

# STATE OF THE REGION

Human Capital Report

# 2017



Metropolitan Washington  
Council of Governments

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The Metropolitan Washington Council of Governments (COG) is an independent, nonprofit association that brings area leaders together to address major regional issues in the District of Columbia, suburban Maryland and Northern Virginia. COG's membership is comprised of 300 elected officials from 23 local governments, the Maryland and Virginia state legislatures, and U.S. Congress.

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# STATE OF THE REGION

## Human Capital Report

FEBRUARY 2017

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## MESSAGE FROM THE CHAIRMAN

Metropolitan Washington is home to world-class colleges and universities, an extensive transportation network, national monuments, and acres of public space. But our region's most valuable asset is our diverse and talented people, our human capital. Our residents are known for fostering entrepreneurship, cultivating innovation, and shaping vibrant communities that attract talent from across the nation and world.

At the Metropolitan Washington Council of Governments (COG), leaders from across the District, Maryland, and Virginia come together to address challenges facing the entire region—such as ensuring that 5.3 million residents are breathing clean air, and that they have access to safe, efficient transportation. In addition to bringing leaders together to help create and preserve great places, we are also committed to helping our residents prosper and grow. And despite all that we have going for us, there is still much to be done to ensure that the future of the region is bright.

Given the increasing competition both nationally and internationally, COG has made it a priority to work collaboratively to strengthen the region's economy. Last year, the COG Board focused on the overall economic competitiveness of the region. In addition to providing area leaders with an analysis of the economic climate in the *State of the Region: Economic Competitiveness Report*, COG, the Greater Washington Board of Trade, and Consortium of Universities for the Washington Metropolitan Area participated in the Global Cities Initiative (GCI) to develop a plan to boost our exports. COG continues to work with partners on re-branding the region to better emphasize our assets and offer an alternative to the “government town” image. From these efforts, it is clear that the region must continue to diversify the economy and grow jobs—all while investing in the people that will fill those new positions: our human capital.

The COG Board will be working to strengthen workforce development and human services in 2017—starting with the release of this in-depth analysis. From aligning education and job creation, to considering how sound land use planning can retain and attract employers, I look forward to the innovative ways we will work together this year to support the human infrastructure needed for economic growth and prosperity in our region.



**KENYAN MCDUFFIE**  
2017 COG Board Chairman  
District of Columbia

A handwritten signature in black ink that reads "K. R. McDuffie". The signature is stylized and written in a cursive-like font.

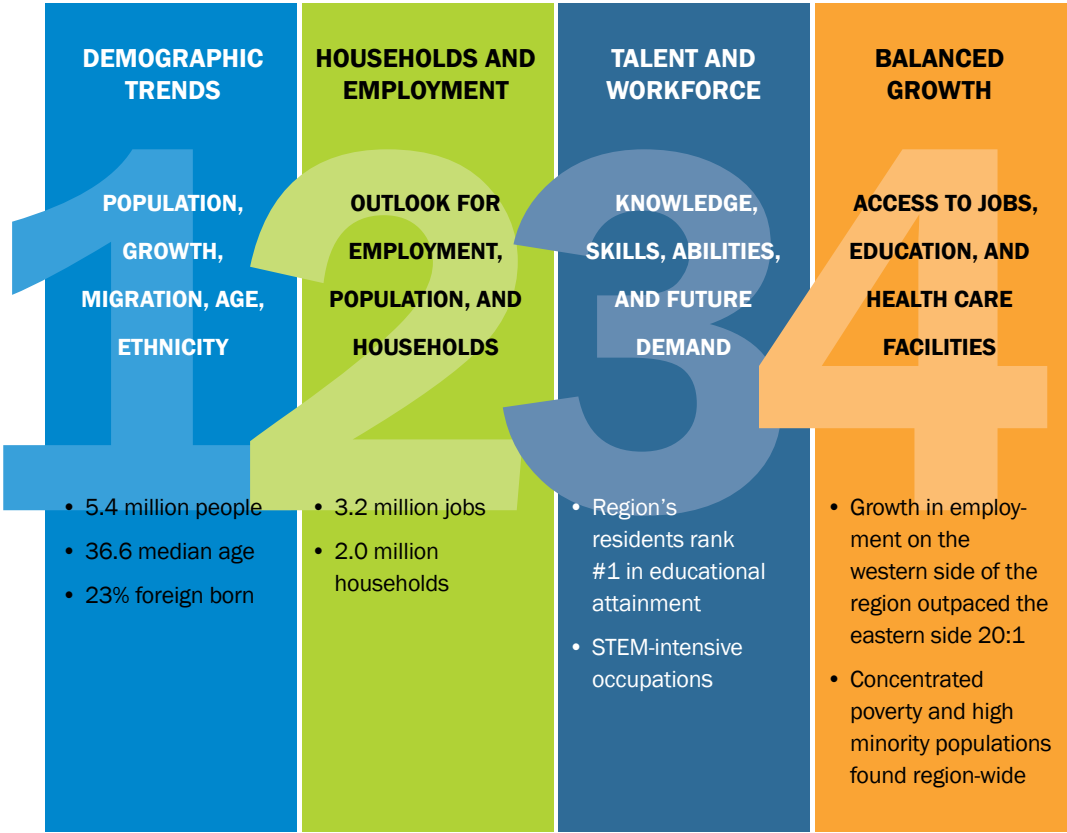


# EXECUTIVE SUMMARY

With a knowledge economy, much of metropolitan Washington’s prosperity can be attributed to its residents. Among the region’s greatest riches are the collective ideas, expertise, aptitudes, and attitudes of its residents: human capital. Human capital is not an asset or property owned by the region, nor is it a resource to be exploited; human capital belongs to the region’s individual inhabitants. In return for a package of tangible (wages, housing costs, commutes) and intangible (social and built environment) benefits, individuals invest their human capital in a region’s economy. *The State of the Region: Human Capital Report* is an account of the people living in metropolitan Washington, and an analysis of how they apply their unique human capital.

This report begins by describing the region’s population and recent growth, including demographic data such as migration, age, and ethnicity. Next, it details the latest outlook for households, population, and employment. It also provides a picture of the region’s talent, describing how it applies its knowledge, skills, and abilities, and what talent is needed now and into the future. The report acknowledges that the region’s prosperity is not realized equally by all residents, and describes equity emphasis areas, small areas that have concentrations of low-income populations and minority populations. In the final section, the Metropolitan Washington Council of Governments’ (COG) community and business partners and several of the region’s workforce investment boards give their perspective on the region’s human capital.

## The Components of Human Capital



Credit: Metro 7000 Series Car (Aimee Custis Photography/Flickr)



*Credit: District Condos (Elvert Barnes/Flickr)*

## Opportunities to Support the Region’s Human Capital

1. **Support investment in economic clusters** – Capitalize to focus on the seven regional economic clusters: advocacy, information and communications technology, science and security technology, biology and health technology, business and financial services, media and information services, and leisure and business hospitality services to help grow the region’s current export economy, support systems, and attract talent to the region.
2. **Continue to study and invest in Activity Centers** – Analyze performance of individual Activity Centers among other centers of the same place type or opportunity type, or within the same jurisdiction, to identify “high performers.”
3. **Support workforce development through infrastructure investment** – Continue advancing workforce development and job opportunities, especially among low-income and low-skill workers in the region’s rapidly growing stormwater infrastructure sector, which is expected to receive \$10 billion in investment in the next decade.
4. **Collaborate with Workforce Investment Boards (WIBs) and Workforce Investment Councils (WICs)** – Partner with the WIBs and WICs in the District of Columbia, Maryland, and Virginia to implement workforce development strategies throughout the region. Align workforce development with education services and the needs of employers to make sure resources are integrated with the needs of the employment market.
5. **Advance strategies for inclusive economic development** – Encourage strategies and programs to incorporate equity, transparency, sustainability, and community engagement in all aspects of economic development. Ensure equality of opportunity for all communities, especially those with higher unemployment levels.

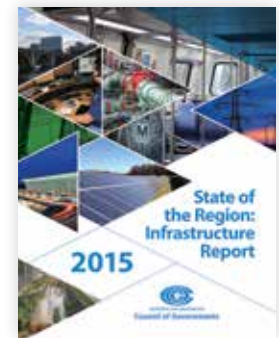
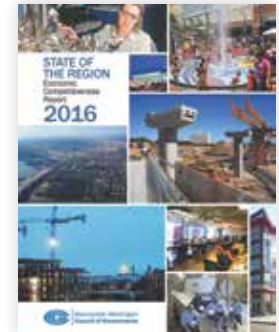


# OVERVIEW

This is the third *State of the Region* report produced by the Metropolitan Washington Council of Governments (COG). The first report, released in 2015, focused on infrastructure, while the second, released in 2016, examined economic competitiveness.

A region is woven together by its infrastructure, human capital, economy, and many other elements. Without the underlying infrastructure, there would not be a network to connect residents to utilities and jobs. Without a healthy economy, there would not be jobs to attract talent and pay for improvements to the built environment. And, without human capital, there would not be new ideas to fuel the economy. The balance and interconnected relationships of these elements determine a region's prosperity, accessibility, livability, and sustainability.

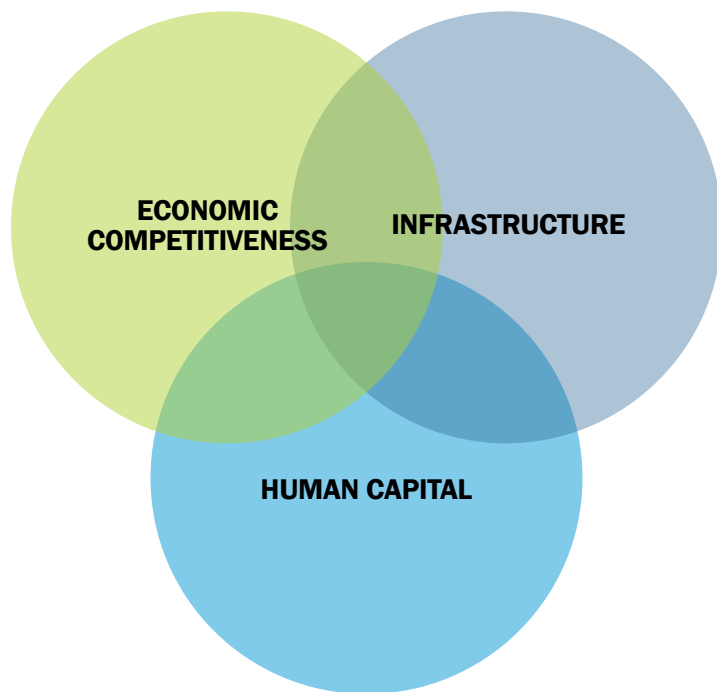
The *State of the Region: Human Capital Report* captures a combined view of a population through education, employment, and workforce. The knowledge and skills that each individual possesses can directly correlate to economic value and the increased economic success of a community. Human capital can influence a region's social environment, political environment, education system, and public and private institutions. This report takes a deeper dive into the human capital of the region to identify ways to improve future workforce planning and create a more livable community to continue attracting individuals to the region.



The past two *State of the Region* reports highlighted infrastructure and economic competitiveness.

Figure 1

## Elements of a Region



The balance and interconnected relationships of Economic Competitiveness, Infrastructure, and Human Capital determine a region's prosperity, accessibility, livability, and sustainability.

# RECENT TRENDS IN METROPOLITAN WASHINGTON'S HUMAN CAPITAL

For this report, metropolitan Washington is defined as the membership of COG, as shown in the map to the right. This report also includes data for the federally defined Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Area (Washington MSA), which encompasses several adjacent counties and cities outside of COG's membership.

## Population and Recent Growth

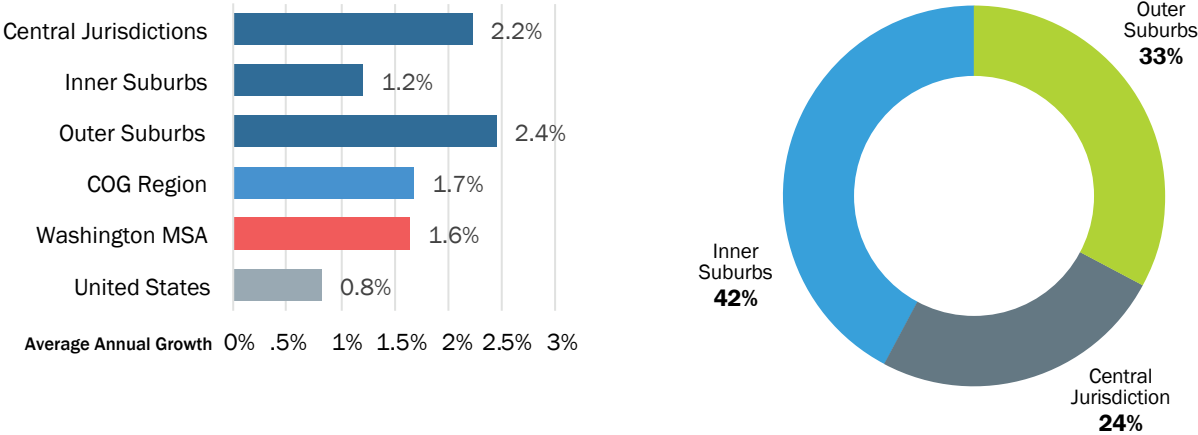
Nearly 5.4 million people reside in metropolitan Washington. Between 2010 and 2015 the region added 423,400 residents, an increase of 8.4 percent. This calculates to an average annual population growth rate of 1.7 percent, which is well above the national growth rate of 0.8 percent. The most populous jurisdiction is Fairfax County with more than 1.1 million people, followed by Montgomery County with more than 1 million people, and Prince George's County with more than 900,000 people.

Since 2010, most of the region's growth has occurred in the inner suburbs, where population increased by 177,900 people or 6 percent, or an average annual growth rate of 1.2 percent. The outer suburbs, with the addition of 139,900 people, grew by 12.2 percent or an average annual growth rate of 2.4 percent. The region's central jurisdictions added 105,400 people, an increase of 11.1 percent, or an average annual growth rate of 2.2 percent. Despite the dramatic growth rates in the outer suburbs and the central jurisdictions, the population remains anchored in the inner suburbs, where 57 percent of the region's population lives.

Metropolitan Washington includes 23 jurisdictions featuring urban, suburban, and rural communities that range in size from 10,000 to more than one million residents.

Figure 2

### Average Annual Population Growth and Share of Growth, 2010-2015



Source: Census Bureau, Population Division, and COG

Figure 3



Table 1

### Population Estimates, 2010 and 2015

	2010	2015	AVERAGE ANNUAL CHANGE, 2010-2015	PERCENT AVERAGE ANNUAL CHANGE, 2010-2015
District of Columbia	601,800	672,200	14,500	2.3%
Arlington County	207,700	229,200	4,725	2.2%
City of Alexandria	140,000	153,500	2,850	2.0%
Montgomery County	971,800	1,040,100	14,675	1.5%
Prince George's County	863,500	909,500	9,975	1.1%
Fairfax County	1,081,700	1,142,200	14,325	1.3%
City of Fairfax	22,500	24,000	300	1.3%
City of Falls Church	12,300	13,900	300	2.4%
Loudoun County	312,300	375,600	12,800	3.9%
Prince William County	402,000	451,700	10,750	2.6%
City of Manassas	37,800	41,800	900	2.3%
City of Manassas Park	14,200	15,700	400	2.7%
Charles County	146,600	156,100	2,025	1.4%
Frederick County	233,400	245,300	2,525	1.1%
Metropolitan Washington	5,047,600	5,471,000	91,050	1.7%
Washington MSA	5,636,400	6,097,700	99,375	1.6%
United States	308,758,100	321,418,800	2,537,325	0.8%

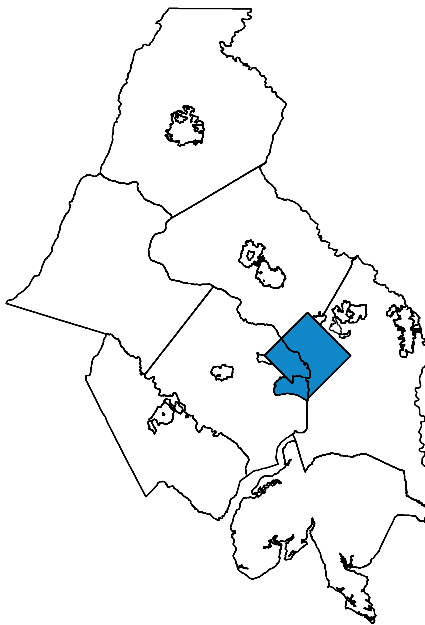
Source: Census Bureau, Population Division and COG.



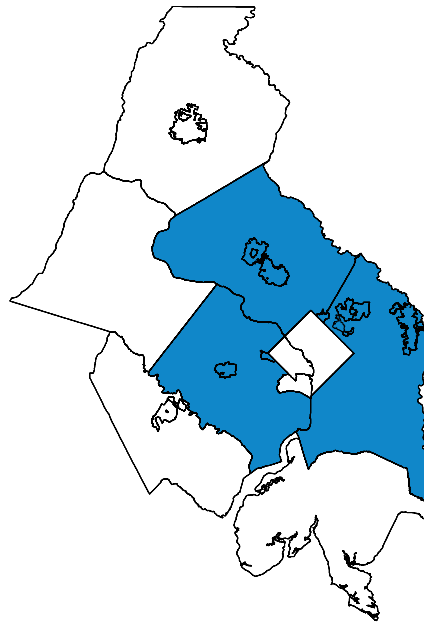
Credit: Urban Living (Dewita Soeharjono/Flickr)

Figure 4

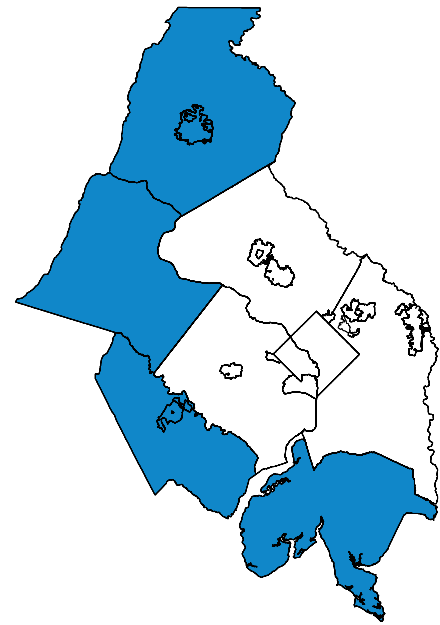
### Central Jurisdictions, Inner Suburbs, and Outer Suburbs



Central Jurisdictions: District of Columbia, City of Alexandria, and Arlington County.



Inner Suburbs: Town of Bladensburg, City of Bowie, City of College Park, City of Gaithersburg, City of Greenbelt, City of Hyattsville, Montgomery County, Prince George's County, City of Rockville, City of Takoma Park, City of Fairfax, Fairfax County, and City of Falls Church.



