²⁶

- **How many people will live in the county?** We forecast households first by starting with forecasting population by age group and sex using a method that allows for the “aging up” of the population, as well as the in- and out-migration of people into the county. We assume no major changes to domestic or international migration into or out of the county.
- **How many households will these people form?** Looking at the population forecasts by five-year age group, we group them into households of different sizes based on current household size distributions. For example, if 21 percent of 30-34 year old females currently live in one-person households, we assume that in the future 21 percent of future 30-34 year old females will live in one-person households. This assumes that people in the same age-sex cohort will be no more or less likely to live in alone or to live with children in the future. While young adults have been marrying and having children later, we have assumed that the trend has peaked for young adults in Arlington. We then tally up the total number of households that will be formed by different household sizes.
- **How many households will be headed by someone age 65 and older?** We use current headship rates by age (i.e. the share of households currently headed by people in different age groups) to forecast the number of future households that will be headed by someone age 65 and older. We assume that household formation rates by age will be the same in the future as they are today.
- **How many households will be headed by someone with a disability?** We use the current share of households headed by a person with a disability by age and assumed those shares would be the same in the future.
- **What incomes will future households have?** Forecasting the number of households by household income was a two-step process. First, we determined what share of current households by age cohort and disability status have no worker, and we assumed those shares would be the same in the future.

²⁶ Detailed forecasting methodology and assumptions are included in the Appendix.

Figure 18. Methodology for Forecasting Housing Demand



Furthermore, we assume that the AMI distribution, accounting for both household incomes and household size, for this group of non-working households would not change based on age category and disability status. Thus, we assume no major changes to retirement or other non-wage income in the future. Second, we looked at the remaining households, which are those with at least one worker. We use adjusted regional forecasts of employment by industry produced by IHS Global Insight, and current wage data for different industries to estimate the wages and household incomes that future workers living in the county would have. We then assigned households to an area median income group based on those incomes.

Based on these forecasts, we estimate that the number of households in Arlington County will increase from 98,100 in 2010 to 128,600 in 2040, an increase of 31 percent over the 30-year period. Overall, the county will add 30,500 households by 2040, with the biggest gains in the first decade, 2010-2010. These overall household growth totals are consistent with the county's Round 8.3 forecasts.

Household sizes are a critical determinant of housing demand because they imply needs for housing of different types and sizes. Fluctuations in the sizes of households in Arlington County over time primarily are driven by the aging of the population into different phases of the life cycle. The distribution of household sizes also depends on the county's local housing market. For example, while generally young adults are more likely than others to live alone, there is evidence of doubling- or tripling up of young adults in Arlington, not into married couples, but rather into roommate situations, at rates greater than are seen nationally. This pattern likely is associated with the relatively higher housing costs in the county, and may also reflect preferences of the people who move to the region.

In the first decade of the forecast period, the increase in the number of two, three and four-plus person households will exceed the overall household growth, which primarily reflects the aging of the Millennial population into childbearing ages, with the assumption that many will remain in Arlington, continuing a trend we are beginning to see.

Over the 30-year forecast period, the county is forecasted to add 12,000 one-person households, 11,000 two-person households, 3,400 three-person households, and 4,300 households with four or more people. Therefore, these forecasts suggest that Arlington will continue to be a place that attracts one- and two-person households even as the pace of growth of larger households increases somewhat.

Apart from influencing household sizes, the ages of the heads of Arlington's future households will also affect the types and sizes of housing that residents will need. These forecasts of households by age of the head of the household primarily are driven by overall demographic trends—that is, the aging of the population—but they also take into account recent historic in- and out-migration trends by age group. Over the next 30 years, the number of households headed by someone age 65 and older will grow about three times faster than the number of households headed by someone under age 65. The fastest growth will be in the first decade of the forecast period, with the aging of the Baby Boomers.

Table 8. Forecasts of Household Growth by Selected Characteristics, 2010-2040

Household Type	No. of Households 2010	Change	Percent Change
All Households	98,100	30,500	31%
Household Income			
<30% AMI	10,100	3,700	37
30-60% AMI	10,100	3,700	37
60-80% AMI	9,000	3,000	33
80-100% AMI	9,900	2,400	24
100-120% AMI	9,100	3,100	34
120%+ AMI	49,700	14,800	30
Household Size			
1-person	40,500	12,000	30
2-person	31,700	11,000	35
3-person	11,600	3,400	29
4+-person	14,200	4,300	30
Age of Household Head			
65 or older	12,300	9,200	75
Under 65	85,700	21,400	25
Disability Status			
With a disabled member	9,100	3,900	43
With no disabled member	89,000	26,600	30
Tenure (Rent/Own)			
Rental units	55,600	21,000	38
Ownership units	42,500	9,500	22

Source: GMU/CHP. Numbers may not sum due to rounding.

Over the 2010-2040 period, these forecasts suggest that the county will add 9,200 households headed by someone age 65 or older and 21,400 households headed by someone under age 65.

Related to the aging of the population is the growth in the number of households where a person has a disability. Disability status has important implications for housing needs, both for new housing construction as well as housing services and home modifications. Over the 30-year forecast period, it is expected that the county will add 3,900 households that include at least one person with a disability. The biggest increase—2,500 households—is among households where there is a person with multiple disabilities or more than one person with a disability.²⁷ The second biggest increase—1,200 households—is among households that include a person with a physical disability.

Household income is a key driver of the type and prices of housing households will be able to afford in the future. These forecasts of households by income group (as measured as a percent of area median income) are based on future regional job growth and the types of industries future Arlington residents

²⁷ According to the definition used by the Census Bureau, a cognitive difficulty is defined as having difficulty remembering, concentrating, or making decisions as a result of a physical, mental or emotional problem.

will work in. As a result, they reflect the growth of somewhat lower-wage jobs in the coming decades, as the relatively high wage Federal government and professional services sectors grow more slowly than they have in past decades. Overall, these forecasts assume a continuation of the “hollowing out” of the moderate income households which the county has seen in recent years, but allows for growth among lower income households to reflect changes in wages. In addition, these forecasts of households by household income also reflect demographic changes, in particular the growth of the number of people age 65 and older who will be retiring out of the labor force. For many of these retirees, their wage income will be replaced by lower, fixed incomes.

Between 2010 and 2040, these forecasts suggest that the county will add 3,700 households with incomes below 30 percent of AMI and another 3,700 households with incomes between 30 and 60 percent of AMI. The number of households with incomes between 60 and 80 percent of AMI will increase by 3,000, the number between 80 and 100 percent of AMI will increase by 2,400 and the number between 100 and 120 percent of AMI will increase by 3,100. The greatest overall household increase will be among those with incomes above 120 percent, where we have forecasted 14,800 new households over the 2010-2040 period.

The homeownership rate in Arlington County is forecasted to decline very slightly over the forecast period. The primary driver of the decline in the overall homeownership rate is the type of housing that will be constructed in the county in the future. Given the existing land use plan and zoning in the county, the vast majority of net new housing in the county will be in multi-family buildings. We assume that more than 90 percent of net new construction will be in multi-family buildings, and the majority of these units will be renter-occupied. As a result, these forecasts suggest 21,000 new renter households and 9,500 new owner households between 2010 and 2040.

These forecasts will be useful for developing appropriate strategies to ensure that Arlington County has a sufficient supply of housing—of the right types and affordable prices and rents—to meet its future needs. However, these forecasts are not intended to be prescriptive. Changes in the trajectories of the economy and housing market, and policies of the County, can influence the rate of household growth and the types of households that will live in Arlington in the future.

