

# FAIRFAX COUNTY HEALTH AND HUMAN SERVICES **NEEDS ASSESSMENT 2019**

A COMMON AGENDA  
TO INFLUENCE AND  
DRIVE CHANGE



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# INTRODUCTION

## AN OVERARCHING VISION

In 2016, a Human Services Needs Assessment (Assessment) was completed to provide community leaders with a snapshot of population, economic, and infrastructure trends and needs in Fairfax County.

Since the release of the 2016 Assessment, the county continues to evolve and the challenges are becoming no less complex. Efforts to address needs outlined in the 2016 assessment were initiated and many are still being implemented. In addition, a [countywide strategic planning effort](#) is underway, which included extensive community engagement and will identify countywide priorities and initiatives. The 2019 Assessment is one of many initiatives used to inform the countywide strategic planning efforts and will help create a shared agenda to influence and drive change.

The 2019 Assessment is designed to build on the momentum of addressing needs and inform endeavors already in place. This Assessment will take a deeper dive into the trends and data of the community, utilizing existing resources to *transform the data into meaningful information and foster an integrated approach for continuous improvement*. The Assessment will also identify variations in need and, where possible, begin to highlight opportunities to achieve equity in communities.

The Assessment is for leaders, residents, and community stakeholders to develop a deeper understanding of crosscutting issues impacting the financial stability and social well-being of residents in the community. Additionally, the Assessment should reiterate the intersectionality among county agencies and community organizations and the collective power of these stakeholders to make measurable improvements.

## THE HEALTH AND HUMAN SERVICES STRATEGIC FRAMEWORK

The Health and Human Services Needs Assessment is one of four tools within the Health and Human Services (HHS) Strategic Framework used to guide a coordinated and targeted approach to address challenges and improve outcomes. These four tools work together to:

- identify strengths and challenges of communities;
- forecast and prepare for policy, system, and environmental changes;
- facilitate transparency and communicate with stakeholders; and
- guide decisions at various levels across the organization.



# COMMUNITY PROFILE

Understanding the population, economic, and infrastructure changes that have occurred in Fairfax County is critical to explaining the current environment and the challenges residents face. Many of these changes remain consistent over the last three years since the 2016 Assessment was published, yet other trends indicate changes that warrant attention to minimize adverse impacts on the population.

## AN OPPORTUNITY FOR GREATER IMPACT

The overall unemployment rate is low, average incomes are relatively high, and population size and corresponding characteristics are largely consistent with the trends in the 2016 Health and Human Services Needs Assessment. **Many of these trends and the disaggregated findings impact future goals related to equity and sustainability.** This Assessment highlights trends that have an impact on the residents, identifies inequities and the effect on communities, and summarizes opportunities for greater impact.

FAIRFAX COUNTY TRENDS			
	2016	2017	2018
Total Population	1,138,652	1,148,433	1,150,795
Percent of Housing Burdened Renters	46.0%	47.0%	46.0%
Unemployment Rate	4.0%	3.6%	2.6%
Percent of Individuals age five years and older who speak English less than very well	15.0%	15.0%	14.0%
Median Household Income	\$115,717	\$118,279	\$122,227

PERCENT OF POPULATION BY RACE/ETHNICITY			
	2016	2017	2018
White	62.0%	61.0%	61.0%
Asian	19.0%	19.0%	19.0%
Black	9.7%	9.7%	9.7%
Other Race	5.2%	5.1%	4.8%
Two or More Races	4.2%	4.9%	5.3%
American Indian	0.2%	0.3%	0.2%
Native Hawaiian/Pacific Islander	0.1%	0.1%	0.1%
Hispanic	16.1%	16.2%	16.4%

Source: U.S. Census Bureau (2018 1-Year Estimates)

**TO LEARN MORE ABOUT TRENDS IMPACTING OUR COUNTY**  
[HTTPS://BIT.LY/328LQUO](https://bit.ly/328LQUO)

While many trends have remained constant, others are changing rapidly. The following have been highlighted, due to the complexity and severity of consequences, and include:

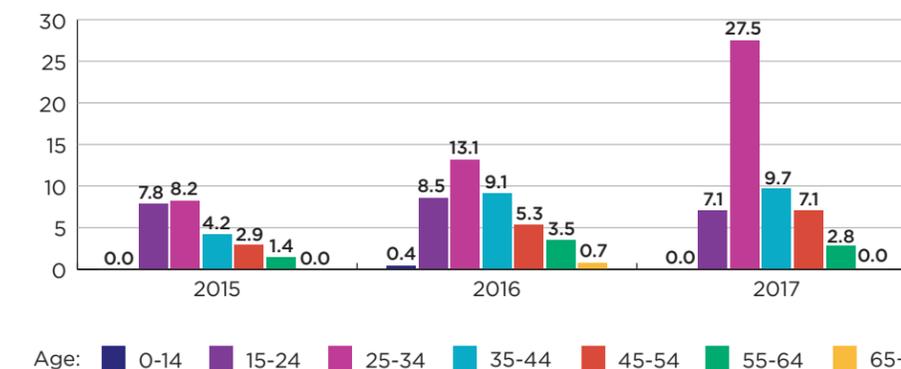
- INCREASING FENTANYL AND HEROIN DEATH OVERDOSE RATES
- TREATMENT STRATEGIES ARE NEEDED AS THE OPIOID EPIDEMIC EVOLVES
- HIGH PREVALENCE OF VAPING AMONG FAIRFAX COUNTY YOUTH
- SUICIDE IDEATION AMONG FAIRFAX COUNTY YOUTH INCREASES
- ENGLISH PROFICIENCY AND DISPARITIES
- POPULATION GROWTH WILL SIGNIFICANTLY SHIFT IN THE NEXT DECADE

While these trends do not address every important local need and challenge, they underscore the value of a coordinated response, along with strategic planning and targeted investment efforts.

## INCREASING FENTANYL AND HEROIN DEATH OVERDOSE RATES

The 25–34 age group had the highest rate of fentanyl and/or heroin overdose deaths in Fairfax from 2013 to 2017. This echoes a similar trend in the last two years for prescription opioid overdose deaths in Fairfax County.<sup>1</sup> In Virginia, White males and males aged 25–34 years had the highest mortality rates compared to other demographic groups in 2017. Overall, in Virginia opioid overdoses accounted for 80.1% (1,230) of all drug overdose deaths in 2017.<sup>2</sup>

FENTANYL AND/OR HEROIN OVERDOSE DEATH RATES IN FAIRFAX (RATE PER 100,000)



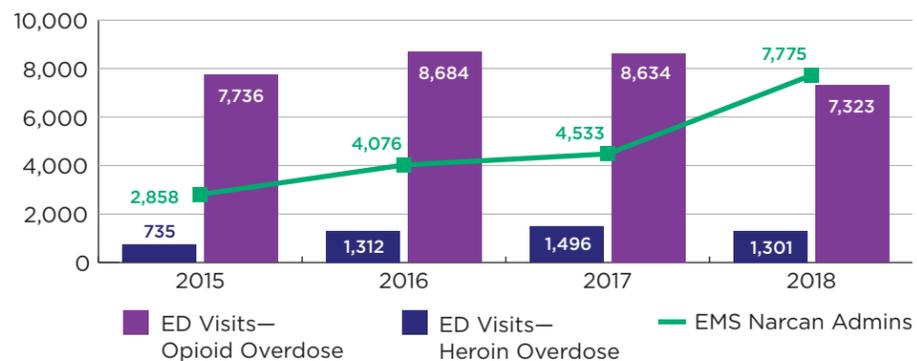
## TREATMENT STRATEGIES ARE NEEDED AS THE OPIOID EPIDEMIC EVOLVES

In the United States, drug overdoses resulted in 702,568 deaths from 1999 to 2017, with 399,230 (56.8%) involving opioids. From 2016 to 2017, death rates from all opioids increased, driven by synthetic opioids. **The highest death rate was among males aged 25–44 years (27.0 per 100,000), and the largest relative increases occurred among Blacks (60.7%) and American Indian/Alaska Natives (58.5%).**<sup>3</sup>

In Fairfax County, there were 114 opioid-related deaths in 2017. While the count appears to be down for 2018, **the proportion of overall deaths that include fentanyl is increasing and is higher in Fairfax County compared to all of the other reporting counties in Virginia.** Fentanyl accounted for 62% of all drug deaths in Fairfax County in 2017, compared to 50% in Virginia.<sup>4</sup>

While the number of Emergency Department (ED) overdose visits have decreased between 2017 and 2018 in Virginia, the number of Narcan administrations has risen by nearly 72 percent in the same time period.

### VIRGINIA ED OVERDOSE VISITS VS. EMS NARCAN ADMINISTRATIONS



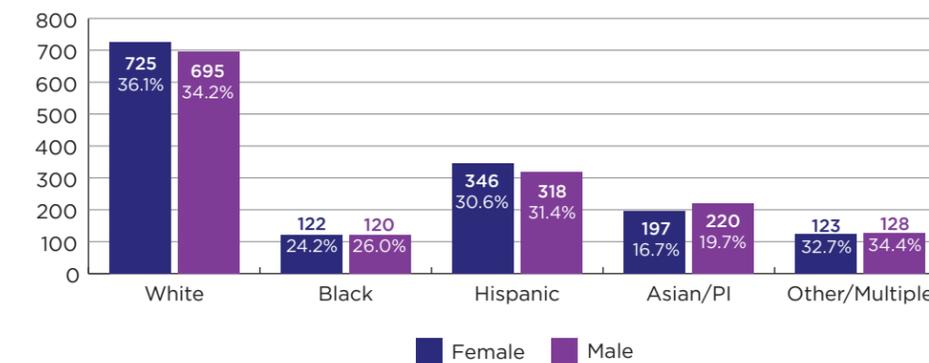
Source: Scholl L, Seth P, Kariisa M, Wilson N, Baldwin G. (2019, January). *Drug and Opioid-Involved Overdose Deaths—United States, 2013–2017*. Washington, DC: Centers for Disease Control. Retrieved from <http://www.vdh.virginia.gov/data/opioid-overdose/>

As the opioid epidemic is transitioning, additional treatment strategies and measures are needed to address the abuse of a diverse and evolving array of drugs.

## HIGH PREVALENCE IN VAPING AMONG FAIRFAX COUNTY YOUTH

In light of the emerging public health threat from the growing trends of youth vaping, new questions about vaping were added to the 2018 Fairfax County Youth Survey. In 2018, over one-fourth of students (27.9%) reported vaping at least once in their lifetime. In twelfth-grade, White females reported the highest percentage of vaping (36.1%).<sup>5</sup>

### 12TH GRADE STUDENTS WHO REPORTED VAPING (IN LAST 30 DAYS)



### DID YOU KNOW?

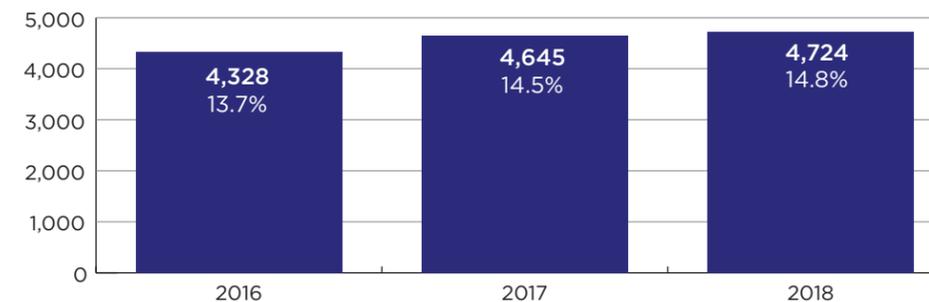
In 2018, nearly one-third of students reported vaping at least once in their lifetime.

## SUICIDE IDEATION AMONG FAIRFAX COUNTY YOUTH INCREASES

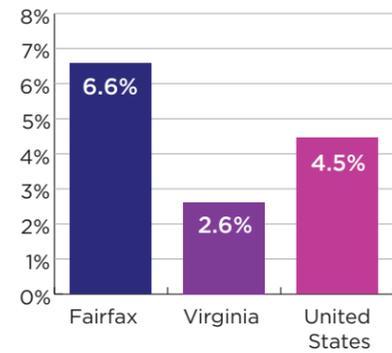
The prevalence of overall depressive symptoms and suicidal ideation—those who seriously considered attempting suicide—continued to increase in 2018, for eighth, tenth, and twelfth grade students.<sup>6</sup>

### 8TH, 10TH, AND 12TH GRADE STUDENTS WHO SERIOUSLY CONSIDERED ATTEMPTING SUICIDE

(PERCENTAGE IN PAST 12 MONTHS)



**ENGLISH LANGUAGE SKILLS**  
(POPULATION THAT SPEAKS ENGLISH LESS THAN WELL)



**ENGLISH PROFICIENCY AND DISPARITIES**

Fairfax County remains diverse with 182 languages or dialects spoken in homes of elementary students.<sup>7</sup> While the percent of population in Fairfax County who speak English less than well has been consistent since 2016, the rate in Fairfax County remains over twice as high as the rest of Virginia, and overall higher than the U.S.<sup>8</sup>

Providing quality English language learning opportunities is essential to promote the social mobility of individuals, which in turn benefits the overall economic success for all residents.