Outer Suburbs: Charles County, City of Frederick, Frederick County, Loudoun County, City of Manassas, City of Manassas Park, and Prince William County

The Census Bureau develops annual population estimates for all counties derived from components of population change, including births, deaths, domestic migration, and international immigration. As noted earlier, between April 1, 2010 and July 1, 2015, the total change in population for metropolitan Washington was 423,400 people, of which 234,700 people were the result of natural increase (births and deaths), while international immigration contributed 219,100 people to the population change. The region lost 27,900 people during this period due to domestic out-migration.

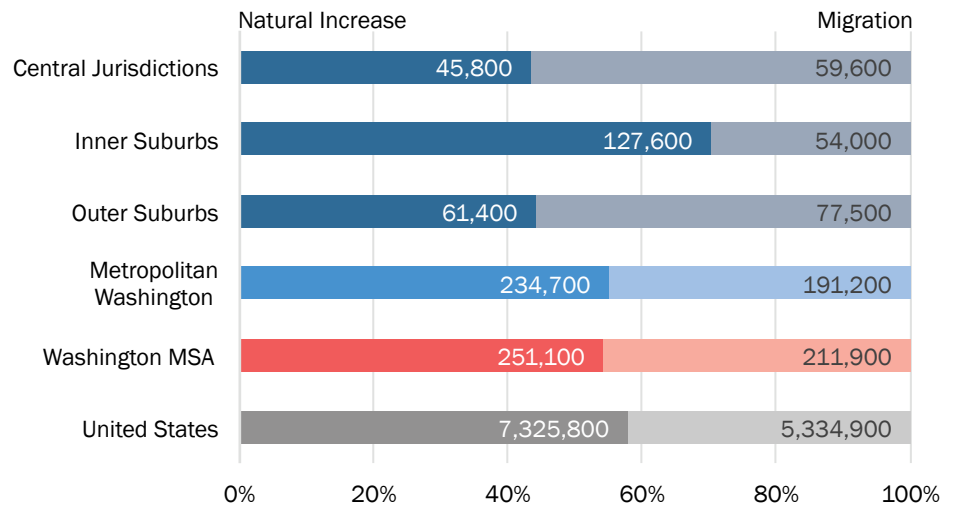
At the jurisdictional level, Fairfax County experienced the greatest population change due to natural increase with 53,100 people, followed by Montgomery County and Prince George's County with increases of 38,300 and 34,700 people, respectively. Concerning population change due to international immigration, Fairfax County again led the region with 55,700 people, followed by Montgomery County with 52,300 people, and Prince George's County with 33,000 people. Loudoun County saw the greatest change due to net domestic in-migration with 29,100 people, followed by the District of Columbia with 25,600 people. Fairfax and Montgomery Counties experienced a net domestic out-migration with 46,500 people and 21,500 people moving from those jurisdictions, respectively.

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**Over half of the population growth in the Central Jurisdictions and Outer Suburbs is due to migration.**

Figure 5

### Components of Population Change 2010-2015



Source: Census Bureau, Population Division and COG

Table 2

### Components of Population Change 2010-2015

	NATURAL INCREASE	INTERNATIONAL MIGRATION	DOMESTIC MIGRATION	TOTAL CHANGE
District of Columbia	23,700	20,800	25,600	70,500
Arlington County	11,500	12,100	-2,100	21,500
City of Alexandria	10,600	10,900	-7,700	13,500
Montgomery County	38,300	52,300	-21,500	68,300
Prince George's County	34,700	33,000	-20,500	46,000
Fairfax County	53,100	55,700	-46,500	60,500
City of Fairfax	1,000	1,000	-600	1,500
City of Falls Church	500	500	600	1,600
Loudoun County	20,700	12,900	29,100	63,300
Prince William County	26,400	12,700	10,500	49,700
City of Manassas	2,700	1,500	-300	3,900
City of Manassas Park	800	500	100	1,500
Charles County	4,700	1,400	3,300	9,600
Frederick County	6,100	3,900	1,900	11,900
Metropolitan Washington	234,700	219,100	-27,900	423,400
Washington MSA	251,100	224,500	-12,600	461,300
United States	7,325,800	5,334,900	N/A	12,660,700

Source: Census Bureau, Population Division. Note: May not sum to total due to rounding. Total population change includes a residual. This residual represents the change in population that cannot be attributed to any specific demographic component. See population Estimates Terms and Definitions at: <http://www.census.gov/popest/about/terms.html>.

## Age and Gender

In 2015, the Washington MSA had a median age of 36.6 years, slightly lower than the United States median age of 37.8 years. Among COG member governments, Frederick County and the City of Fairfax have the highest median age with 39 years, while the City of Manassas has a population with the youngest median age.

Of the 6.1 million people who live in the Washington MSA, 48.9 percent are male and 51.1 percent are female. From birth through 19 years there are slightly more males (51 percent) than females (49 percent). This ratio begins to gradually shift after age 25 and culminates with shares of 65.5 percent female and 34.5 percent male for those 85 years and older.

Table 3

### Median Age, 2015

JURISDICTION	MEDIAN AGE
City of Manassas	33.7
District of Columbia	33.8
City of Manassas Park	34.0
Arlington County	34.3
Prince William County	34.5
Loudoun County	35.7
Prince George's County	36.5
City of Alexandria	36.5
Fairfax County	37.7
Charles County	37.8
City of Falls Church	38.3
Montgomery County	38.9
Frederick County	39.0
City of Fairfax	39.0
Washington MSA	36.6
United States	37.8

Source: Census Bureau, Population Estimates (County and City Estimates); 2015 American Community Survey (ACS) 1-Year Estimates (United States and Washington MSA)

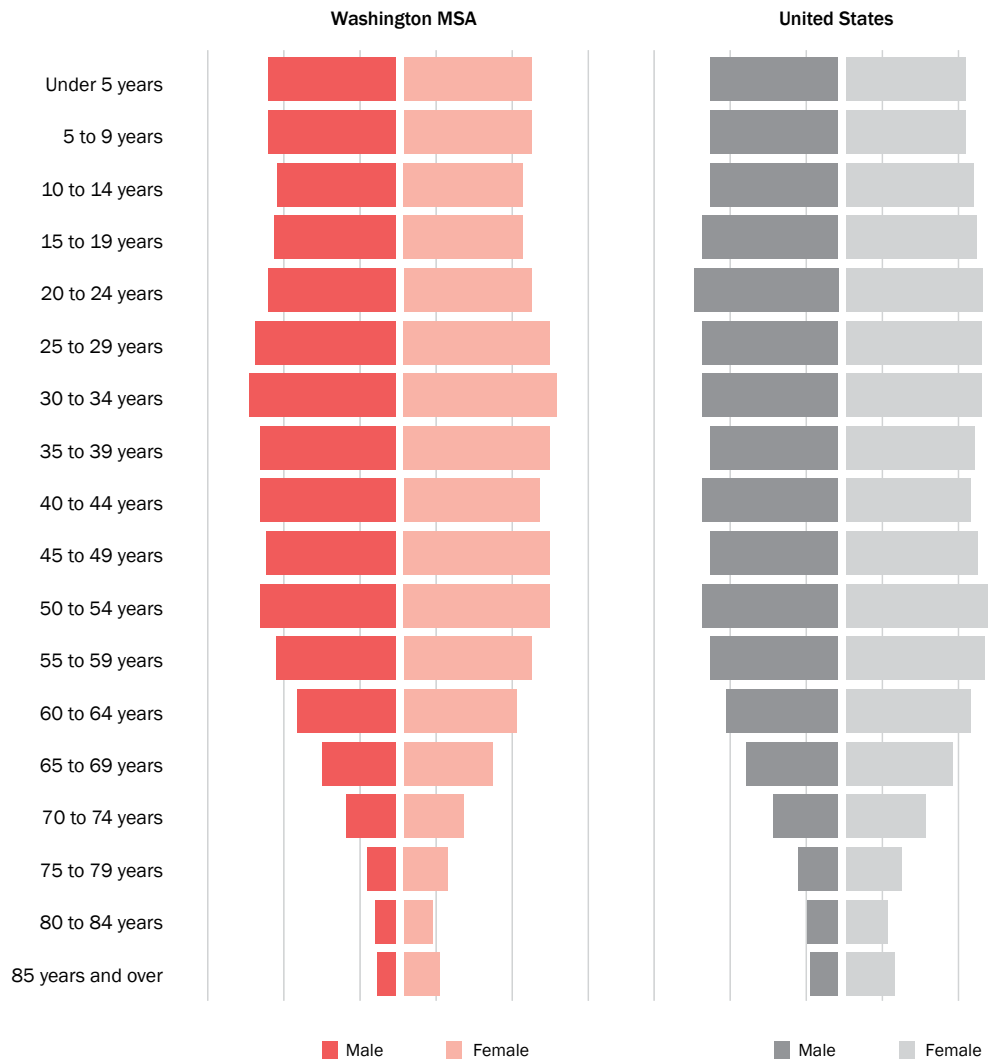


Credit: TedX (George Mason University/Flickr)

Figure 6

## Population Pyramid 2015

A slightly greater share of the population is between the working ages of 20 and 65 in the Washington MSA than United States, 62.6 percent versus 59.5 percent, respectively.



Source: Census Bureau, 2015 ACS 1-Year Estimates and COG

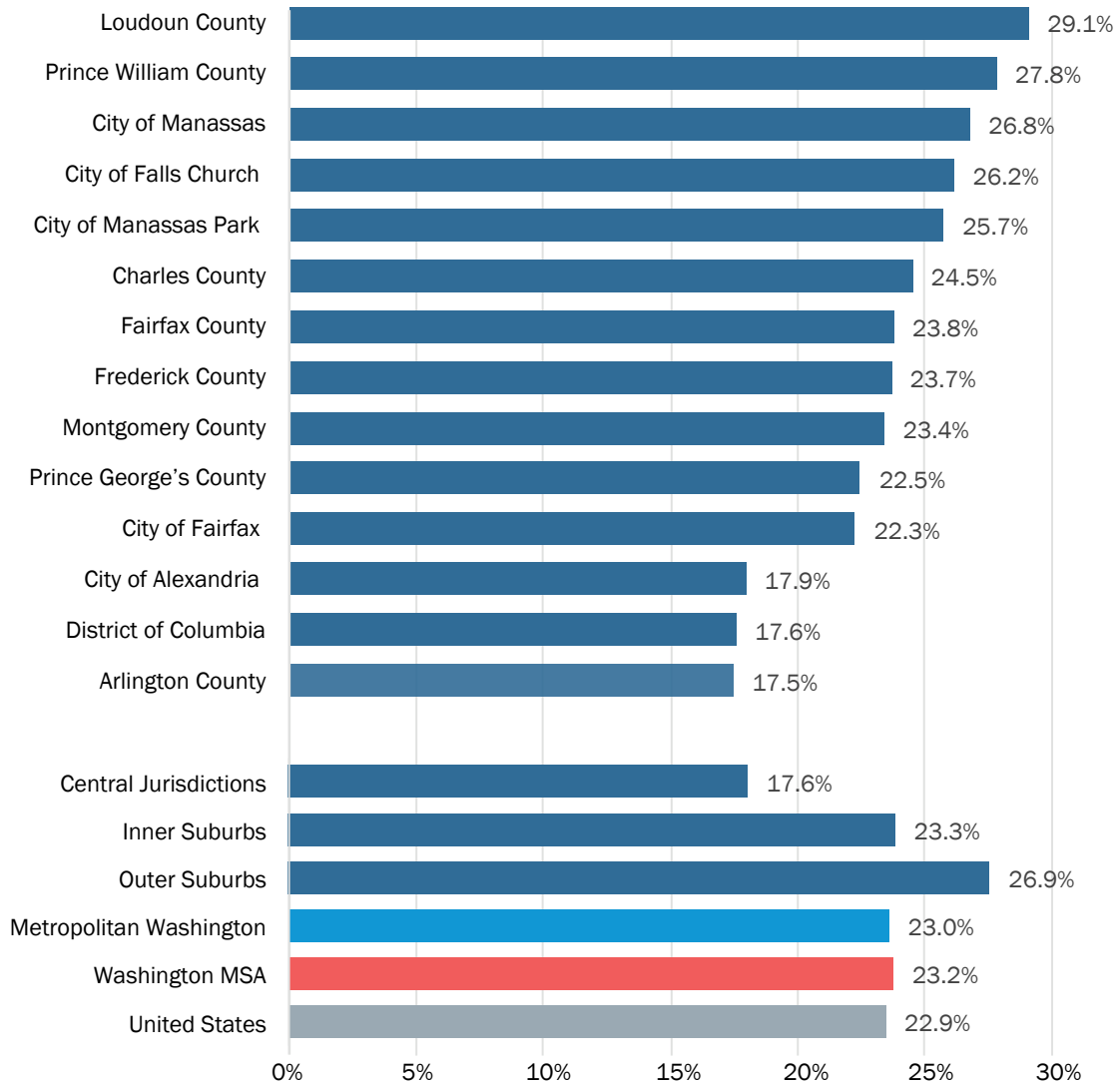
In the Washington MSA, 23.2 percent of the population or approximately 1.4 million people are under the age of 18, slightly higher than the U.S. share of 22.9 percent. The region's outer suburbs collectively have the highest local share of children with 26.9 percent. The jurisdictions with the highest percentage of children are Loudoun and Prince William Counties, 29.1 percent and 27.8 percent, respectively. The lowest proportion of children are found in Arlington County with 17.5 percent of the population and the District of Columbia with 17.6 percent.

Regarding older residents, 11.7 percent of the population in the Washington MSA are 'seniors,' age 65 and over, compared to the U.S. share of 14.9 percent. The inner suburbs collectively have the highest percentage of seniors with 12.6 percent. Among all COG jurisdictions, the City of Fairfax and Montgomery County have the largest local percentage of seniors with 16.2 percent and 14.1 percent, respectively. Loudoun County and the City of Manassas Park have the lowest percentage of seniors with 8.3 percent and 7.5 percent, respectively.



Figure 7

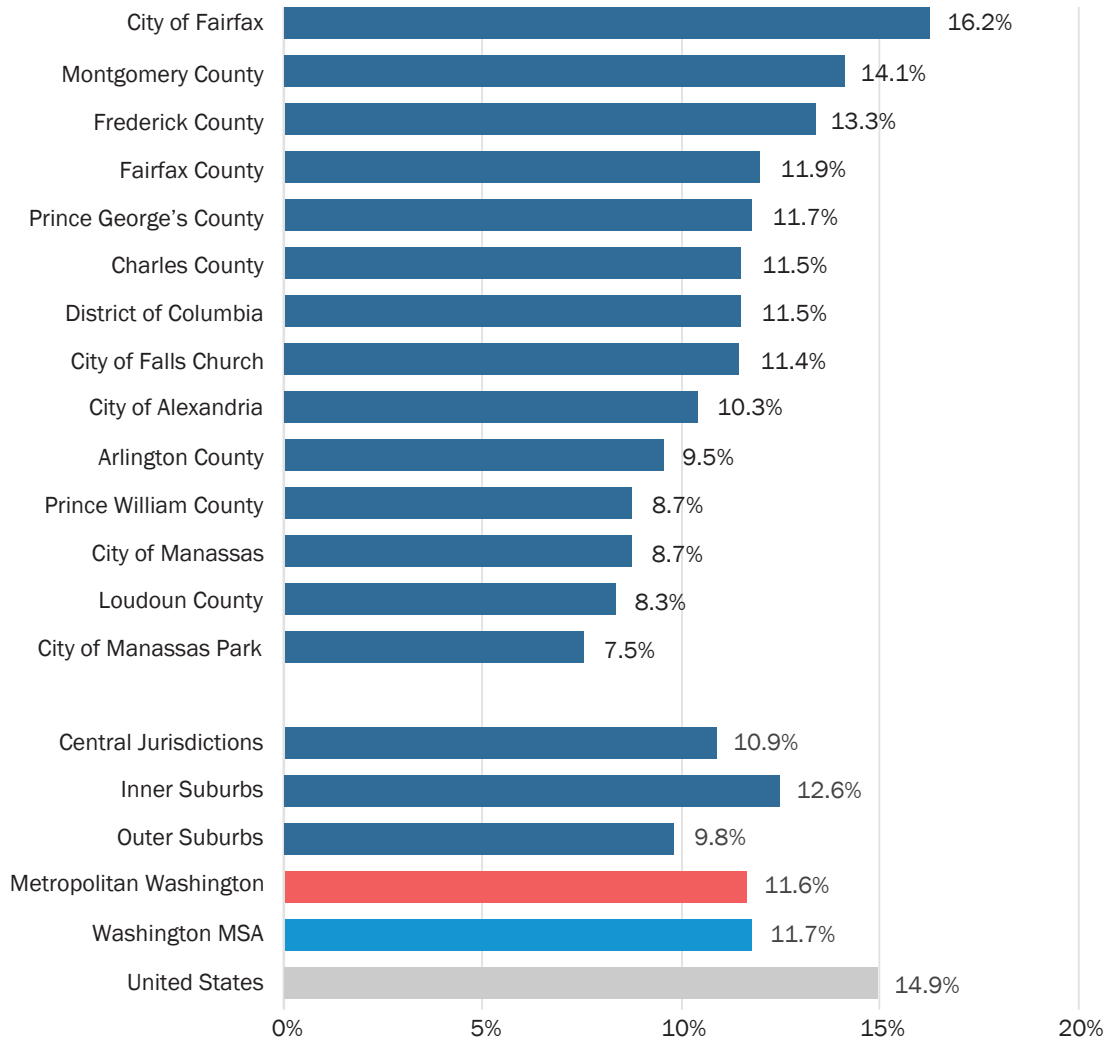
### Percentage of Population Under 18 2015



Source: Census Bureau, 2015 Population Estimates (County and City Estimates);  
2015 ACS 1-Year Estimates (United States and Washington MSA)

Figure 8

### Percentage of Population Age 65 and Over 2015



Source: Census Bureau, 2015 Population Estimates (County and City Estimates);  
2015 ACS 1-Year Estimates (United States and Washington MSA), and COG

# Race and Ethnicity

The Census Bureau estimated that the racial distribution of metropolitan Washington’s population in 2015 was 57 percent White, 28 percent Black or African American, 11 percent Asian, Hawaiian, or Pacific Islander, and 1 percent American Indian.

Frederick County and the City of Falls Church reported with the highest percentage of White population, 82 percent and 80 percent, respectively, while Charles County’s population is nearly even in terms of White (47 percent) and Black or African American (45 percent). Prince George’s County has the highest percentage of Black or African American population (65 percent), followed by the District of Columbia (48 percent). Fairfax County had the largest Asian, Hawaiian, and Pacific Islander population share with 19 percent followed by Loudoun County at 18 percent.

In metropolitan Washington, 16 percent of the population identifies as being Hispanic or Latino. (Persons who are Hispanic or Latino can be of any race, and are included in those totals.) At the jurisdictional level, the City of Manassas Park and City of Manassas have the highest local share of the Hispanic population.

