

Comprehensive Economic Development Strategy

Rappahannock-Rapidan Regional Commission

In partnership with GO Virginia Region 9

Appendix I

Demographic, Economic, and Real Estate Profile

June 2023

PREPARED FOR:

Rappahannock-Rapidan Regional Commission
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Culpeper, VA 22701



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INTRODUCTION

The analysis of economic conditions in the Rappahannock-Rapidan Region provides the foundation for the Comprehensive Economic Development Strategy (CEDS). Understanding the population, labor force, industries, economy, and real estate of the region lays the groundwork for the community and business engagement and strategy development to come.

The regional background report covers the first two data sections of the Comprehensive Economic Development Strategy. They are as follows:

- **Economic and Demographic Data** – The profile of the region covers a range of demographic data, including existing and projected trends for population, households, median age, race and ethnicity, and education. Economic indicators on industries, the labor market, employment, and commuting trends. Key findings are presented at the beginning of the section to highlight notable trends or elements in the economy.
- **Real Estate** – This section reviews the real estate landscape of the region across various types of real estate building types, including office, retail, industrial, lodging, flex spaces, and residential multifamily space. These data are provided at both the regional and county level. Key findings are also documented at the beginning of the section with highlights of the real estate inventory.

RRRC CEDS – SCHEDULE

- Regional economic and demographic profile
- Real estate profile

Upcoming work:

- Stakeholder and partner organization engagement
- Business climate resiliency inventory
- Situational assessment
- Strategy development
- Super-regional strategy development – coordination with Thomas Jefferson Planning District Commission



ECONOMIC AND DEMOGRAPHIC PROFILE

Demographic and Economic Key Findings

The Rappahannock-Rapidan Region is projected to grow in the coming decades, with gains concentrated primarily in Culpeper and Fauquier Counties. With just under 2/3 of the region's population in these two counties, Fauquier, and Culpeper drive many of the demographic and economic trends in the region.

Population and jobs have both expanded over the last decade, with the rate of job growth outpacing gains in population. Both population and employment within the region grew at similar rates between 2012-2019. The pandemic then generated a significant divergence. Despite losses in employment, the regional population continued to increase in 2020 and 2021. Regionally, the number of jobs had returned to pre-pandemic levels by 2022, but the rate of growth remains muted compared to the stronger pre-2020 pace.

The region has a lower proportion of residents with a bachelor's degree than the Commonwealth of Virginia or the US. 32% of residents in the region hold at least a bachelor's degree, while an additional 30% have a High School Diploma or equivalent. Those shares of the population are slightly lower and higher than the state or national shares, respectively.

Household incomes are higher in the region than in Virginia or the US. Significant differences remain between counties, however. Fauquier, Rappahannock, and Culpeper County all have median household incomes above that of the Virginia. Fauquier in particular drives the regional level up, with a median income measuring over

\$110,000. Orange and Madison Counties, on the other hand, show income levels below state and national levels.

Despite higher household incomes in the region, the average annual earnings per job in the region was lower than for the state or nation overall. Average earnings measured approximately \$59,900 per year in the region compared to \$78,700 in Virginia and \$77,800 in the US.

The Rappahannock-Rapidan Region has a higher proportion of older adults (those aged 50+) than Virginia or the US overall, and conversely, it also includes a lesser share of younger adults (age 20-49). The median age in the region is 42.6, significantly older than either Virginia (39.2) or the US overall (38.9). The region in particular has low shares of residents aged 15 to 49, which will likely have an impact on the area's economy as this age cohort covers the majority of the working-age population.

The region's fastest-growing industry sectors include Professional, Scientific, Technical Services, and Manufacturing. While not expanding at the same rate, Agriculture, Forestry, Fishing, and Hunting, Government (including hospitals and education), Health Care and Social Assistance, and Retail Trade are also major industries by total employment which are showing reasonable gains.

1/3 of Rappahannock-Rapidan Region residents work in the region, while 2/3 commute elsewhere. The largest commuter destinations outside the region include Fairfax, Prince William, and Loudon Counties, as well as the District of Columbia.



Regional Context

The region consists of five counties: Culpeper, Fauquier, Madison, Orange, and Rappahannock, all located in northeast Virginia. The following table indicates the region’s proximity to larger population centers to better understand its location relative to its surroundings.

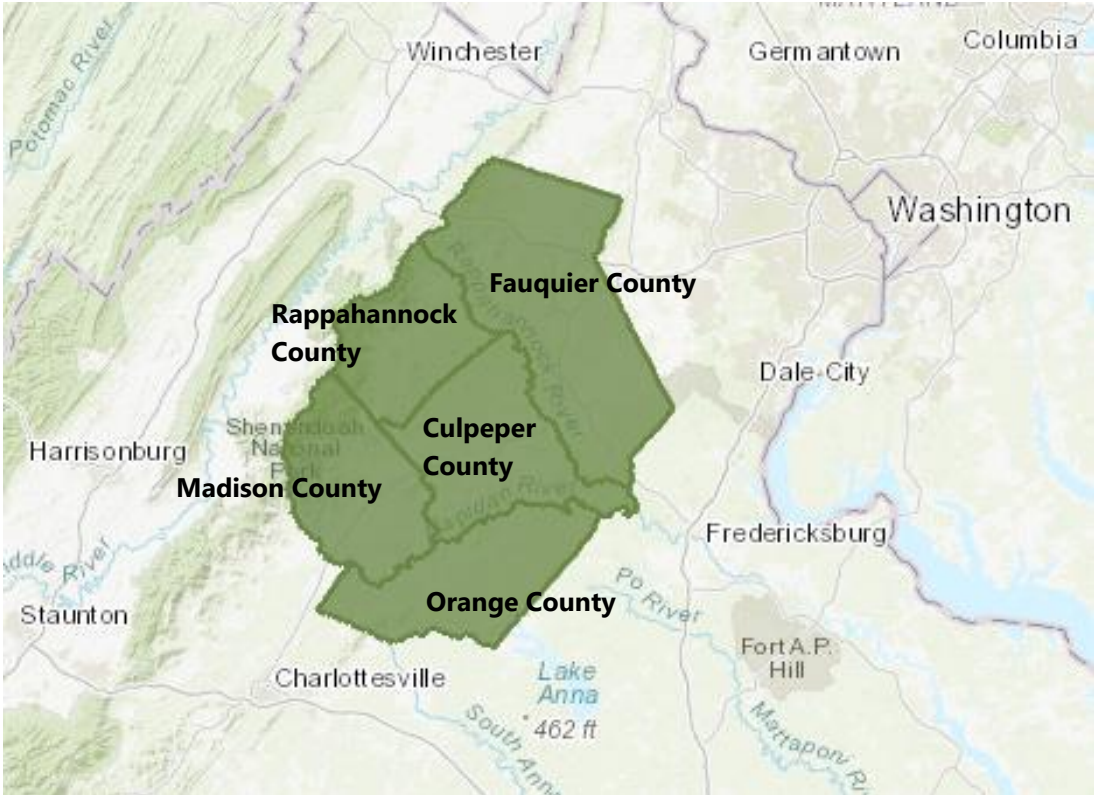
Rappahannock-Rapidan Region Distance to Population Centers

Destination	Distance (miles)	Direction
Charlottesville, VA	25	South
Harrisonburg, VA	35	West
Washington D.C.	41	Northeast
Brunswick, MD	48	North
Richmond, VA	66	Southeast
Baltimore, MD	78	Northeast

Distance is measured from nearest regional border

Source: Google Maps, ArcGIS

Rappahannock Rapidan Region

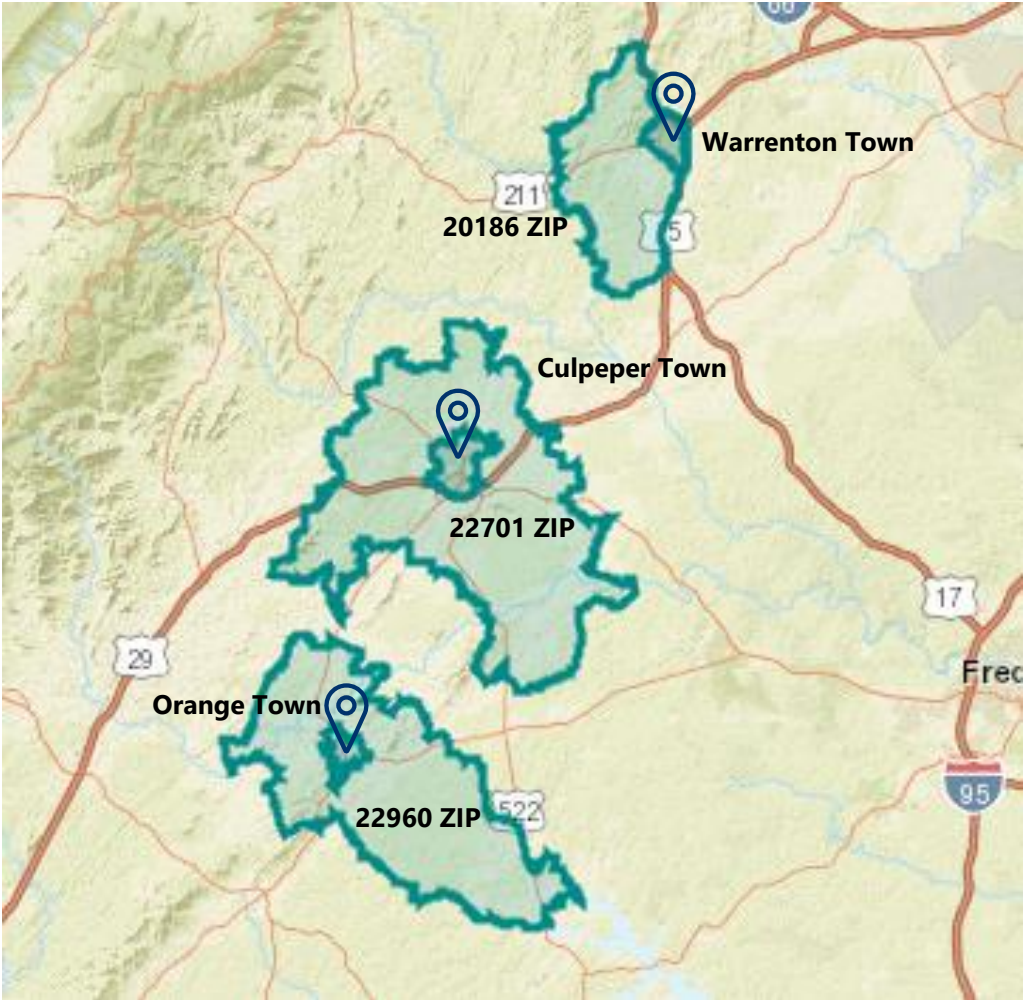


Source: Esri



Town vs Zip Code Boundaries

Where available, town level data is also provided to better understand the demographics of the region. For demographic data the town municipal boundaries are used. Due to data availability, the ZIP Codes containing Orange, Warrenton, and Culpeper are used for all industry and occupation level data. To provide a visual of the scope of the region, the map to the right shows the town boundaries vs the ZIP code sizes.



Source: Esri



Demographic Profile

Population Totals

In 2022, the Rappahannock-Rapidan Region had a total population of 186,145 based on Weldon Cooper estimates¹. The primary population centers for the region are Fauquier County, (2022 population of 73,536) and Culpeper County (2022 population of 52,552). Combined, the two counties represent 65.6% of the region’s total population. The smallest county in the region is Rappahannock County with a 2022 population of 7,394 (4% of the 2022 regional total).

The following table displays the population totals and future projections for each of regional geographies by decade from 1990 to 2050 and the current estimates for 2022. The county and region totals are presented alongside the national and state level population estimates.

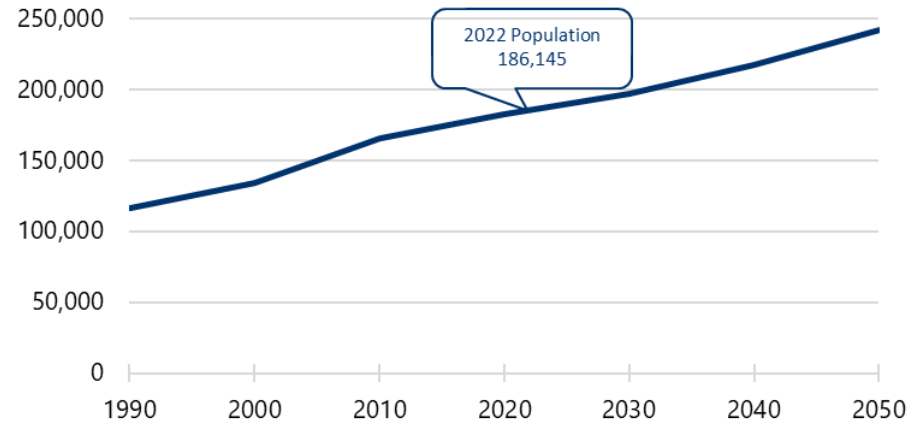
Total Population

Region	Population							
	1990	2000	2010	2020	2022	2030	2040	2050
Culpeper County	27,791	34,262	46,689	52,552	54,089	57,578	65,739	74,884
Fauquier County	48,860	55,139	65,203	72,972	73,536	79,584	87,195	96,112
Madison County	11,949	12,520	13,308	13,837	14,017	14,160	14,600	15,259
Orange County	21,421	25,881	33,481	36,254	37,109	38,468	43,010	48,197
Rappahannock County	6,622	6,983	7,373	7,348	7,394	7,218	7,291	7,474
Culpeper Town	8,730	9,664	16,651	20,062	20,602	21,981	25,096	28,587
Warrenton Town	5,096	6,670	9,549	10,057	10,214	10,968	12,017	13,246
Rappahannock-Rapidan Region Total	116,643	134,785	166,054	182,963	186,145	197,007	217,836	241,925
Virginia	6,189,317	7,079,030	8,001,024	8,644,727	8,696,955	9,129,002	9,759,371	10,535,810
US	248,709,873	281,421,906	308,745,538	331,449,281	333,287,557	347,200,000	361,500,000	371,000,000

Source: Weldon Cooper for County and State Estimates; US Census and Congressional Budget Office for National Estimates

¹ Weldon Cooper Center for Public Service at the University of Virginia provided these estimates. Projections for 2020, 2030, 2040, and 2050 were created prior to 2020 Decennial Census, thus some discrepancy from Census Estimates is expected.

Rappahannock-Rapidan Region Total Population



Source: Weldon Cooper



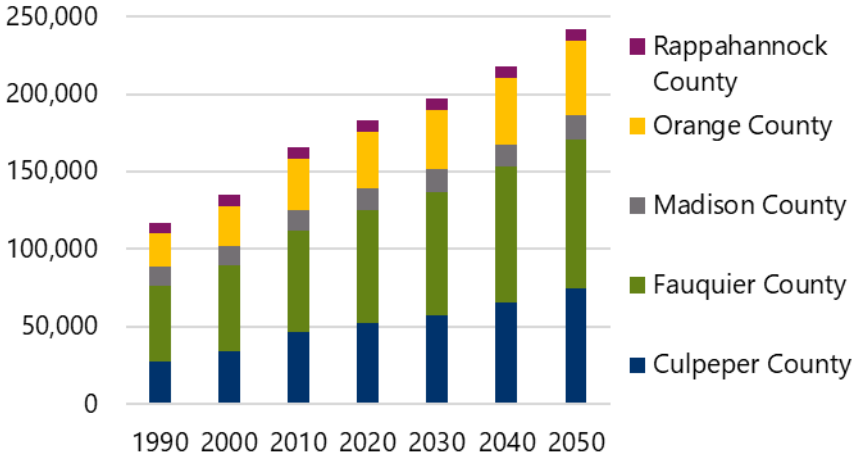
Population Growth

The population of the five-county region has steadily increased over the past several decades and is projected to continue to rise through 2050. The region’s major population centers, Fauquier County and Culpeper County, have historically also contributed the greatest increases in population, representing 76.9% of the region’s overall growth. More recently, Fauquier and Culpeper County were responsible for 66% of the region’s total growth from 2020-2022.

Rappahannock County was the only county in the region to lose population between 2010-2020 and is projected to decrease in population by an additional 2% from 2020-2030.

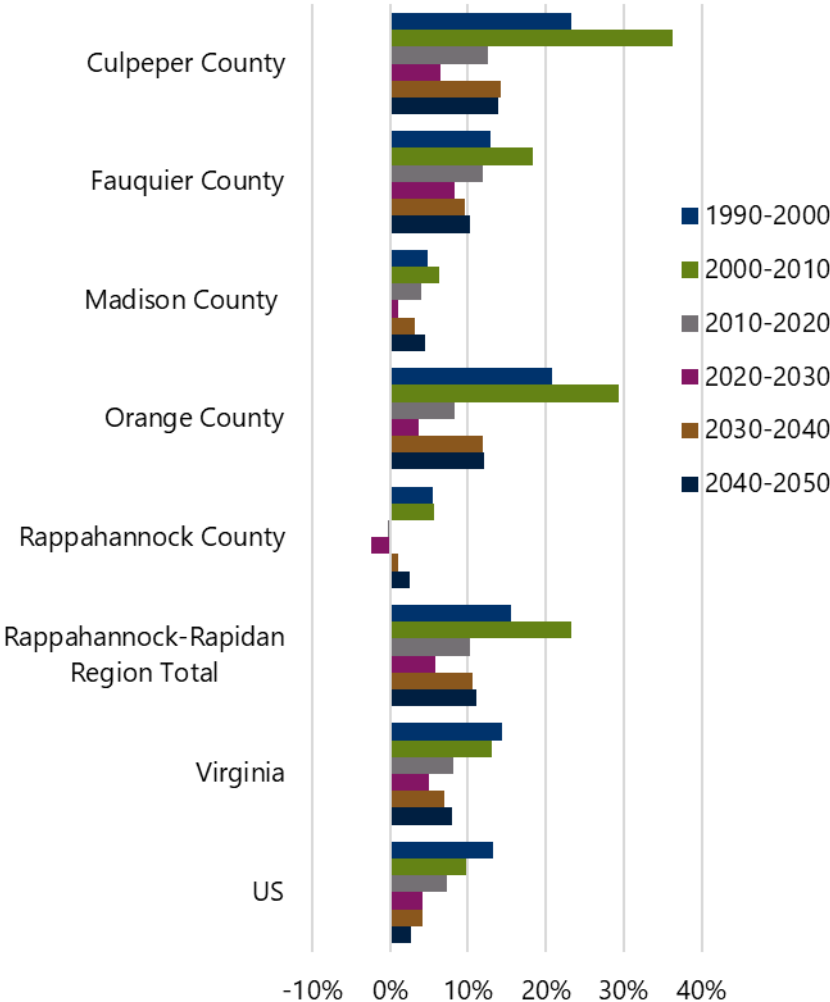
Notably, population growth rates in the Rappahannock-Rapidan Region have exceeded gains for both the state and the nation.

Total Population by Decade



Source: Weldon Cooper, US Census and Congressional Budget Office for National Estimates

Population Percent Change by Decade



Source: Weldon Cooper, US Census and Congressional Budget Office for National Estimates



The compound annual growth rate (CAGR) for population in the Rappahannock-Rapidan Region shows annualized growth during each decade back to 1990 outpacing growth of the state and the nation. Within the Rappahannock-Rapidan Region, Fauquier, Culpeper, and Orange County have seen the highest rates of growth since 1990. Looking forward, the region's growth is projected to accelerate, mirroring the state (albeit at a higher rate) through 2050. The national growth rate, on the other hand, is expected to decelerate over the next thirty years.

Compound Annual Growth Rate

Region	CAGR						
	1990-2000	2000-2010	2010-2020	2020-2022	2020-2030	2030-2040	2040-2050
Culpeper County	2.1%	3.1%	1.2%	0.3%	0.6%	1.3%	1.3%
Fauquier County	1.2%	1.7%	1.1%	0.1%	0.8%	0.9%	1.0%
Madison County	0.5%	0.6%	0.4%	0.1%	0.1%	0.3%	0.4%
Orange County	1.9%	2.6%	0.8%	0.2%	0.4%	1.1%	1.1%
Rappahannock County	0.5%	0.5%	0.0%	0.1%	-0.2%	0.1%	0.2%
Culpeper Town	1.0%	5.6%	1.9%	0.3%	0.7%	1.3%	1.3%
Warrenton Town	2.7%	3.7%	0.5%	0.2%	0.7%	0.9%	1.0%
Rappahannock-Rapidan Region Total	1.5%	2.1%	1.0%	0.9%	0.7%	1.0%	1.1%
Virginia	1.4%	1.2%	0.8%	0.3%	0.5%	0.7%	0.8%
US	1.2%	0.9%	0.7%	0.3%	0.5%	0.4%	0.3%

Source: Weldon Cooper for County and State Estimates; US Census and Congressional Budget Office for National Estimates



Households

There were 68,384 households in the Rappahannock-Rapidan Region in 2022, after overall increase from 2010 to 2020 continued over the subsequent years. As is expected based on the population totals, Fauquier and Culpeper County also have the most households in the region while Rappahannock County had the fewest.

The regional ratio of 2.68 persons per household exceeds both the state (2.53) and national (2.55) averages. Culpeper County shows the largest household size with 2.82 persons per household while Rappahannock County has the smallest household size at 2.28 in 2022.

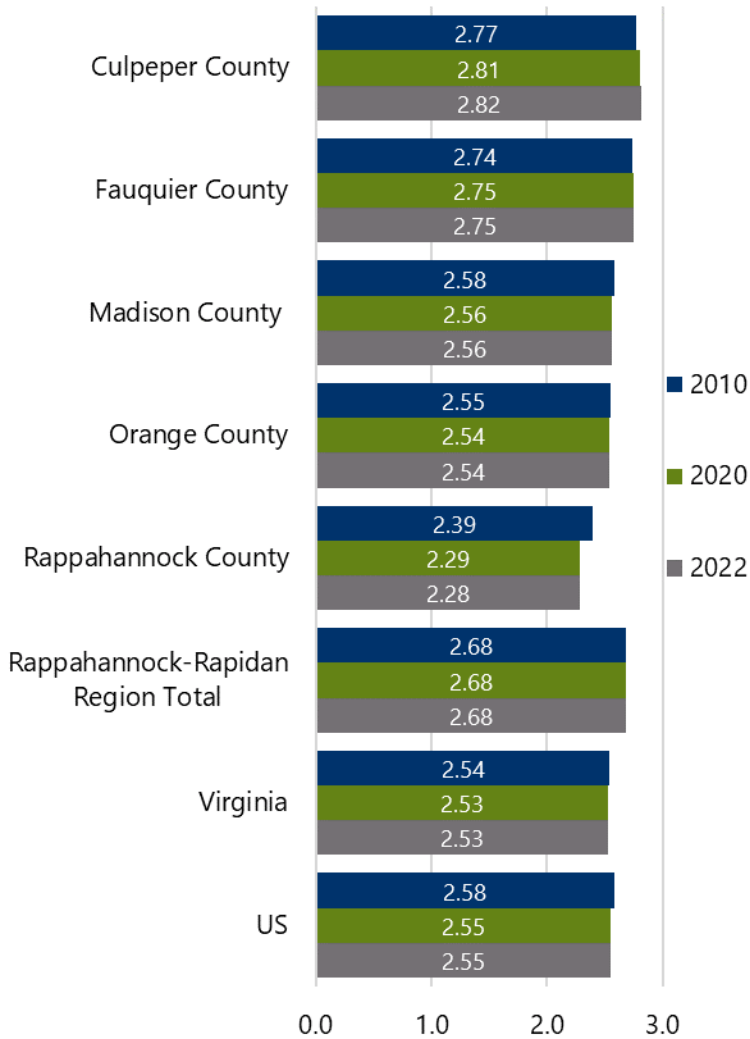
From 2010-2020, Culpeper and Fauquier Counties both showed increases in household size while Madison, Orange, and Rappahannock County posted declines. The state and nation also both decreased in average household size over the last decade. In part, these decreasing household sizes are likely due to an overall aging population.

Average Household Size

Geography	2010	2020	2022
Culpeper County	2.77	2.81	2.82
Fauquier County	2.74	2.75	2.75
Madison County	2.58	2.56	2.56
Orange County	2.55	2.54	2.54
Rappahannock County	2.39	2.29	2.28
Rappahannock-Rapidan Region Total	2.68	2.68	2.68
Virginia	2.54	2.53	2.53
US	2.58	2.55	2.55

Source: Decennial Census, Esri

Average Household Size

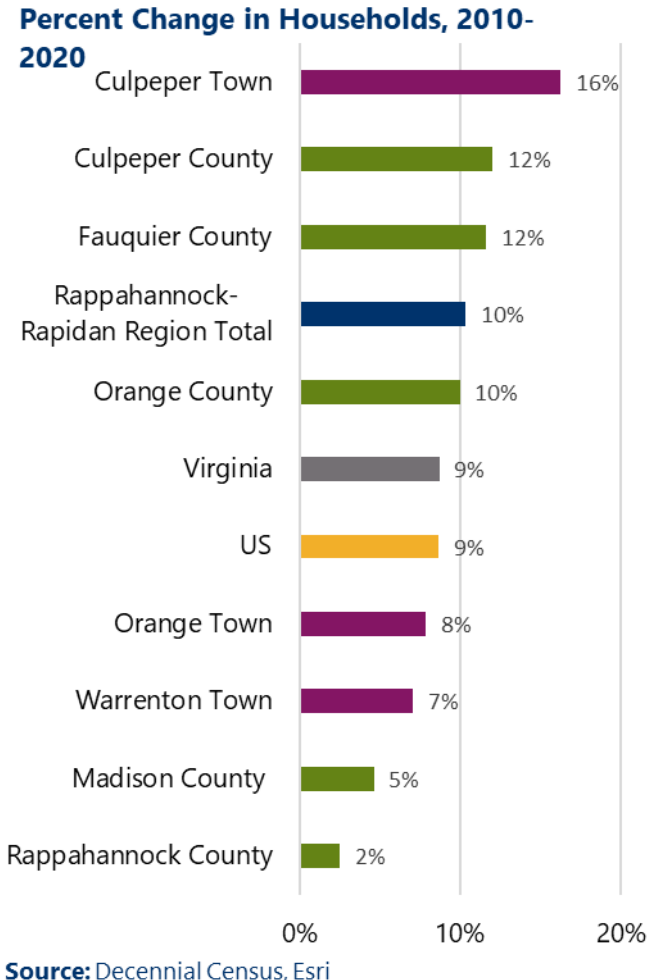
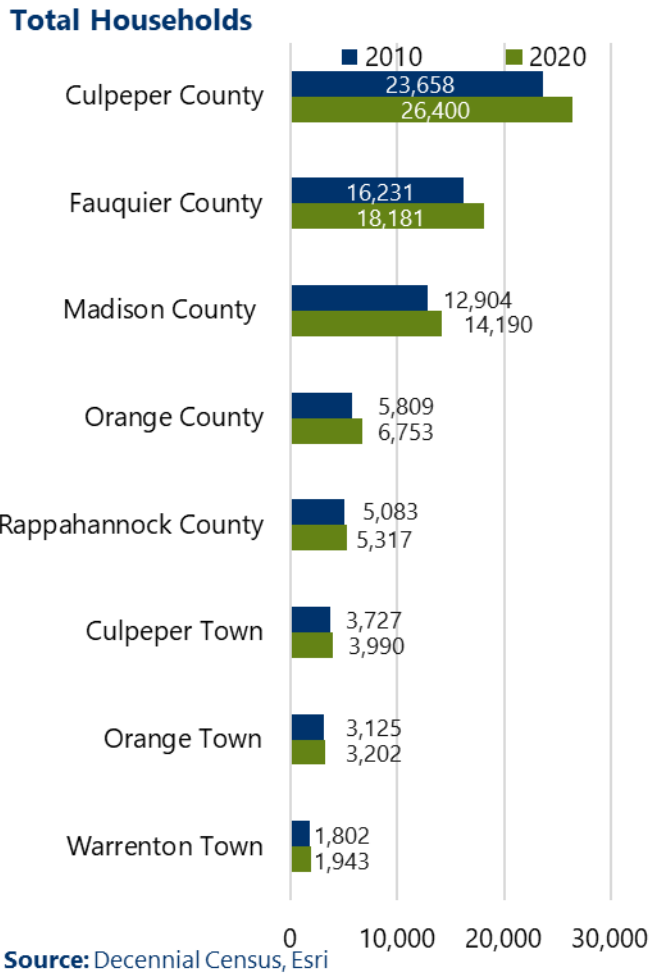


Source: Decennial Census, Esri



Household Growth

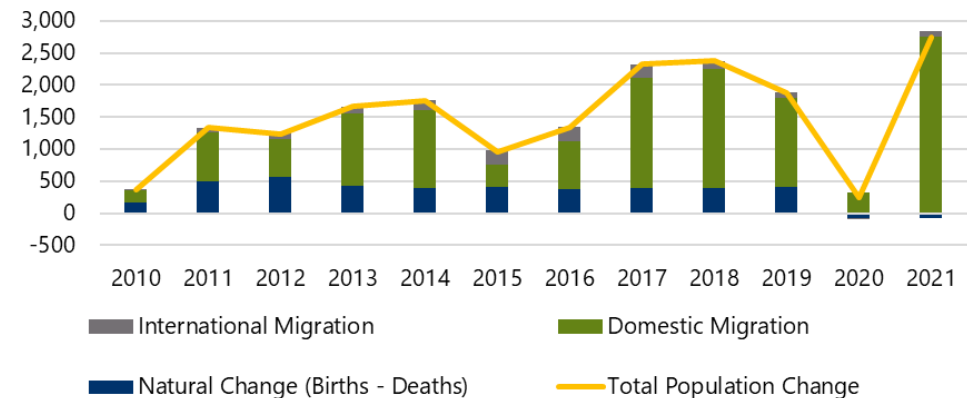
In the Rappahannock-Rapidan Region, the number of households increased by 10% from 2010 to 2020. This growth slightly outpaced the state and national rate of 9%. Culpeper and Fauquier Counties experienced the greatest household growth at 12% while Rappahannock County had the smallest household growth at 2%. Meanwhile, both Madison and Rappahannock Counties' growth lagged behind that of Virginia and the US, and household growth in all other counties exceeded the state and national rates. The charts below show the absolute change in the number of households in each county as well as the percent growth. Overall, this regional household growth will drive the need for added residential units going forward.



Components of Population Change

Population change is made up of several factors, including births, deaths, and migration patterns. The largest component of population change in the Rappahannock-Rapidan Region has been positive domestic migration, with people migrating into the region from elsewhere in the United States. International migration has not been a significant driver of population change in the region. Births outweighed deaths year-to-year except in 2020 and 2021. From 2010-2021, the Rappahannock-Rapidan Region experienced population increases. The temporary deceleration in population growth in 2020 can likely be attributed to the pandemic.

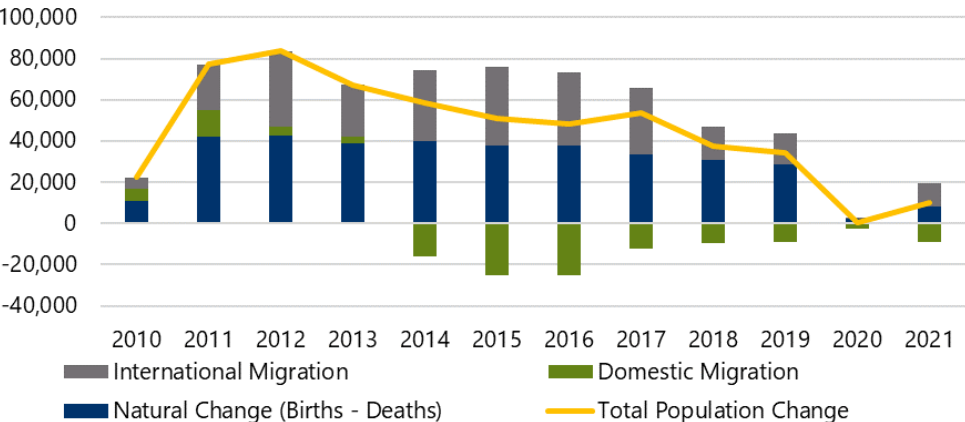
Rappahannock-Rapidan Region - Components of Population Change, 2010-2021



Source: Census 2021 Population Estimates

Comparing the State of Virginia to the Rappahannock-Rapidan Region, international migration is more significant at the state level, contributing significantly to population change year over year. While domestic migration in the region has been a net positive, at the state level domestic migration has registered a net negative. Despite the domestic out-migration to other states occurring between 2014-2021, reviewing the overall population change in the state from 2010 to 2021 shows positive growth.

Virginia - Components of Population Change, 2010-2021



Source: Census 2021 Population Estimates

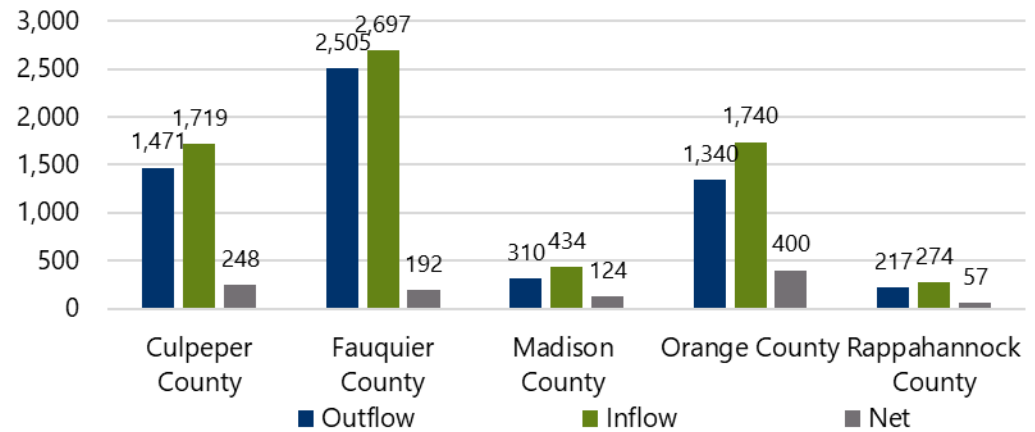


Migration

IRS Migration² data indicates that there are a considerable number of new residents relocating to the region, with each of the counties in the Rappahannock-Rapidan Region experiencing positive net migration in 2020. Orange County saw the largest proportion of inbound migrants exceeding outbound movers.

The table below further delves into the 2020 IRS migration figures with average adjusted gross income (AGI) figures of both inbound and outbound movers. In every county, inbound movers had a higher average AGI than did outbound movers. This difference is most notable in Rappahannock County with outbound movers registering an AGI of \$64,129 as compared to inbound movers with average incomes of \$109,719 - a \$45,600 spread.

Household Migration Patterns, 2020



Note: Households as approximated by income tax returns

Source: IRS 2020

Rappahannock-Rapidan Region Household Migration Patterns, 2020

	Outflow				Average Adjusted Gross Income	Inflow				Average Adjusted Gross Income	Net				Difference in Average AGI
	Same State	Different State	US Total	Foreign		Same State	Different State	US Total	Foreign		Same State	Different State	US Total	Foreign	
Culpeper County	1,067	404	1,471	0	\$61,553	1,312	407	1,719	0	\$65,956	245	3	248	0	\$4,402
Fauquier County	1,762	723	2,485	20	\$94,474	2,050	647	2,697	0	\$111,425	288	-76	212	-20	\$16,951
Madison County	258	52	310	0	\$53,352	358	76	434	0	\$66,645	100	24	124	0	\$13,294
Orange County	1,015	325	1,340	0	\$59,672	1,349	391	1,740	0	\$66,505	334	66	400	0	\$6,833
Rappahannock County	176	41	217	0	\$64,129	207	67	274	0	\$109,719	31	26	57	0	\$45,590

Source: IRS 2020

² The county-to-county migration data tracks the movement of both households and people from county to county, including family incomes. However, those who are not required to file United States federal income tax returns are excluded from this data; this under-representing the poor and the elderly. Also excluded are the small percentage of tax returns filed after late September. Taxpayers filing after this point are likely to have complex returns that report relatively high income, and so the migration data set may also under-represent the very wealthy. The matching process also causes some returns to be excluded from the data.



Age Trends

The Rappahannock-Rapidan Region’s age distribution is weighted toward older adults, with a greater share of the population 50 and older than at the state and national levels. The region significantly lags the state and nation in the share of the population 15-49, representing the majority of the working-age population.

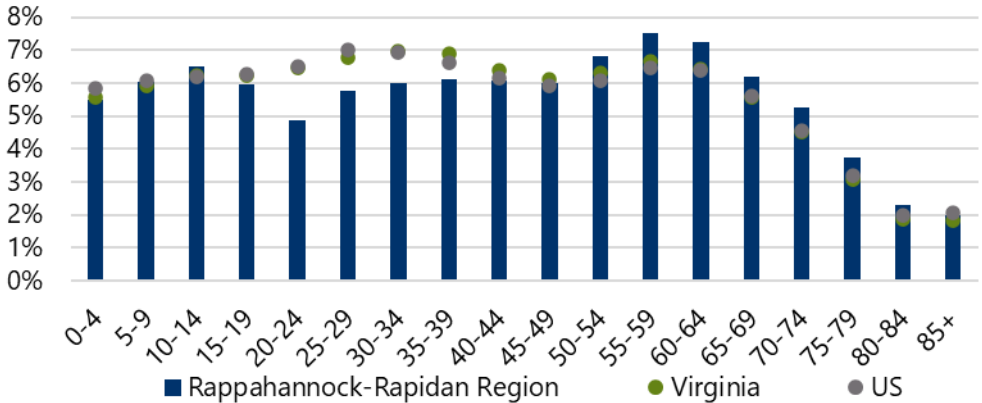
The median age for each of the region’s counties is higher than the state and national ages, contributing to a regional median age of 42.6 compared to 39.2 for Virginia and 38.9 for the US as a whole. The oldest of the five counties in the region is Rappahannock at 50.9 years and the youngest is Culpeper at 39.4 years. Since 2010, median ages have also increased in each of the region’s counties, in line with state and national aging trends.

Median Age

Region	2010	2022
Culpeper County	38.0	39.4
Fauquier County	41.2	42.8
Madison County	44.1	45.2
Orange County	42.6	44.8
Rappahannock County	47.3	50.9
Rappahannock-Rapidan Region	41.1	42.6
Virginia	37.4	39.2
US	37.1	38.9

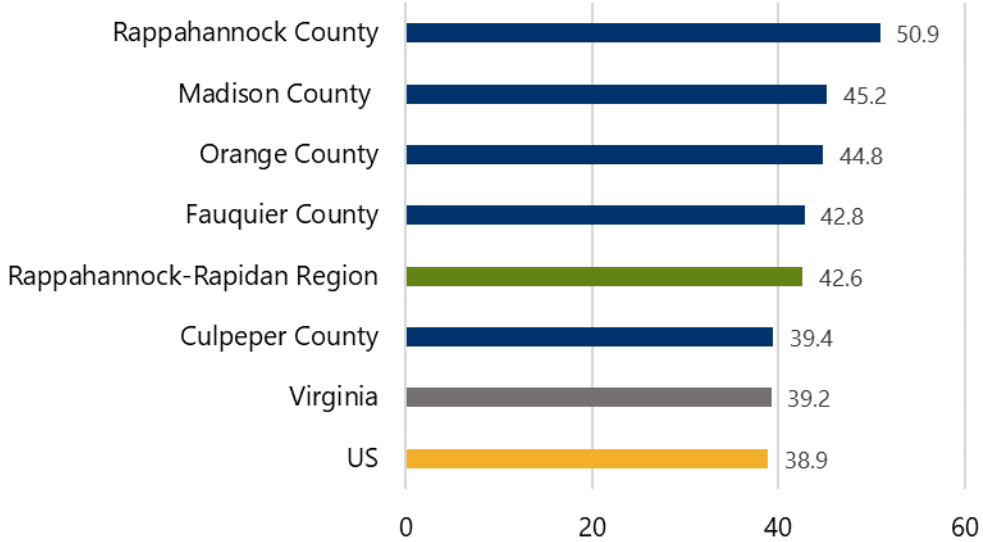
Source: Decennial Census, Esri

Age Distribution, 2022



Source: Esri

Median Age, 2022

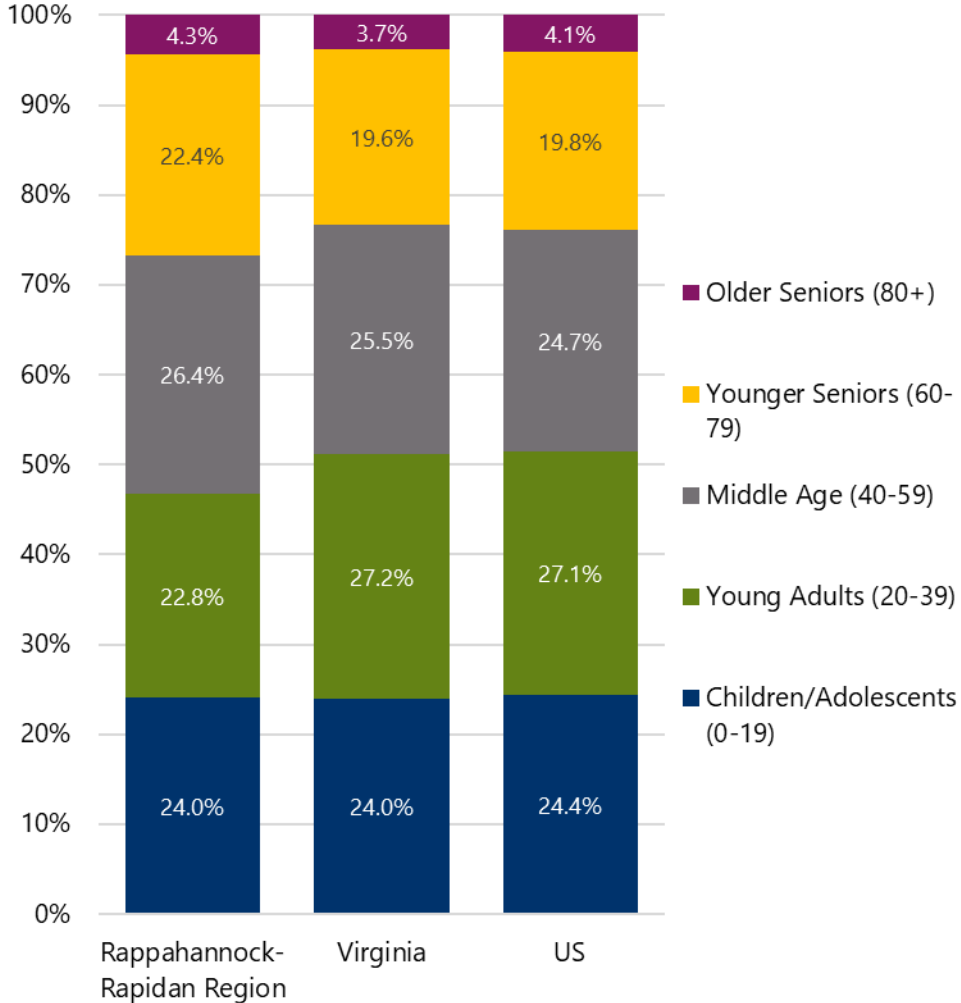


Source: Esri



The population distribution by age cohort shows that the region has a higher concentration of older seniors, younger seniors, and middle-aged persons than the state and the nation. The region has fewer young adults between 20-39 than either Virginia or the US, while the proportion of the region aged 19 and younger is similar to the state and nation.

Age Distribution by Cohort, 2022



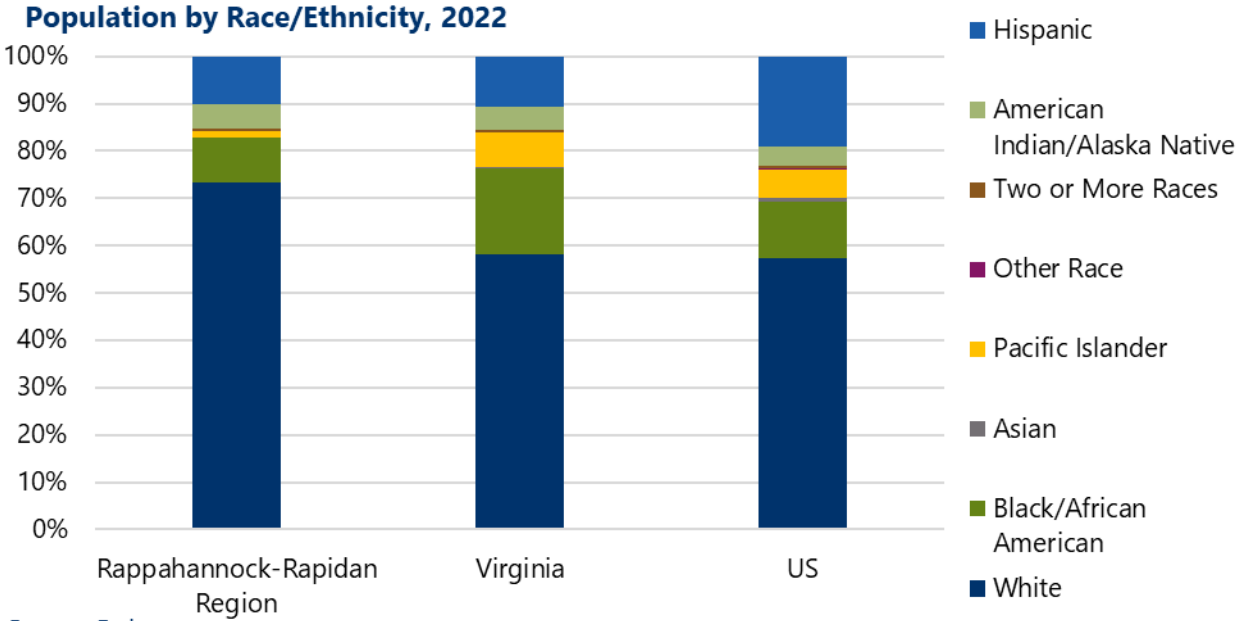
Source: Esri



Race and Ethnicity

The Rappahannock-Rapidan Region includes a substantially higher proportion of white residents than is seen throughout the state and nation. A full 73% of residents in the region are white compared to only 58% in all of Virginia and 57% in the US.

In terms of the Hispanic population, the region more closely follows the state trends. One in ten (10%) of the region’s residents are Hispanic (of any race) as compared to one in nine for the state (11%). Both the region and the state lag behind the US as a whole, however, which has a Hispanic share of the population at 19%.