A significant contributor to income disparity in Fairfax County is limited English proficiency—those individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English. English proficiency remains a pre-requisite for successful educational and professional advancement. Research indicates that weak proficiency is linked to limitations in educational outcomes, workforce participation, earnings, economic mobility, and family resources.

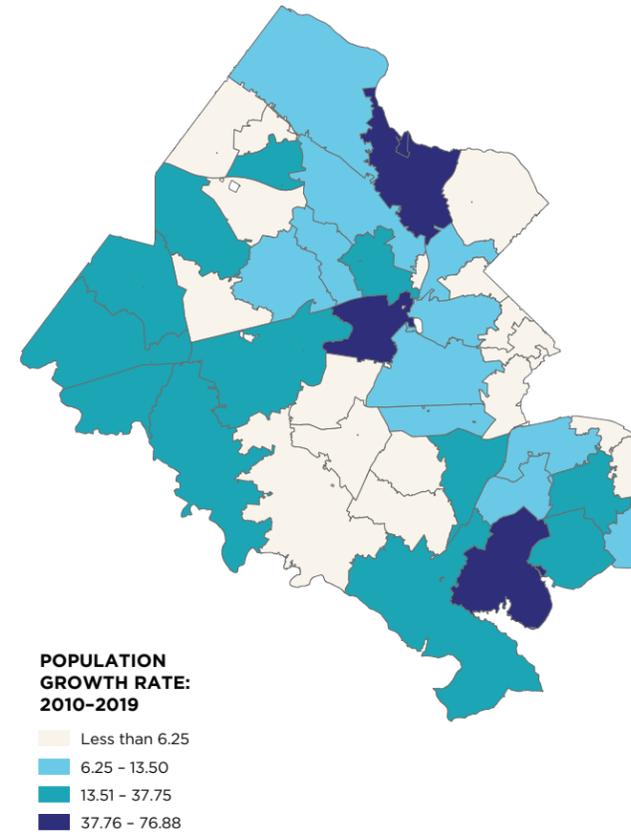
**POPULATION GROWTH WILL SIGNIFICANTLY SHIFT IN THE NEXT DECADE**

While the population growth has remained consistent, there continue to be shifts geographically within the county.

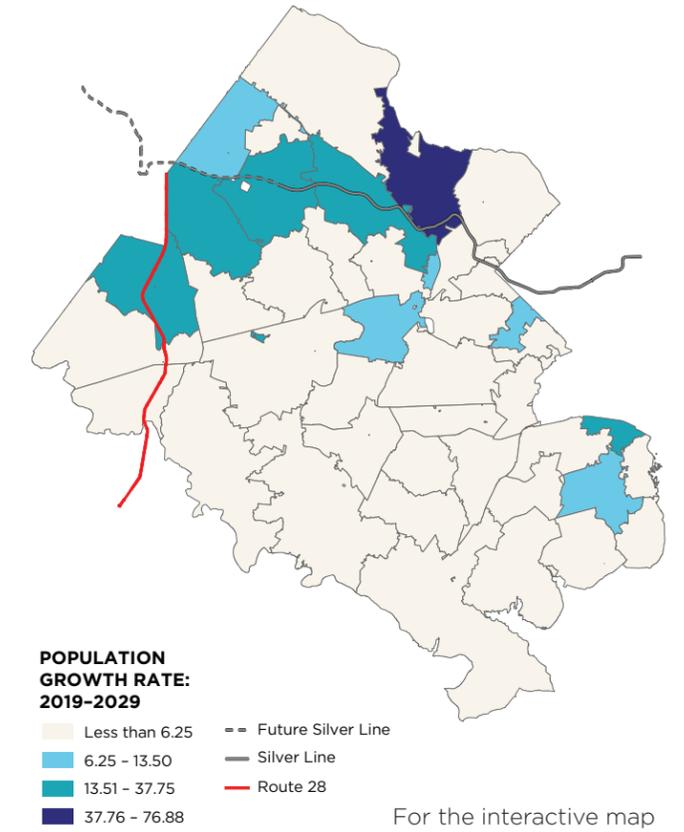
- Between 2010 and 2019, the county’s population growth was reflective of overall urbanization, transportation, and general economic and market patterns throughout the county. (Figure 1)
- However, between 2019 and 2029, population growth is expected to be more directed in the northern portion of the county due to the extension of Metro’s Silver Line and commercial and residential growth along the Route 28 corridor. (Figure 2)
- Additionally, with the arrival of Amazon’s second headquarters (HQ2) in Arlington County, employees will be dispersed throughout the region. Fairfax County is expected to gain approximately 24,558 households due to Amazon’s headquarters. (Figure 3)

It is critical to understand where this shift is happening and to gain a better understanding of the impacts to housing, schools, public safety, health, and overall resources and policies needed to serve the community. Investing in policy, equity, infrastructure, health, and environmental strategies now, while encouraging stakeholders to work together in implementing strategies, will help facilitate the long-term success in the county.

**FIGURE 1: POPULATION GROWTH 2010-2019<sup>9</sup>**

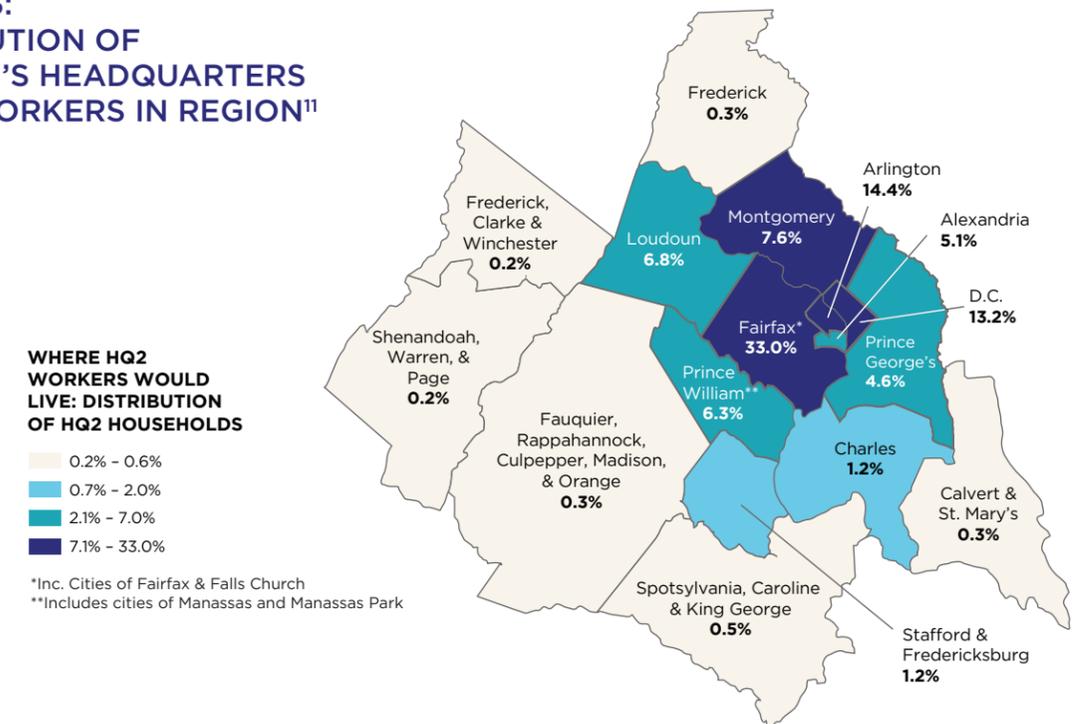


**FIGURE 2: POPULATION GROWTH 2019-2029<sup>10</sup>**



For the interactive map in Figures 1 and 2, visit: <https://bit.ly/2JzsNJu>

**FIGURE 3: DISTRIBUTION OF AMAZON’S HEADQUARTERS (HQ2) WORKERS IN REGION<sup>11</sup>**



**FAIRFAX COUNTY REMAINS DIVERSE WITH 182 LANGUAGES OR DIALECTS SPOKEN IN HOMES OF ELEMENTARY STUDENTS.**



ECONOMIC INEQUITIES



TRANSPORTATION INEQUITIES



HEALTH INEQUITIES

# CREATING A DIALOGUE TO INFLUENCE AND DRIVE CHANGE

## IMPACTING OUTCOMES ACROSS THE COMMUNITY

As Fairfax County continues to grow, the challenges and needs will continue to evolve as well. Understanding these changes and how they influence respective health and human services needs is vital in the continuous effort to successfully identify challenges, effectively plan and coordinate efforts, and efficiently align programs and services that help maintain a thriving community for all residents.

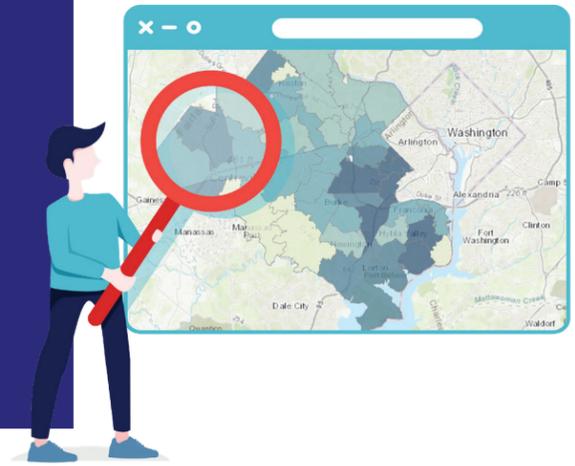
While the needs of the community remain broad and far-reaching, the 2019 Assessment was specifically designed to highlight a smaller number of needs that have significant systemwide impact. In preparing for the 2019 Assessment, all of the previous data and trends from the 2016 assessment were analyzed and substantiated through these questions: 1) Geographically, are there populations or areas inequitably impacted by these trends? 2) What is the size and scope of the number of individuals impacted? 3) Are there financial implications? 4) What is the impact to the community if these trends are left unaddressed? Three areas began to emerge that depict the pervasive challenges and needs across the community. Focusing in on these three areas will allow for more targeted investment opportunities and provide an opportunity to change the trajectory of the current trend.

In alignment with One Fairfax, a joint social and racial equity policy of the Fairfax County Board of Supervisors and School Board, the Assessment identifies three inequities that impact outcomes across the county: **Economic Inequities**, **Transportation Inequities**, and **Health Inequities**.

To have the greatest impact on residents and communities moving forward, the dialogue or strategies must not be limited to areas directly under Health and Human Services.

## VULNERABILITY INDEX

As part of this Assessment, a Vulnerability Index was created that combines demographic, housing, income, education, and uninsured data by zip code in Fairfax County. This tool integrates these indicators into a composite index, identifying areas of vulnerability as well as disparities in the most vulnerable populations. Maps throughout this document may use components of this index to highlight the impact of these inequities. This tool can be found at: <https://bit.ly/2qYezvf>



## THE VULNERABILITY OF OUR COUNTY'S RESIDENTS: A STORY OF TWO FAMILIES

At the end of each section, two Fairfax County families will be highlighted to stress the vulnerability of the county's residents through inequities in housing, child care, transportation, and health care costs.



### Family A

Median Household Income

\$122,227

Two Working Adults and Two Children



### Family B

Low Household Income (those who make 50-80% of the median income)

\$73,336

Two Working Adults and Two Children

Please note, these scenarios use data points from a variety of sources for informational purposes only to highlight the growing challenges of the residents and to gain a better understanding of the issues residents face.

# ECONOMIC INEQUITIES

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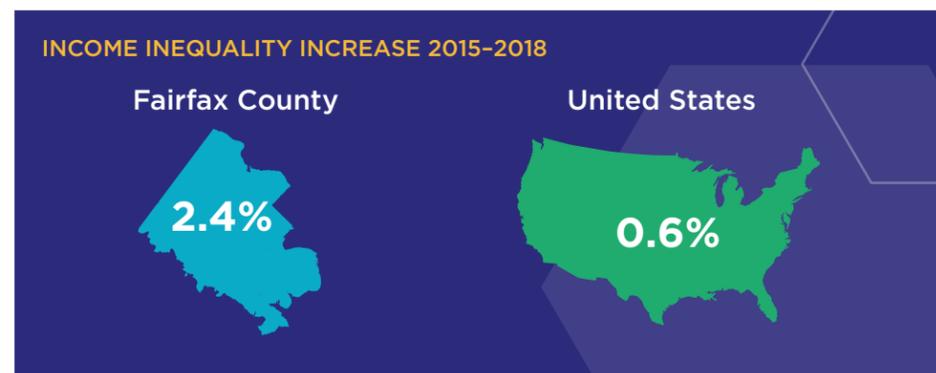
## ECONOMIC INEQUITIES HAVE MADE IT CHALLENGING FOR RESIDENTS TO LIVE, WORK, AND THRIVE IN FAIRFAX COUNTY

Overall, the Fairfax County economy continues to be strong with relatively low unemployment rates, high household income levels, and a well-educated workforce. While these positive indicators highlight an overall healthy economy, not all residents are benefiting. Continued economic inequities have made it challenging for many residents to live, work, and thrive in Fairfax County.

Economic inequities that exist in Fairfax County are reiterated when looking across asset accumulation, child care, and housing issues.

Income inequality—the extent to which income is distributed unevenly among the population—also demonstrates how changes in the local economy have resulted in positive outcomes for some residents, while reinforcing limited economic opportunities for others, particularly based on geography, race, ethnicity, and gender.

