

Comprehensive Economic Development Strategy

Thomas Jefferson Planning District Commission

In partnership with GO Virginia Region 9

Appendix I

Comprehensive Economic Development Strategy

THOMAS JEFFERSON PLANNING DISTRICT COMMISSION

May 2023

PREPARED FOR:

Thomas Jefferson Planning District Commission
401 E. Water St.
Charlottesville, VA 22902



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INTRODUCTION

The purpose of this document is to provide the initial data and analysis for the required summary background document and serve as the foundation for the Thomas Jefferson Planning District Commission's (TJPDC) Comprehensive Economic Development Strategy (CEDS) process.

The subjects analyzed in the document include:

Economic and Demographic Data: The economic and demographic data includes existing and projected trends for population, income, number of households, median age, as well as race and ethnicity. As we build upon the economic and demographic data, we will look to identify key indicators that will assist in identifying areas of strength, weakness, and opportunity.

Real Estate Data: The real estate data gives us a snapshot of the region's current real estate market. We researched several real estate sectors and analyzed trends based on vacancy, absorption, and existing housing stock. As we continue through the CEDS process, we will build upon this data to include opportunities for development and redevelopment.



ECONOMIC AND DEMOGRAPHIC KEY FINDINGS

DEMOGRAPHIC PROFILE

The majority of TJPDC's population (61.7% in 2022) lives in Albemarle County and the City of Charlottesville. This trend is also expected to continue when looking at the forecasted population for 2030, 2040, and 2050. However, the City of Charlottesville has been experiencing population decline since 2019. It will remain home to a large portion of the region's total population, but those numbers are expected to decline by 4% between 2020-2030. The population of the TJPDC is projected to continue to increase through 2050. As expected, most of the growth is being carried by Albemarle County but Louisa County's population also shows significant growth during the same period.

The region's average household size of 2.41 is smaller than the state (2.53) and nation (2.55). This could be attributed to the large number of young people living in the City of Charlottesville. However, the region did outpace both the state and nation in household growth from 2010-2020. This growth is in line with the population growth the region has also experienced.

Despite the City of Charlottesville's age distribution being heavily weighted towards teens and young professionals in the 15-24 age group, **the region has a slightly higher median age when compared to the state and nation.** The region's median age could be skewing higher due to Nelson County's median age of 51.4, which is 12.2 years greater than the state's median age.

The largest component of the region's population growth comes from domestic migration. From 2010-2021 the state saw negative domestic

migration (meaning people are moving out of the state) while the TJPDC has seen consistent net growth in domestic migration. In 2020, the City of Charlottesville was the only place in the region that saw negative migration. This migration away from the City of Charlottesville may be the result of the exodus from densely populated areas seen across the nation as a result of the COVID-19 pandemic.

The region is less racially diverse than the state and nation. Seventy-two percent (72%) of the region's population is white, compared to 58% in the state and 57% for the US.

The median annual income for households in the region is \$81,318, which is slightly lower than the state's median income of \$82,443. However, the region outpaces the national median household income (\$72,414) by almost \$10,000. The household income distribution shows that the region has a lower percentage of households making \$34,999 or less than the state and nation. They also have a higher percentage of households earning between \$75,000 and \$99,999 than the state and nation.

The region has strong educational attainment numbers. Forty-seven percent (47%) of the region has a bachelor's degree or higher. This is compared to 41% for the state and 35% for the US. This can be attributed to the University of Virginia, which is located within the region.



ECONOMIC PROFILE

The region's unemployment rate steadily decreased from 2012 to 2019. During the pandemic, unemployment rates spiked to over 5.5% in some localities but have since rebounded to pre-pandemic rates.

Even though the region is showing steady population growth, **the rate of job growth outpaced the region's population growth in 2021 and 2022.**

From 2017-2022, the region's employment base grew by 3%, significantly outpacing both the state (1.3%) and nation (1.9%). Despite the region's strong employment growth, losses were experienced by individual counties, including a decrease of 5.4% in Nelson County's employment base during the same period.

Based on the number of jobs, **Government is by far the leading industry in the region.** Government accounted for 41,833 jobs or nearly one-third of the region's total jobs. It is important to acknowledge that these Government jobs include public education and healthcare institutions, like the University of Virginia. Health Care and Social Assistance is the second largest industry with 9.3% of the region's jobs.

