# 03 Regional Findings

# INTRODUCTION

This section identifies housing trends that suggest the roles that each locality plays in the region and the interconnectivity among regional employment, transportation, and housing patterns.

Data were gathered from four main sources: American Community Survey (ACS) published tables, ACS Public Use Microdata Sample (PUMS) files, the Department of Housing and Urban Development (HUD) Comprehensive Housing Affordability Strategy (CHAS) data, and the New River Valley Association of REALTORS® multiple listing service (MLS) data. These resources were supplemented with 2019 US Bureau of Labor Statistics (BLS) earnings by occupation data, Jobs EQ 2020Q1 employment by occupation data, 2012–2016 Location Affordability Index (LAI) data, Appalachian Power, and 2017 OnTheMap data from the US Census Bureau Center for Economic Studies.

Local input was provided by 10 focus group discussions, an online public survey which garnered 1,158 responses, and two expert advisory groups comprising stakeholders across all localities and housing-related sectors.

## Regional Findings

**3.1 Current Housing Trends**

**3.2 Housing the Community**

**3.3 Housing Market Challenges + Opportunities**

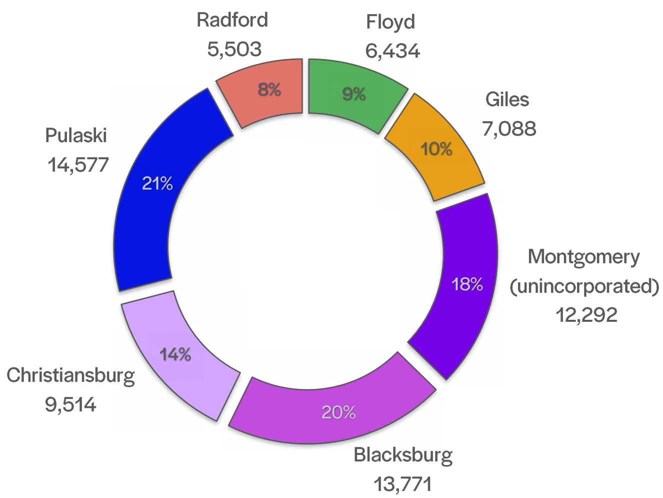
# 3.1 CURRENT HOUSING TRENDS

## Population Growth

The NRV region includes the four counties of Floyd, Giles, Montgomery, and Pulaski, the City of Radford, and the towns of Floyd, Glen Lyn, Narrows, Pearisburg, Pembroke, Rich Creek, Blacksburg, Christiansburg, Dublin, and Pulaski. The region's population is 181,860 and comprises 69,180 households, each including two to three people on average. More than one third of the region's households live in the Towns of Blacksburg and Christiansburg.

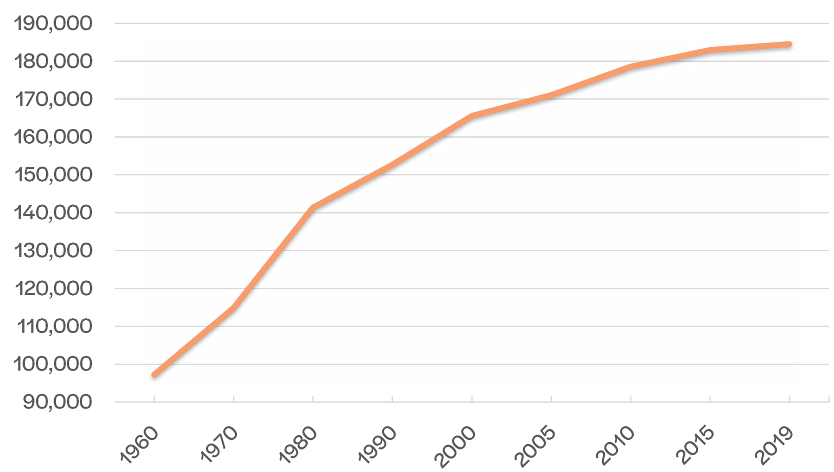
The NRV's population has increased by 87 percent since 1960, with the largest decade of growth occurring between 1970 and 1980.

Number of Households by Jurisdiction




Source: NRVRC-VCHR Tabulation of 2017 ACS 5-year Estimates

NRV Population 1960 - Present



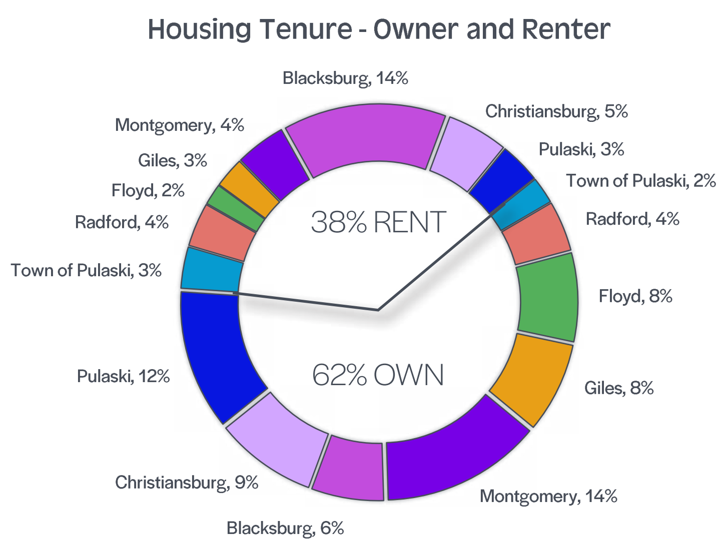

Source: Weldon Cooper Center for Public Service 2019

## Regional Housing Stock

The median build year in the region is 1979, and more than half of homes were built prior to 1980. Only 18 percent of the region's housing stock was built after 2000. Single-family detached homes are most prevalent in the region, comprising 61 percent of the NRV's housing stock.

## Tenure

Tenure refers to whether a resident is a renter or owner. In total, 62 percent of NRV households are homeowners and 38 percent are renters. Montgomery County and the City of Radford have a disproportionately high number of renters owing to the presence of the region's two universities, Virginia Tech and Radford University. Floyd, Pulaski, and Giles have a disproportionately high number of homeowners. Floyd has the highest rate of homeownership at 81 percent.