In 2018, while income inequality was lower in Fairfax County than the U.S., the county’s increase was four times the nation’s increase from 2015–2018.<sup>12</sup>



TO LEARN MORE ABOUT ECONOMIC INCLUSION IN FAIRFAX COUNTY, PLEASE VISIT: FAIRFAX COUNTY HEALTH & HUMAN SERVICES (HHS)

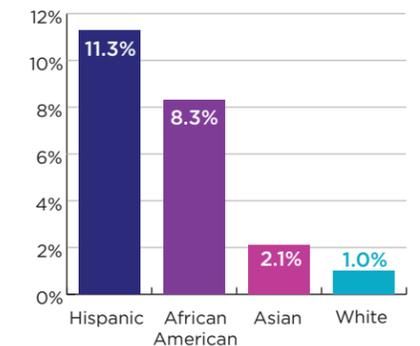
[ALIGNING EFFORTS FOR SUCCESS: ECONOMIC INCLUSION](#)

## ASSET ACCUMULATION IN FAIRFAX COUNTY

Similar to income inequality, wealth inequality can make it more difficult for individuals to achieve economic stability. Asset accumulation is critical for families and adults to manage financial emergencies, purchase a home, attend college, and retire. Research shows an alarming gap in wealth between White, African American, and Hispanic households.

In 2015, approximately 11% of all Fairfax County Hispanic households were considered unbanked, those who do not have either a checking or savings account, compared to only 1% of White households who were unbanked.<sup>13</sup> A banking account is one resource that supports asset accumulation.

UNBANKED HOUSEHOLDS



## INEQUITABLE PARTICIPATION IN THE CHILD CARE SYSTEM

Affordability and accessibility to high-quality child care and early education are critical to the development of children and family economic stability, particularly for low-income children and parents.<sup>14</sup>

Finding a child care provider that is affordable, accessible, provides high quality care, and has open slots is difficult, especially for low-income families.

Racial, ethnic, and linguistic minority families may face even more complex and acute obstacles in each of these areas.<sup>15</sup>

Due to systemic and structural barriers affecting equitable access to opportunity, families who are ethnic or racial minorities often experience higher poverty rates. This leads to pronounced disparities in socio-economic experiences for a large share of the nation’s children, compared to their White counterparts.<sup>16</sup>

Families’ participation in child care and early education may also be inhibited by the lack of high-quality options that are culturally or linguistically appropriate. Research on the populations impacted by “child care deserts”—areas with little or no access to quality child care—show that Latino and Asian children are most impacted by lack of supply.<sup>17</sup>

The U.S. Department of Health and Human Services (DHHS) defines child care as affordable if it costs no more than 7% of a family’s income.<sup>18</sup>

In Virginia, it is estimated that infant care for one child would cost approximately 18% of a median family’s income. By DHHS definition, only 11.1% of Virginia families would be able to afford infant care.<sup>19</sup> Similarly, families in Fairfax County struggle to afford quality child care. With a median household income of \$122,227 in Fairfax County in 2018, a family would pay between \$17,500 to more than \$23,000 per year for one infant in a child care center. On average, roughly 17% (\$20,540) of a family’s total income would go towards child care expenses.<sup>20</sup>



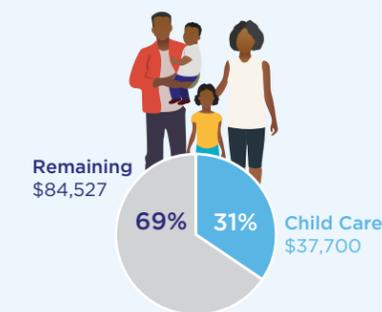
### DID YOU KNOW?

Virginia is one of 33 states and DC where infant care is more expensive than state tuition for a FOUR YEAR public college.

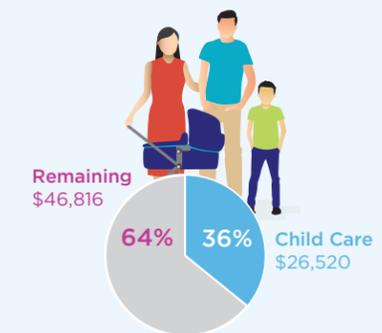
\*Source: Economic Policy Institute (2018), The Cost of Child Care in Virginia.

**THE VULNERABILITY OF OUR COUNTY'S RESIDENTS: A STORY OF TWO FAMILIES**

In Fairfax County, the average annual cost for one infant and a preschooler in a child care center is \$37,700. (\$20,540 for an infant, and \$17,160 for a 4-year-old).\* In Family A, this comprises 31% of a family's household income.



The average annual cost for one infant and a preschooler in a family child care provider is \$26,520 (\$14,040 for an infant and \$12,480 for a 4-year-old). These expenses become more acutely inequitable for low-income families, like Family B, comprising over 36% of a family's household income.



\*Winter 2018 weekly rates: <https://www.fairfaxcounty.gov/office-for-children/ccar/learn-more>

Notably, the average tuition for a four-year, full-time, in-state college student for 2017–2018 was \$24,003, approximately the annual cost of child care for one infant.<sup>21</sup>

The following table represents weekly, full-time, child care rates in the 20th–80th percentile range as reported by local child care programs in the Winter of 2018. (Individual programs determine their own rates, which may be higher or lower than the ranges below).<sup>22</sup>

	FAMILY CHILD CARE PROVIDERS	CHILD CARE CENTERS
INFANTS	\$240–\$300	\$345–\$445
TODDLERS	\$220–\$300	\$319–\$428
PRESCHOOLERS	\$200–\$280	\$280–\$381
SCHOOL-AGE (FULL TIME)	\$175–\$250	\$239–\$356
BEFORE AND AFTER SCHOOL	\$125–\$220	\$125–\$215

Fairfax County has developed the *Equitable School Readiness Strategic Plan*; its mission is to ensure families, communities, schools, and the county work together to build an equitable, coordinated, and comprehensive system that ensures young children in Fairfax County are ready to be successful in kindergarten and beyond.

**INEQUITIES IN THOSE WHO ARE HOUSING COST BURDENED**

Across the U.S., more than 1 in 10 households (11%) spend more than half of their income on housing costs. Among those who own their home, the percent of those who are housing cost burdened has decreased in the past decade; however, there has been no improvement in the rates among renters during the same time period.<sup>23</sup> In Fairfax County, one in five renters pay more than 50% of their income on housing costs.<sup>24</sup>

In the past decade, trends in homeownership rates have changed little on average, though gaps among racial/ethnic groups are widening. In large urban communities, the majority of White households own their home, while more than half of Black households are renters. Nationally, nearly 1 in 4 Black households spend more than half of their income on housing.<sup>25</sup>

Additionally, across counties in the U.S., every 10% increase in the share of households severely cost burdened are associated with 29,000 more children in poverty, 86,000 more people food insecure, and 84,000 more people in fair or poor health.<sup>26</sup>

ACROSS COUNTIES, EVERY 10% INCREASE IN THE SHARE OF HOUSEHOLDS SEVERELY COST BURDENED IS LINKED TO...



**29,000**  
more children in poverty



**86,000**  
more people who are food insecure



**84,000**  
more people in fair or poor health

\*Source: [www.countyhealthrankings.org](http://www.countyhealthrankings.org)

**FIGURE 4: BLACK/AFRICAN AMERICAN OCCUPIED HOUSEHOLDS WHO ARE SEVERELY RENT BURDENED<sup>27</sup>**

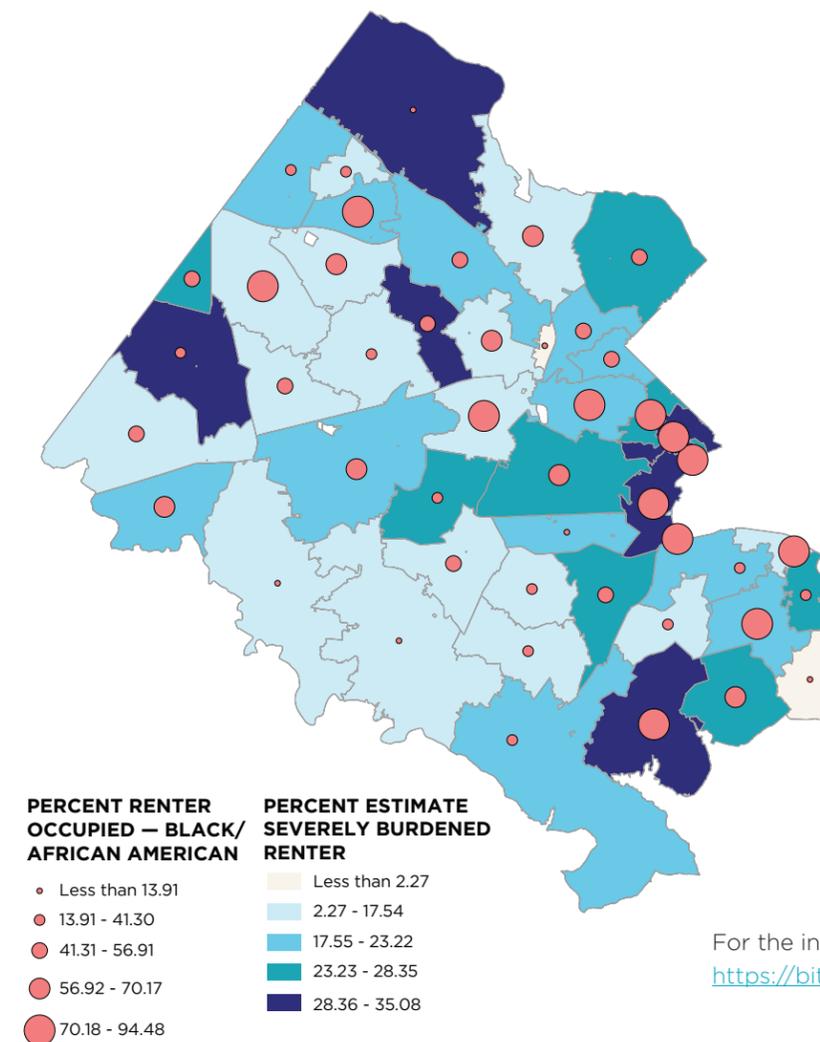


Figure 4 illustrates areas in Fairfax County where there continue to be pockets of Black/African American renter-occupied households who are severely rent burdened (those who spend more than 50% of their income on mortgage costs or gross rent).

For the interactive map visit: <https://bit.ly/2JzsNJU>

**ACCESS TO AFFORDABLE HOUSING INEQUITABLE FOR LOW-INCOME FAMILIES**

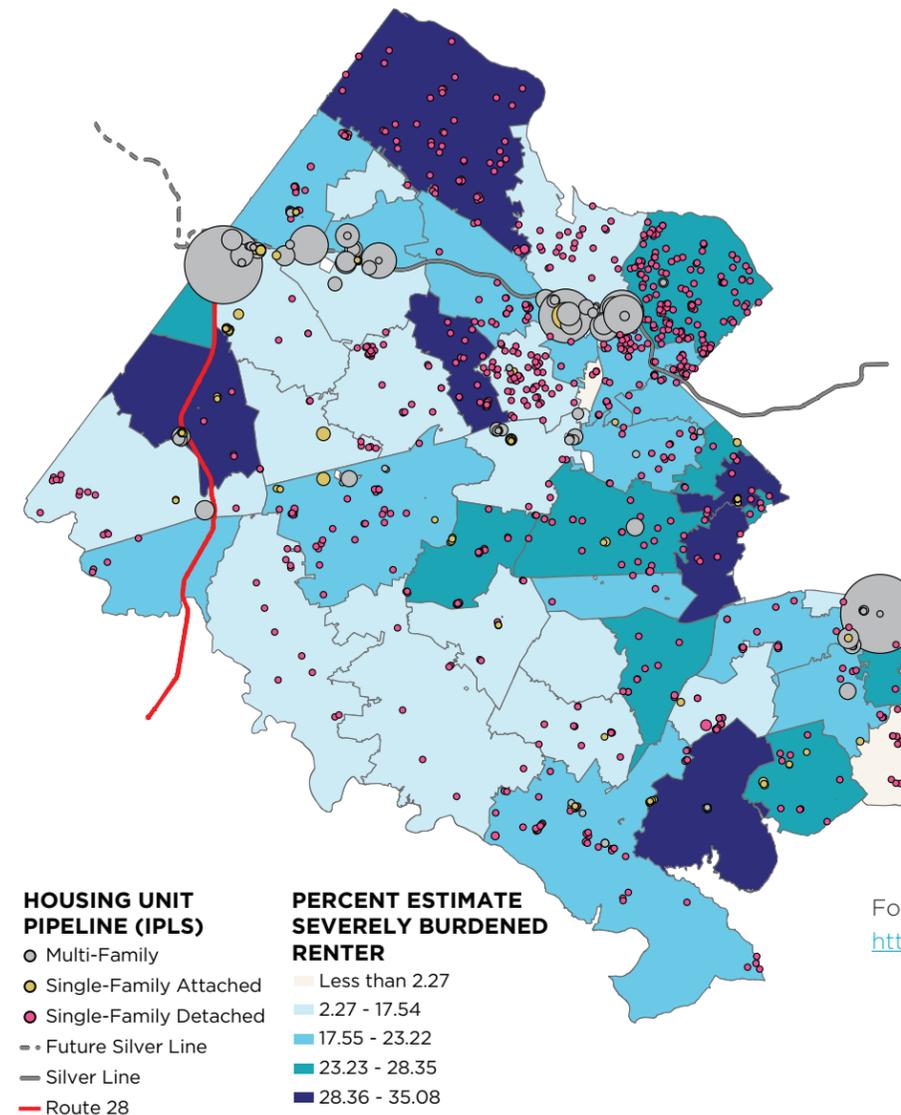
Lack of access to affordable housing in the region hinders individuals' economic mobility and self-sufficiency. Fairfax County is projected to need over 62,000 new housing units in the next 15 years, 15,000 of which are projected to be needed for individuals who earn less than 60% of Area Median Income (AMI), for Low-Income (LI) households and below, as seen in the shaded blue area.<sup>28</sup>

Workers in this category include nurses, program managers, research associates, administrative assistants, as well as retail, restaurant, and day care workers. These workers represent those who will be in need of the 15,000 housing units over the next 15 years.