Source: Esri

Population by Race/Ethnicity, 2022

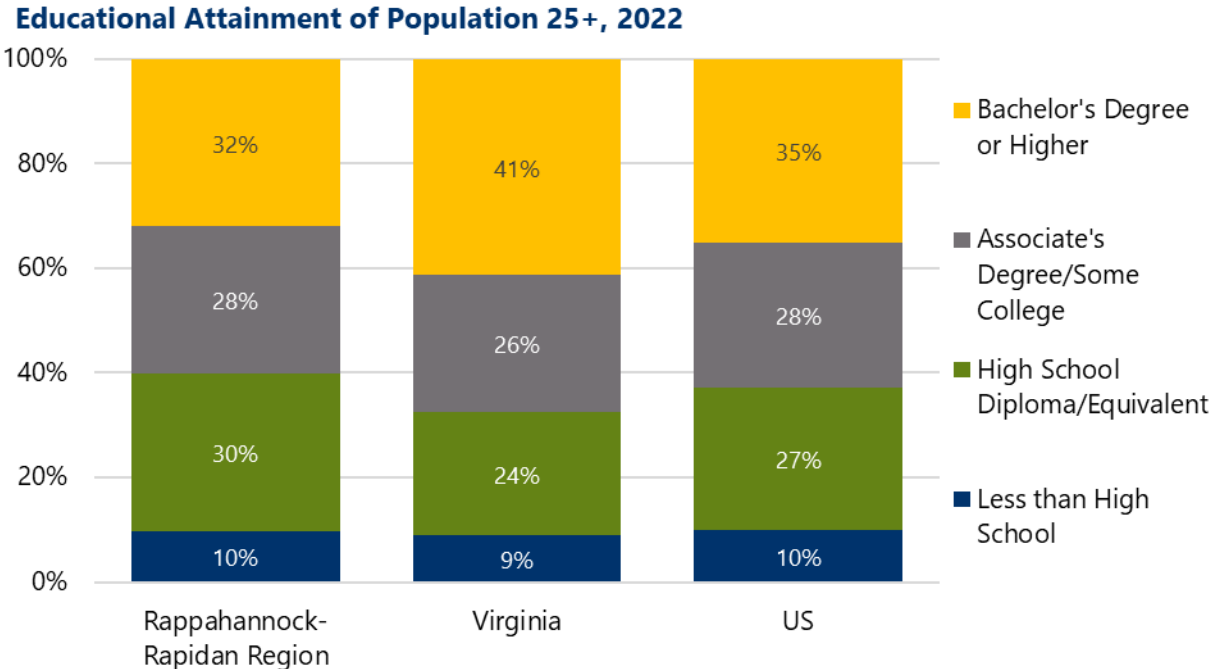
	Culpeper County	Fauquier County	Madison County	Orange County	Rappahannock County	Rappahannock-Rapidan Region	Virginia	US
White	66%	83%	75%	75%	87%	73%	58%	57%
Black/African American	12%	8%	7%	12%	3%	9%	18%	12%
Asian	0%	0%	0%	0%	0%	0%	0%	1%
Pacific Islander	1%	1%	2%	1%	1%	1%	7%	6%
Other Race	0%	0%	0%	0%	0%	0%	0%	0%
Two or More Races	0%	0%	0%	0%	0%	0%	1%	1%
American Indian/Alaska Native	5%	5%	5%	5%	4%	5%	5%	4%
Hispanic	15%	3%	11%	6%	4%	10%	11%	19%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: Esri



Educational Attainment

Regional levels of educational attainment provide a high-level snapshot of the skillsets of the region’s workforce and the types of industries and occupations that can be supported. The Rappahannock-Rapidan Region has a greater share of the population with a high school diploma/equivalent (30%) and with an associate degree/some college (28%) than the state (24% and 26%) or the nation (27% and 28%). However, the region lags behind the state and nation with the share of the population holding a bachelor’s degree or higher, with 32% as compared to 41% for the state and 35% at the national level.



Source: Esri

Educational Attainment of Population 25+, 2022

Educational Attainment	Culpeper County	Fauquier County	Madison County	Orange County	Rappahannock County	Rappahannock-Rapidan Region	Virginia	US
Less than High School	4,552	3,429	1,381	2,969	558	12,889	540,326	23,334,861
High School Diploma/Equivalent	11,539	13,750	3,668	9,204	1,537	39,698	1,437,151	62,845,461
Associate's Degree/Some College	10,529	15,017	2,674	7,691	1,363	37,274	1,588,389	64,309,001
Bachelor's Degree or Higher	10,356	20,451	2,454	6,915	2,147	42,323	2,516,893	81,483,422
Total	36,976	52,647	10,177	26,779	5,605	132,184	6,082,759	231,972,745

Source: Esri



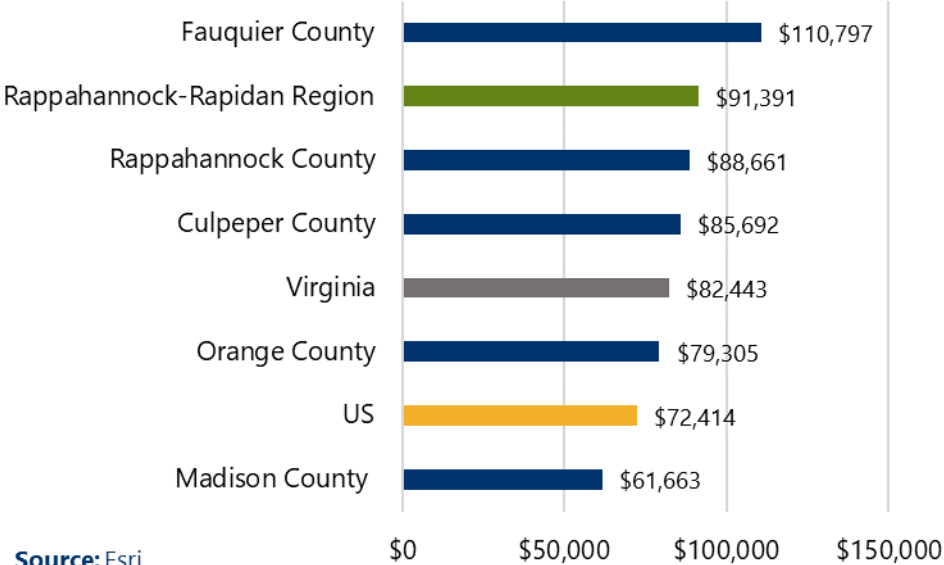
Household Income

The median household income in the Rappahannock-Rapidan Region is almost \$10,000 higher than that of the state overall, and almost \$20,000 higher than for the nation as a whole.

The 2022 median household income for the region was \$91,391 compared to \$82,443 for Virginia and \$72,414 for the US. Fauquier County had the highest median household income of the five counties at \$110,797. Madison County was the only county posting a lower median household income than both the state and nation at \$61,663. Meanwhile, Orange County’s median household income of \$79,305 fell between the national and state levels.

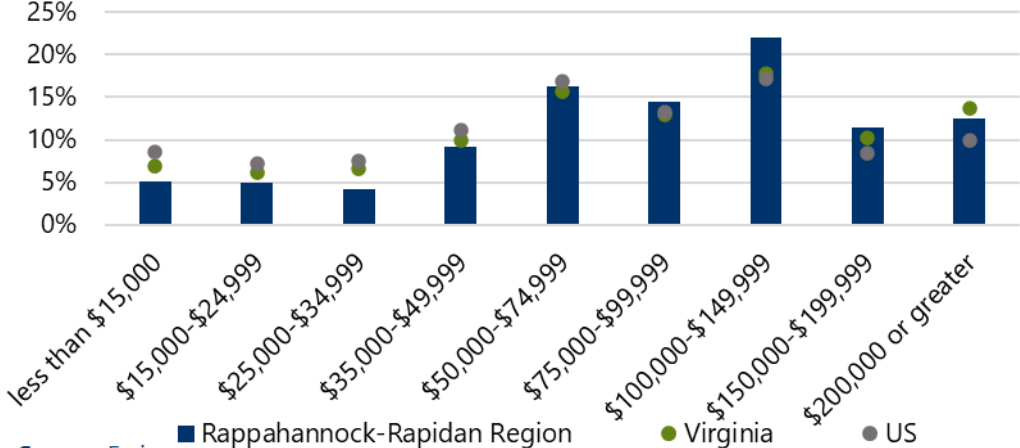
The Rappahannock-Rapidan Region shows a relatively strong share of upper and upper-middle-income households, and conversely, a lower share of low-income households, when compared to both the State of Virginia and to the US overall. The region has a greater share of households with an income between \$75,000-\$200,000 than both the state and the nation. The region also has a smaller share of households with an income less than \$75,000 than the state and nation.

Median Household Income, 2022



Source: Esri

Household Income Distribution, 2022



Source: Esri



Economic Profile

Labor Force Participation and Unemployment

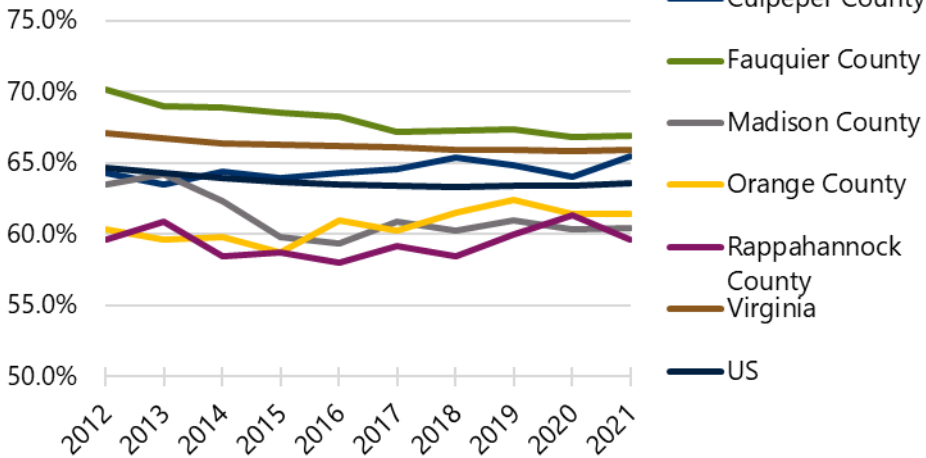
The Labor Force Participation Rate (LFPR) measures the percentage of the population aged 16 or over that is working or actively seeking work. This measure is important as it indicates how actively working-age adults are participating in the overall labor market. When labor force participation rates increase, it indicates that more people are working or looking for work, when labor force participation rates decrease, the opposite is true³.

The LFPR in the Rappahannock-Rapidan Region has mostly lagged behind the state rate, with Fauquier County the only county with an LFPR greater than that of the State of Virginia (in 2022 this rate for Fauquier County measured 66.9% as compared to 65.9% for the state). Individual counties' LFPRs have also fluctuated heavily over the last ten years, with Rappahannock and Madison County showing the most volatility of the region's counties.

Unemployment in the region decreased steadily from 2012-2019, in line with state and national trends. The COVID-19 pandemic, however, caused a sharp increase in unemployment in 2020. Over the last two years, unemployment has once more dropped back to its 2019 rates in each of the five counties.

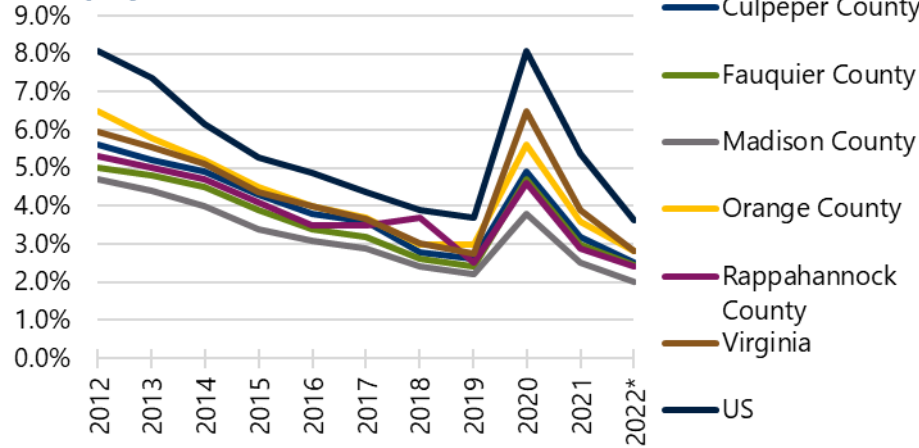
For 2022, unemployment was highest in Orange County at 2.8%, the same rate as the State of Virginia. All of the region's other counties had an unemployment rate in 2022 below the state and national levels.

Labor Force Participation Rate



Source: ACS 5-year estimates, 2012-2021

Unemployment Rate



Note: 2022 calculated using preliminary monthly average for December
Source: Bureau of Labor Statistics

³ Many reasons may explain why a LFPR is declining including: discouraged workers, retirement, or childbirth.



Jobs vs Population

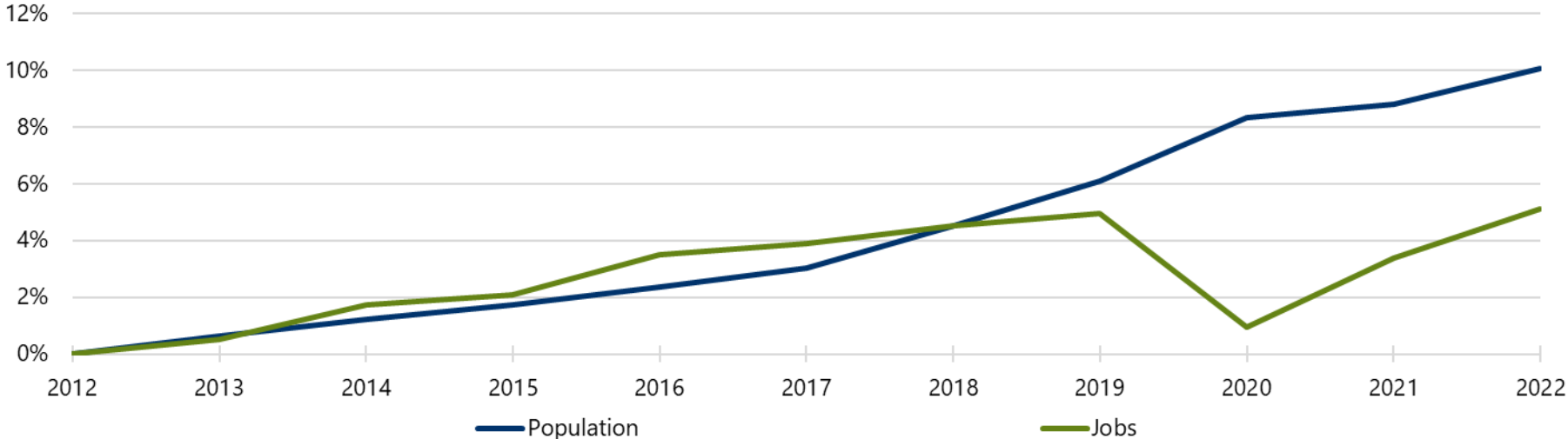
Population and jobs have both increased over the past decade, with employment growth rates outpacing those of population. The number of jobs in the Rappahannock Rapidan Region decreased during the COVID-19 pandemic but has recovered completely over the last two years, exceeding the pre-pandemic peak reached in 2019. The graph below shows the percent change in jobs from 2012 to 2022, with population and job growth rates nearly aligned prior to the COVID-19 pandemic. The year 2020, however, saw a significant decrease in the number of jobs in the region due to pandemic-related losses and restrictions, while the population continued to increase. Since 2020 jobs have rebounded somewhat, but as of 2022 total employment had just regained its pre-pandemic levels.

Rappahannock-Rapidan Region Population vs Jobs, 2012-2022

Year	Population	Jobs
2012	169,097	56,691
2013	170,195	56,977
2014	171,177	57,684
2015	172,030	57,885
2016	173,104	58,677
2017	174,242	58,905
2018	176,776	59,261
2019	179,437	59,513
2020	183,172	57,221
2021	184,006	58,620
2022	186,145	59,588

Source: Population: Weldon Cooper; Jobs: Lightcast

Rappahannock-Rapidan Region Percent Change in Population vs Jobs, 2012-2022



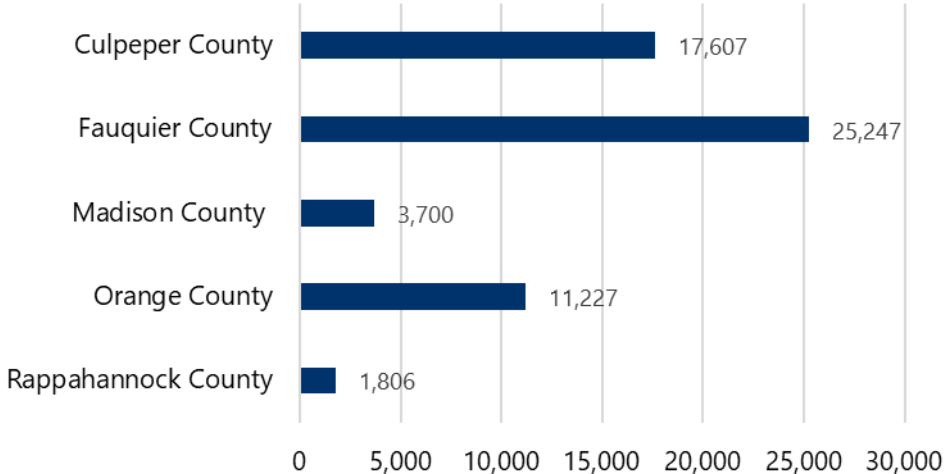
Source: Population: Weldon Cooper; Jobs: Lightcast



Employment

Total employment in the Rappahannock-Rapidan Region registered 59,588 jobs in 2022. In line with the population and household totals, Fauquier and Culpeper County had the highest employment number in the region, while Rappahannock County had the fewest jobs within the region.

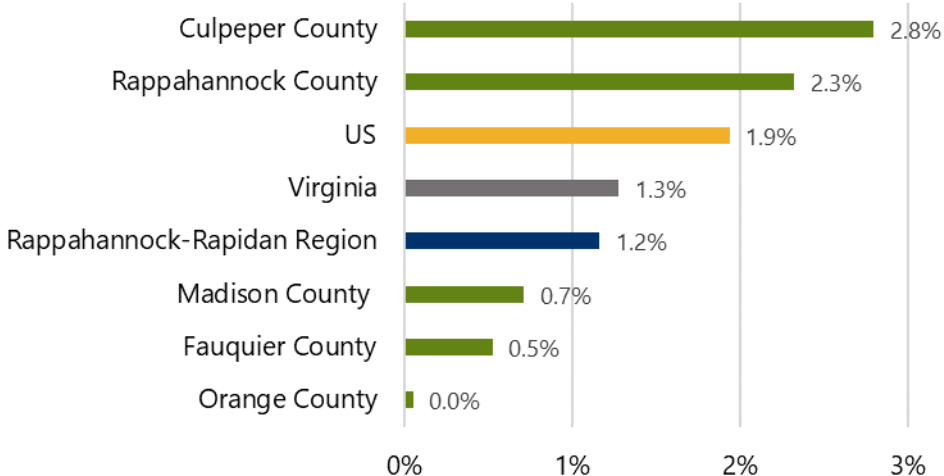
Total Employment, 2022



Source: Lightcast

From 2017 to 2022 the region added 683 (+1.2%) total jobs. This regional growth rate was slightly below the rates posed by the State of Virginia and the US overall. The largest growth in the region has been in Culpeper and Rappahannock Counties with increases well above state and national rates. All counties in the region have experienced positive job growth over the last five years, but for Orange County the change was only slightly positive from 2017 to 2022.

Employment Growth, Percent Change, 2017-2022



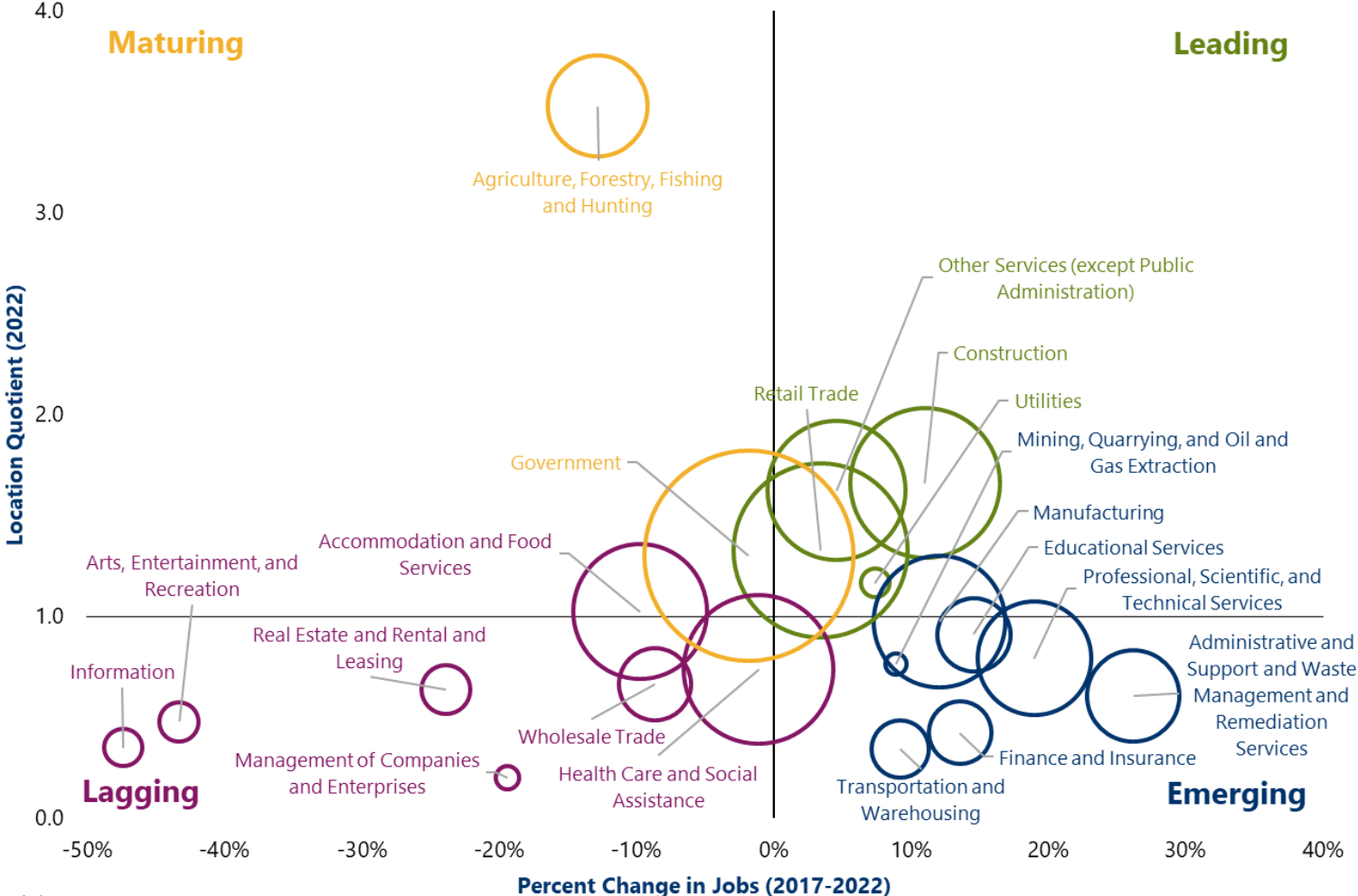
Source: Lightcast



Key leading industries as seen in the graphic below are Construction, Retail Trade, and Utilities. Agriculture, Forestry, Fishing, and Hunting is a maturing industry, as there is strong farming in the region, but jobs have fallen over the last five years.

Key Metrics by Sector, Rappahannock-Rapidan Region

Bubble size indicates 2022 job count



Source: Lightcast

The following chart displays how these sectors compare. Each sector is classified as **leading**, **emerging**, **maturing**, or **lagging**.

Leading industries experienced job growth over the last five years and have a location quotient greater than 1.

Emerging industries saw positive job growth over the last five years but have a location quotient of less than 1.

Maturing industries do have a location quotient greater than 1 but had negative job growth over the last five years.

Lagging industries have a location quotient of less than 1 and saw negative job growth over the last five years.



Employment Totals by Sector, Rappahannock-Rapidan Region

Agriculture, Forestry, Fishing and Hunting:

Jobs: 2,618
 Job Change (2017-2022): -12.8%
 Share of Region's Jobs: 4.4%
 Location Quotient: 3.5
 Top Subsectors Jobs:

- Crop Production: 1,377
 - Wheat, Corn, Soybeans, Hay
- Animal Production: 626
 - Cattle, Chicken

Government:

Jobs: 11,209
 Job Change (2017-2022): -1.8%
 Share of Region's Jobs: 18.8%
 Location Quotient: 1.3
 Top Subsectors Jobs:

- Elementary and Secondary Schools: 4,257
- Local Government, Excluding Education and Hospitals: 3,738

Construction:

Jobs: 5,746
 Job Change (2017-2022): 3.1%
 Share of Region's Jobs: 9.6%
 Location Quotient: 1.7
 Top Subsectors Jobs:

- Construction of Buildings: 1,238
- Specialty Trade Contractors: 3,527

Retail Trade:

Jobs: 7,721
 Job Change (2017-2022): 3.4%
 Share of Region's Jobs: 13.0%
 Location Quotient: 1.3
 Top Subsectors Jobs:

- Motor Vehicle Parts and Dealers: 1,045
- Supermarkets: 1,337
- General Merchandise Stores: 1,233

Accommodation and Food Services:

Jobs: 4,643
 Job Change (2017-2022): -9.7%
 Share of Region's Jobs: 7.8%
 Location Quotient: 1.0
 Top Subsectors Jobs:

- Limited Services Restaurants: 1,933
- Full-Service Restaurants: 1,670

Health Care and Social Assistance:

Jobs: 5,712
 Job Change (2017-2022): -1.1%
 Share of Region's Jobs: 9.6%
 Location Quotient: 0.7
 Top Subsectors Jobs:

- General Medical and Surgical Hospitals: 1,288
- Offices of Physicians: 941
- Services for the Elderly and Persons with Disabilities: 846

Professional, Scientific, and Technical Services:

Jobs: 3,357
 Job Change (2017-2022): 19.0%
 Share of Region's Jobs: 5.6%
 Location Quotient: 0.8
 Top Subsectors Jobs:

- Computer System Design and Related Services: 809
- Veterinary Services: 413
- Office of Lawyers: 307

Manufacturing:

Jobs: 4,463
 Job Change (2017-2022): 12.1%
 Share of Region's Jobs: 7.5%
 Location Quotient: 1.0
 Top Subsectors:

- Wineries: 514
- Aerospace Products and Parts: 509
- Wood Products: 489



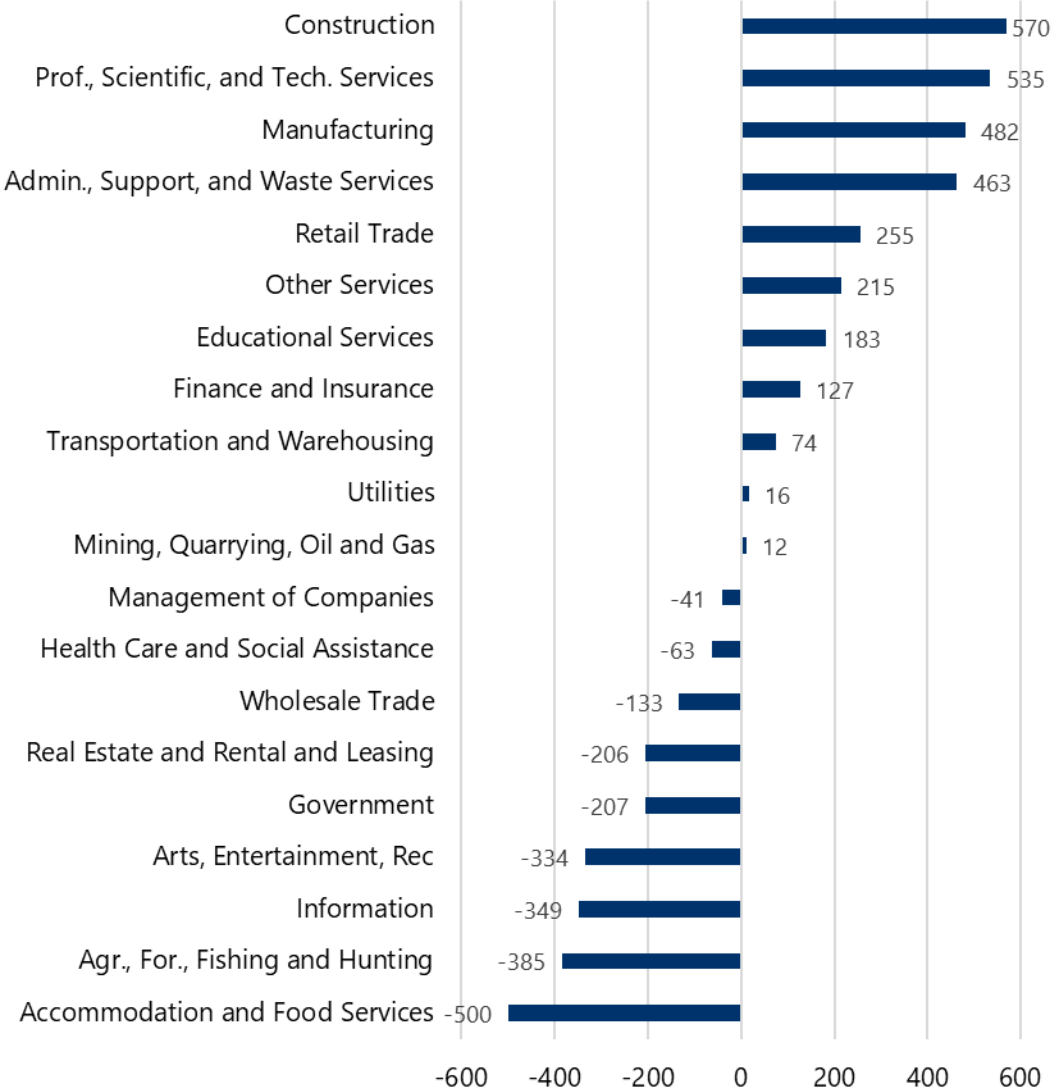
Employment Growth by Sector

From 2017 to 2022, the Rappahannock-Rapidan Region added 683 total jobs across all sectors with 11 industries increasing employment and 10 decreasing in employment.

The Construction and the Professional, Scientific, and Technical Services sectors are economic bright spots in the region. These two sectors were the leaders in job growth from 2017 to 2022, adding 570 and 535 jobs, respectively.

Accommodation and Food Services Jobs are on the decline. Despite being in the top 10 industries by total employment in 2022, the industry lost the largest number of total positions over this timeframe, declining by 500 jobs. Other industries with notable job losses include Agriculture, Forestry, Fishing and Hunting; Information; and Arts, Entertainment, and Recreation.

Rappahannock-Rapidan Region Job Growth by Sector, 2017-2022



Source: Lightcast



Rappahannock-Rapidan Region Top 25 Subsectors by Job Growth, 2017-2022

The Manufacturing and Construction subsectors in particular have seen strong job growth over the last five years, including, Beverage Manufacturing (primarily driven by Wineries), Cement and Concrete Manufacturing, Residential Building and Utility System Construction, and Building Equipment and Building Finishing Contractors - all of which rank in the top 25 for job growth.

Other Professional, Scientific, and Technical Services are also expanding, primarily driven by Computer System Design and Related Services. Leading all subsectors in job growth, this subsector added an additional 430 jobs over the last five years.



Source: Lightcast



Agricultural Operations

Farm income in the region more than doubled between 2012 and 2017, going from \$15.3 million to \$31.5 million. Farm tourism and recreation income increased from \$1.2 million to just over \$3 million over the same period. Fauquier County saw the largest increase in both total and tourism/recreation income. While every County in the region saw increases in farm-related income from 2012-2017, Fauquier, Madison, and Rappahannock County experienced the most growth in farm tourism and recreation income.

Change in Farm-Related Income, Rappahannock-Rapidan Region, 2012-2017

	All Farm-related Income				Farm Tourism and Recreation Income			
	2012	2017	# Change	% Change	2012	2017	# Change	% Change
Culpeper County	\$ 3,281,000	\$ 5,481,000	\$ 2,200,000	67%	\$ 694,000	\$ 773,000	\$ 79,000	11%
Fauquier County	\$ 6,461,000	\$ 18,840,000	\$ 12,379,000	192%	\$ 192,000	\$ 1,233,000	\$ 1,041,000	542%
Madison County	\$ 1,418,000	\$ 2,066,000	\$ 648,000	46%	\$ 105,000	\$ 670,000	\$ 565,000	538%
Orange County	\$ 2,802,000	\$ 3,194,000	\$ 392,000	14%	\$ 161,000	\$ 233,000	\$ 72,000	45%
Rappahannock County	\$ 1,300,000	\$ 1,902,000	\$ 602,000	46%	\$ 36,000	\$ 146,000	\$ 110,000	306%
RRRC	\$ 15,262,000	\$31,483,000	\$16,221,000	106%	\$ 1,188,000	\$ 3,055,000	\$ 1,867,000	157%

Source: Census of Agriculture; Rappahannock-Rapidan Regional Commission

These increases in income were accompanied by only modest growth in the number of farm tourism and recreation operations, which increased by 33% compared to a 157% increase in income. Fauquier County actually saw a decrease in the number of farm operations, but on a per-farm basis became much more profitable.

Change in Number of Agritourism/Recreation Operations and Average Income, Rappahannock-Rapidan Region, 2012-2017

	Operations				Average Tourism and Recreation Income			
	2012	2017	# Change	% Change	2012	2017	# Change	% Change
Culpeper County	17	37	20	118%	\$ 193,000	\$ 148,135	\$ (44,865)	-23%
Fauquier County	36	31	-5	-14%	\$ 179,472	\$ 607,742	\$ 428,270	239%
Madison County	6	15	9	150%	\$ 236,333	\$ 137,733	\$ (98,600)	-42%
Orange County	7	7	0	0%	\$ 400,286	\$ 456,286	\$ 56,000	14%
Rappahannock County	15	18	3	20%	\$ 86,667	\$ 105,667	\$ 19,000	22%
RRRC	81	108	27	33%	\$ 188,420	\$ 291,509	\$ 103,090	55%

Source: Census of Agriculture; Rappahannock-Rapidan Regional Commission



The table below shows the change in farm operations across farm size in the region between 2012 and 2017. Overall, the region saw a decrease of 230 farms (7% of the total farm stock) during that five-year period. The greatest number of losses were seen in mid-sized farms between 10-500 acres, while the number of small farms (<10 acres) increased during this time. The latest US Census of Agriculture for which data are available was conducted in 2017, so it is likely that these numbers may have changed since these data were collected.

Change in Farm Operations Rappahannock-Rapidan Region, 2012-2017

	2012 Farms	2017 Farms	1.0 - 9.9 Acres	10.0 - 49.9 Acres	50 - 179 Acres	180 - 499 Acres	500 - 999 Acres	1,000+ Acres	Total Change	Total Percent Change
Culpeper County	731	682	56	-55	-25	-25	-5	5	-49	-7%
Fauquier County	1258	1154	32	-57	-68	-13	1	1	-104	-8%
Madison County	522	533	12	-23	8	14	7	-7	11	2%
Orange County	547	417	-1	-51	-52	-25	-1	0	-130	-24%
Rappahannock County	397	439	20	11	4	3	3	1	42	11%
RRRC	3455	3225	119	-175	-133	-46	5	0	-230	-7%

Source: Census of Agriculture; Rappahannock-Rapidan Regional Commission

The tables on the next page show the change between 2012-2017 of livestock inventory and crop acreage in the region. Between 2012-2017, the number of sheep and chickens in the region increased, while the number of cattle and hogs decreased over the same time period. The largest increase in crop acreage was found in grapes, which saw a 30% increase over the five-year period, while the largest increase in overall acreage was found in potatoes, which added over 6,000 acres of production in Rappahannock County alone. Meanwhile, wheat and barley decreased the most in percentage terms, with wheat losing the most total acreage among crops as well.



Change in Livestock Inventory, Rappahannock-Rapidan Region, 2012-2017

	Cattle		Hogs		Sheep		Chicken	
	#	%	#	%	#	%	#	%
	Change	Change	Change	Change	Change	Change	Change	Change
Culpeper County	-5,731	-22%	-268	-68%	106	13%	1,271	33%
Fauquier County	-6,218	-12%	-102	-15%	805	64%	-2,288	-27%
Madison County	-2,702	-9%	-383	-53%	-225	-25%	1,462	74%
Orange County	2,908	14%	-232	-66%	130	28%	508	27%
Rappahannock County	1,352	12%	-328	-89%	202	44%	1,276	86%
RRRC	-10391	-8%	-1313	-52%	1018	26%	2229	13%

Source: Census of Agriculture; Rappahannock-Rapidan Regional Commission

Change in Crop Acreage, Rappahannock-Rapidan Region, 2012-2017

	Corn		Wheat		Barley		Hay		Potatoes		Orchards		Grapes	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
	Change	Change	Change	Change	Change	Change	Change	Change	Change	Change	Change	Change	Change	Change
Culpeper County	1,978	28%	112	25%	-270	-31%	3,115	34%	-3,145	-11%	-25	-56%	-13	-50%
Fauquier County	-2,680	-25%	-382	-28%	-141	-13%	187	2%	3,329	8%	56	12%	96	39%
Madison County	1,423	28%	-59	-7%	207	55%	1,635	27%	1,331	7%	9	5%	53	98%
Orange County	600	13%	-2,493	-72%	-1,306	-75%	-23	0%	-2,242	-11%	-22	-6%	24	9%
Rappahannock County	-	-	0	0%	0	-	0	0%	6,738	48%	13	3%	70	53%
RRRC	1,136	4%	-2,822	-46%	-1,510	-37%	4,914	16%	6,011	5%	31	2%	230	31%

Source: Census of Agriculture; Rappahannock-Rapidan Regional Commission



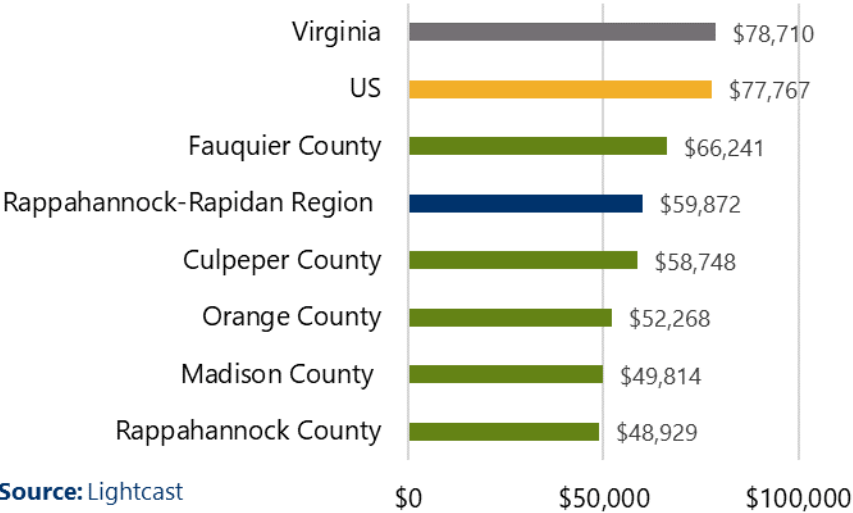
Earnings

Jobs earnings are generally lower in the region than Virginia or the US overall. In 2022, the average annual earnings per job was approximately \$59,872 per year in the region compared to \$78,710 in Virginia and \$77,767 in the US overall. While these figures represent broad averages that are driven up by high earners in more urban areas, the data suggests relatively low earning potential in the Rappahannock-Rapidan Region.

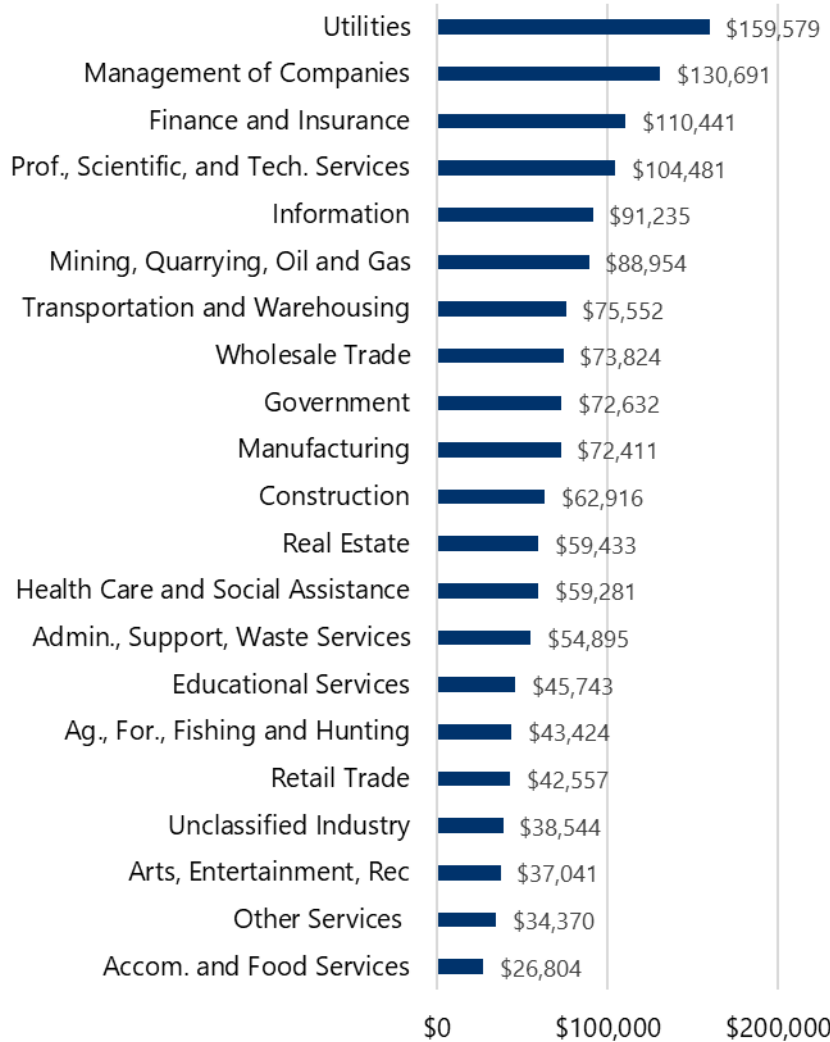
The average economy-wide earnings in the five counties fell below the state and national levels in 2022. This is true across most industries and occupations. Madison County has the lowest average earnings per job at \$49,814 well below Fauquier County, the county with the highest average earnings in the region at \$66,241.

Of all industries, Utilities had the highest average earnings in 2022 while accommodation and food services had the lowest average earnings. Utilities jobs include electrical powerline installers and repairers, water system operators, and construction, as well as related managerial, business, and financial operations personnel.

Average Earnings, 2022



Average Earnings by Sector, 2022



Industry Competitive Effect and Shift Share

Shift share values are presented as a gauge to measure the region’s competitiveness.⁴ Competitive Effect is a metric that indicates how much of the job change from 2017-2022 is the result of a unique competitive advantage for that particular industry within the region by comparing national job changes to the region.

The Competitive Effect is calculated by the following equation:

$$[\text{Actual regional job change}] - [\text{Expected job change}] = \text{Competitive Effect}$$

Based on this calculation, the region gained 113 more jobs than would otherwise have been expected, due to its competitive advantage. Within the region, Manufacturing, Retail trade Administrative Services, and Other Services all registered strong competitive advantages. By contrast, Agriculture, Forestry, Fishing, and Hunting, Health Care and Social Assistance, and Information Services all demonstrated a lack of competitiveness (in other words, added fewer jobs or lost more jobs) over that same timeframe.

Shift Share Indicators, 2022

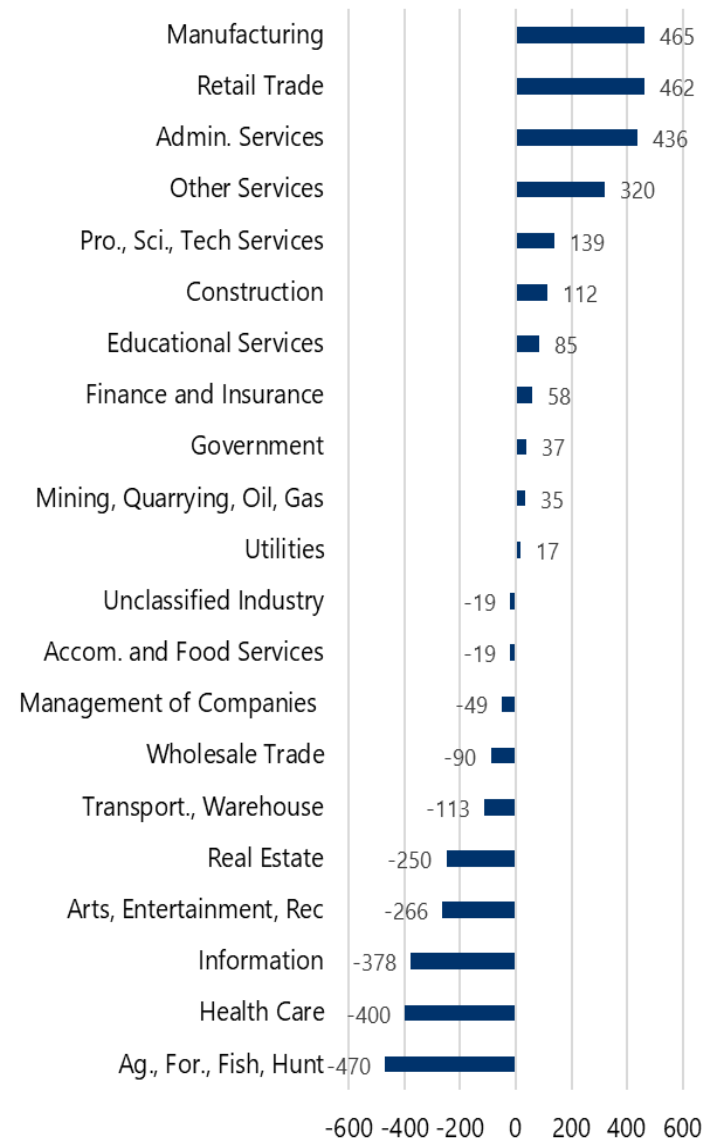
Region	Ind. Mix Effect	Nat'l Growth Effect	Expected Change	Competitive Effect
Culpeper County	-189	331	142	336
Fauquier County	-158	485	328	-196
Madison County	-26	71	45	-18
Orange County	-168	217	49	-43
Rappahannock County	-28	34	7	34
Rappahannock-Rapidan Region	-569	1,139	570	113
Virginia	10,533	84,869	95,401	-39,405

Note: Shift share calculations are based on 2017-2022 jobs numbers

Source: Lightcast

⁴ The Industrial Mix Effect is the number of jobs a region would be expected to gain/lose for a given industry based on that industry’s national growth/decline. The National Growth Effect shows the number of jobs an industry is expected to have gained/lost based on to total national job growth. The Expected Change is then amount of job growth/decline expected for a particular regional industry based on the national growth and the industry mix effects combined. The regional competitive effect in turn indicates how much of the overall job change within a given region is the result of some unique competitive advantage (or disadvantage) of the region, after accounting for the Industrial and National influences.

Competitive Effect by Sector, 2017-2022



Source: Lightcast



Payroll Business Locations

In the Rappahannock-Rapidan Region, payroll business locations have increased by 3.6% from 2017 to 2021, adding 194 locations. However, the region’s growth has significantly lagged the State of Virginia (+10.0%) and the US (+10.9%). Of the region’s counties, Culpeper showed the strongest gain, increasing 6.4% over the past five years. Within the region, only Rappahannock County saw a decrease in payroll business locations, falling 1.3% since 2017.

Healthcare saw the largest increase in payroll business locations increasing adding 119 over the last five years. Other notable increases include Construction (+60), and Professional, Scientific, and Technical Services (+25)

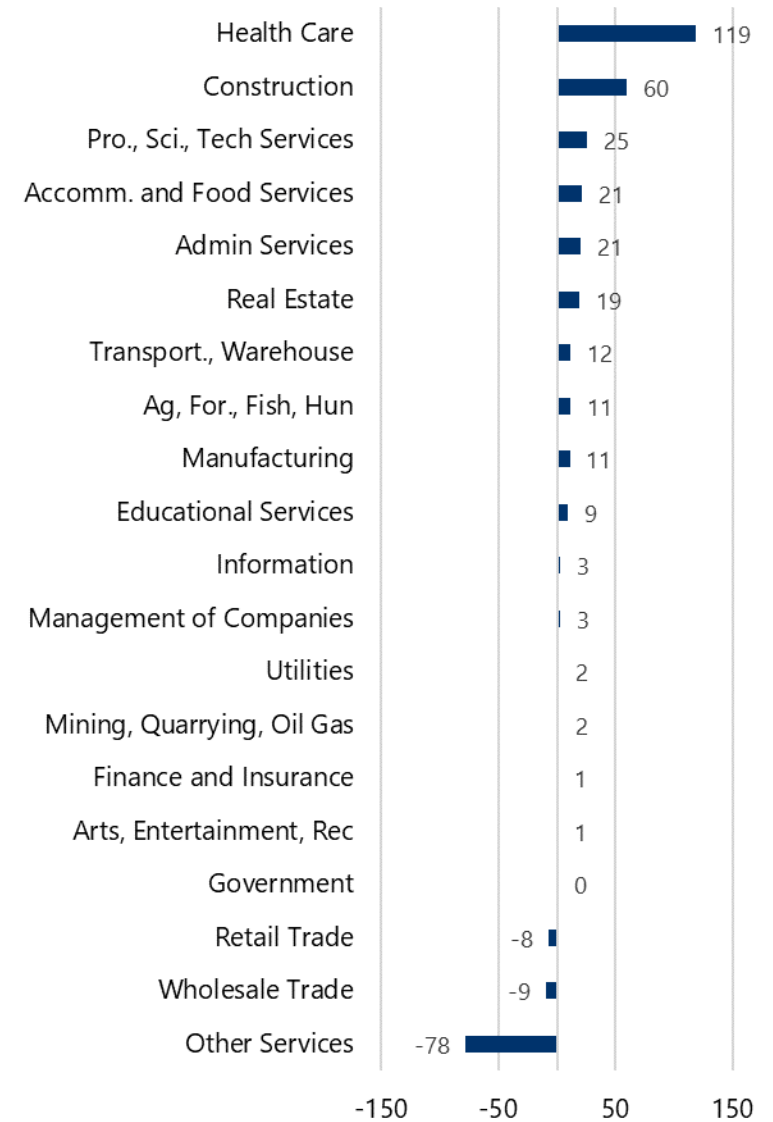
Only three industries saw a retraction in locations since 2017. They are Other Services (-78), Wholesale Trade (-9), and Retail Trade (-8).

