A Basic Housing Needs Assessment and Gap Analysis for the Rappahannock–Rapidan Region

Prepared for

The Rappahannock–Rapidan Regional Commission

Prepared by

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May 2018

Executive Summary

According to 2016 ACS estimates, more than 170,000 people comprise 62,328 households in the Rappahannock–Rapidan region. Most of these households, about 76 percent, include at least one worker. The commutes of these workers are a primary driver of housing location choices and the tradeoffs households make between housing and transportation costs. Many households choose to live in the region and commute to work to achieve a high quality of life in terms of cost of living (often a suburban, exurban, or semi-rural lifestyle). The region may be particularly appealing because large towns offer the convenience of cities and suburbs close to rural areas. Essentially, households can enjoy "the best of both worlds."

The region may allow some households affordable living costs. However, more than 17,000 households in the region are cost-burdened, paying more than 30 percent of their household income for housing. These households represent the need for more affordable housing in the region. The region does not have enough affordable housing units for renters with extremely low incomes (less than 30 percent of Area Median Income; AMI) or owners with very low incomes (less than 50 percent of AMI). Furthermore, households with higher incomes occupy almost 60 percent of housing units that would be affordable to extremely-low and very low-income households.

The market does not match housing units to households that need them, and most households prefer to spend much less than 30 percent of their income on housing if they can find a lower-cost unit that meets their needs. Higher-income households compete better for housing, "crowding out" lower income households and creating an effective shortage of affordable units for low- and moderate-income households. Households that cannot find affordable, appropriate housing often must accept substandard conditions or housing cost burdens that force them to forego other needs like medical care or even food.

Housing affordability plays an important role for stability and futures of both households and communities. The RRRC region can attract more households by encouraging development of convenient, low-maintenance housing that is affordable and attractive to millennials and downsizing boomers. Millennials have relatively low incomes compared to their gen x and boomer colleagues because they are younger and have had shorter careers; therefore, they need relatively affordable housing. Housing in the RRRC region must be sufficiently affordable to compete with more location-efficient urban areas in Charlottesville and closer to the urban core of the Washington DC metro.

Development of housing in towns also protects the rural character, which is another important asset enjoyed by households in the region. Rural and semi-rural lifestyles are critical to attracting households that may be able to afford to live closer to their jobs but value the proximity to nature, sense of community, and other assets that the RRRC community offers.

Finally, housing affordability plays a role in attracting workers who provide services that contribute to quality of life and who work in industries that contribute to the region's economic growth. If workers cannot find affordable, appropriate housing in the region, businesses may have difficulty attracting and retaining talented employees. Workers in 9 of the top 10 occupations by employment cannot afford the median costs for houses with mortgages as single earners in any of the region's counties. Similarly, workers in 9 of the top 10 occupations by employment cannot afford the median rent as single earners in all but one of the region's jurisdictions.

Introduction

The Rappahannock–Rapidan Regional Commission (RRRC) serves as the lead agency for regional homeless Continuum of Care activities and affordable/workforce housing studies for individual member jurisdictions. The commission recently completed a Capacity Building and Strategic Planning effort facilitated by the Virginia Housing Alliance (VHA) with funding from the Virginia Housing Development Authority (VHDA), a key finding of which was that housing instability in the Rappahannock–Rapidan region is on the rise (especially for those in severe poverty) and is a main cause of homelessness. Furthermore, affordable housing development/subsidies are not keeping pace with increasing housing burden among the poorest households. The results of this process suggested that the RRRC and local governments needed to complete a regional affordable housing assessment. In 2017, the RRRC commissioned The Virginia Center for Housing Research at Virginia Tech (VCHR) to conduct a basic housing needs assessment and gap analysis, comparing town, county, and regional housing costs to regional housing needs and answer the following questions:

- What are the affordable housing gaps in the region?
- What is the relative availability of affordable housing in the region's jurisdictions?
- What is the relative availability of affordable housing in Fauquier, Culpepper, and Rappahannock compared to the Virginia portion of the Washington MSA?
- How has affordability changed over time?

The RRRC will share study results with RRRC member jurisdictions and use them to support a regional dialogue about affordable housing.

VCHR conducted a basic housing needs assessment and gap analysis, comparing town, county, and regional housing costs to regional housing needs. The center then assessed the availability of housing by affordability level and housing demand based on household incomes and levels of cost burden to determine regional affordable housing gaps.

VCHR considered relative affordability inside the region by comparing the level of and changes in cost burden over 2009–2016, median housing costs over 2009–2016, and units by rent or owner costs among jurisdictions. In addition, the center compared regional earnings in the top 10 occupations by employment to median housing costs to assess whether workers earning average wages for their occupation can afford the median housing costs in each county. VCHR considered relative affordability compared to jurisdictions and regions outside of the RRRC by comparing the regional gap analysis to gap analyses for the Washington–Arlington–Alexandria MSA and to those in the Charlottesville MSA.

Because so many residents commute within and outside of the region to work, VCHR conducted a basic commute analysis to determine worker housing demand. VCHR also considered combined housing and transportation cost affordability and the region's affordability compared to surrounding jurisdictions.

VCHR presented preliminary findings to housing providers and planners in the region and facilitated a conversation about housing challenges and potential solutions to learn from regional housing experts and better interpret the publicly available data.

Notes on Data

VCHR conducted this housing needs assessment using American Community Survey (ACS) data and a special tabulation of the ACS called the Consolidated Housing Affordability Strategy (CHAS) data. An ACS reliability check was used from "A Compass for Understanding and Using American Community Survey Data: What State and Local Governments Need to Know." The handbook suggests that an estimate must have a coefficient of variation no greater than 15 percent to be used for state and local government decision making and policy. Therefore, only estimates or ranges that are reliable by this standard are provided in the report.

Although almost 21 percent of households live in towns in the region, only the largest town, Culpeper, has reliable data for most measures. VCHR has included only the available and reliable data for towns. Likewise, data for counties with a small number of households are not always reliable. VCHR has provided reliable ranges and data from earlier years for counties where possible. Finally, VCHR conducted a housing gap analysis at the regional level.

VCHR used "On the Map" data to understand the regional housing market and potential demand from households commuting to nearby employment centers. On the Map does not provide margins of error for estimates, so VCHR used this data to understand commuting trends rather than to estimate specific housing needs. VCHR used Location Affordability Index data to compare combined housing and transportation costs to those in nearby jurisdictions, particularly those within the primary commute shed of residents in the RRRC region.

The Regional Housing Market

According to 2016 ACS estimates, more than 170,000 people comprise 62,328 households in the Rappahannock–Rapidan region. Most of those households, about 76 percent, include at least one worker. The commutes of these workers are a primary driver of housing location choices and the tradeoffs households make between housing and transportation costs, so VCHR used MSA data in addition to regional and jurisdiction data to understand housing markets. MSAs are a good approximation of housing markets as the Census defines MSAs based on commuting.

The Rappahannock–Rapidan region is located between two MSAs, the Washington–Arlington–Alexandria MSA and the Charlottesville MSA. Three regional counties are included in the Washington–Arlington–Alexandria MSA: Fauquier, Culpeper, and Rappahannock. Because these counties are in the outskirts of the Washington MSA and Madison and Orange are not included in an MSA, an examination of commuting patterns is warranted.

The US Census Center for Economic Studies "On the Map" tool provides information about commuting patterns based on place of residence. VCHR used commuting trends by county in conjunction with other county characteristics to better understand demand for housing in the region. Most Culpeper and Fauquier residents commute out of their county of residence for work and most out-commuters commute at least an additional 25 miles further into the Washington metro area. Therefore, these counties likely experience housing demand from households that include at least one worker who works in a more-expensive housing market closer to Washington, DC. Such households choose to live in Culpepper or Fauquier to achieve a higher quality of life in terms of cost of living, and, for many, a pleasurable suburban, exurban, or semi-rural lifestyle. These counties may be particularly appealing because large towns offer

the convenience of cities and suburbs close to rural areas. Essentially, households can enjoy "the best of both worlds."