\*Source: Table recreated from "A Guidebook for Increasing Housing Affordability in the Greater Washington Region" — updated figures with HUD 2018 Income Limits for Fairfax County<sup>29</sup>

<p><b>Extremely Low-Income Group (ELI)</b></p> <p>\$0 – \$35,150 family of four \$0 – \$24,650 single person 0% – 30% AMI</p>	<p><b>What type of household is this?</b></p> <p>People who are unable to work due to disability or age; or Many retail, restaurant, and day care workers.</p>
<p><b>Very Low-Income Group (VLI)</b></p> <p>\$35,150 – \$58,600 family of four \$24,650 – \$41,050 single person 30% – 50% AMI</p>	<p>One person working as an administrative assistant, electrician, or teacher's assistant; or Two workers in the retail, restaurant, or child care sectors.</p>
<p><b>Low-Income Group (LI)</b></p> <p>\$58,600 – \$77,450 family of four \$41,050 – \$54,250 single person 50% – 80% AMI</p>	<p>One or two workers including research associates, program managers, nursing aides, or nurses (LPNs).</p>
<p><b>Moderate-Income Group (MI)</b></p> <p>\$77,450 – \$117,200 family of four \$54,250 – \$82,188 single person 80% – 100% AMI</p>	<p>One or two workers, including police officers, fire fighters, school teachers, and IT support personnel.</p>
<p><b>Moderate-Income and above</b></p> <p>\$117,200 – \$140,640 family of four \$82,188 – \$98,626 single person 100% – 120% AMI</p>	<p>One or two workers, including accountants, loan officers, and machinists.</p>

**FIGURE 5: SEVERELY RENT BURDENED ALONG WITH HOUSING PIPELINE IN FAIRFAX COUNTY<sup>32</sup>**



As housing costs, particularly rent, increase more than incomes, households find themselves more likely to be cost burdened. In Fairfax County, 44.3% of renters (more than 55,000 households) and 22.9% of homeowners (more than 60,000 households) spend more than 30% of their income on housing.<sup>30</sup>

Figure 5 highlights zip codes with severely rent burdened residents, layered with the housing pipeline; this includes housing units in the development pipeline, not yet complete, or those yet to be built.<sup>31</sup>

For the interactive map visit: <https://bit.ly/2JzsNJU>

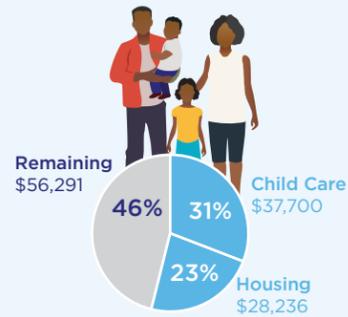


**DID YOU KNOW?**  
The Fairfax County Department of Housing and Community Development created a strategic plan in response to the community's growing housing needs.  
Read more at: [www.fairfaxcounty.gov/housingcommunitywideplan](http://www.fairfaxcounty.gov/housingcommunitywideplan)

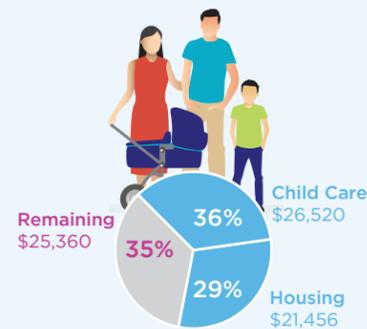
**THE VULNERABILITY OF OUR COUNTY'S RESIDENTS: A STORY OF TWO FAMILIES**

The average housing cost for a single family home is \$28,236 annually. Family A would spend a little more than 23% of their income on housing costs. With just housing and child care costs alone, a family would spend roughly 54% of their income towards these two expenditures.

[\(https://htaindex.cnt.org/\)](https://htaindex.cnt.org/)



The average monthly rent for a two bedroom apartment in Fairfax County is \$1,788 (\$21,456 annually). For a low-income family, like Family B, these costs become even more acute, paying 29% of their income on rent. With just housing and child care costs, a low-income family would be paying 65% of their income for housing and child care costs.



<https://www.fairfaxcounty.gov/demographics/sites/demographics/files/assets/rentalhousingreports/rent2017.pdf>

As the county plans for an additional 15,000 housing units over the next 15 years, and considers the households who will be in the greatest need of those units, it is critical to not only be mindful of those working families needing price appropriate housing options, but to support and create policies and resources that reflect the future growth pipeline. In addition, it is critical to ensure those who are already living in the growth pipeline area not be displaced due to housing demand or rising costs.

**Economic inequities play a role in the next two focus areas—transportation and health—and are exacerbated by limited opportunities, especially for those already housing cost burdened.**

# TRANSPORTATION INEQUITIES

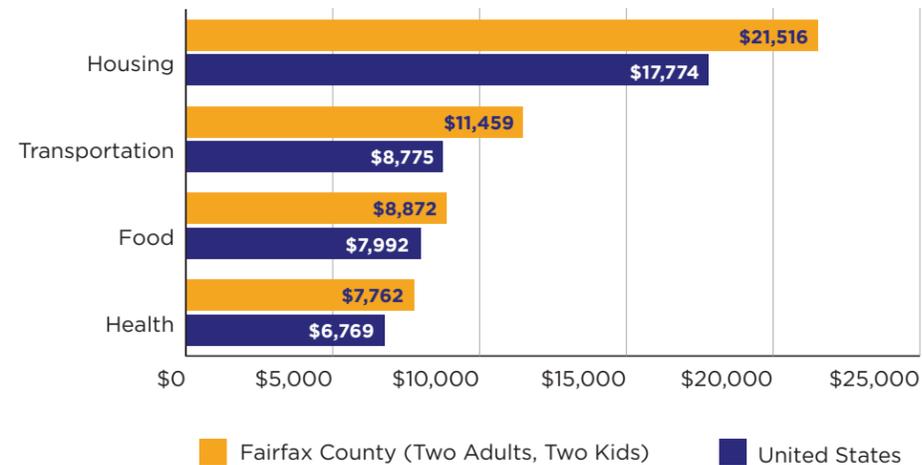


## TRANSPORTATION INEQUITIES

Transportation is a vital thread connecting the community. When mobility options are limited or not readily available within a community, it impacts residents' employment opportunities, social engagement, access to health care, and level of personal independence.

Nationally, households in the U.S. spent an average of \$8,755 on transportation in 2016, making transportation one of the largest household expenditure categories, representing 16.2% of total expenditures after housing.<sup>33</sup> In Fairfax County, transportation costs remain approximately \$11,459 per year for a family with two working adults and two children.<sup>34</sup>

### AVERAGE EXPENDITURES FOR BASIC NEEDS



Sources: Bureau of Transportation Statistics. (2018, January) *Household Spending on Transportation* and Glasmeier, Amy K. (2019). *Living Wage Calculator*. Note: Within in the report, more specific data points may be referenced for consistency.

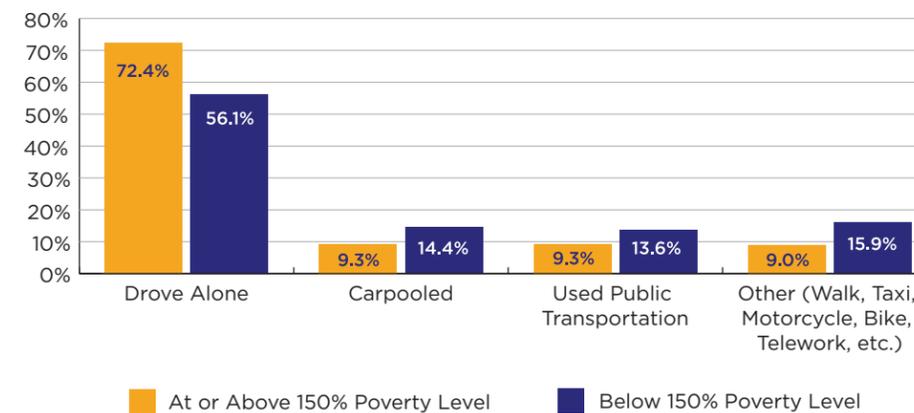
## INEQUITABLE ACCESS TO AFFORDABLE MOBILITY OPTIONS

An equitable transportation system is one that provides affordable and safe transportation, promotes safe and inclusive communities, helps to sustain employment, and focuses on results that benefit all. It also strengthens the economy by ensuring that all people, regardless of race, income, or ability, can connect to the education and work opportunities they need to participate in and contribute to society and the economy.<sup>35</sup> However, barriers remain that limit access to opportunities, often for those who are low-income, non-English speaking, people of color, seniors, or have disabilities.

The current infrastructure is built to move vehicles, instead of people, which makes owning a vehicle more conducive to traveling in the region.

Access to a vehicle varies dramatically by income level, with lower income residents much less likely to own a car than higher income residents and using public transportation with higher frequency. For workers who are at or above 150% of the poverty level, 72.4% drove alone, compared to 56.1% below 150% of the poverty level.<sup>36</sup>

### TRANSPORTATION TO WORK (PERCENT)



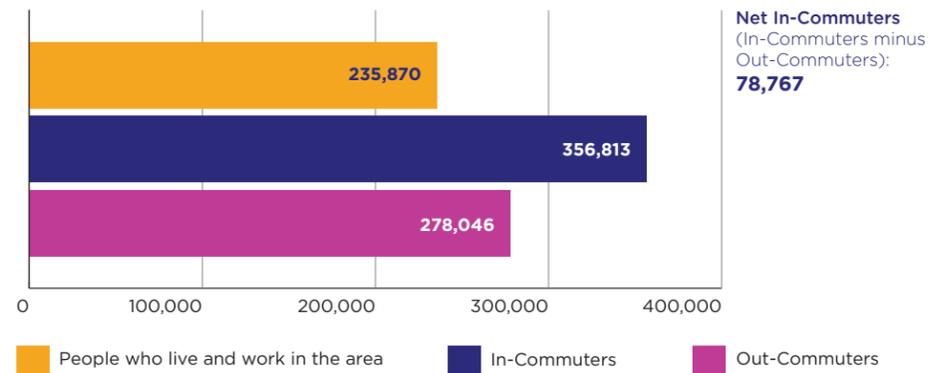
As the population continues to grow within Fairfax County, the design and infrastructure needs should shift from focusing on automobile traffic only to a multi-modal focus incorporating sidewalks, bike lanes, high occupancy vehicle lanes, bus lanes, and rail lines.<sup>37</sup>

### LACK OF COORDINATION AMONG TRANSPORTATION OPTIONS

There have been a number of recent transportation innovations that impact how people travel, such as Transportation Network Companies (e.g. Lyft and Uber), bikeshare, carshare apps, and others. While these opportunities allow individuals various options when traveling, low-income individuals are limited in affordable and accessible options. As mentioned earlier, access to a vehicle varies dramatically by income level, with lower income residents relying on the public transportation system for access to jobs, education, medical appointments, and other services.

Over 350,000 workers commute in from outside the county.