Source: NRVRC-VCHR Tabulation of 2017 ACS 5-year Estimates

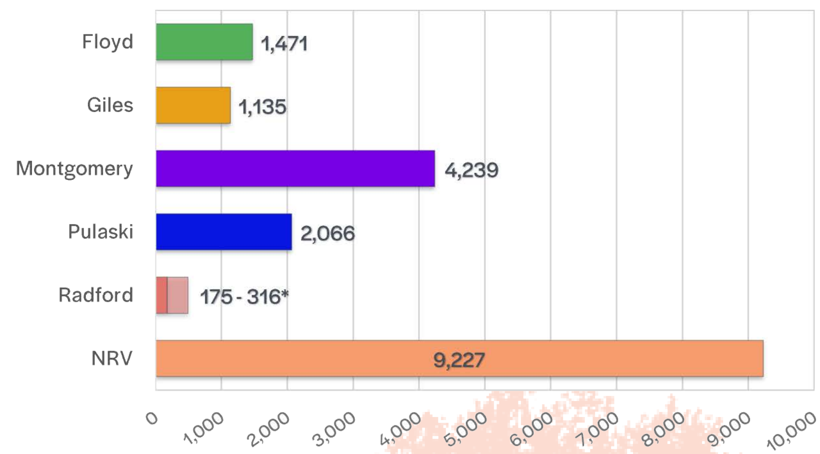
## Manufactured Homes

Manufactured and mobile homes comprise 12 percent of the region's housing. Floyd County has the highest percentage of manufactured and mobile homes, comprising 22 percent of its stock, whereas Montgomery County has the largest number of manufactured and mobile housing units in the region at 4,239.

The terms "mobile home" and "manufactured housing" are distinguished based on the date of manufacture. Mobile homes designate units built prior to the 1976 HUD code standards for manufactured homes and are considered substandard stock that should be replaced to provide safe and healthy housing for residents. There are nearly 2,000 pre-1976 mobile homes throughout the region.

Manufactured housing units are those constructed in 1976 or later. Present-day manufactured houses, which have significantly higher health, safety, and energy efficiency standards, are an affordable and practical housing option for many residents of the region.

Mobile or Manufactured Home Units




*Margin of error used

Soruce: NRVRC-VCHR Tabulation of 2017 ACS 5-year Estimates

Percentage of Mobile or Manufactured Home Units to Total Housing Units

| Locality | Total Units | Percent Mobile or Manufactured Units |
|---|---|---|
| Floyd | 7,981 | 18% |
| Giles | 8,346 | 14% |
| Montgomery | 39,571 | 11% |
| Pulaski | 17,289 | 12% |
| Radford | 6,507 | 3 - 5%* |
| NRV | 79,694 | 12% |

*Margin of error used

Source: NRVRC-VCHR Tabulation of 2017 ACS 5-year Estimates

# 3.2 HOUSING THE COMMUNITY

## Market Conditions

### Days on Market

Median days on market, that is, the number of days a home is listed on the MLS before it sells, have decreased steadily from 77 in 2002 to 9 in 2019, an 88 percent decrease. In total, median days on market have decreased 64 percent since the pre-recessionary low in 2007. This decrease along with low market vacancies and increasing sale prices and rents imply that demand for housing in the NRV is increasing.

Recent growth in both the number of students and employees at Virginia Tech are a major contributing factor to housing demand, especially in Montgomery County. Virginia Tech has grown by nearly 5,000 students over the past 4 years, and a growing cluster of technology companies has developed around the university. Prior to the pandemic, industry leaders estimated that they would add over 800 jobs in the sector within the next 2 years. The region's other major employment sectors have added thousands of jobs over the past 5 years, with more than 1,200 jobs added in the manufacturing and transportation/warehousing sectors and over 1,000 added in the health care and social assistance sectors. During the same period, growth in these well-paying sectors has outnumbered losses in other sectors like retail, providing net job growth of 3.8 percent (2,739 net new jobs).

For units priced between $132,000 - $275,000 (represents the middle half of all units sold) median Days on Market was 13.5.

Other factors of housing demand are harder to quantify, such as the region's rural character, proximity to outdoor amenities, and relatively low cost of living that attract many residents to the area.

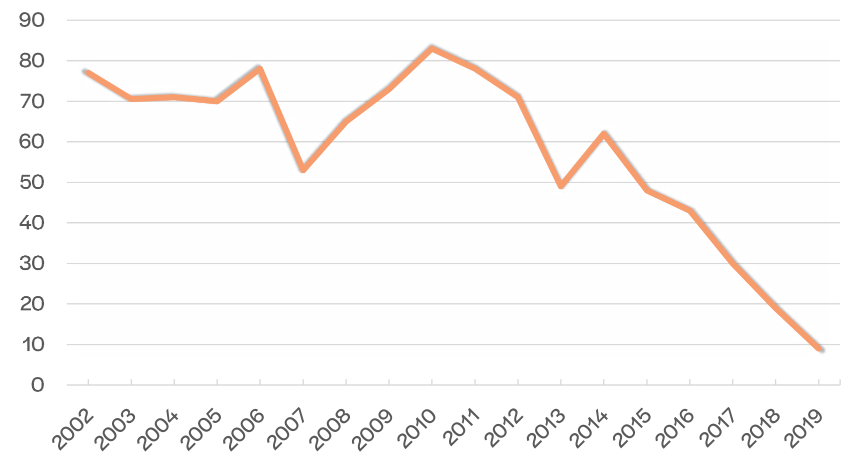
In employer focus groups conducted for this study, several local businesses described their efforts to attract talented workers to the region. Employees relocating to the region are looking for housing in walkable places with amenities such as dining, retail, parks, and schools. Potential new hires who are unable to find a suitable apartment or house may decline to move to the region and instead accept a job in another locality with more options. Several employers noted that a shortage of available housing for new employees was a major impediment to their successful growth in the region.

**Median Days on Market (2019)**

| | |
|---|---|
| Floyd | 36 |
| Giles | 15 |
| Montgomery | 18 |
| Blacksburg | 3 |
| Christiansburg | 7 |
| Pulaski | 12 |
| Town of Pulaski | 13 |
| Radford | 13 |

Source: VCHR Tabulation of NRV REALTORS 2019 MLS Data

**Annual Median Days On the Market**




Source: VCHR Tabulation of NRV REALTORS 2002-2019 MLS Data

### Market Vacancy

Market vacancy is the number of homes available to rent or buy at any given time. Calculating a locality's market vacancy rate may help determine the health of an area's housing market, and healthy housing markets have a market vacancy rate between two and seven percent. This indicates that citizens can generally feel confident about successfully buying or selling a home without the market moving too quickly or too slowly.

**Healthy Housing Markets Have a Market Vacancy Rate Between 2-7%**

The New River Valley has a healthy market vacancy rate of three percent. Vacancies are lowest in Montgomery County at 1.5 percent and in the towns of Blacksburg and Christiansburg at 1 percent, indicating that these markets are too tight. In other words, there are not enough homes available for the number of buyers who would like to purchase them. This demand may further pressure buyers, causing bidding wars and escalating home prices. Anecdotally, survey respondents and focus group participants shared that many Blacksburg homes are being sold through "pocket listings," which are homes transacted between listing and buyers' agents without ever being listed on MLS.