Figure 9

## Population by Race and Ethnicity

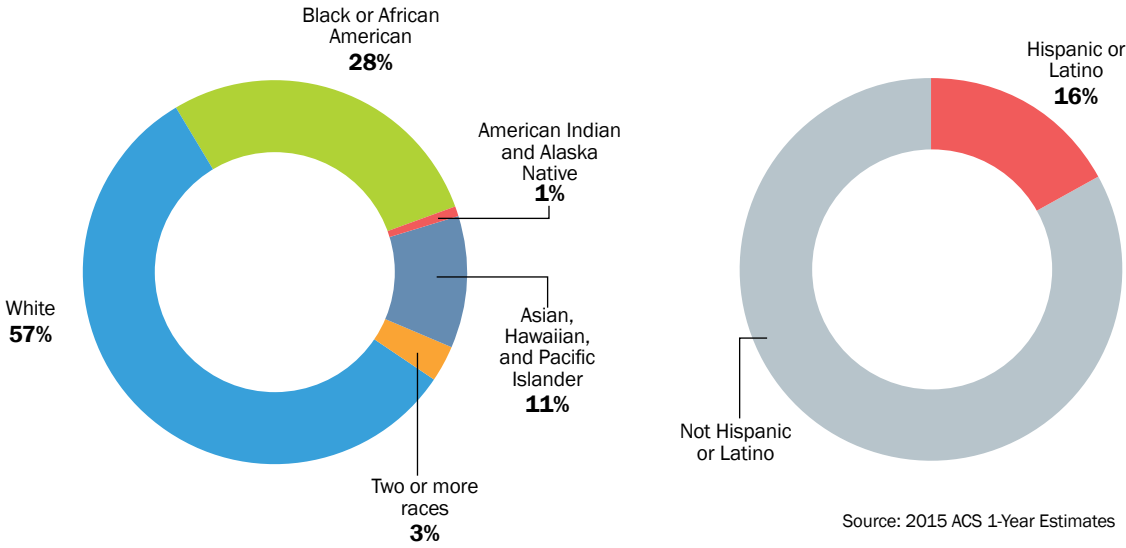


Table 4

### Population by Race and Ethnicity, 2015

JURISDICTION	TOTAL POPULATION ESTIMATE	POPULATION BY RACE					HISPANIC OR LATINO
		POPULATION OF ONE RACE					
		WHITE	BLACK OF AFRICAN AMERICAN	AMERICAN INDIAN AND ALASKA NATIVE	ASIAN, HAWAIIAN, AND PACIFIC ISLANDER	TWO OR MORE RACES	
District of Columbia	672,200	44%	48%	1%	4%	3%	11%
Arlington County	229,200	76%	9%	1%	11%	3%	16%
City of Alexandria	153,500	66%	23%	1%	7%	3%	17%
Montgomery County	1,040,100	61%	19%	1%	15%	3%	19%
Prince George's County	909,500	27%	65%	1%	5%	3%	17%
Fairfax County	1,142,200	66%	10%	1%	19%	4%	16%
City of Fairfax	24,000	73%	5%	1%	17%	3%	17%
City of Falls Church	13,900	80%	5%	0%	10%	5%	10%
Loudoun County	375,600	70%	8%	0%	18%	4%	14%
Prince William County	451,700	64%	22%	1%	9%	4%	22%
City of Manassas	41,800	73%	15%	1%	6%	4%	35%
City of Manassas Park	15,700	69%	15%	1%	11%	4%	37%
Charles County	156,100	47%	45%	1%	3%	4%	5%
Frederick County	245,300	82%	10%	0%	5%	3%	9%
Metropolitan Washington	5,471,000	57%	28%	1%	11%	3%	16%
Washington MSA	6,098,300	54%	25%	0%	10%	4%	15%
United States	321,418,800	73%	13%	1%	6%	3%	18%

Source: Census Bureau, 2015 Population Estimates (County and City Estimates); 2015 ACS 1-Year Estimates (United States and Washington MSA).  
 Note: Persons who are Hispanic or Latino can be of any race, and are included in those totals.

## Immigrants

The share of the local population that is foreign born has nearly doubled during the last 25 years, increasing from 12 percent in 1990 to 23 percent in 2015. Of the foreign born population in the Washington MSA in 2015, 39 percent came from Latin America, 36 percent from Asia, 15 percent from Africa, and 9 percent from Europe, Canada, or Oceania.

Figure 10

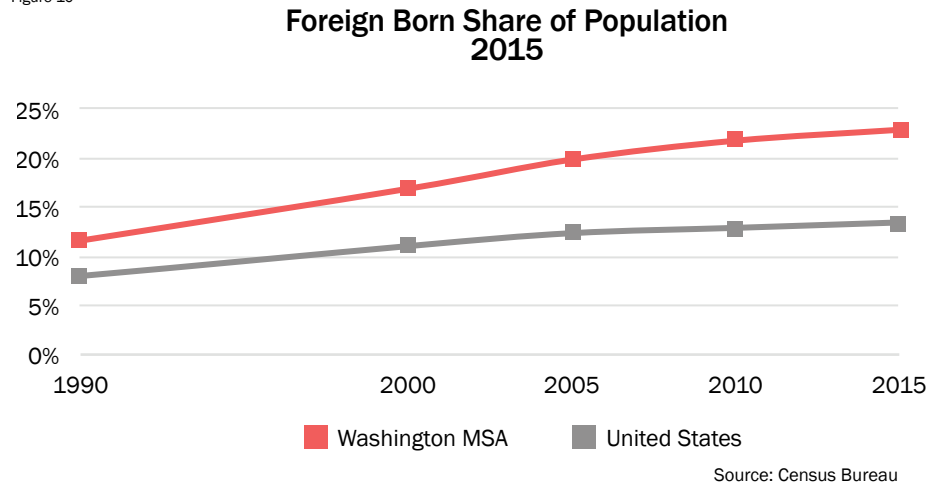
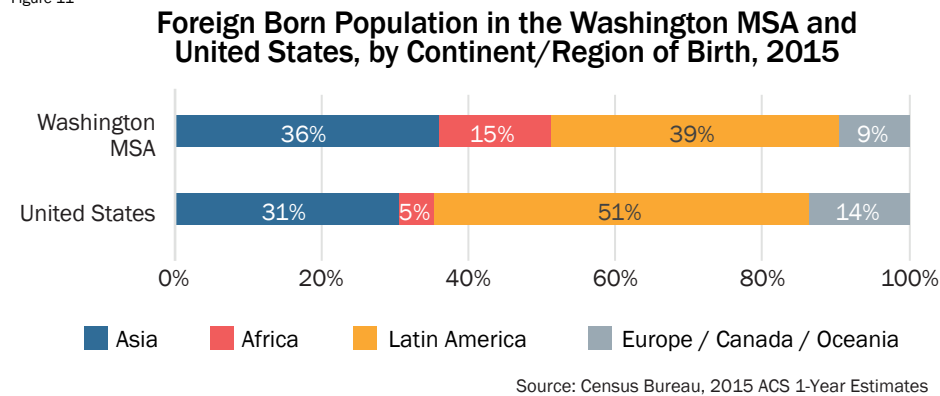


Figure 11



The most common country of origin for the foreign born population in metropolitan Washington is El Salvador with 207,300 people or 15 percent; this is five times higher than the national share. Nationally, the most common country of origin for foreign born residents is Mexico at 11.6 million persons or 27 percent, compared to approximately 3 percent for the Washington MSA.

Spanish is the second most common language in the Washington MSA. 2015 Census data show that 28.7 percent of the population spoke languages other than English in the home. This is significantly higher than the 21.5 percent at the national level.

Table 5

### Fifteen Most Common Countries of Origin for Foreign Born Population, 2015

WASHINGTON MSA			UNITED STATES		
Country of Origin	Total Foreign Born	Percent of Foreign Born	Country of Origin	Total Foreign Born	Percent of Foreign Born
El Salvador	207,300	15%	Mexico	11,643,300	27%
India	97,400	7%	China	2,676,700	6%
China	72,800	5%	India	2,389,600	6%
Korea	60,500	4%	Philippines	1,982,400	5%
Vietnam	53,100	4%	El Salvador	1,352,400	3%
Ethiopia	51,500	4%	Vietnam	1,300,500	3%
Philippines	49,600	4%	Cuba	1,210,700	3%
Mexico	46,300	3%	Dominican Republic	1,063,200	2%
Guatemala	41,300	3%	Korea	1,060,000	2%
Honduras	37,600	3%	Guatemala	927,600	2%
Peru	35,700	3%	Canada	830,600	2%
Pakistan	30,600	2%	Jamaica	711,100	2%
Bolivia	30,400	2%	Colombia	699,400	2%
Nigeria	28,400	2%	United Kingdom (inc. Crown Dependencies):	683,500	2%
Iran	20,800	1%	Haiti	675,500	2%
Other	534,000	38%	Other	14,083,100	33%

Source: Census Bureau, 2015 ACS 1-Year Estimates

Table 6

**Language Spoken at Home (Population 5 Years and Over), 2015**

	WASHINGTON MSA	UNITED STATES
Only English	71.3%	78.5%
Language other than English	28.7%	21.5%
Spanish	13.0%	13.3%
Other Indo-European Languages	6.3%	3.7%
Asian and Pacific Island Languages	6.1%	3.5%
Other Languages	3.3%	1%

Source: Census Bureau, 2015 ACS 1-Year Estimates



Credit: Howard University (Ted Eytan/Flickr)





# FUTURE OF EMPLOYMENT, POPULATION, AND HOUSEHOLDS

## Cooperative Forecasting for Regional Planning

Anticipating growth in metropolitan Washington is critical for making informed decisions for investment in capital improvement programs, and for meeting human service needs and public safety challenges.

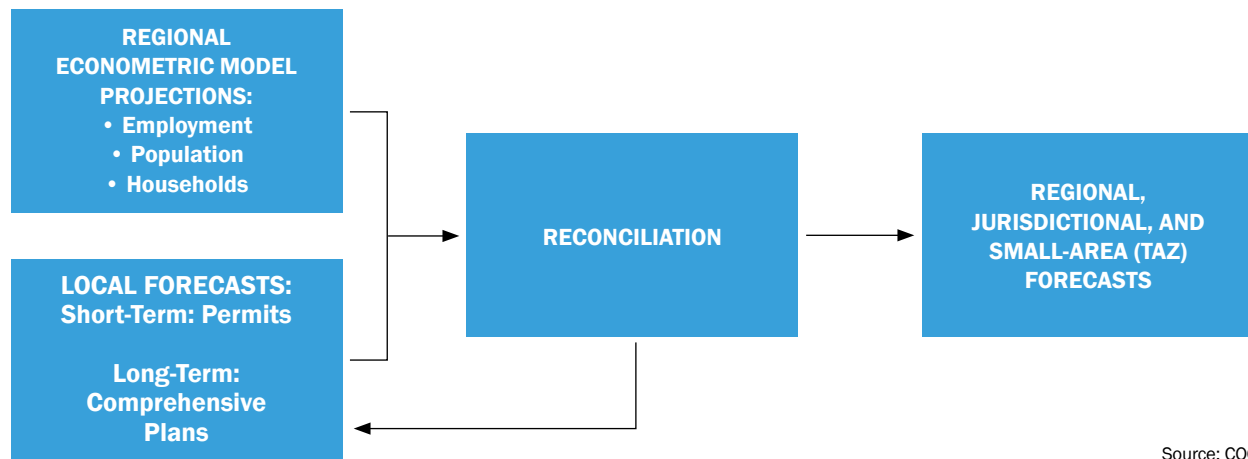
Local governments in metropolitan Washington have worked cooperatively for many years to develop region-wide and neighborhood-level forecasts of employment, population, and households. Through this effort, a consistent set of local and regional forecasts is developed for use in program and facility planning throughout the region.

The Cooperative Forecasting process provides data necessary for regional planning activities including analyzing the effects of growth and developing policy responses to regional issues.

The Cooperative Forecasts employ a regional econometric model and local jurisdictional forecasts. The model projects employment, population, and households for metropolitan Washington based on national economic trends and local demographic factors.

Figure 12

### Cooperative Forecasting Model



Source: COG

## Employment Forecasts

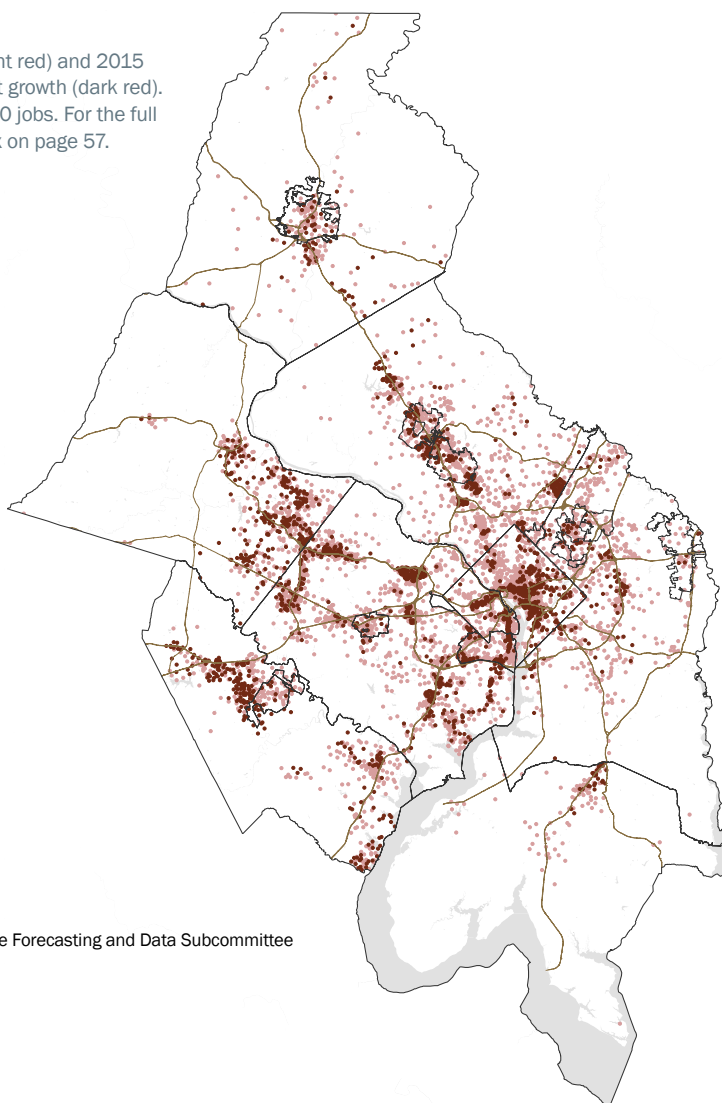
According to the Round 9.0 Cooperative Forecasts, employment in the region will reach 4.3 million jobs by 2045 – an addition of 1.1 million jobs between now and then. Job growth in Northern Virginia (55 percent) will outpace the growth anticipated in the Maryland jurisdictions (24 percent), and the District of Columbia (22 percent). The District, Fairfax County, and Montgomery County would add the largest number of new jobs to the region's employment base during the 2015 to 2045 forecast period, followed by Loudoun and Prince William Counties.

Collectively, the region's inner suburbs will add the largest number of new jobs, 478,600 by 2045. As with population and household growth, the largest percentage increases in employment will occur in the outer suburbs of Virginia and Maryland. Together, these outer jurisdictions will add 295,000 jobs to the region's base, increasing their total number of jobs 26 percent by 2045. Despite the tremendous growth in suburban employment shown in the forecasts, the District will continue to have largest number of jobs of any jurisdiction and would account for about a fifth of the region's employment in 2045. The central jurisdictions will account for 32 percent of regional employment.

Figure 13

### Employment, Round 9.0 Cooperative Forecasts

2015 Employment (light red) and 2015 and 2045 employment growth (dark red). One dot represents 500 jobs. For the full data, see the Appendix on page 57.



Source: COG's Cooperative Forecasting and Data Subcommittee

## Population Forecasts

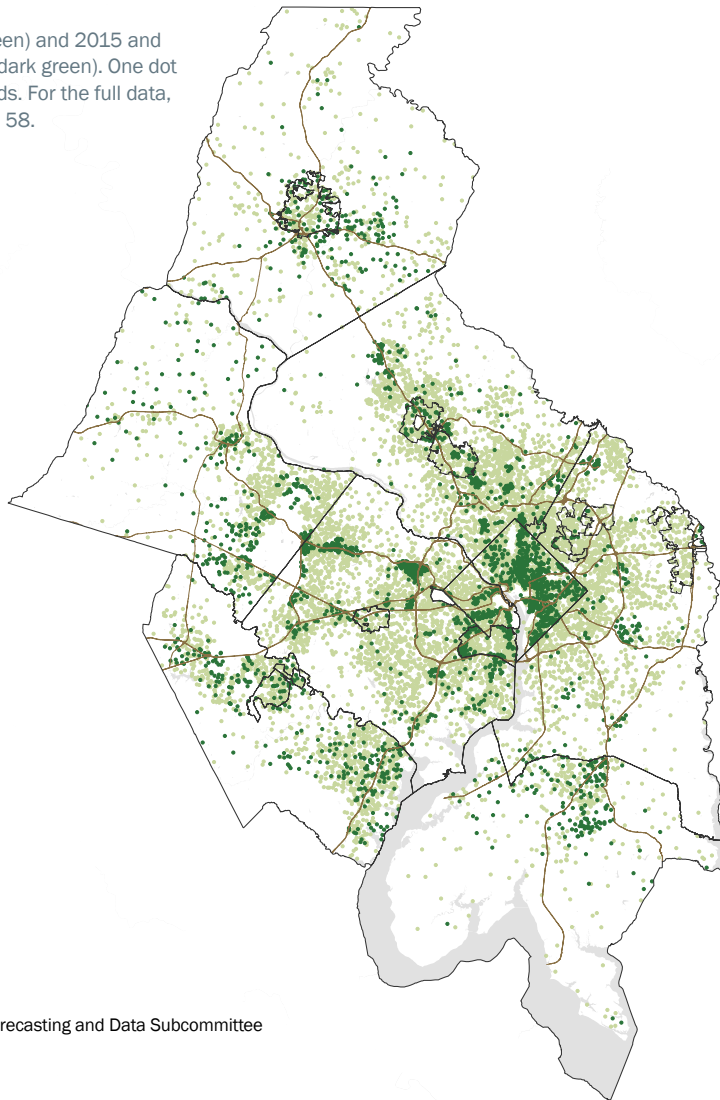
According to the Round 9.0 Cooperative Forecasts, the region will add more than 1.5 million people between now and 2045 reaching an estimated population of 6.9 million people. The region's population is expected to grow steadily through the forecast period, adding an average of approximately 50,000 persons a year. Population will be spurred by the long-term strength of the region's economy, high rate of in-migration and international immigration, and decline in average household size.

Most of the population growth will be in the District of Columbia, Fairfax, and Montgomery Counties. The outer jurisdictions will experience the fastest rates of growth, led by Charles (57 percent), Frederick (40 percent), and Loudoun (37 percent) Counties. The region's central jurisdictions will also grow. In the District of Columbia, population will increase by 47 percent during the forecast period. In the City of Alexandria and Arlington County, population will increase by 41 and 31 percent, respectively.

Figure 14

### Population, Round 9.0 Cooperative Forecasts

2015 Population (light green) and 2015 and 2045 population growth (dark green). One dot represents 500 households. For the full data, see the Appendix on page 58.