#### COMMUTING PATTERNS

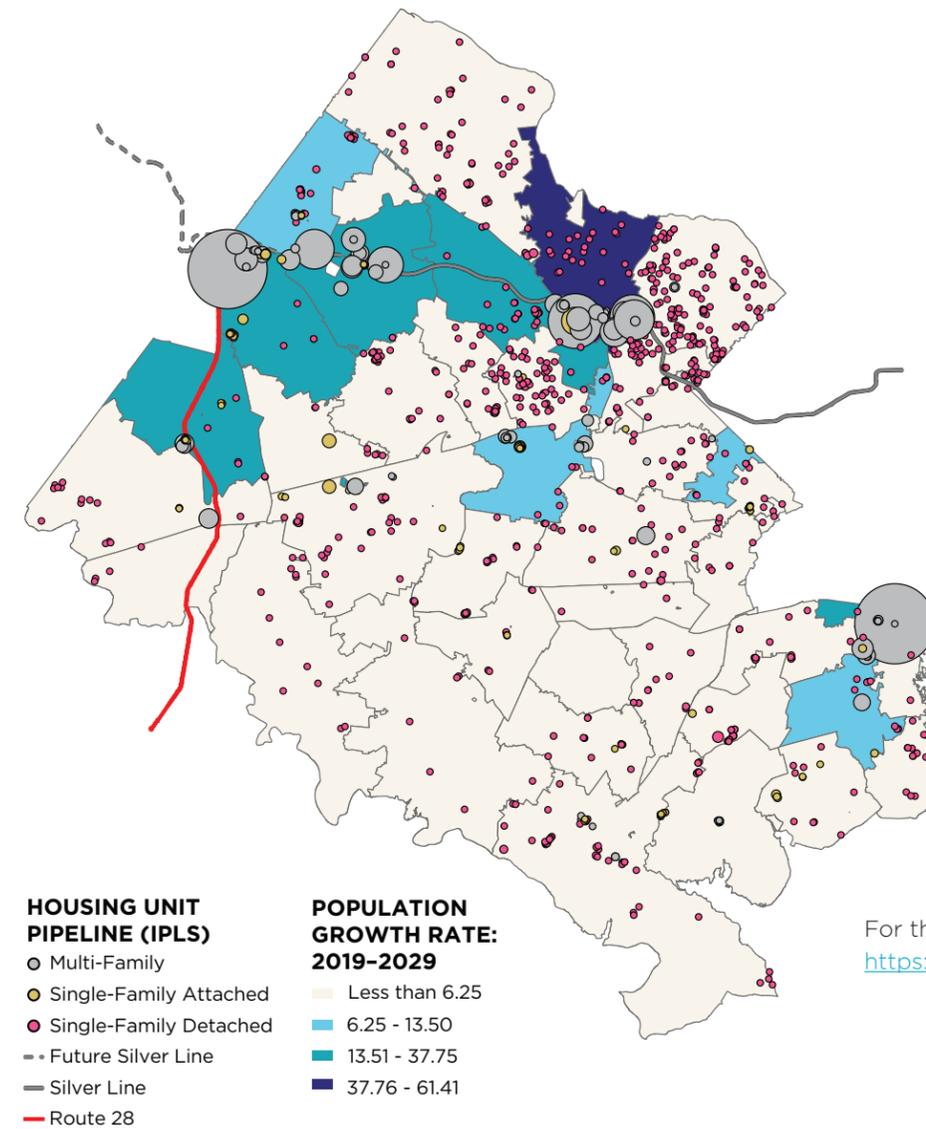


Source: U.S. Census Bureau OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2014.

Buses and public transportation remain an important and vital option in the region's transportation network allowing affordable access to get to jobs, school, and medical appointments.<sup>38</sup>

While the region has a variety of bus and public transit options, there is little coordination among providers. Often, having a large number of bus providers in the region can lead to inconsistent gaps between buses and a transportation system that is harder to navigate.<sup>39</sup>

**FIGURE 6: POPULATION GROWTH 2019-2029, LAYERED WITH HOUSING UNIT PIPELINE, AND SILVER LINE EXTENSION<sup>40</sup>**



For the interactive map visit: <https://bit.ly/2JzsNJU>

Reflecting on the growth of the population over the next decade, along with the expansion of the Metro system and other public transportation options, (Figure 6) the county must build a coordinated, equitable, multi-modal transportation system that supports the economic growth, health, congestion mitigation, and prosperity goals of the County and provide context sensitive mobility solutions that are based on the principles associated with sustainability, diversity, and community health.<sup>41</sup>

To achieve this vision, HHS, collectively, should be represented in planning and coordination efforts with public safety, land use, and planning to ensure human services are better prepared to address future community needs.



**INEQUITABLE ACCESS IS PARTICULARLY PREVALENT AMONG OLDER ADULTS AND PERSONS WITH DISABILITIES**

As the U.S. population ages, transportation challenges for seniors and their caregivers continues to grow. It is estimated, nationally, that 10,000 baby boomers will turn 65 years of age daily until 2030.<sup>42</sup> Among those aged 65 and older, one in five do not drive, either for health or economic reasons. In a recent survey of older adults, 72% responded that getting transportation to medical appointments was the greatest need they had.<sup>43</sup> Older adults and persons with disabilities are particularly impacted by public transportation issues, especially those requiring more than one form of transportation to get from point to point.

Over 80% of young adults with disabilities recently surveyed, nationally, stated they are often prevented from doing the activities they would like to do because of lack of transportation or the inability to drive. Yet, only 15% of older adults and 32% of younger adults with disabilities are using public transportation services.<sup>44</sup>

As the population continues to age in place, planning and land use decisions must further incorporate equity data into their standard processes to minimize gaps in transportation services, especially for older adults and persons with disabilities.

To learn more about services and transportation options for older adults and persons with disabilities, please visit:

Fairfax County Human Services Transportation  
<https://www.Fairfaxcounty.Gov/neighborhood-community-services/transportation>

Community Action Plan:  
<https://www.fairfaxcounty.gov/familyservices/older-adults/fairfax-50-plus-community-action-plan>

**FIGURE 7: SERVICES FOR OLDER ADULTS AND PERSONS WITH DISABILITIES<sup>45</sup>**

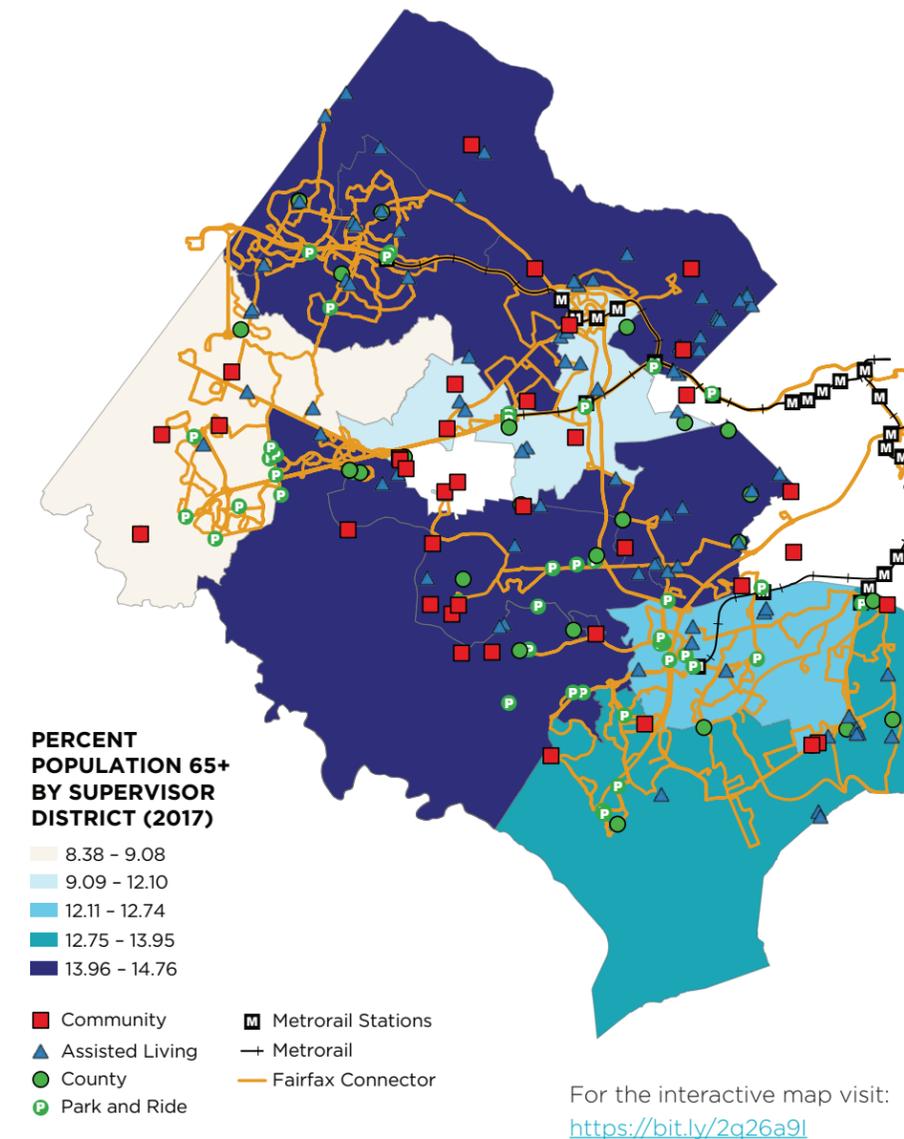
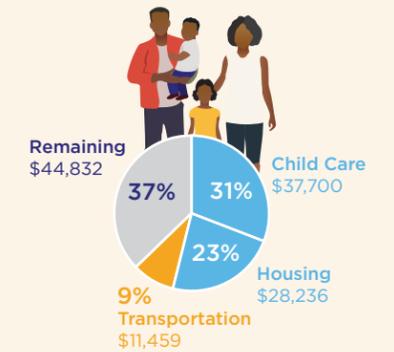


Figure 7 highlights the current services in the community and county for older adults and persons with disabilities, in relation to public transportation options.

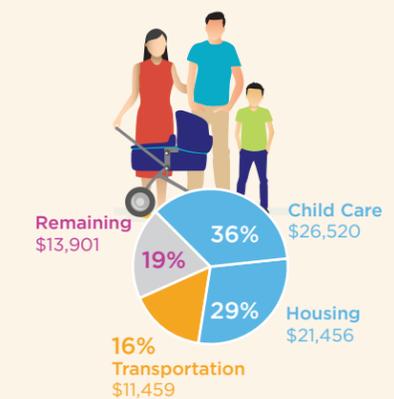
**THE VULNERABILITY OF OUR COUNTY'S RESIDENTS: A STORY OF TWO FAMILIES**

It is estimated that the average family of four spends approximately \$11,459 on transportation annually. (<https://livingwage.mit.edu/counties/51059>)

For Family A, this accounts for approximately 9% of a family's annual income. Roughly 63% of a family's income accounts for child care, housing, and transportation costs.



For Family B, transportation costs equate to roughly 16% of the family's income. Child care, housing, and transportation costs would comprise 81% of a low-income family's income.



# HEALTH INEQUITIES

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## HEALTH INEQUITIES

### INEQUITABLE ACCESS TO BEHAVIORAL HEALTH SERVICES

The overall health and well-being of residents varies greatly across Fairfax County. The issues that contribute to the variations of health and well-being cut across socioeconomic and demographic boundaries, affecting all residents in the county. Neighborhoods with lower life expectancy tend to have other poor health outcomes, including illnesses and injuries among children and adolescents, and higher rates of physical disease, mental illness, and premature death among adults — as well as higher health care costs to treat these conditions.<sup>46</sup>

Within the community, almost 15% of residents have experienced five or more poor mental health days in the last 30 days.

#### POOR MENTAL HEALTH 5+ DAYS / HEALTH DISTRICT FAIRFAX (PERCENT)



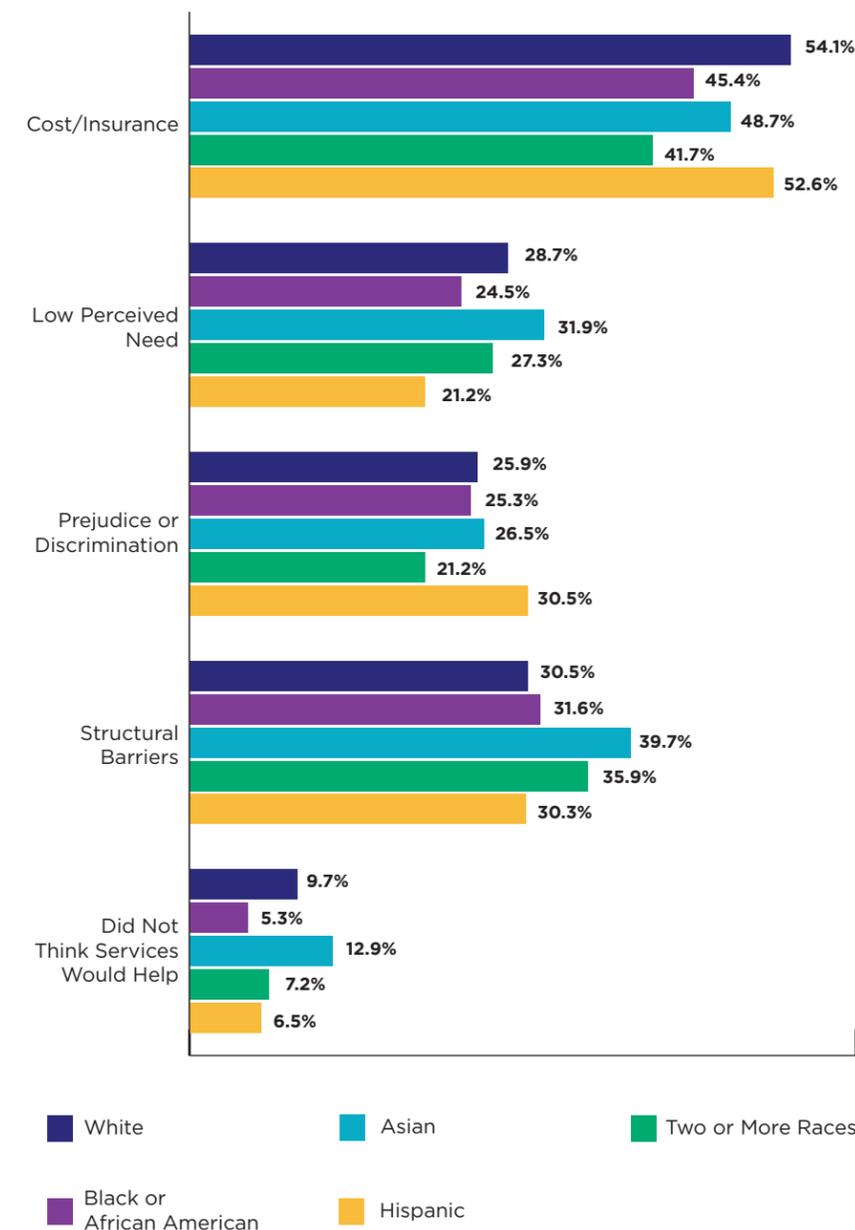
Source: Virginia Behavioral Risk Factor Surveillance System 2017  
The BRFSS 2011 prevalence data should be considered a baseline year for data analysis and is not directly comparable to previous years of BRFSS data because of the changes in weighting methodology and the addition of the cell phone sampling frame.