Only 20 percent of Fauquier residents both live and work in the county, 14 percent of whom commute to Warrenton. Most workers commuting out of the county commute toward Washington, DC. Nearly 4 percent of out-commuters are traveling to each of the District and the City of Manassas, and a large proportion commute southeast to Fredericksburg. While some workers commute south to the town of Culpeper, very few commute further to the Charlottesville MSA. Given the housing costs and commutes of residents during the 2008–2013 period, Fauquier County is the most location-efficient of all counties in the region: it has the lowest combined housing and transportation cost for a median-income family measured using the average 2013 Location Affordability Index for the county. Furthermore, some areas along I-66 in Fauquier County have among the lowest combined housing and transportation costs in the state.

About 30 percent of Culpeper County residents live and work in the county, of whom more than 20 percent work in the Town of Culpeper. Of the out-commuters, nearly 7 percent travel to the Town of Warrenton in neighboring Fauquier County whereas most travel further into the Washington metro area. Lastly, approximately 1 percent of out-commuters travel to each of Fredericksburg and the Town of Orange.

Even though most residents in Rappahannock and Madison commute out of their county to work, many - commute within the Rappahanock–Rapidan region. And given their distance from employment centers closer to Washington, DC and Charlottesville, these counties likely present a stronger draw for households seeking a rural lifestyle away from the city than for those seeking more affordable housing options.

Approximately 20 percent of Rappahannock residents live and work in the county. The largest group of out-commuters are commuting to the towns of Warrenton and Culpeper. Longer-distance commuters travel to diverse destinations, including Washington, DC, Front Royal, Richmond, and Charlottesville.

About 23 percent of Madison County residents live and work in the county. Like Rappahannock, out-commuters travel to diverse destinations: at least 15 percent of out-commuters have regional destinations that include the towns of Culpeper, Orange, and Warrenton. Charlottesville is also a prominent destination.

Orange County may experience demand from households seeking more affordable housing options than are available in closer proximity to their jobs in the Charlottesville metro area or in the City of Fredericksburg. Orange may also see demand from households with workers commuting in two different directions. For example, spouses may commute in opposite directions, that is, one to Charlottesville and one to Culpeper or Fredericksburg. While Orange may be attractive based on its affordability compared to urban employment centers, much of the county's demand is likely based on a desire for a rural lifestyle. Compared to Albemarle and Nelson Counties, which have restrictive land-use policies, Orange may be considered a more accessible rural market close to Charlottesville.

Approximately 26 percent of Orange County residents live and work in the county, most of whom (13.4 percent) work in the Town of Orange. The Town of Culpeper, the City of Charlottesville, and the City of Fredericksburg are the most prominent destinations.

Housing Preferences and Other Relevant Market Trends

The changing housing preferences and needs of the two largest generations impact every region in the country. The oldest millennials are buying homes and starting families, but their housing preferences are different from those of baby boomers when they began buying homes. In addition, baby boomer preferences are changing as they age. Both groups seek convenience and affordability. Many millennials are still early in their careers and need more affordable housing than their older gen x and baby boomer colleagues. Many baby boomers are retiring and working to fit housing costs into a plan for aging on a fixed income.

Many jurisdictions may need to build new housing or redevelop older housing in order to attract millennials and will find baby boomers taking advantage of new housing built for millennials. The preferences of boomers and millennials represent an opportunity for rural towns. Towns offer the convenience of an urban setting with advantages that are harder to find in cities, such as more affordable housing, proximity to outdoor amenities, and often a greater sense of community.

Millennials

As of 2015, millennials have surpassed baby boomers as the nation's largest living generation at 75.4 million people (Fry, 2016). The housing choices of millennials are important because of the generation's large size and resulting large impact on the housing market. In the next 5 years, millennials will spend more per household on rent and home purchases combined than any other generation (Burbank & Keely, 2013). Approximately half of millennials live in rental housing (Lachman & Brett, 2015; US Federal Reserve Board, 2015), but most expect to own a home in the future (Burbank & Keely, 2013). Whether they rent or own, the housing preferences of millennials can be characterized by privacy, convenience, and conservation.

Millennials value space and privacy, which is why many of them prefer single-family homes. The percentage of young households in single-family homes is rising among both renters and owners. Householders aged 25–34 are equally likely to occupy a single-family home today as they were in 2000 before the housing boom and collapse. Millennials also have an interest in a broader range of rental options (Lachman & Brett, 2015): 60 percent of millennial renters live in apartments or condominiums, and 38 percent live in single-family homes. Furthermore, millennial homeowners are more likely to own single-family homes than previous generations are (Simmons, 2015).

Millennials look for convenient features in a home. For renters, covered parking is a key amenity (Lachman & Brett, 2015). Both renters and homeowners value living near their friends and family because they want the convenience of being able to visit without traveling far distances (Lachman & Brett, 2015). Millennials have shown preference for mixed-use urban areas for their convenient walkability (Burbank & Keely, 2013; Logan, 2014), and most millennials will choose an ideal location over greater square footage (Logan, 2014).

Millennials have shown an increased interest in ecofriendly living. They find environmentally friendly features (e.g., energy efficiency, water conservation, and recycled housing materials) desirable and are willing to pay more for them. They value having a backyard, which suggests that they value proximity to nature (Lachman & Brett, 2015). Walking, biking, and public transit are growing in popularity among millennials living in larger metropolitan areas, which suggests that they care about reducing vehicle emissions to lower atmospheric pollution (Burbank & Keely, 2013). However, despite an increase in the

diversity of transit preferences, 88 percent of millennial households own cars and 89 percent drive a car at least once a week (Demand Institute, 2014).

More than half of millennials renting a house or a room in a house live in cities, whereas only 36 percent of millennial homeowners do (Lachman & Brett, 2015). Most millennials plan to become homeowners eventually and likely move out of the city. In several surveys, millennials responded that they believe that homeownership is "an important long-term goal" and "an excellent investment" (Burbank & Keely, 2013; Lachman & Brett, 2015). In addition, 48 percent said that they would like their next home to be in the suburbs as opposed to 38 percent in the city and 14 percent in a rural area (Burbank & Keely, 2013).

Affordability for Millennials

Homeownership rates in the United States declined steadily from 2005 through 2014. The countrywide homeownership rate in the fourth quarters of 2005 and 2014 were 69 percent and 64 percent, respectively (Callis & Kresin, 2015). Evidence also exists of a sustained increase in homeownership rates beginning in the second quarter of 2016 (US Census, 2018).

Lending standards for homebuyers are stricter than those before the Great Recession. The current state of the economy and difficulties accessing credit have made purchasing a home problematic for many millennials. As a result, fewer young adults own their homes today. The percentage of millennials who own homes fell 12 percent between 2006 and 2011 (Logan, 2014). In 2007, 40 percent of households headed by those who were 35 years old and younger owned their primary residence, but that percentage had dropped to 34 percent by 2010 (Fry, 2013). Between 2012 and 2014, older millennials were finally able to reverse some of the decreasing homeownership rates despite relatively limited access to credit and high unemployment rates (Fannie Mae, 2016). While improving labor market conditions continue to aid millennial homeownership demand, limited housing supply and price increases have reduced affordability in parts of the market (Fannie Mae, 2016).

During the Great Recession, many millennials chose to live with their parents instead of buying or renting their own homes often owing to financial burdens such as student debt. In 2015, 26 percent of millennials continued to live with their parents compared to 22 percent before the onset of the Great Recession in 2007 (Pew Research Center, 2015). This generation has the most students graduating with debt and the highest average debt of any generation (Logan, 2014). According to a US Federal Reserve Board report, over half of the individuals aged 18 to 30 who attended college took on at least some debt (student loans, credit card debt, and other forms of borrowing) while pursuing their education (US Federal Reserve Board, 2015).