Source: COG's Cooperative Forecasting and Data Subcommittee

## Households Forecasts

The addition of more than 641,900 households during the 2015 to 2045 forecast period reflects the growth in jobs and in-migration to the region. The largest number of new households will be in Fairfax County, the District of Columbia, and Montgomery County, which collectively contribute more than half of the household growth during the forecast period. Charles County will grow at a rate of 72 percent, the most rapidly of all jurisdictions, adding about 39,000 households to the 2015 total of 53,700.



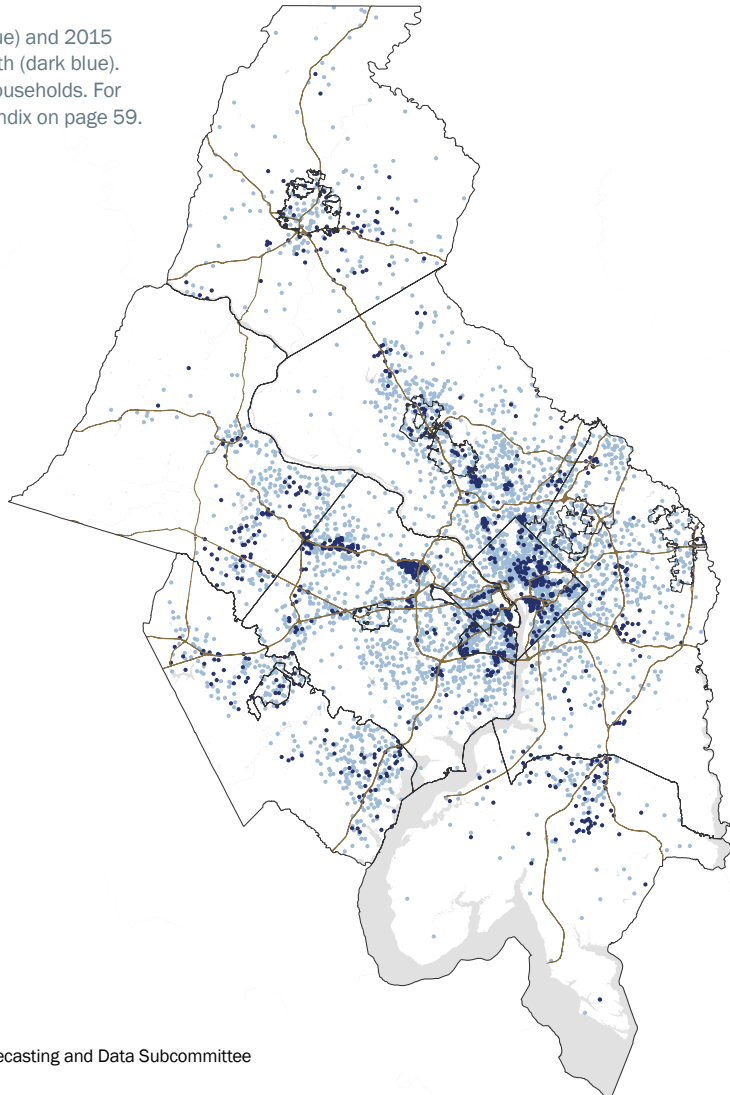
The Urban Land Institute is dedicated to creating dynamic communities, supporting the region's ability to attract and retain human capital. Page 48

Regional economic growth will continue to attract new residents and fuel a general demand for new housing. Households, or occupied housing units, form the basis for population forecasts for most jurisdictions participating in the Cooperative Forecasting process. Planners monitor housing construction and estimate population growth by multiplying the number of occupied housing units by the average number of people in the jurisdiction's households.

Figure 15

### Households, Round 9.0 Cooperative Forecasts

2015 Households (light blue) and 2015 and 2045 household growth (dark blue). One dot represents 500 households. For the full data, see the Appendix on page 59.



Source: COG's Cooperative Forecasting and Data Subcommittee

# WORKFORCE AND TALENT

During the past few years, metropolitan Washington’s leaders have recognized the need to reduce economic reliance on the federal government and focus on increased participation in the global economy. These leaders also recognize that a key issue in economic development is cultivating, attracting, and retaining the best possible talent pool to stimulate business growth. The region’s highly educated workforce, one of metropolitan Washington’s competitive advantages, will play a major role in this effort. The following section describes the region’s workforce, how it applies its knowledge, skills, and abilities, and what talent is needed now and into the future.

## METROPOLITAN WASHINGTON'S COLLEGE AND UNIVERSITY ALUMNI POPULATIONS

### Composition of Metropolitan Washington’s Workforce

Metropolitan Washington’s residents are among the most highly educated in the country. More than half the adults in the region possess a college degree. The region produces this talent at its twenty-three colleges and universities, numerous technical colleges and specialty schools, and nationally recognized research laboratories within universities and the federal government. It also is a net importer of talent and attracts many of its professionals from other parts of the nation and abroad. Metropolitan Washington outperforms all other metropolitan areas in the nation in educational attainment. In fact, there were only three peer regions where the adult population’s attainment of a bachelor’s degree or higher was within five percentage points: San Francisco, Boston, and Raleigh. This also holds true for the region’s immigrant population. In 2015, over a half million highly educated immigrants resided within the region. To better illustrate the strength and quality of the talent in the region, in the rest of this section, the Washington MSA will be compared with the average for three peer regions with similar levels of educational attainment as well as the United States.

- University of Maryland, 150,000
- George Mason University, 100,000
- The George Washington University, 80,000
- Georgetown University, 51,000
- American University, 45,000
- Virginia Tech, 38,000
- Howard University, 37,000
- University of Virginia, 36,000
- Johns Hopkins University, 32,000
- James Madison University, 30,000

Source: *Washington Business Journal*, College and University Alumni Populations, November 4, 2016

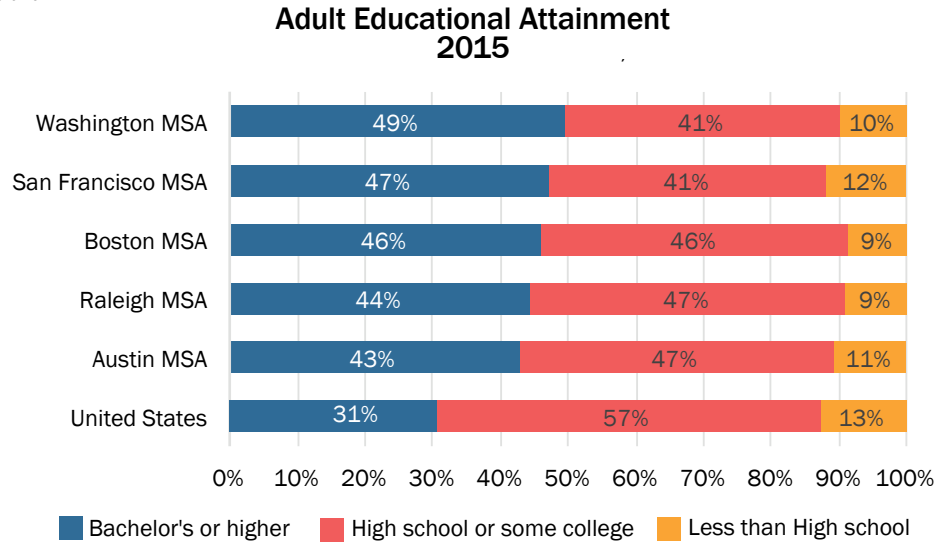


Credit: University of Maryland Commencement (Maryland GovPics/Flickr)



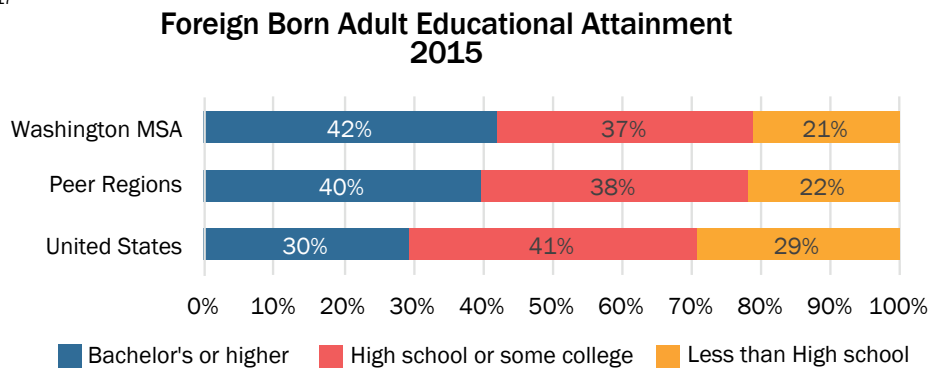
The Consortium of Universities of the Washington Metropolitan Area is working to support human capital by fostering partnerships between the region's colleges and universities and the nonprofit and for profit sectors.  
Page 45

Figure 16



Source: Census Bureau, 2015 ACS 1-Year Estimates

Figure 17



Source: Census Bureau, 2015 ACS 1-Year Estimates

Like educational attainment, the share of the Washington MSA's adult population that is either employed or actively looking for work is greater than the nation's as well as peer regions. Eighty-nine percent of men and 79 percent of women participate in the labor force in the Washington MSA, compared with 82 percent of men and 72 percent of women across the nation. The increased likelihood for an adult to participate in the labor force extends across all age groups.

Figure 18

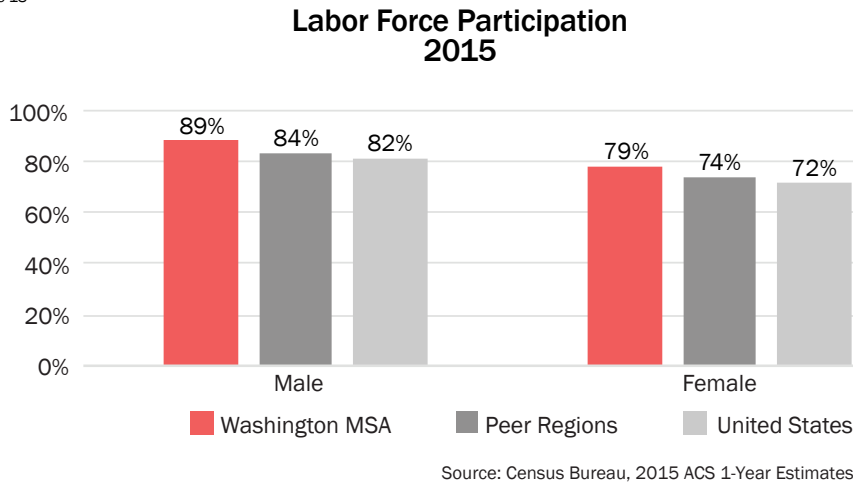
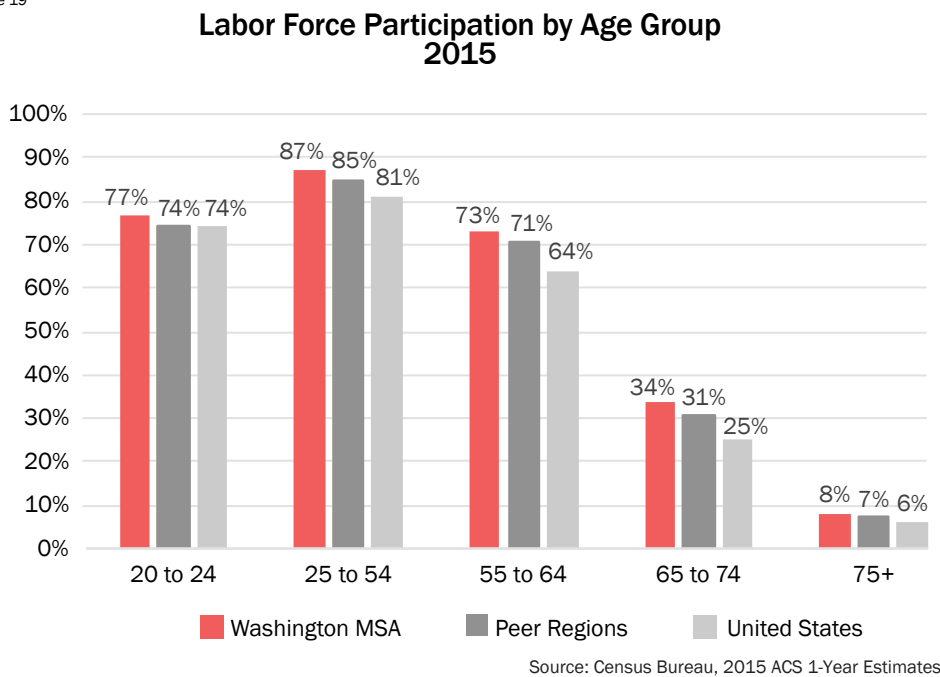


Figure 19



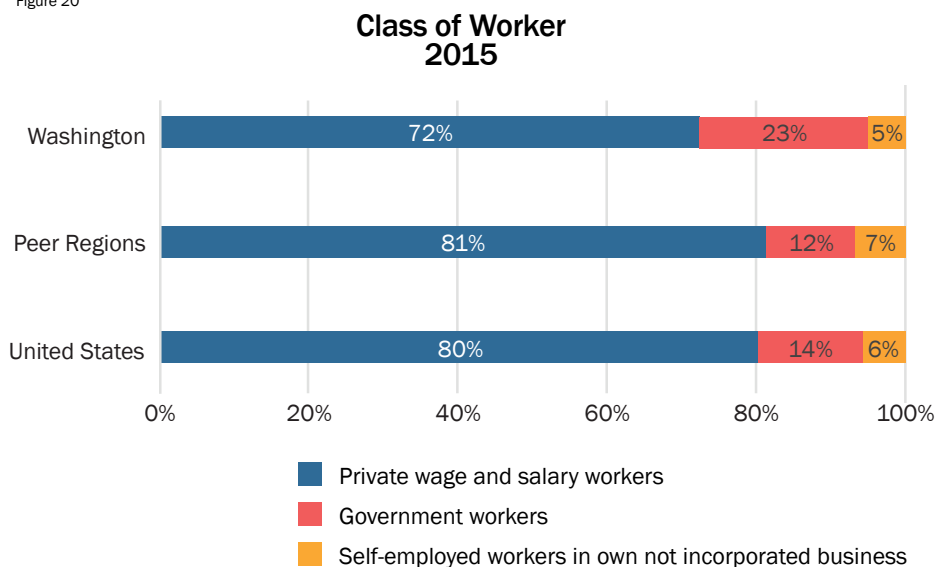
## How Residents Apply their Knowledge, Skills, and Abilities

Rich professional opportunities inspire metropolitan Washington's residents and attract newcomers. Home to the nation's capital, the region draws both individuals who are seeking careers in public service and careers influencing federal policy. Twenty-three percent of the Washington MSA's civilian employed population work for government, nearly twice the rate observed in peer regions and substantially higher than the nation. Eleven percent of jobs are federal (364,600). However, its economy is dynamic and includes major employers in industries ranging from biotechnology to cybersecurity to media. The economy is also influenced by numerous foundations and hospitality companies headquartered in the region. Metropolitan Washington's talent shapes its occupational and industrial composition. While Metropolitan Washington's distinct economy is partially a reflection of being home to the nation's capital, it is also a reflection of its highly educated population.

**The region has a significantly higher portion of workers employed in Computer & Mathematics, Business & Financial, and Management Occupations than the nation.**

Compared with the rest of the nation, the region has a higher concentration of workers in occupations that require advanced training. A review of those occupation groups with at least 100,000 employees in 2015 demonstrates that the Washington MSA has a significantly higher portion of its employment in Computer and Mathematics, Business and Financial Operations, and Management Occupations than the nation. Only one of these three groups, Management Occupations, declined during the last five years. While some of the other major occupation groups at this employment threshold are growing at a faster rate, they are either proportional to or less concentrated than what was observed nationally.

Figure 20



Source: Census Bureau, 2015 ASC 1-Year Estimates



Figure 21

### Growth and Relative Concentration of Major Occupation Groups, Washington MSA 2010-2015

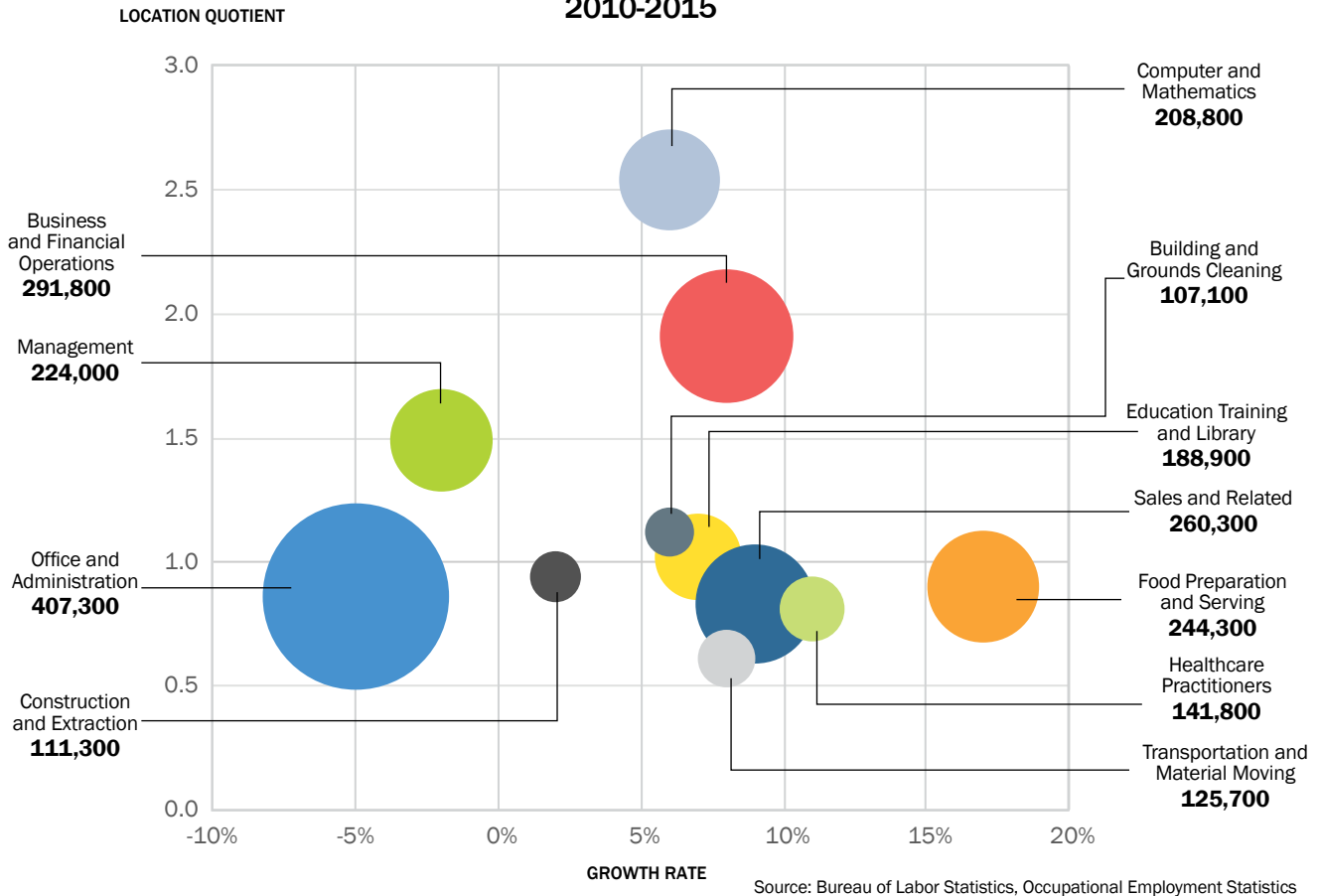


Table 7

### Ten Most Common Occupations 2015

OCCUPATION	EMPLOYMENT	LOCATION QUOTIENT
Retail Salespersons	82,900	0.83
Cashiers	67,500	0.89
General and Operations Managers	66,500	1.43
Combined Food Preparation and Serving Workers, Including Fast Food	59,600	0.85
Management Analysts	58,700	4.40
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	57,300	1.23
Business Operations Specialists, All Other	56,700	2.82
Office Clerks, General	53,900	0.84
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	50,300	1.02
Waiters and Waitresses	49,300	0.91

Source: Bureau of Labor Statistics, Occupational Employment Statistics

The ten most common occupations in the region feature workers applying skills at a range of levels. Only three of the occupations were substantially more concentrated in the Washington MSA than across the nation: Management Analysts, Business Operations Specialists, and General and Operations Managers. These occupations are distinct from the others because they require a bachelor's degree or higher. Most of the other occupations were observed at similar or lower concentrations in metropolitan Washington than across the nation, despite being among the ten most common.