The two leading industries for jobs (Government and Health Care) also had the highest job growth in the region from 2017-2021. Government grew by 4,144 jobs and Health Care grew by 1,246 jobs. On the other end of the spectrum, Accommodation and Food Service and Construction lost the largest number of jobs during the same period (-1,586 and -845 respectively). The top three occupation groups in the

region for 2022 were: 1. Office and Administrative Support, 2. Educational Instruction and Library, and 3. Healthcare Practitioners and Technical.

The region's average annual earnings for 2022 come in significantly lower than the state and US. The average annual earnings for the TJPDC is \$69,173, in comparison to \$78,710 and \$77,767 for the state and US respectively.

The region increased the number of payroll business locations by 5% between 2017-2021. This did lag the state and nation, which saw increases of 10% and 10.9% respectively. Fluvanna County and Louisa County saw bigger increases than the state and nation (13.1% and 11.7% respectively).

The TJPDC has grown its gross regional product (GRP) by 19.7% since 2017, which is a higher increase than the state (17.4%) and the US (18.7%). It is important to point out that all locations within the region grew their GRP between 2017 and 2021.

In 2022, **the region showed a favorable competitive effect score of 1,563.** The State of Virginia had a competitive effect score of -50,750. The competitive effect score indicates that there are 1,563 more occupations in the TJPDC than would be expected for a region of this size.

The TJPDC is a net importer of workers. Sixty-eight percent (68%) of the population live and work in the region, and 39% of workers commute from outside the region.



REGIONAL OVERVIEW

The Thomas Jefferson Planning District (TJPDC) consists of five counties and one city: Albemarle, Fluvanna, Greene, Louisa, and Nelson counties; and the City of Charlottesville.

The following table indicates the region's proximity to larger population centers to better understand its location relative to its surroundings.

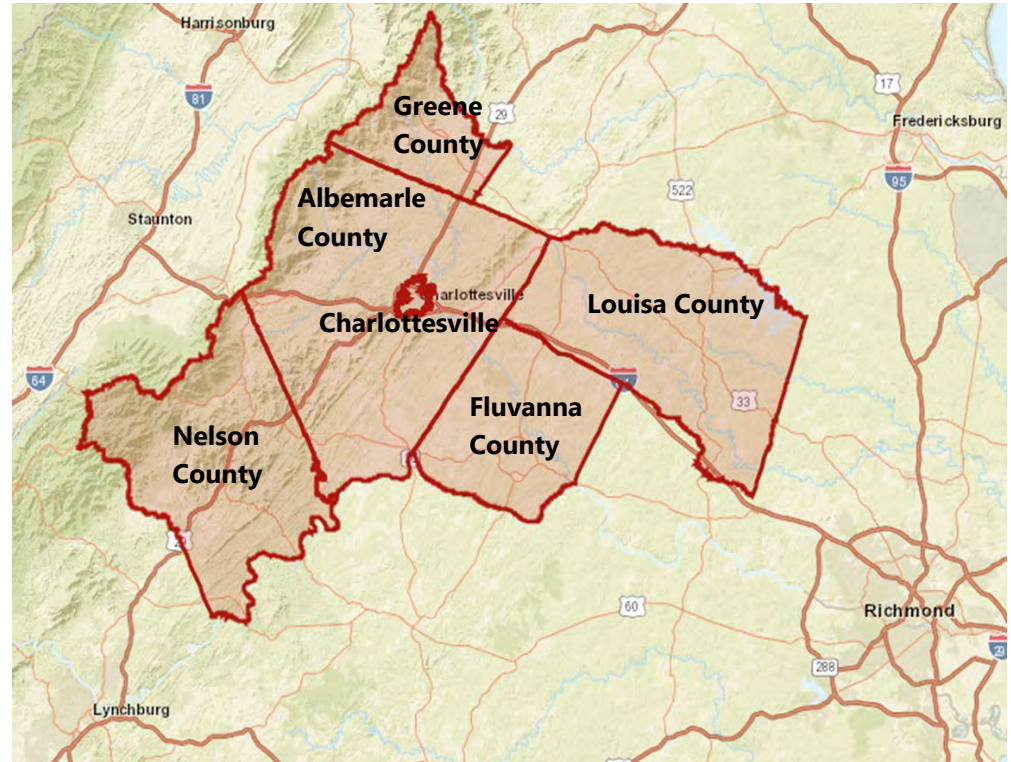
Thomas Jefferson Planning District Distance to Population Centers