Because loan debt usually delays homeownership, millennials will wait longer to purchase homes (Mezza, Sommer, & Sherlund, 2014). Fortunately, millennials are optimistic about their future housing: 79 percent believe that their financial situation will improve and 74 percent plan to move in the next 5 years. According to survey results collected by the Demand Institute from over 1,000 people aged 18 to 29, millennial-headed households are expected to increase from 13.3 million in 2013 to 21.6 million in 2018.

Boomers

Boomers began purchasing homes in the 1970s and continue to account for about 31 percent of all home purchases (Lawrence, 2016; Myers & Ryu, 2008). About 71 percent of boomers live in single-family detached residences, and about 75 percent of householders aged 50–64 own their homes (Harvard JCHS, 2014; Kwon et al., 2015). According to Blake and Simic (2005), the homeownership rate in 2003 was

highest nationally within the 62–74 age bracket at 82.6 percent, followed by the 55–61 age segment at 80 percent. They predict that about 87 percent of boomers will own a home in 2030. However, homeownership began to decline in 2005, and ACS estimates indicate that 76.6 percent and 80.6 percent of householders aged 55–64 and 65–74, respectively, own their home (Harvard JCHS, 2014). In addition, 31 percent of 55+ reside within age-restricted communities, often known as retirement communities (Bernstein et al., 2011).

Both Lee and Ahn (2013) and Harvard JCHS (2014) suggest that about one-third of boomers experience significant housing affordability burdens, allocating at least 30 percent of their income to housing expenses including utilities. Over 70 percent of homeowners aged 50–64 still pay a mortgage, and about 33 percent confront a housing burden. Less than half (i.e., 15 percent) of homeowners without mortgages navigate a similar budget challenge.

Despite the large proportion of boomer homeowners, a minority yet growing number of boomers rent. Nearly one-half of renters aged 50–64 spend over 30 percent of their income on gross rent (i.e., contract rent plus utilities), which impacts their capacity to afford other essentials like groceries and health care (Harvard JCHS, 2014). Approximately 11 million households aged 50–70 rented in 2015, a value that increased by 4.3 million over the prior decade. Older households aged 50–70 exhibited the largest increase from 2005–2015, a trend coinciding with accelerating rental growth overall:

> The 2010s are on track to be the strongest decade of renter growth ever recorded, with the addition of 1.05 million net new households per year so far. This [rate] is nearly double the pace of growth in the 1970s when baby boomers came to age (Harvard JCHS 2015, p. 8).

Furthermore, improved accessibility and the potentially impractical cost to retrofit a home may lead even more boomers to rent as they age (Desjardin, 2013; Harvard JCHS, 2015).

Unique household composition, migration, and location trends characterize boomers regardless of housing tenure. According to Rappapart (2016), people aged 50–69 are least likely to be actively living with a partner, whereas Harvard JCHS (2014) suggests that householders aged 60–69 are more likely to live alone. One-third of householders aged 60–69 live alone compared to one-fourth of those aged 50–59. “Empty nests” are a common household makeup for both age groups, comprising 40 percent of the 50–59 age group and 50 percent of the 60–69 one (Harvard JCHS, 2014). Homeowners presumably occupy the same residence for decades, as ACS 2015 estimates show that 66 percent and 41 percent of homeowners aged 65+ and 35–64, respectively, have lived in their home at least 14 years. In the study by Kwon et al. (2015), approximately 43.9 percent and 50 percent of respondents sampled lived in suburban or small town/rural communities, respectively (n = 403). Kim (2011) asserts that “elderly households [60+] tend to have less dramatic changes in their residential environment compared to younger households” (p. 13): about 6 percent of elderly households move per year, and only 1 percent move across states.

Aging in Place

The future living arrangements of boomers continue to gain relevance as all boomers reach age 65 by 2029 and elevate the senior population to one-fifth of the entire nation. Keenan (2010) used random digit dialing to build a sample (n = 1,616) of individuals 45 and older. Of these, 73 percent strongly agreed with the notion that they wish to remain in their current home for as long as possible. Such sentiment reflects a desire to *age in place,* which the Center for Disease Control (2013) defines as the "ability to live in one's own home and community safely, independently, and comfortably, regardless of age, income, or ability level" (Kwon et al., 2015, p. 348). Kwon et al. (2015) drew similar conclusions from a random sample of 403 boomers and noted that statistically significant drivers of this preference range from age to geography. The authors note that "baby boomers showed a strong desire to age in place if they indicated higher residential satisfaction (Kwon et al., 2015, p. 367)." Furthermore, the choice to age in place offers immense practical and familial value (Desjardins, 2013). A majority of boomers attribute friends/family, being near places they want to go, and church/social organizations as very important reasons for their desire to age in place (Keenan, 2010). Health and financial reasons can force an individual from their long-term home; however, residing in an appropriate home within the same community reflects a more flexible form of aging in place (Keenan, 2010; Kwon et al., 2015).

Boomers increasingly shift their housing tenure or downsize with age. Classic building designs often lack elements of universal accessibility, like a master suite on the main level and a no-step entrance. About 80 percent of respondents in Keenan's (2010) sample reported having a full bath and bedroom on the main level, but only 36 percent of respondents' homes had an entrance without steps and 27 percent with wide doorways. Similar values from Harvard JCHS (2014) confirm the prevalence of no-step entries and complete single-floor living. Life changing events rarely lead a homeowner to begin renting immediately, but the loss of a spouse, retirement, and the onset of a disability exerts a statistically significant influence on an eventual shift in tenure (Painter & Lee, 2009). Wealth and liquidity likewise largely affect housing decisions. Lower-income seniors are less likely to consider downsizing to a smaller home than those with higher incomes because of limited capital. While housing choice may not be an option for everyone, all income levels are equally likely to consider moving into strictly retirement housing (Weeks et al., 2013).

Aging in place by boomers could have broader housing market implications. The older US housing stock lacks accessible features, and for-sale housing supply may eventually exceed demand. Individuals beyond age 65 typically begin acting as home sellers more than buyers, and Myers and Ryu (2008) predict that sellers will start exceeding buyers across Virginia after 2031. This potential generational housing bubble represents an unprecedented phenomenon due to the size and spread of the baby boom generation. Transitioning to a smaller home often at or below 2,000 square feet provides an opportunity for homeowners to liquidate capital; however, excessive supply would prevent them from doing so (Lawrence, 2016). About 80 percent of aging-related home modifications represent out-of-pocket expenses, and one-quarter of seniors indicated in 2008 that they had not invested in any home improvements within the past decade (Desjardin, 2013). The rental housing stock likewise lacks aging-friendly features. For example, only 36 percent of units contain wheelchair-friendly bathrooms (Desjardin, 2013). The legal and ethical burden of landlords to complete modifications remains uncertain. Gist et al. (2012) argue that being a boomer represents a statistically significant predictor of refinancing and

withdrawing equity. About half of boomers with housing debt refinanced in 2007, whereas homeowners withdrawing equity extracted on average $50,000 for uses including home improvement and other debt repayment (Gist et al., 2012). Lee and Ahn (2013) explain that boomers who are in Western areas or urban areas, female, non-married, non-White householders, or renters will continue to face more severe housing affordability challenges. Myers and Ryu (2008) simultaneously suggest that the generational housing bubble will bring about an emptying of suburbs, vacant single-family detached homes, depleted equity, and the inability to balance municipal budgets.