According to the Bureau of Economic Analysis, a location quotient measures a region's specialization relative to a larger geographic unit (usually the nation).

The unique character of the region's occupational distribution is better represented by those occupations that were significantly more concentrated in the Washington MSA than the rest of the nation. The occupations with the ten highest location quotients require advanced training. In addition, across all metropolitan regions, there were no other occupations that were as concentrated as political scientists and economists—representing the influence of the nation's capital on the region's economy.

While the federal government remains the largest employer in the region, its role is changing and it is not expected to drive job growth in the future. The Professional and Business Services sector dominates the region's economy and has done so for over a decade. Between 2010 and 2015, Education and Health Services and Leisure and Hospitality increased at faster rates and by more jobs than Professional and Business Services. During the same time, a few sectors declined in employment, including the federal government. The Center for Regional Analysis at George Mason University projects that federal wages and procurement will decline from 40 percent to under 30 percent of the region's economy by 2020.



Credit: Blue Plains (Chesapeake Bay Program/Flickr)

Table 8

**Ten Occupations with Greatest Location Quotients  
(With at Least 1000 Employees),  
Washington MSA  
2015**

OCCUPATION	EMPLOYMENT	LOCATION QUOTIENT
Political Scientists	2,100	24.45
Economists	8,500	20.48
Legal Support Workers, All Other	10,300	10.44
Social Scientists and Related Workers, All Other	7,700	10.33
Artists and Related Workers, All Other	1,600	9.28
Social Science Research Assistants	4,300	7.08
Statisticians	4,500	6.86
Marine Engineers and Naval Architects	1,100	6.68
Health Diagnosing and Treating Practitioners, All Other	5,100	6.57
Computer and Information Research Scientists	3,300	5.96

Source: Bureau of Labor Statistics, Occupational Employment Statistics

Table 9

**Annual Employment Growth by Industry,  
Washington MSA  
2010-2015**

SECTOR	2010	2015	GROWTH	GROWTH RATE
Professional and Business Services	681,800	721,400	39,600	6%
Education and Health Services	362,000	412,900	50,900	14%
Trade, Transportation, and Utilities	381,000	402,700	21,700	6%
Government	691,400	692,300	900	0%
Federal Government	380,400	364,600	-15,800	-4%
State and Local Government	311,000	327,700	16,700	5%
Leisure and Hospitality	261,300	310,600	49,300	19%
Other Services	182,900	197,500	14,600	8%
Financial Activities	147,200	154,100	6,900	5%
Mining, Logging, and Construction	141,000	150,500	9,500	7%
Information	80,900	76,700	-4,200	-5%
Manufacturing	53,400	52,800	-600	-1%

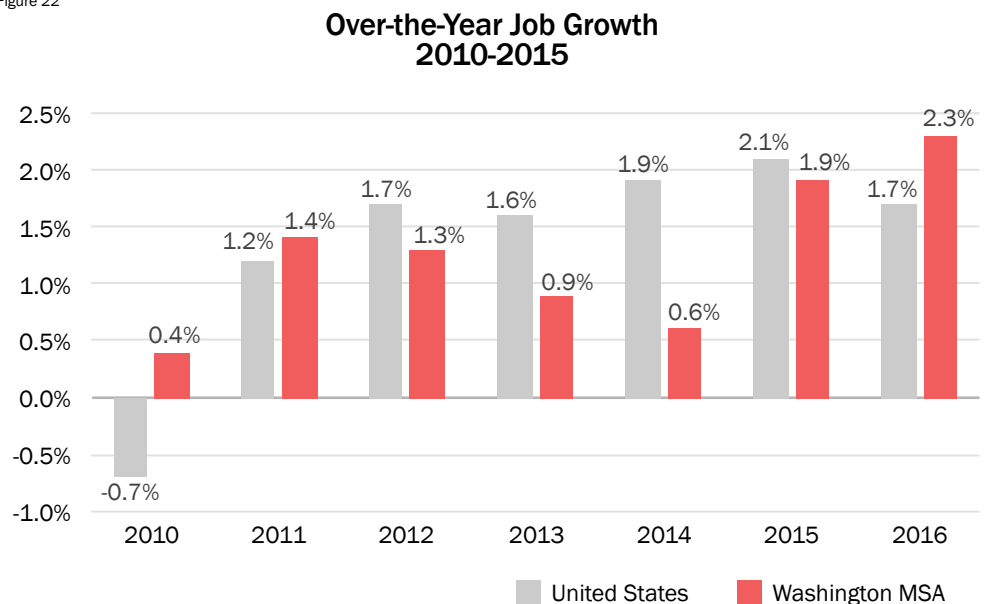
Source: Bureau of Labor Statistics Current Employment Survey, not seasonally adjusted

## Talent Needed Now and Into the Future

During the past few years, metropolitan Washington’s leaders have recognized the importance of diversifying the regional economy. The region was hit harder than the rest of the country by sequestration. A drop in federal procurement and a federal hiring freeze slowed the region’s economic growth while the rest of the country recovered from the great recession. Employment growth in metropolitan Washington slowed remarkably and lagged behind the nation from 2012 through 2015. While the impact to the economy was limited, for example, the rate of unemployment continued to decline. The slower rate of growth created an urgency among area government and business development officials to look at other ways, beyond the federal government, to promote economic growth in metropolitan Washington. Although the region’s job growth rate attained and then exceeded the nation’s during the last quarter of 2015 and continued to outperform the nation in 2016, a coordinated effort to improve the region’s economic competitiveness continues. The region’s leadership—business, public, and academic—is actively looking at how it can support its businesses and increase exports.

Figure 22

After lagging behind for four years, quarterly data shows that job growth in the Washington MSA caught up with and began to outpace the nation between 2014 and 2015.



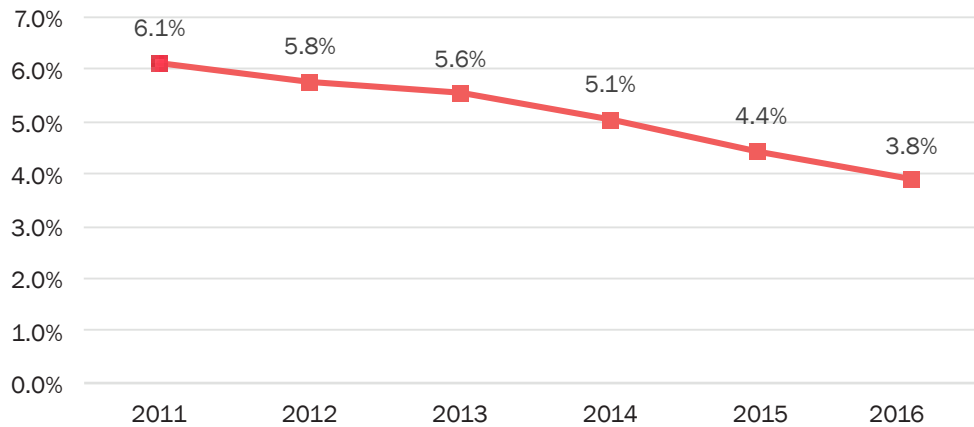
Source: Bureau of Labor Statistics, Current Employment Survey, not seasonally adjusted



Credit: Blue Plains (Chesapeake Bay Program/Flickr)

Figure 23

### Unemployment Rate, Washington MSA



Source: Bureau of Labor Statistics, Local Area Unemployment Statistics  
2016 is preliminary, February 2017, not seasonally adjusted.

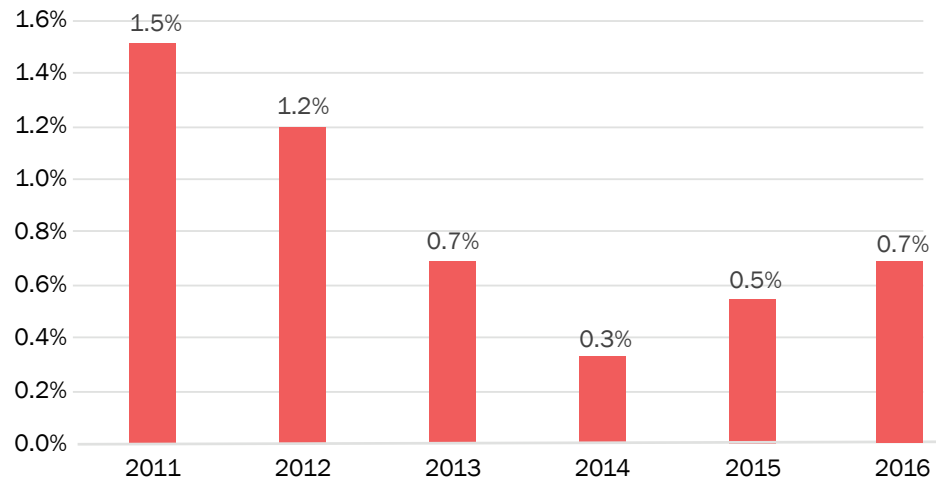
Much of metropolitan Washington’s economic prosperity is tied to the talent that resides within the region. An important element of supporting the region’s economy to grow and diversify is the continued development and attraction of the right workforce. Talent is needed to attract new companies as well as support existing companies as they grow. A mismatch between available jobs and skilled workforce can force employers to look outside of the region for new employees; some companies even opt to relocate to markets where more talent is available. For example, in 2015, 49 percent of the region’s adults had a bachelor’s or higher, but 73 percent of job postings with a minimum level of education required a bachelor’s degree or higher. Known as a net importer of talent, the growth of metropolitan Washington’s labor force has slowed from earlier in this decade and its continued decline may tighten the labor market. In the longer term, the region must consider how it will prepare its population for an additional 1.1 million jobs that are forecast to become a part of the region’s economy over the next 30 years. Despite the presence of top colleges and universities and workforce development boards funded to provide job training and career development, there is limited regional coordination. The region’s school districts and educational providers also play a key role. Talent is needed to help the region grow, and if in short supply, can hinder the performance of the economy.



Learn more about the efforts of the region’s Workforce Development Boards. Page 50-54

Figure 24

### Labor Force Growth, Washington MSA 2011-2016



Source: Bureau of Labor Statistics, Local Area Unemployment Statistics, November 2017

## Analyzing Job Posting Data to Assess Talent Needs

A job posting expresses an employer's interest in a certain type of talent. Aggregated together, this data can provide a sense of what talent is needed to strengthen the region's economy. In 2015, there were two major groups of occupations among the top ten occupations in greatest demand in metropolitan Washington: (1) computer occupations and (2) occupations already common in the region.

### Occupations in Greatest Demand, Metropolitan Washington, 2015

1. Software Developers: 57,000 job postings
2. Managers, All Other: 23,000 job postings
3. Sales Representatives: 21,000 job postings
4. Registered Nurses: 21,000 job postings
5. Computer Systems Engineers: 20,000 job postings
6. Management Analysts: 19,000 job postings
7. Retail Salespersons: 17,000 job postings
8. Information Security Analysts: 14,000 job postings
9. Network and Computer Systems Administrators: 13,000 job postings
10. Computer Systems Analysts: 13,000 job postings

Those occupations with higher concentrations of demand than the nation demonstrate how the region is unique. For metropolitan Washington, this information reveals a region with higher demand for occupations that support defense and inform political debate. For example, there was 18.1 times the national concentration of job postings for Intelligence Analysts, 14.9 times for Political Scientists, and 13.1 times for Economists. This demonstrates how the region is influenced by its proximity to the nation's capital.

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Workers trained to perform STEM-intensive occupations are needed by the economic clusters.

### Occupations with Greatest Location Quotient, Metropolitan Washington, 2015

1. Intelligence Analysts: 2,300 job postings, location quotient 18.1
2. Political Scientists: 1,200 job postings, location quotient 14.9
3. Economists: 700 job postings, location quotient 13.1
4. Budget Analysts: 1,100 job postings, location quotient 10.3
5. Military Officer Special and Tactical Operations Leaders: 700 job postings, location quotient 6.9
6. Security Management Specialists: 1,800 job postings, location quotient 6.6
7. Information Security Analysts: 14,700 job postings, location quotient 6.2
8. Geospatial Information Scientists: 900 job postings, location quotient 4.9
9. Technical Writers: 3,400 job postings, location quotient 4.6
10. Computer Systems Engineers: 19,900 job postings, location quotient 4.4



The Federal Laboratory Consortium for Technology Transfer works to bring new technologies from laboratories, agencies, and research centers to market. It is also working to support technology transfer professions and the technology workforce.  
Page 46

Job postings data also offers information that can be used to craft policy and support economic competitiveness. There is consensus among leaders in metropolitan Washington that seven economic clusters will drive the region's economy over the next decade: advocacy, information and communications technology, science and security technology, biology and health technology, business and financial services, media and information services, and leisure and business hospitality services. Through the Global Cities Initiative, COG, the Greater Washington Board of Trade, the Consortium of Universities of the Washington Metropolitan Area, and others are focusing on these clusters while working to evaluate the region's current export economy, support systems, and opportunities for growth. By attracting and producing the right talent, the region can help fuel the growth of these clusters. An analysis of job postings data from the first half of 2016 revealed that employers in these clusters are often seeking the same kind of talent and need workers trained in science, technology, engineering, and mathematics. The Department of Commerce has stated that STEM workers "play a key role in the sustained growth and stability of the U.S. economy, and are a critical component to helping the U.S. win the future."<sup>1</sup> Ten occupations that are in high demand by these seven clusters and can help fuel the region's economic growth are identified below.

### Top Occupations that Can Help Drive Metropolitan Washington's Economic Growth:

#### STEM-Intensive Occupations

1. Software Developers, Applications
2. Information Security Analysts
3. Computer Systems Analysts
4. Database Administrators
5. Computer Network Architects

#### All Other Occupations

1. Sales Representatives
2. Managers, All Other
3. Management Analysts
4. Sales Managers
5. Marketing Managers

As a competitive advantage, which can help attract foreign investment and major employers as well as help fuel the growth of existing businesses, the region can and should boast about the quality of its workforce while considering what policies it can use to continue to attract and train talent to support continued economic prosperity.

<sup>1</sup> Commerce Department, Economics and Statistics Administration, STEM: Good Jobs Now and For the Future, July 2011, <http://www.esa.doc.gov/reports/stem-good-jobs-now-and-future>



# ENVIRONMENTAL JUSTICE

This section of the report examines “Environmental Justice” in metropolitan Washington, or, what the U.S. EPA defines as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of laws, regulations, and policies.

Metropolitan Washington is one of the most racially and ethnically diverse areas in the United States with the majority of the population identifying as minority, as illustrated in Figure 25. The region’s diversity is a hallmark of its character and identity and is an important element for all to consider. Figures 26-30 show the locations of the region’s low-income population, African-American, Asian, Hispanic, or Latino populations, and limited English speakers.

While the region’s diversity is a strength, the division by race, ethnicity, and income can also be a challenge. A clear east-west divide can be seen in Figure 26, which shows the low-income population in the region and Figure 27 which shows the African-American population.

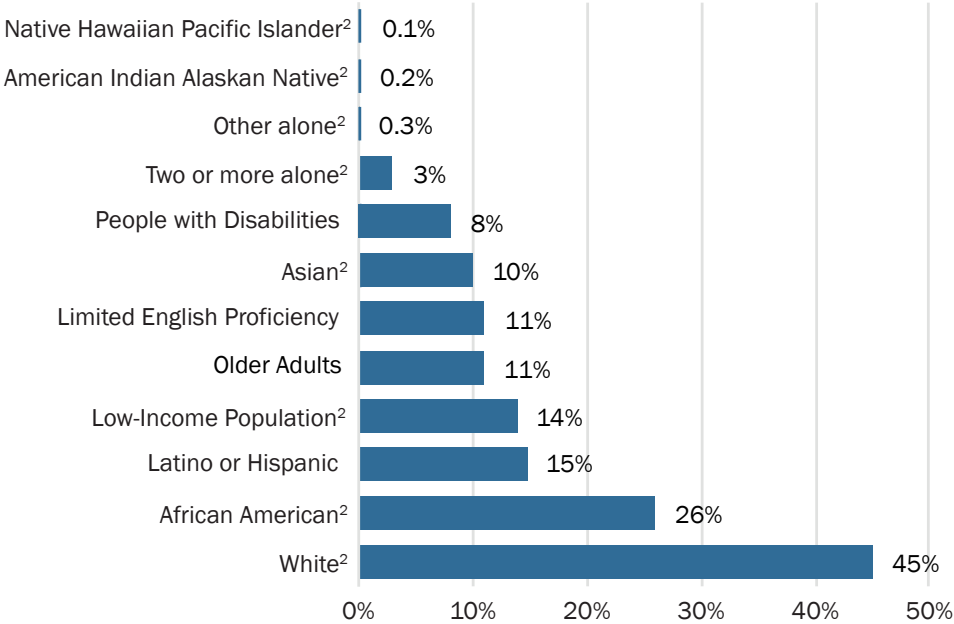
Growth in employment on the western side of the region has outpaced the eastern side, as much as 20 to 1. These imbalances place a strain on the transportation system given the number of residents on the eastern side of the region needing to travel to the job-rich western side. It’s important to note that while the east-west divide exists, areas of concentrated poverty and high minority populations are found throughout the region, east and west alike.