This tightness in the NRV's real estate market keeps sales prices and rents high, which erodes the area's competitive advantage at the state and national levels.

**Top Five Industry Growth Sectors**

| | Industry | Number of Employees | 5-Year % Change | 5-Year Change in Employees |
|---|---|---|---|---|
| 1 | Transportation and Warehousing | 2,237 | 14.7% | 288 |
| 2 | Health Care and Social Assistance | 8,185 | 14.6% | 1,042 |
| 3 | Arts, Entertainment, and Recreation | 1,402 | 11.9% | 149 |
| 4 | Manufacturing | 12,709 | 11.3% | 1,291 |
| 5 | Public Administration | 2,159 | 5.0% | 103 |

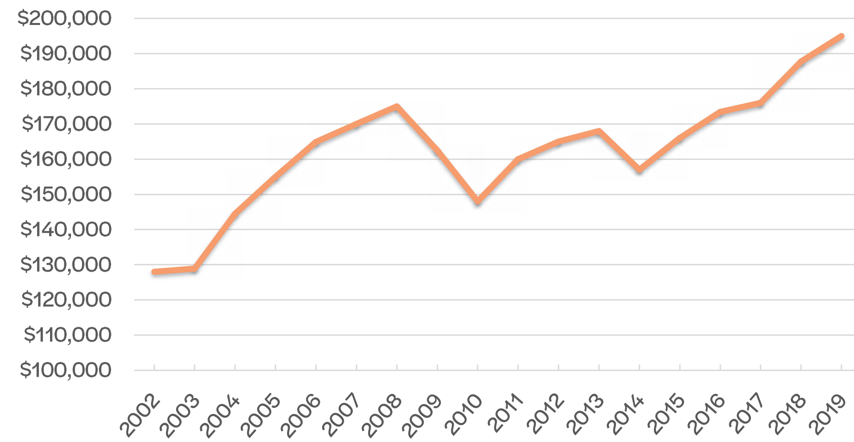
Source: Jobs EQ 2020

## Median Sale Price

Sale prices within the region have risen steadily since 2002 and were only moderately affected by the 2008 recession. The median sale price in 2019 was $195,000, which exceeds that of the pre-recession peak by 11 percent.

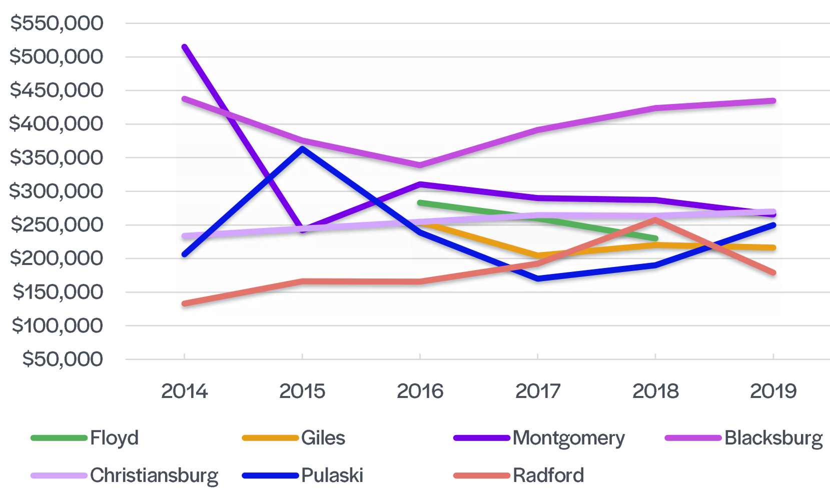
The Town of Blacksburg has become one of the NRV's primary jobs and amenities centers, and the Blacksburg-strand schools are among the most desirable. As Blacksburg is the most location-efficient place in the NRV, the region's housing demand has centered on the Town of Blacksburg and nearby parts of Montgomery County. Therefore, housing prices in town have risen faster than any other part of the NRV, and the market has become extremely tight. Outside of Montgomery County and the Town of Blacksburg, prices of newly built homes have begun aggregating in a range between $175,000 and $275,000.

Annual Median Sale Price



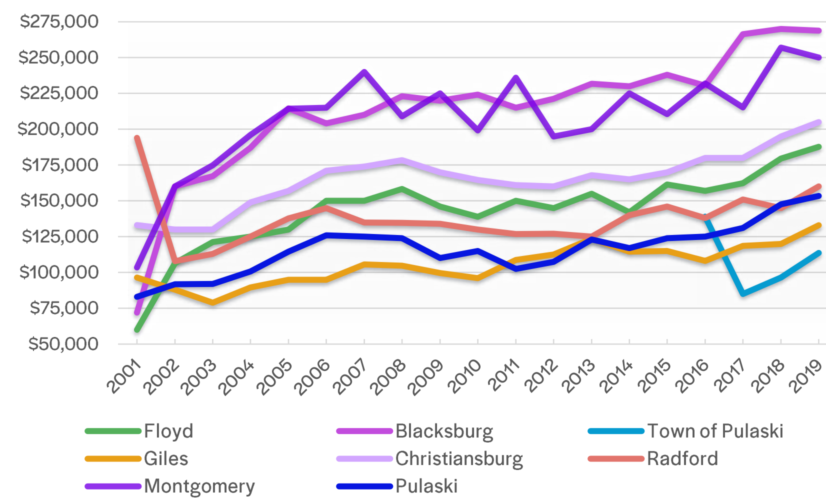

Source: VCHR Tabulation of NRV REALTORS 2002-2019 MLS Data


Median Price of Homes Built & Sold 2014-2019




Source: VCHR Tabulation of NRV REALTORS 2002-2019 MLS Data

Median Sale Price by Locality 2002-2019




Note: Town of Pulaski MLS data only avaialble 2016-2019

Source: VCHR Tabulation of NRV REALTORS 2002-2019 MLS Data

## Housing Affordability

A home is considered affordable if a household spends less than 30 percent of its gross income on housing costs. For homeowners, this includes the mortgage, property taxes, insurance, and utilities. For renters, this includes the monthly rent and utilities. A household that consistently spends more than 30 percent of its income toward housing is considered cost burdened, and such households may have to sacrifice other necessities to retain housing.

**Undergraduate Student Impact**

The median household income in Montgomery County is $56,462. The median family income is $83,630.

The median family income in the region is $72,511 and includes households with two or more related occupants. College students in the region generally report disproportionately low or no annual incomes and therefore affect the NRV's household income data. However, as most students do not live in family households, they have far less effect on median family income. This provides a more accurate indicator of the income of permanent residents in the region.