Table 9. Forecasts of Households

Year	Households	Decade Change	Decade Percent Change
2010	98,100	-	-
2020	112,200	14,100	14%
2030	121,400	9,200	8%
2040	128,600	7,200	6%

Table 10. Forecasts of Households by Household Size

Year	1 Person			2 Person			3 Person			4+ Person		
	Households	Decade Change	Decade Percent Change	Households	Decade Change	Decade Percent Change	Households	Decade Change	Decade Percent Change	Households	Decade Change	Decade Percent Change
2010	40,500	-	-	31,700	-	-	11,600	-	-	14,200	-	-
2020	45,600	5,100	13%	37,100	5,400	17%	13,100	1,500	13%	16,400	2,200	15%
2030	49,500	3,900	9%	40,000	2,900	8%	14,100	1,000	8%	17,800	1,400	9%
2040	52,500	3,000	6%	42,700	2,700	7%	15,000	900	6%	18,500	700	4%

Table 11. Forecasts of Households by Age of the Household Head

Year	Under 65			65 and Older		
	Households	Decade Change	Decade Percent Change	Households	Decade Change	Decade Percent Change
2010	85,700	-	-	12,300	-	-
2020	93,800	8,100	9%	18,400	6,100	50%
2030	100,800	7,000	7%	20,600	2,200	12%
2040	107,100	6,300	6%	21,500	900	4%

Table 12. Forecasts by Disability Status of Household Members

	No disability			Physical			Cognitive			Independent Living/Self Care		
	Households	Decade Change	Decade Percent Change	Households	Decade Change	Decade Percent Change	Households	Decade Change	Decade Percent Change	Households	Decade Change	Decade Percent Change
2010	89,000	-	-	3,300	-	-	800	-	-	400	-	-
2020	101,800	12,800	14%	3,800	500	15%	800	0	0%	400	0	0%
2030	109,500	7,700	8%	4,300	500	13%	900	100	13%	400	0	0%
2040	115,600	6,100	6%	4,500	200	5%	900	0	0%	500	100	25%

Table 12. cont.

Multiple Disabilities			
	Households	Decade Change	Decade Percent Change
2010	4,600	-	-
2020	5,400	800	17%
2030	6,300	900	17%
2040	7,100	800	13%

Table 13. Forecasts by Household Income

	<30% AMI			30-60% AMI			60-80% AMI			80-100% AMI		
	Households	Decade Change	Decade Percent Change	Households	Decade Change	Decade Percent Change	Households	Decade Change	Decade Percent Change	Households	Decade Change	Decade Percent Change
2010	10,100			10,100			9,000			9,900		
2020	12,300	2,200	22%	12,200	2,100	21%	10,600	1,600	18%	11,000	1,100	11%
2030	13,300	1,000	8%	13,200	1,000	8%	11,500	900	8%	11,800	800	7%
2040	13,800	500	4%	13,800	600	5%	12,000	500	4%	12,300	500	4%

Table 13. cont.

	100-120% AMI			120%AMI+		
	Households	Decade Change	Decade Percent Change	Households	Decade Change	Decade Percent Change
2010	9,100			49,700		
2020	10,400	1,300	14%	55,800	6,100	12%
2030	11,600	1,200	12%	60,100	4,300	8%
2040	12,200	600	5%	64,500	4,400	7%

Table 14. Forecasts of Households by Tenure

Year	Households	Rental		Ownership		
		Decade Change	Decade Percent Change	Households	Decade Change	Decade Percent Change
2010	55,600			42,500		
2020	65,700	10,100	18%	46,500	4,000	9%
2030	71,600	5,900	9%	49,800	3,300	7%
2040	76,600	5,000	7%	52,000	2,200	4%

Summarizing and Balancing Housing Needs

Arlington County is an attractive place to live, in large part due to its location. In our poll of Arlington County residents, nearly half said that their main reason they chose to live in Arlington was because of its location, that it was close to DC, and that it is easy to get around from where they lived.²⁸ The services that the County provides are also a draw. Eleven percent of residents in our poll said the schools were the main reason they moved to Arlington; another two percent said that county services, taxes and the county government itself were the main reason they live in the county. In focus groups with immigrants and with low-income seniors, access to services was cited as an important reason for living in Arlington.

Because of Arlington's location, amenities and public services, demand for a home in the county is high and, as a result, higher income households have been able to put upward pressure on home prices and rents, which makes it harder for low- and moderate-income households to find housing they can afford. There are some upsides to rising home prices and an increase in the number of higher income households living in the county. Rising property values means that tax revenue collections can remain stable—or even increase—without an increase in the tax rate. Higher tax revenue supports public services and amenities that further enhance Arlington as a desirable place to live. In addition, higher income households are able to support a variety of retail, restaurant and personal service establishments. These enhanced services and amenities, however, can lead to further increases in housing costs, which could make it very difficult for anyone but the highest income households to find affordable housing in the county. If current income and housing trends continue, Arlington may end up being a place that meets the needs of high income households and one- and two-person households but leaves few options for low- and moderate income individuals and families.

And that is the overshadowing downside of rising housing costs. Arlington County's mission is to "be a diverse and inclusive world-class urban community with secure, attractive residential and commercial neighborhoods where people unite to form a caring, learning, participating, sustainable community in which each person is important." The related values driving this affordable housing study are diversity, inclusivity, choice and sustainability. In order to live up to these values, the county needs to recognize

Arlington County's Housing Values

Diversity

Housing affordability directly contributes to the community's diversity by enabling a wide range of households to live in Arlington, especially households with limited means and special needs.

Inclusivity

Housing inclusivity supports a caring, welcoming community in which discrimination does not occur, housing opportunities are fair, and no one is homeless.

Choice

A range of housing choices should be available throughout our community and affordable to persons of all income levels and needs. Balanced housing choices benefit individuals and the community as a whole.

Sustainability

Housing affordability is vital to the community's sustainability. It impacts the local economy and the natural and built environments. Affordable housing supports diverse jobs and incomes needed to sustain the local economy.

²⁸ Being close to Metro specifically was mentioned by another two percent of the respondents as the main reason they chose to live in Arlington.

where housing needs are the greatest and understand which parts of the community are not served by the market or by existing housing programs.

Based on our poll, 40 percent of Arlington residents think the county should do more to increase both the supply of affordable housing units and the number of people receiving financial help to live in Arlington. Twenty-eight percent said the county should do about the same amount as it does now.

The priorities summarized below are based on the review of past demographic and housing market trends, current housing shortages and affordability challenges, and anticipated household growth. These priorities are also consistent with Arlington County's mission and stated affordable housing values.

- **Rental housing for very low-income (<60% AMI) and extremely low income (<30% AMI) households is needed to close the current housing gap and meet future needs.** Low-income individuals and families are far more likely to face housing affordability challenges than other household types. The inventory of homes that are affordable to this population has been declining dramatically over the past 13 years. Furthermore, based on analysis of ACS data, many low-income households have moved out of Arlington over the past decade. From our poll respondents, many said they have been forced to move out of their home because of rising costs, and the majority of current low-income residents feels like they won't be able to stay in the county.

This group of individuals and families includes many workers who serve the Arlington community and economy. For example, a typical household with one person working as an administrative assistant, electrician, or bus driver has an income below 60 percent of AMI. A typical two-worker household where both workers are in the retail, restaurant, or social service field would also be among the low-income households in Arlington.²⁹ In the coming years, the Washington, DC area economy will be evolving and there will be relatively more service workers in jobs paying lower wages.³⁰ If the people filling these critical jobs cannot afford to live close to where they work, they will be forced to endure the stress and cost of longer commutes. They could potentially spend higher shares of their income on housing *plus* transportation costs, leaving them with less for other necessities, like food, child care and health care, and for spending on other "non-necessities" that help spur local economic growth.