Payrolled Business Locations

Region	2017 Payrolled Business Locations	2021 Payrolled Business Locations	2017-2021 Change	2017-2021 % Change
Culpeper County	1,447	1,539	92	6.4%
Fauquier County	2,450	2,500	50	2.0%
Madison County	364	367	3	0.8%
Orange County	914	967	53	5.8%
Rappahannock County	279	275	-4	-1.3%
Rappahannock-Rapidan Region	5,453	5,647	194	3.6%
Virginia	270,059	297,076	27,017	10.0%
US	9,834,366	10,905,553	1,071,187	10.9%

Source: Lightcast

Business Payrolled Locations Change by Sector, 2017-2021



Source: Lightcast



Gross Regional Product (GRP)

The region's 2021 GRP totaled \$759 million, having increased by 13.9% since 2017. The region's growth however was lower than both the state (+17.4%) and the nation (+18.7%). Within the Rappahannock-Rapidan Region, Culpeper experienced the greatest growth in GRP, increasing 18.3%. Rappahannock County was the only county to show a decline in GRP with a sharp 28.9% decline since 2017.

Across sectors in the region, all but four industries registered GRP growth from 2017 to 2021. The greatest increase was seen in Administrative Services which increased 58%, been driven by strong gains in Temporary Help Services and Professional Helper Organizations. Other industries with notable increases include Utilities (+29%), Professional, Scientific, and Technical Services (+26%), and Finance and Insurance (+25%).

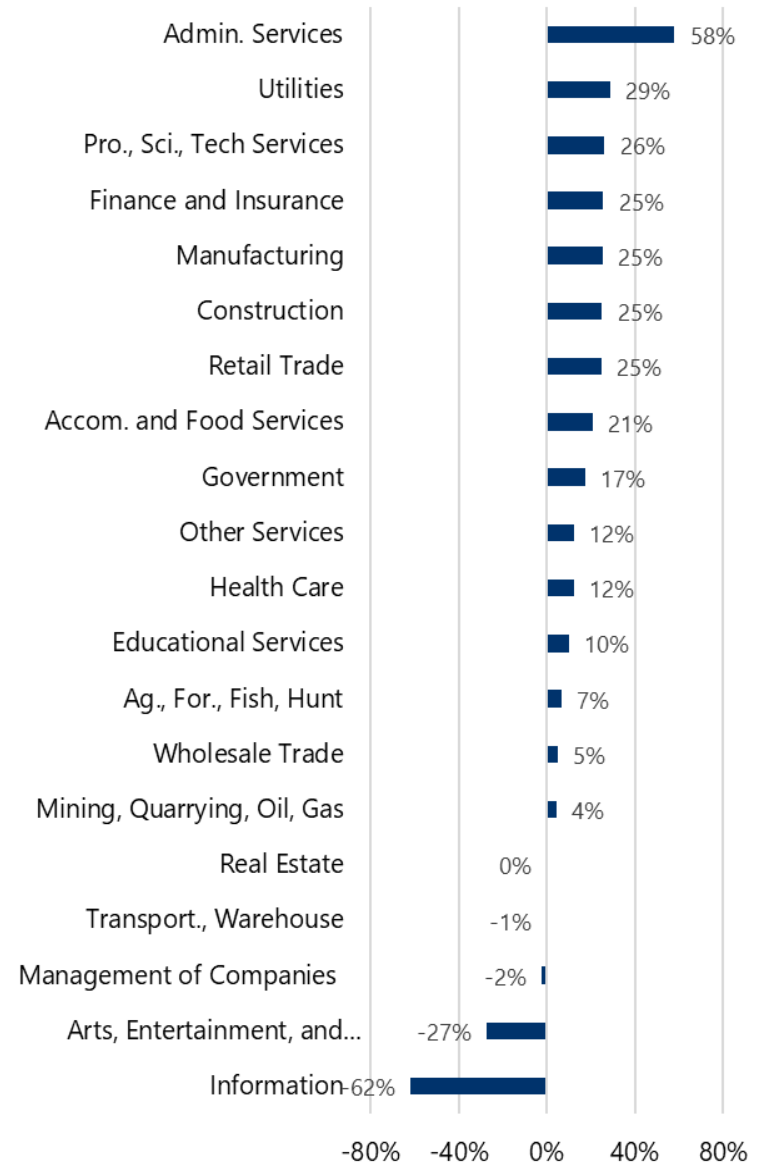
The largest decrease in GRP was in the Information Sector which fell 62%, due to declines in Wired Telecommunication Carriers and Data Processing and Housing Services. Other industries with GRP decreases were Arts, Entertainment, and Recreation (-27%), Management of Companies and Enterprises (-2%), and Transportation and Warehousing (-1%).

GRP

Region	2021 GRP	2017-2021 Change	2017-2021 % Change
Culpeper County	\$1,869,934,157	\$289,545,778	18.3%
Fauquier County	\$2,847,431,754	\$413,345,038	17.0%
Madison County	\$339,747,042	\$42,924,856	14.5%
Orange County	\$978,768,843	\$87,045,021	9.8%
Rappahannock County	\$181,779,276	-\$73,811,127	-28.9%
Rappahannock-Rapidan Region	\$6,217,661,072	\$759,049,565	13.9%
Virginia	\$531,318,214,932	\$78,714,837,305	17.4%
US	\$20,697,526,700,075	\$3,267,019,678,582	18.7%

Source: Lightcast

GRP Growth by Sector, 2017-2021



Source: Lightcast



Self-Employment by Industry

In 2022, the industries with the greatest number of workers who were self-employed⁵ in the Rappahannock-Rapidan Region were:

- Crop Production (568 jobs)
- Specialty Trade Contractors (544)
- Administrative Support Services (359)

Self-employed positions made up about 5% of total employment across the region in 2017 and held consistent for 2022.

The greatest gains in terms of the number of jobs came in Administrative and Support Services as well as Real Estate.

Significant losses were felt in agriculture related fields in Animal Production and Aquaculture and Support Activities for Agriculture and Forestry.

Average earnings per job are significantly lower when compared to the average for all employment across the Rappahannock-Rapidan Region.

Rappahannock-Rapidan Region, Top 15 3-Digit NAICS Self-Employed Industries

NAICS	Description	2017 Jobs	2022 Jobs	2017-2022 Jobs Change	2017 - 2022 Jobs % Change	Avg. Earnings Per Job
111	Crop Production	557	568	2%	11	\$37,632
238	Specialty Trade Contractors	520	544	5%	24	\$44,010
561	Administrative and Support Services	284	359	26%	75	\$27,383
814	Private Households	483	312	-35%	(171)	\$16,014
112	Animal Production and Aquaculture	341	259	-24%	(82)	\$34,012
115	Support Activities for Agriculture and Forestry	306	216	-29%	(90)	\$42,703
236	Construction of Buildings	163	187	15%	24	\$44,010
237	Heavy and Civil Engineering Construction	168	152	-9%	(16)	\$44,010
811	Repair and Maintenance	83	89	7%	6	\$43,427
454	Nonstore Retailers	44	44	-1%	(0)	\$21,317
337	Furniture and Related Product Manufacturing	22	31	40%	9	\$43,673
531	Real Estate	0	26	Insf. Data	26	\$87,031
336	Transportation Equipment Manufacturing	<10	21	Insf. Data	Insf. Data	\$197,626
621	Ambulatory Health Care Services	<10	19	Insf. Data	Insf. Data	\$56,346
312	Beverage and Tobacco Product Manufacturing	<10	18	Insf. Data	Insf. Data	\$40,576
Total (All Self-Employed)		3,154	2,956	-6%	-199	\$ 37,748
Total (All Jobs)		58,905	59,588	683	1.2%	\$ 59,872
Total (Self-Employed as % of all jobs)		5%	5%			

Source: Lightcast

⁵ Lightcast defines self-employed workers as those who derive a significant amount of their income through self-employment.



Employment Levels by Occupation

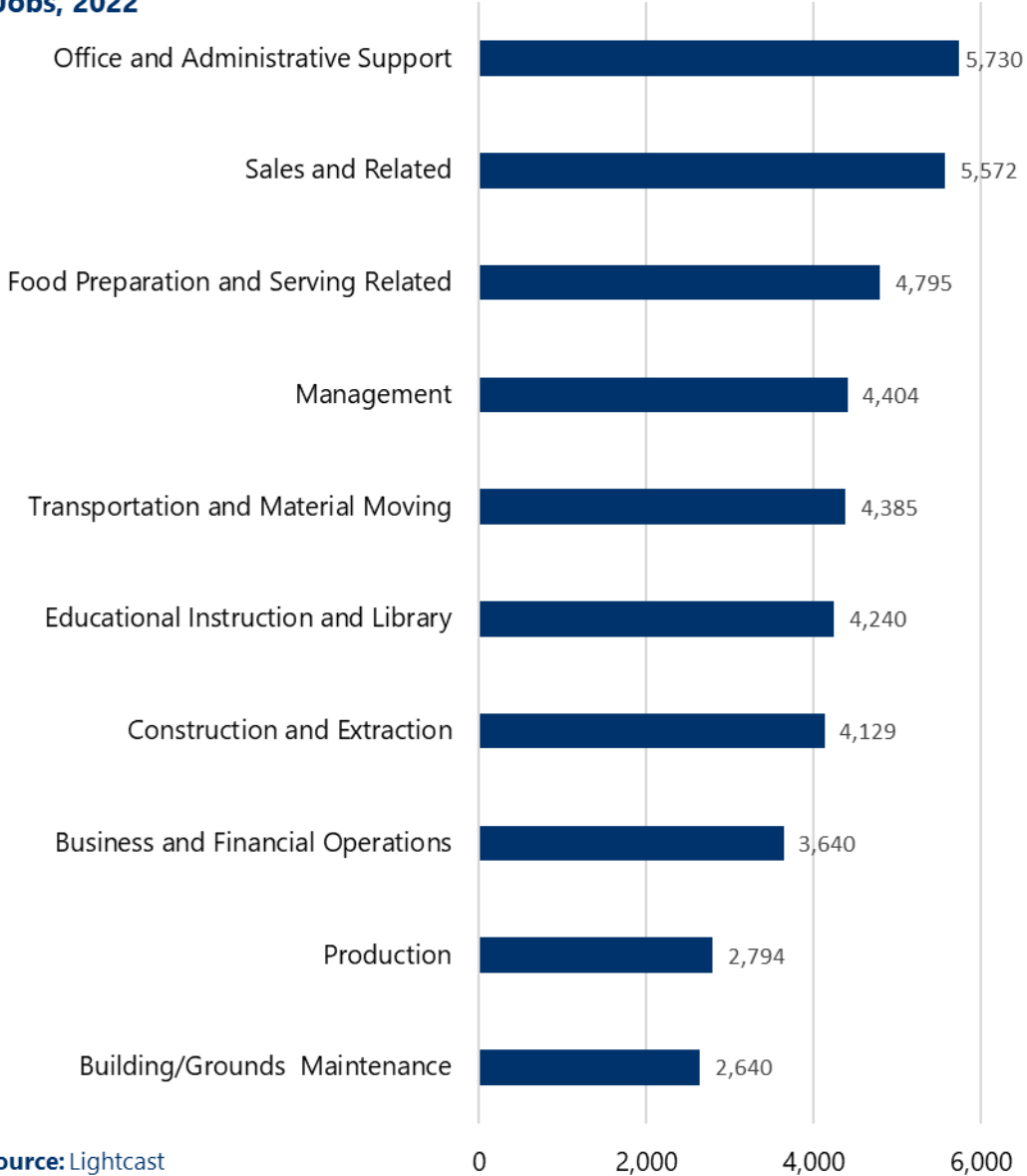
In 2022, the region’s 10 most common occupations totaled 42,329 jobs or 71% of the region’s total employment.

Accounting for more than 5,500 jobs in the region, Office and Administrative Support positions proved to be the most common, driven primarily by Information and Record Clerks (1,598 jobs) and General Office Clerks (1,197 jobs).

Second largest, Sales and Related Occupations were supported by high levels of Retail Sales Workers including Cashiers (1,712 jobs) and Retail Salespersons (1,549 jobs).

Food Preparation and Serving related occupations also ranked among the most common occupations with Fast Food and Counter Workers (1,682 jobs) and Cook (904 jobs) contributing strongly to this occupation segment.

Rappahannock-Rapidan Region Top 10 Occupations by Jobs, 2022



Source: Lightcast



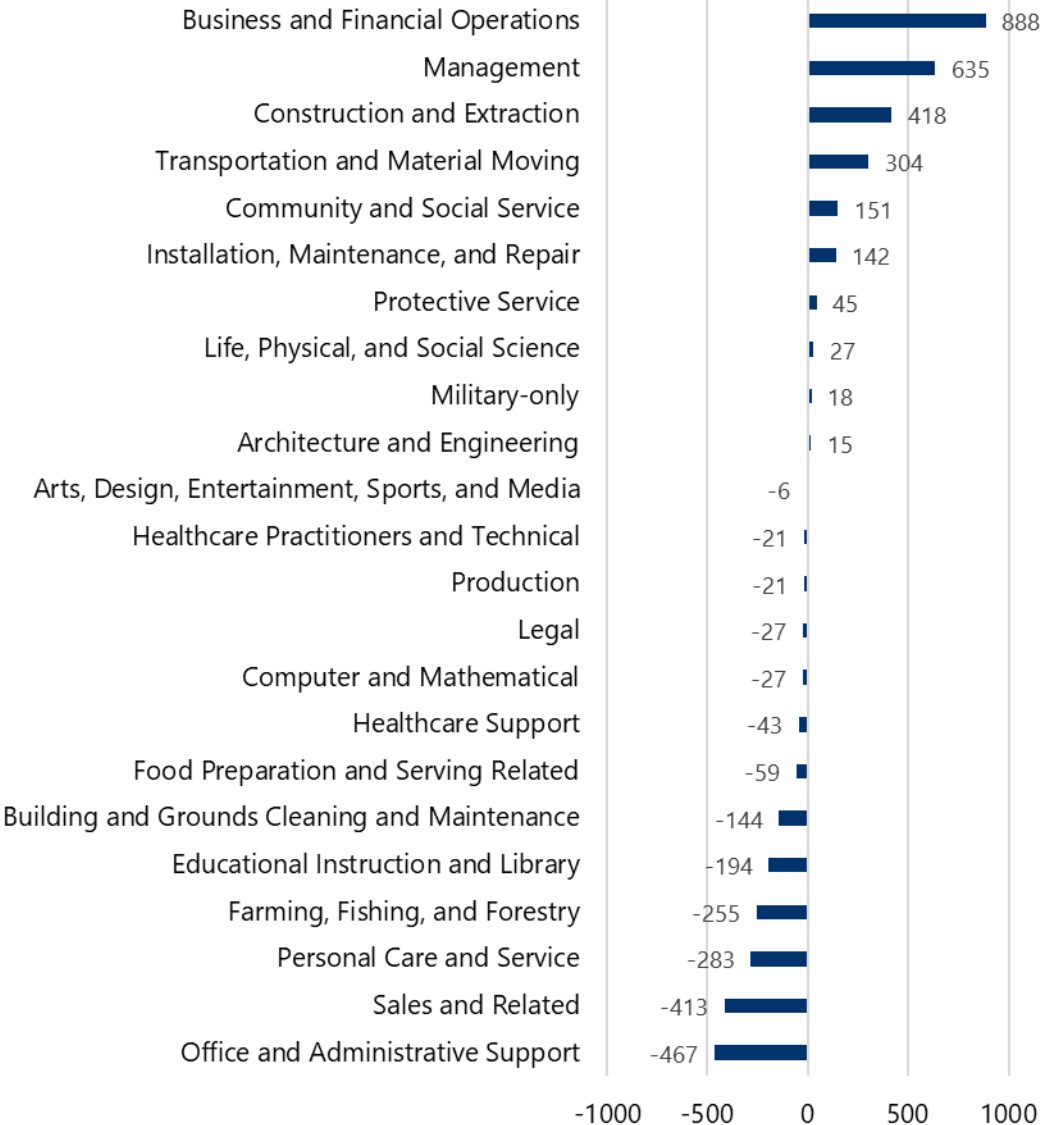
Employment Growth by Occupation

From 2017 to 2022, the Rappahannock-Rapidan Region added 683 total jobs across all occupations. Ten occupations groups increased employment while the 13 other occupations groups remained the same or decreased in employment.

Business and Financial Operations and Management occupations are an economic bright spot in the region. These two occupations were the leaders in job growth from 2017 to 2022, adding 888 and 635 jobs, respectively.

Office and Administrative Support Jobs showed the greatest absolute decline from 2017 to 2022. Despite its place as the top occupation in total positions, this occupation lost the most jobs over this timeframe, shedding 467 workers. Other occupations with notable job declines include Sales and Related (-413), Personal Care and Service (-283), and Farming, Fishing, and Forestry (-255).

Rappahannock-Rapidan Region Job Growth by Occupation, 2017-2022



Source: Lightcast



Employment Growth by Sub-Occupation

Within the sub-occupation groups, Managers once again show their strength. The biggest gains over the last five years were for General and Operation Managers which increased by 410 jobs since 2017. Other top increases were in Laborers and Material Movers (+193), Miscellaneous Business Operations Specialists (+190), and Logisticians and Project Management Specialists (+176).

Rappahannock-Rapidan Region Top 25 Sub-Occupations by Job Growth, 2017-2022



Wages

Across all job types in the Rappahannock-Rapidan Region, Legal Occupations showed the highest median earnings at \$55.09 per hour. Other top earning occupations include Computer and Mathematical occupations (\$48.80), Management Occupations (\$47.14), and Architecture and Engineering (\$43.72).

On the other end of the spectrum, Food Preparation and Serving Related occupation reported the lowest median hourly earnings at \$12.28. Other bottom performing occupations include Healthcare Support (\$13.09), Farming, Forestry, and Fishing (\$13.98), and Personal Care and Service (\$14.10).

Median Hourly Wages by Occupation, 2022



Source: Lightcast



Occupation Competitive Effect and Shift Share

Shift shares for the region’s occupations are once again presented in order to gauge how competitively the region has performed with respect to different occupations from 2017-2022.

As a whole, the Region shows a net negative competitive advantage, registering a loss of 369 jobs due to the area’s Competitive Effect. That is, there are 369 less jobs in the region than would be expected based solely on national growth trends. Fauquier County has been the most negatively impacted in the region with a Competitive Effect of -371 jobs while Culpeper has shown the most positive competitive advantage of all the region’s counties with a Competitive Effect of +89 positions.

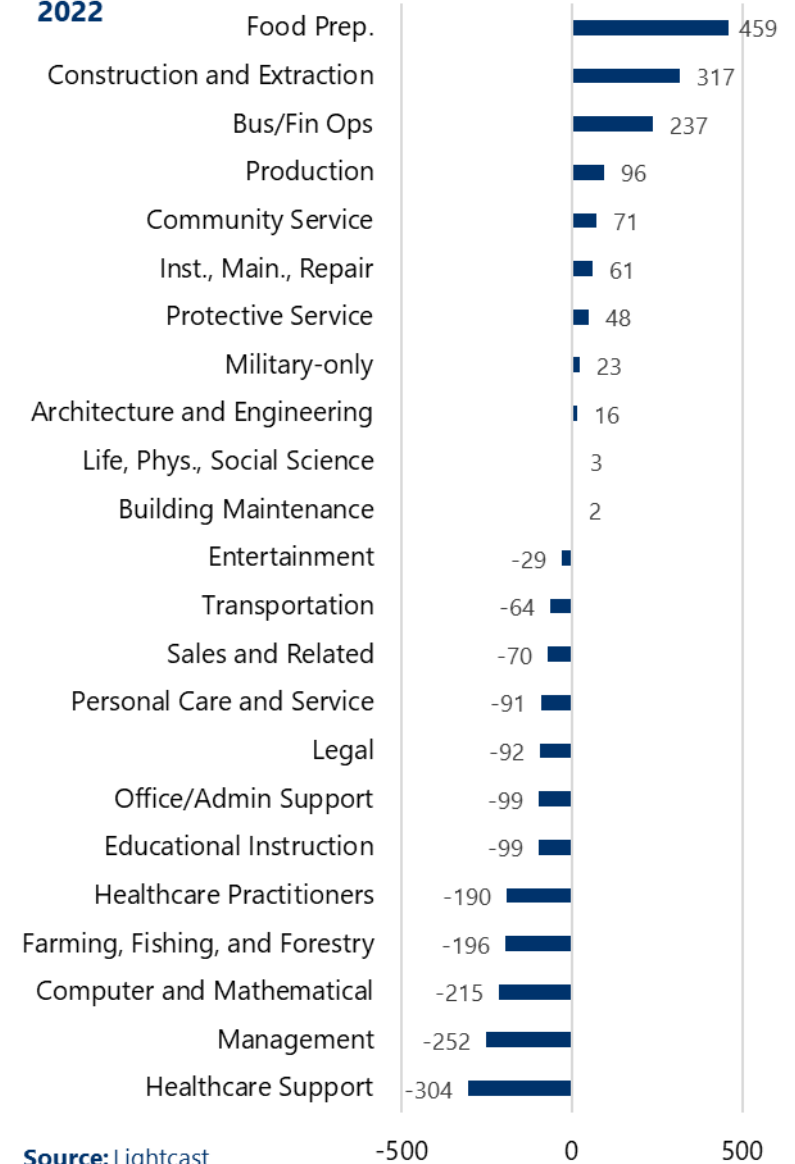
When examining occupations within the region, Food Preparation and Serving Related, Construction and Extraction, and Business and Financial Operations displayed the strongest competitive advantage. On the opposite end of the spectrum, Health Care Support, Management, and Computer and Mathematical Occupations fell short of the expected employment level – the result of a competitive disadvantage.

Shift Share Indicators, 2022

Region	Ind. Mix Effect	Nat'l Growth Effect	Expected Change	Competitive Effect
Culpeper County	58	331	389	89
Fauquier County	17	485	502	-371
Madison County	-27	71	44	-18
Orange County	-112	217	105	-99
Rappahannock County	-23	34	11	30
Rappahannock-Rapidan Region	-87	1,139	1,052	-369
Virginia	21,878	84,869	106,747	-50,750

Source: Lightcast

Competitive Effect by Occupation, 2017-2022



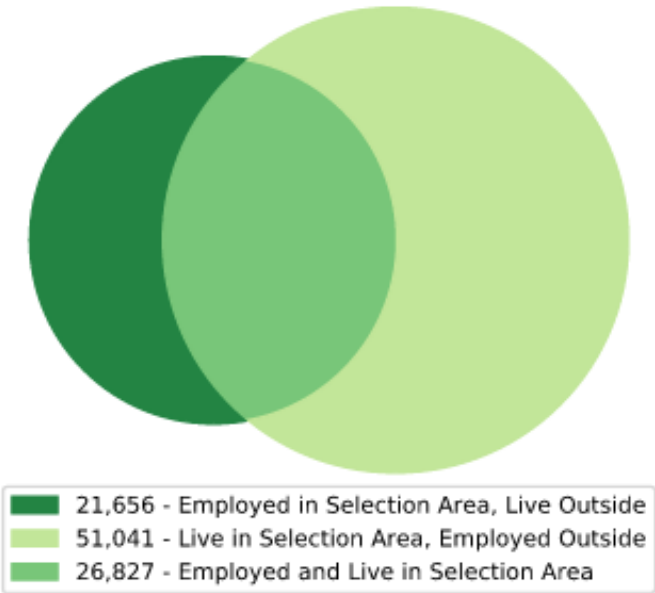
Source: Lightcast



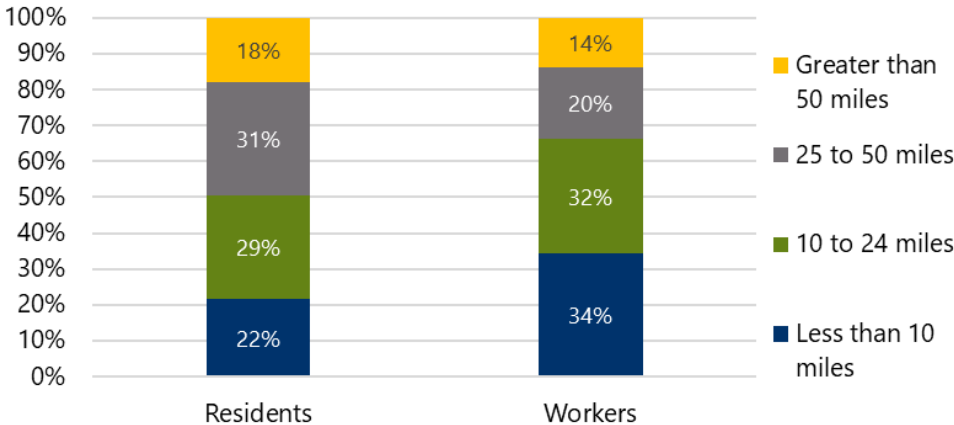
Commute Patterns

In 2019, the Rappahannock-Rapidan Region included 26,827 individuals who both lived and worked inside of the five-county region representing 34% of the working population. Total employment in the region measured 48,483 workers, with 21,656 or 45% of workers *working inside but living outside* of the region. There were 77,868 working residents living within the region, including 51,041 (66%) with jobs outside of the five counties. This made the region as whole a net exporter of workers, with more *residents who work outside* of the five-county area (51,041) than the number of *workers who commuted into the region* for their job (21,656).

Inflow/Outflow Job Counts in 2019



Commuting Distance for Rappahannock-Rapidan Region Residents and Workers, 2019



Source: Census OnTheMap

Within the five-county region, the average resident spends more time commuting than does the region’s average worker. 14% of those working in the region commute 50 miles or more for work (regardless of whether or not they live within the region). Among residents of the region who work, 18% commute 50+ miles. For workers within the region, the largest share commute less than 10 miles for work (34%) while for working residents the largest share, 31%, commutes between 25 to 50 miles for work.

This implies that there are a greater number or more preferred jobs outside the region than are found within the region; enough so as to warrant the longer commute. Alternatively, workers are drawn outside of the region to find enough jobs in their preferred industries.



Commuter Destinations

For residents in the Rappahannock-Rapidan Region, the largest share (14%) work in Fauquier County, followed by out of region Fairfax County (14%) and Culpeper County (11%). Orange and Madison Counties employ 6% and 2% of region residents respectively, while Rappahannock County does not employ a significant share of the region’s workers.

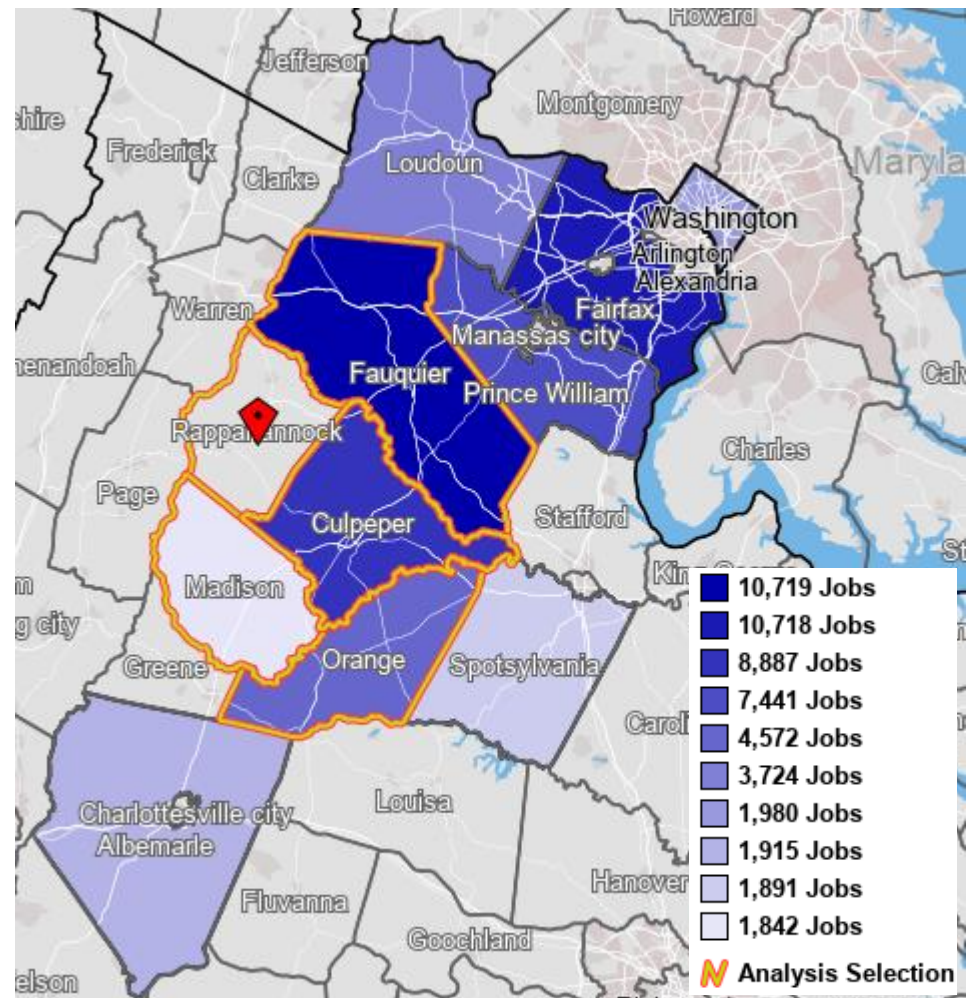
Geographically, a significant number of the region’s residents commute into the Washington DC metro area with Fairfax County and the District itself among the top 10 destinations.

Where Rappahannock-Rapidan Region Residents Work, 2019, Primary Jobs

City/Town	Count	Share
Fauquier County, VA	10,719	14%
Fairfax County, VA	10,718	14%
Culpeper County, VA	8,887	11%
Prince William County, VA	7,441	10%
Orange County, VA	4,572	6%
Loudoun County, VA	3,724	5%
District of Columbia, DC	1,980	3%
Albemarle County, VA	1,915	2%
Spotsylvania County, VA	1,891	2%
Madison County, VA	1,842	2%
All Other Locations	24,179	31%
Total	77,868	100%

Note: In Region Counties are Shaded

Source: Census OnTheMap



Commuter Origins

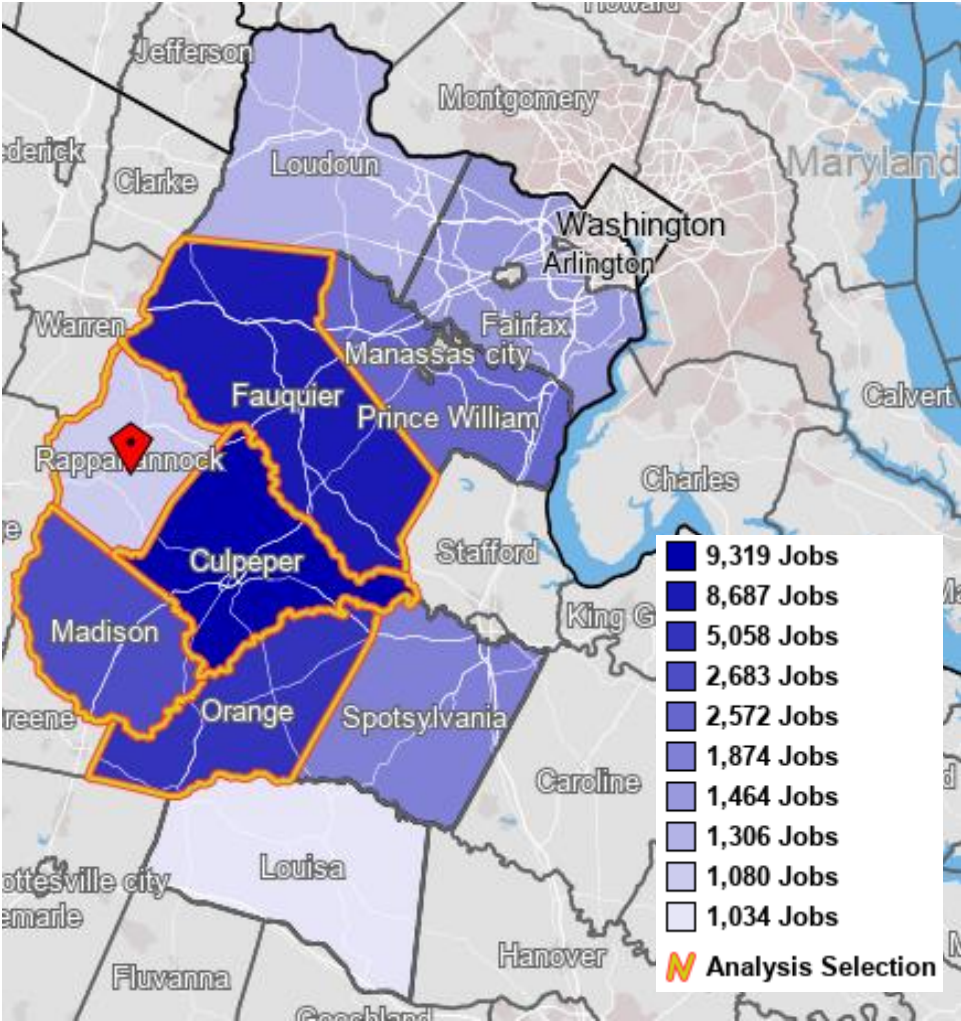
For those who work in the Rappahannock-Rapidan Region, the highest proportion (19%) live in Culpeper County, followed by Fauquier County (18%) and Orange County (10%) rounding out the top three. Madison and Rappahannock County have a share of 6% and 2% of workers residing in those counties, respectively. Note that these sum to a mere 55%. The balance – nearly half of all of the region’s workers – come from outside the five-county area.

Where Rappahannock-Rapidan Region Workers Live, 2019, Primary Jobs

City/Town	Count	Share
Culpeper County, VA	9,319	19%
Fauquier County, VA	8,687	18%
Orange County, VA	5,058	10%
Madison County, VA	2,683	6%
Prince William County, VA	2,572	5%
Spotsylvania County, VA	1,874	4%
Fairfax County, VA	1,464	3%
Loudoun County, VA	1,306	3%
Rappahannock County, VA	1,080	2%
Louisa County, VA	1,034	2%
All Other Locations	13,406	28%
Total	48,483	100%

Note: In Region Counties are Shaded

Source: Census OnTheMap



Commuter Characteristics

The top 20 occupations by number of commuters entering the region for work are shown in the accompanying table, indicating the top jobs that workers are travelling into the region to work in. The top occupations most commonly fall into the Farming, Fishing, and Forestry and Production Occupation sectors, indicating that the jobs in these occupations may be more available or better jobs inside of the region than outside of it.

Resident workers are those who live in the region and hold a given occupation but may work outside of the region. Net commuters refers to the minimum number of workers who commute in or out of the region for their job. A positive number indicates commuters entering the region, while a negative net commuter number indicates that residents are leaving the region for their job.

Top 20 Occupations by Net Commuters, Rappahannock-Rapidan Region, 2022

SOC	Description	2022			Resident Workers Per Job
		2022 Jobs	2022 Resident Workers	2022 Net Commuters	
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	574	535	39	0.93
11-9013	Farmers, Ranchers, and Other Agricultural Managers	961	935	26	0.97
51-9196	Paper Goods Machine Setters, Operators, and Tenders	69	46	23	0.66
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	84	62	22	0.74
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	84	63	20	0.76
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	251	232	19	0.92
51-7011	Cabinetmakers and Bench Carpenters	108	93	15	0.86
45-2091	Agricultural Equipment Operators	65	52	13	0.81
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	57	45	12	0.78
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	32	22	10	0.68
51-6031	Sewing Machine Operators	61	51	10	0.83
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	59	49	10	0.83
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	23	13	10	0.57
45-4022	Logging Equipment Operators	45	35	9	0.79
51-6093	Upholsterers	30	21	9	0.70
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	48	39	9	0.82
45-2099	Agricultural Workers, All Other	90	81	9	0.90
39-2011	Animal Trainers	81	73	8	0.90
45-2041	Graders and Sorters, Agricultural Products	27	20	7	0.75
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	17	11	6	0.63

Source: Lightcast



The 20 occupations with the greatest number of out-commuters are shown in the accompanying table, indicating the top jobs that workers are travelling out of the region to work in. The bottom occupations most commonly fall into the Sales and Related and Office and Administrative Support Occupation sectors, indicating that the jobs in these occupations may be more available or better jobs outside of the region than inside of it.

Bottom 20 Occupations by Net Commuters, Rappahannock-Rapidan Region, 2022

SOC	Description	2022			Resident Workers Per Job
		2022 Jobs	Resident Workers	2022 Net Commuters	
41-2031	Retail Salespersons	1,523	2,505	-982	1.65
11-1021	General and Operations Managers	1,181	2,037	-856	1.72
15-1252	Software Developers	480	1,301	-821	2.71
55-9999	Military-only occupations	296	1,082	-786	3.66
35-3023	Fast Food and Counter Workers	1,686	2,460	-773	1.46
29-1141	Registered Nurses	673	1,413	-740	2.10
43-9061	Office Clerks, General	1,174	1,887	-713	1.61
13-1111	Management Analysts	533	1,227	-694	2.30
13-1199	Business Operations Specialists, All Other	359	987	-628	2.75
41-2011	Cashiers	1,709	2,310	-602	1.35
	Janitors and Cleaners, Except Maids and				
37-2011	Housekeeping Cleaners	668	1,256	-588	1.88
53-7065	Stockers and Order Fillers	1,148	1,708	-560	1.49
43-4051	Customer Service Representatives	650	1,210	-560	1.86
25-1099	Postsecondary Teachers	427	972	-545	2.28
31-1128	Home Health and Personal Care Aides	1,248	1,754	-506	1.41
13-2011	Accountants and Auditors	497	979	-482	1.97
35-3031	Waiters and Waitresses	694	1,158	-465	1.67
	Secretaries and Administrative Assistants, Except				
43-6014	Legal, Medical, and Executive	423	829	-406	1.96
33-9032	Security Guards	199	582	-383	2.92
	Sales Representatives of Services, Except				
	Advertising, Insurance, Financial Services, and				
41-3091	Travel	310	674	-364	2.17

Source: Lightcast



REAL ESTATE

Key Findings

Most real estate inventory in the region is located in Fauquier and Culpeper Counties. The Rappahannock-Rapidan Region is home to 17.5 million square feet (msf) of non-residential real estate as well as nearly 3,600 multifamily residential units. 77% of non-residential real estate and 85% of the multifamily units are located in either Fauquier (41%) or Culpeper (36%) counties. Orange County holds 15% of all non-residential property followed by Madison County (6%) and Rappahannock with less than 2%.

There are almost 600 short term rental units available in the region as of 2023 – an increase of almost 75% over 2020. While only 62% of these properties are full-time rentals, this data suggests that short term rentals are increasing in popularity in the region. Average rates vary between \$125/night and \$445/night.

Retail is the largest portion of the non-residential property types, followed by industrial. With a total of 7.5 msf, retail is the largest non-residential property type, followed by industrial (4.8 msf), office (3.3 msf), and flex space (1.1 msf).

Industrial real estate demand is high. Reflecting real estate trends seen nationally, demand remains quite strong for this industrial space, with local vacancy rates well below 2%.

The region's hospitality sector includes a total of 39 lodgings with 1,564 rooms. This is the one type of real estate where Rappahannock County stands out strongly, with nightly rates measuring well above the regional average. This is driven by several high-end properties where suites can reach over \$3,000 per night.

Demand is strong for the region's 3,600 multifamily units with vacancies at just over 1%. The tight multifamily rental market has average rates currently around \$1,200 per month—though in Fauquier County that figure jumps to over \$1,300.

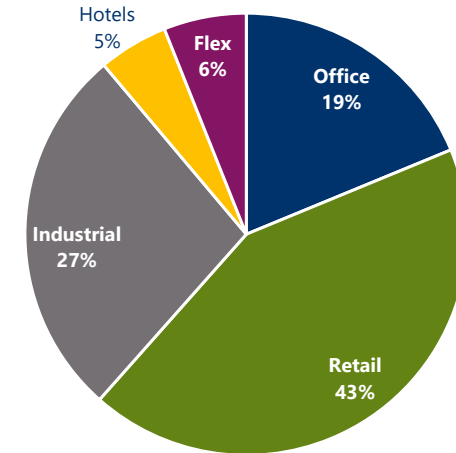
Currently, 79 developable properties are available for sale throughout the region. These sites comprise nearly 2,200 acres overall, with a median area of 8.7 acres. Fauquier County has nearly 1,000 acres of this available land including two sites over 150 acres. The largest parcel, however, is a 350-acre site found along Germanna Highway in Culpeper County.



Regional Real Estate Overview

- The RRRC is home to more than 17.5 million square feet (msf) of non-residential commercial real estate along with 3,600 multifamily residential units.
- Retail is far and away the largest real estate sector with 43% of all non-residential square footage. This sector currently enjoys a healthy vacancy rate below 3%.
- Strong demand for warehouse and distribution space has drawn vacancies in the industrial sector down below 2%. This is the second largest non-residential segment representing over one-quarter of all square footage.
- With 3.3 msf of space in the region, offices currently see a vacancy rate of 5%. Compared to the national office vacancy rate in 2022 of more than 12%, this market remains exceptionally healthy.
- There are well over 1,500 lodging units in the region, showing a 2022 occupancy rate of just over 60%, slightly below the national rate of 62%.
- The region also includes 3,600 multifamily residential units. Strong demand in this segment has driven vacancies down to nearly 1% while average monthly rents approached \$1,200 in 2022.

**RRRC Non-Residential Real Estate Inventory by Type
17.5 msf in 2022**



Source: CoStar

Investment Real Estate in RRRC - 2022

Non-Residential	Buildings	Inventory (SF)	Vacancy Rate	Rent (SF/Ann)
Office	334	3,286,229	4.6%	\$19.75
Retail	705	7,490,405	2.8%	\$15.67
Industrial	179	4,785,105	1.6%	\$8.13
Lodging	39	891,941	NA	NA
Flex	45	1,057,026	1.1%	\$12.66
Total	1302	17,510,706	NA	NA

Hospitality	Buildings	Inventory (Rooms)	Occupancy Rate	Daily Rate
Lodging	39	1,564	60.5%	\$133.88

Residential	Buildings	Inventory (Units)	Vacancy Rate	Rent (Monthly)
Multifamily	75	3,603	1.1%	\$1,190

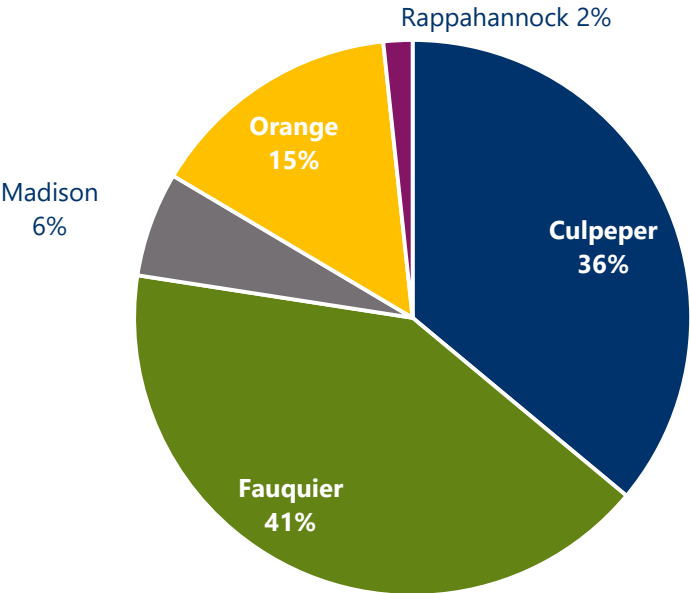
Source: CoStar/Camoin Associates



Regional Real Estate Overview (cont.)

- Given their much higher levels of population than the region's other counties, Fauquier and Culpeper Counties hold the lion's share of non-residential real estate in the region with more than three-quarters of all building square footage between them.
- Orange County, with just 15% of the region's non-residential real estate is a distant third, followed by Madison County holding less than half that amount (6%).
- Rappahannock County, with less than 300,000 sf in total has only 2% of total non-residential area inventory for the region.

**RRRC Non-Residential Real Estate Inventory by County
17.5 msf in 2022**



Source: CoStar



Short Term Rentals

The region's short-term rental data is shown in the table to the left. The region as a whole has 598 short-term rentals with an average daily rate of \$259.42 and a total revenue of \$79,332 in 2022. The top markets in terms of active rentals in the region are Orange, Culpeper, and Madison market areas.

Note that market areas may cross county lines in some instances, but the majority of the market area will fall in the indicated county.