Organizations like the United Way of the National Capital Area and the Washington Regional Association of Grantmakers (WRAG) strive to create an environment where all of the region’s citizens can thrive. Pages 47 & 49

Figure 25

## Regional Demographic Profile for Metropolitan Washington

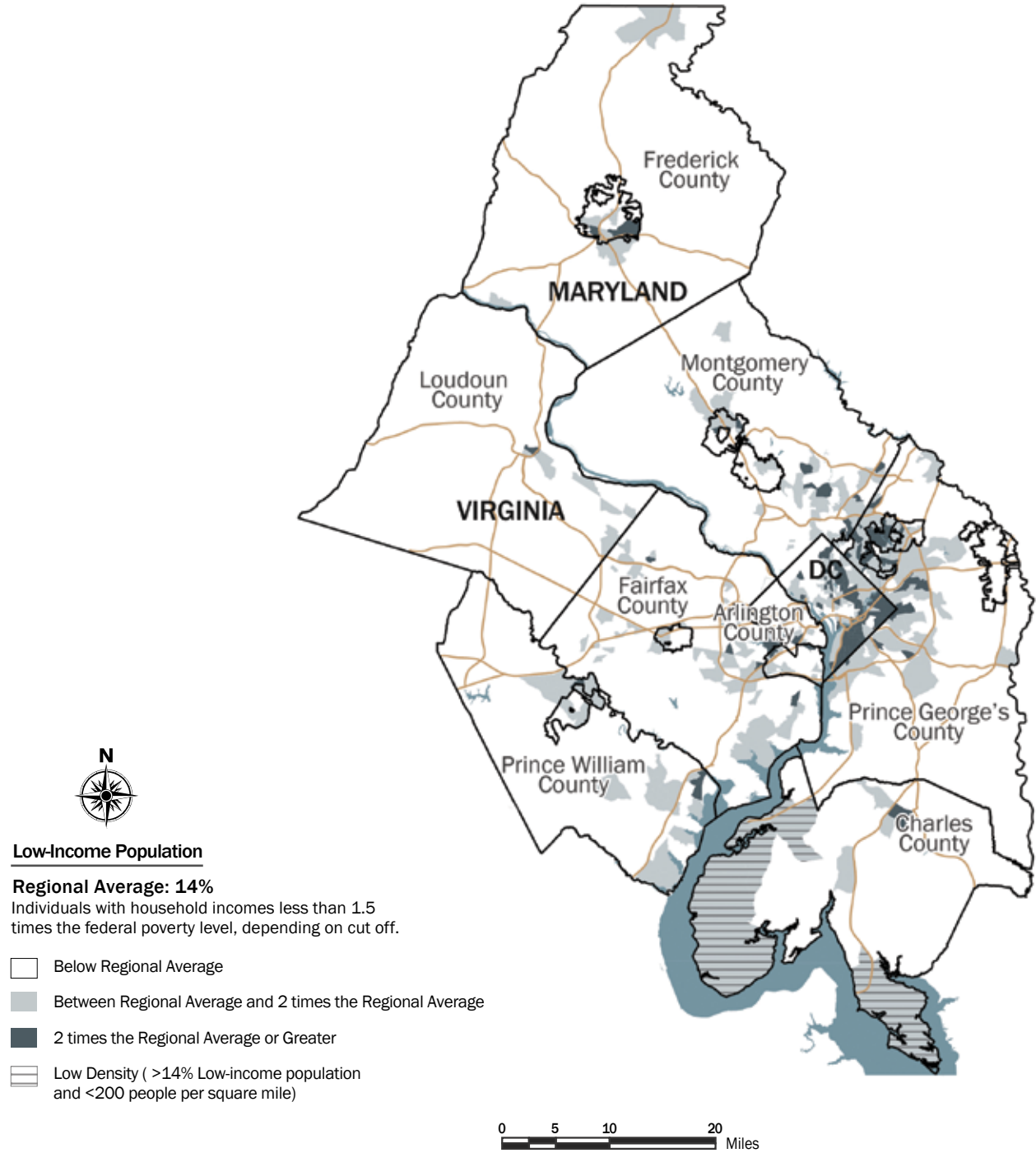


<sup>2</sup> Not Hispanic or Latino.

Source: Census Bureau, ACS, 2010 to 2014 5-Year Estimates. Population categories are not discrete and therefore do not total 100 percent

Figure 26

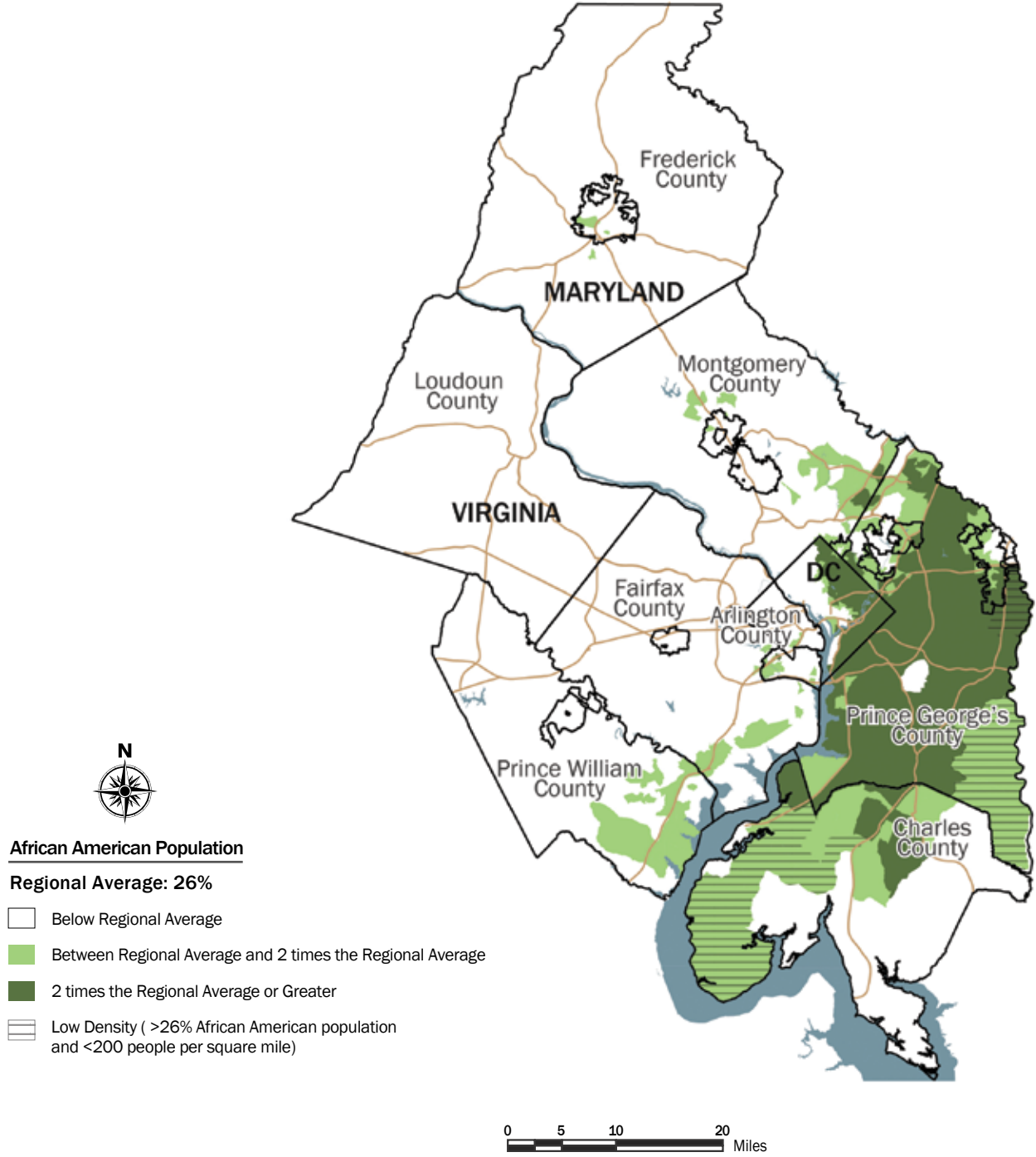
## Low-Income Population in the Metropolitan Washington Region



Source: Census Bureau, ACS, 2010-2014 5-Year Estimates

Figure 27

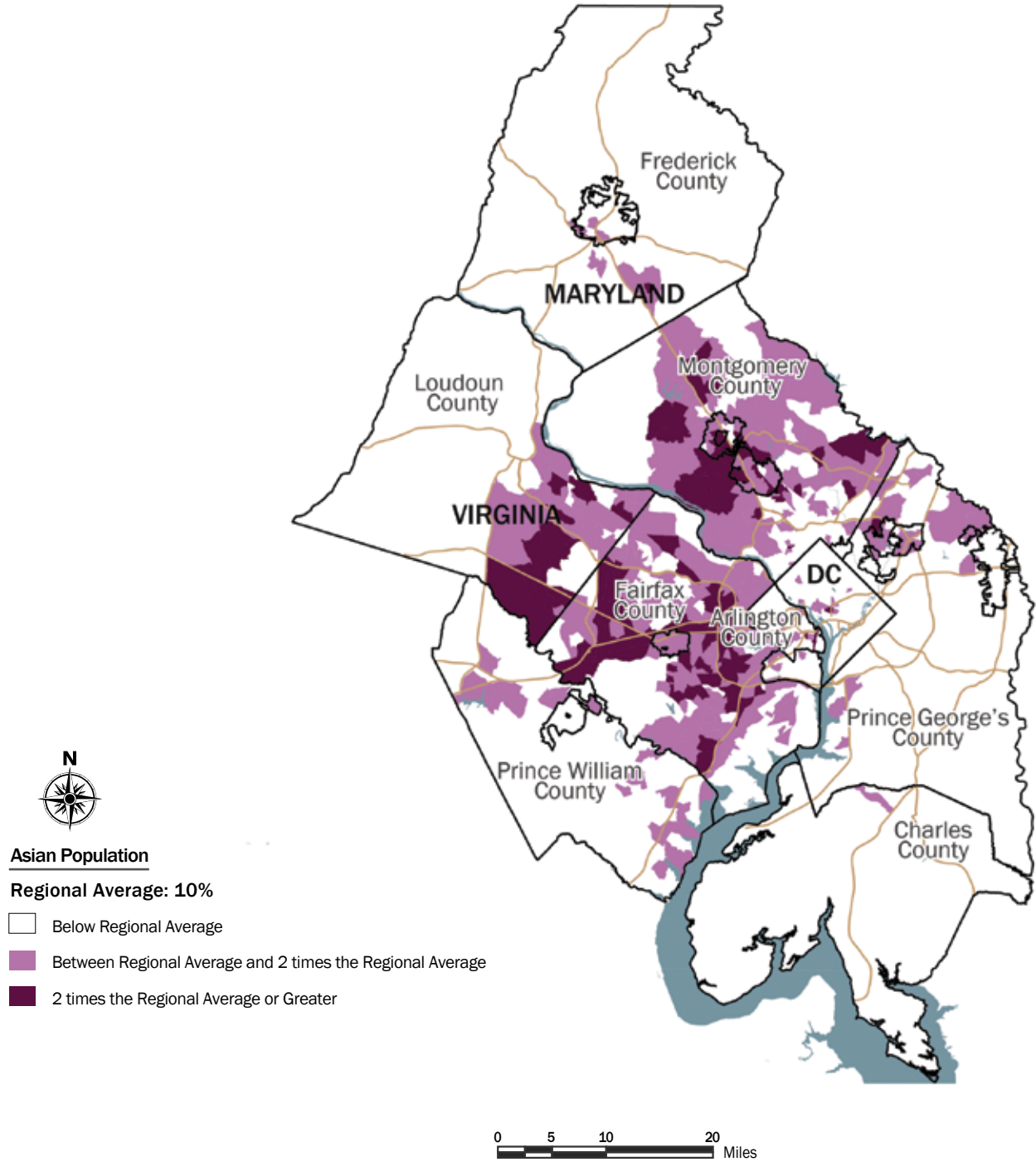
### African-American Population in the Metropolitan Washington Region



Source: Census Bureau, ACS, 2010-2014 5-Year Estimates

Figure 28

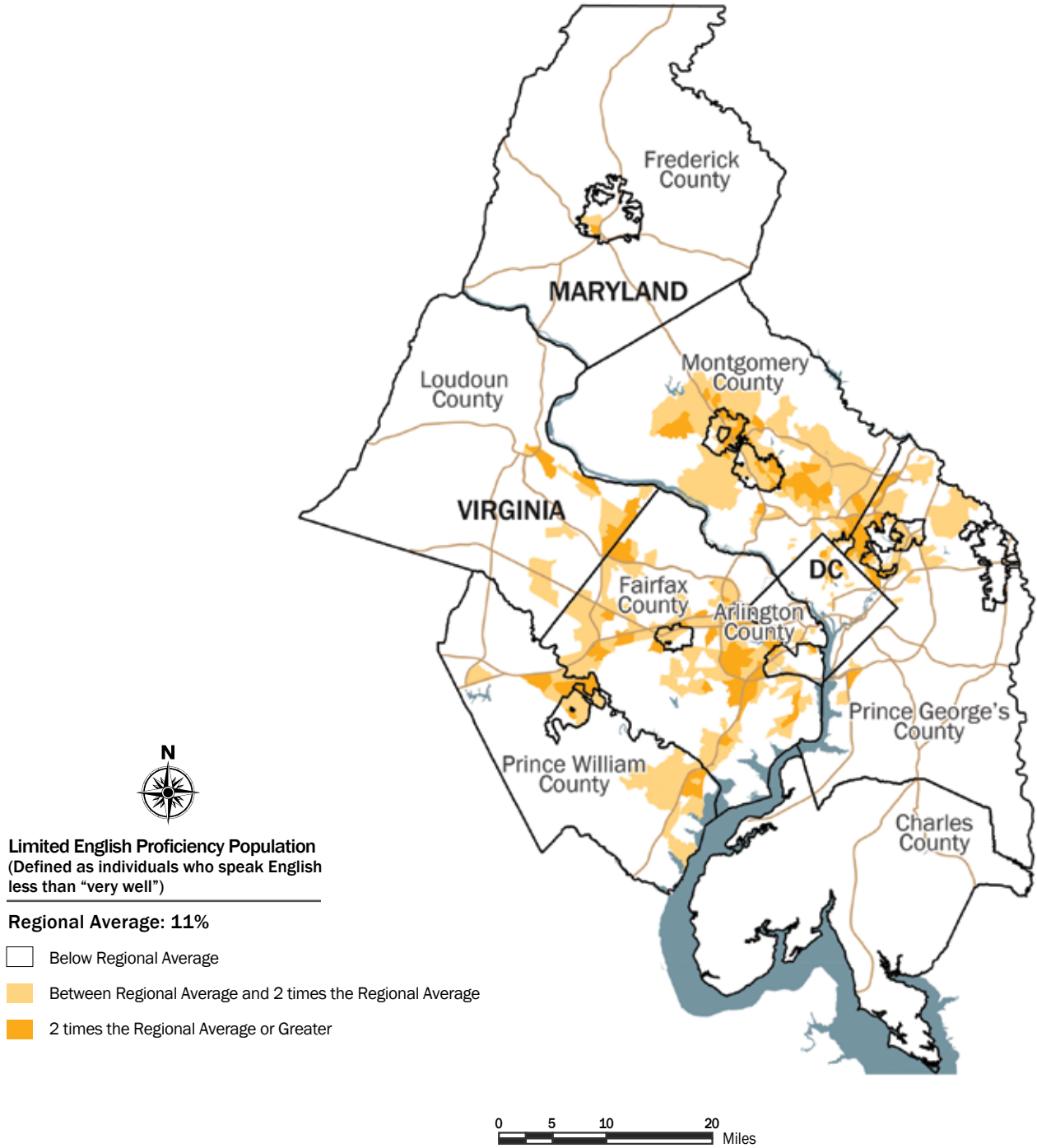
### Asian Population in the Metropolitan Washington Region



Source: Census Bureau, ACS, 2010-2014 5-Year Estimates

Figure 29

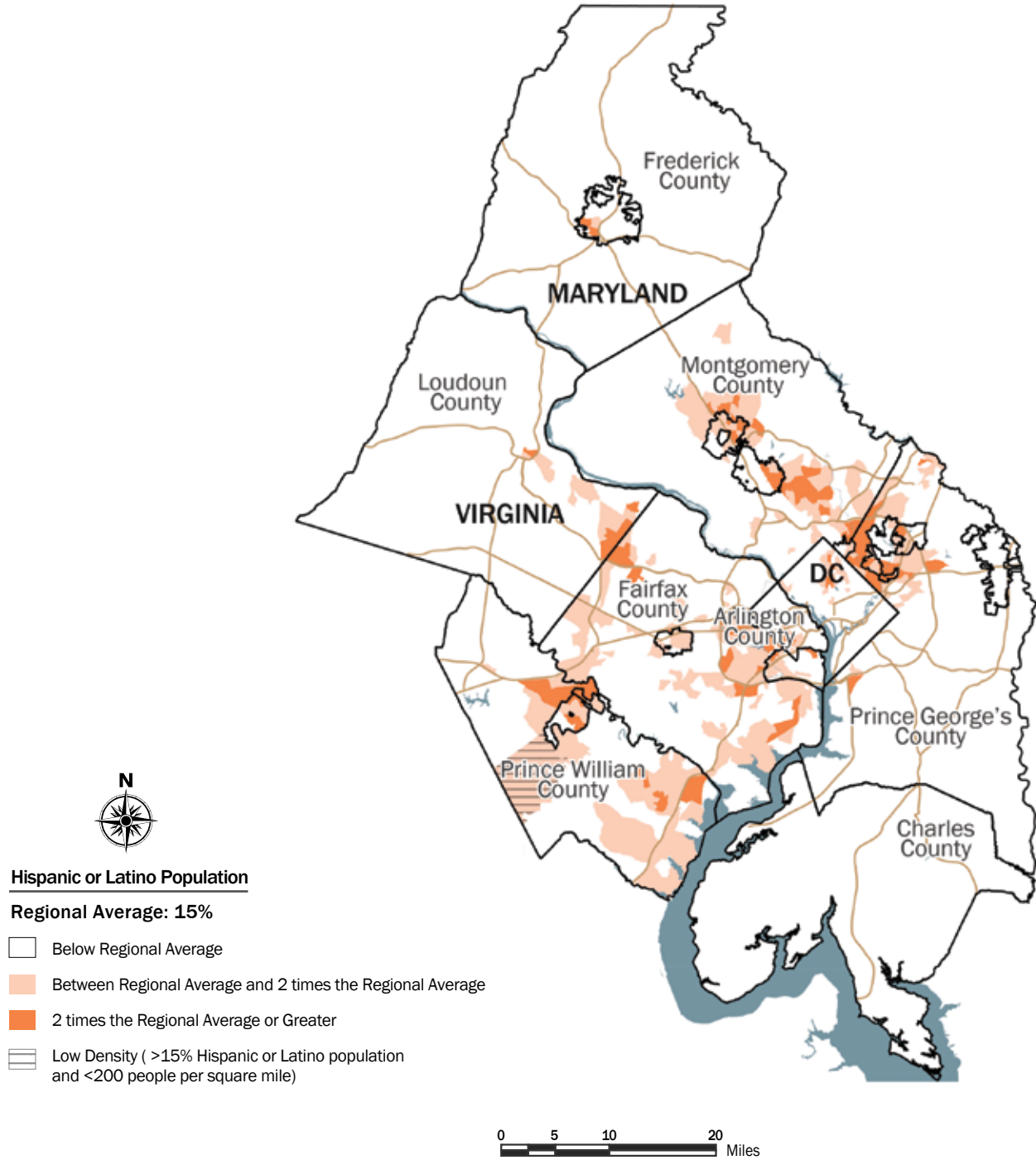
### Limited English Speaking Population in the Metropolitan Washington Region



Source: Census Bureau, ACS, 2010-2014 5-Year Estimates

Figure 30

### Hispanic or Latino Population in the Metropolitan Washington Region



Source: Census Bureau, ACS, 2010-2014 5-Year Estimates



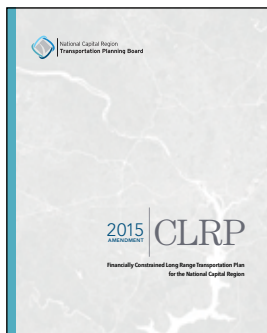
*Credit: Anthony Bowen Elementary School (Elvert Barnes/Flickr)*

COG has engaged policymakers, planners, and other technical professionals in discussions about the complexities of our diverse region and the east-west divide throughout the years. COG’s Region Forward efforts, a commitment to create a more prosperous, accessible, livable, and sustainable metropolitan Washington, recognize equity challenges in the following goal: “we seek to minimize economic disparities and enhance the prosperity of each jurisdiction and the Region as a whole through balanced growth and access to high-quality jobs for everyone.”