Receiving housing assistance can be the difference in low-income households' budgets. In interviews with current CAF residents, a majority said that living in a CAF has allowed them to save money or to use money toward expenses other than rent, including food, bills, cable and internet.

Based on our household forecasts, we have estimated that there will be an increase of 3,700 households with incomes below 30 percent of AMI and 3,700 households with incomes between 30 and 60 percent of AMI between 2010 and 2040. The increase in the number of lower-income households is due to the relatively strong growth in low-wage jobs sectors, as well as some increase in the 65+ population moving from wage income to lower, fixed incomes.

²⁹ Data on the wages of Arlington workers are from the 2012 American Community Survey 3-year file.

³⁰ See, for example, the presentation *The Post-Federally Dependent Washington Area Economy* given by Dr. Stephen Fuller, available at http://cra.gmu.edu/pdfs/studies_reports_presentations/Cardinal_Bank_Program_2014_SF Fuller.pdf.

Arlington residents have indicated their support for helping low-income, working families remain and live in the county. Based on our polling data, 80 percent of Arlington residents said they think it is important for the County to have policies that promote diversity by income and occupation.³¹ In addition, 46 percent of Arlington residents think the county currently has too few rental apartments affordable to low-income households. (Only four percent said the county has too many.)

- **Families with children will need homes with two, three or more bedrooms.** Families with children also have a relatively difficult time finding both affordable housing and housing that is large enough to meet their needs. The majority of the new construction in Arlington over the past 13 years has been efficiency and one-bedroom units. At the same time, the county has seen only small increases in the number of single-family detached homes and townhouses in the inventory.

Based on our household forecasts, the county will add about 7,700 households with three or more people between 2010 and 2040. In the near term, the increase in the number of households with three or more people is a result of the aging of the large Millennial population into marriage and childbearing ages. However, many of the Millennials that responded to our poll indicated that they felt it was unlikely that they would be able to stay in Arlington over the long-term. Future increases in the immigrant population, which has tended to have larger household and family sizes, may also spur the need for family-sized homes.

Lower-income families with children often report having a difficult time finding suitable housing they can afford in the county, but they value the family and community support they have and the services the County offers. In our focus group with Spanish speaking immigrants living in Arlington, several mentioned how they had to make trade-offs between paying rent and providing for their children. Other families are not able to find housing with enough bedrooms for themselves and their children. In interviews with current CAF residents, several mentioned that while they were grateful to receive housing assistance, the unit they lived in was not big enough for their families.

There is broad support for housing policies that help families, particularly low- and moderate-income families. Based on our polling data, 90 percent of Arlington County residents think it is important for the County to have policies that help low- and moderate-income families with children in Arlington schools to be able to afford to remain in the county.

- **The number of senior households will grow substantially over the coming decades, and they will have a wide range of housing and service needs.** By our estimates of household growth, the number of household headed by someone age 65 or older will increase in Arlington County by 9,200 between 2010 and 2040. The aging of the Baby Boom population has important implications for housing needs in the future. There will be cycling of single-family homes in the county, with seniors moving out, potentially downsizing into rental homes or condominiums, and younger families moving into the homes they leave. But seniors who want to remain in the county may find it difficult to find housing they can afford, particularly housing near amenities

³¹ It is important to note that in the survey, respondents were not asked about relative priorities. That is, they were not asked about their level of support for different groups compared to other groups.

and in mixed-age communities. These seniors may also require additional services either in their homes or nearby to help facilitate aging in the community.

There also will be many seniors who want to remain in their homes, but their homes may require modifications in order for them to do so. Over half of the 65+ respondents in our poll indicated they would like to remain in their current home for the rest of their lives. Of those who want to remain, more than half said that their home would need some physical modifications in order for them to do so.

Low-income seniors and seniors on fixed incomes will face the biggest housing needs in the future. For some, rising property taxes, rents or condo fees create stress and force them to cut other expenses. There is widespread support for helping seniors remain in Arlington. According to results from our poll, 92 percent of Arlington residents said that the county should have policies that help seniors who wish to stay in their homes to age-in-place.

- **The growing number of persons with disabilities will need housing to enable them to live independently in the community.** Among the most vulnerable population in Arlington are low-income people with disabilities. Currently, only a small share of the disabled population in Arlington receives any housing assistance, and the share of cost burdened disabled renters is nearly twice the share of non-disabled renters. Based on our forecasts, between 2010 and 2040 there will be an increase of 3,900 in the number of households in Arlington with a disabled member. In interviews conducted with people with disabilities, the ability to get around the county was cited as one of the most important features of where they lived. But two-thirds of the disabled people interviewed said that there are not enough housing options in Arlington for people with disabilities to live as independently as they can.

The disabled population has a variety of needs. According to analysis of ACS data, the most common type of disability among both seniors and people under age 65 is cognitive difficulties. Seniors are more likely than the younger population to have independent living or self-care difficulties. The variation in characteristics suggests targeted housing options and services to allow disabled people to live fully within the community.

There is widespread support for assistance for low-income disabled persons. According to our poll results, 93 percent of Arlington residents said that the county should have policies that provide housing assistance to disabled persons with lower incomes.

- **Homeownership for moderate-income households will be needed to create opportunities that have diminished in recent years.** Rising home prices over the past 13 years has made it very difficult for moderate-income households to afford to buy a home in the county. Over 60 percent of owner-occupied homes in Arlington have values of \$450,000 or more. In general, a household would need to earn over \$100,000 in order to qualify for a mortgage for a \$450,000 home, and most of the homes sold in Arlington recently have been priced well beyond \$450,000. For example, in 2013 the average townhouse sold for more than \$650,000.

The desire for homeownership remains strong, even among the millennial population. According to our polling data, about 68 percent of 25-to-34 year old renters in Arlington would like to buy a home in Arlington someday. About the same share of renters with incomes between \$80,000 and \$100,000 also indicated they would like to buy a home in the county

eventually. These groups are pessimistic about their abilities to do so, however. Over 61 percent of 25-to-34 year olds and 75 percent of households earning between \$80,000 and \$100,000 who said they would like to buy a home in Arlington said that they do not expect to be able to find a home they can afford and that meets their needs in Arlington.

Based on the household forecasts, the county is expected to add 5,500 households with incomes between 80 and 120 percent of AMI, and many of these households will want to be homeowners.

Given the realities of the county's limited supply of land and its existing land use plan and zoning, the vast majority of homeownership opportunities in the future will be condominiums in multi-family buildings. As a result, we are forecasting that the homeownership rate in Arlington will drop slightly from 43 percent in 2012 to 40 percent by 2040. Homes in multi-family buildings will not be desirable to all individuals and families. However, for households with preferences for urban living and a willingness to trade private space for public amenities³², there should be options available to moderate-income households. In our poll of Arlington residents, 80 percent said it was important for Arlington to promote diversity of income and occupation, and 79 percent said it was important for the County to provide financial assistance for first-time homebuyers with low and moderate incomes.

- **Permanent and supportive housing is needed for homeless and near homeless individuals and families to help promote well-being and self-sufficiency.** Based on recent counts of the homeless population, there are several hundred individuals and families in Arlington without a permanent place to live. Some of these individuals are chronically homeless, and need intensive supportive services to help with health care issues, substance abuse and other difficulties. Our household forecasts did not include estimates of the future homeless though the county has had a goal of reducing the homeless population by 50 percent by 2015³³. Furthermore, promoting a community where no one is homeless is explicitly stated in the county's affordable housing principles. As a result, as the county grows and prospers in the future, it will be important to ensure that the most vulnerable members of the community have a place to live.