Short-Term Rentals Rappahannock Rapidan Region by Market Area*, 2022

Market Area	County	Average Daily Rate	Occupancy Rate	Revenue	Active Rentals	Percent Entire Home Rentals	Rental Growth (2020-2023)	Share Full-Time Rentals
Orange	Orange	\$323.00	45%	\$3,223.00	91	81%	40%	56%
Culpeper	Culpeper	\$173.00	67%	\$2,712.00	66	75%	103%	49%
Madison	Madison	\$222.00	57%	\$3,002.00	64	95%	64%	62%
Warrenton	Fauquier	\$406.00	60%	\$4,258.00	54	75%	-9%	46%
Locust Grove	Orange	\$310.00	53%	\$3,250.00	38	92%	75%	40%
Marshall	Fauquier	\$284.00	53%	\$3,230.00	34	85%	54%	63%
Syria	Madison	\$194.00	54%	\$3,065.00	31	96%	19%	83%
Sperryville	Rappahannock	\$321.00	40%	\$3,136.00	30	83%	28%	73%
The Plains	Fauquier	\$253.00	43%	\$2,840.00	29	72%	85%	53%
Etlan	Madison	\$236.00	64%	\$3,994.00	24	100%	167%	80%
Delaplane	Fauquier	\$445.00	53%	\$5,704.00	21	95%	110%	66%
Reva	Culpeper	\$267.00	50%	\$3,102.00	19	94%	90%	65%
Washington	Rappahannock	\$380.00	42%	\$3,762.00	15	83%	6%	81%
Unionville	Orange	\$144.00	45%	\$1,390.00	13	61%	44%	33%
Boston	Culpeper	\$212.00	65%	\$3,354.00	11	100%	20%	71%
Amissville	Rappahannock	\$234.00	71%	\$3,808.00	10	100%	43%	66%
Somerset	Orange	\$418.00	47%	\$3,834.00	8	100%	233%	50%
Rixeyville	Culpeper	\$165.00	63%	\$3,014.00	7	71%	-27%	44%
Rochelle	Madison	\$199.00	61%	\$2,304.00	7	57%	-44%	83%
Flint Hill	Rappahannock	\$150.00	79%	\$3,104.00	6	83%	20%	66%
Midland	Fauquier	\$183.00	72%	\$3,172.00	6	100%	600%	66%
Huntly	Rappahannock	\$350.00	77%	\$6,914.00	5	100%	-55%	100%
Jeffersonton	Culpeper	\$232.00	40%	\$1,862.00	5	80%	67%	75%
Remington	Fauquier	\$125.00	34%	\$1,298.00	4	100%	25%	25%
Total/Average		\$259.42	56%	\$79,332.00	598	87%	73%	62%

*Region selected by Market Areas with the majority of listing within the Rappahannock-Rapidan Region

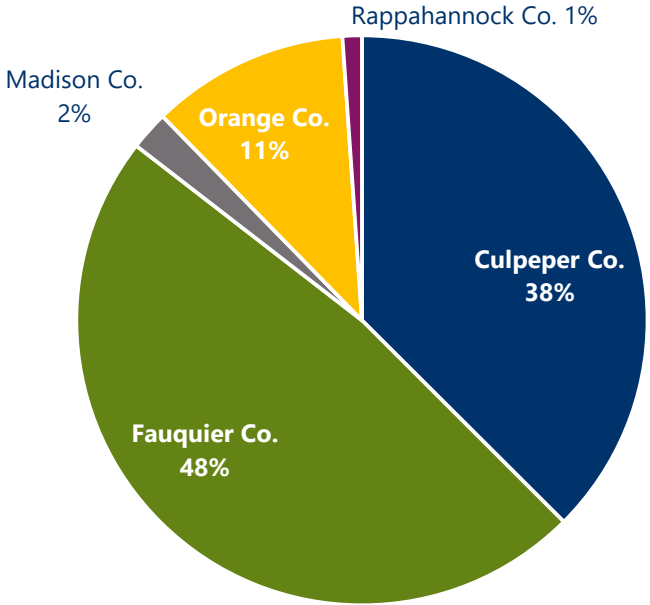
Source: AirDNA



Office

- At nearly 1.6 msf of space, nearly half of all office space in the region is found in Fauquier County. Over 100,000 sf of that space is unoccupied, contributing to the county's vacancy rate, which is relatively high for the region.
- Culpeper County also maintains well over 1 msf of office space but nearly all of that is leased. Vacancies here register less than 1%.
- The highest vacancies are found in Orange County where rates approach 8% but this remains quite low compared to national standards. For the US as a whole, office vacancies approached 16% in 2022.

Office Space by County - 2022



Source: CoStar

RRRC Office Building Market Metrics - 2022

County	Buildings	Total SF	Vacancy Rate	Annual Rent/SF
Culpeper Co.	78	1,232,309	0.7%	\$18.89
Fauquier Co.	205	1,577,296	7.3%	\$20.25
Madison Co.	13	72,496	0.0%	N/A
Orange Co.	33	368,218	7.7%	\$20.45
Rappahannock Co.	5	35,910	0.0%	N/A
RRRC Total	334	3,286,229	4.6%	\$19.72

Note: Regional rental rates by Camoin Associates based on available data

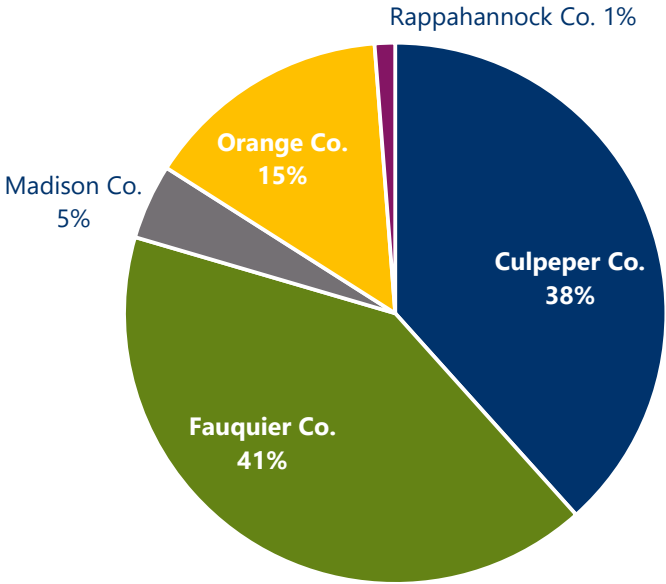
Source: CoStar/Camoin Associates



Retail

- With 7.5 msf of total space, the RRRC retail market shows an exceptionally healthy 3% vacancy rate. This compares to a national rate of more than 4%.
- As the largest retail market in the region with nearly 3 msf of total space, Fauquier County currently holds over 140,000 sf of unoccupied space, yielding vacancies of close to 5%.
- Despite these high vacancies, Fauquier County also posted the highest rental rate amongst the five counties in 2022.

Retail Space by County - 2022



Source: CoStar

RRRC Retail Building Market Metrics - 2022

County	Buildings	Total SF	Vacancy Rate	Annual Rent/SF
Culpeper Co.	208	2,873,991	1.3%	\$15.46
Fauquier Co.	315	3,083,974	4.7%	\$19.10
Madison Co.	45	336,332	0.6%	\$10.63
Orange Co.	116	1,104,909	2.5%	\$8.06
Rappahannock Co.	21	91,199	0.0%	\$17.00
RRRC Region Total	705	7,490,405	2.8%	\$15.63

Note: Regional rental rates by Camoin Associates based on available data

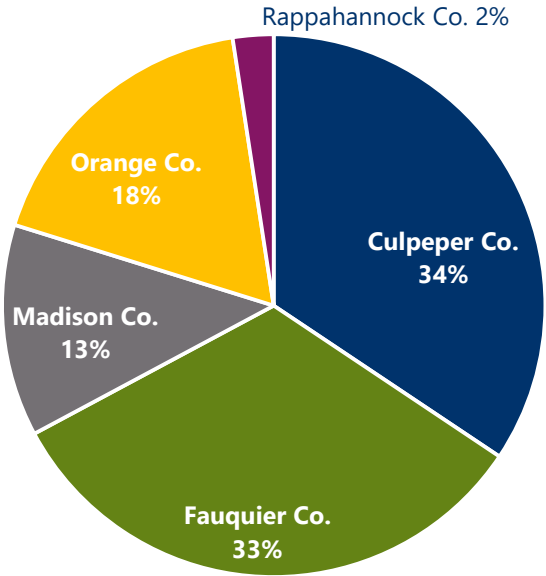
Source: CoStar/Camoin Associates



Industrial

- Demand for industrial space, especially warehouse and distribution centers, has proven to be exceptionally strong nationwide and this is also seen throughout the RRRC region.
- Vacancies stand well below 2% - half of the 4% rate found at the national level.
- The largest volume of space is found in Culpeper and Fauquier Counties with around 1.6 msf each.
- The largest individual property, however, is found in the Town of Madison – home to a 500,000 sf warehouse on Wolftown-Hood Road.
- Also notable is the 285,000 sf distribution center on Maddox Drive in the Town of Culpeper.

Industrial Space by County - 2022



Source: CoStar

RRRC Industrial Building Market Metrics - 2022

County	Buildings	Total SF	Vacancy Rate	Annual Rent/SF
Culpeper Co.	53	1,645,398	3.5%	\$7.14
Fauquier Co.	96	1,568,990	1.1%	\$10.60
Madison Co.	9	604,950	0.0%	N/A
Orange Co.	18	849,730	0.2%	\$5.50
Rappahannock Co.	3	116,037	0.0%	N/A
RRRC Total	179	4,785,105	1.6%	\$8.14

Note: Regional rental rates by Camoin Associates based on available data

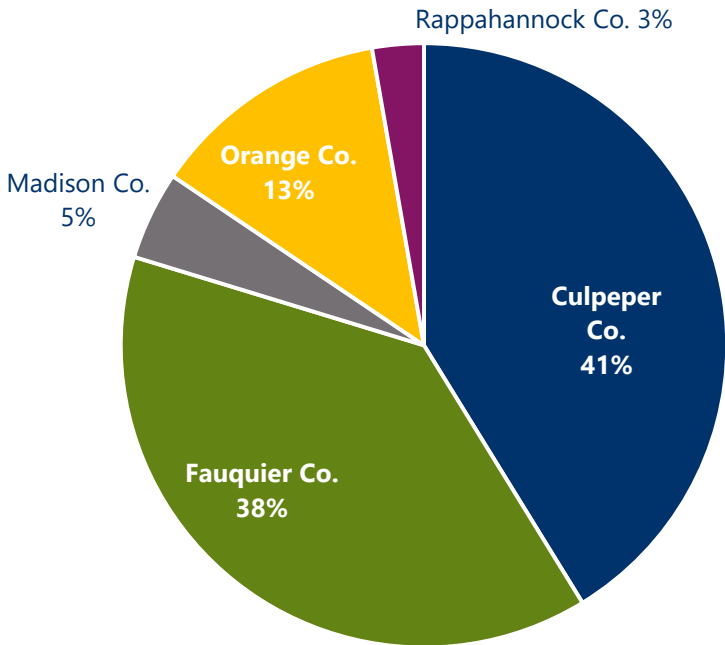
Source: CoStar/Camoin Associates



Hospitality

- With 12 properties and 645 rooms, Culpeper County is the largest hotel market within the region. These properties include the RRRC’s three largest hotels: the Hampton Inn & Suites, a Best Western, and a Holiday Inn Express – all in the Town of Culpeper.
- Fauquier County also makes a strong showing with over 600 rooms. Major properties here include another Hampton Inn and Holiday Inn Express along with the Baymont, and Home2Suites (Hilton).
- Orange County makes a more modest showing with 200 rooms and is led by the Comfort Inn & Suites and the Round Hill Inn.
- Occupancy rates here are generally on par with national trends, though daily rates fall somewhat short of levels seen for the country as a whole.
- A great deal of variance is seen in daily room rates. Rappahannock County, in particular, shows exceptionally high figures driven by the Inn at Little Washington where suites can reach over \$3,000 per night.

RRRC Hotel Room Inventory by County - 2022



Source: CoStar

RRRC Hotel Market Metrics - 2022

County	Buildings	Rooms	Occupancy Rate	Average Daily Rate
Culpeper Co.	12	645	61.3%	\$93
Fauquier Co.	11	602	60.8%	\$151
Madison Co.	3	74	49.2%	\$227
Orange Co.	7	200	60.9%	\$137
Rappahannock Co.	6	43	55.1%	\$336
RRRC Total	39	1,564	60.5%	\$129

Note: Regional daily rates by Camoin Associates based on available data

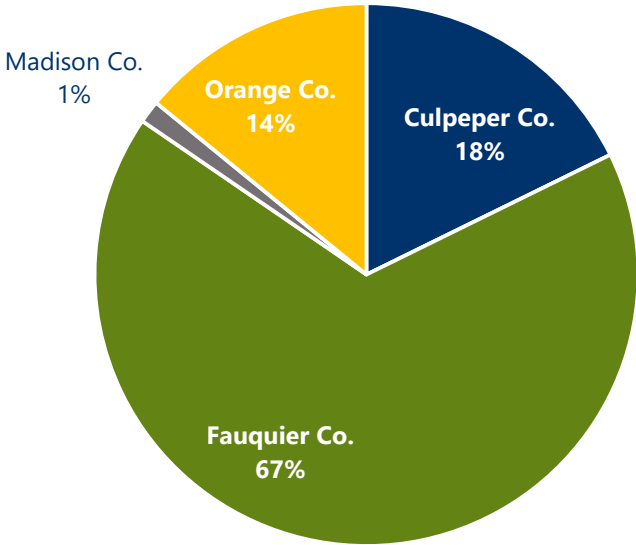
Source: CoStar/Camoin Associates



Flex

- The flex space market in the RRRC is dominated by Fauquier County, which includes over 700,000 sf of total space – three-quarters of the total market.
- Demand remains strong for this type of real estate with vacancies holding below 2% - well below the national average which stands at over 5%.

Flex Space by County - 2022



Source: CoStar

RRRC Flex Building Market Metrics - 2022

County	Buildings	Total SF	Vacancy Rate	Annual Rent/SF
Culpeper Co.	8	187,283	0.0%	N/A
Fauquier Co.	31	706,692	1.7%	\$14.70
Madison Co.	2	14,210	0.0%	N/A
Orange Co.	4	148,841	0.0%	N/A
Rappahannock Co.	0	0	N/A	N/A
RRRC Total	45	1,057,026	1.1%	N/A

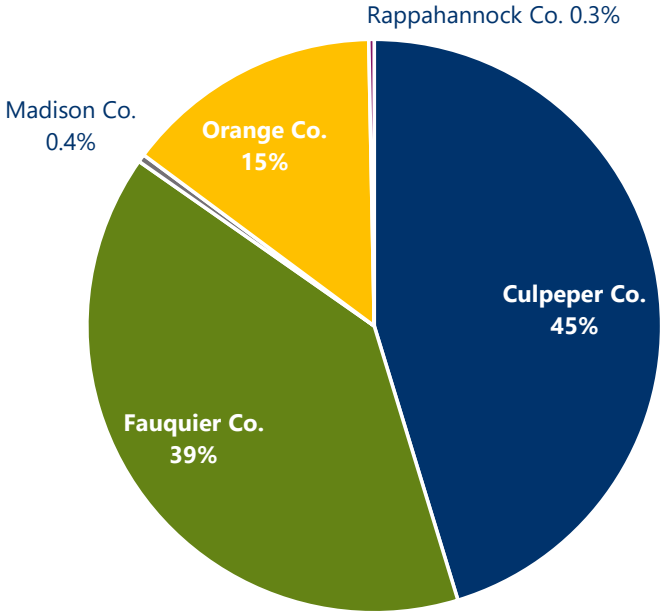
Source: CoStar/Camoin Associates



Multifamily

- Of the region’s 3,600 multifamily residential units, Culpeper County accounts for more than 1,600 – a 45% share. Several of these are found in the Town of Culpeper including Belle Courts, Culpeper Commons, Spark Culpeper, and Southridge Apartments.
- Fauquier County also contains a significant amount (39%) of the region’s multifamily properties with more than 1,400 units. Larger properties include The Oaks, Moffett Manor Apartments, and Warrenton Manor Apartments – all in Warrenton.
- Orange County registers a number of properties as well with over 500 rental units, but both Madison and Rappahannock County hold exceptionally few investment-level properties of this class.

RRRC Apartment Units by County - 2022



Source: CoStar

RRRC Apartment Market Metrics - 2022

County	Buildings	Units	SF/ Unit	Vacancy Rate	Monthly Rent/Unit
Culpeper Co.	33	1,632	913	1.0%	\$1,180
Fauquier Co.	27	1,421	951	0.9%	\$1,325
Madison Co.	1	16	720	7.1%	-
Orange Co.	12	523	942	1.5%	\$855
Rappahannock Co.	2	11	N/A	3.1%	-
RRRC Total	75	3,603	938	1.1%	\$1,190

Note: Regional area per unit and rental rates by Camoin Associates based on available data

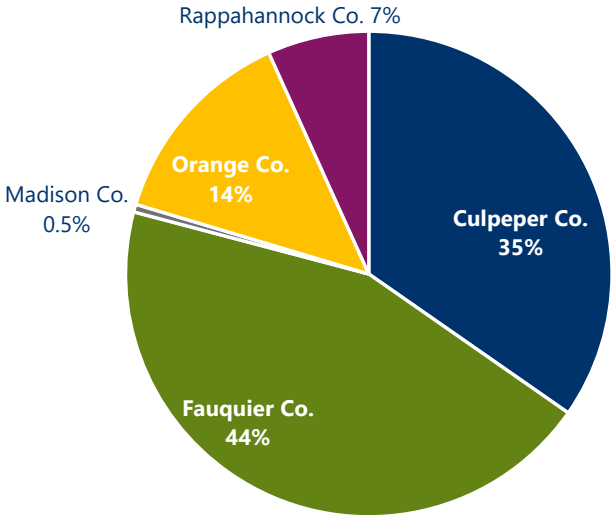
Source: CoStar/Camoin Associates



Available Land

- A total of 79 developable properties are identified in the CoStar real estate information service as being available for sale throughout the region. These comprise a total of nearly 2,200 acres with a median size of 8.7 acres.
- The largest share of these properties are found in Fauquier County with just under 1,000 acres available, representing close to half of the total area among all regional listings.
- Culpeper County also holds many large undeveloped properties available for sale, totaling 760 acres.
- Though Rappahannock includes only three of the properties it stands out as showing the largest median size at over 21 acres.

Developable Land for Sale by County - 2022



Source: CoStar

Land Available in the RRRC Region by County - 2022

	Culpeper County	Fauquier County	Madison County	Orange County	Rappahannock County	RRRC Total
Number of Properties	18	37	1	20	3	79
Total Acreage	760	973	11	298	148	2,191
Median Acreage	12.8	8.7	11.3	5.1	21.5	8.7
Percent of RRRC Region						
Number of Properties	22.8%	46.8%	1.3%	25.3%	3.8%	100.0%
Total Acreage	34.7%	44.4%	0.5%	13.6%	6.7%	100.0%

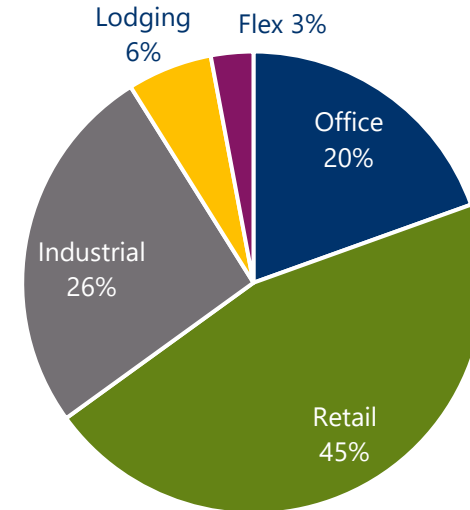
Source: CoStar



Culpeper County

- With a total of 6.3 msf of non-residential real estate, Culpeper County shows a distribution of property types typical of the overall region. The exception is its relatively low proportion of flex space.
- With over 1,600 units, the county does see a somewhat higher share of multifamily housing within the region as compared to the other property types.
- Notable properties in the county include a 378,000 sf office on Technology Dr, a 286,000 sf distribution center on Maddox Dr, and the Walmart on James Madison Hwy – all in the Town of Culpeper.

Culpeper County Non-Residential Real Estate Inventory by Type in 2022



Source: CoStar

Investment Real Estate in Culpeper County - 2022

Non-Residential	Buildings	Inventory (SF)	Regional Share	Vacancy Rate	Rent (SF/Ann)	Rent Index to Region
Office	78	1,232,309	37.5%	0.7%	\$18.89	96
Retail	208	2,873,991	38.4%	1.3%	\$15.46	99
Industrial	53	1,645,398	34.4%	3.5%	\$7.14	88
Lodging	12	375,474	42.1%	N/A	N/A	N/A
Flex	8	187,283	17.7%	0.0%	N/A	N/A

Hospitality	Buildings	Inventory (Rooms)	Regional Share	Occupancy Rate	Daily Rate	Rate Index to Region
Lodging	12	645	41.2%	61.3%	\$93	72

Residential	Buildings	Inventory (Units)	Regional Share	Vacancy Rate	Rent (Monthly)	Rent Index to Region
Multifamily	33	1,632	45.3%	1.0%	\$1,180	99

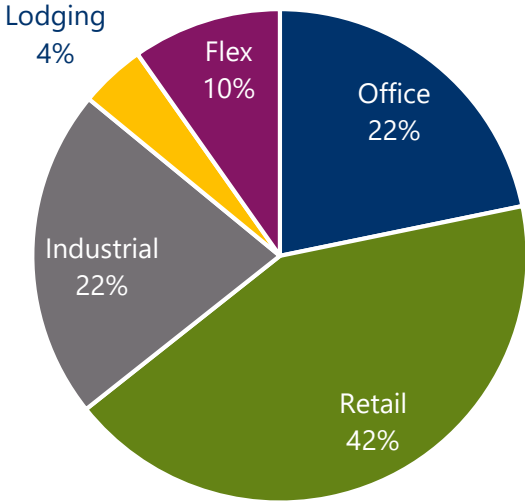
Source: CoStar/Camoin Associates



Fauquier County

- Non-residential real estate in Fauquier County totals over 7.2 msf with the largest share represented by retail, consistent with the broader regional trend.
- Fauquier County does have a higher-than-expected share of the region’s office buildings. The county’s 1.6 msf of office space represents nearly half of all square footage in the region. Major properties include the Pretium at Vint Hill, Warrenton Professional Center, and the Blackwell Park building.
- The county is set to see a significant boost to its non-residential inventory with the anticipated Amazon Data Center planned for Blackwell Rd in Warrenton.

Fauquier County Non-Residential Real Estate Inventory by Type in 2022



Source: CoStar

Investment Real Estate in Fauquier County - 2022

Non-Residential	Buildings	Inventory (SF)	Regional Share	Vacancy Rate	Rent (SF/Ann)	Rent Index to Region
Office	205	1,577,296	48.0%	7.3%	\$20.25	103
Retail	315	3,083,974	41.2%	4.7%	\$19.10	122
Industrial	96	1,568,990	32.8%	1.1%	\$10.60	130
Lodging	11	310,195	34.8%	N/A	N/A	N/A
Flex	31	706,692	66.9%	1.7%	\$14.70	N/A

Hospitality	Buildings	Inventory (Rooms)	Regional Share	Occupancy Rate	Daily Rate	Rate Index to Region
Lodging	11	602	38.5%	60.8%	\$151	117

Residential	Buildings	Inventory (Units)	Regional Share	Vacancy Rate	Rent (Monthly)	Rent Index to Region
Multifamily	27	1,421	39.4%	0.9%	\$1,325	111

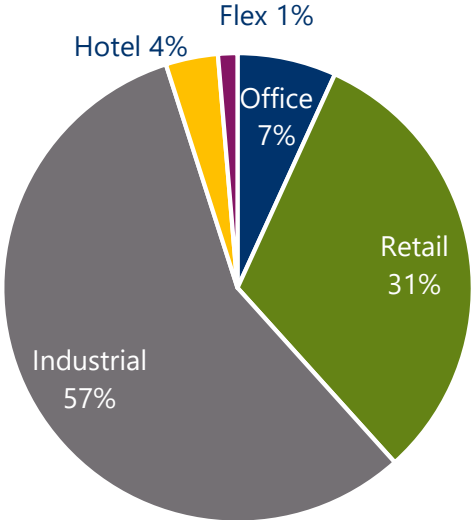
Source: CoStar/Camoin Associates



Madison County

- Madison County, with a total of just over 1 msf of non-residential real estate is unique within the region as more than half of this space is dedicated to industrial uses.
- The dominant element of this extensive industrial market is the 500,000 sf distribution center on Wolftown-Hood Rd in the Town of Madison. The next largest property in the county measures only one-tenth this size.

Madison County Non-Residential Real Estate Inventory by Type in 2022



Source: CoStar

Investment Real Estate in Madison County - 2022

Non-Residential	Buildings	Inventory (SF)	Regional Share	Vacancy Rate	Rent (SF/Ann)	Rent Index to Region
Office	13	72,496	2.2%	0.0%	N/A	N/A
Retail	45	336,332	4.5%	0.6%	\$10.63	68
Industrial	9	604,950	12.6%	0.0%	N/A	N/A
Lodging	3	38,319	4.3%	N/A	N/A	N/A
Flex	2	14,210	1.3%	0.0%	N/A	N/A

Hospitality	Buildings	Inventory (Rooms)	Regional Share	Occupancy Rate	Daily Rate	Rate Index to Region
Lodging	3	74	4.7%	49.2%	\$227.03	176

Residential	Buildings	Inventory (Units)	Regional Share	Vacancy Rate	Rent (Monthly)	Rent Index to Region
Multifamily	1	16	0.4%	7.1%	N/A	N/A

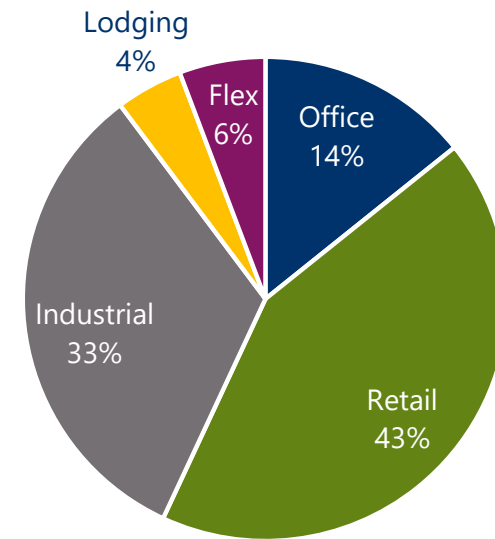
Source: CoStar/Camoin Associates



Orange County

- Orange County includes a total of nearly 2.6 msf of non-residential real estate, spread among property types in a distribution similar to the overall region.
- The county's heavy concentration in industrial space is anchored by a manufacturing facility on Old Gordonsville Rd in Orange and a warehouse on Cleveland St in Gordonsville – each measuring nearly 200,000 sf.
- The county includes 12 multifamily properties totaling over 500 units. Notably, the average rental rate of these units is only \$855, nearly 30% below the regional average.
- There are plans to expand retail in the county significantly with a proposed Signature Station in Locust Grove measuring 200,000 sf.

Orange County Non-Residential Real Estate Inventory by Type in 2022



Source: CoStar

Investment Real Estate in Orange County - 2022

Non-Residential	Buildings	Inventory (SF)	Regional Share	Vacancy Rate	Rent (SF/Ann)	Rent Index to Region
Office	33	368,218	11.2%	7.7%	\$20.45	104
Retail	116	1,104,909	14.8%	2.5%	\$8.06	52
Industrial	18	849,730	17.8%	0.2%	\$5.50	68
Lodging	7	115,689	13.0%	N/A	N/A	N/A
Flex	4	148,841	14.1%	0.0%	\$3.00	N/A

Hospitality	Buildings	Inventory (Rooms)	Regional Share	Occupancy Rate	Daily Rate	Rate Index to Region
Lodging	7	200	12.8%	60.9%	\$137	106

Residential	Buildings	Inventory (Units)	Regional Share	Vacancy Rate	Rent (Monthly)	Rent Index to Region
Multifamily	12	523	14.5%	1.5%	\$855	72

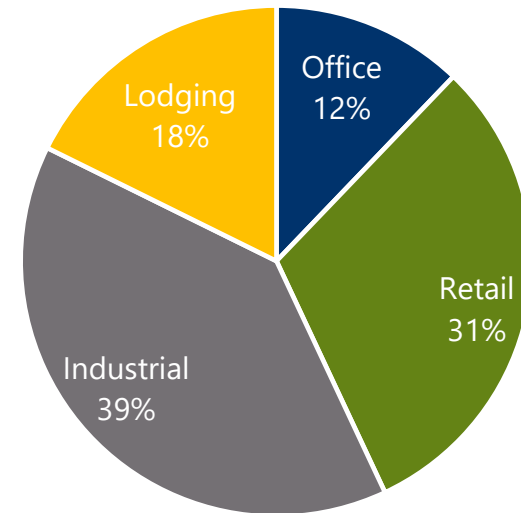
Source: CoStar/Camoin Associates



Rappahannock County

- Rappahannock County accounts for only 2% of the region’s non-residential real estate, and for offices and retail that figure drops to just over 1%.
- The county does see a slightly higher share of the region’s lodging space, but with only 43 rooms this, too, remains muted. Notably, this small collection of units commands exceptionally high nightly rates.
- The average daily room rates for lodging in the county are more than two and a half times the regional average. Rooms at the Blue Door Inn, The Blue Rock Inn, and The Inn at Little Washington run from \$300 to \$1,000 or more per night.

Rappahannock County Non-Residential Real Estate Inventory by Type in 2022



Source: CoStar

Investment Real Estate in Rappahannock County - 2022

Non-Residential	Buildings	Inventory (SF)	Regional Share	Vacancy Rate	Rent (SF/Ann)	Rent Index to Region
Office	5	35,910	1.1%	0.0%	N/A	N/A
Retail	21	91,199	1.2%	0.0%	\$17.00	109
Industrial	3	116,037	2.4%	0.0%	N/A	N/A
Lodging	6	52,264	5.9%	N/A	N/A	N/A
Flex	0	0	0.0%	N/A	N/A	N/A
Hospitality	Buildings	Inventory (Rooms)	Regional Share	Occupancy Rate	Daily Rate	Rate Index to Region
Lodging	6	43	2.7%	55.1%	\$336	261
Residential	Buildings	Inventory (Units)	Regional Share	Vacancy Rate	Rent (Monthly)	Rent Index to Region
Multifamily	2	11	0.3%	3.1%	N/A	N/A

Source: CoStar/Camoin Associates



DEFINITIONS

Retail

A retail property's primary intended use is to promote, distribute or sell products and services to the general public. It will often be in high-traffic or easily accessible areas. Retail buildings are configured for the display of merchandise or the interaction of company sales personnel with others.

Retail structures include, but are not limited to:

- stand-alone (convenience stores to department stores)
- storefronts
- strip centers (no anchors)
- neighborhood, community, regional, and super-regional malls
- power centers
- factory outlet centers
- fashion or specialty centers

Offerings at these locations include auto dealerships, banks, convenience stores, department stores, drug stores, fast food outlets, garden centers, health clubs, mixed-use retail plus office/residentials, movie theatres, restaurants, service stations and other auto repair facilities, supermarkets, truck stops, and other retail product and service providers.

Office

The primary intended use of an office property is to house employees of companies that produce a product or service primarily for support services such as administration, accounting, marketing, information processing and dissemination, consulting, human resources management, financial and insurance services, educational and medical services, and other professional services. Office buildings are characterized by work-efficient floor plans, work areas, comfortable heating and cooling, cabling for phones and computers, and other conveniences that allow people to conduct business. The interior finish and the structural design of the building support the activities of the employees.

Office structures include, but are not limited to:

- Office buildings
- Loft & creative spaces
- Medical office space (general practice, dental, surgical, and other practices)
- Telecom hotel/data hosting (office based)



Industrial

Industrial buildings are adapted for a combination of uses such as assemblage, processing, and/or manufacturing products from raw materials or fabricated parts. Additional uses include warehousing, distribution, and maintenance facilities. Self-storage facilities are also tracked as an industrial type

Industrial structures include:

- Distribution facilities
- Manufacturing sites
- Truck terminals
- Telecom hotel/data hosting (industrial)
- Vehicular service facilities
- Warehouses
- Other types of industrial space include airplane hangars, industrial plants, food processing, refrigeration/cold storage facilities, self-storage, and showrooms.

Flex

Flex buildings are designed to be versatile and may be used in combination with office, research and development, quasi-retail sales, and including but not limited to industrial, warehouse, and distribution uses. At least half of the rentable area of the building must be used as office space. Flex buildings typically have ceiling heights under 18', with light industrial zoning. Flex buildings have also been called Incubator, Tech and Showroom buildings in markets throughout the country.

Flex uses can include a mix of:

- Office
- Light industrial (manufacturing, distribution, and warehousing)
- R&D
- Showrooms (Flex)
- Telecom hotel/data hosting (Flex)

Hospitality

This type of property includes all types of lodging facilities including hotels and motels.

Hotels are facilities that offer lodging accommodations and a wide range of other services, e.g., restaurants, casinos, convention facilities, meeting rooms, recreational facilities, and commercial shops. These facilities can be labeled Resort, Mixed Use, Luxury, Full Service, Extended Stay, Convention, Apartment, All Suite, etc., and are not primarily designed to serve those traveling by car, such as a motel.



Motels are typically located on or near a highway and are designed to serve the needs of travelers by offering lodging and parking. Amenities may include food and beverages, meeting and banquet rooms, recreational areas, a swimming pool, or shops.

Multifamily

Multifamily residential structures are a classification of housing where multiple separate housing units for residential inhabitants are contained within one building or several buildings within one complex. This includes:

- Apartments that typically contain five or more dwelling units and may also include common areas and facilities, e.g., entrances, lobby, elevators or stairs, mechanical space, walks, grounds, recreational facilities, and parking both covered and open. Varieties of multifamily structures include:
 - Garden apartments with 1 to 3 Stories and 4 or more buildings
 - Low-rise with 1 to 3 Stories
 - Mid-Rise with 4 to 14 Stories
 - High rise with 15+ Stories
- Condominiums (multifamily) are apartment units owned by an individual. These may include a mix of individual-owned units and units owned by a real estate organization. They can also have every unit in the community individually owned.
- Military multi-dwelling housing, commonly located on military bases, a community in which residents must be military or military family members to live.

Note that data collected by CoStar excludes two- and three-family buildings and duplexes.

Vacant Space

Vacant space refers to all space not currently occupied by a tenant, regardless of any lease obligation that may be on the space. Vacant space could be space that is either available or not available. For example, sublease space that is currently being paid for by a tenant but not occupied by that tenant, would be considered vacant space. Likewise, space that has been leased but not yet occupied because of finish work being done would also be considered vacant space.

Vacancy Rate

Expressed as a percentage, the vacancy rate identifies the amount of vacant space divided by the existing rentable building area. This measure can be used for individual buildings or for a larger market area.

Occupancy Rate (Hotels)

In the hotel industry, the occupancy rate represents the number of occupied rooms during a certain time period divided by the total number of available rooms. Occupancy is usually expressed as a percentage. This figure can be calculated at a daily frequency or over a week, month, or year.



Average Daily Rate (hotels)

Average daily rate (ADR) is the measure of the average paid for rooms sold in a given time period. The metric covers only revenue-generating guestrooms.

The average daily rate is an essential measurement in the benchmarking process because of its direct relationship with demand, guest types and their price points, channels for distributing rooms and room promotions.



APPENDIX A: DATA TABLES

Rappahannock-Rapidan Region Economic Base, 2-Digit NAICS Industries

NAICS	Description	2022	2017-2022	2017 - 2022		2022-2027	Avg.	2022	Competitive Effect	2021 Payrolled	2021 GRP	2017-2021
		Jobs	Jobs Change	Jobs % Change	Jobs % Change	Jobs % Change	Earnings Per Job	Location Quotient		Business Locations	(\$ Millions)	GRP % Change
11	Agriculture, Forestry, Fishing and Hunting	2,618	-385	-12.8%	12	0.5%	\$43,424	3.5	-470	192	\$252.2	6.5%
21	Mining, Quarrying, and Oil and Gas Extraction	144	12	8.9%	4	2.9%	\$88,954	0.8	35	9	\$36.0	4.3%
22	Utilities	233	16	7.4%	12	5.2%	\$159,579	1.2	17	8	\$144.8	28.5%
23	Construction	5,746	570	11.0%	177	3.1%	\$62,916	1.7	112	704	\$578.6	24.9%
31	Manufacturing	4,463	482	12.1%	421	9.4%	\$72,411	1.0	465	163	\$581.5	25.2%
42	Wholesale Trade	1,408	-133	-8.6%	68	4.8%	\$73,824	0.7	-90	139	\$392.3	4.9%
44	Retail Trade	7,721	255	3.4%	102	1.3%	\$42,557	1.3	462	508	\$647.7	24.7%
48	Transportation and Warehousing	879	74	9.2%	29	3.3%	\$75,552	0.3	-113	117	\$111.7	-0.5%
51	Information	388	-349	-47.3%	24	6.1%	\$91,235	0.4	-378	64	\$109.2	-62.0%
52	Finance and Insurance	1,063	127	13.6%	57	5.3%	\$110,441	0.4	58	182	\$306.6	25.4%
53	Real Estate and Rental and Leasing	659	-206	-23.9%	-24	-3.6%	\$59,433	0.6	-250	181	\$277.6	-0.1%
54	Professional, Scientific, and Technical Services	3,357	535	19.0%	366	10.9%	\$104,481	0.8	139	589	\$580.6	26.0%
55	Management of Companies and Enterprises	171	-41	-19.4%	-36	-21.2%	\$130,691	0.2	-49	26	\$29.0	-2.3%
56	Administrative and Support and Waste Management and Remediation Services	2,229	463	26.2%	209	9.4%	\$54,895	0.6	436	272	\$225.9	57.8%
61	Educational Services	1,437	183	14.6%	189	13.1%	\$45,743	0.9	85	54	\$74.1	9.9%
62	Health Care and Social Assistance	5,712	-63	-1.1%	256	4.5%	\$59,281	0.7	-400	1,106	\$404.2	12.2%
71	Arts, Entertainment, and Recreation	438	-334	-43.3%	-27	-6.1%	\$37,041	0.5	-266	65	\$31.0	-27.4%
72	Accommodation and Food Services	4,643	-500	-9.7%	584	12.6%	\$26,804	1.0	-19	307	\$213.7	20.7%
81	Other Services (except Public Administration)	4,914	215	4.6%	511	10.4%	\$34,370	1.6	320	613	\$248.5	12.3%
90	Government	11,209	-207	-1.8%	152	1.4%	\$72,632	1.3	37	275	\$972.4	17.3%
99	Unclassified Industry	154	-30	-16.2%	38	24.6%	\$38,544	2.1	-19	75	Insf. Data	Insf. Data
Total		59,588	683	1.2%	3,124	5.2%	\$59,872		113	5,647	\$6,217.7	13.9%

Source: Lightcast



Job Change by Sector, 2017-2022

NAICS	Description	Culpeper County	Fauquier County	Madison County	Orange County	Rappahannock County	Rappahannock-Rapidan Region	Virginia
11	Agriculture, Forestry, Fishing and Hunting	-14%	-19%	-5%	-9%	-2%	-13%	-9%
21	Mining, Quarrying, and Oil and Gas Extraction	-14%	18%	0%	Insf. Data	0%	9%	-14%
22	Utilities	-14%	13%	0%	Insf. Data	0%	7%	0%
23	Construction	3%	12%	22%	21%	7%	11%	7%
31	Manufacturing	15%	6%	-8%	19%	21%	12%	4%
42	Wholesale Trade	-8%	-10%	-24%	-9%	Insf. Data	-9%	-1%
44	Retail Trade	5%	0%	0%	11%	-13%	3%	-4%
48	Transportation and Warehousing	8%	47%	-44%	-14%	-51%	9%	16%
51	Information	-74%	30%	Insf. Data	-10%	-58%	-47%	-1%
52	Finance and Insurance	9%	24%	-12%	-6%	-28%	14%	6%
53	Real Estate and Rental and Leasing	3%	2%	Insf. Data	-61%	Insf. Data	-24%	5%
54	Professional, Scientific, and Technical Services	37%	14%	0%	8%	-4%	19%	11%
55	Management of Companies and Enterprises	27%	-35%	Insf. Data	Insf. Data	Insf. Data	-19%	8%
56	Administrative and Support and Waste Management and Remediation Services	72%	17%	34%	-10%	16%	26%	5%
61	Educational Services	20%	18%	11%	43%	-24%	15%	5%
62	Health Care and Social Assistance	5%	-10%	-19%	23%	26%	-1%	4%
71	Arts, Entertainment, and Recreation	-57%	-29%	Insf. Data	-56%	Insf. Data	-43%	1%
72	Accommodation and Food Services	-11%	-13%	-3%	-14%	33%	-10%	-13%
81	Other Services (except Public Administration)	6%	3%	12%	7%	-2%	5%	-2%
90	Government	-3%	0%	-2%	-4%	7%	-2%	-4%
99	Unclassified Industry	1%	Insf. Data	114%	104%	19%	-16%	60%

Source: Lightcast



Job Change by Sector and by Town Zip Codes, 2017-2022

NAICS	Description	Culpeper (22701)	Orange (22960)	Warrenton (20186)
11	Agriculture, Forestry, Fishing and Hunting	-21%	-8%	-24%
21	Mining, Quarrying, and Oil and Gas Extraction	Insf. Data	Insf. Data	Insf. Data
22	Utilities	-56%	Insf. Data	Insf. Data
23	Construction	-5%	9%	5%
31	Manufacturing	15%	7%	-8%
42	Wholesale Trade	-11%	-6%	-15%
44	Retail Trade	6%	8%	-4%
48	Transportation and Warehousing	21%	-13%	42%
51	Information	-72%	-17%	70%
52	Finance and Insurance	9%	-9%	17%
53	Real Estate and Rental and Leasing	-2%	Insf. Data	6%
54	Professional, Scientific, and Technical Services	31%	0%	10%
55	Management of Companies and Enterprises	35%	Insf. Data	-41%
56	Administrative and Support and Waste Management and Remediation Services	76%	-18%	19%
61	Educational Services	14%	35%	9%
62	Health Care and Social Assistance	1%	13%	-11%
71	Arts, Entertainment, and Recreation	-55%	Insf. Data	-23%
72	Accommodation and Food Services	-8%	-11%	-14%
81	Other Services (except Public Administration)	-1%	-3%	-12%
90	Government	-4%	1%	-13%
99	Unclassified Industry	27%	Insf. Data	Insf. Data

Source: Lightcast



Industry Location Quotients, 2022

NAICS	Description	Culpeper County	Fauquier County	Madison County	Orange County	Rappahannock County	Rappahannock-Rapidan Region	Virginia
11	Agriculture, Forestry, Fishing and Hunting	1.94	2.88	4.39	7.33	4.47	3.58	0.44
21	Mining, Quarrying, and Oil and Gas Extraction	1.20	0.79	0.00	0.33	0.00	0.75	0.37
22	Utilities	1.53	1.39	0.00	0.55	0.00	1.15	0.72
23	Construction	1.29	2.21	1.51	1.09	1.52	1.67	0.98
31	Manufacturing	1.00	0.51	1.19	1.80	0.79	0.95	0.71
42	Wholesale Trade	0.59	0.51	0.37	1.25	0.31	0.66	0.70
44	Retail Trade	1.43	1.23	2.03	1.21	0.73	1.32	0.96
48	Transportation and Warehousing	0.35	0.32	0.07	0.54	0.15	0.35	0.83
51	Information	0.35	0.39	0.04	0.16	1.81	0.35	0.86
52	Finance and Insurance	0.32	0.58	0.19	0.33	0.15	0.42	0.85
53	Real Estate and Rental and Leasing	0.66	0.65	0.21	0.87	0.30	0.66	0.92
54	Professional, Scientific, and Technical Services	0.80	1.07	0.25	0.32	0.53	0.78	1.59
55	Management of Companies and Enterprises	0.17	0.35	0.02	0.06	0.18	0.22	1.26
56	Administrative and Support and Waste Management and Remediation Services	0.80	0.50	0.23	0.60	0.65	0.60	0.98
61	Educational Services	0.40	0.84	5.32	0.29	1.20	0.89	0.85
62	Health Care and Social Assistance	1.05	0.72	0.55	0.45	0.38	0.75	0.83
71	Arts, Entertainment, and Recreation	0.38	0.65	0.14	0.55	0.25	0.51	0.94
72	Accommodation and Food Services	0.94	1.09	0.70	0.82	2.44	1.01	0.92
81	Other Services (except Public Administration)	1.50	1.81	1.06	1.46	1.69	1.60	1.06
90	Government	1.35	1.23	1.20	1.41	1.46	1.31	1.32
99	Unclassified Industry	1.06	0.26	6.92	5.03	8.20	2.04	4.52

Source: Lightcast



Industry Location Quotients by Sector and by Town Zip Codes, 2022

NAICS	Description	Culpeper (22701)	Orange (22960)	Warrenton (20186)
11	Agriculture, Forestry, Fishing and Hunting	0.69	7.27	0.39
21	Mining, Quarrying, and Oil and Gas Extraction	0.09	0.35	0.01
22	Utilities	0.98	0.25	0.02
23	Construction	0.97	0.97	1.20
31	Manufacturing	1.07	3.09	0.08
42	Wholesale Trade	0.27	1.20	0.22
44	Retail Trade	1.75	1.55	1.81
48	Transportation and Warehousing	0.23	0.20	0.09
51	Information	0.42	0.15	0.66
52	Finance and Insurance	0.39	0.58	1.23
53	Real Estate and Rental and Leasing	0.77	0.11	1.07
54	Professional, Scientific, and Technical Services	0.70	0.31	1.28
55	Management of Companies and Enterprises	0.21	0.05	0.63
56	Administrative and Support and Waste Management and Remediation Services	0.90	0.18	0.42
61	Educational Services	0.24	0.68	0.96
62	Health Care and Social Assistance	1.20	0.69	1.71
71	Arts, Entertainment, and Recreation	0.45	0.03	0.77
72	Accommodation and Food Services	1.12	0.94	1.51
81	Other Services (except Public Administration)	1.51	0.74	1.04
90	Government	1.25	0.88	0.67
99	Unclassified Industry	1.27	1.74	0.37

Source: Lightcast



Competitive Effect by Sector, 2022

NAICS	Description	Culpeper County	Fauquier County	Madison County	Orange County	Rappahannock County	Rappahannock-Rapidan Region	Virginia
11	Agriculture, Forestry, Fishing and Hunting	-84	-234	-17	-131	-4	-470	-3,257
21	Mining, Quarrying, and Oil and Gas Extraction	3	20	0	12	0	35	255
22	Utilities	-13	14	0	16	0	17	85
23	Construction	-73	80	35	72	-3	112	-4,932
31	Manufacturing	180	51	-33	248	19	465	7,384
42	Wholesale Trade	-21	-36	-14	-35	15	-90	2,000
44	Retail Trade	191	97	23	166	-14	462	-6,500
48	Transportation and Warehousing	-37	57	-14	-103	-16	-113	-9,922
51	Information	-311	37	-2	-5	-96	-378	-3,640
52	Finance and Insurance	3	88	-6	-21	-5	58	-2,383
53	Real Estate and Rental and Leasing	-5	-9	6	-241	-2	-250	-65
54	Professional, Scientific, and Technical Services	171	3	-9	-13	-12	139	-15,185
55	Management of Companies and Enterprises	8	-69	-1	10	3	-49	3,016
56	Administrative and Support and Waste Management and Remediation Services	362	108	14	-56	9	436	9,305
51	Educational Services	19	51	15	22	-22	85	-2,337
52	Health Care and Social Assistance	-24	-406	-79	96	14	-400	-6,308
71	Arts, Entertainment, and Recreation	-107	-68	3	-94	-2	-266	6,497
72	Accommodation and Food Services	-20	-89	14	-40	115	-19	-11,700
31	Other Services (except Public Administration)	112	112	26	70	0	320	234
90	Government	-18	79	2	-56	31	37	-12,552
99	Unclassified Industry	2	-83	18	40	4	-19	10,599

Source: Lightcast



Competitive Effect by Sector and by Town Zip Codes, 2022

NAICS	Description	Culpeper (22701)	Orange (22960)	Warrenton (20186)
11	Agriculture, Forestry, Fishing and Hunting	-29	-19	-13
21	Mining, Quarrying, and Oil and Gas Extraction	0	5	0
22	Utilities	-56	1	0
23	Construction	-106	0	-21
31	Manufacturing	134	54	-6
42	Wholesale Trade	-14	-9	-12
44	Retail Trade	183	58	-39
48	Transportation and Warehousing	-3	-14	5
51	Information	-305	-3	45
52	Finance and Insurance	6	-14	47
53	Real Estate and Rental and Leasing	-15	-10	0
54	Professional, Scientific, and Technical Services	95	-11	-22
55	Management of Companies and Enterprises	9	3	-68
56	Administrative and Support and Waste Management and Remediation Services	320	-11	32
61	Educational Services	6	11	5
62	Health Care and Social Assistance	-58	29	-333
71	Arts, Entertainment, and Recreation	-110	-1	-28
72	Accommodation and Food Services	-53	-20	-130
81	Other Services (except Public Administration)	22	0	-52
90	Government	-51	12	-120
99	Unclassified Industry	1	5	-23