Boomers and Millennials

Boomers exiting their long-term home often transition to central cities and active communities, which corresponds with the preferences of millennials. Rappapart (2016) indicates that adults aged 50–69 occupied nearly 2.5 million additional multifamily units from 2000–2013, accounting for most of the increase in overall multifamily occupancy. Part of this trend stems from the rise in 55+ households occupying condos within central cities, a location often desired by recent college graduates as well. Demand from these two groups, along with limited supply can rapidly inflate rents and sale prices (Keates, 2013). Residential developers find their entry-level homes marketed to young families are being acquired by boomers (Lawrence, 2016). Empty-nest boomers raised millennial children. Lawrence (2016) writes in *Builder* that "they want to live side by side with their kids, the millennials, in physically and socially active neighborhoods" (n.p.). Proximity to children ultimately betters the promise of aging in place and can avoid an eventual transition to a nursing facility (Desjardins, 2013; Painter & Lee, 2009). Community features including open spaces and exercise paths compel boomers to depart from their conventional suburban or rural home in pursuit of a more active, socially connected lifestyle (Bernstein et al., 2011; Lawrence, 2016).

Baby boomers seeking to live near their millennial children also wish to live *like* their millennial children. Entry-level homes originally marketed to millennials and desired by boomers include features such as a single story and smaller footprints that appeal to both generations (Lawrence, 2016). Many baby boomer housing preferences are not available in once-popular 55+ retirement communities, such as the diversity of the area. These include urban areas, which provide both social and land-use diversity. Between 2000 and 2010, more than one million baby boomers moved within 5 miles of the downtowns of the 50 largest cities (Keates, 2013). Moving downtown or to an inner-ring suburb enables baby boomers to experience all the amenities that a city offers. Factors other than school quality and home size can now drive where baby boomers choose to live with their children out of the home.

New trends for age-friendly housing models are emerging in less-urban areas as well. Home sharing has proven popular in San Mateo, California, where older homeowners are matched with home seekers. These home seekers typically pay rent and assist the homeowners in exchange for a house to share (Kennedy, 2010). Elder group housing can also reduce housing cost burdens and, in many cases, allow elders to spend less than one-third of their income on living expenses (Kennedy, 2010). Alternative types of living arrangements for baby boomers will allow them to age in place without large financial burdens.

Regional Housing Needs and Affordability Trends

The US Department of Housing and Urban Development (HUD) established the term "cost-burdened" to describe households that need more affordable housing. HUD defines cost-burdened households as "families who pay more than 30 percent of their income for housing… and may have difficulty affording necessities such as food, clothing, transportation, and medical care." VCHR uses the percent of cost-burdened households to assess affordability trends over time and compare affordability among jurisdictions.

More than 17,000 households in the region, 11,976 owners and 6,820 renters, need more affordable housing. Between the two, housing cost burden is more prevalent among renters. Almost half (45 percent) of renters in the region are cost-burdened, whereas only 20 percent of owners are. There are generally lower levels of cost burden among owners, because mortgage finance requirements do not allow buyers to be cost-burdened. Owners *become* cost-burdened because of financial hardship or increasing mortgage interest rates, taxes, insurance, and/or utilities. Although housing costs have increased faster than incomes throughout the state, many owners have benefited from opportunities to refinance their mortgages following the recession and lower their monthly housing costs.

The percent of cost-burdened owners with a mortgage in the region decreased over the period 2009–2016, whereas the level of cost burden among renters increased in the same period. Trends in jurisdictions with reliable data followed the trend for Virginia overall. However, levels of cost burden in Culpeper County are higher than in the other jurisdictions in the RRRC region and in Virginia overall. The percent of cost-burdened owners was also particularly high in Madison and in Rappahannock in 2015, the only year for which data for this group is reliable for Rappahannock.

Table 1: Cost Burden Among Owners with a Mortgage

Source: VCHR tabulation of 2011, 2015, and 2016 ACS 5-year Estimates

Jurisdiction	Cost-burdened Owners with a Mortgage, 2016*	Percent of Cost Burden, 2016*	Percent Change in Cost Burden, 2011–2016
Culpeper	3,002	33	-18
Fauquier	3,934	29	-15
Madison	924	42	-
Orange	2,021	27	-25
Rappahannock*	516	38	-
Virginia	409,983	29	-21

*The 2016 estimate for cost-burdened households in Rappahannock was not reliable, so the 2015 estimates and percentages are included here.

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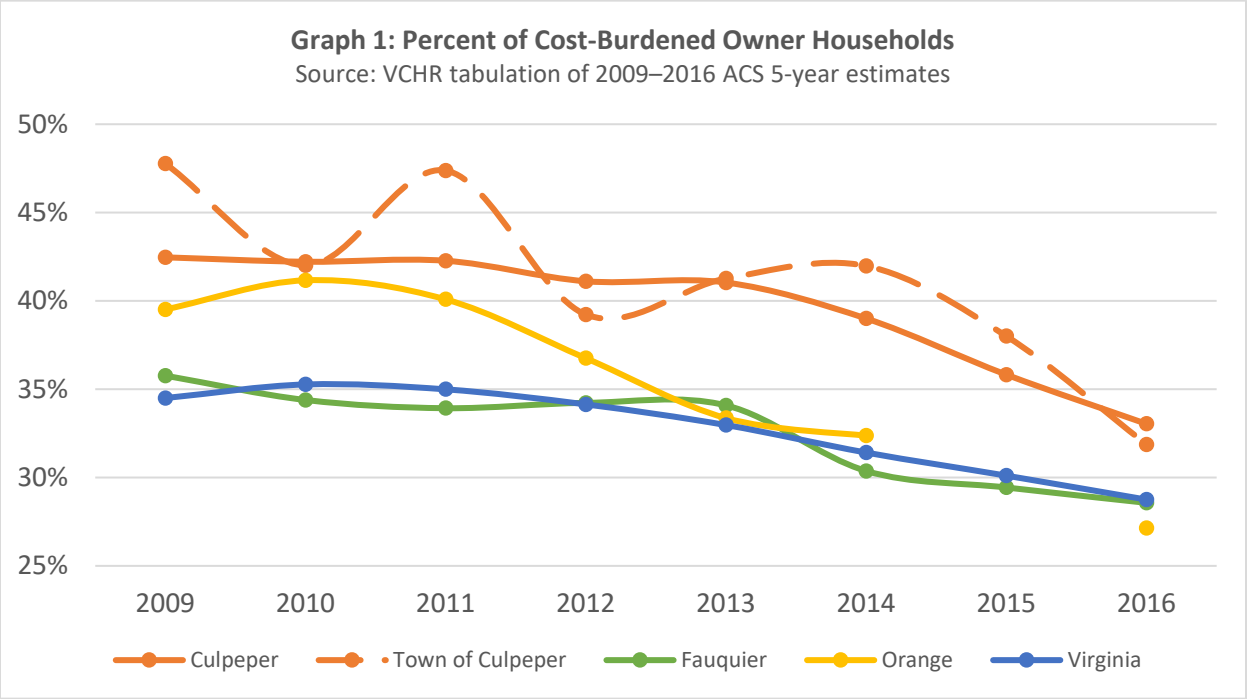

The percent of cost-burdened renters remained fairly level from 2009 to 2016, like the statewide trend. Orange County had a relatively steep increase in the percent of renter households with housing cost burdens, 36% from 2010 to 2015. From 2011 to 2016, Fauquier County experienced a relatively small increase in the percent of cost-burdened renters of only 3 percent, and the county shows a relatively low level of cost burden among renters compared to other jurisdictions in the region and to Virginia overall. In contrast, Culpeper has a relatively high level of cost burden among renters as well as among owners with a mortgage.