This needs analysis demonstrates how the population and housing market in Arlington County has changed since 2000. It describes the current picture of housing affordability for residents of the County and provides an analysis of current unmet housing needs. Finally, it uses data on past trends and future likely economic and demographic trajectories to forecast the number and characteristics of households that are expected to call Arlington County home in the future. This report answers the question of "what"—that is, what will the housing need be in Arlington County in the future? A key goal of this analysis was to provide a basis for conversation and recommendations about the "how." With a common understanding of Arlington County's future housing needs, the community can come together to support housing policies and programs that will meet those needs in a way that is consistent with the County's mission and affordable housing values.

³² See Chris Marshall's master thesis titled *A Series of Trade-Offs: The Current and Anticipated Housing Choices of Young Professionals in the District of Columbia*, available from the author marsh225@gmail.com.

³³ The county's most recent consolidated plan is available online at <http://housing.arlingtonva.us/plans-reports/consolidated-plan/>.

APPENDIX

Analysis of American Community Survey (ACS) Data

Selected Tables

As part of the needs analysis, George Mason University conducted a comprehensive analysis of ACS data to summarize Arlington County's population, household and housing unit characteristics. The analysis included the creation of hundreds of data tables describing current (as of 2012) demographic and socioeconomic characteristics, trends over time (200, 2006 and 2012), and comparisons with other local jurisdictions (Washington DC, the city of Alexandria, and Fairfax and Montgomery counties). The tables presented here are those most relevant to the current report; the full set of tables is available from the Arlington County Housing Division.

I. Population by Age Group over Time: Arlington County, VA

	2012		2006		2000	
	Estimate	Pct of Total	Estimate	Pct of Total	Estimate	Pct of Total
<18	35,879	16.2%	35,615	17.8%	30,944	16.3%
18-24	17,581	8.0%	13,823	6.9%	19,665	10.4%
25-34	62,917	28.5%	39,166	19.6%	47,939	25.3%
35-44	37,506	17.0%	41,089	20.6%	33,054	17.4%
45-54	25,584	11.6%	28,718	14.4%	25,909	13.7%
55-64	21,918	9.9%	21,475	10.7%	14,727	7.8%
65-74	12,054	5.5%	9,330	4.7%	8,019	4.2%
75-84	5,036	2.3%	6,276	3.1%	6,611	3.5%
85+	2,570	1.2%	4,284	2.1%	2,585	1.4%
Total	221,045	100.0%	199,776	100.0%	189,453	100.0%

Source: 2000 Census, Summary Data and the 2006 and 2012 American Community Survey, Summary Data

II. Population by Race and Ethnicity over Time: Arlington County, VA

	2012		2006		2000	
	Estimate	Pct of Total	Estimate	Pct of Total	Estimate	Pct of Total
White, one race, non-Hispanic	140,451	63.5%	129,463	64.8%	114,696	60.5%
Black or African America, one race, non-Hispanic	19,558	8.8%	17,396	8.7%	17,344	9.2%
Asian, one race, non-Hispanic	22,080	10.0%	17,422	8.7%	15,851	8.4%
Multi-racial/other, non-Hispanic	4,946	2.2%	4,021	2.0%	6,350	3.4%
Hispanic, any race	34,010	15.4%	31,474	15.8%	35,212	18.6%
Total	221,045	100.0%	199,776	100.0%	189,453	100.0%

Source: 2006 and 2012 American Community Survey, Summary Data and 2000 Census, Summary Data

III. Household Type over Time: Arlington County, VA

	2012		2006		2000	
	Estimate	Pct of Total	Estimate	Pct of Total	Estimate	Pct of Total
Family Household	42,788	44.9%	39,608	46.4%	39,666	45.8%
Married, No Kids	18,188	19.1%	15,991	18.7%	16,793	19.4%
Married, w/Kids	16,059	16.8%	14,157	16.6%	13,223	15.3%
Single Parent	5,638	5.9%	5,660	6.6%	4,805	5.6%
Other Family	2,903	3.0%	3,800	4.5%	4,845	5.6%
Non-Family Household	52,581	55.1%	45,729	53.6%	46,895	54.2%
Living Alone, under 65	32,713	34.3%	32,594	38.2%	28,414	32.8%
Living Alone, 65+	6,143	6.4%	6,292	7.4%	6,594	7.6%
Not Living Alone	13,725	14.4%	6,843	8.0%	11,887	13.7%
Total	95,369	100.0%	85,337	100.0%	86,561	100.0%

Source: 2000 Census, Microdata and the 2006 and 2012 American Community Survey, Microdata

IV. Occupied Housing by Gross Rent as a Percent of Household Income

Excludes households not paying rent and those with household incomes of zero or less

	Estimate		Percent of Renter Households				
	Arlington	Arlington	D.C.	Montgomery	Fairfax	Alexandria	Region
<30%	30,764	60.6%	50.7%	47.7%	54.4%	54.8%	51.0%
30-34%	4,133	8.1%	8.6%	10.9%	9.8%	11.3%	9.9%
35-39%	2,928	5.8%	6.9%	7.9%	6.9%	8.6%	7.5%
40-49%	3,405	6.7%	8.3%	9.2%	9.1%	7.9%	8.9%
50%+	9,497	18.7%	25.4%	24.3%	19.9%	17.4%	22.6%
Total	50,727	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: 2010-2012 American Community Survey, Summary Data

V. Occupied Housing by Select Owner Costs as a Percent of Household Income

Excludes households with incomes of zero or less

	Estimate		Percent of Owner Households				
	Arlington	Arlington	D.C.	Montgomery	Fairfax	Alexandria	Region
<30%	31,336	76.1%	69.8%	69.5%	74.1%	75.5%	69.9%
30-34%	2,868	7.0%	6.6%	7.5%	7.2%	7.8%	7.8%
35-39%	1,902	4.6%	5.1%	5.2%	4.5%	5.2%	5.3%
40-49%	2,112	5.1%	5.7%	5.8%	5.1%	3.7%	6.0%
50%+	2,934	7.1%	12.8%	12.0%	9.1%	7.7%	10.9%
Total	41,152	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: 2010-2012 American Community Survey, Summary Data

VI. Householder Age by Share of Household Income Spent on Rent

Excludes households not paying rent and those with household incomes of zero or less

	Share of Household in Age Group								Total
	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	
<30%	38%	64%	64%	56%	72%	49%	32%	12%	60%
30-34%	12%	9%	12%	12%	4%	6%	10%	10%	10%
35-39%	9%	5%	5%	3%	4%	3%	2%	0%	5%
40-44%	8%	3%	3%	6%	1%	10%	3%	10%	4%
45-49%	4%	3%	2%	4%	0%	3%	6%	3%	3%
50%+	29%	16%	15%	19%	19%	29%	48%	65%	19%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: 2010-2012 American Community Survey, Microdata

VII. Householder Age by Share of Household Income Spent on Select Ownership Costs

Excludes households with incomes of zero or less

	Share of Household in Age Group								Total
	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	
<30%	45%	72%	78%	79%	78%	78%	67%	79%	77%
30-34%	6%	12%	6%	6%	6%	3%	8%	4%	6%
35-39%	7%	7%	6%	6%	5%	2%	3%	7%	5%
40-44%	20%	4%	2%	1%	3%	3%	0%	0%	2%
45-49%	0%	2%	4%	1%	2%	2%	3%	0%	2%
50%+	22%	3%	5%	6%	6%	12%	18%	10%	7%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: 2010-2012 American Community Survey, Microdata

VIII. Householders' Race by Share of Household Income Spent on Rent

Excludes households not paying rent and those with household incomes of zero or less