Affordable Housing Payments by Income

| | Median Family Income | Max. Affordable Payment |
|---|---|---|
| Floyd | $57,986 | $1,450 |
| Giles | $57,483 | $1,437 |
| Montgomery | $83,603 | $2,090 |
| Blacksburg | $88,843 | $2,221 |
| Christiansburg | $76,137 | $1,903 |
| Pulaski | $56,937 | $1,423 |
| Radford | $56,648 | $1,416 |
| New River Valley | $72,511 | $1,812 |

Source: NRVRC-VCHR Tabulation of 2017 ACS 5-year Estimates

Using these numbers, the calculation implies that households earning the median family income should pay no more than $1,812 for a monthly rent or mortgage.

Households seeking to purchase a home should spend no more than $297,000 with a 5 percent down payment and no more than $383,000 with a 20 percent downpayment.

$72,511
Median Family Income

MAX 30%
Income Toward

$1,812
MAX AFFORDABLE
Rent or Mortgage

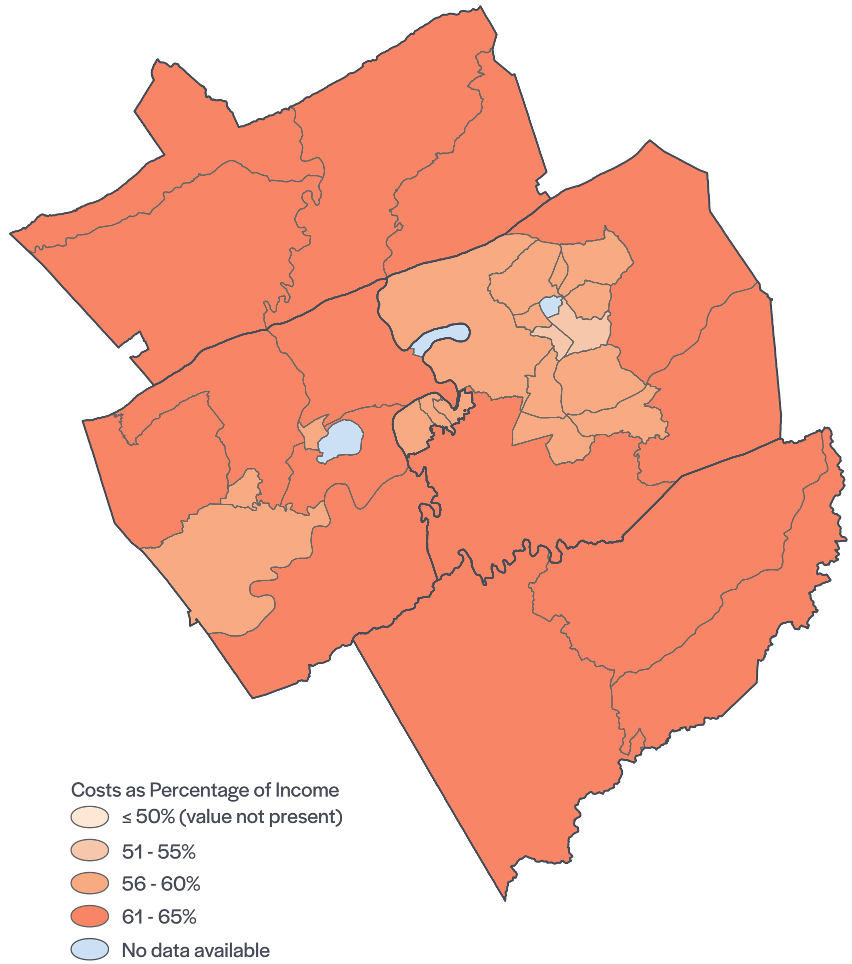
DOWN PAYMENT
5% ~$297,000
20% ~$383,000
MAX AFFORDABLE
House Price

The region is well covered by mortgage financing opportunities. A downpayment of 20% or more helps to avoid private mortgage insurance, but some special loan products catered to low and moderate income households or prospective buyers in rural areas will accept 1% or 0% downpayment.

Transportation costs are the next-highest household expense after housing costs for most families. In high-priced real estate markets, many households make tradeoffs between housing and transportation. For example, a household may purchase a home that is further from members' employment because the home may be less expensive or have other amenities that were not otherwise affordable.

However, many households underestimate the ongoing cost of fuel and vehicle maintenance. The Location Affordability Index (LAI) map illustrates that the region's town centers are more affordable for families at the median income than other areas are when accounting for housing and transportation costs. Although no rule exists regarding combined housing and transportation costs, some research suggests that spending more than 45 percent may strain household budgets. On this basis, median-income households may struggle to find affordable housing in the region.

**Housing and Transportation as a Percentage of Income for a Median-income Family by Census Tract**



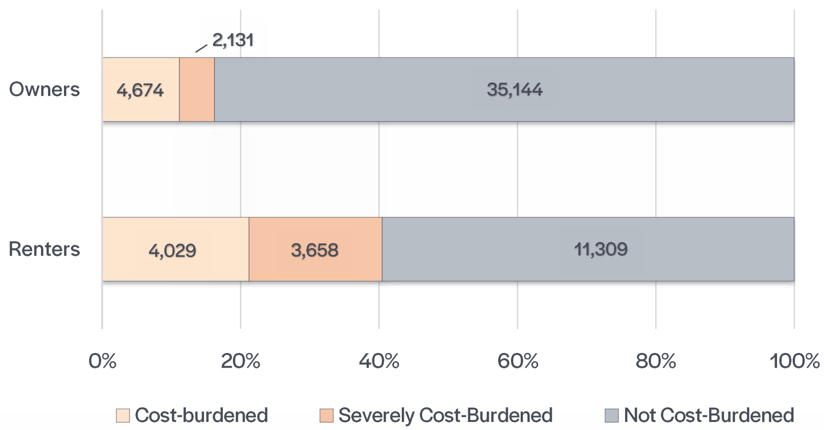

Source: VCHR tabulation of HUD Location Affordability Index Data, 2012-2016 ACS

## Cost Burdened Households + Vulnerable Populations

Housing is needed in the NRV at every price point along the income spectrum. However, some populations are particularly vulnerable when the housing market is tight.

Approximately 41 percent of cost-burdened households are homeowners and 59 percent are renters. Moreover, more than 14,500 non-undergraduate households (21 percent) in the NRV pay more than 30 percent of their income for housing and may need more affordable housing. These households may have to make choices between housing and other needs like medical care, child care, transportation, home maintenance and repair, food, or clothing.

**Cost-Burden Among Non-Undergrad Households in the New River Valley**




Source: VCHR Tabulation of 2013-2017 PUMS Data

Nearly half of all cost-burdened households spend more than 50 percent of their income on housing, which is considered severe cost burden. Such households are likely making hard choices between housing and necessities like food and clothing. These households are at risk for homelessness when their incomes are below the regional median.