Destination	Distance (miles)	Direction
Staunton, VA	18	West
Fredericksburg	28	Northeast
Lynchburg, VA	30	Southwest
Harrisonburg	32	Northwest
Richmond, VA	34	Southeast
Washington DC	100	Northeast

Distance is to nearest region border

Source: GoogleMaps, ArcGIS

Thomas Jefferson Planning District



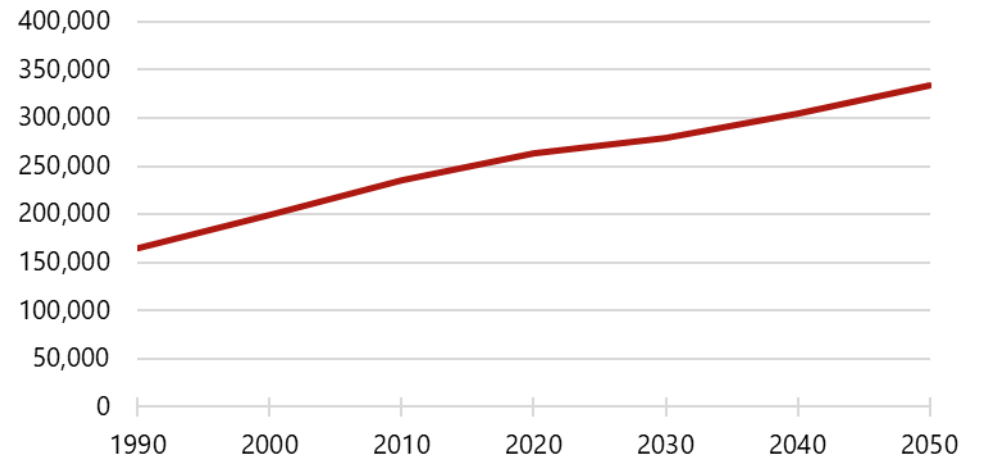
DEMOGRAPHIC PROFILE

Population Totals

In 2022, the Thomas Jefferson Planning District (TJPDC) had a total population of 270,319 based on Weldon Cooper estimates¹. The primary population drivers for the region are Albemarle County (2022 population of 115,495) and the City of Charlottesville (2022 population of 51,278). Combined, the two areas represent 61.7% of the region's total population. The smallest county in the region is Nelson County with a 2022 population of 14,322.

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

Thomas Jefferson Planning District



Source: Weldon Cooper

Total Population

Region	Population							
	1990	2000	2010	2020	2022	2030	2040	2050
Albemarle County	68,172	84,186	99,010	112,395	115,495	124,016	138,523	155,102
City of Charlottesville	40,475	40,099	43,435	51,050	51,278	48,920	48,939	49,691
Fluvanna County	12,429	20,047	25,691	27,249	27,843	28,394	31,523	35,124
Greene County	10,297	15,244	18,403	20,552	21,165	22,376	24,661	27,315
Louisa County	20,325	25,627	33,153	37,596	39,725	41,436	46,722	52,706
Nelson County	12,778	14,445	15,020	14,775	14,813	14,322	14,273	14,438
Thomas Jefferson Planning District	164,476	199,648	234,712	263,617	270,319	279,464	304,640	334,376
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

¹ Source: Weldon Cooper for County and State Estimates; US Census and Congressional Budget Office for National Estimates

Decennial Census thus some discrepancy from Census Estimates is expected.