	Share of Households by Race						Total
	Non-Hispanic						
	White alone	Black or African American alone	Asian (a)	Other (b)	Two or More Races	Hispanic, Any Race	
<30%	64%	52%	62%	51%	63%	43%	60%
30-34%	10%	10%	11%	0%	27%	8%	10%
35-39%	4%	10%	4%	0%	0%	3%	5%
40-44%	5%	3%	1%	0%	0%	2%	4%
45-49%	3%	0%	3%	0%	0%	7%	3%
50%+	14%	25%	20%	49%	10%	37%	19%
Total	100%	100%	100%	100%	100%	100%	100%

(a) Includes Native Hawaiian and Other Pacific Islander alone

(b) Includes American Indian, Alaska Native and Other Race

Source: 2010-2012 American Community Survey, Microdata

IX. Householders' Race by Share of Household Income Spent on Select Ownership Costs

Excludes households with incomes of zero or less

	Share of Households by Race						Total
	White alone	Black or African American alone	Asian (a)	Other (b)	Two or More Races	Hispanic, Any Race	
<30%	80%	54%	79%	47%	70%	52%	77%
30-34%	7%	6%	5%	0%	1%	8%	6%
35-39%	5%	3%	4%	25%	19%	9%	5%
40-44%	2%	18%	1%	0%	4%	2%	2%
45-49%	1%	9%	6%	0%	0%	7%	2%
50%+	5%	10%	5%	28%	6%	22%	7%
Total	100%	100%	100%	100%	100%	100%	100%

(a) Includes Native Hawaiian and Other Pacific Islander alone

(b) Includes American Indian, Alaska Native and Other Race

Source: 2010-2012 American Community Survey, Microdata

X. Household Type by Share of Household Income Spent on Rent

Excludes households not paying rent and those with household incomes of zero or less

	Share of Households by Type								Total
	Married, No Children	Married, w/ Children	Single Parent	Single Parent, with Partner, Children	Other Family	Living Alone, under 65	Living Alone, 65+	Non-Family, Not Living Alone	
<30%	74%	58%	31%	32%	66%	57%	22%	74%	60%
30-34%	11%	10%	6%	0%	6%	12%	7%	8%	10%
35-39%	2%	5%	3%	5%	8%	6%	2%	3%	5%
40-44%	3%	4%	6%	0%	3%	4%	9%	3%	4%
45-49%	5%	3%	6%	23%	1%	2%	5%	1%	3%
50%+	6%	20%	48%	39%	16%	19%	55%	11%	19%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: 2010-2012 American Community Survey, Microdata

XI. Household Type by Share of Household Income Spent on Select Ownership Costs

Excludes households with incomes of zero or less

	Share of Households by Type								Total
	Married, No Children	Married, w/ Children	Single Parent	Single Parent, with Partner, Children	Other Family	Living Alone, under 65	Living Alone, 65+	Non- Family, Not Living Alone	
<30%	86%	78%	51%	100%	67%	71%	67%	81%	77%
30-34%	5%	8%	11%	0%	3%	8%	8%	2%	6%
35-39%	4%	5%	3%	0%	9%	8%	1%	9%	5%
40-44%	1%	3%	3%	0%	10%	3%	1%	1%	2%
45-49%	1%	2%	1%	0%	6%	4%	4%	1%	2%
50%+	3%	4%	31%	0%	5%	7%	19%	6%	7%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: 2010-2012 American Community Survey, Microdata

XII. Household Income (2012 \$s) by Share of Household Income Spent on Rent

Excludes households not paying rent and those with household incomes of zero or less

	Share of Households by Income										Total
	<\$15K	\$15- 29K	\$30- 59K	\$60- 79K	\$80- 99K	\$100- 119K	\$120- 149K	150- 199K	\$200- 249K	\$250K+	
<30%	14%	8%	17%	59%	80%	94%	92%	100%	100%	100%	60%
30-34%	6%	2%	20%	19%	14%	3%	8%	0%	0%	0%	10%
35-39%	2%	3%	13%	8%	3%	2%	0%	0%	0%	0%	5%
40-44%	1%	4%	9%	10%	1%	1%	0%	0%	0%	0%	4%
45-49%	0%	1%	14%	1%	1%	0%	0%	0%	0%	0%	3%
50%+	77%	81%	26%	3%	0%	0%	0%	0%	0%	0%	19%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: 2010-2012 American Community Survey, Microdata

XIII. Household Income (2012 \$s) by Share of Household Income Spent on Select Ownership Costs

Excludes households with incomes of zero or less

	Share of Households by Income										Total
	<\$15K	\$15- 29K	\$30- 59K	\$60- 79K	\$80- 99K	\$100- 119K	\$120- 149K	150- 199K	\$200- 249K	\$250K+	
<30%	0%	17%	39%	59%	68%	60%	85%	90%	97%	98%	77%
30-34%	0%	6%	10%	9%	10%	15%	9%	4%	2%	1%	6%
35-39%	0%	9%	9%	10%	11%	14%	4%	3%	1%	0%	5%
40-44%	3%	6%	10%	3%	5%	5%	0%	1%	0%	0%	2%
45-49%	0%	5%	9%	9%	0%	3%	1%	1%	0%	0%	2%
50%+	97%	58%	23%	9%	6%	3%	1%	0%	0%	0%	7%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: 2010-2012 American Community Survey, Microdata

Results from Arlington County Resident Survey

Selected Tables

As part of the needs analysis, Frederick Polls, LLC conducted a poll of 1,744 Arlington County residents in April-June 2014 to better understand housing needs and opinions about affordable housing policy. The poll was administered by telephone and online and was offered in English and Spanish. Certain subpopulations were oversampled, but the data were weighted to be representative of the entire county population. The tables presented here are those most relevant to the current report. A full description of the poll and the full set of poll results are available in the *Arlington County Affordable Housing Study: Arlington Resident Poll Results* report.

XIV. In general, considering all the costs it takes to live in your home—including monthly rent or mortgage payments, plus taxes and utilities—do you consider it affordable?

	Total	African American	Hispanic	25-34 year olds	65-74 year olds	Disabled	Income <\$30K
Yes	70%	58%	66%	64%	76%	66%	65%
No	29%	42%	31%	35%	22%	31%	34%
Don't Know/Refused	1%	0%	3%	0%	2%	3%	0%

XV. In the next five years, how likely is it that you will have to move out of Arlington because you would not have the kind of housing you want at the price you can afford—very likely, somewhat likely, or not likely?

	Total	African American	Hispanic	25-34 year olds	65-74 year olds	Disabled	Income <\$30K
Very likely	23%	33%	23%	34%	13%	28%	39%
Somewhat likely	18%	17%	17%	26%	13%	19%	21%
Not likely	56%	55%	55%	37%	67%	47%	35%
Don't Know/Refused	3%	6%	6%	2%	6%	5%	5%

XVI. Have you ever experienced having to move out of a residence in Arlington because you could no longer afford the cost of living there?

	Total	African American	Hispanic	25-34 year olds	65-74 year olds	Disabled	Income <\$30K
Yes	11%	18%	17%	16%	12%	20%	30%
No	88%	81%	82%	84%	87%	79%	68%
Don't Know/Refused	1%	1%	2%	0%	1%	1%	2%

XVII. ASKED OF OWNERS: Would you like to remain in your current home for the rest of your life or move to some other home?