National data indicates that half of adults in the U.S. who are diagnosed with common mental health conditions still do not receive treatment.<sup>47</sup> Despite the commonality of behavioral health conditions, inequitable access to behavioral health services still remains.

Costs of service or lack of insurance coverage was the most frequently cited reason for not using behavioral health services, with White and Hispanic adults largely reporting cost of insurance as a barrier to accessing services at 54.1% and 52.6%, respectively, compared with Black adults (45.4%).

### REASONS FOR NOT USING BEHAVIORAL HEALTH SERVICES AMONG ADULTS WHO HAD AN UNMET NEED FOR SERVICES IN THE PAST YEAR, BY RACE/ETHNICITY<sup>48</sup>

(ANNUAL AVERAGE PERCENTAGE)



Socioeconomic status has been established as a risk factor that plays a role in whether someone can access and complete treatment. One study found Black and Hispanic clients were less likely to complete addiction treatment largely due to differences in socioeconomic status. Higher unemployment and unstable housing are contributing factors.<sup>49</sup>

Overall, women are also more likely than men to experience economic barriers to treatment. They may have lower levels of education, rates of employment, and income. In addition, they may have less support from their families or partners to enter treatment and encounter more stigma and discrimination for their addictions. Often, women may have trouble regularly attending treatment sessions due to family responsibilities.<sup>50</sup>

**INEQUITIES IN ADEQUATE HEALTH INSURANCE COVERAGE**

Lack of adequate coverage makes it difficult for people to get the health care they need and, when they do get care, can often burden families with large medical bills.<sup>51</sup>

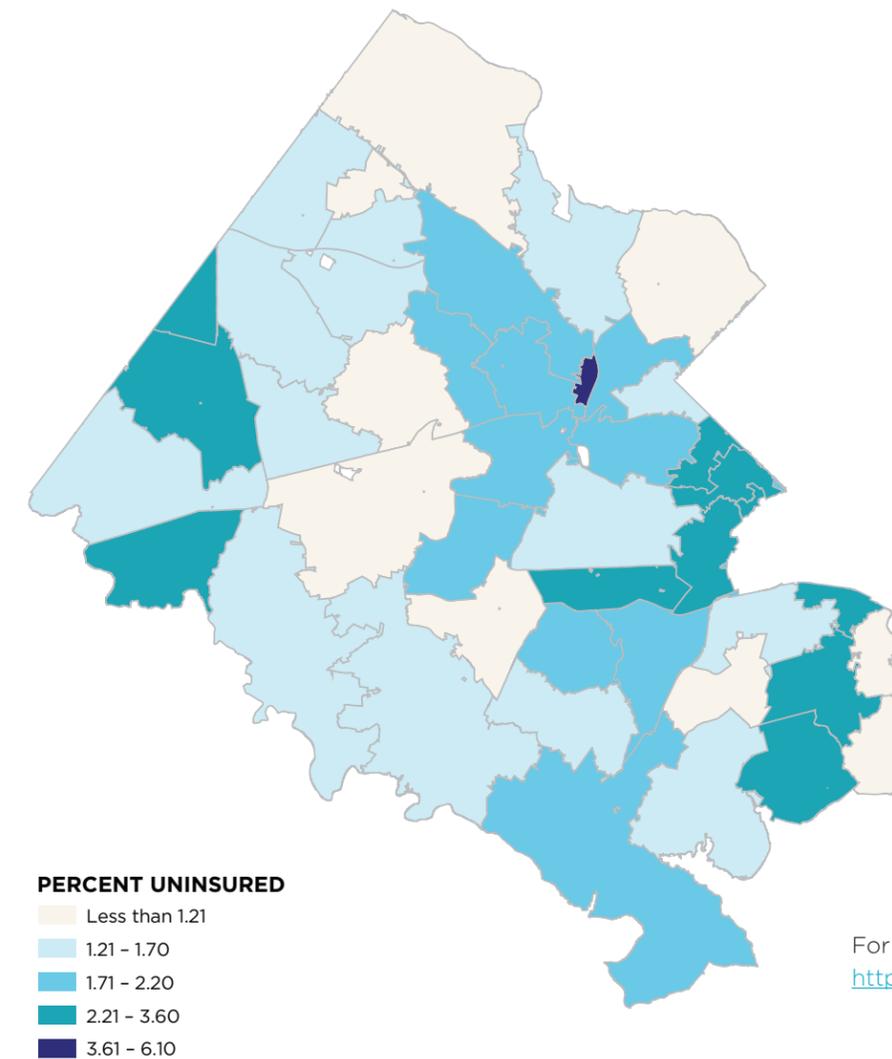
Nationally, significant decreases in the percentage of uninsured adults were observed from 2013 through 2018 for Hispanic, non-Hispanic Black, non-Hispanic White, and non-Hispanic Asian adults. Hispanic adults had the greatest percentage point decrease in the uninsured rate from 2013 (40.6%) through 2018 (26.7%).<sup>52</sup>

In Fairfax County, a little over 106,429 residents did not have health coverage in 2017, approximately 9.4% of the total population.

THE UNINSURED WHITE POPULATION IN FAIRFAX COUNTY made up **48.5%** (51,617) of all uninsured residents in 2017, **nearly half** of the total uninsured population of 106,429.

Figure 8 geographically highlights those areas in Fairfax County where the greatest percentage of overall uninsured residents reside.

**FIGURE 8: UNINSURED POPULATION IN FAIRFAX COUNTY<sup>53</sup>**



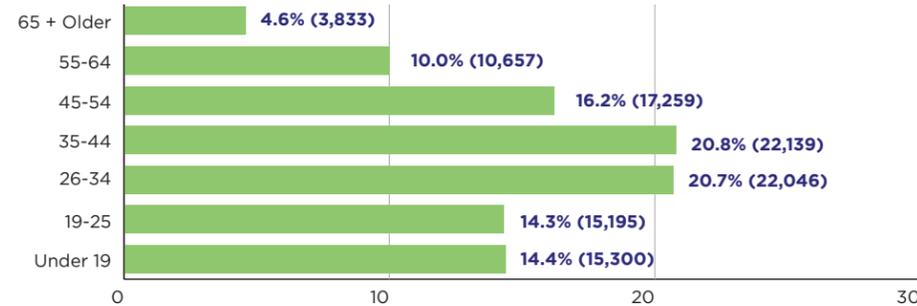
For the interactive map visit: <https://bit.ly/2JzsNJU>

In May 2018, the Virginia General Assembly voted to expand Medicaid eligibility to households earning up to 138% of the federal poverty level that will give up to 400,000 Virginia adults access to health coverage, including hospital stays, primary care doctors, specialists, prescriptions, behavioral health services, addiction treatment, and many more services. While the expansion began in January 2019, and the county has yet to see its full impact, the expansion will ultimately have a positive impact on patient access and health.

While the number of uninsured residents continues to decrease in Fairfax County, 14% (15,300) of children and youth under the age of 19 do not have health care coverage.

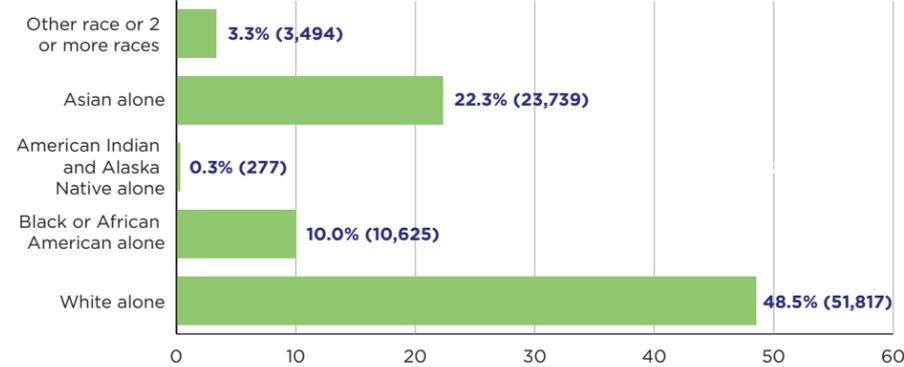
Residents between the ages of 26 and 44 years represent 42% of the total uninsured population, accounting for over 44,000 residents.<sup>54</sup>

**TOTAL UNINSURED BY AGE (PERCENT)**



The uninsured White population in Fairfax County made up 48.5% (51,617) of all uninsured residents in 2017, nearly half of the total uninsured population of 106,429.<sup>55</sup>

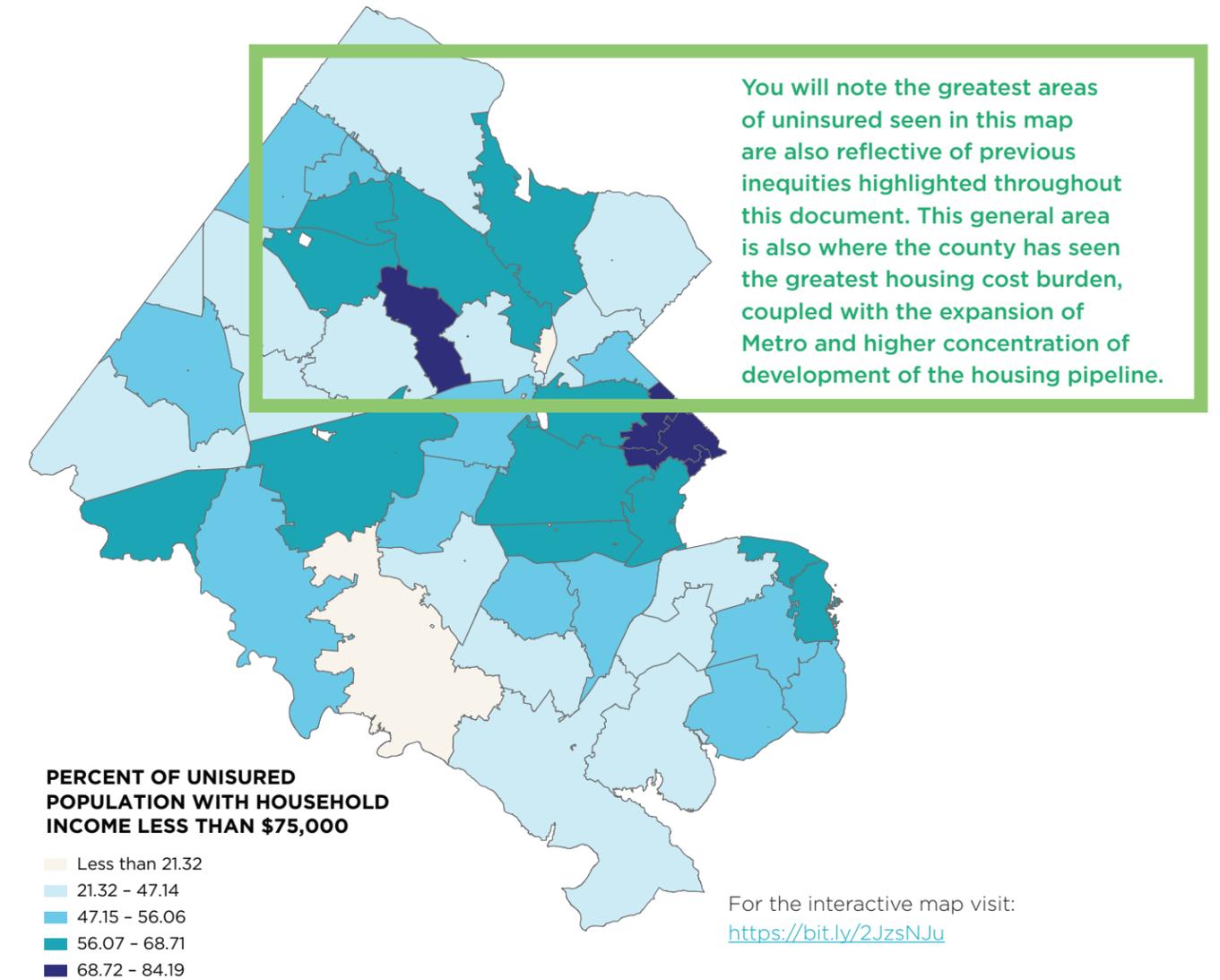
**TOTAL UNINSURED BY RACE\***



\*Chart includes total uninsured by race only; does not include ethnicity.