Although the region's housing shortage creates challenges across multiple populations, certain residents are particularly vulnerable in the market:

- 5,500 households (8 percent) are extremely low income, earning less than 30 percent of the area median income (AMI).
- 4,170 households (6 percent) have children.
- 3,600 households (5 percent) are headed by seniors.

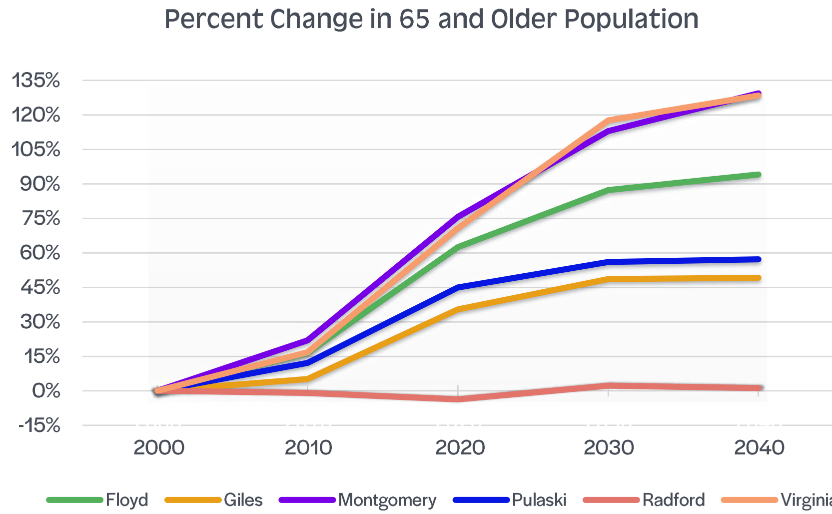
The region does not have sufficient reliable data on cost-burdened households of color, but estimates range from 27 percent to 47 percent of cost-burdened Black households.

These residents are likely to sacrifice other needs like medical care or home maintenance, because finding another place to live is an arduous process in the region's tight housing market regardless of affordability. This situation is compounded for those who are seeking a unit that costs less than $275,000 and for those with additional requirements that limit their search, such as remaining in the same school district, accessibility requirements for aging in place, or locating within a particular distance to a job or childcare provider.

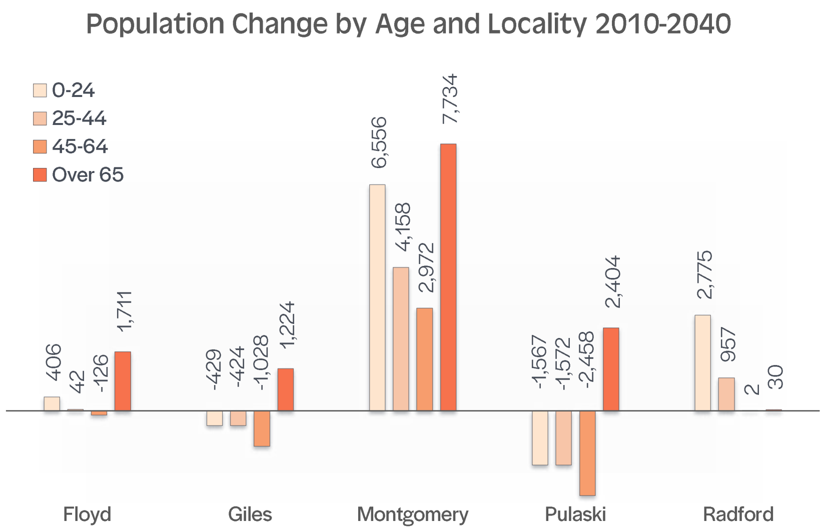
## Aging Population

Our communities are aging, and most older adults would prefer to remain in their homes rather than move to institutionalized care such as retirement and nursing homes. By 2030, approximately one in six citizens in the region are projected to be 65 or older. By 2040, nearly 35,000 residents will be 65 or older.

Currently, 3,600 senior-headed households (i.e., 21 percent) are cost burdened, and these households are often on fixed budgets. Ongoing housing maintenance and repairs may be deferred due to increasing costs, creating an unsafe environment over time. Even senior households with the financial means to pay for home modifications may not make critical modifications proactively and instead schedule them only after a fall or other health concern.




Source: NRVRC Tabulation of 2010 ACS 5-year Estimates, 2000 US Decennial Census, Population Projections from Weldon Cooper Center for Public Service




Source: 2010 ACS 5-year Estimates, Weldon Cooper Center for Public Service 2019

## Housing Gap Analysis

Housing gaps describe the difference in number of households earning a particular income and housing units affordable and available to those households.

Although the region has enough housing stock to accommodate earners at 50 percent of AMI, 72 percent of that stock is occupied by households earning greater than that. Moreover, households earning 50 percent of the AMI or below occupy only 27 percent of housing stock that is affordable to them.

Earners at 50–80 percent and 80–100 percent of the median income occupy only 15 percent and 10 percent of housing affordable to them, respectively. More than half of these units are occupied by households earning greater incomes.

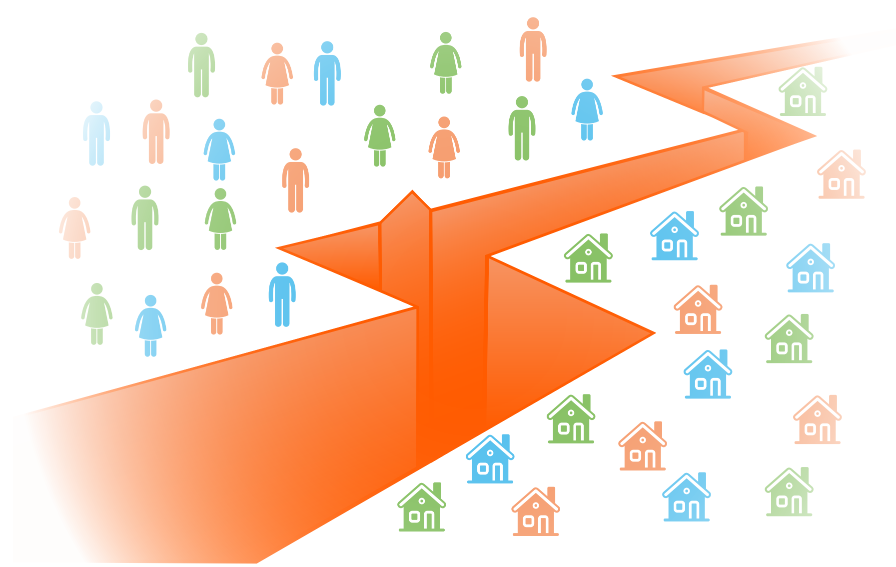
The market does not match housing units with the households that need them. Households with higher incomes often better compete for housing units because they are more attractive to landlords and finance agencies. When there is insufficient appropriate housing for everyone, some households must accept substandard or unaffordable housing.