Source: Lightcast



Average Earnings per Job, 2022

NAICS	Description	Culpeper County	Fauquier County	Madison County	Orange County	Rappahannock County	Rappahannock-Rapidan Region	Virginia
11	Agriculture, Forestry, Fishing and Hunting	\$43,170	\$43,703	\$42,401	\$42,908	\$49,431	\$43,424	\$43,538
21	Mining, Quarrying, and Oil and Gas Extraction	\$83,151	\$104,476	\$0	\$37,586	\$0	\$88,954	\$93,818
22	Utilities	\$144,927	\$153,679	\$0	\$257,042	\$0	\$159,579	\$167,221
23	Construction	\$62,825	\$66,456	\$52,245	\$53,769	\$53,503	\$62,916	\$72,276
31	Manufacturing	\$86,740	\$61,776	\$62,136	\$71,093	\$42,013	\$72,411	\$80,564
42	Wholesale Trade	\$80,060	\$74,743	\$66,643	\$68,293	\$92,966	\$73,824	\$109,627
44	Retail Trade	\$40,953	\$45,364	\$46,619	\$37,172	\$39,162	\$42,557	\$43,019
48	Transportation and Warehousing	\$69,643	\$75,327	\$46,969	\$83,695	\$64,611	\$75,552	\$65,634
51	Information	\$86,134	\$102,115	Insf. Data	\$63,272	\$82,423	\$91,235	\$145,388
52	Finance and Insurance	\$98,206	\$124,089	\$76,776	\$79,775	\$120,228	\$110,441	\$131,264
53	Real Estate and Rental and Leasing	\$47,620	\$76,825	\$62,799	\$43,237	Insf. Data	\$59,433	\$79,704
54	Professional, Scientific, and Technical Services	\$86,202	\$118,924	\$60,745	\$87,146	\$69,356	\$104,481	\$130,874
55	Management of Companies and Enterprises	\$163,136	\$128,507	Insf. Data	Insf. Data	Insf. Data	\$130,691	\$160,150
56	Administrative and Support and Waste Management and Remediation Services	\$47,430	\$71,736	\$43,195	\$43,024	\$36,929	\$54,895	\$59,869
61	Educational Services	\$34,507	\$40,089	\$56,086	\$44,382	\$45,612	\$45,743	\$51,238
62	Health Care and Social Assistance	\$62,144	\$62,667	\$36,530	\$48,244	\$40,291	\$59,281	\$69,256
71	Arts, Entertainment, and Recreation	\$22,968	\$39,225	Insf. Data	\$46,802	Insf. Data	\$37,041	\$37,400
72	Accommodation and Food Services	\$24,100	\$26,623	\$23,883	\$24,918	\$44,114	\$26,804	\$27,848
81	Other Services (except Public Administration)	\$36,981	\$34,116	\$34,123	\$33,231	\$21,746	\$34,370	\$43,095
90	Government	\$67,077	\$87,878	\$58,151	\$57,279	\$57,818	\$72,632	\$89,072
99	Unclassified Industry	\$38,288	Insf. Data	\$43,634	\$33,981	\$44,206	\$38,544	\$63,936

Source: Lightcast



Average Earnings per Job by Sector and by Town Zip Codes, 2022

NAICS	Description	Culpeper (22701)	Orange (22960)	Warrenton (20186)
11	Agriculture, Forestry, Fishing and Hunting	\$41,150	\$52,707	\$46,444
21	Mining, Quarrying, and Oil and Gas Extraction	Insf. Data	Insf. Data	Insf. Data
22	Utilities	\$142,689	Insf. Data	Insf. Data
23	Construction	\$63,377	\$57,284	\$69,173
31	Manufacturing	\$93,369	\$83,752	\$66,868
42	Wholesale Trade	\$93,472	\$72,696	\$87,156
44	Retail Trade	\$39,995	\$34,579	\$45,627
48	Transportation and Warehousing	\$81,620	\$89,179	\$86,893
51	Information	\$90,883	\$63,908	\$116,037
52	Finance and Insurance	\$106,131	\$68,562	\$141,141
53	Real Estate and Rental and Leasing	\$49,473	Insf. Data	\$81,463
54	Professional, Scientific, and Technical Services	\$83,437	\$143,698	\$131,654
55	Management of Companies and Enterprises	\$169,658	Insf. Data	\$97,291
56	Administrative and Support and Waste Management and Remediation Services	\$41,795	\$48,586	\$55,541
61	Educational Services	\$40,270	\$32,079	\$45,634
62	Health Care and Social Assistance	\$65,243	\$53,702	\$66,244
71	Arts, Entertainment, and Recreation	\$23,027	Insf. Data	\$35,561
72	Accommodation and Food Services	\$24,654	\$25,742	\$24,429
81	Other Services (except Public Administration)	\$43,281	\$38,483	\$35,152
90	Government	\$67,342	\$63,263	\$83,863
99	Unclassified Industry	\$45,354	\$36,035	Insf. Data

Source: Lightcast



Payrolled Business Locations Percent Change by Sector, 2017-2021

NAICS	Description	Culpeper County	Fauquier County	Madison County	Orange County	Rappahannock County	Rappahannock-Rapidan Region	Virginia
11	Agriculture, Forestry, Fishing and Hunting	22%	2%	13%	4%	-2%	6%	4%
21	Mining, Quarrying, and Oil and Gas Extraction	41%	-33%	Insf. Data	Insf. Data	Insf. Data	24%	-1%
22	Utilities	0%	33%	Insf. Data	50%	Insf. Data	33%	24%
23	Construction	14%	11%	6%	8%	-13%	9%	5%
31	Manufacturing	32%	5%	-15%	9%	-14%	7%	16%
42	Wholesale Trade	-15%	-7%	-24%	19%	21%	-6%	-2%
44	Retail Trade	3%	-6%	-11%	6%	-1%	-1%	0%
48	Transportation and Warehousing	-11%	47%	-33%	9%	-25%	11%	14%
51	Information	-31%	35%	-33%	0%	17%	4%	35%
52	Finance and Insurance	4%	-1%	8%	-7%	55%	1%	7%
53	Real Estate and Rental and Leasing	1%	21%	48%	-1%	-33%	12%	17%
54	Professional, Scientific, and Technical Services	0%	9%	-21%	10%	-10%	4%	16%
55	Management of Companies and Enterprises	5%	0%	-50%	700%	-13%	11%	9%
56	Administrative and Support and Waste Management and Remediation Services	22%	9%	-1%	-20%	21%	8%	7%
61	Educational Services	58%	15%	50%	4%	8%	20%	15%
62	Health Care and Social Assistance	20%	0%	15%	29%	-13%	12%	22%
71	Arts, Entertainment, and Recreation	-3%	1%	42%	-13%	63%	2%	17%
72	Accommodation and Food Services	9%	9%	31%	-3%	5%	7%	5%
81	Other Services (except Public Administration)	-10%	-8%	-8%	-26%	3%	-11%	-5%
90	Government	0%	-4%	6%	1%	3%	0%	2%
99	Unclassified Industry	-43%	-75%	28%	76%	31%	-28%	32%

Source: Lightcast



GRP Percent Change by Sector, 2017-2021

NAICS	Description	Culpeper County	Fauquier County	Madison County	Orange County	Rappahannock County	Rappahannock-Rapidan Region	Virginia
11	Agriculture, Forestry, Fishing and Hunting	11%	4%	15%	-1%	26%	7%	12%
21	Mining, Quarrying, and Oil and Gas Extraction	0%	11%	-52%	112%	-72%	4%	-10%
22	Utilities	8%	23%	1455%	210%	37%	29%	20%
23	Construction	19%	27%	28%	28%	28%	25%	26%
31	Manufacturing	20%	21%	0%	46%	-3%	25%	18%
42	Wholesale Trade	68%	-5%	7%	-43%	51%	5%	16%
44	Retail Trade	30%	20%	25%	30%	12%	25%	27%
48	Transportation and Warehousing	10%	38%	-8%	-32%	-30%	-1%	-2%
51	Information	-69%	-4%	-6%	23%	-91%	-62%	25%
52	Finance and Insurance	17%	31%	-26%	33%	-16%	25%	26%
53	Real Estate and Rental and Leasing	3%	6%	24%	-24%	-8%	0%	18%
54	Professional, Scientific, and Technical Services	52%	21%	21%	24%	-16%	26%	19%
55	Management of Companies and Enterprises	-31%	16%	-5%	214%	85%	-2%	21%
56	Administrative and Support and Waste Management and Remediation Services	79%	73%	16%	11%	-5%	58%	31%
61	Educational Services	23%	-1%	14%	46%	-3%	10%	13%
62	Health Care and Social Assistance	20%	0%	-11%	66%	33%	12%	16%
71	Arts, Entertainment, and Recreation	-32%	-10%	-39%	-50%	-25%	-27%	-4%
72	Accommodation and Food Services	28%	10%	13%	20%	73%	21%	16%
81	Other Services (except Public Administration)	21%	7%	35%	11%	-4%	12%	8%
90	Government	15%	19%	19%	14%	18%	17%	11%
99	Unclassified Industry	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data

Source: Lightcast



Rappahannock-Rapidan Region Top 20 4-Digit NAICS Industries by Job Count

NAICS Description	2022 Jobs	2017-2022	2017-2022	2021-2027	2022-2027	Avg. Earnings Per Job	2022 Location Quotient	Competitive Effect	2021 Payrolled Business		2017 -2021 GRP % Change
		Jobs	Jobs %	Jobs	Jobs %				Locations	2021 GRP	
9036 Education and Hospitals (Local Government)	4,257	-282	-6.2%	-66	-1.6%	\$58,048	1.43	-135	5	\$250,111,045	8.5%
7225 Restaurants and Other Eating Places	3,957	-256	-6.1%	351	8.9%	\$25,300	1.10	13	239	\$169,895,483	39.7%
9039 Local Government, Excluding Education and Hospitals	3,738	135	3.7%	250	6.7%	\$69,375	1.87	201	124	\$283,590,633	20.8%
8141 Private Households	1,564	-90	-5.4%	102	6.5%	\$19,896	2.76	37	255	\$31,164,160	3.6%
2382 Building Equipment Contractors	1,417	155	12.3%	30	2.1%	\$63,810	1.37	36	168	\$121,728,147	34.4%
4451 Grocery Stores	1,385	-10	-0.7%	-18	-1.3%	\$31,698	1.38	-22	38	\$69,454,857	18.4%
1110 Crop Production	1,377	-33	-2.3%	121	8.8%	\$42,863	4.43	-29	64	\$125,287,481	15.7%
5617 Services to Buildings and Dwellings	1,330	199	17.6%	93	7.0%	\$41,777	1.25	166	174	\$99,408,361	14.3%
6221 General Medical and Surgical Hospitals	1,288	-265	-17.0%	-139	-10.8%	\$71,834	0.74	-296	3	\$114,657,457	1.6%
General Merchandise Stores, including Warehouse											
4523 Clubs and Supercenters	1,233	105	9.4%	58	4.7%	\$32,918	1.58	-13	31	\$66,919,573	29.6%
2389 Other Specialty Trade Contractors	1,097	71	6.9%	24	2.2%	\$60,991	3.33	1	125	\$120,581,159	24.0%
6241 Individual and Family Services	1,089	16	1.5%	105	9.6%	\$32,872	0.99	-225	845	\$38,282,728	2.5%
9011 Federal Government, Civilian	1,054	79	8.1%	35	3.4%	\$182,828	0.98	43	64	\$267,891,994	26.6%
8131 Religious Organizations	952	160	20.2%	96	10.1%	\$23,127	1.55	173	13	\$23,954,972	34.5%
9029 State Government, Excluding Education and Hospitals	941	-45	-4.6%	-59	-6.3%	\$72,784	1.18	-21	72	\$91,902,682	10.6%
6211 Offices of Physicians	941	119	14.5%	58	6.1%	\$86,848	0.91	49	58	\$92,556,172	21.0%
5419 Other Professional, Scientific, and Technical Services	867	430	98.4%	209	24.1%	\$85,051	2.30	339	86	\$156,465,083	74.8%
6111 Elementary and Secondary Schools	860	79	10.1%	39	4.5%	\$47,573	1.86	-11	15	\$41,152,624	11.8%
2361 Residential Building Construction	837	172	25.9%	26	3.1%	\$59,201	1.75	-26	192	\$76,959,626	27.4%
5415 Computer Systems Design and Related Services	809	30	3.9%	58	7.2%	\$143,058	0.87	-113	134	\$155,853,298	13.9%

Source: Lightcast



Rappahannock-Rapidan Region Top 20 4-Digit NAICS Industries by Job Growth, 2017-2022

NAICS	Description	2017-2022		2021-2027		2022-2027		Avg. Earnings Per Job	2022 Location Quotient	Competitive Effect	2021 Payrolled Business		2017 - 2021 GRP % Change
		2022 Jobs	Jobs Change	Jobs % Change	Jobs Change	Jobs % Change	Locations				2021 GRP		
5419	Other Professional, Scientific, and Technical Services	867	430	98.4%	209	24.1%	\$85,051	2.30	339	86	\$156,465,083	74.8%	
5613	Employment Services	561	345	159.4%	94	16.7%	\$73,053	0.42	339	31	\$77,413,262	624.1%	
5617	Services to Buildings and Dwellings	1,330	199	17.6%	93	7.0%	\$41,777	1.25	166	174	\$99,408,361	14.3%	
2361	Residential Building Construction	837	172	25.9%	26	3.1%	\$59,201	1.75	-26	192	\$76,959,626	27.4%	
3121	Beverage Manufacturing	683	162	31.2%	79	11.6%	\$36,638	6.19	57	38	\$68,603,585	29.3%	
8131	Religious Organizations	952	160	20.2%	96	10.1%	\$23,127	1.55	173	13	\$23,954,972	34.5%	
2382	Building Equipment Contractors	1,417	155	12.3%	30	2.1%	\$63,810	1.37	36	168	\$121,728,147	34.4%	
3273	Cement and Concrete Product Manufacturing	161	146	958.7%	18	10.9%	\$91,413	2.26	146	7	\$24,136,563	1401.6%	
2371	Utility System Construction	411	142	52.9%	52	12.7%	\$61,229	1.62	117	21	\$32,220,817	60.6%	
9039	Local Government, Excluding Education and Hospitals	3,738	135	3.7%	250	6.7%	\$69,375	1.87	201	124	\$283,590,633	20.8%	
6211	Offices of Physicians	941	119	14.5%	58	6.1%	\$86,848	0.91	49	58	\$92,556,172	21.0%	
3364	Aerospace Product and Parts Manufacturing	509	117	29.8%	118	23.2%	\$99,160	2.94	121	3	\$68,804,224	20.5%	
4523	General Merchandise Stores, including Warehouse Clubs and Supercenters	1,233	105	9.4%	58	4.7%	\$32,918	1.58	-13	31	\$66,919,573	29.6%	
4245	Farm Product Raw Material Merchant Wholesalers	160	104	187.5%	37	22.9%	\$38,284	6.20	106	5	\$11,889,640	108.6%	
4247	Petroleum and Petroleum Products Merchant Wholesalers	163	99	156.8%	50	30.7%	\$56,415	4.52	98	3	\$175,750,314	131.2%	
8111	Automotive Repair and Maintenance	756	98	14.8%	57	7.6%	\$50,808	1.72	80	111	\$59,424,095	36.9%	
5242	Agencies, Brokerages, and Other Insurance Related Activities	283	97	51.7%	10	3.4%	\$109,928	0.46	63	44	\$68,207,563	77.5%	
2383	Building Finishing Contractors	448	95	26.9%	51	11.5%	\$62,320	1.23	90	64	\$78,839,447	31.1%	
5416	Management, Scientific, and Technical Consulting Services	452	94	26.4%	58	12.9%	\$122,708	0.60	18	123	\$86,370,439	4.5%	
5222	Nondepository Credit Intermediation	259	89	52.4%	82	31.6%	\$134,042	1.11	85	19	\$70,135,490	98.6%	

Source: Lightcast



Rappahannock-Rapidan Region Bottom 20 4-Digit NAICS Industries by Job Growth, 2017-2022

NAICS Description	2017		2017-2022		2021-2027		2022-2027		Avg.	2022	2021 Payrolled		2017 - 2021
	Jobs	2022 Jobs	Jobs Change	Jobs % Change	Jobs Change	Jobs % Change	Jobs % Change	Jobs % Change	Earnings Per Job	Location Quotient	Competitive Effect	Business Locations	2021 GRP
9036 Education and Hospitals (Local Government)	4,539	4,257	-282	-6.2%	-66	-1.6%	\$58,048	1.43	-135	5	\$250,111,045	8.5%	
6221 General Medical and Surgical Hospitals	1,553	1,288	-265	-17.0%	-139	-10.8%	\$71,834	0.74	-296	3	\$114,657,457	1.6%	
7225 Restaurants and Other Eating Places	4,213	3,957	-256	-6.1%	351	8.9%	\$25,300	1.10	13	239	\$169,895,483	39.7%	
4242 Drugs and Druggists' Sundries Merchant Wholesalers	266	12	-253	-95.4%	-1	-5.7%	\$65,807	0.13	-315	2	\$4,718,991	-96.2%	
6231 Nursing Care Facilities (Skilled Nursing Facilities)	627	389	-238	-37.9%	12	3.2%	\$48,037	0.79	-134	8	\$21,288,222	-18.8%	
7139 Other Amusement and Recreation Industries	551	315	-236	-42.8%	-21	-6.7%	\$32,557	0.65	-201	40	\$15,933,690	-10.4%	
7211 Traveler Accommodation	698	462	-236	-33.8%	109	23.7%	\$36,773	0.91	-52	37	\$32,755,845	-17.2%	
5312 Offices of Real Estate Agents and Brokers	394	208	-186	-47.1%	-51	-24.7%	\$58,602	0.91	-254	59	\$50,437,045	-27.4%	
1120 Animal Production	800	626	-174	-21.8%	-107	-17.1%	\$44,006	3.39	-246	71	\$91,407,082	2.5%	
1152 Support Activities for Animal Production	435	291	-144	-33.1%	-27	-9.2%	\$47,225	15.63	-212	32	\$15,244,830	-20.7%	
2372 Land Subdivision	144	13	-131	-91.1%	Insf. Data	Insf. Data	\$95,731	0.80	-113	6	\$2,149,172	-83.5%	
9026 Education and Hospitals (State Government)	747	629	-118	-15.8%	-35	-5.5%	\$53,666	0.58	-89	10	\$37,059,070	4.1%	
5221 Depository Credit Intermediation	446	332	-114	-25.6%	-62	-18.7%	\$73,729	0.53	-121	49	\$74,742,901	-12.5%	
3133 Textile and Fabric Finishing and Fabric Coating Mills	187	87	-100	-53.5%	-16	-18.8%	\$51,676	9.44	-65	1	\$4,940,228	-41.5%	
4541 Electronic Shopping and Mail-Order Houses	381	283	-99	-25.9%	-33	-11.7%	\$50,574	1.30	-200	5	\$45,260,389	10.1%	
3327 Manufacturing Machine Shops; Turned Product; and Screw, Nut, and Bolt	135	39	-96	-71.4%	-9	-23.0%	\$70,314	0.32	-88	8	\$3,815,093	-57.4%	
8141 Private Households	1,654	1,564	-90	-5.4%	102	6.5%	\$19,896	2.76	37	255	\$31,164,160	3.6%	
3371 Manufacturing Household and Institutional Furniture and Kitchen Cabinet	304	220	-83	-27.4%	-29	-13.3%	\$66,768	2.37	-75	11	\$17,441,803	-2.7%	
5173 Wired and Wireless Telecommunications Carriers	183	102	-81	-44.1%	-15	-14.7%	\$101,104	0.49	-48	10	\$51,231,821	-59.1%	
3222 Converted Paper Product Manufacturing	401	337	-64	-15.9%	25	7.4%	\$80,832	3.56	-54	3	\$48,906,867	7.9%	

Source: Lightcast



Rappahannock-Rapidan Region Bottom 20 4-Digit NAICS Industries by Location Quotient, 2022

NAICS	Description	2017-2022		2021-2022		Avg. Earnings Per Job	2022 Location Quotient	Competitive Effect	2021 Payrolled Business		2017 - 2021 GRP % Change	
		2022 Jobs	Jobs Change	Jobs % Change	Jobs Change				Jobs % Change	Locations		2021 GRP
1152	Support Activities for Animal Production	291	-144	-33.1%	-27	-9.2%	\$47,225	15.63	-212	32	\$15,244,830	-20.7%
3133	Textile and Fabric Finishing and Fabric Coating Mills	87	-100	-53.5%	-16	-18.8%	\$51,676	9.44	-65	1	\$4,940,228	-41.5%
3372	Office Furniture (including Fixtures) Manufacturing	290	47	19.4%	67	23.1%	\$70,345	7.87	71	5	\$35,042,101	49.4%
4442	Lawn and Garden Equipment and Supplies Stores	463	-7	-1.5%	9	1.8%	\$49,035	6.58	-90	29	\$41,163,219	15.0%
4245	Farm Product Raw Material Merchant Wholesalers	160	104	187.5%	37	22.9%	\$38,284	6.20	106	5	\$11,889,640	108.6%
3121	Beverage Manufacturing	683	162	31.2%	79	11.6%	\$36,638	6.19	57	38	\$68,603,585	29.3%
4247	Petroleum and Petroleum Products Merchant Wholesalers	163	99	156.8%	50	30.7%	\$56,415	4.52	98	3	\$175,750,314	131.2%
1110	Crop Production	1,377	-33	-2.3%	121	8.8%	\$42,863	4.43	-29	64	\$125,287,481	15.7%
3255	Paint, Coating, and Adhesive Manufacturing	102	62	155.7%	19	18.6%	\$82,621	4.26	60	1	\$21,108,744	124.0%
2123	Nonmetallic Mineral Mining and Quarrying	143	11	8.3%	3	2.3%	\$88,822	3.96	4	8	\$32,693,863	27.3%
1142	Hunting and Trapping	<10	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data	3.95	4	1	\$654,660	-10.1%
3149	Other Textile Product Mills	93	-30	-24.4%	8	8.5%	\$44,615	3.84	-25	1	\$5,293,543	-1.2%
3333	Commercial and Service Industry Machinery Manufacturing	120	60	98.9%	40	33.1%	\$77,858	3.76	61	2	\$9,161,103	49.8%
3322	Cutlery and Handtool Manufacturing	50	-12	-19.8%	-25	-49.5%	\$62,924	3.70	-10	1	\$5,494,605	24.5%
3222	Converted Paper Product Manufacturing	337	-64	-15.9%	25	7.4%	\$80,832	3.56	-54	3	\$48,906,867	7.9%
2373	Highway, Street, and Bridge Construction	539	-60	-10.0%	-24	-4.5%	\$64,398	3.43	-101	12	\$45,844,690	7.3%
1120	Animal Production	626	-174	-21.8%	-107	-17.1%	\$44,006	3.39	-246	71	\$91,407,082	2.5%
3219	Other Wood Product Manufacturing	323	28	9.6%	21	6.5%	\$56,125	3.39	5	10	\$28,573,133	21.3%
3211	Sawmills and Wood Preservation	116	77	198.3%	-7	-5.9%	\$89,239	3.36	77	9	\$17,393,778	250.2%
2389	Other Specialty Trade Contractors	1,097	71	6.9%	24	2.2%	\$60,991	3.33	1	125	\$120,581,159	24.0%

Source: Lightcast



Rappahannock-Rapidan Region Economic Base, 2-Digit SOC Occupations

SOC	Description	2022	2017-2022	2017-2022 %	2022-2027	2022-2027	Median	2022	Competitive Effect
		Jobs	Change	Change	Change	% Change	Hourly Earnings	Location Quotient	
11-0000	Management	4,404	635	17%	255	6%	\$47.14	1.07	-252
13-0000	Business and Financial Operations	3,640	888	32%	249	7%	\$39.28	0.97	237
15-0000	Computer and Mathematical	1,624	-27	-2%	164	10%	\$48.80	0.87	-215
17-0000	Architecture and Engineering	639	15	2%	78	12%	\$43.72	0.66	16
19-0000	Life, Physical, and Social Science	400	27	7%	27	7%	\$40.12	0.73	3
21-0000	Community and Social Service	1,170	151	15%	69	6%	\$24.07	1.10	71
23-0000	Legal	547	-27	-5%	21	4%	\$55.09	1.04	-92
25-0000	Educational Instruction and Library	4,240	-194	-4%	110	3%	\$27.28	1.25	-99
27-0000	Arts, Design, Entertainment, Sports, and Media	652	-6	-1%	65	10%	\$26.09	0.59	-29
29-0000	Healthcare Practitioners and Technical	2,481	-21	-1%	36	1%	\$34.07	0.72	-190
31-0000	Healthcare Support	2,412	-43	-2%	222	9%	\$13.09	0.87	-304
33-0000	Protective Service	1,405	45	3%	59	4%	\$24.94	1.09	48
35-0000	Food Preparation and Serving Related	4,795	-59	-1%	481	10%	\$12.28	1.11	459
37-0000	Building and Grounds Cleaning and Maintenance	2,640	-144	-5%	159	6%	\$14.44	1.28	2
39-0000	Personal Care and Service	1,843	-283	-13%	133	7%	\$14.10	1.16	-91
41-0000	Sales and Related	5,572	-413	-7%	148	3%	\$14.55	1.03	-70
43-0000	Office and Administrative Support	5,730	-467	-8%	82	1%	\$18.74	0.80	-99
45-0000	Farming, Fishing, and Forestry	1,166	-255	-18%	15	1%	\$13.98	2.69	-196
47-0000	Construction and Extraction	4,129	418	11%	166	4%	\$21.02	1.53	317
49-0000	Installation, Maintenance, and Repair	2,610	142	6%	140	5%	\$24.08	1.12	61
51-0000	Production	2,794	-21	-1%	181	6%	\$18.18	0.86	96
53-0000	Transportation and Material Moving	4,385	304	7%	251	6%	\$17.76	0.86	-64
55-0000	Military-only	308	18	6%	14	4%	\$18.75	0.86	23
99-0000	Unclassified	0	0	0%	0	0%	\$0.00	0.00	0
Total		59,588	683	1%	3,124	5%			-369

Source: Lightcast



Location Quotient by Occupation, 2022

SOC	Description	Culpeper County	Fauquier County	Madison County	Orange County	Rappahannock County	Rappahannock-Rapidan Region	Virginia
11-0000	Management	1.00	1.04	1.02	1.25	1.12	1.07	0.89
13-0000	Business and Financial Operations	1.16	1.11	0.56	0.51	0.72	0.97	1.39
15-0000	Computer and Mathematical	0.91	1.15	0.37	0.35	0.58	0.87	1.71
17-0000	Architecture and Engineering	0.81	0.65	0.22	0.65	0.35	0.66	1.11
19-0000	Life, Physical, and Social Science	0.91	0.68	0.79	0.56	0.50	0.73	1.11
21-0000	Community and Social Service	1.39	1.02	1.21	0.85	0.81	1.10	1.02
23-0000	Legal	1.13	1.34	0.36	0.56	0.48	1.04	1.09
25-0000	Educational Instruction and Library	0.74	1.45	2.44	1.03	2.21	1.25	1.02
27-0000	Arts, Design, Entertainment, Sports, and Media	0.62	0.62	0.58	0.43	1.02	0.59	0.93
29-0000	Healthcare Practitioners and Technical	0.90	0.78	0.50	0.47	0.32	0.72	0.93
31-0000	Healthcare Support	1.07	0.79	0.75	0.83	0.69	0.87	0.79
33-0000	Protective Service	1.46	0.86	0.79	1.21	0.73	1.09	1.13
35-0000	Food Preparation and Serving Related	1.01	1.17	0.99	0.93	2.51	1.11	0.95
37-0000	Building and Grounds Cleaning and Maintenance	0.93	1.31	1.12	1.74	1.90	1.28	1.01
39-0000	Personal Care and Service	1.05	1.40	0.83	0.86	1.40	1.16	1.04
41-0000	Sales and Related	1.11	1.02	1.01	0.98	0.72	1.03	0.98
43-0000	Office and Administrative Support	0.81	0.75	0.93	0.86	0.62	0.80	0.91
45-0000	Farming, Fishing, and Forestry	1.54	1.89	4.30	5.61	3.55	2.69	0.48
47-0000	Construction and Extraction	1.27	1.86	1.49	1.25	1.25	1.53	1.02
49-0000	Installation, Maintenance, and Repair	1.13	1.09	1.11	1.23	0.70	1.12	1.04
51-0000	Production	1.06	0.43	0.94	1.55	0.55	0.86	0.75
53-0000	Transportation and Material Moving	0.91	0.71	0.94	1.14	0.54	0.86	0.88
55-0000	Military-only	0.87	0.79	0.97	0.92	1.09	0.86	2.32
99-0000	Unclassified	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source: Lightcast



Location Quotient by Occupation and Town Zip Codes, 2022

SOC	Description	Culpeper (22701)	Orange (22960)	Warrenton (20186)
11-0000	Management	0.86	1.23	0.83
13-0000	Business and Financial Operations	1.07	0.56	1.11
15-0000	Computer and Mathematical	0.91	0.48	1.34
17-0000	Architecture and Engineering	0.83	1.38	0.47
19-0000	Life, Physical, and Social Science	0.85	0.38	0.45
21-0000	Community and Social Service	1.29	0.78	1.02
23-0000	Legal	0.84	0.60	1.69
25-0000	Educational Instruction and Library	1.08	1.06	1.10
27-0000	Arts, Design, Entertainment, Sports, and Media	0.57	0.33	0.61
29-0000	Healthcare Practitioners and Technical	1.12	0.57	1.44
31-0000	Healthcare Support	1.10	0.92	1.53
33-0000	Protective Service	0.94	0.36	0.50
35-0000	Food Preparation and Serving Related	1.24	1.02	1.54
37-0000	Building and Grounds Cleaning and Maintenance	0.89	0.95	0.96
39-0000	Personal Care and Service	1.02	0.36	0.98
41-0000	Sales and Related	1.28	1.04	1.38
43-0000	Office and Administrative Support	0.77	0.77	0.85
45-0000	Farming, Fishing, and Forestry	0.58	7.27	0.28
47-0000	Construction and Extraction	0.91	0.92	0.95
49-0000	Installation, Maintenance, and Repair	1.04	0.99	0.91
51-0000	Production	1.07	2.14	0.16
53-0000	Transportation and Material Moving	0.89	1.19	0.61
55-0000	Military-only	1.02	2.00	0.91
99-0000	Unclassified	0.00	0.00	0.00

Source: Lightcast



Competitive Effect by Occupation, 2022

SOC	Description	Culpeper County	Fauquier County	Madison County	Orange County	Rappahannock County	Rappahannock-Rapidan Region	Virginia
11-0000	Management	-82	-135	12	-52	4	-252	845
13-0000	Business and Financial Operations	153	120	-13	-18	-5	237	17,863
15-0000	Computer and Mathematical	-111	-89	-6	33	-41	-215	-2,389
17-0000	Architecture and Engineering	-12	-9	-4	46	-5	16	-2,589
19-0000	Life, Physical, and Social Science	13	5	-3	-13	0	3	1,023
21-0000	Community and Social Service	-13	32	21	29	1	71	1,624
23-0000	Legal	-44	-52	0	3	0	-92	-2,843
25-0000	Educational Instruction and Library	-52	-8	5	-72	28	-99	-492
27-0000	Arts, Design, Entertainment, Sports, and Media	-22	8	-2	-15	1	-29	818
29-0000	Healthcare Practitioners and Technical	-5	-170	-7	-7	-2	-190	-1,953
31-0000	Healthcare Support	-34	-204	-91	52	-27	-304	-8,064
33-0000	Protective Service	16	7	7	15	3	48	-3,350
35-0000	Food Preparation and Serving Related	91	249	45	-25	99	459	9,833
37-0000	Building and Grounds Cleaning and Maintenance	2	-19	2	7	10	2	-1,651
39-0000	Personal Care and Service	-45	-55	12	-14	11	-91	4,170
41-0000	Sales and Related	-10	-49	18	-9	-20	-70	-10,395
43-0000	Office and Administrative Support	38	-76	0	-53	-8	-99	-16,257
45-0000	Farming, Fishing, and Forestry	-40	-83	2	-73	-3	-196	-976
47-0000	Construction and Extraction	30	167	36	82	1	317	2,470
49-0000	Installation, Maintenance, and Repair	74	34	16	-57	-7	61	-5,754
51-0000	Production	102	-26	-22	39	2	96	-1,616
53-0000	Transportation and Material Moving	26	-30	-48	3	-15	-64	-19,048
55-0000	Military-only	13	12	1	-3	0	23	-12,019
99-0000	Unclassified	0	0	0	0	0	0	0

Source: Lightcast



Competitive Effect by Occupation and Town Zip Codes, 2022

SOC	Description	Culpeper (22701)	Orange (22960)	Warrenton (20186)
11-0000	Management	-101	-42	-59
13-0000	Business and Financial Operations	43	7	-3
15-0000	Computer and Mathematical	-117	31	-48
17-0000	Architecture and Engineering	-13	44	2
19-0000	Life, Physical, and Social Science	5	2	-5
21-0000	Community and Social Service	-36	15	-21
23-0000	Legal	-47	-2	-49
25-0000	Educational Instruction and Library	131	-5	-67
27-0000	Arts, Design, Entertainment, Sports, and Media	-39	-5	-5
29-0000	Healthcare Practitioners and Technical	50	-11	-255
31-0000	Healthcare Support	-82	4	-89
33-0000	Protective Service	-58	3	-20
35-0000	Food Preparation and Serving Related	78	-5	75
37-0000	Building and Grounds Cleaning and Maintenance	1	1	-31
39-0000	Personal Care and Service	-51	2	-35
41-0000	Sales and Related	-10	3	-75
43-0000	Office and Administrative Support	-37	5	-102
45-0000	Farming, Fishing, and Forestry	-3	-16	-3
47-0000	Construction and Extraction	-39	7	33
49-0000	Installation, Maintenance, and Repair	7	-22	2
51-0000	Production	60	-48	-10
53-0000	Transportation and Material Moving	33	21	-28
55-0000	Military-only	3	-8	1
99-0000	Unclassified	0	0	0

Source: Lightcast



Median Hourly Earnings by Occupation, 2022

SOC	Description	Culpeper County	Fauquier County	Madison County	Orange County	Rappahannock County	Rappahannock-Rapidan Region	Virginia
11-0000	Management	\$55.89	\$53.89	\$36.54	\$27.57	\$45.95	\$47.14	\$55.01
13-0000	Business and Financial Operations	\$40.12	\$42.19	\$29.03	\$28.03	\$39.63	\$39.28	\$38.98
15-0000	Computer and Mathematical	\$49.49	\$51.07	\$33.61	\$34.66	\$48.29	\$48.80	\$51.53
17-0000	Architecture and Engineering	\$44.00	\$44.12	\$35.52	\$43.60	Insf. Data	\$43.72	\$42.21
19-0000	Life, Physical, and Social Science	\$41.83	\$44.70	\$30.39	\$30.55	Insf. Data	\$40.12	\$37.58
21-0000	Community and Social Service	\$24.96	\$25.13	\$21.34	\$20.74	\$26.30	\$24.07	\$23.15
23-0000	Legal	\$59.68	\$57.81	\$24.20	\$26.93	Insf. Data	\$55.09	\$48.93
25-0000	Educational Instruction and Library	\$29.47	\$28.77	\$25.45	\$24.52	\$28.39	\$27.28	\$25.39
27-0000	Arts, Design, Entertainment, Sports, and Media	\$29.22	\$26.39	\$22.00	\$20.13	\$29.46	\$26.09	\$25.00
29-0000	Healthcare Practitioners and Technical	\$33.90	\$36.13	\$24.44	\$27.80	\$35.88	\$34.07	\$33.69
31-0000	Healthcare Support	\$13.22	\$14.04	\$10.78	\$10.98	\$12.13	\$13.09	\$13.88
33-0000	Protective Service	\$27.34	\$25.91	\$23.58	\$22.68	\$25.68	\$24.94	\$21.71
35-0000	Food Preparation and Serving Related	\$12.44	\$12.50	\$10.91	\$11.54	\$15.37	\$12.28	\$12.01
37-0000	Building and Grounds Cleaning and Maintenance	\$13.98	\$14.45	\$14.25	\$14.67	\$14.04	\$14.44	\$14.00
39-0000	Personal Care and Service	\$14.03	\$14.59	\$12.06	\$12.55	\$13.01	\$14.10	\$13.43
41-0000	Sales and Related	\$14.58	\$14.81	\$14.46	\$13.98	\$15.49	\$14.55	\$14.77
43-0000	Office and Administrative Support	\$19.55	\$19.72	\$17.03	\$16.78	\$19.62	\$18.74	\$18.90
45-0000	Farming, Fishing, and Forestry	\$15.58	\$14.54	\$14.33	\$13.41	\$15.36	\$13.98	\$13.90
47-0000	Construction and Extraction	\$21.49	\$21.57	\$19.55	\$19.03	\$21.65	\$21.02	\$22.25
49-0000	Installation, Maintenance, and Repair	\$25.08	\$24.57	\$22.08	\$22.16	\$24.44	\$24.08	\$24.10
51-0000	Production	\$17.25	\$19.95	\$18.56	\$18.06	\$18.08	\$18.18	\$18.28
53-0000	Transportation and Material Moving	\$17.63	\$18.31	\$16.02	\$17.19	\$18.29	\$17.76	\$17.18
55-0000	Military-only	\$18.75	\$18.75	\$18.75	\$18.75	\$18.75	\$18.75	\$20.84
99-0000	Unclassified	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Source: Lightcast



Median Hourly Earnings by Occupation and Town Zip Codes, 2022

SOC	Description	Culpeper (22701)	Orange (22960)	Warrenton (20186)
11-0000	Management	\$59.05	\$27.96	\$60.86
13-0000	Business and Financial Operations	\$40.03	\$28.79	\$41.33
15-0000	Computer and Mathematical	\$49.63	\$37.03	\$50.96
17-0000	Architecture and Engineering	\$45.17	\$45.39	\$44.30
19-0000	Life, Physical, and Social Science	\$42.63	\$29.48	\$45.33
21-0000	Community and Social Service	\$25.01	\$20.23	\$24.79
23-0000	Legal	\$59.89	\$26.66	\$54.78
25-0000	Educational Instruction and Library	\$29.61	\$24.48	\$27.87
27-0000	Arts, Design, Entertainment, Sports, and Media	\$28.61	\$21.06	\$25.93
29-0000	Healthcare Practitioners and Technical	\$33.80	\$31.03	\$36.52
31-0000	Healthcare Support	\$13.33	\$10.58	\$14.42
33-0000	Protective Service	\$26.27	\$21.99	\$21.62
35-0000	Food Preparation and Serving Related	\$12.42	\$11.54	\$12.30
37-0000	Building and Grounds Cleaning and Maintenance	\$13.98	\$14.54	\$14.48
39-0000	Personal Care and Service	\$14.27	\$12.78	\$14.98
41-0000	Sales and Related	\$14.34	\$14.06	\$14.37
43-0000	Office and Administrative Support	\$19.40	\$16.49	\$19.43
45-0000	Farming, Fishing, and Forestry	\$15.60	\$13.79	\$14.55
47-0000	Construction and Extraction	\$21.51	\$19.32	\$21.77
49-0000	Installation, Maintenance, and Repair	\$25.14	\$23.23	\$23.96
51-0000	Production	\$16.99	\$18.72	\$18.02
53-0000	Transportation and Material Moving	\$17.19	\$16.99	\$16.58
55-0000	Military-only	\$19.67	\$19.67	\$19.67
99-0000	Unclassified	\$0.00	\$0.00	\$0.00

Source: Lightcast



Rappahannock-Rapidan Region Top 20 4-Digit SOC Occupations by Job Count

SOC	Description	2022	2017 - 2022	2017-2022	2022-2027	2022-2027	Median	2022	Competitive Effect
		Jobs	Jobs Change	Jobs % Change	Jobs Change	Jobs % Change	Hourly Earnings	Location Quotient	
53-7060	Laborers and Material Movers	1,966	193	10.9%	116	5.9%	\$15.73	0.83	56
41-2010	Cashiers	1,712	-494	-22.4%	-33	-1.9%	\$11.76	1.40	-352
35-3020	Fast Food and Counter Workers	1,682	-94	-5.3%	109	6.5%	\$11.58	1.43	267
41-2030	Retail Salespersons	1,549	102	7.1%	81	5.2%	\$13.44	1.10	313
37-2010	Building Cleaning Workers	1,396	-221	-13.6%	66	4.7%	\$13.34	1.00	-83
31-1120	Home Health and Personal Care Aides	1,329	145	12.3%	172	13.0%	\$11.67	0.89	-99
53-3030	Driver/Sales Workers and Truck Drivers	1,271	99	8.4%	73	5.7%	\$19.86	0.90	-63
11-1020	General and Operations Managers	1,214	410	51.0%	87	7.1%	\$55.53	1.04	107
43-9060	Office Clerks, General	1,197	-13	-1.0%	11	0.9%	\$18.05	1.16	122
25-2020	Elementary and Middle School Teachers	1,185	37	3.2%	-1	0.0%	\$32.82	1.65	63
11-9010	Farmers, Ranchers, and Other Agricultural Managers	1,097	34	3.2%	12	1.1%	\$12.72	4.76	-141
45-2090	Miscellaneous Agricultural Workers	1,001	-227	-18.5%	15	1.5%	\$13.62	2.84	-179
37-3010	Grounds Maintenance Workers	982	17	1.8%	73	7.4%	\$14.96	1.98	20
35-2010	Cooks	904	164	22.2%	115	12.8%	\$12.88	0.92	86
43-6010	Secretaries and Administrative Assistants	842	-229	-21.4%	-3	-0.4%	\$20.81	0.67	-96
47-2060	Construction Laborers	791	125	18.7%	43	5.5%	\$15.91	1.55	105
29-1140	Registered Nurses	696	-75	-9.7%	-19	-2.7%	\$34.68	0.61	-120
41-1010	First-Line Supervisors of Sales Workers	671	18	2.7%	18	2.7%	\$22.82	1.06	34
39-9010	Childcare Workers	671	-87	-11.5%	41	6.1%	\$13.14	1.51	19
43-4050	Customer Service Representatives	661	15	2.4%	12	1.8%	\$16.08	0.63	2

Source: Lightcast



Rappahannock-Rapidan Region Top 20 4-Digit SOC Occupations by Job Growth (2017-2022)

SOC	Description	2017-2022			2022-2027		Median Hourly Earnings	2022 Location Quotient	Competitive Effect
		2022 Jobs	2017 - 2022 Jobs Change	Jobs % Change	2022-2027 Jobs Change	Jobs % Change			
11-1020	General and Operations Managers	1,214	410	51.0%	87	7.1%	\$55.53	1.04	107
53-7060	Laborers and Material Movers	1,966	193	10.9%	116	5.9%	\$15.73	0.83	56
13-1190	Miscellaneous Business Operations Specialists	361	190	111.5%	26	7.1%	\$41.48	0.87	66
13-1080	Logisticians and Project Management Specialists	420	176	71.9%	39	9.4%	\$46.72	1.11	4
35-2010	Cooks	904	164	22.2%	115	12.8%	\$12.88	0.92	86
31-1120	Home Health and Personal Care Aides	1,329	145	12.3%	172	13.0%	\$11.67	0.89	-99
47-1010	First-Line Supervisors of Construction Trades and Extraction Workers	543	129	31.1%	15	2.7%	\$30.85	1.95	65
47-2060	Construction Laborers	791	125	18.7%	43	5.5%	\$15.91	1.55	105
13-1110	Management Analysts	533	120	29.0%	41	7.7%	\$47.68	1.44	37
35-1010	Supervisors of Food Preparation and Serving Workers	553	119	27.3%	59	10.6%	\$17.13	1.20	50
13-1020	Buyers and Purchasing Agents	303	104	52.0%	-2	-0.7%	\$35.82	1.79	90
41-2030	Retail Salespersons	1,549	102	7.1%	81	5.2%	\$13.44	1.10	313
43-5070	Shipping, Receiving, and Inventory Clerks	309	102	49.0%	-3	-0.9%	\$15.77	1.04	61
53-3030	Driver/Sales Workers and Truck Drivers	1,271	99	8.4%	73	5.7%	\$19.86	0.90	-63
13-1070	Human Resources Workers	328	98	42.4%	20	6.1%	\$36.73	1.00	33
47-2110	Electricians	316	87	38.0%	17	5.2%	\$26.39	1.14	72
41-9090	Miscellaneous Sales and Related Workers	154	85	122.3%	5	3.1%	\$14.75	1.34	52
13-2010	Accountants and Auditors	513	80	18.4%	20	4.0%	\$38.04	0.92	46
49-9020	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	265	78	41.6%	10	3.9%	\$24.75	1.74	41
49-3020	Automotive Technicians and Repairers	575	71	14.2%	29	5.1%	\$23.53	1.64	70

Source: Lightcast



Rappahannock-Rapidan Region Bottom 20 4-Digit SOC Occupations by Job Growth (2017-2022)

SOC	Description	2022 Jobs	2017 - 2022		2022-2027		Median Hourly Earnings	2022 Location Quotient	Competitive Effect
			Jobs Change	Jobs % Change	Jobs Change	Jobs % Change			
41-2010	Cashiers	1,712	-494	-22.4%	-3294.9%	-1.9%	\$11.76	1.40	-352
35-3030	Waiters and Waitresses	660	-286	-30.3%	7543.3%	11.4%	\$12.33	0.94	-41
43-6010	Secretaries and Administrative Assistants	842	-229	-21.4%	-340.7%	-0.4%	\$20.81	0.67	-96
45-2090	Miscellaneous Agricultural Workers	1,001	-227	-18.5%	1486.7%	1.5%	\$13.62	2.84	-179
37-2010	Building Cleaning Workers	1,396	-221	-13.6%	6628.0%	4.7%	\$13.34	1.00	-83
31-1130	Nursing Assistants, Orderlies, and Psychiatric Aides	519	-203	-28.1%	1196.2%	2.3%	\$13.95	0.98	-125
25-3030	Substitute Teachers, Short-Term	396	-201	-33.6%	533.3%	1.3%	\$14.49	2.81	10
39-9030	Recreation and Fitness Workers	190	-158	-45.5%	726.3%	3.8%	\$16.23	0.88	-99
41-4010	Sales Representatives, Wholesale and Manufacturing	402	-111	-21.6%	3278.1%	8.2%	\$33.96	0.68	-60
51-9190	Miscellaneous Production Workers	363	-106	-22.6%	2403.8%	6.6%	\$17.21	1.55	2
35-3020	Fast Food and Counter Workers	1,682	-94	-5.3%	10864.6%	6.5%	\$11.58	1.43	267
53-3050	Passenger Vehicle Drivers	395	-90	-18.6%	1145.9%	2.9%	\$17.52	1.13	-38
39-9010	Childcare Workers	671	-87	-11.5%	4094.4%	6.1%	\$13.14	1.51	19
43-3030	Bookkeeping, Accounting, and Auditing Clerks	507	-79	-13.5%	829.4%	1.6%	\$22.02	0.81	-84
29-1140	Registered Nurses	696	-75	-9.7%	-1864.8%	-2.7%	\$34.68	0.61	-120
35-2020	Food Preparation Workers	246	-62	-20.1%	1798.3%	7.3%	\$12.82	0.83	-51
43-3070	Tellers	72	-55	-43.2%	-1185.4%	-16.6%	\$16.69	0.54	-22
29-2060	Licensed Practical and Licensed Vocational Nurses	184	-50	-21.5%	1029.6%	5.6%	\$21.43	0.76	-29
25-1090	Postsecondary Teachers	368	-43	-10.5%	3090.9%	8.4%	\$33.87	0.56	-37
51-4040	Machinists	62	-43	-40.7%	590.9%	9.5%	\$24.16	0.49	-32

Source: Lightcast



Rappahannock-Rapidan Region Top 20 4-Digit SOC Occupations by Location Quotient, 2022