While Black residents represent 9.9% of the uninsured population, or 10,625 residents, they account for 108,302 (9.6%) of the total population of 1,128,951 in 2017, making them uninsured at a higher rate compared to their White counterparts, who comprise 704,311 (62.4%) of the total population, and 48.5% of the uninsured population.<sup>56</sup>

**FIGURE 9: PERCENT OF UNINSURED POPULATION WITH HOUSEHOLD INCOME LESS THAN \$75,000<sup>57</sup>**



Fairfax County households with an annual income under \$75,000 accounted for 55.5% of persons with no health insurance coverage, and 30% of those with an income of \$100,000 and greater are uninsured.<sup>58</sup>

**HOUSEHOLD WEALTH LOST THROUGH FORECLOSURE DURING THE RECESSION OF 2008:**

Hispanics  
**66%**

African Americans  
**53%**

Whites  
**16%**

**IMPACT OF UNSTABLE HOUSING ON HEALTH**

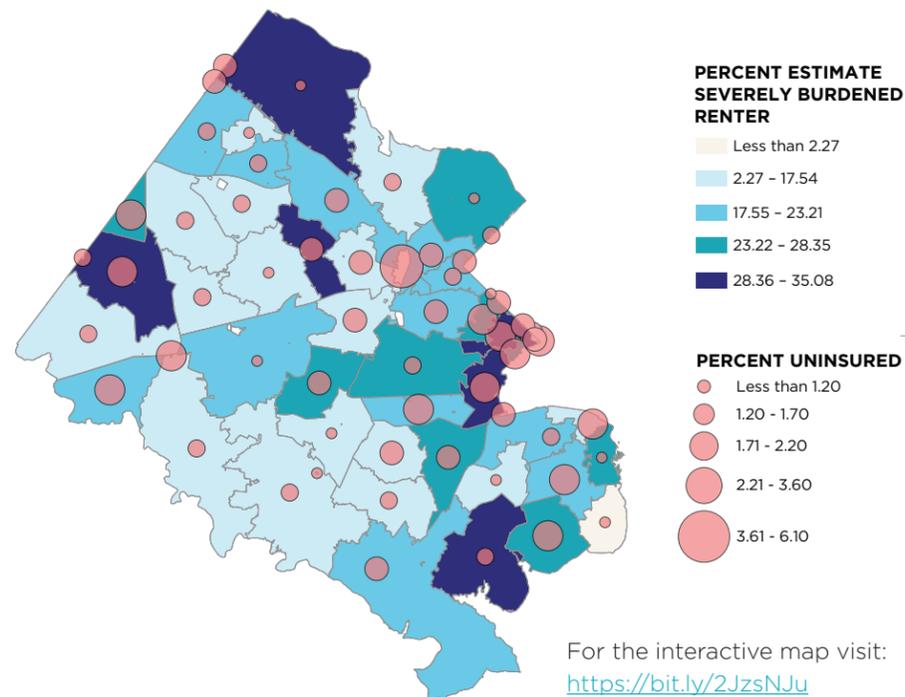
With Black/African American, Hispanic, and Native American residents living disproportionately in disadvantaged neighborhoods, they are more likely to experience chronic stress and other burdens that negatively contribute to health risks.<sup>59</sup>

While housing disparities have a long history, racial disparities in housing accelerated during the recession of 2008. Hispanic families lost 66% of their wealth through foreclosure and Black/African American families lost 53%, compared to White families that lost 16%. Nationally, the recession's aftermath not only altered the housing landscape, but left behind an uneven recovery that has economic and health consequences today.<sup>60</sup>

The impacts of home foreclosure adversely affect outcomes associated with health and mental health, including depression, anxiety, increased alcohol use, psychological distress, and suicide.<sup>61</sup>

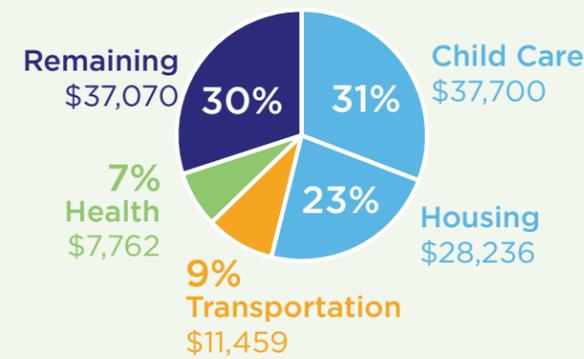
Layering the severely rent burdened population on top of the uninsured population, pockets of health implications become prevalent. **(Figure 10)**

**FIGURE 10: SEVERELY RENT BURDENED WITH UNINSURED POPULATION<sup>62</sup>**

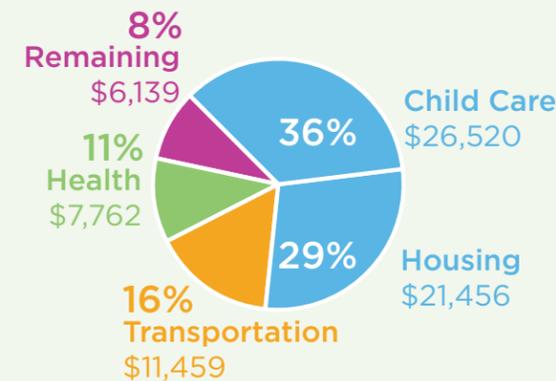


**THE VULNERABILITY OF OUR COUNTY'S RESIDENTS: A STORY OF TWO FAMILIES**

Typical health-related expenses are difficult to estimate due to the multitude of variables that may impact health care expenditures, such as the range of coverage, employee benefits, and affiliated costs. Costs are estimated at \$7,762 for both families. (<https://livingwage.mit.edu/counties/51059>)



For Family A, this is roughly 7% of their income. 70% of Family A's income is spent for housing, child care, transportation, and health costs, leaving roughly 30% or \$37,070 annually, or \$3,089 monthly for food, clothing, taxes, emergency expenses, or other necessities.



For Family B, a low-income family, this is approximately 11% of the family's income. When you consider child care, housing, transportation, and health costs, a low-income family would be paying over 92% of their income to pay these four expenses, leaving 8% or \$6,139 annually, or \$511 monthly for food, clothing, taxes, emergency expenses, or other necessities. While these are only estimates, this is the reality for many working families in the community.

As we've seen throughout this report, economic, transportation, and health inequities are interwoven, and often times disproportionately impact the community by race, age, and gender. Understanding how these trends impact the community empowers leaders with knowledge to initiate these difficult dialogues to influence and drive change, which will ultimately provide opportunities to change the trajectory of the current challenges. As we've mentioned earlier, Health and Human Services cannot do this alone. The county must invest in the future and leverage a comprehensive approach to addressing these complex issues.

## LEVERAGING A COMPREHENSIVE APPROACH TO ADDRESS COMPLEX ISSUES

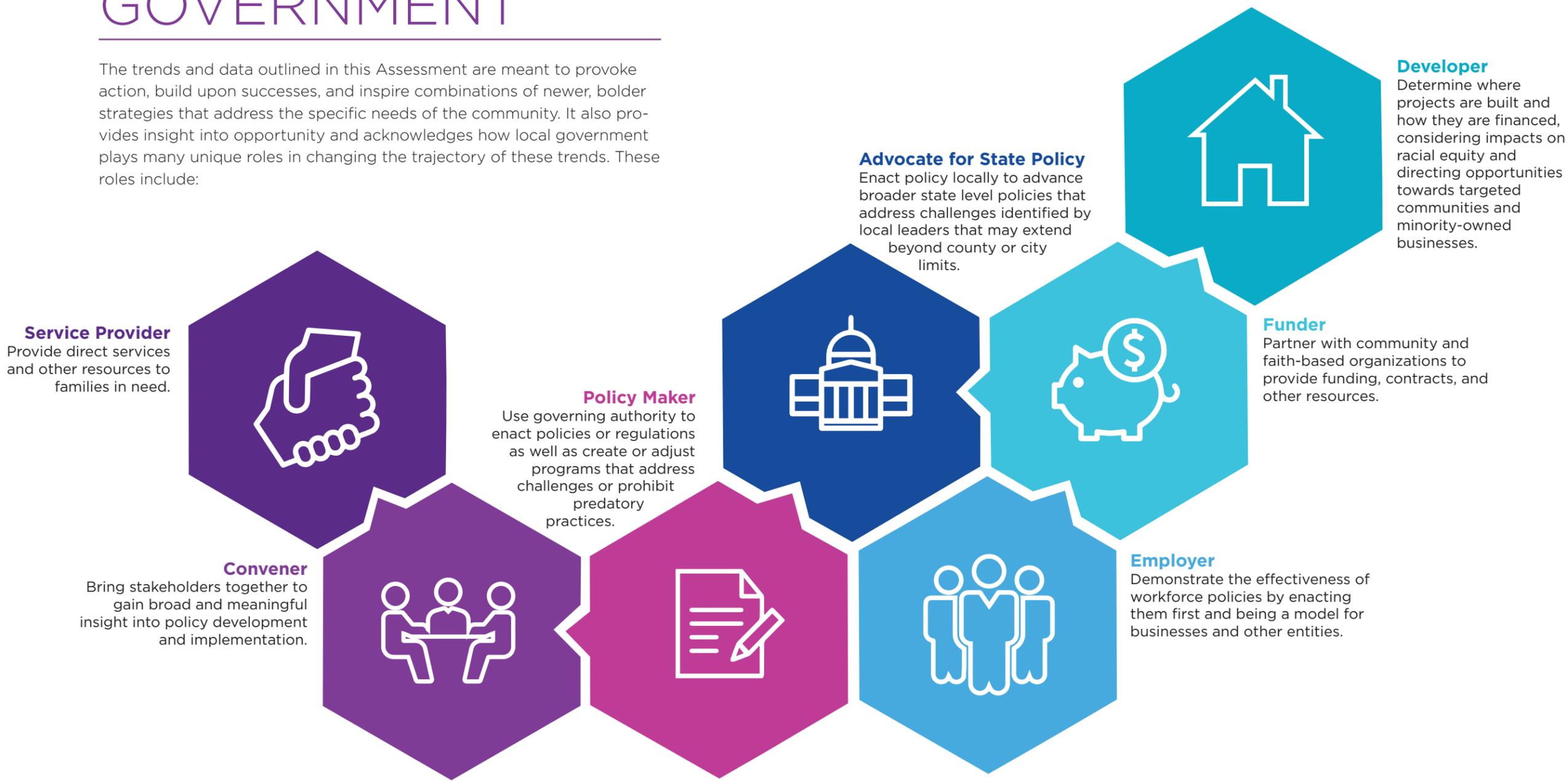
Health and Human Services has long strived for a community where every individual can achieve his or her full potential. Yet, in many pockets in the county, as this Assessment illustrates, the challenges to realizing this vision continue to remain deep and complex, resulting in inequities in opportunity and health outcomes.

Solutions require a comprehensive and collaborative approach. To change the trajectory of these trends and fully invest in the future, Health and Human Services cannot do it alone.

The county has invested in many strategic initiatives that have begun to integrate planning efforts across areas of work, helping to shape the future of the community. They include One Fairfax, affordable housing, early childhood learning, integrated health, opioid prevention and treatment, and Diversion First. Additionally, Fairfax County's overall Strategic Planning process is an overarching approach to align efforts and *"Shape the Future Together."* HHS' response has prompted greater integration across sectors to resolve complex challenges in the community, but there is still more to do.

# ROLE OF GOVERNMENT

The trends and data outlined in this Assessment are meant to provoke action, build upon successes, and inspire combinations of newer, bolder strategies that address the specific needs of the community. It also provides insight into opportunity and acknowledges how local government plays many unique roles in changing the trajectory of these trends. These roles include:



Source: Condensed from Prosperity Now, "A Municipal Policy Blueprint for a More Inclusive Path for Prosperity"

Working toward shared agendas, whether it is in collaboration within the community or across departments within the organization, can be challenging; but questioning and changing the framework can be a powerful tool to meet the needs of the community by investing in policy, equity, and infrastructure strategies.