	Total	African American	Hispanic	25-34 year olds	65-74 year olds	Disabled	Income <\$30K
Remain in home	28%	23%	30%	7%	52%	38%	13%
Move someplace else	26%	11%	16%	26%	15%	19%	5%
Both—have 2 nd home	1%	0%	2%	1%	1%	0%	0%
Don't Know/Refused	6%	4%	2%	3%	7%	4%	3%
Not asked: Renter	40%	62%	50%	64%	26%	39%	79%

XVIII. ASKED OF OWNERS WHO WANT TO REMAIN IN THEIR HOME: RENTERS: Do you think your home will need some physical modifications to allow you to remain living there?

	Total	African American	Hispanic	25-34 year olds	65-74 year olds	Disabled	Income <\$30K
Yes	14%	11%	15%	4%	26%	20%	8%
No	13%	12%	14%	3%	23%	18%	5%
Don't Know/Refused	1%	0%	1%	0%	3%	0%	0%
Not asked: Renter/Mover	72%	77%	70%	93%	48%	62%	87%

XIX. ASKED OF RENTERS: Would you, at some point in the future, like to buy a home in Arlington?

	Total	African American	Hispanic	25-34 year olds	65-74 year olds	Disabled	Income <\$30K
Yes	23%	34%	30%	42%	8%	11%	44%
No	15%	23%	15%	17%	17%	24%	24%
Don't Know/Refused	2%	2%	3%	3%	2%	1%	11%
Not asked: Owner	61%	41%	52%	38%	73%	63%	22%

XX. IF "YES" TO THE PREVIOUS QUESTION: Do you expect to be able to find a home to buy in Arlington that you can afford and meets your needs?

	Total	African American	Hispanic	25-34 year olds	65-74 year olds	Disabled	Income <\$30K
Yes	9%	12%	15%	15%	2%	0%	15%
No	12%	19%	14%	24%	6%	10%	20%
Don't Know/Refused	2%	4%	1%	4%	0%	1%	9%
Not asked: Owner/No	77%	66%	70%	58%	92%	89%	56%

Arlington County Household Forecasts Methodology and Detailed Forecasts

The forecasted age group and sex of residents was assumed to drive many of the key characteristics, so the population was forecasted by 5-year age groups by sex. The County's populations were forecasted for 2020, 2030 and 2040 based on cohort component changes. To do so, the population in 1990, 2000 and 2010 were divided into a 5-year age group by sex. Between 1990 and 2000, a cohort change ratio was calculated by dividing the 2000 population in each age and sex group by the 1990 population in each age and sex group, but for the age group 10 years younger. The cohort change ratio captures both the "aging up" and net migration by age group and gender. The same was done for the 2000 and 2010 populations. An average of the 1990-2000 and 2000-2010 cohort change ratios was applied to the 2010 population to determine the forecasted age and sex of residents over 10 years old in 2020, 2030 and 2040. To determine the future number of children under ten years old, a ratio of number of children under ten to the number of women between 20 and 44 years old was calculated for 1990, 2000 and 2010. The average of this ratio was applied to the forecasted number of women between 20 and 44 years old to estimate the number of children. Lastly, the resulting 10-year annualized growth rate for each age and sex group was used to determine the populations in 2015, 2025 and 2035. The County's overall population forecasts were used as a control, but were within 3 percentage points of the unadjusted cohort component method.

Households by Household Size:

Household size was assumed to be driven by the age and sex of the individuals within the population. Each age and sex group was then distributed into a household size based on current patterns, after excluding those in group quarters. For example, 24 percent of 30-34 year old females are in 1-person households and this ratio is applied to the forecasted number of 30-34 year old females. The number of people in each household was then converted to a household number based on size and controlling for the total number of households forecasted. The number of people in 1-person households equals the number of 1-person households. The number of people in 2-person households is twice the number of 2-person households. The number of people in 3-person households is three times the number of 3-person households. The number of 4+-person households is based on the current household size of these households. As with the total number of households for each characteristic, the total households were controlled to match the forecasted number of households. The unadjusted methods were within 2 percentage points of the control.

Households by Householder Age:

The current percentage of each age and sex group who is a head of household was calculated (a headship rate). This headship rate was applied to the forecasted population by age and sex group to determine the number of households headed by each age group. The total households were controlled to match the forecasted number of households.

Households with 1+ Person(s) with Disability:

The age and sex of the householder was assumed to be the determining factor for the number of households with a disability. The current percentage of households with one or more disabled person(s) was calculated based on the age and sex group of the householder. For example, 10 percent of households headed by a male between 65 and 69 years old include one or more person(s) with a disability. This percentage was applied to the forecasted households by the age and sex of the

householder to determine the number of households headed by a person with a disability. The total households were controlled to match the forecasted number of households.

Households by AMI:

Households with a worker and households without a worker were forecasted separately with different methods. To determine the forecasted number of households without a worker, the forecasts of households were grouped by householder age category (Under 65, 65 to 84 and 85+) and disability status. These age categories by disability status were assumed to be the main driver of the number of households without a worker and assume that the future labor force participation rates for each category will be similar. Current data was used to determine a ratio of non-working households by age category and disability status, which was applied to the forecasted households. The AMI distribution of the nonworking households by age category and disability status is assumed to be the same as the current distribution.

The remaining households are households with a worker (worker-households). The AMI of worker-households was determined based on regional job growth by industry. However, AMI is a regional number and will change if the mix of jobs, and their wages, in the region shifts. To account for this shift, the distribution of wages within each industry was determined and applied to the forecasted jobs by industry. A median wage was calculated over time and the percentage change in the median wage over time was used to approximate the change in AMI. This wage-based AMI does not account for changes to non-wage income and non-wage income is assumed to shift proportionally in the region and Arlington.

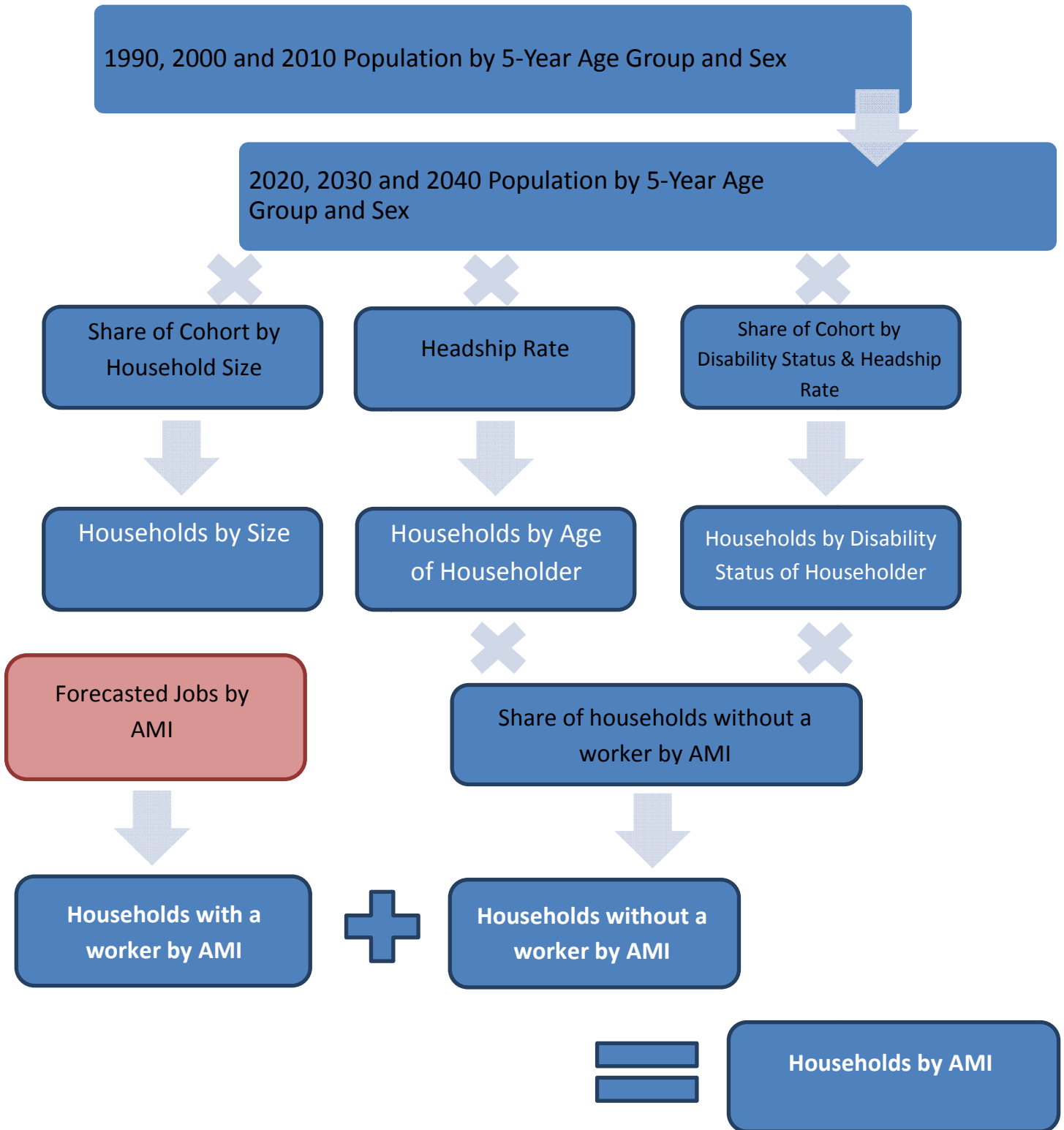
This wage-based AMI was used to allocate jobs into AMI groups, based on the distribution of wages within each industry and Arlington County worker-household characteristics. The average household size and average number of workers per household of the worker-households was used to determine the wage per job for each AMI group. The current distribution of jobs in each wage group was then determined by industry. The forecasted jobs in each industry were then distributed into wage groups, which approximate AMI groups, based on the current distribution.