SOC	Description	2022 Jobs	2017 - 2022		2022-2027		Median Hourly Earnings	2022 Location Quotient	Competitive Effect
			Jobs Change	Jobs % Change	Jobs Change	Jobs % Change			
19-3040	Sociologists	11	Insf. Data	Insf. Data	-77.0%	-7.1%	\$40.74	9.12	9
39-2010	Animal Trainers	85	-26	-23.7%	-119.3%	-1.4%	\$14.38	5.18	-57
51-6020	Pressers, Textile, Garment, and Related Materials	49	1	1.8%	-126.9%	-2.6%	\$12.99	4.84	18
11-9010	Farmers, Ranchers, and Other Agricultural Managers	1,097	34	3.2%	1178.6%	1.1%	\$12.72	4.76	-141
53-4040	Subway and Streetcar Operators	23	-4	-13.5%	65.0%	2.8%	\$31.19	4.64	-1
51-7040	Woodworking Machine Setters, Operators, and Tenders	157	11	7.3%	990.8%	6.3%	\$18.04	3.67	28
23-2090	Miscellaneous Legal Support Workers	149	-32	-17.6%	-80.4%	-0.5%	\$62.83	3.52	-30
47-5020	Surface Mining Machine Operators and Earth Drillers	71	17	31.2%	176.0%	2.5%	\$23.34	3.51	25
51-7010	Cabinetmakers and Bench Carpenters	121	13	11.9%	1030.0%	8.5%	\$20.27	3.14	15
47-2170	Reinforcing Iron and Rebar Workers	27	0	1.6%	76.6%	2.9%	\$22.30	3.13	2
39-4010	Embalmers and Crematory Operators	<10	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data	3.08	4
45-4020	Logging Workers	60	-9	-13.4%	-414.8%	-6.9%	\$18.41	3.02	-9
45-2090	Miscellaneous Agricultural Workers	1,001	-227	-18.5%	1486.7%	1.5%	\$13.62	2.84	-179
25-3030	Substitute Teachers, Short-Term	396	-201	-33.6%	533.3%	1.3%	\$14.49	2.81	10
45-1010	First-Line Supervisors of Farming, Fishing, and Forestry Workers	59	-10	-14.5%	135.8%	2.3%	\$22.33	2.79	-13
47-2020	Brickmasons, Blockmasons, and Stonemasons	85	-13	-12.8%	-872.3%	-10.2%	\$22.45	2.67	-2
41-9010	Models, Demonstrators, and Product Promoters	52	-2	-3.5%	353.4%	6.8%	\$15.59	2.55	17
39-4020	Funeral Attendants	30	4	13.7%	-21.5%	-0.7%	\$14.78	2.43	5
47-2010	Boilermakers	12	Insf. Data	Insf. Data	35.2%	2.9%	\$25.63	2.40	9
47-3010	Helpers, Construction Trades	190	-13	-6.4%	-93.1%	-0.5%	\$16.51	2.40	2

Source: Lightcast



APPENDIX B: DATA SOURCES



Lightcast (formerly Emsi Burning Glass) is a global leader in labor market analytics, offering a data platform that gives a comprehensive, nuanced, and up-to-date picture of labor markets at all scales from national to local. Key components of the platform include traditional labor market information, job postings analytics, talent profile data, compensation data, and skills analytics. Lightcast integrates government data with information from online job postings, talent profiles, and resumes to produce timely intelligence on the state of the labor market. Job and compensation data is available by industry, occupation, educational program, and skill type. [Click to learn more.](#)



Esri ArcGIS Business Analyst combines proprietary statistical models covering demographic, business, and spending data with map-based analytics to offer insights on market opportunities for industries, businesses, and sites. Business Analyst integrates datasets covering a wide range of topics including demographics, consumer spending, market potential, customer segmentation, business locations, traffic counts, and crime indexes, which can be overlaid spatially to produce customizable maps and uncover market intelligence. Data can be pulled for standard and custom geographies, allowing for valuable comparison between places. [Click to learn more.](#)



PolicyMap is a spatial analysis and data tool that facilitates the creation of compelling, interactive maps from 50,000+ indicators related to public policy. Geospatial analysis, including advanced querying and filtering facilitated by data-rich maps, can be used for storytelling and decision-making. PolicyMap's library of variables spans topics such as demographics, housing, lending, quality of life, economy, education, health, and government programs. Functionality is optimized for use by policymakers in government, business, healthcare, universities, academic, and others. [Click to learn more.](#)



CoStar is a comprehensive source of commercial real estate intelligence, offering an inventory of over 6.4 million commercial properties spanning 135 billion square feet of space in 390 markets across the US. CoStar covers office, retail, industrial, hospitality, and multifamily markets. Property- and market-level data on absorption, occupancy, lease rates, tenants, listings, and transactions are researched and verified through calls to property managers, review of public records, visits to construction sites, and desktop research to uncover nearly real-time market changes. [Click to learn more.](#)



The **American Community Survey (ACS)** is an ongoing statistical survey by the US Census Bureau that gathers demographic and socioeconomic information on age, sex, race, family and relationships, income and benefits, health insurance, education, veteran status, disabilities, commute patterns, and other topics. Mandatory to fill out, the survey is sent to a small sample of the population on a rotating basis. The questions on the ACS are different than those asked on the decennial census and provide ongoing demographic updates of the nation down to the block group level. [Click to learn more.](#)



Conducted every ten years in years ending in zero, the **US Decennial Census of Population and Housing** is a complete count of each resident of the nation based on where they live on April 1st of the Census year. The Constitution mandates the enumeration to determine how to apportion the House of Representatives among the states. The latest release of the 2020 Census contains data for a limited number of variables, including: total population by race/ethnicity, population under 18, occupied and vacant housing units, and group quarters population. [Click to learn more.](#)



The **Local Area Unemployment Statistics** (LAUS) program estimates total employment and unemployment for approximately 7,500 geographic areas on a monthly basis, from the national level down to the city and town level. LAUS data is offered through the US Bureau of Labor Statistics (BLS) by combining data from the Current Population Survey (CPS), Current Employment Statistics (CES) survey, and state unemployment (UI) systems. [Click to learn more.](#)



The **Census of Agriculture** provides a detailed picture of US farms and ranches and the people who operate them. It provides uniform, comprehensive agricultural data for every state and county in the US on topics including agricultural land, animal and crop production, employment, worker demographics, farm business operations, and the environment. It is conducted by the US Department of Agriculture (USDA) every five years, in years ending in 2 and 7. [Click to learn more.](#)

OnTheMap | US Census Bureau

OnTheMap is a tool developed through the US Census Longitudinal Employer-Household Dynamics (LEHD) program that helps to visualize Local Employment Dynamics (LED) data about where workers are employed and where they live. It offers visual mapping capabilities for data on age, earnings, industry distributions, race, ethnicity, educational attainment, and sex. [Click to learn more.](#)



Weldon Cooper Center professionals are known for conducting top quality research, independently and under contract, on a range of topics in the public interest. Cooper Center expert researchers know how to ask the right questions, responsibly analyze data, and develop sound, practical conclusions for public and private organizations across Virginia. [Click to learn more.](#)

Comprehensive Economic Development Strategy

Rappahannock-Rapidan Regional Commission
In partnership with GO Virginia Region 9

Appendix II

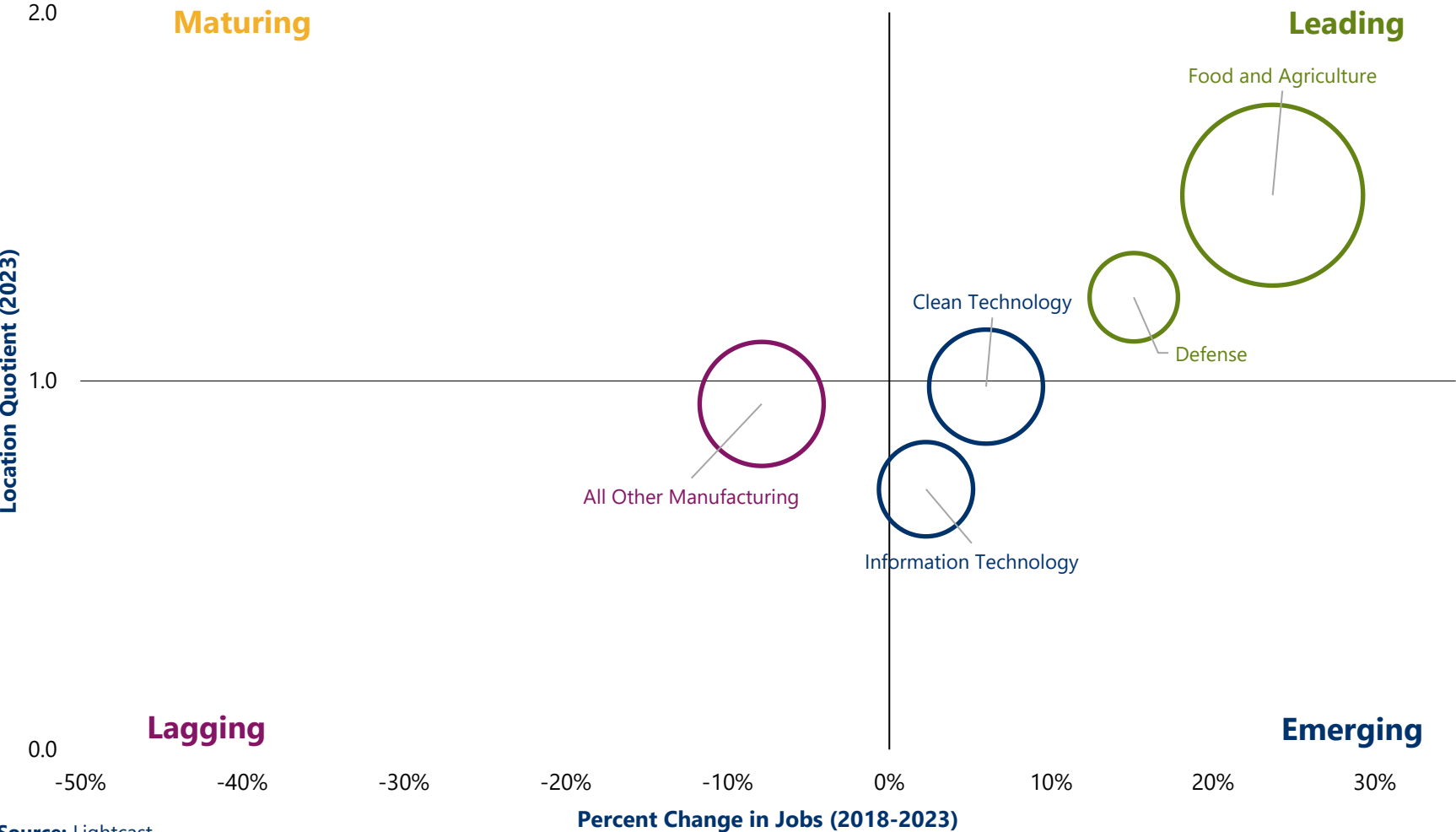
Emerging Industries

This chart displays how emerging sectors are performing in the RRRR Region. **Leading industries** have experienced job growth over the last five years and have a location quotient greater than 1. **Emerging industries** saw positive job growth over the last five years but have a location quotient of less than 1. **Maturing industries** do have a location quotient greater than 1 but have had negative job growth over the last five years. **Lagging industries** have a location quotient of less than 1 and saw negative job growth over the last five years.

Note that these industries overlap with CVPED's designated target industries, as well as GO VA's target industries. The definitions designated to these industries can be found [here](#). This analysis is not intended to supersede existing industry targets; rather, it is intended to provide details on assets and strengths within subsectors and look forward to opportunities.

Key Metrics by Sector, Rappahannock-Rapidan Region

Bubble size indicates 2023 job count



Source: Lightcast

Clean Tech

Why Clean Tech?

On a global scale, the International Energy Agency predicts that renewable energy sources will soon surpass coal as the primary source of global electricity. Over the last few years, federal and state level incentives spurred growth in cluster. The Inflation Reduction Act, passed in 2022, continues to drive growth in clean tech related industries. In the Rappahannock-Rapidan region, the cluster experienced positive job and GRP growth during the study period. The cluster also provides quality jobs with average earnings that are in line with state trends.

What is Clean Tech?

The clean tech cluster focuses on the development and manufacturing of components used in the generation of renewable energy and other environmentally sustainable practices.

Sector Snapshot



Jobs: 2,001

The sector is responsible for about **3.1% of jobs** in the region.



Businesses: 275

The number of manufacturing businesses **grew by 27%** between 2017 and 2022.



Gross Regional Product: \$248.0 Million

The Region's **GRP declined by 7.5%** between 2017 and 2022.



Job Change: 6.0%

Overall, jobs in the sector **increased by 113 jobs** between 2018 and 2023.



Earnings: \$83,249

Average earnings per job are **in line with the state's average** (\$83,419).



Employment Concentration: 0.98

The industry employment in **the region is in line** with industry employment at the national level.

Top Growing Subsectors

Growth by Number of Jobs 2018-2023

- 1) *Engineering Services* gained 153 jobs
- 2) *Plumbing, Heating, and Air-Conditioning Contractors* gained 124 jobs
- 3) *Electrical Contractors and Other Wiring Installation Contractors* gained 108 jobs

Projected Growth by Percent Increase 2023-2028

- 1) *Turbine and Turbine Generator Set Units Manufacturing* 38% increase from 11 to 15 jobs
- 2) *Engineering Services* 19% increase from 320 to 379 jobs
- 3) *Environmental Consulting Services* 12% increase from 46 to 52 jobs

Occupation Spotlight

Top Occupations by Number of Jobs

- 1) *Electricians*
 - Median Earnings: \$26.53
 - Education: High school or equivalent
 - Experience: None
 - On the Job Training: Apprenticeship
- 2) *Heating, Air Conditioning, and Refrigeration Mechanics and Installers*
 - Median Earnings: \$26.41
 - Education: Postsecondary nondegree award
 - Experience: None
 - On the Job Training: Long-term
- 3) *Plumbers, Pipefitters, and Steamfitters*
 - Median Earnings: \$24.02
 - Education: High school or equivalent
 - Experience: None
 - On the Job Training: Apprenticeship

Industry Trends

Clean Tech Accelerators: Accelerators form a vital part of cleantech innovation ecosystems, they nurture early-stage startups, facilitating the market entry of their solutions through mentorship, resources, and networking opportunities.

AI and Big Data: Leveraging artificial intelligence and big data analytics to optimize renewable energy system operation and management enhance grid stability and fault detection.

Advanced Robotics: Automation is transforming the installation, inspection, and maintenance of renewable energy assets, reducing labor costs, enhancing safety, and boosting productivity.

Defense

Why Defense?

The evolving geopolitical climate has led to increased demand in defense-related goods. In Virginia, the defense cluster is an important part of the state's economic landscape. Virginia is home to numerous military bases, including one of the world's largest naval bases. In the Rappahannock-Rapidan region, defense jobs and GRP increased during the study period. Compared to the US, the cluster is more specialized in the region; however, in 2023, average earnings for defense related jobs were below the state's average.

What is Defense?

The defense cluster includes the development and manufacturing of military-related goods for all branches of the armed forces. The US Government is the primary customer for several industries within the cluster, differentiating it from other target clusters.

Sector Snapshot



Jobs: 1,229

The sector is responsible for about **1.9% of jobs** in the region.



Businesses: 7

The number of manufacturing businesses **grew by 45%** between 2017 and 2022.



Gross Regional Product: \$160.6

The Region's **GRP increased by 33%** between 2017 and 2022.



Job Change: 15%

Overall, jobs in the sector **increased by 171 jobs** between 2018 and 2023.



Earnings: \$68,747

Average earnings per job are **below the state average** (\$83,419).



Employment Concentration: 1.23

The industry is **more specialized** in the region than it is in the United States, overall.

Top Subsectors

Subsectors with the Most Jobs 2018

- 1) *Federal Government, Military*, 569 jobs
- 2) *Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing*, 369 jobs
- 3) *Other Aircraft Parts and Auxiliary Equipment Manufacturing*, 231 jobs

Top Projected Subsector Job Growth 2023-2028

- 1) *Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing*, 45% increase
- 2) *Other Aircraft Parts and Auxiliary Equipment Manufacturing*, 43% increase
- 3) *Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing*, 14% increase

Occupation Spotlight

Top Occupations by Number of Jobs

- 1) *Software Developers*
 - Median Earnings: \$58.61
 - Education: Bachelor's degree
 - Experience: None
 - On the Job Training: None
- 2) *Aircraft Mechanics and Service Technicians*
 - Median Earnings: \$32.51
 - Education: Postsecondary nondegree award
 - Experience: None
 - On the Job Training: None
- 3) *Industrial Engineers*
 - Median Earnings: \$49.59
 - Education: Bachelor's degree
 - Experience: None
 - On the Job Training: None

Industry Opportunities

Harness the Power of Artificial Intelligence: AI can increase productivity, enable real-time data synchronization, and simplify complex processes. AI bots can also act as virtual field assistants, supporting engineers by improving problem-solving capabilities and productivity.

Supersonic and Hypersonic Technologies: Demand for hypersonic technology is growing. In 2024, the US Department of Defense (DOD) and NASA allocated funds for improving hypersonic technologies. With financial support from the DOD, defense companies will likely continue to work toward creating reliable hypersonic weapons, including glide vehicles and cruise missiles.

Food & Agriculture

Why Food & Agriculture?

On a national level, factors including technological innovation and an increased demand for local foods are reshaping the food and agriculture cluster. This cluster is historically significant to Virginia and the Rappahannock-Rapidan region's economy. During the study period, food and agriculture jobs and GRP increased in the region. The cluster supplies nearly 8% of the region's jobs; however, average earnings for jobs in the cluster are below the state average.

What is Food & Agriculture?

The food and agriculture cluster includes farmers, wholesalers, and food manufacturing, processing, and storage facilities.

Sector Snapshot



Jobs: 4,903

The sector is responsible for about **7.6% of jobs** in the region.



Businesses: 300

The number of manufacturing businesses **grew by 21%** between 2017 and 2022.



Gross Regional Product: \$545.9

The Region's **GRP increased by 62.4%** between 2017 and 2022.



Job Change: 23.7%

Overall, jobs in the sector **increased by 939 jobs** between 2018 and 2023.



Earnings: \$50,794

Average earnings per job are **below the state average** (\$83,419).



Employment Concentration: 1.50

The industry is **more specialized** in the region than it is in the United States, overall.

Top Growing Subsectors

Growth by Number of Jobs 2018-2023

- 1) *General Warehousing and Storage* gained 217 jobs
- 2) *Breweries* gained 201 jobs
- 3) *General Line Grocery Merchant Wholesalers* gained 147 jobs

Growth by Percent Increase 2018-2023

- 1) *Farm Supplies Merchant Wholesalers* 661% increase from 15 to 111 jobs
- 2) *Perishable Prepared Food Manufacturing* 572% increase from 18 to 123 jobs
- 3) *General Line Grocery Merchant Wholesalers* 520% increase from 28 to 175 jobs

Occupation Spotlight

Top Occupations by Number of Jobs

- 1) *Farmers, Ranchers, & Other Agricultural Managers*
 - Median Earnings: \$13.60
 - Education: High school or equivalent
 - Experience: 5+ years
 - On the Job Training: None
- 2) *Farmworkers & Laborers, Crop, Nursery, & Greenhouse*
 - Median Earnings: \$14.38
 - Education: No formal requirements
 - Experience: None
 - On the Job Training: Short term
- 3) *Farmworkers, Farm, Ranch, & Aquacultural Animals*
 - Median Earnings: \$14.74
 - Education: No formal requirements
 - Experience: None
 - On the Job Training: Short-Term

Industry Opportunities

Precision Agriculture: This involves using GPS technologies embedded within machinery and equipment to plant, cultivate, and harvest crops precisely.

Indoor and Vertical Farming: These practices provide controlled environments

Technology Adoption: Encouraging existing producers to adopt new methods and technologies while ensuring profitable operations with current practices and equipment.

Land Market Competition: Balancing the growing demand for non-agricultural land development.

Rural Infrastructure: Addressing the need for improved broadband connectivity to support technological advancements in rural areas.

Information Tech

Why Information Tech?

Supporting and growing the information technology (IT) cluster will ultimately support growth in all emerging clusters as improvements in IT can make processes more efficient. In the Rappahannock-Rapidan region, the information tech cluster had high average earnings and positive job growth during the study period. Additionally, Information Technology and Communication (ICT) has been identified as a key cluster by other economic development initiatives in the state. The Rappahannock-Rapidan region's IT cluster may be able to benefit from and contribute to these larger initiatives.

What is Information Tech?

ICT is also a target cluster for GO Virginia Region 9. The cluster includes industries involved in developing, manufacturing, and using IT and communications-related products and services.

Sector Snapshot



Jobs: 1,389

The sector is responsible for about **2.1% of jobs** in the region.



Businesses: 277

The number of manufacturing businesses **grew by 64%** between 2017 and 2022.



Gross Regional Product: \$330.2 million

The Region's **GRP in by 1%** between 2017 and 2022.



Job Change: 2.3%

Overall, jobs in the sector **increased by 31 jobs** between 2018 and 2023.



Earnings: \$137,548

Average earnings per job are **well above the state average** (\$83,419).



Employment Concentration: 0.71

The industry is **less specialized** in the region than it is in the United States, overall.

Top Growing Subsectors

Growth by Number of Jobs 2018-2023

- 1) *Computer Facilities Management Services* gained 90 jobs
- 2) *Computer Systems Design Services* gained 56 jobs
- 3) *Custom Computer Programming Services* gained 55 jobs

Growth by Percent Increase 2018-2023

- 1) *Computer Facilities Management Services* 382% increase from 24 to 114 jobs
- 2) *Web Search Portals and All Other Information Services* 195% increase from 20 to 59 jobs
- 3) *Custom Computer Programming* 28% increase from 194 to 248 jobs

Occupation Spotlight

Top Occupations by Number of Jobs

- 1) *Software Developers*
 - Median Earnings: \$58.61
 - Education: Bachelor's degree
 - Experience: None
 - On the Job Training: None
- 2) *Computer Systems Analysts*
 - Median Earnings: \$51.68
 - Education: Bachelor's degree
 - Experience: None
 - On the Job Training: None
- 3) *Computer User Support Specialists*
 - Median Earnings: \$29.02
 - Education: Some college, no degree
 - Experience: None
 - On the Job Training: None

Potential Challenges

Increasing Regulation: Recent European regulations have increased the liability of online platforms and service providers, holding them responsible for content moderation, fraud, and dishonest uses of their technologies. The regulations also increase requirements for consumer-facing tech companies that collect data. During the next few years, regulations of this nature are projected to increase around the globe.

Manufacturing

Why Manufacturing?

At the state level, competitive forces have created nearly 2,000 new manufacturing jobs over the last five years. At the regional level, the manufacturing sector falls between the *Lagging* and *Maturing* sector classifications. This means the sector's LQ is just below 1 and experienced job losses during the study period.

What is Manufacturing?

Manufacturing or light manufacturing is identified by GO Virginia Region 9 as a target sector. The sector includes processes in which materials are mechanically, physically, or chemically transformed into new products.

Sector Snapshot



Jobs: 2,359

The sector is responsible for about **3.6% of jobs** in the region.



Businesses: 101

The number of manufacturing businesses **grew by 10%** between 2017 and 2022.



Gross Regional Product: \$287.0 million

The Region's **GRP increased by 21%** between 2017 and 2022.



Job Change: -7.9%

Overall, jobs in the sector **declined** between 2018 and 2023.



Earnings: \$73,624

Average earnings per job are **below the state's average** (\$83,419).



Employment Concentration: 0.94

The industry is **slightly less specialized** in the region than it is in the United States, overall.

Top Growing Subsectors

Growth by Number of Jobs 2018-2023

- 1) *Glass Product Manufacturing Made of Purchased Glass* gained 111 jobs
- 2) *Sign Manufacturing* gained 109 jobs
- 3) *Blind and Shade Manufacturing* gained 108 jobs

Growth by Percent Increase 2018-2023

- 1) *Glass Product Manufacturing Made of Purchased Glass* 893% increase from 12 to 123 jobs
- 2) *Cut Stock, Resawing Lumber, and Planning* 465% increase from 18 to 99 jobs
- 3) *Sign Manufacturing* 414% increase from 26 to 134 jobs

Occupation Spotlight

Top Occupations by Number of Jobs

- 1) *Miscellaneous Assemblers & Fabricators*
 - Median Earnings: \$17.89
 - Education: High school or equivalent
 - Experience: None
 - On the Job Training: Moderate
- 2) *Cabinetmakers & Bench Carpenters*
 - Median Earnings: \$20.59
 - Education: High school or equivalent
 - Experience: None
 - On the Job Training: Moderate
- 3) *First-Line Supervisors of Production & Operating Workers*
 - Median Earnings: \$56.24,
 - Education: Bachelor's degree
 - Experience: 5+ years
 - On the Job Training: Moderate

Site Needs

Proximity to highway: Access to easy shipping and receiving

- Air access or rail access can be helpful for certain products, but the ideal transportation type is highly dependent on market/product

Utilities: Sewer, water, three phase power and broadband are basic but critical site requirements

- Sewer and water costs are important for select water-intensive industries (i.e. yogurt, food products)
- Natural gas a plus and for some required (plastics, chemical, cement)

Proximity to Market: How far is the site from the next buyer in the supply chain or end user?

- Reasonable distances depend on the product and the site's access to convenient and affordable transportation?

Comprehensive Economic Development Strategy

Rappahannock-Rapidan Regional Commission

In partnership with GO Virginia Region 9

Appendix III

Resilience and Vulnerability Indicators

Rappahannock-Rapidan Regional Commission

Component of the Comprehensive
Economic Development Strategy



RESILIENCE & VULNERABILITY

Overview

This section examines county, regional, state, and national level data to examine the resilience and vulnerability of the Rappahannock-Rapidan Region and GO Virginia's Region 9. A collection of indices has been created based on a variety of measures. The objective is to explore the factors associated with economic resilience and vulnerability, shedding light on the performance of the region and its counties across various measures. These indices include social, economic, infrastructure, and environmental aspects which are examined for both resilience and vulnerability. The aim is to gain a comprehensive understanding of the region's and counties' performance in vital areas related to sustainability and economic well-being. Additionally, this analysis seeks to identify opportunities for enhancing resilience and reducing vulnerability in the region. This resilience and vulnerability plan works in conjunction with the RRRC Hazard Mitigation Plan¹², as this document works in tandem to identify and address regional resilience and vulnerability. As a result, strategies presented in this plan will not perfectly align with those identified in the hazard mitigation plan and any prior recommendations and findings should still be implemented. The data presented in this report works to help identify weaknesses that could be supported through strategies in the CEDS³.

Community Resiliency Assessment Tool⁴

This study makes use of the Community Resiliency Assessment Tool developed at the Institute of Public Policy at the University of Missouri. It includes 45 variables across four categories to capture community resilience and vulnerability. These four categories are:

¹ [1. Rappahannock-Rapidan Hazard Mitigation Plan - 20181205 Update.red.pdf](#)

² [Haz-Mit-Report-Jan-2023-Full-Res-FEMA-Approved.pdf](#)

³ Strategies to address tying hazard mitigation plans with CEDS strategies have been outlined here: [fema_ceds-hmp-alignment-guide_2022.pdf](#), and explored in conjunction with the provided analysis

⁴ Data Notes regarding further explanations of selected measures are included in the Data Notes Appendix at the end of this report.

1. **Social:** Measures the degree to which a community has a strong set of social and human capital

Social Measures

Resilience Measures	Vulnerability Measures
Number of Nonprofits per Capita	Share of Population age 65+
Number of Associations per Capita	Share of Population Under the age of 18
Voter Participation Rate	Share of Population Disabled
Share of Population with a Bachelors Degree or Higher	Violent Crime Rate
Life Expectancy	Income Inequality (GINI Index)
Share of Housing Units that are Owner Occupied	Number of Jurisdictions
Share of Population Living in Same County as one year prior	Share of Households that are Linguistically Isolated
	Share of Population Living below 100% of Poverty
	Share of Population without Health Insurance

2. **Economic:** Measures the economic strength and vulnerability of the community

Economic Measures

Resilience Measures	Vulnerability Measures
Average Nonfarm Proprietor Income	Business Vacancy Rate
Proprietors as a Share of Total Nonfarm Employment	Share of Households Spending 30% or More of Total Income on Housing Costs
Establishment Births	Unemployment Rate
Employment Sector Diversity	Share of Population Employed in Extractive Industries or Manufacturing (including Agriculture and Forestry)
Labor Force Participation	

3. **Infrastructure:** Measures the capacity of a community to withstand a natural disaster and manage evacuations and immediate repairs following a disaster event

Infrastructure Measures

Resilience Measures	Vulnerability Measures
Number of Persons in Emergency Response Occupations as a Share of Total Population	High-Detour Bridges
Share of Population within 1 mile of a Grocery Store	Share of Homes Built before 1960
Share of Population within 10 miles of Hospital or Emergency Room	Share of Housing Units that are Mobile Homes
Evacuation Routes (lane miles)	Share of Population within 5 Miles of a Dam
Number of Primary Care Physicians per Capita	Share of Population with no Motor Vehicle
Per Capita Expenditures on police and Fire	Share of Population within 10 miles of a Nuclear Facility
	Unsafe Drinking Water

4. **Environmental:** Measures the likelihood of a disaster befalling the community

Environmental Measures

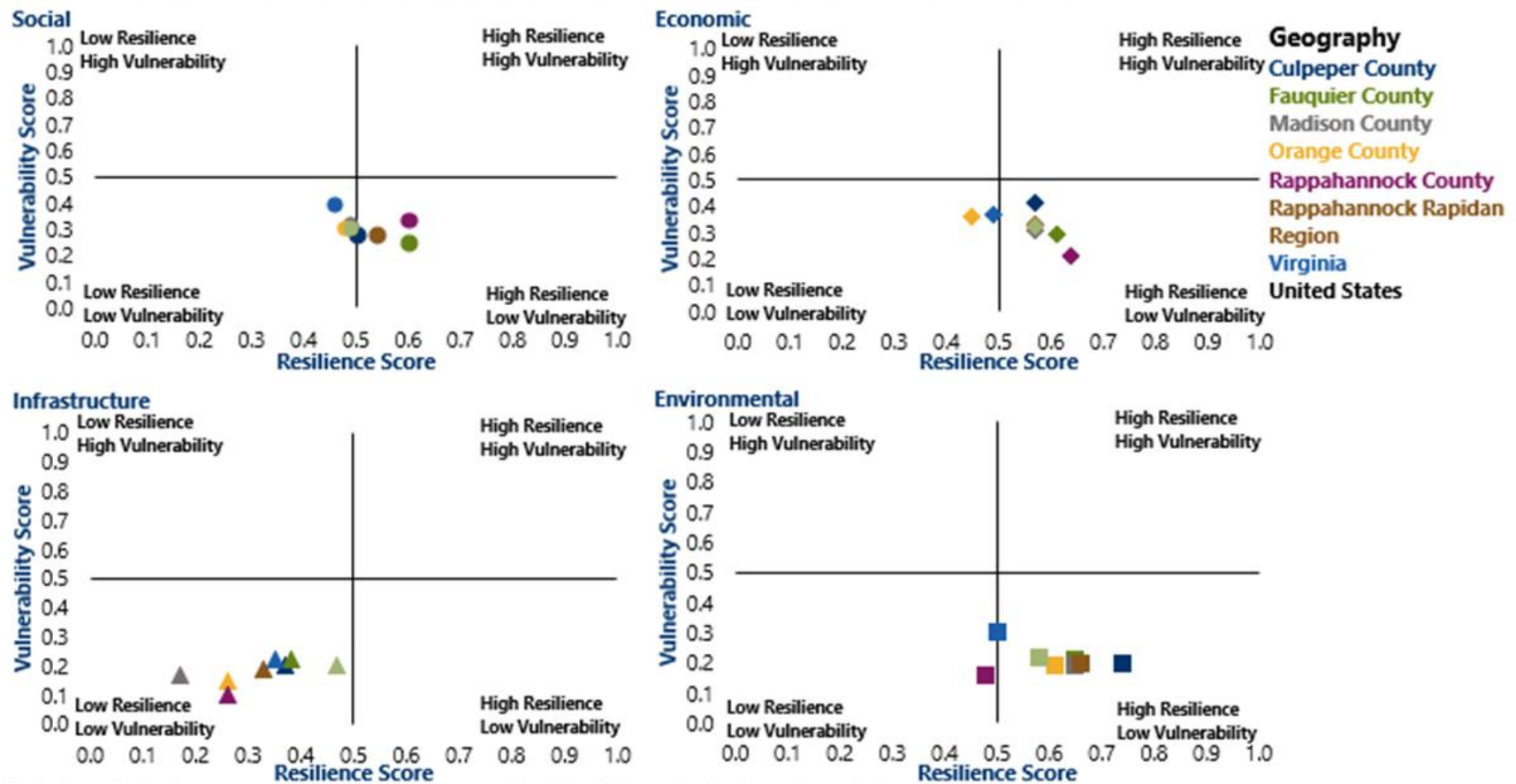
Resilience Measures	Vulnerability Measures
Environmental Diversity	Drought
	Seismic Hazard
	Proximity to Levees
	Number of Severe Storm Events
	Diversity of Storm Events

The indices rank all counties into four quadrants based on their relative resilience and vulnerability to national median scores across these four dimensions. Each dimension has its own set of indicators used to determine relative resilience (indicators that increase capacity for resilience) and vulnerability (indicators that are a liability for resilience) for that specific dimension. Each of the regional metrics are compared to the state metric to determine what indices need to be further addressed within each region. Any measure performing worse than the state will be highlighted as needing addressed while measure performing better than the state will be seen as strengths in the region.

Resilience and Vulnerability, Rappahannock-Rapidan Region

The graphics below display an overview of the resilience and vulnerability performance of each of the region’s geographies benchmarked to the state and national performance. Each of the four categories is also displayed. Key takeaways include, i) all geographies are least resilient in their infrastructure and most resilient in their environment and and, ii) none of the geographies were highly vulnerable across any of the categories.

Community Resilience and Vulnerability Scores, Rappahannock-Rapidan Region

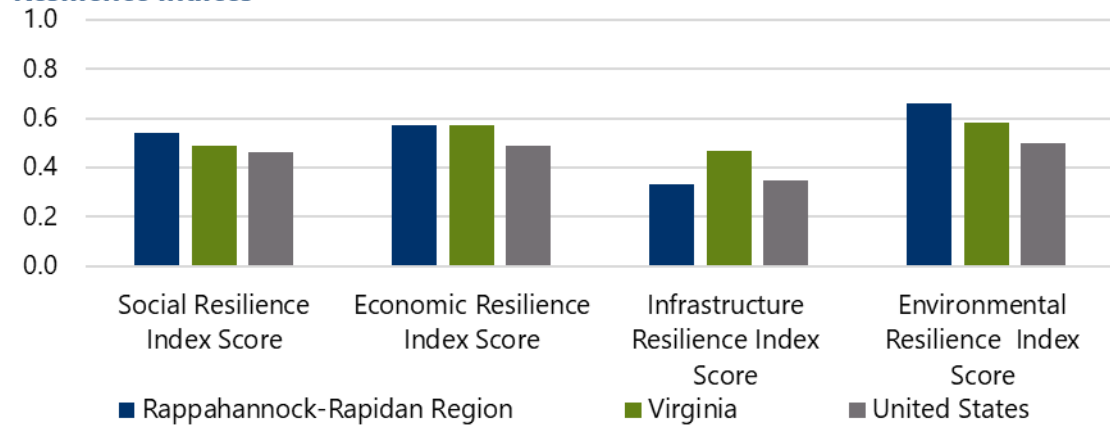


Note: State-level values are population-weighted averages. The United States value is the median value for all counties.
Source: University of Missouri Community Resilience Assessment Tool

Rappahannock-Rapidan Region Resilience

The graph on the right indicates the relative performance of the Rappahannock-Rapidan Region’s resilience in comparison to the State of Virginia and US as a whole. The region is more resilient than the state across all metrics except for infrastructure resilience.

Resilience Indices



Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the region’s resilience, allowing us to see the drivers of the four categories. The region would benefit from improving access to emergency facilities and medical professionals. The region could also look to find ways to incentivize labor force participation and new establishment births to improve the region’s resilience.

Rappahannock-Rapidan Region Resilience

Indicator	More Resilient	Less Resilient
Social	Higher Home-ownership	Lower Share with College Degrees
	Higher Share lived in the Same County a Year Ago	Lower Life Expectancy
	Higher Voter Participation Rate	
Economic	Higher Proprietor Employment	Fewer Establishment Births
	More Employment Diversity	Lower Labor Force Participation Rate
	Higher Proprietor Income	
Infrastructure	More Emergency Response Occupations	Less Access to Emergency Facilities
	More Evacuation Routes	Less Access to Grocery Stores
		Less Access to Medical Professionals
Environmental	Greater Environmental Diversity	

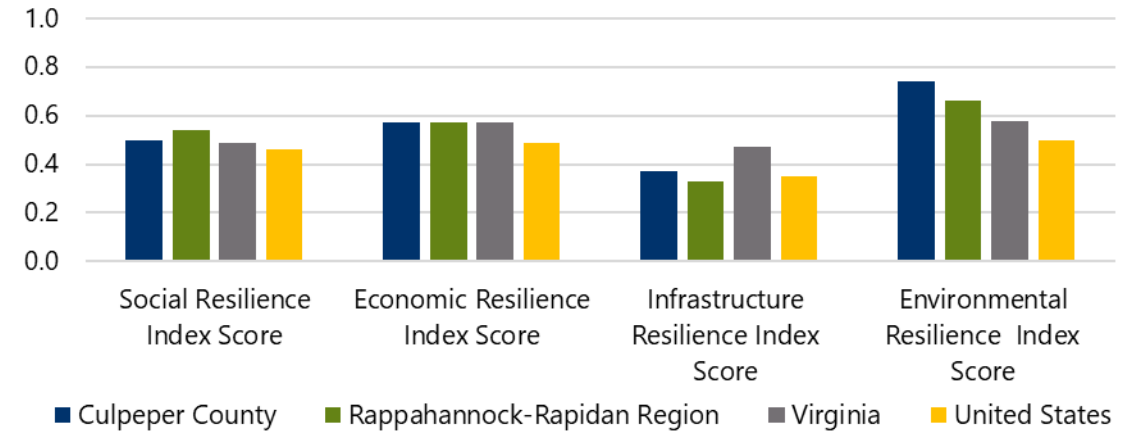
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Culpeper County Resilience

The graph on the right indicates the relative performance of Culpeper County's resilience in comparison to the Rappahannock-Rapidan Region, State of Virginia, and US as a whole. The county is more resilient than the state in environmental resilience but is less resilient than the state in its infrastructure. The county's social and economic indices rate very close to statewide measures.

Resilience Indices



Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the county's resilience, allowing us to see the drivers of the four categories. The county would benefit from improving access to medical professionals and investing more in police and fire. The region could also look for ways to incentivize labor force participation to improve the resilience of the county.

Culpeper County Resilience

Indicator	More Resilient	Less Resilient
Social	Higher Share lived in the Same County a Year Ago	Lower Share with College Degrees
	Higher Home-ownership	Lower Life Expectancy
	More Non-Profits per Capita	Fewer Associations per Capita
Economic	Higher Proprietor Employment	Lower Labor Force Participation Rate
	More Employment Diversity	
	Higher Proprietor Income	
Infrastructure	More Evacuation Routes	Less Access to Grocery Stores
		Less Access to Medical Professionals
		Lower Share of Expenditures on Police and Fire
Environmental	Greater Environmental Diversity	

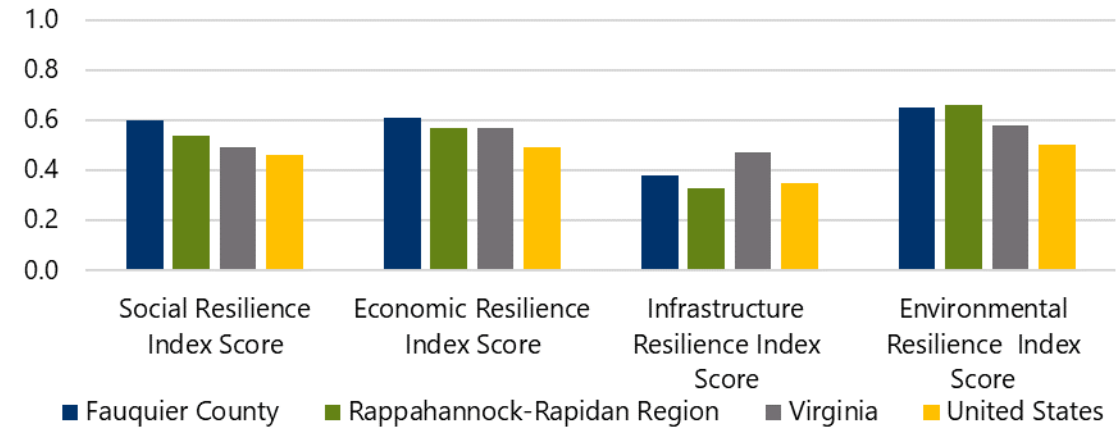
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Fauquier County Resilience

The graph on the right indicates the relative performance of Fauquier County's resilience in comparison to the Rappahannock-Rapidan Region, State of Virginia, and US as a whole. The county is more resilient than the state in environmental, social, and economic resilience but less resilient than the state in its infrastructure.

Resilience Indices



Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the county's resilience, allowing us to see the drivers of the four categories. The county would benefit from improving access to emergency facilities and medical professionals. The region could also look to find ways to increase establishment births to improve the resilience of the county.

Fauquier County Resilience

Indicator	More Resilient	Less Resilient
Social	Higher Home-ownership	Lower Life Expectancy
	Higher Voter Participation Rate	
	Higher Share lived in the Same County a Year Ago	
Economic	Higher Proprietor Employment	Fewer Establishment Births
	More Employment Diversity	
	Higher Labor Force Participation Rate	
Infrastructure	More Emergency Response Occupations	Less Access to Grocery Stores
	Higher Share of Expenditures on Police and Fire	Less Access to Emergency Facilities
	More Evacuation Routes	Less Access to Medical Professionals
Environmental	Greater Environmental Diversity	

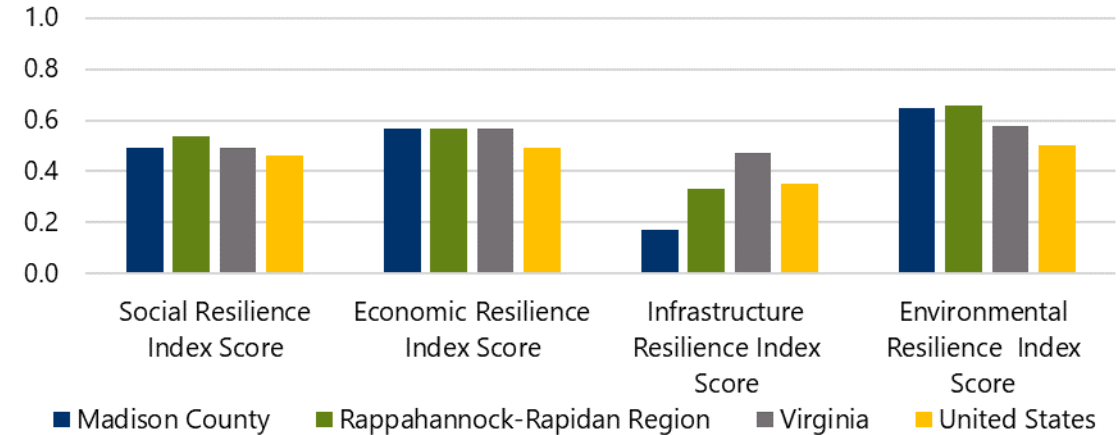
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Madison County Resilience

The graph on the right indicates the relative performance of Madison County’s resilience in comparison to the Rappahannock-Rapidan Region, State of Virginia, and US as a whole. The county is more resilient than the state in environmental resilience but is less resilient than the state in its infrastructure. For social and economic resilience, the county registers an index value similar to the state.

Resilience Indices



Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the county’s resilience, allowing us to see the drivers of the four categories. The county would benefit from improving access to emergency facilities and investing more in police and fire. The region could also look to find ways to increase establishment births, incentivize labor force participation, and increase the number of associations per capita to improve the resilience of the county.

Madison County Resilience

Indicator	More Resilient	Less Resilient
Social	Higher Home-ownership	Lower Share with College Degree
	Higher Voter Participation Rate	Fewer Associations per Capita
	More Non-Profits per Capita	Lower Life Expectancy
Economic	Higher Proprietor Employment	Fewer Establishment Births
	More Employment Diversity	Lower Labor Force Participation Rate
	Higher Proprietor Income	
Infrastructure	More Evacuation Routes	Less Access to Emergency Facilities
		Less Access to Grocery Stores
		Lower Share of Expenditures on Police and Fire
Environmental	Greater Environmental Diversity	

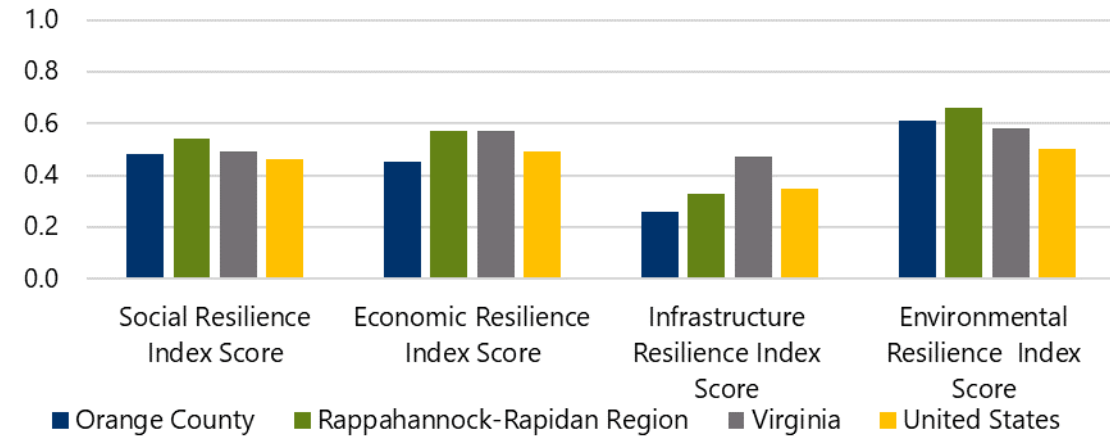
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Orange County Resilience

The graph on the right indicates the relative performance of Orange County's resilience in comparison to the Rappahannock-Rapidan Region, State of Virginia, and US as a whole. The county is more resilient than the state in environmental resilience but is less resilient than the state in its infrastructure and economic resilience but rates similar to Virginia in Social Resilience.

Resilience Indices



Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the county's resilience, allowing us to see the drivers of the four categories. The county would benefit from improving access to emergency facilities and medical professionals. The region could also look to find ways to increase establishment births, incentivize labor force participation, and increase the number of associations per capita to improve the resilience of the county.

Orange County Resilience

Indicator	More Resilient	Less Resilient
Social	Higher Home-ownership	Lower Share with College Degree
	Higer Voter Participation Rate	Lower Life Expectancy
		Fewer Associations per Capita
Economic	More Employment Diversity	Fewer Establishment Births
	Higher Proprietor Employment	Lower Labor Force Participation Rate
		Lower Proprietor Income
Infrastructure	More Emergency Response Occupations	Less Access to Emergency Facilities
	More Evacuation Routes	Less Access to Grocery Stores
		Less Access to Medical Professionals
Environmental	Greater Environmental Diversity	

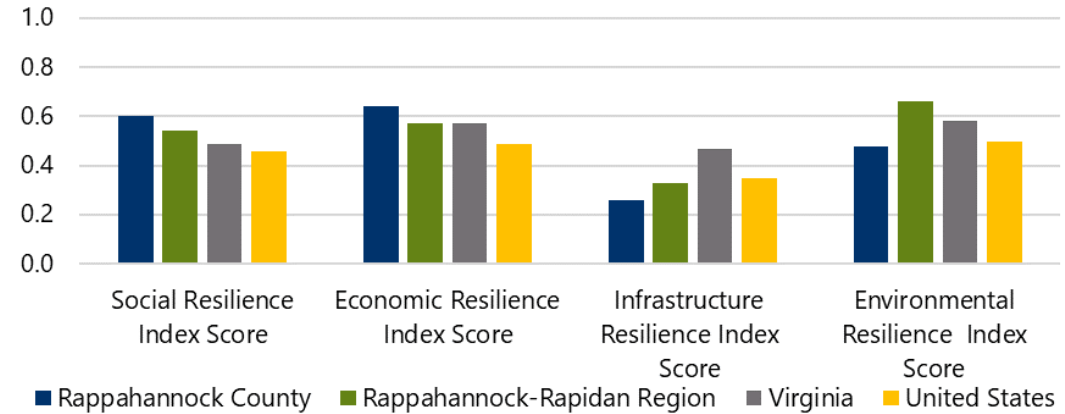
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Rappahannock County Resilience

The graph on the right indicates the relative performance of Rappahannock County’s resilience in comparison to the Rappahannock-Rapidan Region, State of Virginia, and US as a whole. The county is more resilient than the state in social and economic resilience but is less resilient than the state on the infrastructure and environmental scales.