Table 2: Cost Burden Among Renters

Source: VCHR tabulation of 2011, 2015, and 2016 ACS 5-year Estimates

Jurisdiction	Cost-burdened Renters, 2016*	Percent of Renter that are Cost Burdened, 2016*	Percent Change in Cost-burdened Renters, 2011–2016*
Culpeper	2,523	53	17
Fauquier	2,049	10	3
Madison*	363–708	-	-
Orange*	1,427	45	36
Rappahannock*	249–497	-	-
Virginia	485,899	46	14

*VCHR cannot construct reliable estimates for cost-burdened renters in Madison or Rappahannock for any year over the period 2011–2016, and, thus, ranges for 2016 were provided by applying the margin of error. The latest reliable data available for Orange County is from 2015; therefore, VCHR calculated the percent change over 2010–2015 in the percent change column.

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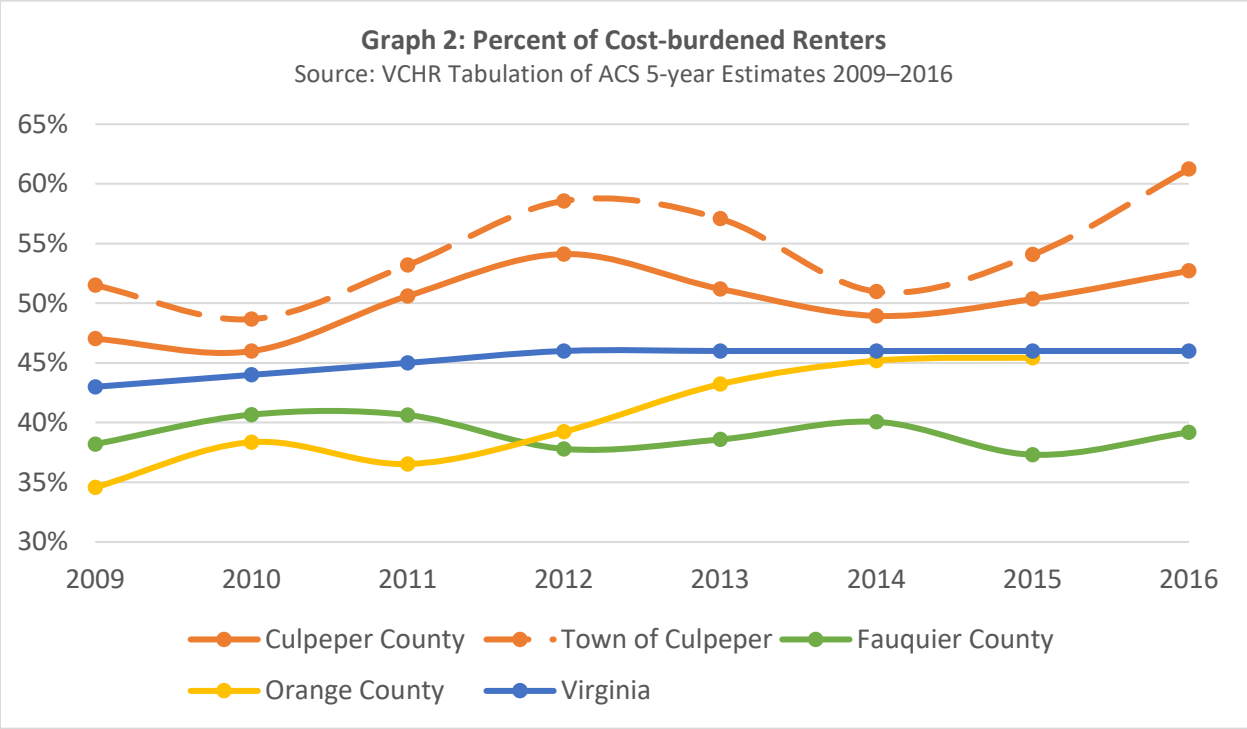

Trends in median incomes, owner costs, and gross rents provide insight into changes in levels of cost burden. For example, Culpeper experienced a 17 percent increase in the percent of renters that are cost burdened and the median renter income has not increased over the last 5 years while median gross rent increased 8 percent. The Town of Culpeper has experienced greater fluctuations than in the county in levels of cost burden among renters. In 2016, 61 percent of renters in the town were cost-burdened, which is a significant increase over 2011. This may be explained by a 9 percent decrease in median renter income and a 10 percent increase in median gross rent. In Fauquier, median gross income among renters increased 9 percent while median gross rent increased only 3 percent, corresponding to a long-term decrease in the percent of renters who are cost burdened. In Orange County, the relatively steep increase in renters with housing cost burdens may be explained by an 11 percent decrease in renter income and an 8 percent increase in median gross rent over the same period, 2011–2016.

Decreasing owner costs for owners with a mortgage may explain the decreasing levels of cost burden among them. Many owners who retained their homes in the aftermath of the Great Recession and those who bought homes after it enjoyed access to historically low interest rates, resulting in lower owner costs throughout the state. This trend is reflected in most RRRC jurisdictions except in Madison and the Town of Gordonsville, where costs for owners with a mortgage increased. However, costs for owners without a mortgage rose more substantially, implying that rising cost for taxes, insurance, and/or other utilities may have eclipsed the savings from lower interest rates.

Table 3: Percent Change in Median Incomes and Housing Costs 2011–2016

Source: VCHR tabulation of 2011 and 2016 ACS 5-year Estimates

Jurisdiction	Renter Income	Gross Rent	Owner Income	Owner Costs with a Mortgage	Owner Costs Without a Mortgage
Culpeper	0	8	-1	-8	4
Town of Culpeper	-9	10	0	-5	-3
Fauquier	9	3	2	-7	1
Town of Warrenton	-	9	0	-7	11
The Plains	-	-	-	-2	-
Town of Remington	-	7	-12	-5	-
Madison	-40	-13	-14	5	7
Town of Madison	-		-	-	-
Orange	-11	8	20	0	7
Town of Orange	-	12	4	-	-9
Town of Gordonsville	-	10	-14	6	13
Rappahannock	-	7	-10	0	-6
Town of Washington	-	-	-	-3	-

Housing Affordability by Occupation

Workers in 9 of the top 10 occupations by employment cannot afford the median owner costs for owners with a mortgage in any of the region's counties as single earners earning average wages. Similarly, workers in 9 of the top 10 occupations by employment cannot afford the median rent as single earners in all but one of the jurisdictions. When households cannot find an appropriate, affordable unit near their jobs, they may accept substandard housing, cost burdens, or long-distance commutes. The report includes more information on the availability of affordable, appropriate units in the gap analysis in the following section.

Of the top 10 occupations, only General and Operations Managers can afford the median rent and median owner costs with a mortgage in any jurisdiction as a single earner when earning average wages for their occupation. Households with two earners can more readily afford rents in the region, but the Fauquier median rent remains out of reach for even dual earners when each earn the occupation average in 5 of the top 10 occupations.

The following table provides housing affordability details for employees earning the average wage in the top 10 regional occupations by employment. The top portion of the table provides information on the number of employees, average earnings, and maximum affordable monthly housing cost for a single-earner with an average wage for his or her occupation. The maximum affordable monthly housing costs assumes that the hypothetical worker earns the average salary and works 40 hours per week for 4 weeks each month. VCHR has defined the maximum affordable rent or owner costs as 30 percent of monthly income.

The bottom portion of the table includes median rent and owner costs for owners with a mortgage in each county. It also indicates whether an employee in each of the top 10 occupations can afford the median rent or median owner costs with a mortgage in each county as a single-earner household or doubled up with another worker earning the same wage. The symbol "R!" indicates that the household

cannot afford the median rent. The symbol “O!” indicates that the household cannot afford the median owner costs with a mortgage. “R” and “O” without exclamation points indicate that the household can afford the median rent and median owner costs with a mortgage, respectively.