Finally, a current ratio of Arlington worker-households to jobs by AMI was calculated. This ratio was applied the forecasted number of regional jobs to determine the number of households in each AMI group. Doing so incorporates wage-changes relative to the region, while also accounting for regional growth rates in different AMI groups.

The two household types (without or with a worker) were combined for the total number of households by AMI.

Arlington County Household Forecasts

Methodology



Arlington County Affordable Housing Study
Forecasts of Households by Select Characteristics
 9-8-14

TOTAL

	Total		
	Households (County)		
	Est	% Chg	Share
2010	98,100	NA	100%
2015	104,900	6.9%	100%
2020	112,200	7.0%	100%
2025	116,700	4.0%	100%
2030	121,400	4.0%	100%
2035	124,900	2.9%	100%
2040	128,600	3.0%	100%

Household Income - revised

	<30% AMI			30-39% AMI			40-49% AMI			50-59% AMI			60-79% AMI			80-99% AMI			100-119% AMI			120%+ AMI		
	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share
2010	10,100	NA	10.3%	3,600	NA	3.7%	3,300	NA	3.4%	3,200	NA	3.3%	9,000	NA	9.2%	9,900	NA	10.1%	9,100	NA	9.3%	49,700	NA	50.7%
2015	11,300	11.9%	10.8%	4,000	11.1%	3.8%	3,800	15.2%	3.6%	3,400	6.3%	3.2%	9,900	10.0%	9.4%	10,200	3.0%	9.7%	9,700	6.6%	9.2%	52,500	5.6%	50.0%
2020	12,300	8.8%	11.0%	4,300	7.5%	3.8%	4,200	10.5%	3.7%	3,700	8.8%	3.3%	10,600	7.1%	9.4%	11,000	7.8%	9.8%	10,400	7.2%	9.3%	55,800	6.3%	49.7%
2025	12,700	3.3%	10.9%	4,400	2.3%	3.8%	4,300	2.4%	3.7%	3,900	5.4%	3.3%	10,900	2.8%	9.3%	11,400	3.6%	9.8%	10,800	3.8%	9.3%	58,400	4.7%	50.0%
2030	13,300	4.7%	11.0%	4,600	4.5%	3.8%	4,500	4.7%	3.7%	4,100	5.1%	3.4%	11,500	5.5%	9.5%	11,800	3.5%	9.7%	11,600	7.4%	9.6%	60,100	2.9%	49.5%
2035	13,600	2.3%	10.9%	4,700	2.2%	3.8%	4,600	2.2%	3.7%	4,200	2.4%	3.4%	11,800	2.6%	9.4%	12,000	1.7%	9.6%	11,900	2.6%	9.5%	62,200	3.5%	49.8%
2040	13,800	1.5%	10.7%	4,800	2.1%	3.7%	4,600	0.0%	3.6%	4,400	4.8%	3.4%	12,000	1.7%	9.3%	12,300	2.5%	9.6%	12,200	2.5%	9.5%	64,500	3.7%	50.2%

Household Size - revised

	1 Person			2 People			3 People			4+ People		
	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share
2010	40,500	NA	41.3%	31,700	NA	32.3%	11,600	NA	11.8%	14,200	NA	14.5%
2015	43,000	6.2%	41.0%	34,400	8.5%	32.8%	12,300	6.0%	11.7%	15,100	6.3%	14.4%
2020	45,600	6.0%	40.6%	37,100	7.8%	33.1%	13,100	6.5%	11.7%	16,400	8.6%	14.6%
2025	47,500	4.2%	40.7%	38,500	3.8%	33.0%	13,600	3.8%	11.7%	17,100	4.3%	14.7%
2030	49,500	4.2%	40.8%	40,000	3.9%	32.9%	14,100	3.7%	11.6%	17,800	4.1%	14.7%
2035	51,000	3.0%	40.8%	41,300	3.3%	33.1%	14,600	3.5%	11.7%	18,100	1.7%	14.5%
2040	52,500	2.9%	40.8%	42,700	3.4%	33.2%	15,000	2.7%	11.7%	18,500	2.2%	14.4%

Householder Age

	<65			65-84			85+		
	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share
2010	85,700	NA	87.4%	10,300	NA	10.5%	2,000	NA	2.0%
2015	89,500	4.4%	85.3%	12,700	23.3%	12.1%	2,700	35.0%	2.6%
2020	93,800	4.8%	83.6%	15,200	19.7%	13.5%	3,200	18.5%	2.9%
2025	97,300	3.7%	83.4%	15,900	4.6%	13.6%	3,500	9.4%	3.0%
2030	100,800	3.6%	83.0%	16,800	5.7%	13.8%	3,800	8.6%	3.1%
2035	103,900	3.1%	83.2%	16,600	-1.2%	13.3%	4,500	18.4%	3.6%
2040	107,100	3.1%	83.3%	16,300	-1.8%	12.7%	5,200	15.6%	4.0%

Disability Status - revised

	None			Physical			Cognitive			Ind. Living / Self-Care			Multiple		
	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share
2010	89,000	NA	90.7%	3,300	NA	3.4%	800	NA	0.8%	400	NA	0.4%	4,600	NA	4.7%
2015	95,300	7.1%	90.8%	3,600	9.1%	3.4%	800	0.0%	0.8%	400	0.0%	0.4%	4,800	4.3%	4.6%
2020	101,700	6.7%	90.6%	3,800	5.6%	3.4%	800	0.0%	0.7%	400	0.0%	0.4%	5,400	12.5%	4.8%
2025	105,600	3.8%	90.5%	4,000	5.3%	3.4%	900	12.5%	0.8%	400	0.0%	0.3%	5,800	7.4%	5.0%
2030	109,500	3.7%	90.2%	4,300	7.5%	3.5%	900	0.0%	0.7%	400	0.0%	0.3%	6,300	8.6%	5.2%
2035	112,500	2.7%	90.1%	4,400	2.3%	3.5%	900	0.0%	0.7%	400	0.0%	0.3%	6,700	6.3%	5.4%
2040	115,600	2.8%	89.9%	4,500	2.3%	3.5%	900	0.0%	0.7%	500	25.0%	0.4%	7,100	6.0%	5.5%