Resilience Indices



Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the county’s resilience, allowing us to see the drivers of the four categories. The county would benefit from improving access to emergency facilities and medical professionals. The region could also look to find ways to incentivize labor force participation to improve the resilience of the county

Rappahannock County Resilience

Indicator	More Resilient	Less Resilient
Social	More Non-Profits per Capita	Lower Life Expectancy
	Higher Share lived in the Same County a Year Ago	Less Associations per Capita
	Higher Voter Participation Rate	
Economic	Higher Proprietor Employment	Lower Labor Force Participation Rate
	Higher Proprietor Income	
	More Establishment Births	
Infrastructure	More Emergency Response Occupations	Less Access to Emergency Facilities
	More Evacuation Routes	Less Access to Grocery Stores
		Less Access to Medical Professionals
Environmental		Less Environmental Diversity

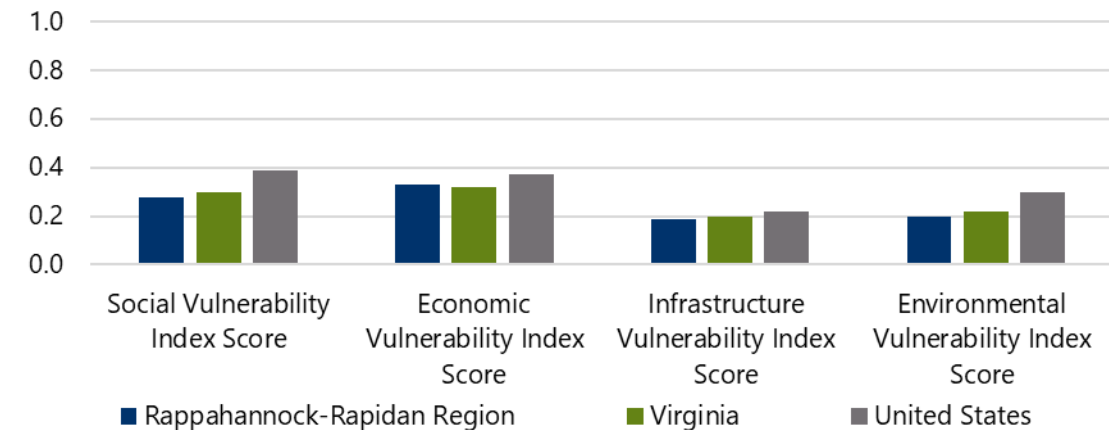
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Rappahannock-Rapidan Region Vulnerability

The graph on the right indicates the relative performance of the Rappahannock-Rapidan Region’s vulnerability in comparison to the State of Virginia and US as a whole. The region is less vulnerable than the state across the social, infrastructure, and environmental metrics and on par with the state for economic vulnerability.

Vulnerability Indices



Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the region’s vulnerability, allowing us to see the drivers of the four categories. The region would benefit from decreasing unsafe drinking water to decrease the region’s vulnerability.

Rappahannock-Rapidan Region Vulnerability

Indicator	Less Vulnerable	More Vulnerable
Social	Less Linguistic Isolation	Higher Share of Population Over 65
	Lower Violent Crime Rate	Higher Share of Population Under 18
	Lower Poverty Rate	Higher Share of Population Disabled
Economic	Fewer Cost-Burdened Households	Higher Share of Employment in Extractive Industries
	Lower Unemployment Rate	Higher Business Vacancy Rate
Infrastructure	Higher Share with Motor Vehicles	Close to Major Dams
	Fewer Mobile Homes	Higher Share of Unsafe Drinking Water
	Far From Nuclear Power Facility	
Environmental	Far From Levees	Higher Likelihood of Droughts
	Less Diversity of Storm Events	Higher Likelihood of Seismic Hazards
		More Severe Storm Events

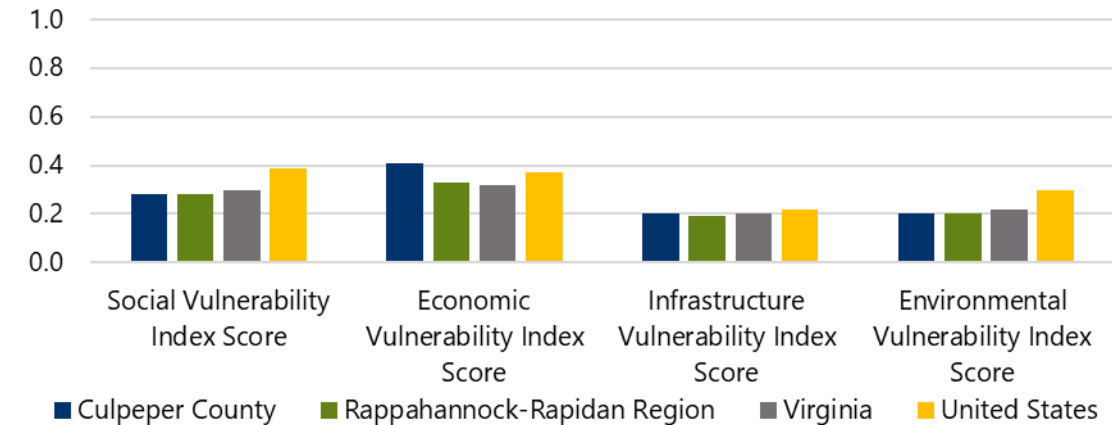
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Culpeper County Vulnerability

The graph on the right indicates the relative performance of Culpeper County's vulnerability in comparison to the Rappahannock-Rapidan Region, State of Virginia, and US as a whole. The county is less vulnerable than the state in social and environmental vulnerability but more vulnerable in economic vulnerability. For infrastructure, the county registers a similar degree of vulnerability as the state.

Vulnerability Indices



Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the county's vulnerability, allowing us to see the drivers of the four categories. The region would benefit from exploring ways to alleviate cost-burdened households and lower business vacancy rates to decrease the region's vulnerability.

Culpeper County Vulnerability

Indicator	Less Vulnerable	More Vulnerable
Social	Lower Income Inequality	Higher Share of Population Under 18
	Less Linguistic Isolation	Higher Share of Population Uninsured
	Lower Poverty Rate	
Economic		Higher Business Vacancy Rate
		More Cost-Burdened Households
		Higher Share of Employment in Extractive Industries
Infrastructure	Fewer High-Detour Bridges	Close to Major Dam
	High Share with Motor Vehicles	
Environmental	Fewer Older Homes	
	Fewer Severe Storm Events	More Diversity of Storm Events
	Far From Levees	Higher Likelihood of Drought
		Higher Likelihood of Seismic Hazards

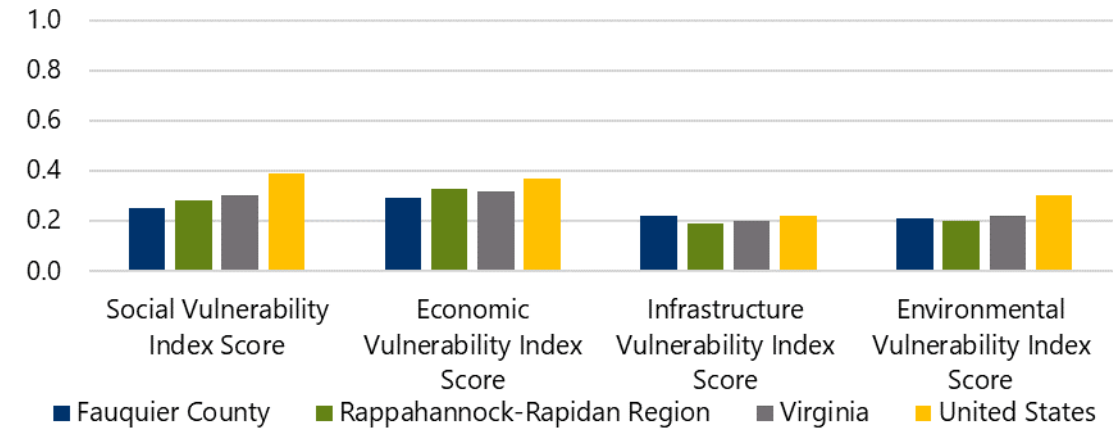
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Fauquier County Vulnerability

The graph on the right indicates the relative performance of Fauquier County’s vulnerability in comparison to the Rappahannock-Rapidan Region, State of Virginia, and US as a whole. The county is less vulnerable than the state in social, economic, and environmental vulnerability but slightly more vulnerable in infrastructure vulnerability.

Vulnerability Indices



Source: University of Missouri Community Resilience Assessment Tool

Fauquier County Vulnerability

The table to the right explores the determinants of the county’s vulnerability, allowing us to see the drivers of the four categories. The region would benefit from exploring ways to lower the businesses vacancy rate and reduce unsafe drinking water to decrease the region’s vulnerability.

Indicator	Less Vulnerable	More Vulnerable
Social	Less Linguistic Isolation	Higher Share of Population Under 18
	Lower Poverty Rate	Higher Share of Population Over 65
	Lower Violent Crime Rate	
Economic	Fewer Cost-Burdened Households	Higher Share of Employment in Extractive Industries
	Lower Unemployment Rate	Higher Business Vacancy Rate
Infrastructure	High Share with Motor Vehicles	Close to Major Dam
	Fewer Mobile Homes	More High-Detour Bridges
	Far from Nuclear Power Facility	High Share of Unsafe Drinking Water
Environmental	Less Diversity of Storm Events	More Severe Storm Events
	Far From Levees	Higher Likelihood of Droughts
	Lower Likelihood of Seismic Hazards	

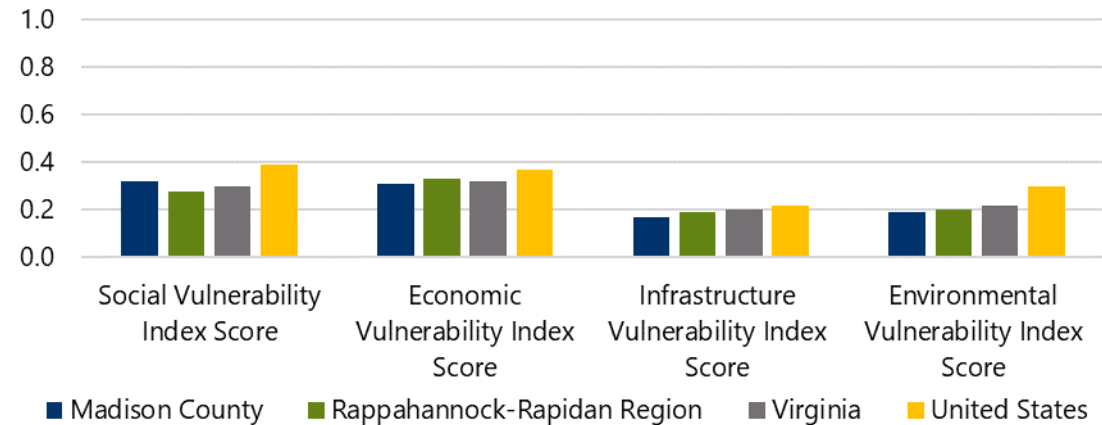
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Madison County Vulnerability

The graph on the right indicates the relative performance of Madison County’s vulnerability in comparison to the Rappahannock-Rapidan Region, State of Virginia, and US as a whole. The county is less vulnerable than the state in economic, infrastructure, and environmental vulnerability but is more vulnerable in social vulnerability.

Vulnerability Indices



Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the county’s vulnerability, allowing us to see the drivers of the four categories. The region would benefit from exploring ways to alleviate cost-burdened households to decrease the region’s vulnerability.

Madison County Vulnerability

Indicator	Less Vulnerable	More Vulnerable
Social	Less Linguistic Isolation	Higher Share of Population Over 65
	Lower Violent Crime Rate	Higher Share of Population Uninsured
	Lower Share of Population Under 18	Higher Income Inequality
Economic	Lower Business Vacancy Rate	Higher Share of Employment in Extractive Industries
		More Cost-Burdened Households
Infrastructure	Less High-Detour Bridges	More Older Homes
	Far from Major Dams	Lower Share with Motor Vehicles
	Further from Nuclear Power Facility	
Environmental	Fewer Severe Storm Events	Higher Likelihood of Droughts
	Far From Levees	Higher Likelihood of Seismic Hazards
	Higher Diversity of Storm Events	

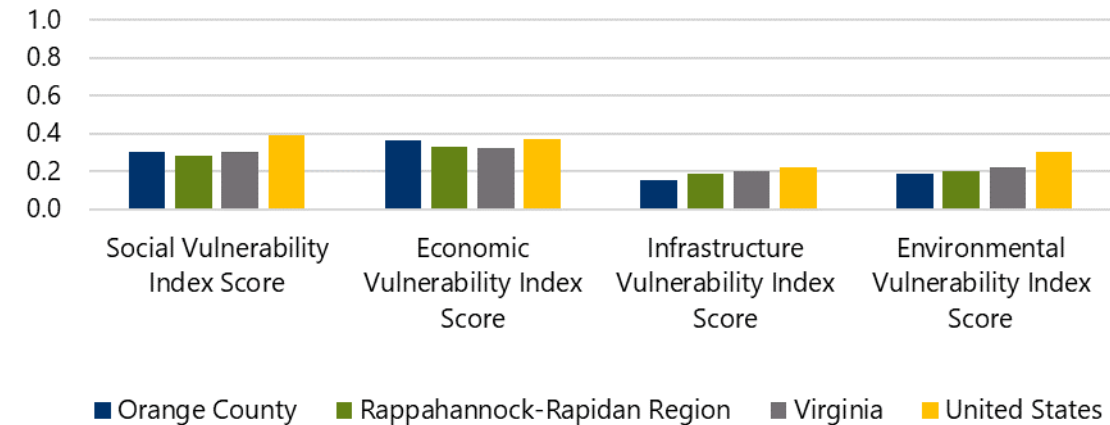
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Orange County Vulnerability

The graph on the right indicates the relative performance of Orange County’s vulnerability in comparison to the Rappahannock-Rapidan Region, State of Virginia, and US as a whole. The county is less vulnerable than the state in infrastructure and environmental vulnerability but is more vulnerable in economic vulnerability. The county scores an index level similar to the state for social vulnerability.

Vulnerability Indices



Source: University of Missouri Community Resilience Assessment Tool

Orange County Vulnerability

Indicator	Less Vulnerable	More Vulnerable
Social	Less Linguistic Isolation	Higher Share of Population Over 65
	Lower Violent Crime Rate	Higher Share of Population Disabled
	Lower Income Inequality	Higher Share of Population Uninsured
Economic	Fewer Cost-Burdened Households	Higher Share of Employment in Extractive Industries
		Higher Unemployment Rate
		Higher Business Vacancy Rate
Infrastructure	Less High-Detour Bridges	Close to Major Dams
	Higher Share with Motor Vehicles	More Mobile Homes
	Fewer Older Homes	
Environmental	Less Diversity of Storm Events	Higher Likelihood of Seismic Hazards
	Fewer Severe Storm Events	Higher Likelihood of Droughts
	Far From Levees	

Note: Region is compared to Virginia

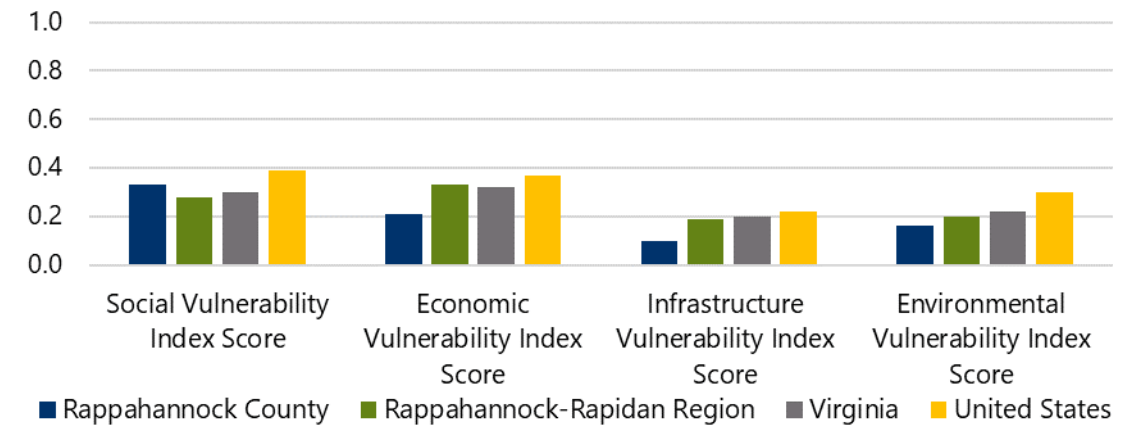
Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the county’s vulnerability, allowing us to see the drivers of the four categories. The region would benefit from exploring ways to decrease the unemployment rate and business vacancies to decrease the region’s vulnerability.

Rappahannock County Vulnerability

The graph on the right indicates the relative performance of Rappahannock County's vulnerability in comparison to the Rappahannock-Rapidan Region, State of Virginia, and US as a whole. The county is less vulnerable than the state in economic, infrastructure, and environmental vulnerability but is more vulnerable in social vulnerability.

Vulnerability Indices



Source: University of Missouri Community Resilience Assessment Tool

Rappahannock County Vulnerability

Indicator	Less Vulnerable	More Vulnerable
Social	Lower Share of Population Under 18	Higher Share of Population Over 65
	Lower Violent Crime Rate	Higher Income Inequality
	Lower Poverty Rate	Higher Share of Population Uninsured
Economic	Lower Business Vacancy Rate	Higher Share of Employment in Extractive Industries
	Lower Unemployment Rate	
	Fewer Cost-Burdened Households	
Infrastructure	Far from Major Dams	More Older Homes
	Fewer High-Detour Bridges	
	Higher Share with Motor Vehicles	
Environmental	Less Diversity of Storm Events	Higher Likelihood of Droughts
	Fewer Severe Storm Events	
	Far From Levees	

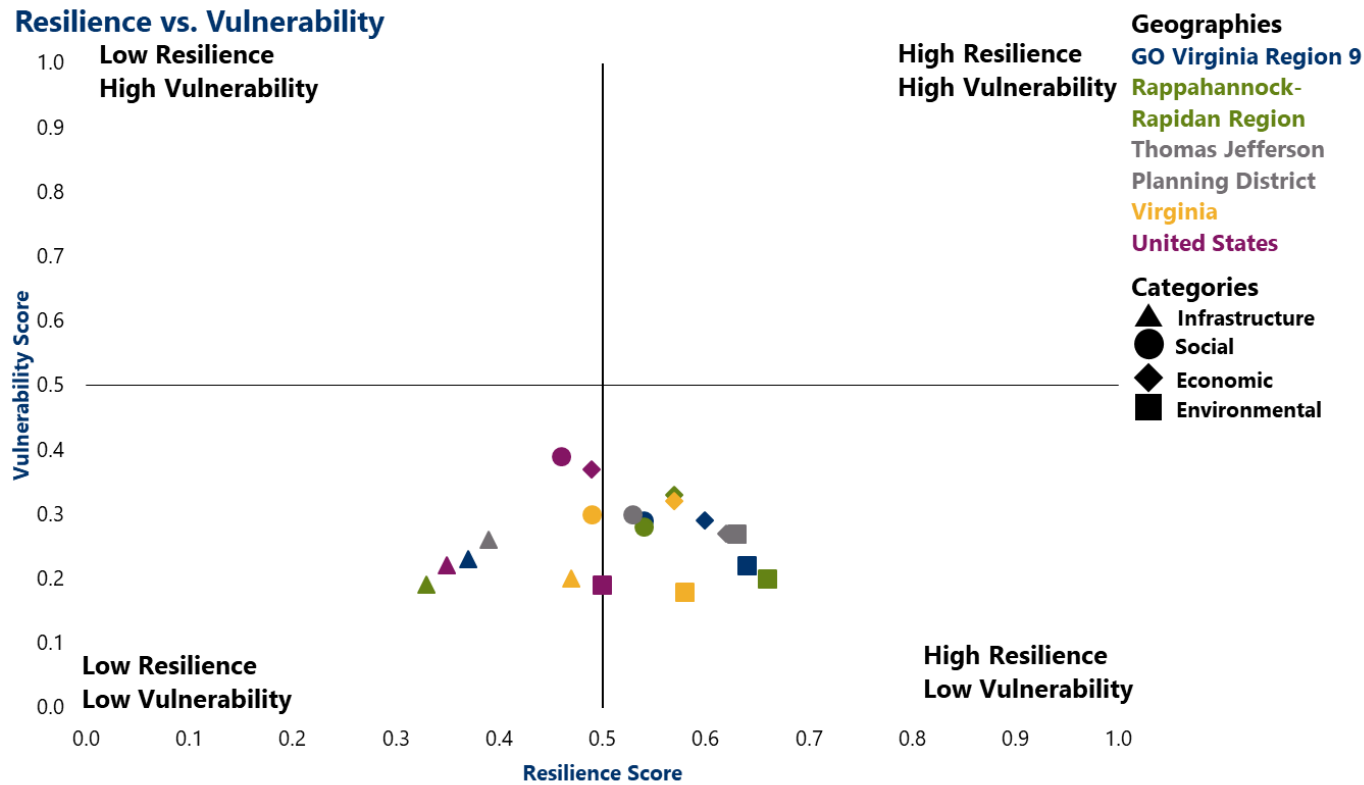
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the county's vulnerability, allowing us to see the drivers of the four categories. The region would benefit from exploring ways to decrease the share of the population that is uninsured to decrease the region's vulnerability.

Resilience and Vulnerability, GO Virginia Region 9

The graphic below displays an overview of the resilience and vulnerability performance of each of the region’s geographies benchmarked to the state and national performance. Each of the four categories is also displayed. Key takeaways include: i) all geographies are *least resilient* in infrastructure and *most resilient* in aspects of the environment and ii) none of the geographies register as highly vulnerable across any of the categories.

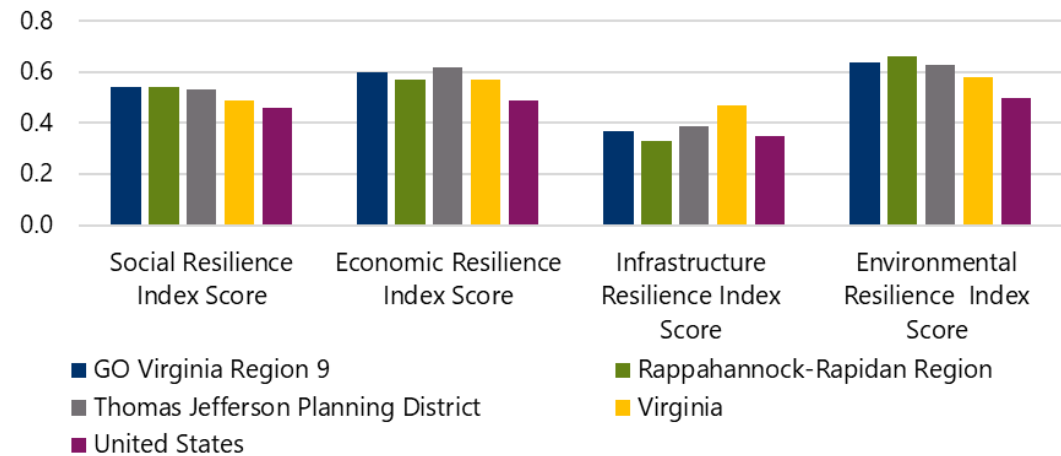


Source: University of Missouri Community Resilience Assessment Tool

GO VA Region 9 Resilience⁵

The graph on the right indicates the relative performance of the GO Virginia 9 region’s resilience in comparison to the RRRC and TJPDC regions, the State of Virginia, and the US. Note that the GO Virginia Region 9 is more resilient than the state across all metrics except for infrastructure resilience.

Resilience Indices



Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the region’s resilience, allowing us to see the drivers of the four categories. The region would benefit from improving access to emergency facilities and increasing emergency occupations. The region could also consider finding ways to incentivize labor force participation and new establishment births to improve the region’s resilience.

GO Virginia Region 9 Resilience

Indicator	More Resilience	Less Resilience
Social	Higher Voter Participation Rate	Lower Share lived in the Same County a Year Ago
	More Non-Profits per Capita	
	Greater Home-ownership	
Economic	Higher Proprietor Employment	Lower Proprietor Income Lower Labor Force Participation Fewer Establishment Births
	More Employment Diversity	
	More Access to Medical Professionals	
Infrastructure	More Evacuation Routes	Less Access to Emergency Facilities Less Access to Grocery Stores Fewer Emergency Response Occupations
	Greater Environmental Diversity	
	Environmental	

Note: Region is compared to Virginia

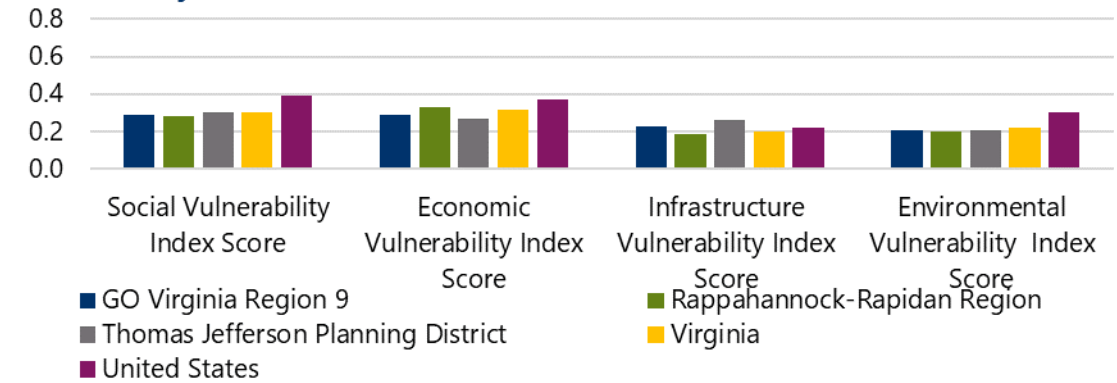
Source: University of Missouri Community Resilience Assessment Tool

⁵ To interpret the scores: a resiliency score of “1” would mean that the region is entirely resilient in that given metric, a score of “0” means that the region has no resiliency in that given metric.

GO VA Region 9 Vulnerability⁶

The graph on the right indicates the relative performance of the GO Virginia 9 region’s vulnerability in comparison to the RRRC and TJPDC regions, State of Virginia, and US as a whole. By these measures, the GO Virginia Region 9 is less vulnerable than the state across all metrics except for infrastructure vulnerability.

Vulnerability Indices



Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the region’s vulnerability, allowing us to see the drivers of the four categories. The region would benefit from investing in water drinking improvements to decrease the region’s vulnerability.

GO Virginia Region 9 Vulnerability

	Less Vulnerability	More Vulnerability
Social	Lower Linguistic Isolation	Higher Share of Population 65+
	Lower Violent Crime Rate	Greater Income Inequality
	Lower Share of Population Under 18	
Economic	Lower Unemployment Rate	Higher Share of Employment in Extractive Industries
	Fewer Cost-Burdened Households	
	Lower Business Vacancy Rate	
Infrastructure	Fewer High-Detour Bridges	Close to Major Dams
	Higher Share with Motor Vehicles	Close to Nuclear Power Facility
	Fewer Older Homes	Higher Share of Unsafe Drinking Water
Environmental	Less Diversity of Storm Events	Higher Likelihood of Seismic Hazards
	Far From Levees	Higher Likelihood of Droughts
	Fewer Severe Storm Events	

Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

⁶ To interpret the scores: a vulnerability score of “1” would mean that the region is entirely vulnerable in that given metric, a score of “0” means that the region has no vulnerability in that given metric.

Sources And Data Notes

Social Resilience Index: Variables, Measures, and Data Sources

Variable	Measure	Data Source
Place Attachment	Percentage of population living in same county as one year prior	U.S. Census Bureau, American Community Survey, 2017-2021
Place Attachment	Percentage of housing units that are owner occupied	U.S. Census Bureau, American Community Survey, 2017-2021
Highly Educated Population	Percentage of population with a BS degree or higher	U.S. Census Bureau, American Community Survey, 2017-2021
Civic Engagement	Voter participation rate	Townhall.com Election Results, 2020
Social Capital	Number of 501(c)(3) organizations per capita	Internal Revenue Service, April 2021, and U.S. Census Bureau, 2020
Social Capital	Number of associations per 10,000 population	U.S. Census Bureau, County Business Patterns, 2021, and U.S. Census Bureau, 2020
Healthy Population	Life expectancy	Institute of Health Metrics and Evaluation, 2020

Educational attainment is a measure of civic engagement and social capital are based on research at Penn State University compiling a “Social Capital Index” for U.S. counties. The relationship between social capital in a community and a community’s ability to respond to unforeseen emergencies is documented in prior literature

The measure of associations included the following industry categories: bowling centers, civic and social associations, physical fitness facilities, public golf courses, religious organizations, membership sports and recreation clubs, political organizations, professional organizations, business associations, labor organizations and membership organizations not elsewhere classified.

Social Vulnerability Index: Variables, Measures, and Data Sources

Variable	Measure	Data Source
Income inequality	County Gini index	U.S. Census Bureau, American Community Survey, 2017-2021
Vulnerable population	County poverty rate	U.S. Census Bureau, American Community Survey, 2017-2021
Vulnerable population	Percentage of households that are linguistically isolated	U.S. Census Bureau, American Community Survey, 2017-2021
Vulnerable population	Percentage of population with a disability	U.S. Census Bureau, American Community Survey, 2017-2021
Vulnerable population	Percentage of population without health insurance	U.S. Census Bureau, American Community Survey, 2017-2021
Vulnerable population	Percentage of population age 65 and over	U.S. Census Bureau, American Community Survey, 2017-2021
Vulnerable population	Percentage of population under age 18	U.S. Census Bureau, American Community Survey, 2017-2021
Community erosion	FBI violent crime rate	FBI Uniform Crime Reports, 2021
Political fragmentation	Number of jurisdictions	U.S. Census Bureau, Census of Governments, 2021; 2013 Census Tiger/LINE Tribal Lands boundary file; National atlas, 2006 Federal Lands layer

Economic Resilience Index: Variables, Measures, and Data Sources

Variable	Measure	Data Source
Economic Diversity	Employment sector diversity (relative to national average)	U.S. Census Bureau, American Community Survey, 2017-2021
Entrepreneurship	Proprietors as a percentage of total nonfarm employment	Bureau of Economic Analysis, 2021
Entrepreneurship	Average nonfarm proprietor income	Bureau of Economic Analysis, 2021
Active Economy	Labor force participation rate	U.S. Census Bureau, American Community Survey, 2017-2021
Economic Growth	Establishment birth rate	U.S. Census Bureau, American Community Survey, 2017-2021

Economic Vulnerability Index: Variables, Measures, and Data Sources

Variable	Measure	Data Source
Reliance on Natural Resource Sectors	Percentage of workers employed in agriculture, forestry, fishing, mining industries	U.S. Census Bureau, American Community Survey, 2017-2021
Economic Hardship	Percentage of households spending 30% or more of total income on housing costs (mortgage/rent and utilities)	U.S. Census Bureau, American Community Survey, 2017-2021
Economic Hardship	Unemployment rate	U.S. Census Bureau, American Community Survey, 2017-2021
Potential Tax Shortfalls	Business vacancy rate	Department of Housing and Urban Development, 2021

Infrastructure Resilience Index: Variables, Measures, and Data Sources

Variable	Measure	Data Source
Medical Capacity	Percentage of population within 10 miles of a hospital with an emergency room	Centers for Medicare and Medicaid Services Provides of Service File, 2021; U.S. Census Bureau, 2020
Medical Capacity	Primary care physicians per capita	Health Resources and Services Administration, Area Health Resource File, 2021; U.S. Census Bureau, 2020
Potential First Responders	Persons in emergency response occupations as a percentage of total county population	U.S. Census Bureau, American Community Survey, 2017-2021
Investment in emergency response system	Per capita expenditures on police and fire	U.S. Census Bureau, Census of Governments, County Area Expenditures, 2021
Adequacy of roadways	Lane miles of interstates, principal arterial and minor arterial roads per 1,000 population	Federal Highway Administration, Highway Performance Monitoring System, 2021; U.S. Census Bureau, 2020
Access to food	Percentage of population within 1 mile of a grocery store	US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas. 2019

Infrastructure Vulnerability Index: Variables, Measures, and Data Sources

Variable	Measure	Data Source
At risk infrastructure	Percentage of housing units that are mobile homes	U.S. Census Bureau, American Community Survey, 2017-2021
At risk infrastructure	Percentage of homes built before 1960	U.S. Census Bureau, American Community Survey, 2017-2021
Evacuation challenges	Percentage of population living in group quarters	U.S. Census Bureau, American Community Survey, 2017-2021
Evacuation challenges	Percentage of housing units with no vehicle available	U.S. Census Bureau, American Community Survey, 2017-2021
Evacuation challenges	Count of high detour or high traffic bridges	U.S. Department of Transportation, 2021 National Bridge Inventory
High potential loss facilities	Percentage of population within 5 miles of a dam	2021 National Transportation Atlas, Dams Dataset
High potential loss facilities	Percentage of population within 10 miles of a nuclear facility	U.S. Geological Survey, Structures Dataset
Infrastructure quality	Percentage of population served by water systems with at least one health-based violation	University of Wisconsin Population Health Institute, County Health Rankings. 2012-13

The inclusion of indicators measuring both older homes and mobile homes in disaster indicators has been established in academic literature as these housing units are considered more vulnerable to disaster due to the quality of the construction. Although there is no agreement on what constitutes an “older” home, this work uses a threshold of 1960 because that represents an even 50-year cutoff from the most recent decennial Census year. Data on both older homes and mobile homes are obtained from the U.S. Census Bureau American Community Survey.

Environmental Resilience

One Composite measure of environmental resilience has been used which quantifies the diversity of climate, lithology, land cover, and landform across the county. This measure addressed resource availability and diversity, assuming that more diverse landscapes are better able to rebound from a variety of disaster scenarios. Data from ESRI’s World Ecophysiological Diversity, 2015 dataset, created in partnership with the US Geological Survey’s Climate and Land Use Change Program and the Group on Earth Observations. The dataset consists of a 250m grid of the world, created by calculating the number of ecological facets in a 5 x 5 km square surrounding each pixel. Ecological facets are unique combinations of climate, lithology, land cover, and landform. County-level figures represent the mean value of all grid cells within the count boundary, calculated using ESRI’s zonal statistics tool.

Environmental Vulnerability Index: Variables, Measures, and Data Sources

Variable	Measure	Data Source
Flood Risk	Percentage of population within 2 miles of a levee or within a levee zone	U.S. Army Corps of Engineers, National Levees Database, 2021
Storm Severity	Number of storm events over 15 year period	National Oceanic and Atmospheric Administration, 2021
Range of Storm Types	Diversity index of storms	National Oceanic and Atmospheric Administration, 2021
Earthquake Risk	Population weighted seismic hazard zone score	U.S. Geological Survey, National Seismic Hazard Maps, 2021, 2014, 2007
Drought Risk	Percentage of weeks in drought	U.S. Drought Monitor, 2019-2021

Comprehensive Economic Development Strategy

Rappahannock-Rapidan Regional Commission

In partnership with GO Virginia Region 9

Appendix IV

GO VIRGINIA REGION 9 SUPER-REGIONAL STRATEGIES



VIRGINIA INITIATIVE FOR
**GROWTH &
OPPORTUNITY**
IN EACH REGION

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4	Implementation.....	30

1 INTRODUCTION

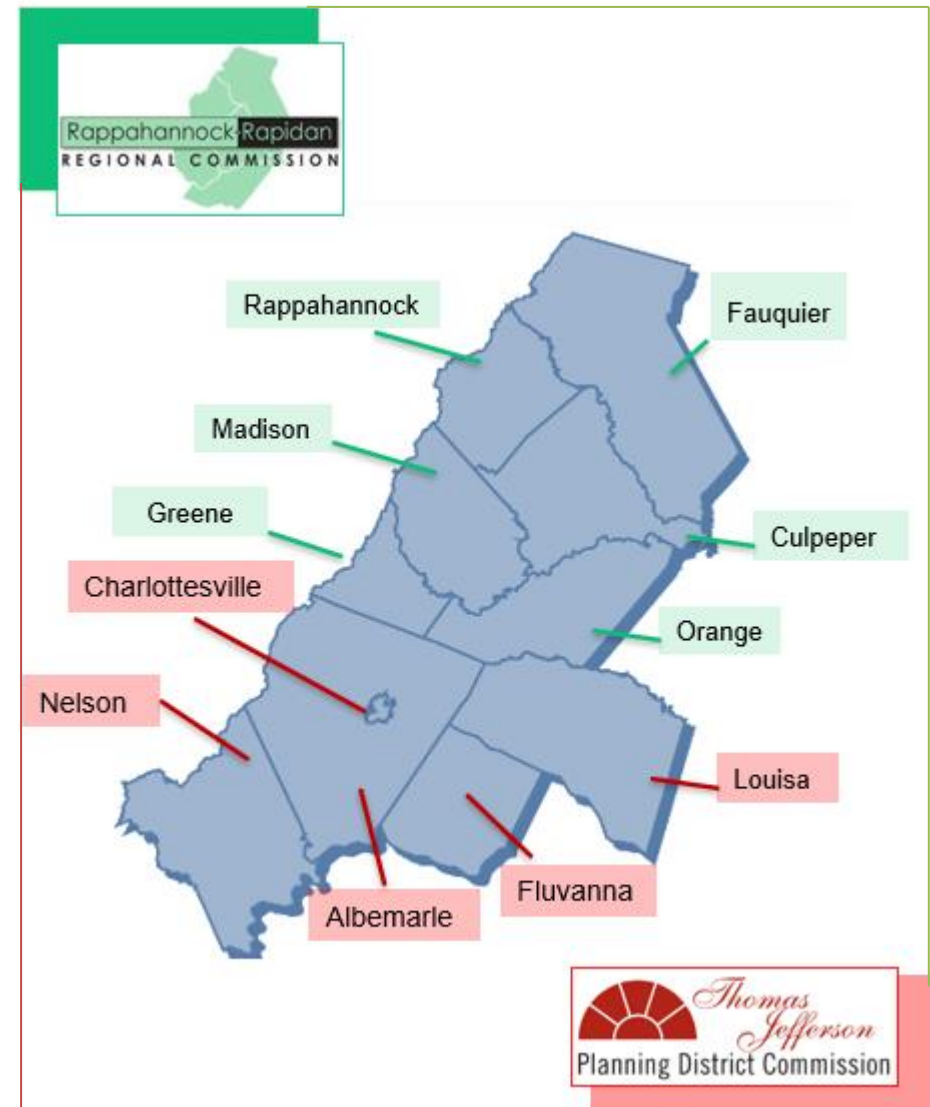
Success Through Collaboration

The Rappahannock Rapidan Regional Commission and the Thomas Jefferson Planning District prepared five-year Comprehensive Economic Development Strategies (CEDS) during 2023-2024. The management team for each planning district, and their respective regional steering committees, met regularly with Camoin Associates to coordinate similar approaches, methodology, stakeholder outreach, and engagement activities for their respective plans.

Additionally, GO Virginia provided funds to identify “Super Regional” strategies to support these planning processes. The Super Regional strategies are intended to leverage common challenges facing each planning district, which together comprise the state’s GO Virginia Region 9.

Eight strategic areas were identified as requiring a super-regional emphasis. They include four leading or emerging industry sectors, two of which relate directly to GO Virginia Region 9’s targeted industry sectors, **Agriculture – Food and Beverage** and **Information Technology**, and two other promising sectors, **Clean Technology** and **Defense Intelligence** (not a current GO Virginia target industry.)

Note: The other targeted sectors included as GO Virginia targeted industries (Biomedical/Biotechnology, Financial and Business Services, and Light Manufacturing) were concentrated most strongly in one of the two planning districts, and thus, did not share similar emphasis at the super-regional level. Those industries and related strategies to grow them are addressed in the respective CEDS.



Four additional areas were also identified for Super Regional emphasis because they were considered critical for achieving overall economic and quality of life success in Region 9:

- Tourism
- Housing
- Sites
- Workforce Development

It is important to note that the GO Virginia Region 9 board is very focused on the economic importance of the issues above and has provided some support to advance infrastructure and workforce activities, but these issues are not considered core functional issues managed by the Region 9 staff.

The report that follows provides data relating to **CURRENT AND EMERGING TRENDS** for each of these seven super-regional issues.

This is followed by a **STRATEGIC DIRECTION** section that presents a brief opportunity analysis, a strategic approach, and implementation considerations specific to the eight super-regional issues.

Finally, an **ACTION PLAN** is included that identifies organizations and/or individuals to serve as champions for moving these strategies forward.



2 CURRENT AND EMERGING TRENDS

Focus

The following section provides a sampling of data that helped support the decisions to focus on specific Super Regional strategies.

It is organized by the four leading and emerging industry sectors, plus Tourism and Hospitality, along with three overarching areas requiring extraordinary focus and effort, namely housing, sites/infrastructure, and workforce development.

For this section, the data is organized as follows:

A. Leading and Emerging Sectors

- Food and Beverage
- Clean Technology
- Defense Intelligence
- Information Technology

B. Tourism

C. Housing

D. Sites and Infrastructure

E. Workforce Development

What We Know From the Data

Four industry sectors are identified as having strong location quotient factors. Three of these leading or emerging sectors have dramatically higher than state average job creation potential: Food and Beverage, Defense Intelligence, and Information Technology.

Tourism performance generally tracks statewide averages for growth. However, the “slice of the pie” for Region 9 is only 5% of the statewide totals, suggesting that more can be done to market the region’s assets by extending visitor stay experiences in other regions to include Region 9 and increasing overall visitation with new product development and exposure.

The ability to find safe and affordable housing is a national crisis and Virginia and its Region 9 localities are not exceptions. This is having a significant negative effect on the ability of residents and future workers to locate and prosper in Central Virginia. Several years ago, the Rappahannock-Rapidan region developed a plan of action that engaged local municipal officials. It provides a launch pad for Region 9 to address such issues holistically.

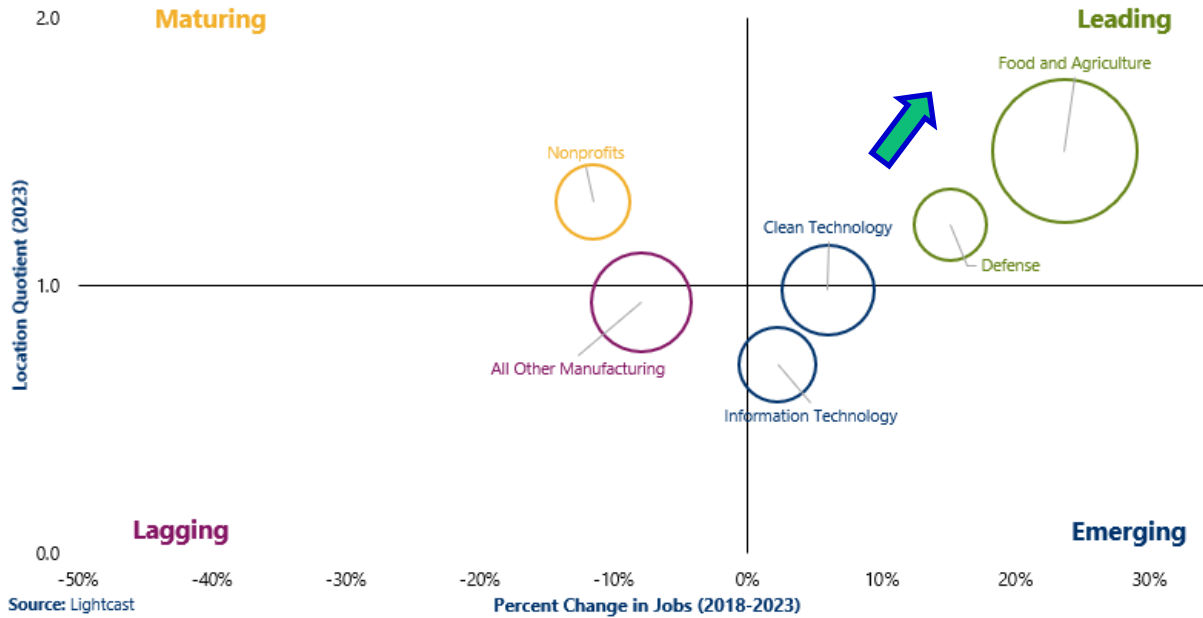
Shovel-ready sites on which to build new facilities are needed throughout the region to accommodate growth. Smaller parcels can be found but infrastructure requirements limit industry use on some sites. Acquiring and preparing sites takes many years and a full analysis must be done to identify new sites for future development.

And, finally, the expansion of workforce development initiatives is needed to meet employer demands in all industries. Key to the competitiveness of Region 9 rests with securing more private sector involvement in preparing workers for jobs, especially those needed to propel the leading and emerging sectors identified in this report.

A. Competitive Industry Sectors

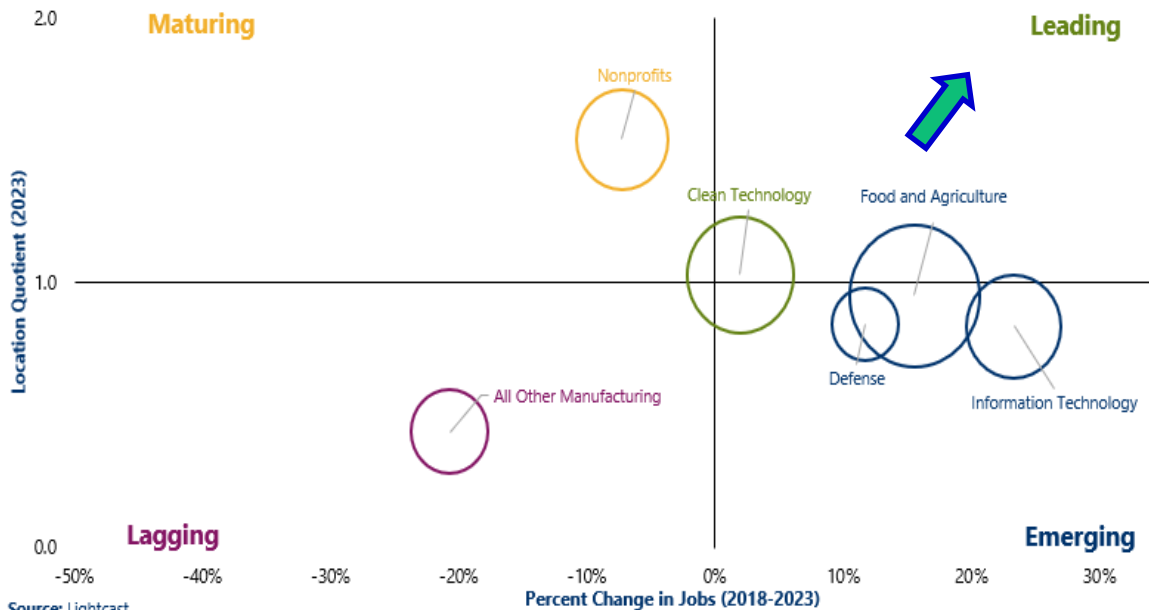
Key Metrics by Sector, Rappahannock-Rapidan Region

Bubble size indicates 2023 job count



Key Metrics by Sector, Thomas Jefferson District Planning Commission

Bubble size indicates 2023 job count



Competitive Industries: In both the Rappahannock-Rapidan and Thomas Jefferson regional planning districts, four sectors stand out as leading or emerging industries.