In 2016, the National Capital Region Transportation Planning Board (TPB) at COG engaged in a two-phase project taking a deeper dive into the region’s demographics, proposing that the TPB identify small geographic areas that have high concentrations of low-income and/or minority populations. These “equity emphasis areas” would be used to analyze the Financially Constrained Long-Range Transportation Plan (CLRP) for disproportionately high and adverse impacts on low-income and minority populations. The CLRP identifies all regionally significant highway and transit improvements that area transportation agencies anticipate through the year 2040.



Credit: Arlington (M.V. Jantzen/Flickr)



In 2017, staff will begin Phase 2 of the Title VI and environmental justice analysis of the CLRP, a federally required element evaluating the “benefits” and “burdens” to ensure that the equity emphasis areas are not adversely impacted over the horizon of the plan. The “Equity Emphasis Areas” map can be used in state and local planning initiatives, or tailored for use, in areas other than transportation, such as housing, education, economic development, parks and open space, and the environment.



## COMMUNITY PARTNERS & WORKFORCE BOARDS



While demographic and job posting data paint a clear picture of metropolitan Washington's human capital, community organizations and the region's workforce investment boards are also uniquely positioned to provide valuable insight into what residents need to thrive and succeed. As long-standing leaders in academia, science, philanthropy, engineering, and business, these organizations—including the ten featured in this section—work each day with the region's families, students, jobseekers, and workers to improve their lives and the region they call home.

### Consortium of Universities of the Washington Metropolitan Area

The Consortium is a nonprofit educational association of 17 member colleges and universities, and represents nearly 290,000 students committed to the advancement of higher education in the Washington Metropolitan Area. The Consortium represents every sector of nonprofit postsecondary education, from basic job skills training to highly advanced postdoctoral study. The Consortium is deeply engaged in the career life cycle of potentially every employee in the region, through initial educational programs that continue into lifelong learning and updating, all done in close collaboration with regional organizations. The Consortium provides thousands of career opportunities to individuals in the region at all skill levels. The talent searches range from global to highly local; the more that's invested in the region's human capital, the more likely an increasing proportion of positions will be filled with regional residents.

The Consortium's biggest asset is human capital. Collectively, the Consortium is the largest creator, repository, disseminator, and practitioner of knowledge in the service of improving human capital in the region. Its presence in the region helps to attract a continuing array of new business and students. By attracting both new economic opportunity and demographic diversity, the region's colleges and universities will provide an ongoing spark plug to the region's business and demographic growth.

The Consortium is investing in the region's human capital as the primary provider of certificate and degree programs that prepare students of all ages, as well as lifelong learning opportunities that keep people's skills updated, across all sectors of the regional economy. The Consortium also provides thousands of jobs, and provides employees with avenues for improving their skills. A large portion of the research conducted by Consortium faculty focuses on different ways to improve the overall quality of the region.

The Consortium believes a strong collaborative partnership between the region's colleges and universities and the nonprofit and for-profit sectors is essential to continue improving the human capital of the region.



Consortium of Universities of the  
Washington Metropolitan Area



*Credit: Consortium of Universities*

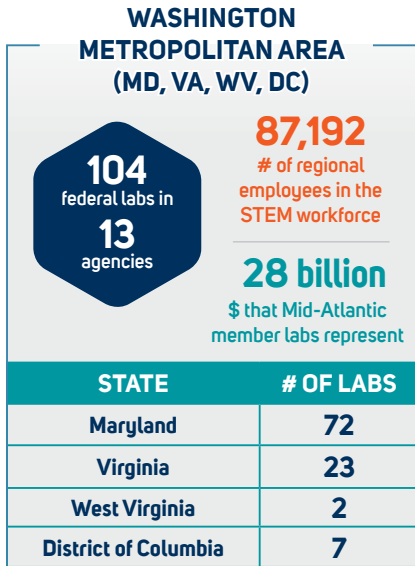


## Federal Laboratory Consortium for Technology Transfer (FLC)

The FLC is a nationwide network of over 300 federal laboratories, agencies, and research centers that fosters commercialization best practice strategies and opportunities for accelerating technologies from out of the lab and into the marketplace. The largest concentration of laboratories is hosted in the Washington metropolitan area, with 104 laboratories in 13 agencies across Maryland, Virginia, West Virginia and the District of Columbia. There are over 87,000 employees in the STEM workforce in the region.



[federallabs.org](http://federallabs.org)



Source: FLC

Technology Transfer (T2) is the process by which existing knowledge, facilities, or capabilities developed under federal research and development funding are utilized to fulfill public and private needs. T2 professionals identify the needs of the market and strike agreements to bring their developments into the hands of the public, which often directly benefits from the work done in federal laboratories. Commercial items now familiar to the public, such as GPS and memory foam, were created when T2 offices worked with industry professionals through several mechanisms to bring important research and technology into commercial manufacturing. T2 professionals are versed in R&D, marketing, and the mechanisms necessary to bring technology to market.

To support the efforts of T2 professionals, the FLC offers an extensive toolkit, which includes the largest database of publicly available licenses and facilities. These resources are designed to help its federal labs as well as industry professionals seeking commercialization opportunities. Tools like this help attract human capital resources to the region. The continued development of advanced industries through R&D, laboratories, and research centers will further improve the economy and technology workforce.



## United Way of the National Capital Area

Where others see problems, United Way of the National Capital Area (NCA) sees opportunities. The United Way NCA views the challenges of low and moderate-income neighbors as uncultivated economic growth. By ensuring all voices are participating in the discussion, United Way NCA rallies around common solutions for everyone in the community. United Way NCA is uniquely positioned to convene individuals, businesses, nonprofits, and government officials to solve some of the community’s most daunting challenges. Its network of over 700 workplaces, over 500 nonprofit members, and hundreds of individual volunteers is the catalyst that sparks change. The power of this human capital led to United Way NCA’s five-year, \$12.3 million Community Commitment to cultivate opportunities in education, financial stability, and health.



Every year in the shadow of the White House, over 160,000 students drop out of high school. There is an opportunity to make an impact for the 12,000 Title I middle school students by providing critical social and educational supports to keep them on track to graduate on time. United Way NCA refuses to allow them to become statistics. Students who start ninth grade on time, reading at grade level and with grade-appropriate math skills, are three-times more likely to graduate from high school.

In addition, over 260,000 residents are “unbanked,” without access to mainstream financial services for basic transactions. A staggering 31 percent of households in the region lack the basic financial safety net needed to endure an emergency. Without sufficient savings, too many area residents live only a single paycheck away from homelessness. United Way NCA Financial Empowerment Centers deliver them the skills to effectively navigate common financial systems, as well as access to free or affordable banking products that will help them save, build credit, and participate fully in the local economy as financially stable families.

Every resident has a critical role to play in building a thriving community. United Way NCA will be a catalyst for action, encouraging the community to Live United and to give, advocate, or volunteer.



*Credit: United Way of the National Capital Area*



## Urban Land Institute Washington (ULI)

ULI Washington is a network of over 2,100 talented and committed multi-disciplinary real estate professionals ranging from students to top executives who come together to find solutions to vexing land use problems. Members include architects, attorneys, engineers, developers, investors, public officials, and others from throughout the region. Each program and convening has, at its core, the goal of providing those who are involved in creating the built environment with opportunities to share best practices and ideas across a broad spectrum of issues to insure the highest quality development in our communities.



Credit: Columbia Heights Station (ULI)

The built environment plays a significant role in defining the quality of life in the region. The ability to attract talent is not dependent on employment opportunities alone. People, the region's human capital, want to be able to cross the street safely, live in housing that is affordable to them, enjoy public spaces and natural resources, buy healthy food, and move through the region quickly and comfortably. These needs span the geographic and economic spectrum, and the benefits of urban revitalization needed to reach all residents and foster thriving, inclusive communities.

The metropolitan Washington region, like a handful of other core cities that are magnets for the educated elite, attracts millennials. ULI Washington completed a survey of over 1,300 millennials from the region last year and found that most of the 20–37 year-old cohort in the region is thriving, and for the most part seem satisfied. In the coming year, ULI will further investigate whether, as they continue to grow older, start families, and face limiting factors such as high housing prices and school quality, they will continue to remain in the urban core, and if not, what actions will need to be taken to retain them.

One of the region's most challenging obstacles to creating housing that is affordable to all is a lack of understanding by decision makers and citizens about the challenging issues, private and public sector roles, complex trade-offs, and fundamental economics in play when development projects are proposed. ULI Washington works, through its UrbanPlan program, to educate high school students, university students, and public officials about the forces that affect real estate development in our communities.

Over the past years, ULI members have guided hundreds of students, who hold the keys to how the region's communities and neighborhoods will evolve, to make them aware of how they can be a positive influence in creating thriving places.

To support the continued success of the area's current human capital and workforce, regional leaders need to commit themselves to working together to strengthen this region's competitiveness. In order to succeed in the 21st century, the region needs to be well-managed by the public sector and provide a climate that will encourage private investment and revitalization. The region needs to define and embrace a positive identity, beyond that of being home to the federal government, as a region that fosters and supports a whole range of enterprises from data to biotech, hospitality to education, advocacy to policy, and celebrates its cultural richness and flow of people and ideas.



## Washington Regional Association of Grantmakers (WRAG)

WRAG is a membership association of grantmakers in the Greater Washington region. Members represent a cross-section of philanthropy, including family, community, corporate, and independent foundations, as well as corporate giving programs, governmental grantmakers, and grantmaking public charities. Philanthropic priorities and strategic approaches differ, but all members have a dedication to improving the region and the lives of those who call it home. The passion and the knowledge of the grantmaking community play a big role in helping the human capital of our region.

The philanthropic community is often most interested in those least able to meet their own basic human needs. In a region known for its intellectual capital and high wealth communities, the residents of greatest need are almost invisible to the larger community. Many of these invisible communities are people of color who are as enterprising as their counterparts, but due to multiple factors lack the right tools to address their poverty. Philanthropy is working to ensure that those living in poverty have the resources that they need to improve their quality of life and their life's outcomes.

WRAG members fund across a broad spectrum of issue areas including education, arts and humanities, children, youth and families, health, and housing. While WRAG works to support their giving across the multiple issue areas, concentrated effort has been placed on addressing affordable housing and addressing racism. More than 150,000 families in the region currently need housing and that number is expected to double in ten years. Having stable housing not only reduces the stress of everyone in the household, allowing them to focus on work and school, but it's the first step in addressing all of a family's needs.



In 2016, WRAG engaged its membership in a learning journey about the dimensions of racism, particularly structural racism and implicit bias, through an ongoing initiative called *Putting Racism on the Table*. There is a growing acknowledgment among philanthropy that racially motivated policies and practices are often found to be at the root of disparities in areas such as health, education, incarceration, housing, and more. Without addressing racism, many of the societal problems of concern to grantmakers will never truly be resolved.

The region needs to make a true commitment to understanding the life experiences of all who live here and to working to create an environment in which the region's citizens have what they need to thrive and succeed.



## Alexandria/Arlington Regional Workforce Council

Alexandria/Arlington Regional Workforce Council helps drive the City of Alexandria and Arlington County's economic growth by implementing an effective and efficient workforce development system that delivers innovative, integrated, data-driven products and services designed and aligned to meet the needs of businesses and job seekers. The Council envisions a region where every business has access to a qualified, job-ready workforce and every resident has the skills needed to connect with meaningful employment and advance in a career. The Council serves as a local workforce development board for Elevate Virginia. This business-led Council is a regional body responsible for coordinating businesses, economic development agencies, labor, planning commissions, education institutions, and human services organizations to focus on community workforce issues and develop solutions to current and prospective business needs for a skilled labor force.

In order to continue enhancing the human capital of the region, the Council is working to increase business engagement in order to deliver value to stakeholders and fill jobs in demand occupations that show promise for long-term growth in industries that are strategic to the City of Alexandria and Arlington County's economy and strengthen the region. It is important to fill jobs and help individuals, including individuals with barriers, gain access to the middle class and demonstrate career progression. The Council also works to ensure that workforce system public investments generate a quality return to the City of Alexandria and Arlington County and the customers served.



To support the continued success of our current human capital and workforce, organizations should continue efforts to include elements of Emotional Intelligence concepts (social graces, communication, language, personal habits, interpersonal skills, etc. that characterize relationships with other people) into all levels of education and workforce training courses. Leaders should also work together to create a common talent supply/demand analysis so that all education and workforce development organizations can prepare common tools for their customers to succeed in the metropolitan Washington labor market.



*Credit: (Alexandria/Arlington Regional Workforce Council)*



## District of Columbia Workforce Investment Council (DC WIC)

The DC WIC's mission is to lead the creation of a fully integrated, comprehensive workforce development system that effectively meets the needs of businesses by providing one of the nation's most highly skilled talent pools. To create, support, and sustain human capital in the District, the WIC employs a variety of strategies to serve local and regional businesses, while providing District workers and jobseekers access to skills training and employment opportunities to move forward into career pathways.

The District of Columbia is one of the most diverse environments in the nation, both in relation to industry composition and socio-economically. The Federal government is the largest employer in the area, followed by several Fortune 500 companies and a myriad of local businesses. The education and economic disparities within the District are daunting. Forty-nine percent of people 25 years or older hold bachelor's degrees or higher; the national average is 25 percent. This number is in stark contrast to the more than 60,000 adults in the District who do not have high school diplomas or its equivalent. This contrast in education leads to an economic disparity across the city, especially for residents who have historically experienced the highest unemployment and poverty rates. The WIC is intentional about implementing strategies to provide solutions to a wide range of needs.

The DC WIC implements a three-pronged approach to enhancing human capital: (1) Working closely with business and industry to understand their needs and support regional economic growth. (2) Ensuring job-seekers have access to opportunities and effective programming to increase their skills, knowledge, and economic value to employers. (3) Ensuring workforce and education providers are well-equipped and effective in delivering training to create competitive jobseekers. DC WIC's work focuses on the development of sector strategies with a focus on DC's high-demand sectors including construction, health care, information technology, hospitality, and security and law enforcement.

In addition to sector work, the DC WIC currently implements a career pathways system across the District, led by the Career Pathways Task Force. Career Pathways are a best practice in workforce development and connect progressive levels of education, training, support services, and credentials for specific occupations in a way that optimizes the progress and success of individuals with varying levels of abilities and needs. The DC WIC will soon be announcing innovative grant opportunities for sector-based career pathways partnerships serving D.C. residents with high-barriers to employment.

Regionally, the DC WIC seeks to collaborate further with state and local workforce boards in neighboring jurisdictions to align common sector strategies and career pathways approaches to support investment in human capital. By using regional Labor Market Information (LMI) we can better prepare the workforce to meet the needs of regional businesses and align sector work across geographic borders. By working collaboratively, we can ensure the District, Maryland, and Virginia are better positioned to meet the needs of the regional business community.



*Credit: (District of Columbia Workforce Investment Council)*



## Frederick County Workforce Services

Frederick County Workforce Services' mission is to exceed expectations in the delivery of customer-centered, market driven workforce solutions to job seekers, youth, and businesses. Frederick County leverages local and federal funds to develop and implement workforce development and training programs that are customized to meet individual and business needs. Each year, staff support over 300 businesses in recruitment, hiring, and training for new and incumbent workers. Specifically, a summer jobs program for youth serves nearly

200 young people who gain valuable, paid work experiences, building on the skill and talent development strategies of the future workforce.



Frederick County has the second largest concentration of biotech companies in the state, with over 80 biotech firms calling the county home. There is a strong network of local support for industry and business success, which substantially contributes to making Frederick a great place to live and work. Major employers represent a diverse industry base, including, bio-pharma, professional, technical and scientific, manufacturing, healthcare, and construction. Recent expansions of anchor businesses in the biopharma and current and projected growth in professional, technical, and scientific industries show that the local economy continues to grow. The county is also home to thousands of small businesses employing 10 or fewer employees.



*Credit: Chamber Business Expo (Frederick County Workforce Services)*

Priorities for enhancing the competitiveness of the workforce include investing in training funds and in individuals who require and need industry related credentials in Information Technology and CyberSecurity, Healthcare, Trades, Advanced Manufacturing, and Bioscience. Similarly, Frederick partners with businesses to support them with programs that offset the cost of training new workers on the job and

help fund training for current workers who need additional skills to allow the business to stay competitive. In addition, the county is making work-based learning, apprenticeship, and paid internship experiences a priority strategy to address the gap between formal classroom training and education, and practical application of skills on the job.

The region's strong education network and diverse industry base contribute greatly to the success of its workforce. As talent gaps continue to emerge, it will be critical to keep businesses and industries engaged in efforts to attract, train and hire the workers that they need. Providing access to opportunities where businesses can lead the development of human capital and workforce pipelines will ensure future workforce development programs and initiatives are successful.





## The **SkillSource** Group, Inc.

In 2002, the **SkillSource** Group, Inc. (**SkillSource**) was created as the non-profit entity of the Northern Virginia Workforce Development Board (NVWDB) with a mandate for fiscal oversight and resource development in support of the programs and services of the NVWDB. Recognizing the importance of investing in the region's human capital, **SkillSource**'s mission is to catalyze a world class, globally competitive business environment in Northern Virginia with the goal to offer world-class preparation to every Northern Virginia resident at its six (6) One-Stop Employment Centers, known as **SkillSource** Centers that serve over 1.9 million residents and tens of thousands of businesses in Fairfax, Loudoun and Prince William counties and the cities of Fairfax, Falls Church, Manassas and Manassas Park. In FY 2016, the **SkillSource** Centers hosted close to 57,000 jobseeker visits.

**SkillSource** has enhanced workforce services by reaching out to non-traditional populations throughout the region. Some of these efforts have been directly tied to employment and training issues, but others have directed resources to improving access to employment opportunities that have not necessarily been available to diverse segments of the community.

**SkillSource** provides free employment and training services to assist low-income adults, low-skilled-workers, dislocated workers and low-income youth ages 16-24 who face barriers to employment.