Arlington County Affordable Housing Study

Forecasts of Households by Select Characteristics, Renter-Occupied Units

9-3-14

TOTAL

Total Households (County)			
	Est	% Chg	Share
2010	55,600	NA	100%
2020	65,700	18.2%	100%
2030	71,600	9.0%	100%
2040	76,600	7.0%	100%

Household Income - revised

	<30% AMI			30-39% AMI			40-49% AMI			50-59% AMI			60-79% AMI			80-99% AMI			100-119% AMI			120%+ AMI		
	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share
2010	8,700	NA	15.7%	2,900	NA	5.2%	2,400	NA	4.3%	2,500	NA	4.5%	5,900	NA	10.7%	6,600	NA	11.8%	5,700	NA	10.3%	20,900	NA	37.5%
2020	10,600	21.8%	16.1%	3,500	20.7%	5.3%	3,000	25.0%	4.6%	2,900	16.0%	4.4%	7,100	20.3%	10.8%	7,600	15.2%	11.6%	6,700	17.5%	10.2%	24,700	18.2%	37.6%
2030	11,500	8.5%	16.1%	3,700	5.7%	5.2%	3,300	10.0%	4.6%	3,200	10.3%	4.5%	7,800	9.9%	10.9%	8,200	7.9%	11.5%	7,500	11.9%	10.5%	26,700	8.1%	37.3%
2040	12,000	4.3%	15.7%	4,000	8.1%	5.2%	3,400	3.0%	4.4%	3,400	6.3%	4.4%	8,200	5.1%	10.7%	8,700	6.1%	11.4%	7,900	5.3%	10.3%	29,100	9.0%	38.0%

Household Size - revised

	1 Person			2 People			3 People			4+ People		
	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share
2010	25,800	NA	46.4%	17,400	NA	31.3%	5,900	NA	10.6%	6,400	NA	11.5%
2020	30,400	17.8%	46.3%	22,400	28.7%	34.1%	6,300	6.8%	9.6%	6,700	4.7%	10.2%
2030	33,100	8.9%	46.2%	24,300	8.5%	33.9%	6,800	7.9%	9.5%	7,300	9.0%	10.2%
2040	35,400	6.9%	46.2%	26,200	7.8%	34.2%	7,300	7.4%	9.5%	7,700	5.5%	10.1%

Householder Age

	<65			65-84			85+		
	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share
2010	51,700	NA	93.0%	3,200	NA	5.8%	700	NA	1.3%
2020	59,100	14.3%	90.0%	4,600	43.8%	7.0%	1,700	142.9%	2.6%
2030	64,000	8.3%	89.4%	5,100	10.9%	7.1%	2,100	23.5%	2.9%
2040	68,600	7.2%	89.6%	5,000	-2.0%	6.5%	2,800	33.3%	3.7%

Disability Status - revised

	None			Physical			Cognitive			Ind. Living / Self-Care			Multiple		
	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share
2010	51,200	NA	92.1%	1,600	NA	2.9%	400	NA	0.7%	100	NA	0.3%	2,200	NA	4.0%
2020	60,500	18.2%	92.1%	1,900	18.8%	2.9%	300	-25.0%	0.5%	200	100.0%	0.3%	2,800	27.3%	4.3%
2030	65,500	8.3%	91.5%	2,200	15.8%	3.1%	400	33.3%	0.6%	200	0.0%	0.3%	3,200	14.3%	4.5%
2040	70,000	6.9%	91.4%	2,300	4.5%	3.0%	400	0.0%	0.5%	300	50.0%	0.4%	3,600	12.5%	4.7%

Arlington County Affordable Housing Study

Forecasts of Households by Select Characteristics, Owner-Occupied Units

9-3-14

TOTAL

Total Households (County)			
	Est	% Chg	Share
2010	42,500	NA	100%
2020	46,500	9.4%	100%
2030	49,800	7.1%	100%
2040	52,000	4.4%	100%

Household Income - revised

	<30% AMI			30-39% AMI			40-49% AMI			50-59% AMI			60-79% AMI			80-99% AMI			100-119% AMI			120%+ AMI		
	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share
2010	1,500	NA	3.5%	700	NA	1.8%	1,000	NA	2.3%	800	NA	1.8%	3,100	NA	7.4%	3,400	NA	8.0%	3,500	NA	8.1%	28,500	NA	67.1%
2020	1,700	13.3%	3.7%	800	14.3%	1.7%	1,200	20.0%	2.6%	800	0.0%	1.7%	3,500	12.9%	7.5%	3,400	0.0%	7.3%	3,700	5.7%	8.0%	31,200	9.5%	67.1%
2030	1,800	5.9%	3.6%	900	12.5%	1.8%	1,200	0.0%	2.4%	900	12.5%	1.8%	3,800	8.6%	7.6%	3,500	2.9%	7.0%	4,100	10.8%	8.2%	33,300	6.7%	66.9%
2040	1,800	0.0%	3.5%	800	-11.1%	1.5%	1,300	8.3%	2.5%	900	0.0%	1.7%	3,800	0.0%	7.3%	3,500	0.0%	6.7%	4,300	4.9%	8.3%	35,400	6.3%	68.1%

Household Size - revised

	1 Person			2 People			3 People			4+ People		
	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share
2010	14,700	NA	34.6%	14,300	NA	33.6%	5,700	NA	13.4%	7,800	NA	18.4%
2020	15,300	4.1%	32.9%	14,700	2.8%	31.6%	6,800	19.3%	14.6%	9,700	24.4%	20.9%
2030	16,400	7.2%	32.9%	15,600	6.1%	31.3%	7,300	7.4%	14.7%	10,500	8.2%	21.1%
2040	17,100	4.3%	32.9%	16,500	5.8%	31.7%	7,600	4.1%	14.6%	10,800	2.9%	20.8%

Householder Age

	<65			65-84			85+		
	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share
2010	34,100	NA	80.2%	7,100	NA	16.7%	1,300	NA	3.1%
2020	34,800	2.1%	74.8%	10,600	49.3%	22.8%	1,500	15.4%	3.2%
2030	36,800	5.7%	73.9%	11,700	10.4%	23.5%	1,800	20.0%	3.6%
2040	38,400	4.3%	73.8%	11,200	-4.3%	21.5%	2,400	33.3%	4.6%

Disability Status - revised

	None			Physical			Cognitive			Ind. Living / Self-Care			Multiple		
	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share	Est	% Chg	Share
2010	37,800	NA	89.1%	1,700	NA	3.9%	400	NA	0.9%	200	NA	0.5%	2,400	NA	5.5%
2020	41,300	9.3%	88.8%	1,900	11.8%	4.1%	400	0.0%	0.9%	200	0.0%	0.4%	2,700	12.5%	5.8%
2030	44,000	6.5%	88.4%	2,100	10.5%	4.2%	400	0.0%	0.8%	200	0.0%	0.4%	3,100	14.8%	6.2%
2040	45,600	3.6%	87.7%	2,200	4.8%	4.2%	400	0.0%	0.8%	300	50.0%	0.6%	3,500	12.9%	6.7%