## Housing Gap by Annual Median Income

| ANNUAL MEDIAN INCOME (AMI) | HOUSEHOLDS BY INCOME | # OF UNITS AFFORDABLE | | PERCENTAGE OF UNITS OCCUPIED BY HH AT SAME AMI |
|---|---|---|---|---|
| <= 50% of AMI | 6,315 | 11,813 | HOWEVER | 26.4% |
| 50% - 80% of AMI | 6,030 | 13,110 | HOWEVER | 15.4% |
| 80% - 100% of AMI | 5,120 | 5,786 | HOWEVER | 10.6% |

Source: VCHR Tabulation 2012-2016 Chas Data

There is intense competition in the region for housing within the mid-range price of $175,000 to $275,000. Adding housing within this price range and slightly above this will help relieve some of this demand pressure. Income-restricted housing will still be needed to full respond to the needs of low and moderate income households.



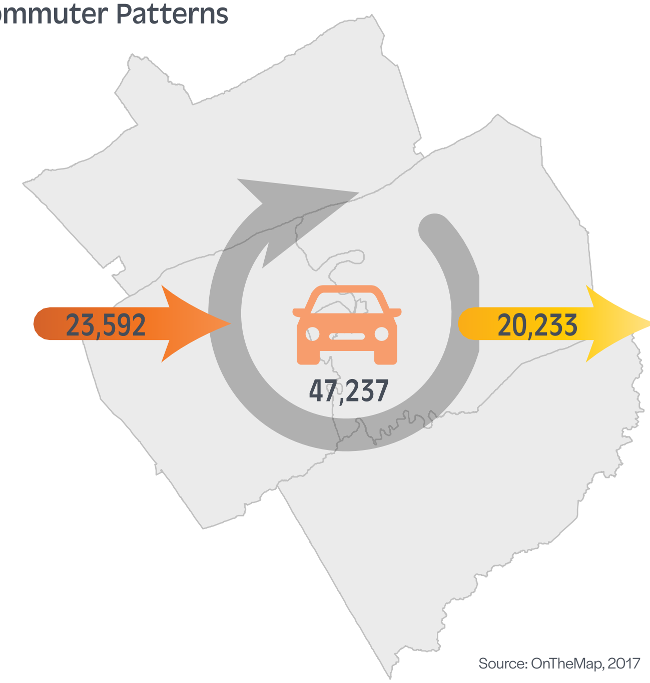
### Workers Who Live + Work Within Region

The NRV jurisdictions together comprise the Blacksburg–Christiansburg–Radford Metropolitan Statistical Area (MSA). MSAs are defined based on the strength of intra-regional commuting patterns. This designation is important because it shows the interconnectedness of the region geographically and economically. Commuting patterns can be used to approximate a housing market, because households generally seek to buy or rent a home within a reasonable commute of their job just as they generally seek employment within a reasonable commute of their home.

Overall, 70 percent of workers living in the NRV also work in the region. This varies by locality: Montgomery and Floyd have the lowest and highest percentage of residents who commute outside of the county to work, respectively. Commuting without a car is possible for some places in the NRV thanks to walking, cycling, and public transit. Furthermore, lower-cost housing options that have short commutes to jobs and other services make some localities location-efficient.

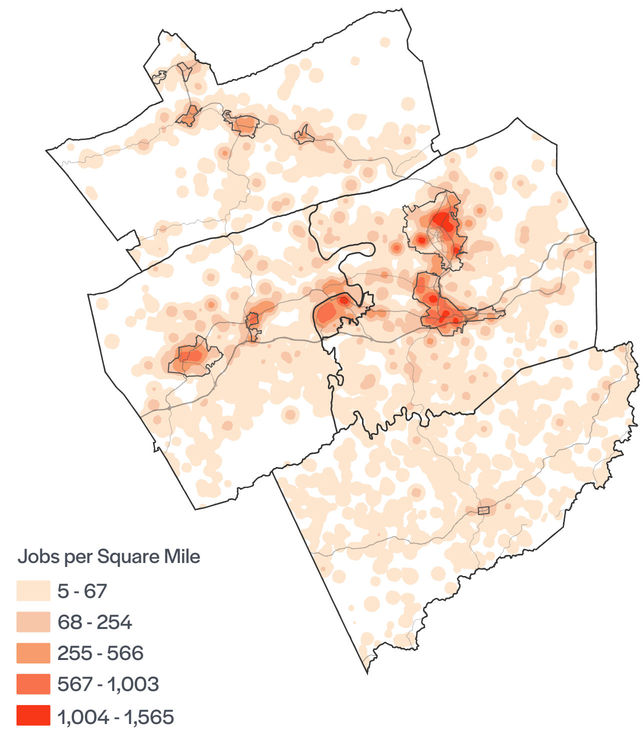
Employment in the NRV is concentrated in the college towns, retail areas, and manufacturing facilities in the region, with the largest concentration of jobs in Blacksburg, Christiansburg, and Radford.

### NRV Commuter Patterns




Source: OnTheMap, 2017

### NRV Job Density Map




Source: U.S. Census Bureau, Center for Economic Studies, 2017

## Top Job Sectors by Affordability

Workers in 124 occupations in the region cannot afford the median rent ($865) or median owner costs with a mortgage ($1,168) in the NRV as single earners earning at the median for their occupation. Workers in 24 occupations with 10,146 total employees cannot afford the median rent or owner costs in the NRV when they are earning at the 90th percentile for their occupation, and those in 9 of the top 10 occupations by employment cannot afford the median rent as single earners earning at the median. Median owner costs are affordable only when sharing housing costs with another earner for workers earning at the median for 7 out of 10 of the top occupations.