Median Earnings and Maximum Affordable Housing Costs for the Top 10 Industries by Employment in the Rappahannock–Rapidan Regional Commission

Source: VCHR tabulation of 2016 Census Data and 2017 EMSI Data

Occupation	Retail Salespeople		Cashiers		Combined Food Preparation and Serving Workers, Including Fast Food		Office Clerks, General		Military Occupations		Waiters and Waitresses		Janitors and Cleaners, Except Maids and Housekeepers		Stock Clerks and Order Fillers		Personal Care Aides		General and Operations Managers	
2017 Resident Workers	3,052		2,805		2,198		2,068		1,885		1,527		1,484		1,435		1,399		1,346	
Average Hourly Earnings	$12.28		$9.98		$9.95		$16.65		$18.22		$12.09		$12.86		$12.86		$10.52		$61.36	
Maximum Affordable Monthly Housing Cost	$589		$479		$477		$799		$874		$580		$617		$617		$504		$2,945	
Geography (Median Rent/Owner Costs with Mortgage)	**Affordability by Jurisdiction for Single (S) and Dual (D) Earners**																			
	S	**D**	**S**	**D**	**S**	**D**	**S**	**D**	**S**	**D**	**S**	**D**	**S**	**D**	**S**	**D**	**S**	**D**	**S**	**D**
Culpeper ($1,066/$1,722)	R!/O!	R/O!	R!/O!	R!/O!	R!/O!	R!/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R!/O!	R/O	R/O
Fauquier ($1,180/$2,120)	R!/O!	R!/O!	R!/O!	R!/O!	R!/O!	R!/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R!/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R!/O!	R/O	R/O
Madison ($752/$1,416)	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R/O!	R/O!	R/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R/O	R/O
Orange ($877/$1,460)	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R/O	R/O
Rappahannock ($1,046/$1,878)	R!/O!	R/O!	R!/O!	R!/O!	R!/O!	R!/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R/O!	R!/O!	R!/O!	R/O	R/O

Gap Analysis

The US Census Bureau categorizes the housing stock by its level of affordability in a special tabulation of ACS data produced for HUD. Using this data, HUD designates each unit as affordable to specific income levels based on the size of the unit, the unit's value or rent, and the level of income required for a household of corresponding size to affordably rent or own the unit. The tabulation also provides data on the income levels of occupants currently living in units at each unit affordability level. This tabulation allows VCHR to estimate how the economic means of households match the affordability of the housing supply.

Because the latest data available for this tabulation is 2014 5-year estimates, the tabulation uses the 2014 HUD income limits. VCHR has provided the 2014 income limits for households with 1-, 2-, 3-, and 4-person households by jurisdiction for reference. VCHR conducted the gap analysis at the regional level. However, aggregate county-level estimates that apply the county income limits were used; therefore, income categories such as 30–50 percent of AMI represent the variety of 30–50 percent of AMI income limits across the region rather than a single set of income limits.

Table 4: HUD-defined Income Limits for Culpeper County, 2014

	1-person Household	2-person Household	3-person Household	4-person Household
30% of AMI	$17,250	$19,700	$22,150	$24,600
50% of AMI	$28,700	$32,800	$36,900	$41,000
80% of AMI	$44,750	$51,150	$57,550	$63,900
100% of AMI	$57,400	$65,600	$73,800	$82,000

Table 5: HUD-defined Income Limits for Fauquier County, 2014

	1-person Household	2-person Household	3-person Household	4-person Household
30% of AMI	$22,500	$25,700	$28,900	$32,100
50% of AMI	$37,450	$42,800	$48,150	$53,500
80% of AMI	$47,950	$54,800	$61,650	$68,500
100% of AMI	$74,900	$85,600	$96,300	$107,000

Table 6: HUD-defined Income Limits for Madison County, 2014

	1-person Household	2-person Household	3-person Household	4-person Household
30% of AMI	$14,600	$16,650	$19,790	$23,850
50% of AMI	$24,300	$27,800	$31,250	$34,700
80% of AMI	$38,850	$44,400	$49,950	$55,500
100% of AMI	$48,600	$55,550	$62,500	$69,400

Table 7: HUD-defined Income Limits for Orange County, 2014

	1-person Household	2-person Household	3-person Household	4-person Household
30% of AMI	$14,250	$16,300	$19,790	$23,850
50% of AMI	$23,750	$27,150	$30,550	$33,900
80% of AMI	$38,000	$43,400	$48,850	$54,250
100% of AMI	$47,500	$54,250	$61,050	$67,800

Table 8: HUD-defined Income Limits for Rappahannock County, 2014

	1-person Household	2-person Household	3-person Household	4-person Household
30% of AMI	$17,200	$19,650	$22,100	$24,550
50% of AMI	$28,700	$32,800	$36,900	$40,950
80% of AMI	$44,750	$51,150	$57,550	$63,900
100% of AMI	$57,400	$65,600	$73,800	$82,000

Housing Gaps for Owners

Graph 3 on page 20 displays data on the affordability gap among owners in the RRRC region. The left column within each income group displays the total number of owner *households* with incomes in the range indicated below the column. The right column represents the number of either owner-occupied *housing units* or vacant, for-sale ones that are affordable to that income range. To highlight households that may be economically distressed in their current housing situation, households (left columns) are broken into cost-burdened ones in blue (who spend more than 30 percent of their income on housing costs) and those that are not in green. The housing stock (total housing units), which is shown in the right columns, is split into four categories:

(1) units occupied by owners with a household income *within* the income affordability range of the unit (living in an appropriately valued housing unit) in grey;
(2) units occupied by owners with a household income greater than the income affordability range of the unit (living in a housing unit that is more than affordable to them) in yellow;
(3) units occupied by owners with a household income less than the income affordability range of the unit (living in a housing unit beyond their economic means) in orange;
(4) units that are vacant, for-sale units in blue. VCHR was not able to calculate reliable estimates for vacant units by affordability level owing to the low number of vacant units. The margin of error for vacant, for-sale units affordable to households with incomes that are 80–100 percent of AMI includes the number 0, indicating that there may be no vacant for-sale units affordable to this group.

There are insufficient units to accommodate owners with annual incomes less than 50 percent of AMI, which, for a family of four, is between $33,900 in Orange County and $53,500 in Fauquier. A household with an annual income of $33,900 can afford no more than $847 per month for housing, including a

mortgage payment, insurance, taxes, and utilities. A household with an annual income of $53,500 can afford no more than $1,337 per month for housing. Furthermore, households with incomes greater than 50 percent of AMI occupy nearly 70 percent of the stock that is affordable to this group, leaving more than 4,600 households with incomes less than 50 percent of AMI to endure cost burdens or accept inappropriate or otherwise substandard housing.

There are sufficient units to accommodate households with incomes between 50 and 100 percent of AMI. However, households earning more than they need to afford their home comfortably occupy most of these units (65 percent). The housing market does not match affordable units with households that need them, and many households prefer to spend much less than 30 percent of their income on housing. The resulting housing "mismatch" is explained in part by households choosing to live below their means or purchasing their homes at lower income levels and not moving to higher-value homes as their income increases. It is generally difficult for households to adjust their housing choices quickly. Often, the house they might prefer is unavailable at the time and price required, possibly perpetuating this housing market mismatch.

In general, higher-income households are more attractive to lenders and therefore have better access to financing, which allows them to compete more effectively for housing. The occupancy of lower-valued homes by households with higher incomes tends to "crowd out" lower-income households. This also indirectly prevents some households from becoming homeowners as well as some of the nearly 9,000 cost-burdened homeowners with incomes at or below the median level from buying a home they can comfortably afford. Choosing to rent instead of own is not likely to offer any advantage to cost-burdened owners: there are fewer rental units affordable to households making less than 80 percent of AMI, and, proportionally, just as much competition for those units. Furthermore, renting households are more likely to face variability in housing costs. There are less than 682 affordable for-sale units (and potentially as low as 76 units) that could accommodate these cost-burdened owners.