These are:

- Food and Agriculture
- Clean Technology
- Defense Intelligence
- Information Technology

In both districts, Food and Agriculture represent the industries with a high job count, followed by Clean Technology and Information Technology.

The defense industry represents a smaller job count but is a leading industry in Rappahannock-Rapidan and is emerging in Thomas Jefferson.

Nonprofits are a maturing industry. They are essential for improving the social and economic fabric of the community and play a different role than the other industries.

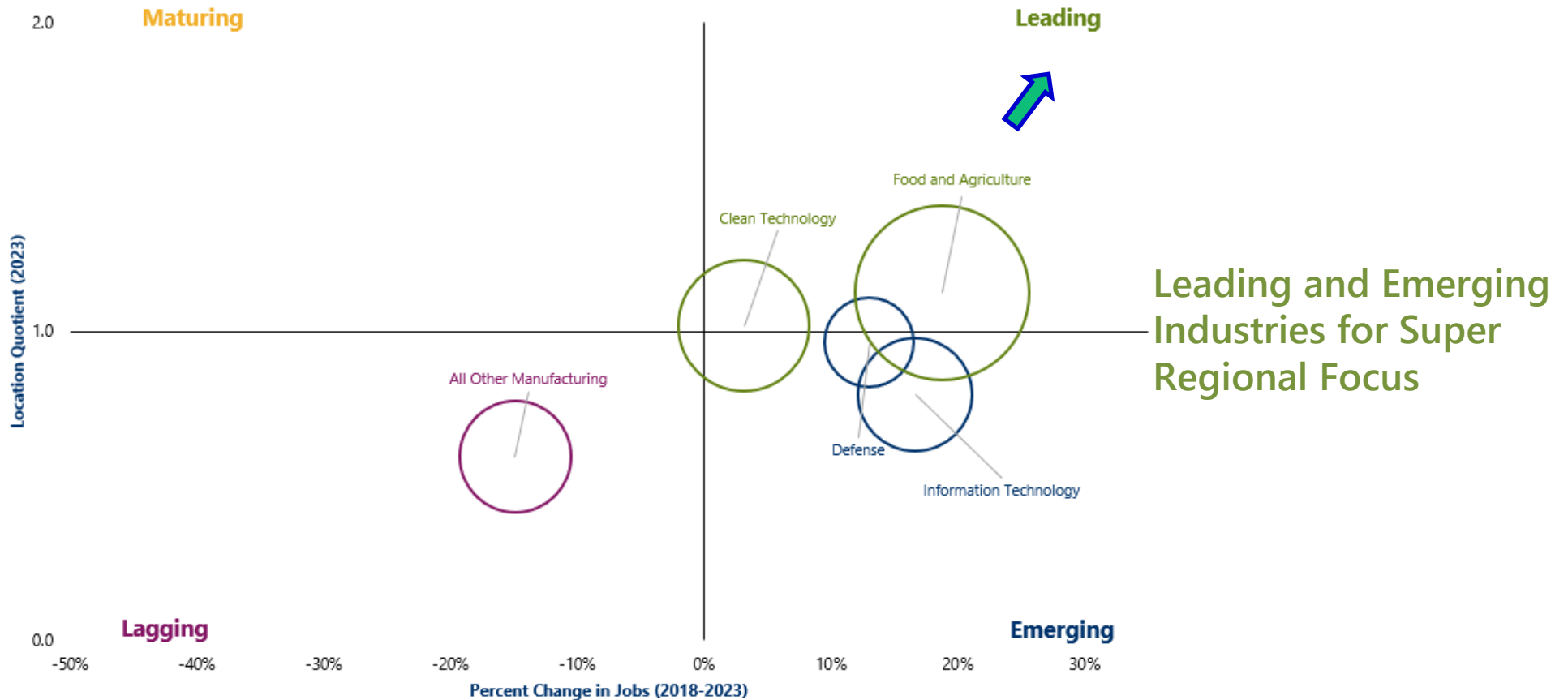
Region 9 Industry Sector Focus: The leading industry sector in Region 9 is Food and Agriculture. It has the highest concentration of job count and is projected to continue to grow.

Clean Technology employs the next largest number of employees, and it also is considered a leading industry with strong growth potential.

The Information Technology sector is considered an emerging growth industry for Region 9. Defense-related industries, driven largely by spill-over from Northern Virginia, has a higher concentration in Fauquier County and is growing in the Charlottesville area.

These four sectors represent the core focus of the Region 9 Super Regional industry strategies.

Key Metrics, GO Virginia Region 9
Bubble size indicates 2023 job count



Source: Lightcast

Location Quotient: The location quotient (LQ) measures industry concentration (specialization) relative to other geographic areas. In the chart below, Region 9 is compared to statewide computations. An LQ at or above 1.0 indicates that the region has more employment in that sector than the state or nation. It typically produces more than is consumed locally and can export to other markets.

Two of the super regional sectors, Clean Energy and Food and Agriculture have strong LQs. Three of the industries (Clean Energy, Information Technology, and Defense) have less of an LQ than does the Commonwealth of Virginia, indicating that more growth can be leveraged if given more focus.

Job Increases: All four of the super regional sectors have experienced a stronger rate of percent increase over the past five years than the rest of the Commonwealth of Virginia.

Three of these four have posted dramatically higher increases than the rest of the Commonwealth:

- Food and Agriculture: 19%
- Information Technology: 17%
- Defense Intelligence: 13%

Clean technology job growth in Region 9 was slightly higher than the statewide averages.

Industry Location Quotients, 2023

Industry Group	RRRC	TJPDC	Region 9	Virginia
All Other Manufacturing	0.94	0.44	0.59	0.81
Clean Technology	0.98	1.03	1.02	1.15
Information Technology	0.71	0.84	0.80	1.65
Defense	1.23	0.84	0.96	1.83
Food and Agriculture	1.50	0.95	1.12	0.74
Nonprofits	1.31	1.54	1.47	1.17

Source: Lightcast

Job Change by Sector, 2018-2023

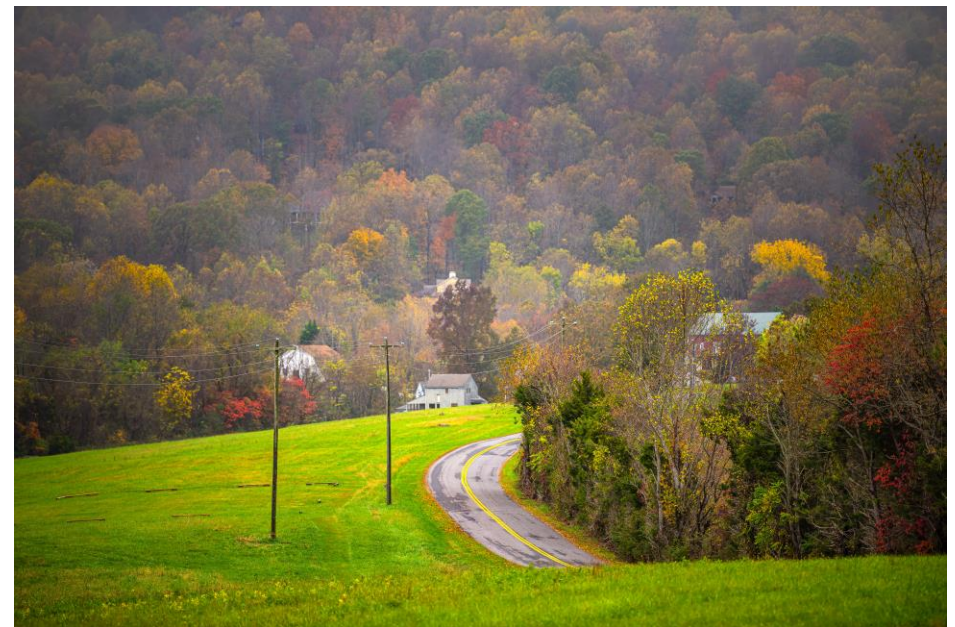
Industry Group	RRRC	TJPDC	Region 9	Virginia
All Other Manufacturing	-8%	-21%	-15%	5%
Clean Technology	6%	2%	3%	2%
Information Technology	2%	23%	17%	7%
Defense	15%	12%	13%	1%
Food and Agriculture	24%	16%	19%	5%
Nonprofits	-12%	-7%	-8%	2%

Source: Lightcast

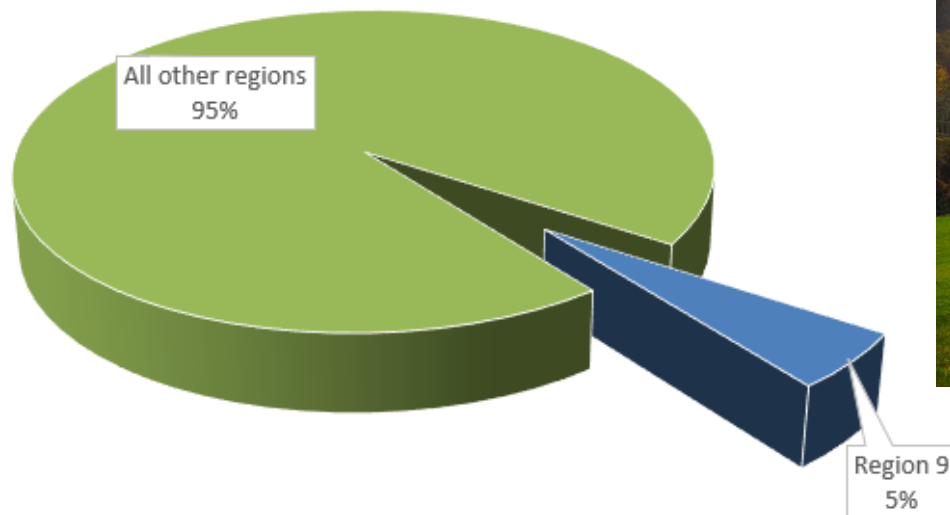
B. Tourism

Data compiled by the Virginia Tourism Corporation shows that Region 9 hospitality-related employment decreased 5% from 2018-2022. This is consistent with overall statewide figures showing a similar 5% decrease across the Commonwealth in both jobs and visitor expenditures. In 2022, the net jobs in this sector for Region 9 were 11,128, down 573 jobs from 2018. The total tourism expenditures in 2022 for Region 9 amounted to \$1,501,404,842.

The good news is that in 2024, both the region and the state have posted gains and have recaptured most of the pre-pandemic employment and economic benefits. The data presents another interesting fact: The counties represented in Region 9 also account for 5% of the total tourism jobs and visitor expenditures in Virginia.



Virginia Tourism Jobs & Visitor Expenditures



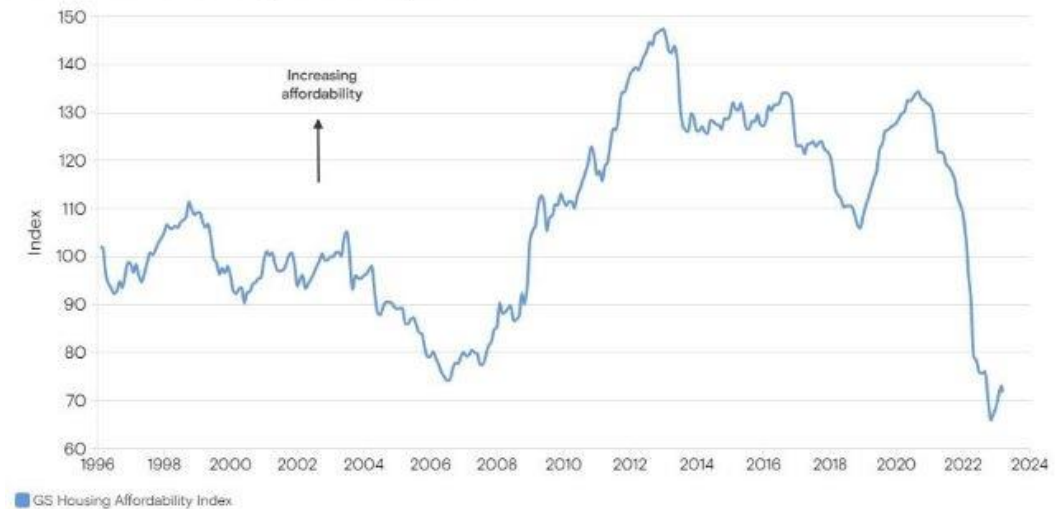
C. Housing

The United States is facing a national housing crisis that is financially impacting millions of people like no other time in recent memory. This is stifling economic growth in communities across the nation.

In 2020, with the assistance of Camoin Associates, the Rappahannock Rapidan Regional Planning Commission prepared an in-depth baseline and demand analysis, conducted zoning ordinance reviews for each county and three towns, and developed strategy recommendations as a first step towards addressing the situation.

US housing affordability at lowest levels in history

Goldman Sachs Housing Affordability Index



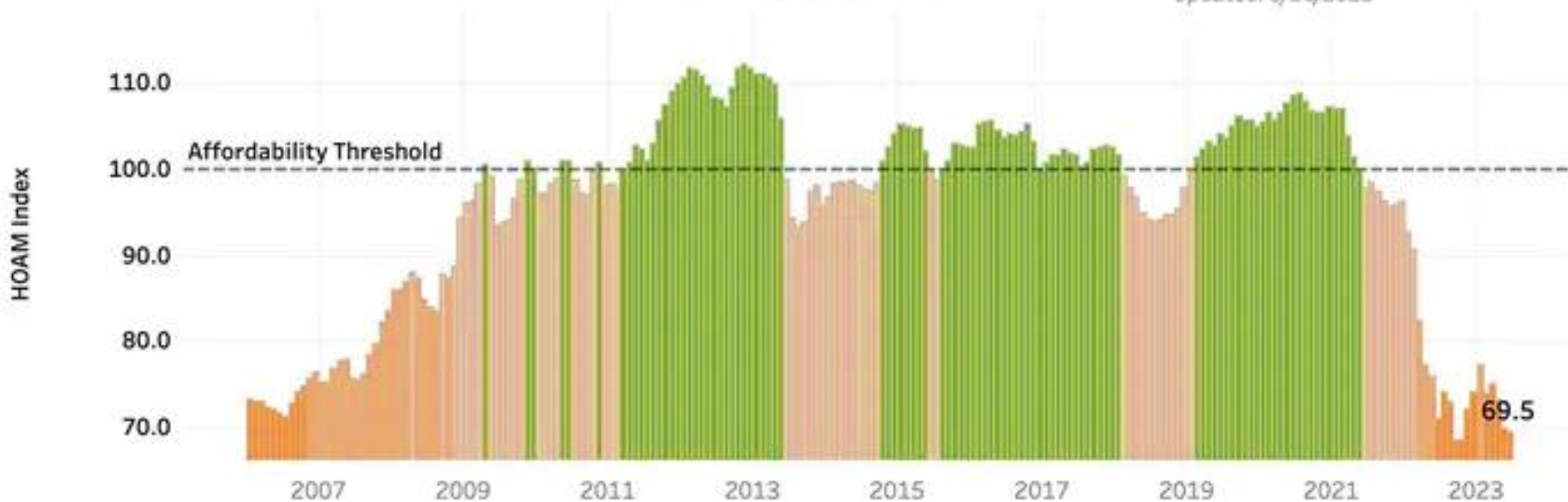
Source: Goldman Sachs Research (data as of March 8, 2023)

Goldman Sachs

Federal Reserve Bank of Atlanta National Home Ownership Affordability Monitor (HOAM) Index

Data through June 2023

Updated: 8/16/2023





Hundreds of communities across the nation have produced their own strategies to address housing shortages in recent years.

In a report prepared in 2023 for Virginia Housing, titled, *Housing as an Economic Development Strategy for Virginia*, some findings for GO Virginia's Region 9 were described as follows:

"Barriers to housing include **limited available land** for development, **competition** between home and commercial development for land, complicated **zoning and approval processes**, and **high costs** of home building. The city and counties charge unreasonably **high fees** for utility connections, especially for higher numbers of units. Further, **high property taxes** make home affordability difficult. Stakeholders report there is a **lack of funding** for affordable housing in the area, as HUD funds are limited and PDC development grants provide only some incentive for affordable housing. Getting materials for construction remains a challenge as the **supply chain** is still backlogged. Labor and construction costs are high, as well as interest rates. Participants also perceived a **lack of education** around housing." Chmura, November 10, 2023



Thirteen recommendations were outlined in the Virginia Housing report that reinforce the 42 recommendations in the Rappahannock-Rapidan 2020 housing report. The Region 9 Super Regional strategies include some critical steps that need to be taken to move some of those recommendations forward and begin to address similar needs in the Thomas Jefferson region.

Specifically, the Super Regional housing strategies attempt to address the fact that new partnerships are needed to meet the housing crisis head-on with a focus on land-use optimization to expand the inventory of diverse housing options for all people.

D. Sites and Infrastructure

Improving the regional product is often synonymous with site development.

Land on which to build new industrial, research, and office-based facilities is in high demand across the Commonwealth of Virginia. Prior to the pandemic, there were no Tier 3-5 sites available in Region 9 (that is, sites zoned properly, due diligence completed, or project ready.)

GO Virginia provided three grants to help address this situation. In 2018, \$58,675 was secured to benefit eight counties and eight sites. A second grant of \$600,850 was awarded to support Shannon Hill Regional Business Park, resulting in Tier 3 Certification and 700 acres advancing on the scale of readiness. A third grant for \$786,333, received in 2021, brought Shannon Hill to Tier 4 and assisted Wingspread and neighboring sites in Culpeper County.

In 2019, VEDP characterized 27 sites in the region, determining that there were three Tier 4, three Tier 3, and 21 Tier 1 and 2 sites. In 2023, a Business Ready Sites Program Development Award Grant provided \$11.59 million for Shannon Hill in Louisa County and \$3 million for North Fork in Albemarle County.

Site development is a very long process, taking years to reach "project-ready" status. Currently, the Central Virginia Partnership reports that Region 9 is missing out on prospective businesses and investors because it does not have enough sites.

Sites most frequently submitted for consideration over the past 3 years to VEDP, site selection consultants, and individual businesses:

- Shannon Hill Regional Business Park, Louisa County
- North Fork – A UVA Discovery Park, Albemarle County
- Dalro, Culpeper County
- Thomas E. Lee Industrial Park, Lot 10, Orange County (leased)
- SLC Financial, Culpeper County
- Wingspread, Culpeper County
- Villages at Terrace Greene, Greene County
- Albemarle Business Campus, Albemarle County
- Kent Corner, Culpeper County
- Stonehaven, Culpeper County

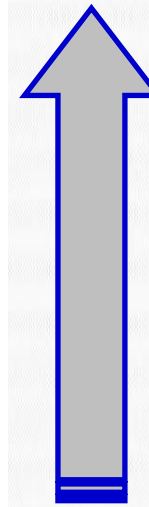
Source: Central Virginia Partnership

E. Workforce Development

As industries continue to evolve and new technologies disrupt traditional business models, the demand for a highly skilled and adaptable workforce exceeds any moment in recent history. At the same time, interviews and engagement with businesses documented that entry-level and mid-level positions are just as hard to fill as upper-level management jobs. These workforce limitations hinder the economic potential of businesses of nearly every size and across a myriad of industries.

Workforce development also plays a vital role in fostering inclusive and equitable economic growth across Region 9. By increasing the accessibility and awareness of training, education, and upskilling opportunities, communities can empower individuals from diverse backgrounds to gain the necessary skills and qualifications to secure well-paying jobs and contribute to the local economy. This not only enhances individual economic mobility but also strengthens the overall economic resilience of a region by cultivating a diverse and capable talent pool.

The ability of the system to draw in expertise from regional businesses and encourage industry-led initiatives will allow for a more adaptive approach where skills training can respond to what is happening on the ground floor of the region's industries. Prioritizing workforce development initiatives that collaborate with public, private, non-profit, and philanthropic sectors is essential for creating a robust and sustainable economic landscape that benefits all community members, from urban to rural settings.



Region 9 Occupations with the Highest Growth, 2018-2023

1. General and Operations Managers (1,442)
2. Stockers and Order Fillers(957)
3. Business Operations Specialists (681)
4. Project Management Specialists (614)
5. Software Developers (470)



Finding and developing talent must happen while skill profiles continue to morph — it's a moving target.



— *Shifting Skills, Moving Targets, and Remaking the Workforce*, May 2022, BCG, The Burning Glass Institute, Emsi/Burning Glass

3 STRATEGIC DIRECTION

The goals and initiatives are summarized below, and specific actions related to each initiative are detailed in the following pages.

GOAL 1

Expand economic opportunities in the Food and Beverage industry

- A. Provide specialized training, peers, and mentors to reach young people, recruit talent for specialized positions, and assist businesses with start-up, expansion, and access to new consumer markets.
- B. Leverage and overcome resistance to new technologies for agricultural biotechnology advances in animal and crop sciences and environmental resilience; promote greenhouses and controlled environment agriculture (“CEA”) and continue to expand rural infrastructure.
- C. Monitor land competition and conditions and support climate change research and investments in resilient infrastructure.

GOAL 2

Leverage Virginia’s clean tech assets to establish an expanded hub for innovation and Advanced Manufacturing

- A. Support Clean Energy planning most relevant to Region 9.
- B. Focus on building support for Clean Energy R&D and small-scale manufacturing initiatives.
- C. Support university-based collaboratives to advance R&D in next-generation commercial applications.
- D. Evaluate and build out the Clean Energy supply chain.

GOAL 3

Designate a Defense and Intelligence industry corridor

- A. Market corridor expanding from Fauquier to Orange, Greene, Albemarle counties and Charlottesville.
- B. Promote incentives such as a defense production zoning overlay.
- C. Focus on infrastructure investments to ready sites with necessary security precautions.
- D. Partner with existing employers to meet needs and provide job training and recruitment for specialized roles.

3 STRATEGIC DIRECTION

GOAL 4

Optimize the economic impact of the Information Technology and Digital Communications sectors

- A. Direct development to desired locations and demand the most advanced build-out to reduce the environmental impacts of data centers.
- B. Continue to target rural broadband deployment.
- C. Develop the workforce pipeline into one with cross-sector skill sets.
- D. Focus on supply chain high-technology manufacturing opportunities.
- E. Leverage private sector involvement for community improvements.

GOAL 5

Expand tourism-based product development and marketing

- A. Maximize public access to rivers and build accessible trailheads.
- B. Attract outdoor outfitters to complement recreational uses.
- C. Grow boutique hotels, B&Bs, resorts, glamping, and other accommodations with connections to smaller downtowns and commercial corridors.
- D. Consider marketing the region as Virginia's Recreational Ridge (R&R) to include the Northern River Blue Ridge/Western Piedmont-Foothill, spanning the counties of Nelson, Albemarle, Greene, Madison, and Rappahannock.

GOAL 6

Advance recommendations for a regional housing approach

- A. Aggressively expand inventory with new build, infill, and redevelopment projects.
- B. Pursue land assembly to align local land use with desired housing, incorporate data for informed decisions, and monitor plans for unnecessary displacement and gentrification.
- C. Strengthen partnerships with regional planners and public/private partnerships and establish creative financing mechanisms.

3 STRATEGIC DIRECTION

GOAL 7

Assess cooperative infrastructure development models to enhance site readiness initiatives

- A. Advance municipal support for existing and new sites.
- B. Streamline infrastructure-related approval processes.
- C. Retain an engineering firm to identify new sites and planned future development.

GOAL 8

Reimagine the employer-led talent pipeline

- A. Organize and maintain 2-3 private sector coalitions that have committed C-level participation.
- B. Reassess the talent pathways initiative to be more responsive to employer needs.
- C. Quantify demand for critical occupations every six months and evaluate primary goals such as talent retention, talent attraction, or direct learning.
- D. Continuously verify that credentials and skills taught in educational systems transfer to the private sector.
- E. Provide messaging directed to needs at different skill levels, engage employers in training and mentorship programs, and evaluate best-practice pre-apprenticeships, apprenticeships, returnships, micro-trainings, and paid training programs.
- F. Determine and measure the talent pipeline for in-demand occupations.
- G. Continuously measure results, adapt curriculum, learn from worker experiences, and use real-time intelligence from joint business retention and expansion visits with economic developers.
- H. Advocate at the state level for changes to the community college funding model.
- I. Continue to target messaging to retain talent in Central Virginia.

GOAL 1 **Expand economic opportunities in the Food and Beverage industry**

Opportunity Analysis: The Food and Beverage ecosystem presents a significant opportunity to grow through innovation and talent development. A regional focus on this sector promises not just economic growth but also strengthens connections with the broader economy while supporting local agriculture production. By addressing supply chain gaps and leveraging advancements in ag-tech and biotechnology, Region 9 can drive sustainable growth and create a more inclusive economic environment. Investing in the Food and Beverage ecosystem aligns seamlessly with GO Virginia industry targets, offering opportunities that span across the entire region. By embracing new technologies, it can help bridge rural-urban divides and unlock the potential to generate new jobs and economic investments. Additionally, exploring ag-tech and biotech research and application opportunities fosters connections between technology and sustainability, paving the way for a resilient industry ecosystem.

	Action	Rationale	Strategy Components
1.A	Provide specialized training, peers, and mentors to reach young people, recruit talent for specialized positions, and assist businesses with start-up, expansion, and access to new consumer markets	Alignment with GO Virginia Targets: Investing in this endeavor aligns perfectly with GO Virginia industry targets, contributing to the growth of the sector while advancing broader economic development goals.	Entrepreneurship/Resources/Training: Nurturing entrepreneurship within the sector involves providing resources, training, and mentorship opportunities. By making these accessible to youth and marginalized communities, we ensure a diverse and vibrant industry landscape.
1.B	Leverage and overcome resistance to new technologies for agricultural biotechnology advances in animal and crop sciences and environmental resilience; promote greenhouses and Controlled Environment Agriculture (CEA); and continue to expand rural infrastructure.	Advancements in Ag-tech and Biotech: Delving into ag-tech and biotech opens doors to greater potential, forging connections between technology and sustainability and driving innovation in the industry.	Technology: Embracing technology is crucial for driving growth in the food and beverage sector. Investments in agriculture biotech and advancements in areas like greenhouses and CEA hold immense potential for innovation and expansion.
1.C.	Monitor land competition and conditions and support climate change research and investments in resilient infrastructure.	Regional Opportunities: This initiative offers opportunities that span nearly the entire region, bridging the gap between rural and urban economies and fostering a more cohesive economic landscape.	Land Management: Monitoring land competition and conditions is essential, along with supporting research into the impacts of climate change. Investing in resilient infrastructure will be vital for ensuring the sector's long-term sustainability.

GOAL 2

Leverage Virginia’s clean tech assets to establish an expanded hub for innovation and Advanced Manufacturing

Opportunity Analysis: By focusing on the clean energy sector, Central Virginia can capitalize on R&D coming out of the Commonwealth’s academic institutions, research facilities, technology companies, and industry partnerships to foster innovation and develop cutting-edge solutions to advance statewide alternative energy strategies. The focus is for rural Virginia — specifically GO Virginia Regions 2 and 9 — to become an expanded hub that supports national growth opportunities. Region 9 is well positioned to support small-scale manufacturing related to the supply chain of Clean Energy industries, such as component manufacturing for solar energy, advanced small-scale nuclear, and energy storage systems. By strengthening the Clean Energy ecosystem in Central Virginia, anchored by Virginia Tech, Lynchburg, and the University of Virginia in Charlottesville, both regions can leverage their inherent resources to increase and attract investment, create high-quality jobs, and drive economic growth. This will spread the benefits throughout all communities in Region 9.

	Action	Rationale	Strategy Components
2.A	Support Clean Energy planning most relevant to Region 9.	State Clean Energy Portfolio: Virginia is committed to diversifying its energy portfolio, reducing reliance on fossil fuels and enhancing energy security and resilience.	Integrated Energy Planning: Support the development of a comprehensive energy plan that integrates resources to meet Central Virginia's energy needs sustainably and reliably while preserving farmland.
2.B	Focus on building support for Clean Energy R&D and small-scale manufacturing initiatives.	Job Creation and Economic Growth: By focusing on R&D initiatives and small-scale manufacturing in the Clean Energy sector, Central Virginia can create high-quality jobs, attract investment, and drive economic growth. These efforts will support the region's workforce, stimulate local businesses, and position Central Virginia as a leader in the clean energy economy.	Public-Private Partnerships: Foster collaboration between government, industry, academia, and other stakeholders to support small-scale energy projects and initiatives, leveraging successful examples seen in Fauquier County, Charlottesville, and Orange County. Establish partnership models that facilitate resource sharing, risk mitigation, and project financing while preserving farmland.

GOAL 2

Leverage Virginia’s clean tech assets to establish an expanded hub for innovation and Advanced Manufacturing

	Action	Rationale	Strategy Components
2.C	Support university-based collaboratives to advance R&D in next-generation commercial applications.	University R&D: The University of Virginia (UVA) and Virginia Tech have established degree programs and research relationships to train the next generation of experts and leaders needed to support the Clean Energy sector in the US and around the world. This includes cutting-edge, nuclear-related research and development that will drive next-generation reactors such as the advanced small modular reactors (SMRs) proposed for Southwest Virginia.	Clean Energy R&D: Allocate resources to support R&D initiatives in the Clean Energy sector, focusing on advanced nuclear, solar, and energy storage technologies. Collaborate with academic institutions, research organizations, and industry partners to accelerate innovation and clean energy solutions.
2.D	Evaluate and build out the Clean Energy supply chain.	Existing Business Base: Dozens of Virginia-based companies provide research and testing services, materials, supplies, security, and engineering-related services. Region 9 can build on this base of supply-chain-related businesses.	Business Development: Create incentives and support mechanisms to encourage the growth of Clean Energy businesses in Central Virginia, including startups and small-scale manufacturers. Provide access to funding, technical assistance, and business development resources to help entrepreneurs and businesses.
2.E	Establish policies to support small scale (versus utility scale) solar industry growth that preserves natural resources and farmland.	Small Scale Solar: Supporting the growth of the small-scale solar industry creates job opportunities, stimulates economic growth, and attracts investment to Central Virginia. By fostering a thriving clean energy economy, Central Virginia can position itself as a leader in the transition to renewable energy.	Education and Outreach: Raise awareness about the benefits of small-scale solar energy and promote public support for clean energy initiatives that prioritize farmland preservation. Educate policymakers, businesses, and communities about the opportunities and challenges associated with integrating small-scale solar energy into Central Virginia's energy mix while supporting local agriculture.

GOAL 3

Designate a Defense and Intelligence industry corridor

Opportunity Analysis: There is a significant opportunity to bolster economic output and create job opportunities coming out of Northern Virginia across various localities within GO Virginia Region 9 in the Defense and Intelligence industries. Note: Defense is not a GO Virginia targeted sector. However, by strategically designating a Defense and Intelligence corridor, Region 9 can harness the potential for growth and prosperity in this vital sector. With a focus on strategically designating and nurturing a Defense and Intelligence corridor, the region can advance economic output and job opportunities while promoting regional development and resilience. This initiative has the potential to transform communities, drive innovation, and create a brighter future for all stakeholders involved.

Action	Rationale	Strategy Components
3.A Market the corridor spanning from Fauquier to Orange, Greene, and Albemarle counties and the City of Charlottesville.	Alignment: It aligns with several components of GO Virginia targets, indicating that efforts will contribute to broader regional development goals. Jobs within the Defense and Intelligence industry tend to be high-paying, offering stability and prosperity to individuals and communities.	Marketing: A compelling value proposition must be developed and marketed externally for an expanded corridor across both regions.
3.B Promote incentives such as a defense production zoning overlay.	Rural Benefits: This initiative doesn't just benefit urban areas; it cuts across rural locations as well. By promoting the development of a Defense and Intelligence corridor, Region 9 can bridge the gap between rural and urban economies, ensuring that the benefits of growth are distributed equitably.	Infrastructure: Investments in infrastructure are crucial to the success of the corridor. This includes site readiness efforts at key locations, as well as investments in water and sewer expansion, roads, traffic signals, and potentially specialized security. These investments will not only attract businesses but also support their operations and growth.
3.C Focus on infrastructure investments to ready sites with necessary security precautions.		
3.D Partner with existing employers to meet needs and provide job training and recruitment for specialized roles.	Cross-Sectoral: The Defense and Intelligence industry has cross-sector applications. By fostering its growth, Region 9 promotes long-term economic stability and resilience, as well as opportunities for innovation and collaboration across various industries.	Partnerships: Collaboration is key to success in this endeavor. The region must coordinate with existing employers in related industries to understand their needs and opportunities for collaboration. Additionally, the focus needs to be on job training and talent attraction/retention for specialized roles within and without Central Virginia. By fostering partnerships, Region 9 can maximize the impact of the corridor and ensure its long-term success.

GOAL 4

Optimize the economic impact of the Information Technology and Digital Communications sectors

Opportunity Analysis: Given the dynamic evolution of technology, the Information Technology and Digital Communications sectors present a profound opportunity for economic advancement. By prioritizing quality jobs in industries driving cloud computing and digital technologies, we not only meet the demands of 21st-century industries but also align with regional targets for economic growth. This initiative promises to diversify rural economies, capitalize on exponential growth trends, and position Region 9 to capture some of the benefits of the digital revolution. Focusing on the economic impact of digital subsectors aligns seamlessly with GO Virginia targets, leveraging existing assets to amplify growth within these vital sectors. Beyond meeting immediate economic goals, this initiative addresses broader societal challenges by bridging the digital divide and fostering rural prosperity. Maximizing the economic impact of the region’s technology subsectors is not just an opportunity; it’s a necessity for the continued prosperity of communities that are part of the Rappahannock-Rapidan and Thomas Jefferson planning districts. Through strategic investment in land use, rural infrastructure, and cross-sector opportunities, the region can drive economic growth, foster innovation, and ensure a brighter future for generations to come.

	Action	Rationale	Strategy Components
4.A	Direct development to desired locations and demand the most advanced build-out to reduce the environmental impacts of data centers.	Land Use Optimization: Using planning tools such as Technology Overlay Districts and Innovation Corridors, Region 9 can strategically direct development to desired locations, promoting sector growth while minimizing environmental impact. Prioritizing advanced mechanisms to mitigate the environmental footprint of data center build-out ensures sustainable growth for future generations.	Stakeholder Engagement: Establish a collaborative framework involving key stakeholders from government, industry, and academia to drive implementation efforts and ensure alignment with regional objectives.
4.B	Continue to target rural broadband deployment.	Rural Investments: Targeting ongoing rural broadband deployment through initiatives like the BEAD program is essential to bridge the digital divide and ensure inclusive growth. Investing in rural infrastructure not only unlocks economic opportunities but also fosters community development and resilience.	Strategic Investment Allocation: Allocate resources to prioritize land use optimization, rural investments, and cross-sector initiatives, focusing on areas with the highest potential for economic impact.

GOAL 4

Optimize economic impact of Information Technology and Digital Communications sectors

	Action	Rationale	Strategy Components
4.C	Develop the workforce pipeline into one with cross-sector skill sets.	<p>Cross-Sector Opportunities: Building a robust workforce pipeline is imperative for the long-term success of the IT and telecommunications subsectors. The transferable skill sets developed in these subsectors catalyze economic growth and innovation across various industries. Exploring supply chains connected to high-tech manufacturing and leveraging private sector involvement for community improvements further amplifies the economic impact.</p>	<p>Policy Advocacy: Advocate for supportive policies at the state and local levels to incentivize investment in IT and telecommunications infrastructure and workforce development.</p>
4.D	Focus on supply chain high-technology manufacturing opportunities.		<p>Monitoring and Evaluation: Implement robust monitoring and evaluation mechanisms to track progress, identify challenges, and adapt strategies accordingly to ensure continued alignment with regional goals.</p>
4.E	Leverage private sector involvement for community improvements.		

GOAL 5 **Expand tourism-based product development and marketing**

Opportunity Analysis: In Central Virginia, a compelling opportunity emerges to elevate the visitation economy through strategic investments in product development, increased marketing, and diverse entertainment amenities. By expanding offerings that cater to both visitors and residents, Region 9 can unlock the region's economic potential while preserving its rich cultural heritage, fostering job creation, and helping downtown retail. By showcasing the region's diverse offerings, the region can sustain tourism benefits by attracting a broader audience, driving economic growth and generating increased tax revenue to enable further investments in the community. This initiative not only drives economic growth and job creation but also fosters community development and preserves the region's unique outdoor assets and heritage.

	Action	Rationale	Strategy Components
5.A	Maximize public access on rivers and build accessible trailheads.	Maximizing Public Access: Enhancing public access to rivers and building accessible trailheads promotes outdoor recreation and complements recreational uses. This initiative not only attracts tourists but also encourages residents to engage in recreational activities, enhancing overall quality of life.	Infrastructure Development: Invest in infrastructure projects to maximize public access to rivers, build accessible trailheads, and support outdoor recreation activities.
5.B	Attract outdoor outfitters to complement recreational uses.	Attracting Outdoor Outfitters: Collaborating with outdoor outfitters enhances the region's appeal to adventure enthusiasts, diversifying tourism offerings and extending visitor stays.	Partnership Building: Forge partnerships with outdoor outfitters to enhance the region's outdoor recreational offerings and attract adventure-seeking visitors. Stakeholder Engagement: Establish a multi-stakeholder task force including representatives from government, tourism boards, local businesses, and community organizations to drive implementation efforts.

GOAL 5 **Expand tourism-based product development and marketing (cont'd)**

	Action	Rationale	Strategy Components
5.C	Grow boutique hotels, B&Bs, resorts, glamping, and other accommodations with connections to smaller downtowns and commercial corridors.	Expanding Accommodations: Actively growing glamping, boutique/B&B, resorts, and other accommodations bolsters the region's hospitality sector. By building connections to smaller downtowns and commercial corridors, we spread economic benefits across urban and rural areas.	Hospitality Expansion: Facilitate the growth of accommodations such as glamping sites, boutique/B&Bs, and resorts, fostering connections to smaller downtowns and commercial corridors.
5.D	Consider marketing the region as Virginia's Recreational Ridge (R&R) to include the Northern River Blueridge/Western Piedmont-Foothill, spanning the counties of Nelson, Albemarle, Greene, Madison, and Rappahannock.	R&R Initiative: Introducing the Recreational Ridge (R&R) concept in the Northern River Blueridge/Western Piedmont-Foothill counties (Nelson, Albemarle, Greene, Madison, Rappahannock) promotes regional collaboration and positions Central Virginia as a premier recreational destination.	R&R Initiative Launch: Launch the Recreational Ridge (R&R) initiative in designated counties, promoting collaboration and leveraging regional strengths to enhance the visitor experience.

Opportunity Analysis: Central Virginia faces significant housing pressures, presenting a critical opportunity to proactively address these challenges through tailored development approaches. Recognizing housing as an economic development issue, this Super Regional strategy aims to expand housing inventory, optimize land use, and foster strategic partnerships to ensure equitable access to housing for all residents. The housing shortage in Central Virginia not only impacts residents' quality of life but also poses economic challenges. Addressing this issue can stimulate economic growth, attract talent, and enhance overall community well-being. By advancing recommendations for a regional housing approach, Central Virginia can proactively address housing pressures and produce more sustainable development. Through collaboration, data-driven decision-making, and creative financing solutions, Region 9 can ensure more inclusive, sustained development that builds more vibrant and thriving communities for future generations.

	Action	Rationale	Strategy Components
6.A	Aggressively expand inventory with new build, infill, and redevelopment projects.	Expanding Inventory: Take a multi-faceted approach to expanding housing inventory, including new builds, infill development, and redevelopment projects. By diversifying housing options, Region 9 can meet the varied needs of residents and promote inclusive growth.	<p>Stakeholder Engagement: Establish a collaborative framework involving local governments, developers, community organizations, and residents to drive housing initiatives forward.</p> <p>Policy Alignment: Work closely with local governments to align land use policies with housing objectives, facilitating streamlined development processes and incentivizing affordable housing initiatives.</p>
6.B	Pursue land assembly to align local land use with desired housing, incorporate data for informed decisions, and monitor plans for unnecessary displacement and gentrification.	Land Use Optimization: Aligning local land use policies with desired housing outcomes is essential. This involves pursuing land assembly and leveraging underutilized properties, including those owned by public and educational institutions. Data-driven decision-making ensures that housing initiatives are responsive to market needs while mitigating risks of displacement and gentrification.	<p>Data-Driven Decision-Making: Invest in robust data collection and analysis to inform housing strategies and identify areas of need. Regular monitoring ensures that housing initiatives remain responsive to evolving market dynamics.</p> <p>Creative Financing Solutions: Explore innovative financing mechanisms, such as low-interest loans, tax incentives, and public subsidies, to support individuals and developers in housing endeavors.</p>

GOAL 6**Advance recommendations for a regional housing approach (cont'd)**

	Action	Rationale	Strategy Components
6.C.	Strengthen partnerships with regional planners and public/private partnerships and establish creative financing mechanisms.	Partnership Development: Creative financing mechanisms for both individuals and developers are crucial to unlocking housing opportunities. Public-private partnerships and collaboration with Planning District Commissions (PDCs) amplify resources and expertise, facilitating the implementation of comprehensive housing solutions.	Partnership Formation: Forge strategic partnerships with private developers, financial institutions, and community organizations to leverage resources and expertise in housing development and financing.

GOAL 7

Assess cooperative infrastructure development models to enhance site readiness initiatives

Opportunity Analysis: The Central Virginia region stands at a critical juncture, poised for significant economic growth and expansion. However, current constraints in zoned sites and developable acreage hinder the region's ability to compete for transformative projects. A comprehensive analysis reveals a lack of available sites that can accommodate significant investment projects. While efforts have been made to secure funding and develop key sites like the Shannon Hill Regional Business Park and North Fork, gaps persist in site readiness and infrastructure development. To capitalize on the region's potential, strategic initiatives focused on site readiness efforts and infrastructure build-out are imperative. The identified opportunity lies in identifying new sites and preparing those existing sites to attract businesses across target industry sectors. The scarcity of mega-sites coupled with the predominance of small industrial sites underscores the urgency for intervention. This scarcity poses a barrier to competitiveness in securing growth sectors crucial for economic advancement. By prioritizing site readiness efforts and infrastructure build-out, Central Virginia can unlock its full economic potential and position itself as a competitive destination for investment and growth.

	Action	Strategy Components	Tactics
7.A	Advance municipal support for existing and new sites.	Strategic Funding Allocation: Secure additional funding to expedite site readiness efforts and infrastructure development. Continued investment is critical to bring more sites to project-ready status and identify future land needs.	Establish a task force comprising key stakeholders to oversee implementation efforts. Retain a leading engineering firm to conduct a thorough assessment of available sites and formulate a development strategy.
7.B	Streamline infrastructure-related approval processes.	Public-Private Collaboration: Foster collaboration between municipal governments, private sector stakeholders, and engineering firms to streamline infrastructure-related approval processes and identify new development sites.	Work closely with municipal governments to expedite approval processes and remove regulatory barriers. Leverage existing funding mechanisms and explore innovative financing solutions to support infrastructure development initiatives.
7.C.	Retain an engineering firm to identify new sites and planned future development.	Long-Term Planning: Develop a long-term plan for infrastructure build-out, incorporating foresight into future land needs and growth projections. Investment Prioritization: Prioritize investment in projects with high potential for economic impact, leveraging data-driven insights to guide decision-making.	

GOAL 8

Reimagine the employer-led talent pipeline

Opportunity Analysis: This Super Regional strategy lays the groundwork for a workforce consortium dedicated to advancing demand-based occupations. By reimagining the employer-led talent pipeline, Region 9 can ensure a steady supply of skilled workers tailored to meet the evolving needs of the region's industries. This initiative aligns seamlessly with the GO Virginia mandate, underscoring a commitment to fostering a vibrant and resilient economy. The imperative is to realign efforts with industry needs and insights, fostering agility and responsiveness to changing market dynamics. By aligning efforts with industry needs and fostering collaboration across sectors, this initiative lays the foundation for a more agile, responsive, and effective workforce ecosystem characterized by sustained economic growth and prosperity.

	Action	Rationale	Strategy Components
8.A	Organize and maintain 2-3 private sector coalitions that have committed C-level participation.	Talent Pipeline Management: Rigorous verification of credentials and skills ensures alignment with the private sector and educational systems. Tailored messages tailored to workers at different skill levels maximize engagement and effectiveness. Incentivizing employer-led training and mentorships fosters active involvement in the pipeline.	Stakeholder Engagement: Establish a collaborative framework involving key stakeholders from government, industry, and academia to drive implementation efforts.
8.B	Reassess the talent pathways initiative to be more responsive to employer needs.		Program Development: Design and implement tailored training programs that are aligned with industry demands and workforce needs.
8.C	Quantify demand for critical occupations every six months and evaluate primary goals such as talent retention, talent attraction, or direct learning.	Training and Development: Evaluation of various tactics, including pre-apprenticeships, apprenticeships, returnships, microtraining, and paid training is essential to growing the local workforce. Leveraging programs like Virginia TOP enhances skill development and job readiness, aligning talent with industry demands.	
8.D	Continuously verify that credentials and skills taught in educational systems transfer to the private sector.		

GOAL 8

Reimagine the employer-led talent pipeline (cont'd)

	Action	Rationale	Strategy Components	
8.E	Provide messaging directed to needs at different skill levels, engage employers in training and mentorship programs, and evaluate best-practice pre-apprenticeships, apprenticeships, returnships, micro-trainings, and paid training programs.	<p>Measurement and Adaptation: Continuous measurement of the talent pipeline for in-demand occupations facilitates progress tracking and identifies areas for improvement. Real-time evaluation and curriculum adaptation based on joint business retention and expansion (BRE) visits ensure alignment with industry needs.</p>	<p>Measurement and Evaluation: Deploy robust measurement mechanisms to track progress and adapt strategies in real-time based on industry feedback.</p>	
8.F	Determine and measure the talent pipeline for in-demand occupations.			
8.G	Continuously measure results, adapt curriculum, learn from worker experiences, and use real-time intelligence from joint business retention and expansion visits with economic developers.	<p>Advocacy: Advocating for state-level changes to the community college funding model is critical for supporting workforce development initiatives.</p>		
8.H	Advocate at the state level for changes to the community college funding model.	<p>Messaging: Continued messaging emphasizes the importance of retaining talent in Central Virginia and underscores regional opportunities. Connecting to data from the Talent Pathways Initiative reinforces the significance of investing in the local workforce.</p>		<p>Advocacy Campaigns: Engage in targeted advocacy campaigns to effect policy changes conducive to workforce development and talent retention.</p>
8.I	Continue to target messaging to retain talent in Central Virginia.			

4 IMPLEMENTATION

Team Effort

Implementing the Super Regional Strategies will be a team effort.

Three of the goal areas directly relate to GO Virginia's high-growth industry priorities and initiatives and are expected to become part of its agenda moving forward. They are not intended to replace existing target industries. These three are:

- GOAL 1** Agriculture/Food & Beverage
- GOAL 2** Clean Technology (Related to IT-Manufacturing)
- GOAL 4** IT-Digital Technology

The defense industry is not currently a targeted industry for GO Virginia's Region 9.

- GOAL 3** Defense/Intelligence

Knowledge and innovations in defense-related industries, however, such as advances with cybersecurity, can have direct impacts on other target industries – especially IT-Digital Technology.

Working with GO Virginia, partners for Goals 1 - 4 would be regional planning commissions, the workforce development system, and county economic developers, SBDC/Venture Central, and the CVPED.

For Goal 2, consideration might be given to having the Charlottesville Renewable Energy Alliance and the Community Climate Collaborative Green Business Alliance take an active role.

Implementation roles and responsibilities for Goals 5-8 need to be determined.

- GOAL 5** Tourism
- GOAL 6** Housing
- GOAL 7** Infrastructure
- GOAL 8** Talent

Goal 5 may be advanced by current hospitality and tourism professionals in the region, together with support from the Virginia Tourism Corporation.

Goal 6 is best coordinated by the respective regional planning commissions continuing to work closely together.

Goal 7 is currently a primary interest of the Central Virginia Partnership. To further all counties in Region 9, CVPED would need the support of a representative from Fauquier County.

Goal 8 is best coordinated by workforce development professionals and community college administrators committed to working in closer partnership with private sector leaders.

ABOUT CAMOIN ASSOCIATES

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