Photo Courtesy of WDBJ

## Top 10 Occupations in NRV

| Occupations | Number of Workers | Median annual earnings | Affordable costs for: Single earner at the median | Affordable costs for: Single-earner at 90th percentile | Affordable costs for: Two median earners |
|---|---|---|---|---|---|
| Team Assemblers | 2,718 | $32,100 | $803 | $1,205 | $1,605 |
| Cashiers | 2,220 | $18,700 | $468 | $603 | $935 |
| Combined Food Preparation and Serving Workers | 2,012 | $18,400 | $460 | $573 | $920 |
| Retail Salespersons | 2,007 | $22,400 | $560 | $948 | $1,120 |
| Office Clerks, General | 1,508 | $28,900 | $723 | $1,000 | $1,445 |
| Waiters and Waitresses | 1,288 | $24,200 | $605 | $928 | $1,210 |
| Janitors and Cleaners, Except Maids | 1,204 | $26,100 | $653 | $983 | $1,305 |
| Customer Service Representatives | 1,126 | $28,300 | $708 | $1,045 | $1,415 |
| Registered Nurses | 1,035 | $56,500 | $1,413 | $1,920 | $2,825 |
| Administrative Assistants, Except Legal, Medical | 1,024 | $32,000 | $800 | $1,165 | $1,600 |
| Stock Clerks and Order Fillers | 990 | $20,900 | $523 | $780 | $1,045 |
| Laborers and Freight, Stock, Movers, Hand | 953 | $24,300 | $608 | $855 | $1,215 |
| **Total - All Occupations** | 75,410 | $34,000 | $850 | $1,395 | $1,700 |

Can afford both median rent and median owner cost

Can afford median rent but not median owner cost

Cannot afford median rent or median owner cost (with mortgage)

Source: JobsEQ 2020

## 3.3 HOUSING MARKET CHALLENGES + OPPORTUNITIES

Regional housing market challenges can be roughly divided into demand-side and supply-side challenges that are related to and influence each other. Some challenges present opportunities to improve our region and communities, whereas others must be overcome using strategies to provide housing types not readily addressed by the market.

### Demand Challenges

#### Growing Overall Demand

Job growth, Virginia Tech expansion, increasing amenities, and preservation of natural resources is making the NRV more desirable for more households. Demand has outpaced housing supply, as evidenced by increasing prices and very few days on market.

#### University Impacts to Rental Market

The region's student population creates a significant and competitive demand for the rental stock attributed to approximately 23 percent of rentals being occupied by university students. Most rental leases are therefore offered on a July–June rental cycle and often for premium rents. This cycle presents a problem for new hires moving to the region during other times of the year. Moreover, some student households can afford higher rents than typical two-earner households because of family support. Owing to higher spending power and guaranteed demand, much of Blacksburg's modestly priced housing has become attractive for investors who add stronger competition to the real estate market.

#### Preference Shifts

Economic shifts and changing housing preferences have caused housing challenges in some communities. Aging adults and millennial homebuyers contribute to intense demand for smaller square-footage housing conveniently close to community amenities such as shopping, schools, trails, and restaurants. Demand from these two groups along with limited housing supply can rapidly escalate rents and sale prices.

New demand for rural, small-town living because of the COVID-19 pandemic may put additional pressure on amenity-rich rural places as many white-collar jobs have shifted to remote work.

#### Short-term Rentals

There are more than 2,250 properties held for seasonal or recreational use around the region. Focus groups brought up the impact short-term rental units have on the housing market. While sometimes providing critical secondary income for families, visitors can also be disruptive to neighbors and change the character of a neighborhood.

## Demand Opportunities

Growing demand in the NRV offers many opportunities for development of housing and amenities. The region can focus on the following:

- Creation of high-quality, market-rate housing
- Preservation of existing affordable housing Community development in places that are well-located
- Community development in well-located places

Community Development is the collection investment in elements that make a place desireable to live and work, such as infrastructure, multi-modal transporation connectivity, business vibrancy, and recreation.

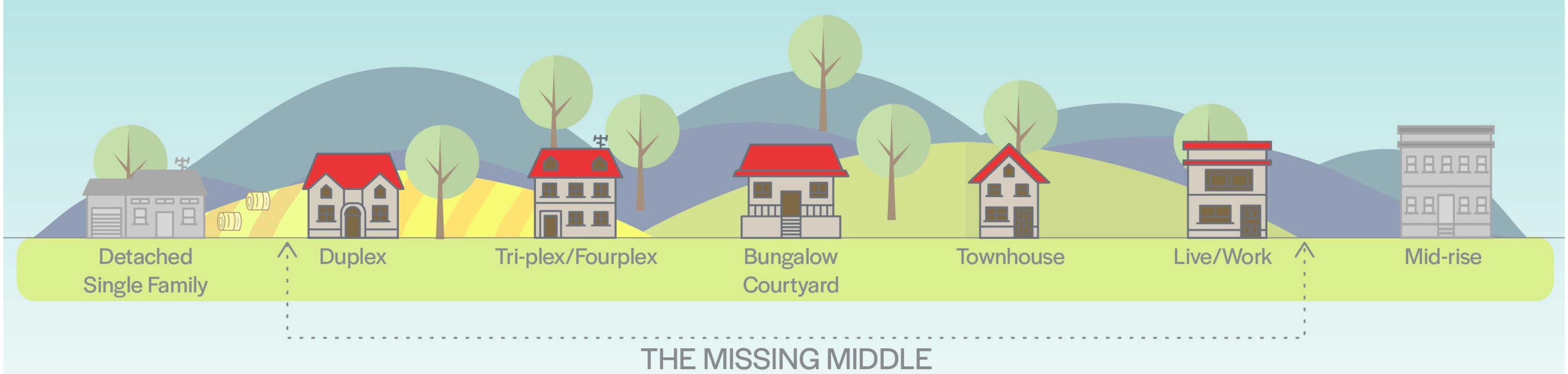
Focus group participants echoed the demand for walkable, convenient places.

Growing demand offers opportunities to create affordable housing. As demand grows, housing becomes more expensive throughout the NRV, especially in amenity-rich places with services, retail, entertainment, recreation, and beautiful settings. Although increasing home values in a community are desirable to an extent, excessive price escalation can make it difficult for moderate-income buyers to purchase a home and recruitment and turnover become burdensome for employers. A healthy housing market is important for both economic and community development.

High demand can be leveraged to encourage variation in development types and income-restricted housing. This can be accomplished through new policies, incentives, and clear guidance for developers. Steadily increasing prices and decreasing days on market imply steadily growing demand. In those locations, plans to preserve affordable housing and overall market affordability should begin before communities become unattainable to portions of the population and workforce.

***Steadily adding housing of varied size and type to "meet" demand, encouraging re-investment in existing housing, and finding ways to proactively reserve housing for essential, low-income workers and their families are important components of market health.*** This may include housing types such as townhomes, duplexes, small-scale apartment buildings, and accessory dwelling units as well as neighborhoods comprised of or interspersed with homes with smaller square footage.

Adequate housing supply and access to homeownership for households at all income levels creates opportunities for wealth building and encourage workers to stay in the region.