Nearly 4,000 households occupy homes that they may not be able to afford comfortably. These households may accept cost burdens because they cannot find more affordable housing that meets their needs. Because owner occupancy is usually a long-term choice, some homeowners may have become cost-burdened because of changes in costs (e.g., increased taxes, increased utility costs, changes in mortgage interest rates, or changes in income). The mortgage financing process generally ensures that homeowners can afford their housing costs at the time of purchase, so homeowners generally cannot "choose" to be cost-burdened and instead become so when their circumstances change.

Graph 3: RRRC Owned/For-Sale Housing Gap
Source: VCHR tabulation of 2010–2014 CHAS Data

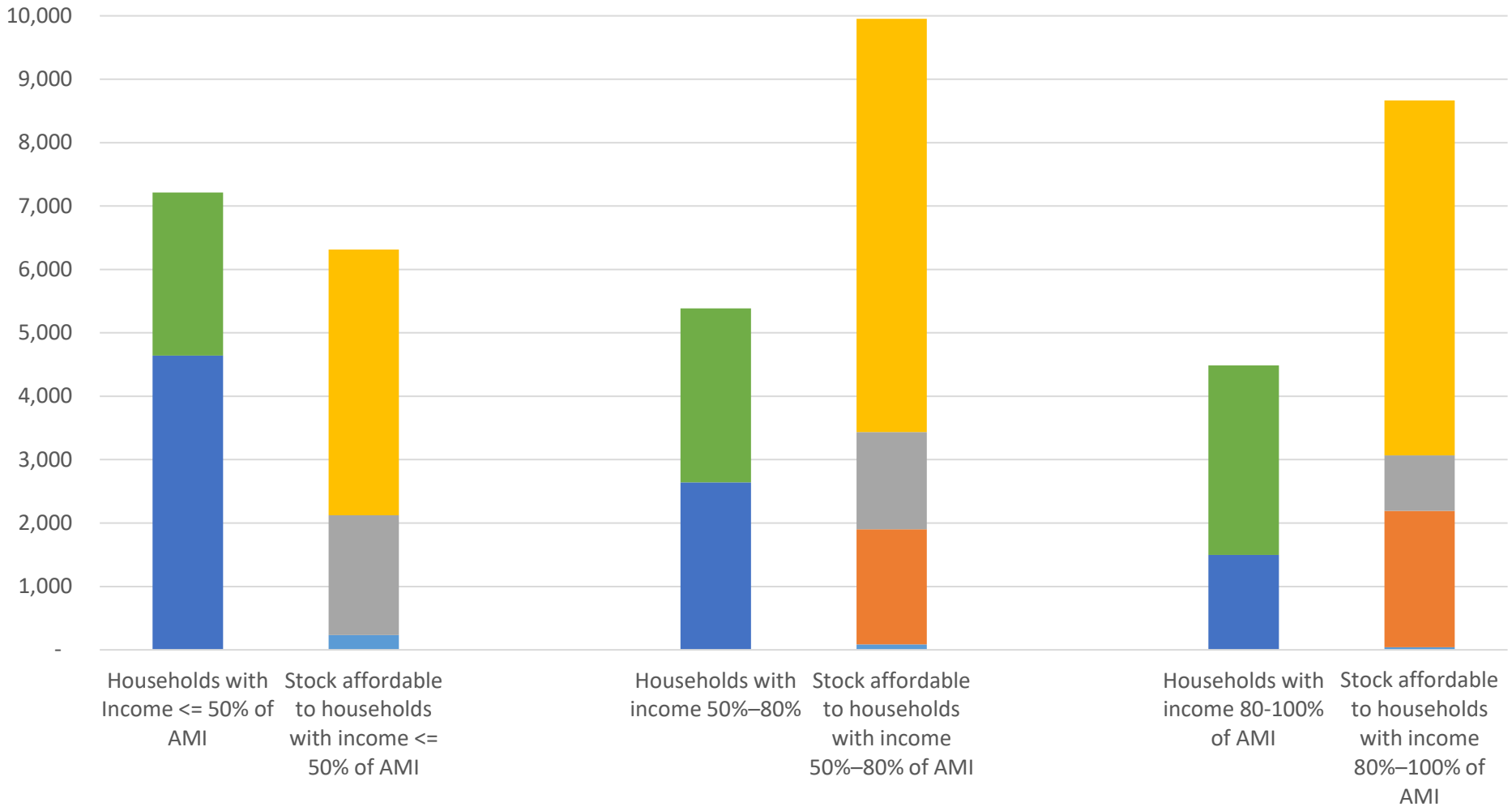

Table 9: Cost-burdened Owners by Income Level

Source: VCHR tabulation of 2010–2014 CHAS Data

	Household Income less than 50% of AMI	Household Income 50–80% of AMI	Household Income 80–100% of AMI
Total Owner Households	7,215	5,385	4,485
Cost-burdened	4,640	2,640	1,495
Not Cost-burdened	2,575	2,745	2,990

Table 10: Housing Units by Affordability and Income of Occupants

Source: VCHR tabulation of 2010–2014 CHAS Data

Occupancy	Affordability Range		
	Less than 50% of AMI	50–80% of AMI	80–100% of AMI
Total	6,314	9,953	8,664
Vacant	235	85	40
Units Occupied by Owners with Income less than Affordability Range	-	1,815	2,154
Units Occupied by Owners with Income Within Affordability Range	1,889	1,535	875
Units Occupied by Owners with Income Greater than Affordability Range	4,190	6,518	5,595

Compared to the Virginia portion of the Washington–Arlington–Alexandria MSA, the RRRC region has a proportionally larger physical gap among owner households with incomes less than 50 percent of AMI. However, there is relatively less competition for housing from higher- and lower-income households in each income category, meaning that homeownership opportunities may be more accessible in the RRRC region than in the Virginia portion of the Washington–Arlington–Alexandria MSA.

Affordable ownership for low-income households (i.e., those with incomes less than 80 percent of AMI) may be more readily available in the Charlottesville MSA compared to the RRRC region. A larger percent of the stock that is affordable to households with incomes below 50 percent of AMI and between 50 and 80 percent of AMI is occupied by households within these income categories in the Charlottesville MSA. Incomes of occupants and the ratio of stock to households in the moderate-income category (i.e., 80–100 percent of AMI) is very similar in the two regions, although more competition for affordable housing units in this group comes from households with lower incomes in the Charlottesville MSA. This may be because location efficiencies allow lower-income households to afford homes with higher owner costs.

Housing Gaps for Renters

More than 5,600 renting households with incomes less than 80 percent of AMI are cost-burdened in their current situation and need more affordable housing. Overall, there is a shortage of rental units affordable to households with incomes less than 30 percent of AMI, with nearly 800 more households making less than 30 percent of AMI than units that can affordably accommodate them. As with owners, more than one third of the rental units affordable to renters making less than 50 percent of AMI are occupied by households with incomes higher than that.

Lower income renters are more likely to be cost-burdened. Too few affordable units exist for households making less than 30 percent of AMI, and households making more than 30 percent of AMI occupy 64 percent of the units affordable to this group. Still, households within this income group occupy a larger proportion of the units affordable to households in this income category, possibly because a higher proportion of these units are income-restricted.

There are sufficient affordable rental units to accommodate renters in the 50–80 percent range of AMI, but households outside this range occupy 70 percent of those rental units. Households with incomes less than needed to comfortably afford their unit occupy 30 percent of these "mismatched" units and thus may be spending more on housing than their incomes affordably allow. As a result, these households may be forced to sacrifice other needs to access appropriate housing.

A large part of renter households (40 percent) in the 50–80 percent income range are living in rental units more than affordable for them and therefore spending below their means. Many households prefer to pay less for housing if lower cost units are available that can satisfy their housing needs. Households with higher incomes typically have better access to their choice of rental units owing to a combination of factors including higher incomes, better credit ratings, and better or longer rental history. Because higher-income tenants are usually more attractive to landlords, they "crowd out" lower-income households, leaving the lowest-income households to choose more burdensome housing options: expensive, distant, or overcrowded and otherwise inappropriate.