# APPENDIX A

## WHAT CAN YOU DO?

### A REFERENCE FOR COMMUNITY STAKEHOLDERS

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To change the trajectory of these trends and fully invest in the future, community stakeholders can begin by:

#### *Learning about the challenges facing residents and sharing this information with others*

- Read the Assessment and learn how Fairfax County and the needs of the community are changing
- Share the report findings with your neighbors, friends, members of your faith community, co-workers, and others to increase awareness and help spur community dialogue
- Follow the Fairfax County strategic planning efforts to learn about the priorities and how they impact you

#### *Giving back to your community with your time, expertise, and voice*

- Identify and undertake a local project to help address a need in your community
- Volunteer with a local non-profit organization
- Become an active member of a community group, or public board, authority, or commission to provide feedback and share expertise

#### *Working together to realize stronger outcomes*

- Identify and develop new partnerships that address needs
- Bring together individuals from diverse backgrounds, experiences, and disciplines to provide greater opportunities for social and economic mobility
- Continue to strengthen partnerships between the private and public sectors to leverage resources, skills, and knowledge
- Share information, expertise, and resources through social media and other tools to collectively build solutions

#### *Building a better tomorrow for all residents*

- Evaluate policies and practices within your organization that could be modified to better serve residents and address needs
- Utilize findings from the report to help guide organizational planning and decision-making

# ENDNOTES

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- 1 Virginia Department of Health. (2019). Retrieved using data portal from <http://www.vdh.virginia.gov/data>
- 2 Virginia Department of Health. (2017). Retrieved from <http://www.vdh.virginia.gov/content/uploads/sites/18/2019/04/Annual-Report-2017.pdf>
- 3 Scholl L, Seth P, Kariisa M, Wilson N, Baldwin G. (2019, January). Morbidity and Mortality Weekly Report. *Drug and Opioid-Involved Overdose Deaths – United States, 2013–2017*. Centers for Disease Control and Prevention. Retrieved from [https://www.cdc.gov/mmwr/volumes/67/wr/mm675152e1.htm#T1\\_down](https://www.cdc.gov/mmwr/volumes/67/wr/mm675152e1.htm#T1_down)
- 4 Virginia Department of Health, Office of the Chief Medical Examiner. Retrieved from <http://www.vdh.virginia.gov/medical-examiner/>
- 5 Health and Human Services, Fairfax County. (2018). Fairfax County Youth Survey. Retrieved from <https://www.fairfaxcounty.gov/health-humanservices/fairfax-county-youth-survey>
- 6 Health and Human Services, Fairfax County. (2018). Fairfax County Youth Survey. Retrieved from <https://www.fairfaxcounty.gov/health-humanservices/fairfax-county-youth-survey>
- 7 Fairfax County Public Schools. Home Language Survey. 2015–2016 School Year. Retrieved from Demographic, Economic and Statistical Research, Department of Management and Budget <https://www.fairfaxcounty.gov/demographics/languages-spoken-home-fairfax-county-elementary-students>
- 8 U.S. Census Bureau, 2013–2017 American Community Survey Estimates. Data apporportioned using Esri’s Business Analyst Desktop Software.
- 9 Demographic, Economic and Statistical Research, Department of Management and Budget, Fairfax County, Virginia. 2019.
- 10 Demographic, Economic and Statistical Research, Department of Management and Budget, Fairfax County, Virginia. 2019.
- 11 The Stephen S Fuller Institute. (2018). *What does Amazon’s HQ2 mean for the Washington Region’s Housing Market?* Retrieved from <https://sfullerstitute.gmu.edu/2018/11/13/amazon-housing-impacts/>
- 12 U.S. Census Bureau. (2018). American Community Survey. One Year Estimates. Retrieved using American Factfinder from <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>
- 13 Prosperity Now; Estimates based on data from U.S. Census Bureau American Community Survey and the Federal Deposit Insurance Corporation, 2015.
- 14 The Center for Law and Social Policy (CLASP). (2017). *Equity Starts Early: Addressing Racial Inequities in Child Care and Early Education Policy*. Retrieved from [https://www.clasp.org/sites/default/files/publications/2017/12/2017\\_EquityStartsEarly\\_O.pdf](https://www.clasp.org/sites/default/files/publications/2017/12/2017_EquityStartsEarly_O.pdf)

- 15 The Center for Law and Social Policy (CLASP). (2017). *Equity Starts Early: Addressing Racial Inequities in Child Care and Early Education Policy*. Retrieved from [https://www.clasp.org/sites/default/files/publications/2017/12/2017\\_EquityStartsEarly\\_0.pdf](https://www.clasp.org/sites/default/files/publications/2017/12/2017_EquityStartsEarly_0.pdf)
- 16 The Center for Law and Social Policy (CLASP). (2017). *Equity Starts Early: Addressing Racial Inequities in Child Care and Early Education Policy*. Retrieved from [https://www.clasp.org/sites/default/files/publications/2017/12/2017\\_EquityStartsEarly\\_0.pdf](https://www.clasp.org/sites/default/files/publications/2017/12/2017_EquityStartsEarly_0.pdf)
- 17 American Progress. (2017) *Mapping America's Child Care Deserts*. Retrieved from <https://www.americanprogress.org/issues/earlychildhood/reports/2017/08/30/437988/mapping-americas-child-care-deserts/>
- 18 United States Department of Health and Human Services. (2016). *Federal Register*; Rules and Regulations. Child Care and Development Fund Program. Page 67440. Retrieved from <https://www.govinfo.gov/content/pkg/FR-2016-09-30/pdf/2016-22986.pdf>
- 19 Economic Policy Institute. (2019). Retrieved from <https://www.epi.org/child-care-costs-in-the-united-states/#/VA>
- 20 Office for Children. (2019). Child Care Assistance and Referral Learn More. Fairfax, VA: County of Fairfax. Retrieved from <https://www.fairfaxcounty.gov/office-for-children/ccar/learn-more>.  
\*Methodology: Median weekly cost for an infant in a child care center = \$395; 395 x 52 (weeks in a year) = \$20,540.
- 21 State Council for Higher Education in Virginia. Retrieved from <https://www.schev.edu/index/tuition-aid/in-state-tuition-fees>
- 22 Office for Children. (2019). Child Care Assistance and Referral Learn More. Fairfax, VA: County of Fairfax. Retrieved from <https://www.fairfaxcounty.gov/office-for-children/ccar/learn-more>
- 23 2019 County Health Rankings. (2019). Retrieved from <https://www.countyhealthrankings.org/reports/2019-county-health-rankings-key-findings-report>
- 24 Communitywide Housing Strategic Plan. (2018). Retrieved from <https://www.fairfaxcounty.gov/housing/sites/housing/files/assets/documents/communitywide%20housing%20strategic%20plan/communitywide%20housing%20strategic%20plan%20final.pdf>
- 25 County Health Rankings & Roadmaps. (2019, March). *2019 County Health Rankings Key Findings Report*. Retrieved from <http://www.countyhealthrankings.org/reports/2019-county-health-rankings-key-findings-report>
- 26 County Health Rankings & Roadmaps. (2019, March). *2019 County Health Rankings Key Findings Report*. Retrieved from <http://www.countyhealthrankings.org/reports/2019-county-health-rankings-key-findings-report>
- 27 U.S. Census Bureau, 2013–2017 American Community Survey Estimates. Data apportioned using Esri's Business Analyst Desktop Software.
- 28 Fairfax County Redevelopment and Housing Authority. (2018). Fiscal Year 2018, Annual Report. <https://www.fairfaxcounty.gov/housing/data/fy18annualreport>
- 29 Virginia Housing Development Authority. (2018). Retrieved from <https://www.vhda.com/BUSINESSPARTNERS/PROPERTYOWNERSMANAGERS/INCOME-RENT-LIMITS/Pages/HUDMedianIncome.aspx>
- 30 Communitywide Housing Strategic Plan. (2018). Retrieved from <https://www.fairfaxcounty.gov/housing/sites/housing/files/assets/documents/communitywide%20housing%20strategic%20plan/communitywide%20housing%20strategic%20plan%20final.pdf>
- 31 IPLS Data Dictionary. (2015). Retrieved from <https://www.fairfaxcounty.gov/demographics/sites/demographics/files/assets/datadictionary/ipls-data-dictionary-gis.pdf>
- 32 U.S. Census Bureau, 2013–2017 American Community Survey Estimates. Data apportioned using Esri's Business Analyst Desktop Software. Demographic, Economic and Statistical Research, Department of Management and Budget, Fairfax County, Virginia, 2019.
- 33 Bureau of Transportation Statistics. (2018, January). *TET 2017 – Chapter 6 – Household Spending on Transportation*. Washington, DC: United States Department of Transportation. Retrieved from <https://www.bts.gov/browse-statistical-products-and-data/transportation-economic-trends/tet-2017-chapter-6-household>
- 34 Glasmeier, Amy K. (2019). *Living Wage Calculator*. Retrieved from <http://livingwage.mit.edu/counties/51059>
- 35 Policy Link. (2016). *Transportation for All*. Retrieved from <https://www.policylink.org/sites/default/files/Transportation-for-All-FINAL-05-10-16.pdf>
- 36 U.S. Census Bureau. (2012–2016). *American Community Survey, Table B08122*. Retrieved using American Factfinder from <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>
- 37 Fairfax County. (2019) Strategic Plan, Preliminary Strategies. Retrieved from <https://www.fairfaxcounty.gov/strategicplan/>
- 38 Policy Link. (2009). *All Aboard! Making Equity and Inclusion Central to Federal Transportation Policy*. Retrieved from [http://equitycaucus.org/sites/default/files/AllAboard\\_final\\_web.pdf](http://equitycaucus.org/sites/default/files/AllAboard_final_web.pdf)
- 39 Greater Washington. (2018, September). *Bus transformation #2: Integrate the region's bus systems*. Retrieved from <https://ggwash.org/view/69085/bus-transformation-2-integrate-the-regions-bus-systems>
- 40 Demographic, Economic and Statistical Research, Department of Management and Budget, Fairfax County, Virginia, 2019.
- 41 Fairfax County. Strategic Plan to Facilitate the Economic Success of Fairfax County. (2015) Retrieved from <https://www.fairfaxcounty.gov/economic-success/sites/economic-success/files/assets/documents/pdf/strategic-plan-facilitate-economic-success-2015.pdf>

- 42 Pew Research Center. (2010, December). *Baby Boomers Retire*. Retrieved from <https://www.pewresearch.org/fact-tank/2010/12/29/baby-boomers-retire/>
- 43 CISION PR Newswire. (2018, December). *New National Poll: Inability to Drive, Lack of Transportation Options are Major Concerns for Older Adults, People with Disabilities and Caregivers*. National Aging and Disability Transportation Center. Retrieved from <https://www.prnewswire.com/news-releases/new-national-poll-inability-to-drive-lack-of-transportation-options-are-major-concerns-for-older-adults-people-with-disabilities-and-caregivers-3-00761774.html>
- 44 CISION PR Newswire. (2018, December). *New National Poll: Inability to Drive, Lack of Transportation Options are Major Concerns for Older Adults, People with Disabilities and Caregivers*. National Aging and Disability Transportation Center. Retrieved from <https://www.prnewswire.com/news-releases/new-national-poll-inability-to-drive-lack-of-transportation-options-are-major-concerns-for-older-adults-people-with-disabilities-and-caregivers-3-00761774.html>
- 45 Fairfax County, Office of Strategy Management. (2018, September). *Services for Older Adults and Persons with Disabilities*. Retrieved from <http://fairfaxcountygis.maps.arcgis.com/apps/webappviewer/index.html?id=76dfda1d5c0c41da8eae3d3923684146>
- 46 Woolf, Steven H., Chapman, Derek A., Hill, Latoya, and Snellings, Lauren K. (2017, November). *Getting Ahead, The Uneven Opportunity Landscape in Northern Virginia*. Richmond, Virginia: Northern Virginia Health Foundation. Retrieved from <https://novahealthfdn.org/wp-content/uploads/NVHF-Issue-Brief-FINAL.pdf>
- 47 SAMHSA. (2015, February). *Racial/Ethnic Differences in Mental Health Service Use among Adults*. Retrieved from <https://store.samhsa.gov/system/files/sma15-4906.pdf>
- 48 SAMHSA. (2015, February). Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health. 2008–2012. Retrieved from <https://www.integration.samhsa.gov/MHServicesUseAmongAdults.pdf>
- 49 American Addiction Centers. (2019, July). *What Are the Barriers to Accessing Addiction Treatment?* Retrieved from <https://americanaddictioncenters.org/rehab-guide/treatment-barriers>
- 50 American Addiction Centers. (2019, July). *What Are the Barriers to Accessing Addiction Treatment?* Retrieved from <https://americanaddictioncenters.org/rehab-guide/treatment-barriers>
- 51 Office of Disease Prevention and Health Promotion. (2019). *Access to Health Services*. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services>
- 52 National Center for Health Statistics. 2018. Health Insurance Coverage: Early Release of Estimates. From the National Health Interview Survey, January–March 2018. Retrieved from <https://www.cdc.gov/nchs/data/nhis/earlyrelease/Insur201808.pdf>
- 53 U.S. Census Bureau. (2017 1-Year Estimates). American Community Survey, Table S2701. Retrieved using American Factfinder from <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>
- 54 U.S. Census Bureau. (2017 1-Year Estimates). American Community Survey, Table S2701. Retrieved using American Factfinder from <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>
- 55 U.S. Census Bureau. (2017 1-Year Estimates). American Community Survey, Table S2701. Retrieved using American Factfinder from <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>
- 56 U.S. Census Bureau. (2017 1-Year Estimates). American Community Survey, Table S2702. Retrieved using American Factfinder from <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>
- 57 U.S. Census Bureau, 2013–2017 American Community Survey Estimates. Data obtained using Esri’s Business Analyst Desktop Software.
- 58 U.S. Census Bureau. (2017 1-Year Estimates). American Community Survey, Table S2702. Retrieved using American Factfinder from <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>
- 59 PolicyLink and The Kresge Foundation. *Healthy Communities of Opportunity: An Equity Blueprint to Address America’s Housing Challenges*. Retrieved from [https://www.policylink.org/sites/default/files/HCO\\_Web\\_Only.pdf](https://www.policylink.org/sites/default/files/HCO_Web_Only.pdf)
- 60 PolicyLink and The Kresge Foundation. *Healthy Communities of Opportunity: An Equity Blueprint to Address America’s Housing Challenges*. Retrieved from [https://www.policylink.org/sites/default/files/HCO\\_Web\\_Only.pdf](https://www.policylink.org/sites/default/files/HCO_Web_Only.pdf)
- 61 National Institute of Health. (2015). *Home Foreclosure, Health, and Mental Health: A Systematic Review of Individual, Aggregate, and Contextual Associations*. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4388711/>
- 62 U.S. Census Bureau, 2013–2017 American Community Survey Estimates. Data apportioned using Esri’s Business Analyst Desktop Software.





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