**SkillSource** also manages several programs serving ex-offenders through the Fairfax County Sheriff Employment Center located within the Fairfax County Jail Pre-Release Center (PRC). Funding from COG has played a critical role in the success of this initiative over the past several years, supporting the purchase of a van and drivers to transport inmates to jobs throughout Fairfax County.

Understanding that the U.S. Military is one of the greatest supporters of human capital in this country, **SkillSource** has developed a robust veterans' employment and training program over the past several years and has placed close to 400 veterans into sustainable employment. **SkillSource** has also provided adult jobseekers with comprehensive entrepreneurial training and technical assistance to assist with new job creation and small business growth since 2008.

**SkillSource** recognizes that the growth and development of human capital is more than just putting people into jobs. The community needs to continue working together to align the wide variety of organizations in the public workforce system including employers, workforce agencies, non-profit organizations, and elected officials to create a strong and economically viable region. Our collective strength is our willingness to work together to best support employers and jobseekers to attract human capital to our region.





## WorkSource Montgomery (WSM)

WorkSource Montgomery is linking local and regional economic development and workforce efforts by developing a deep understanding of target and emerging industry demands, creating sustainable workforce solutions that are tailored to the region, increasing the ability for individuals to compete for higher-quality jobs and the employers to compete within the marketplace. Most importantly, it is creating lasting change in the Montgomery County's labor market system. WSM's mission is to meet the talent attraction, development, and retention needs of strategic industries, meet the needs of the underemployed and unemployed, and to develop career pathways that lead to sustainable wage jobs and support a thriving mission.

WorkSource Montgomery supports human capital by collaborating with the career creators to develop the qualified talent pipeline needed to ensure a robust labor market for current demand and careers of the future. For the diverse population of career-seekers, WorkSource Montgomery provides workshops, assessments, career counseling, industry recognized job training and placement, and retention supports.



**Focus on Job Creators**  
8,593 Jobs Posted

Industry guides strategic workforce design in Montgomery County.



Increasing economic competitive of our employers means focusing on talent.

Montgomery County is a major hub for high-paying careers, and many of the country's top businesses and government agencies are either headquartered here or have a major presence. These organizations are seeking highly skilled professionals, often with advanced degrees, in high-growth industries, such as IT, cybersecurity and biotechnology. WSM provides a variety of workforce and economic development services and support to Montgomery County businesses and residents. Montgomery is among the best-educated and wealthiest counties in the United States: 57.4 percent of individuals over 25 have a bachelor's degree, median household income is more than \$98,000 (vs. \$53,500 for the US), the unemployment rate as of May 2016 is 3.3 percent, and the poverty rate is 7.2 percent.

WorkSource Montgomery partners with over 220 community partners representing organizations in Montgomery County and throughout the metropolitan region. WSM is committed to developing and sustaining a quality and innovative workforce in the County. They are focusing on Industry Alliances to create substantial impact and outcomes for the targeted industry. A priority is to develop a deep understanding of the skills gap between the skills job seekers currently have and the skills employers need to fill their open positions and to improve the Montgomery County Job Center operations to make them the 'go to' place for both business and jobseekers.

For the region to continue to thrive, it must work together to grow Workforce Development capacity to enhance an industry sector approach as a means of providing services to employers. The region also needs to support youth and adult skills development through job search assistance, skills assessment, coaching, and skills training that result in obtaining an industry recognized certificate or a credential.

# OPPORTUNITIES TO SUPPORT THE HUMAN CAPITAL OF OUR REGION

Metropolitan Washington is a region of many strengths and advantages. It has a highly educated workforce, a thriving economy, and a high quality of life. The leaders of the region all share a common goal of creating a better place for residents to live, work, and play. To invest in human capital, the region must continue to implement efforts to improve all aspects of its communities. Infrastructure—from housing and schools, to roads and public transportation—all influence where individuals choose to invest their human capital. While the region has a lot to offer, issues such as increasing cost of living, gentrification, and regional disparities need to be addressed. Human capital directly affects the region’s economic competitiveness and opportunities to grow the global economy. The public and private sectors need to continue to collaborate on opportunities to improve the region and continue creating an environment to attract people to stay.

## Recommendations

- 1. SUPPORT INVESTMENT IN ECONOMIC CLUSTERS** — Continue efforts to focus on the seven regional economic clusters: advocacy, information and communications technology, science and security technology, biology and health technology, business and financial services, media and information services, and leisure and business hospitality services to help grow the region’s current export economy, support systems, and attract talent to the region.
- 2. CONTINUE TO STUDY AND INVEST IN ACTIVITY CENTERS** — Analyze performance of individual Activity Centers among other Centers of the same place type or opportunity type, or within the same jurisdiction, to identify “high performers.” These high performer Centers will provide a set of diverse, aspirational examples of strong Centers to help communities benchmark their progress, and facilitate regional knowledge sharing and dissemination of best practices.



*Credit: Driver in Training (Steve Fernie/Flickr)*



Credit: Board of Trade Event (Geoff Livingston/Flickr)

- 3. SUPPORT WORKFORCE DEVELOPMENT THROUGH INFRASTRUCTURE INVESTMENT** — As part of its work with the Commerce Department’s national Communities that Work Partnership, COG is leading a regional team of public and private sector leaders to advance workforce development and job opportunities, especially among low-income and low-skill workers in the region’s rapidly growing stormwater infrastructure sector, which is expected to receive \$10 billion in investment in the next decade. The goal is to create a robust system for training and credentialing to meet the need for stormwater management, an industry that is expected to create jobs that cannot be exported, stimulate regional economies, and provide environmental benefits.
- 4. COLLABORATE WITH WORKFORCE INVESTMENT BOARDS (WIBS) AND WORKFORCE INVESTMENT COUNCILS (WICS)** — Partner with the WIBs and WICs in the District of Columbia, Maryland, and Virginia to implement workforce development strategies throughout the region. Increase collaboration amongst the individual boards to further coordinate efforts regionally. Align workforce development with education services and the needs of the business community to make sure resources are integrated with the needs of the employment market.
- 5. ADVANCE STRATEGIES FOR INCLUSIVE ECONOMIC DEVELOPMENT** — Encourage strategies and programs to incorporate equity, transparency, sustainability, and community engagement in all aspects of economic development. Ensure equality of opportunity for all communities, especially those with higher unemployment levels. As the region continues to grow the economy it is important to remain cognizant of all equity emphasis areas and ensure their growth is at the forefront of the region’s efforts.

# APPENDIX

Table 10

## Summary of Intermediate Employment Forecasts, Round 9.0 Cooperative Forecasts (Thousands)

JURISDICTION	2015	2020	2025	2030	2035	2040	2045	2015 to 2045 Growth		
								Number	% Change	Share
District of Columbia	798.3	846.3	895.1	937.9	978.2	1,011.8	1,045.4	247.1	31.0%	21.7%
Arlington County	209.6	213.2	225.2	242.1	255.8	267.6	279.6	69.9	33.4%	6.1%
City of Alexandria	106.2	110.1	121.8	127.3	135.3	142.7	155.1	48.9	46.0%	4.3%
<b>Central Jurisdictions</b>	<b>1,114.1</b>	<b>1,169.6</b>	<b>1,242.1</b>	<b>1,307.3</b>	<b>1,369.2</b>	<b>1,422.2</b>	<b>1,480.0</b>	<b>365.9</b>	<b>32.8%</b>	<b>32.1%</b>
Montgomery County	520.2	543.5	572.5	604.5	627.4	653.9	678.7	158.5	30.5%	13.9%
City of Rockville	76.9	78.3	80.5	82.5	86.8	91.2	96.8	19.8	25.8%	1.7%
City of Gaithersburg	46.4	47.6	50.0	52.7	56.1	61.1	65.7	19.3	41.5%	1.7%
Prince George's County	338.6	349.0	366.3	375.7	385.5	393.3	402.1	63.6	18.8%	5.6%
Fairfax County	654.1	702.6	749.3	790.6	827.8	864.5	898.1	244.0	37.3%	21.4%
City of Fairfax	20.8	21.9	22.8	23.7	24.6	25.6	26.6	5.8	28.0%	0.5%
City of Falls Church	12.0	14.3	16.2	17.6	18.0	18.3	18.6	6.6	55.0%	0.6%
<b>Inner Suburbs</b>	<b>1,545.6</b>	<b>1,631.4</b>	<b>1,727.1</b>	<b>1,812.1</b>	<b>1,883.3</b>	<b>1,955.7</b>	<b>2,024.1</b>	<b>478.6</b>	<b>31.0%</b>	<b>42.0%</b>
Loudoun County	164.2	188.0	211.0	235.5	255.6	273.9	290.8	126.5	77.1%	11.1%
Prince William County	144.6	165.0	184.4	204.5	223.1	245.1	258.3	113.7	78.6%	10.0%
City of Manassas	25.7	26.9	28.3	28.8	29.6	30.3	31.0	5.3	20.7%	0.5%
City of Manassas Park	4.6	4.7	4.8	4.9	5.0	5.1	5.2	0.6	12.5%	0.1%
Charles County	46.6	47.0	49.2	52.2	55.4	58.8	61.5	14.9	32.0%	1.3%
Frederick County	106.2	110.6	115.6	121.3	127.8	133.9	140.2	34.0	32.0%	3.0%
City of Frederick	50.1	51.8	53.5	55.4	57.3	59.2	61.2	11.1	22.2%	1.0%
<b>Outer Suburbs</b>	<b>492.0</b>	<b>542.1</b>	<b>593.4</b>	<b>647.3</b>	<b>696.5</b>	<b>747.2</b>	<b>787.0</b>	<b>295.0</b>	<b>60.0%</b>	<b>25.9%</b>
<b>Virginia Jurisdictions</b>	<b>1,341.9</b>	<b>1,446.6</b>	<b>1,563.8</b>	<b>1,675.1</b>	<b>1,774.8</b>	<b>1,873.3</b>	<b>1,963.2</b>	<b>621.4</b>	<b>48.7%</b>	<b>54.5%</b>
<b>Maryland Jurisdictions</b>	<b>1,011.5</b>	<b>1,050.2</b>	<b>1,103.7</b>	<b>1,153.7</b>	<b>1,196.0</b>	<b>1,239.9</b>	<b>1,282.5</b>	<b>271.0</b>	<b>27.8%</b>	<b>23.8%</b>
<b>COG REGION</b>	<b>3,151.7</b>	<b>3,343.0</b>	<b>3,562.6</b>	<b>3,766.7</b>	<b>3,949.0</b>	<b>4,125.0</b>	<b>4,291.2</b>	<b>1,139.5</b>	<b>36.2%</b>	<b>100.0%</b>

Source: COG's Cooperative Forecasting and Data Subcommittee

Table 11

### Summary of Intermediate Population Forecasts, Round 9.0 Cooperative Forecasts (Thousands)

JURISDICTION	2015	2020	2025	2030	2035	2040	2045	2015 to 2045 Growth		
								Number	% Change	Share
District of Columbia	672.2	729.5	787.1	842.2	893.9	940.7	987.2	315.0	46.9%	20.9%
Arlington County	220.5	232.7	244.8	256.0	266.3	278.1	289.5	69.0	31.3%	4.6%
City of Alexandria	147.6	159.2	167.5	172.8	180.5	190.8	208.5	60.8	41.2%	4.0%
<b>Central Jurisdictions</b>	<b>1,040.4</b>	<b>1,121.4</b>	<b>1,199.4</b>	<b>1,270.9</b>	<b>1,340.7</b>	<b>1,409.6</b>	<b>1,485.2</b>	<b>444.8</b>	<b>42.7%</b>	<b>29.6%</b>
Montgomery County	1,015.3	1,052.0	1,087.3	1,128.8	1,167.7	1,197.1	1,223.3	208.1	20.5%	13.8%
City of Rockville	66.3	71.5	76.9	80.4	83.6	86.8	89.9	23.6	35.6%	1.6%
City of Gaithersburg	67.1	70.7	74.6	78.7	82.4	86.1	89.3	22.2	33.0%	1.5%
Prince George's County	904.4	923.1	938.0	953.0	967.8	982.4	995.9	91.4	10.1%	6.1%
Fairfax County	1,125.4	1,162.5	1,213.2	1,264.7	1,314.3	1,362.5	1,406.7	281.4	25.0%	18.7%
City of Fairfax	24.7	26.0	26.4	26.9	27.4	27.9	28.3	3.7	14.8%	0.2%
City of Falls Church	13.1	14.2	15.5	16.4	17.0	17.3	17.6	4.5	34.4%	0.3%
<b>Inner Suburbs</b>	<b>3,082.9</b>	<b>3,177.9</b>	<b>3,280.4</b>	<b>3,389.8</b>	<b>3,494.2</b>	<b>3,587.1</b>	<b>3,671.9</b>	<b>589.0</b>	<b>19.1%</b>	<b>39.2%</b>
Loudoun County	363.5	414.7	451.1	470.7	484.4	492.5	497.5	134.0	36.9%	8.9%
Prince William County	431.2	464.7	496.7	521.3	541.9	558.9	572.8	141.6	32.8%	9.4%
City of Manassas	42.5	43.8	45.5	47.5	49.0	50.6	52.1	9.7	22.7%	0.6%
City of Manassas Park	14.3	15.9	15.9	15.9	15.9	15.9	15.9	1.6	11.1%	0.1%
Charles County	150.8	167.0	178.2	194.7	207.5	218.6	236.5	85.7	56.8%	5.7%
Frederick County	246.5	267.8	288.7	303.6	319.4	332.2	344.1	97.6	39.6%	6.5%
City of Frederick	70.4	79.4	87.0	89.6	91.1	92.8	93.1	22.7	32.2%	1.5%
<b>Outer Suburbs</b>	<b>1,248.8</b>	<b>1,373.9</b>	<b>1,476.1</b>	<b>1,553.6</b>	<b>1,618.1</b>	<b>1,668.6</b>	<b>1,719.0</b>	<b>470.2</b>	<b>37.7%</b>	<b>31.3%</b>
<b>Virginia Jurisdictions</b>	<b>2,382.8</b>	<b>2,533.6</b>	<b>2,676.6</b>	<b>2,792.1</b>	<b>2,896.7</b>	<b>2,994.4</b>	<b>3,089.0</b>	<b>706.1</b>	<b>29.6%</b>	<b>47.0%</b>
<b>Maryland Jurisdictions</b>	<b>2,317.0</b>	<b>2,410.0</b>	<b>2,492.2</b>	<b>2,580.0</b>	<b>2,662.4</b>	<b>2,730.2</b>	<b>2,799.8</b>	<b>482.8</b>	<b>20.8%</b>	<b>32.1%</b>
<b>COG REGION</b>	<b>5,372.0</b>	<b>5,673.1</b>	<b>5,956.0</b>	<b>6,214.3</b>	<b>6,453.0</b>	<b>6,665.3</b>	<b>6,876.0</b>	<b>1,504.0</b>	<b>28.0%</b>	<b>100.0%</b>

Source: COG's Cooperative Forecasting and Data Subcommittee

Table 12

### Summary of Intermediate Household Forecasts, Round 9.0 Cooperative Forecasts (Thousands)

JURISDICTION	2015	2020	2025	2030	2035	2040	2045	2015 to 2045 Growth		
								Number	% Change	Share
District of Columbia	297.1	319.3	341.0	362.5	380.6	396.2	411.9	114.8	38.6%	17.9%
Arlington County	103.6	109.3	115.2	120.7	125.8	131.1	136.3	32.6	31.5%	5.1%
City of Alexandria	71.2	75.7	80.8	84.1	87.8	92.9	107.1	35.9	50.4%	5.6%
<b>Central Jurisdictions</b>	<b>471.9</b>	<b>504.3</b>	<b>537.0</b>	<b>567.3</b>	<b>594.3</b>	<b>620.3</b>	<b>655.2</b>	<b>183.3</b>	<b>38.8%</b>	<b>28.6%</b>
Montgomery County	374.9	391.1	405.6	422.3	438.1	450.9	461.9	87.1	23.2%	13.6%
City of Rockville	26.4	28.5	30.8	32.5	34.0	35.4	36.8	10.3	39.0%	1.6%
City of Gaithersburg	24.7	26.0	27.5	28.9	30.5	32.1	33.4	8.8	35.5%	1.4%
Prince George's County	321.1	334.3	343.9	355.5	363.3	370.0	376.8	55.6	17.3%	8.7%
Fairfax County	403.9	421.1	444.5	467.8	490.2	511.9	531.8	127.9	31.7%	19.9%
City of Fairfax	9.2	9.7	9.9	10.0	10.2	10.3	10.5	1.3	13.8%	0.2%
City of Falls Church	5.5	6.2	6.9	7.4	7.7	7.9	8.1	2.6	47.3%	0.4%
<b>Inner Suburbs</b>	<b>1,114.7</b>	<b>1,162.5</b>	<b>1,210.7</b>	<b>1,263.0</b>	<b>1,309.4</b>	<b>1,351.1</b>	<b>1,389.2</b>	<b>274.5</b>	<b>24.6%</b>	<b>42.8%</b>
Loudoun County	121.1	137.9	150.8	158.6	164.3	167.6	169.3	48.2	39.8%	7.5%
Prince William County	140.4	151.9	164.4	173.8	181.6	187.9	192.9	52.5	37.4%	8.2%
City of Manassas	13.6	14.2	15.0	15.4	15.7	16.0	16.4	2.7	19.9%	0.4%
City of Manassas Park	4.5	5.0	5.0	5.0	5.0	5.0	5.0	0.5	11.7%	0.1%
Charles County	53.7	60.3	65.5	72.9	78.6	83.4	92.2	38.5	71.8%	6.0%
Frederick County	89.5	99.0	107.9	115.1	121.1	126.5	131.2	41.7	46.6%	6.5%
City of Frederick	27.3	30.9	34.1	35.2	35.9	36.6	36.7	9.5	34.8%	1.5%
<b>Outer Suburbs</b>	<b>422.7</b>	<b>468.3</b>	<b>508.6</b>	<b>540.8</b>	<b>566.5</b>	<b>586.6</b>	<b>606.9</b>	<b>184.1</b>	<b>43.6%</b>	<b>28.7%</b>
<b>Virginia Jurisdictions</b>	<b>873.1</b>	<b>931.1</b>	<b>992.5</b>	<b>1,042.8</b>	<b>1,088.5</b>	<b>1,130.8</b>	<b>1,177.3</b>	<b>304.2</b>	<b>34.8%</b>	<b>47.4%</b>
<b>Maryland Jurisdictions</b>	<b>839.1</b>	<b>884.7</b>	<b>922.9</b>	<b>965.8</b>	<b>1,001.1</b>	<b>1,030.9</b>	<b>1,062.1</b>	<b>222.9</b>	<b>26.6%</b>	<b>34.7%</b>
<b>COG REGION</b>	<b>2,009.3</b>	<b>2,135.1</b>	<b>2,256.4</b>	<b>2,371.1</b>	<b>2,470.2</b>	<b>2,557.9</b>	<b>2,651.3</b>	<b>641.9</b>	<b>31.9%</b>	<b>100.0%</b>

Source: COG's Cooperative Forecasting and Data Subcommittee



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