The RRRC region has proportionately more rental units that are affordable to households with extremely low incomes (i.e., incomes less than 30% of AMI) compared to the Washington and Charlottesville MSAs. However, rental units for extremely low-income households are more readily available to households in that income category in the Charlottesville MSA and the Virginia portion of the Washington MSA than in the RRRC region, likely because there are a larger proportion of income-restricted units in those areas. More rental units affordable to households with incomes between 30 and 50 percent of AMI are occupied by households in that income category in RRRC than in the Charlottesville MSA, a proportion nearly the same as that in the Washington MSA. Rental units affordable to households with incomes 50–80 percent of AMI are more readily available to households in that income category in the RRRC region compared to both the Charlottesville and Washington MSAs.

Graph 4: Rappahannock-Rapidan Regional Commission
Rented/For-Rent Housing Gap
Source: VCHR tabulation of 2010–2014 CHAS Data

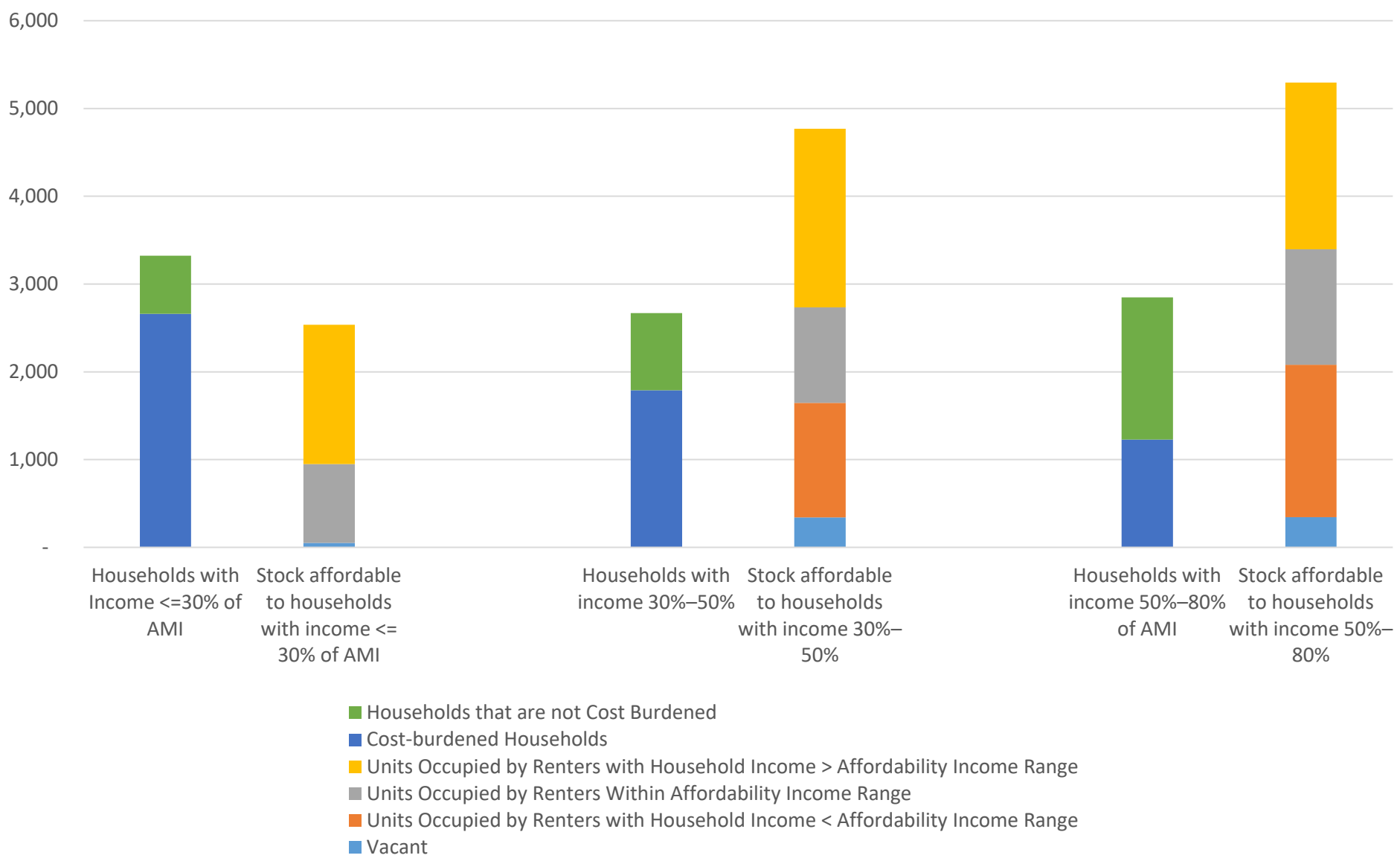

Table 11: Cost-burdened Renters by Income Level

Source: VCHR tabulation of 2010-2014 CHAS Data

	Household Income less than 30% of AMI	Household Income 30–50% of AMI	Household Income 50–80% of AMI
Total Renter Households	3,324	2,670	2,848
Cost-burdened	2,660	1,790	1,228
Not Cost-burdened	664	880	1,620

Table 12: Housing Units by Affordability and Income of Occupants

Source: VCHR tabulation of 2010–2014 CHAS Data

Occupancy	Affordability Range		
	Less than 30% of AMI	30–50% of AMI	50–80% of AMI
Total Units	2,535	4,770	5,295
Vacant	50	340	345
Units Occupied by Renters with Income less than Affordability Range	-	1,305	1,735
Units Occupied by Renters with Income Within Affordability Range	900	1,090	1,315
Units Occupied by Renters with Income Greater than Affordability Range	1,585	2,035	1,900

Conclusion

A large part of the demand for housing in the RRRC region comes from workers earning in more-expensive housing markets. Fauquier County in particular may offer attractive living costs for households with at least one worker commuting further into the Washington, DC metro area. However, preferences for suburban, exurban, or semi-rural lifestyles over urban living are likely a major factor attracting households to the region. The region may be particularly appealing because large towns offer the convenience of cities and suburbs close to rural areas. Essentially, households can enjoy "the best of both worlds."

Because the region is attractive for both economic and quality-of-life reasons, there exists significant demand for housing in the region and significant competition for the limited housing stock. This competition creates an effective shortage of units for low- and moderate-income households because higher-income households often compete more successfully in the housing market. This effective shortage is partially why more than 17,000 households in the region are housing cost-burdened, and the shortage is most acute among extremely low-income and very low-income households.

Jurisdictions in the region must encourage the development of housing that is attractive and affordable to millennials and the region's workforce to remain desirable. Affordable rental housing will play a key role in housing service workers who earn low wages as well as attracting millennials who have not yet entered the for-sale housing market. Furthermore, adding affordable "starter" homes will appeal to both millennials and downsizing boomers. Millennials may look to the region to find homeownership opportunities and to access other quality-of-life assets in the region. Boomers will need smaller, more-affordable homes as they age in their communities and others may consider moving to the region to retire. The region's towns can therefore appeal to millennials and boomers who are looking for the convenience of urban areas while maintaining a semi-rural lifestyle.

Housing workers that earn lower wages is critical to maintaining quality of life in the region and may offer economic development advantages. However, many of these workers likely struggle to afford housing in the region. Workers that provide important services that contribute to quality of life in the region must be able to afford to live and hopefully also thrive in the region. Offering better cost of living and quality of life to these low-wage workers will help businesses attract talent. Furthermore, offering housing for workers at all income levels will help the region attract businesses that move out of higher-cost markets as they expand or seek locations where they have access to or can attract needed workers.