## Supply Challenges

### Inventory and Production

The region has lost nearly 60 establishments and 200 workers in the building construction industry since its 2008 peak, the most of which have been of new single-family home construction and residential remodelers. Similarly, specialty trades (e.g., plumbers, electricians, masonry) lost nearly 100 establishments and 700 jobs. Many NRV projects must therefore seek contractors from surrounding areas or states, increasing project costs and contributing to a further erosion of local skilled trades workers and firms. These shortages are likely to worsen without a significant increase in the pipeline of new skilled workers.

Although the median price of existing units is $195,000, the market is largely producing new for-sale housing priced higher than $230,000, contributing to limited inventory and strong competition. This leaves little opportunity for low- or moderate-income households; that is, they require financing to buy a home near or below the median price. Intense competition for homes in their price range and few income-restricted units further exacerbates their problem.

For some low-income individuals, energy bills can regularly consume more than half their income.

### Affordability

Long term, the lack of affordable housing excludes low- and moderate-income households from the communities and diminishes regional diversity and economic vibrancy. Such households struggling to live in our community include childcare workers, preschool and kindergarten teachers, cashiers, food service workers, and home health and personal care aids. These workers either accept substandard housing or commute from longer distances.

### Housing Reinvestment & Replacement

Homes require regular maintenance and generally need upgrades every 20–30 years. Over half of the region's housing was built prior to 1980, with 15 percent of the stock built prior to 1950. Potential homebuyers have expressed frustration that this stock (which is typically the most moderately priced) is in need of significant and costly repairs.

### Mobile Homes

The region's housing stock includes nearly 2,000 pre-1976 mobile homes, about 75 percent of which are occupied. Mobile homes built prior to 1976 are considered substandard and in greatest need of replacement. The HUD Code was established in 1976 to set construction standards for manufactured units.

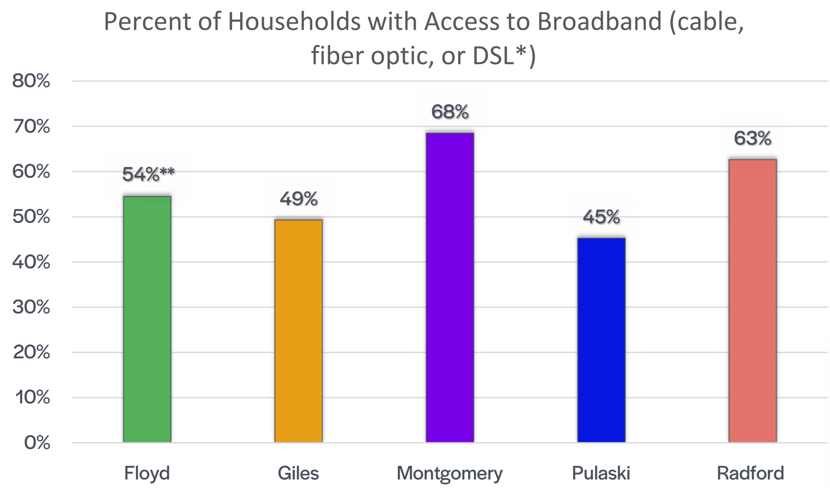
Pre-HUD Code mobile homes consume approximately 53% more energy than every other kind of home.

### Accessibility

More than 10,000 households include at least one person with an ambulatory limitation. In total, 57 percent of these households have low incomes below 80 percent of AMI and may struggle to afford modifications to their homes. Housing program leaders and experts on aging in our region have identified funding for home repair and modification as a major challenge for our region. Addressing this challenge requires community investments and advocacy at the state and federal levels.

### Water and Sewer

Strategic water and sewer system expansion can be used to effectively limit sprawl, but they may be a barrier to desirable developments. While using infrastructure to limit the geographic expansion of places, localities must provide opportunities for growth by emphasizing creative density with policy and clear goals and guidance for developers.




*ACS includes DSL in its definition of Broadband, which does not always meet the speed thresholds of 25Mbs/down 3Mbs/up
**Data does not reflect broadband expansion project in Floyd which began in 2017
Source: NRVRC-VCHR Tabulation of 2017 ACS 5-year Estimates

Broadband is typically defined as internet speeds of 25Mb/s download and 3Mb/s upload.

## Broadband

High-speed internet service is critical infrastructure needed for households to accesses economic opportunities, manage household needs, and participate in their communities. Both the workforce and education systems have become progressively more web-based, and this connectivity is becoming crucial for areas to be competitive in the marketplace. In rural areas where access to the internet is scarce, approximately 58 percent of residents believe that access to high-speed internet is a problem in the area (Anderson, 2018) [add as footnote to page]

## Supply Opportunities

### Local Government
Local governments can play an integral role in addressing the housing challenges in their communities with the ability to raise and dedicate funds for housing, encourage the development of a variety of housing choices, promote innovative approaches to density, and work regionally to establish market-wide housing goals, policies, and programs.

Tools for...

**Encouraging Housing Development**

- Land use and zoing regulations/incentives
- Tax abatement
- Resource dedications
- Clear development goals and guidelines

**Maintaining + Improving Existing Housing Stock**

- Code development and enforcement
- Tax incentives
- Low interest financing for improvements

### Regional Collaboration
Local government cannot and should not address housing challenges alone. Housing markets are not defined by jurisdiction but by consumer preferences. As housing markets are not defined by jurisdiction, but rather by consumer preferences, a well-rounded housing plan must have regional consideration and include a variety of partners. Owing to housing shortages and affordability challenges, maintaining the diversity of lifestyle while responding to demand requires collaboration among not only local governments and developers but also employers, institutions, and the public.

### Employer Housing Benefits
Since the Great Recession, employers have become more involved in addressing housing challenges beyond raising wages, such as making philanthropic donations to address homelessness, providing benefits to employees including down-payment assistance and second mortgages, and building housing. Such collaborations between companies, builders, and local governments help alleviate shortages and address issues directly.

Early steps employers can take are to understand and document their employees housing needs and preferences and communicate those to builders and elected officials. Employers are able to advocate more effectively than a few employees as well as represent employees who do not currently live in the jurisdiction where their job is located.

### Construction Industry Entrepreneurship + Innovation
Participants in the builder and developer focus group explained that few new subcontracting businesses have emerged, partially because of risk aversion lingering from the Great Recession and partially because of financial and capital barriers to licensure and starting a business. However, focus group participants noted that colleagues who have become entrepreneurs and started new business have begun closing the gap in subcontractors and have been extremely successful. Local, regional, and state-level opportunities exist for mobilizing resources and supporting entrepreneurship in the trades.

Although the housing industry values innovation, it is inherently risky, and the housing industry is historically risk averse. While innovations in building and construction can reduce energy use, produce a more durable product, and utilize more sustainable materials, construction organizations depend on a trusted production path that has historically provided profits. Many in the housing industry have therefore chosen to wait, becoming second movers on innovation and allowing others to attempt and potentially fail before implementing.