2020



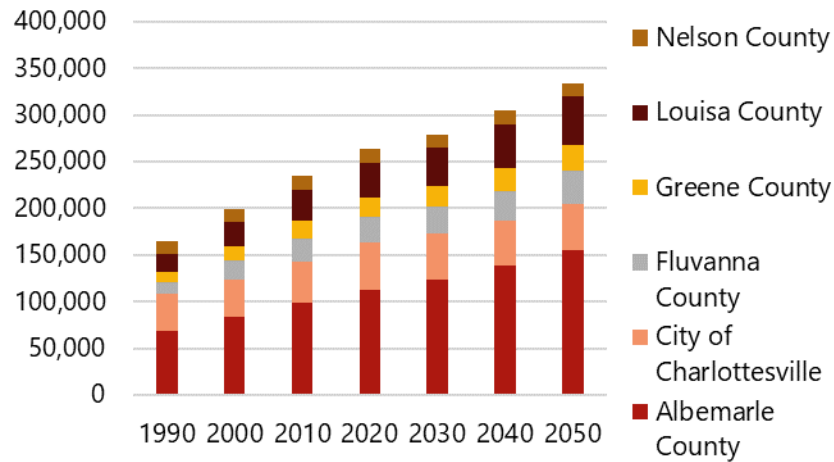
Population Growth

The population of the region has been increasing and is projected to continue to increase through 2050. This growth has been mostly carried by Albemarle and Louisa counties, as they have contributed to the greatest increases in population in each decade, averaging 73% of the growth in the region as whole. From 2020-2022, Albemarle County and Louisa County were responsible for 78% of the region's total growth.

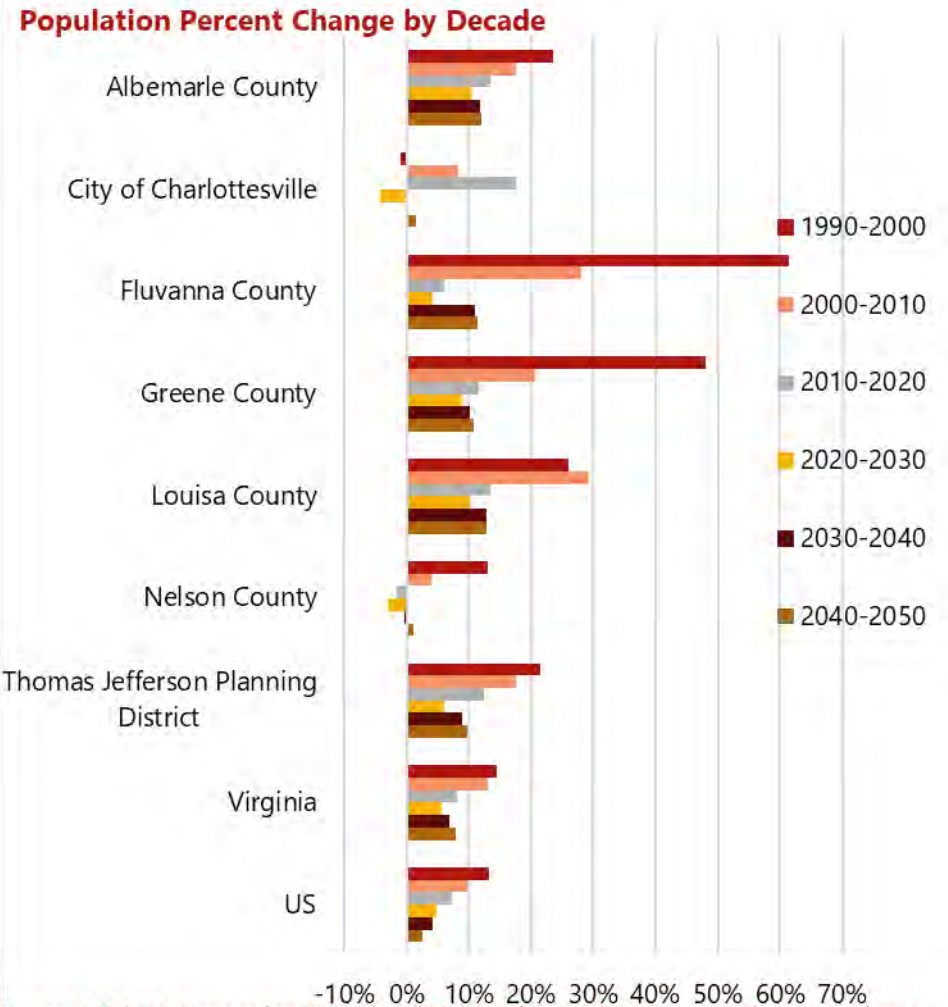
Nelson County and Charlottesville are projected to decrease in population from 2020-2030, falling 3% and 4%, respectively.

Population growth in the TJPDC has also been greater than the growth rate at both the state and national level.

Total Population by Decade



Source: Weldon Cooper



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



The TJPDC’s compound annual growth rate (CAGR), which shows the average yearly growth during each decade, further illustrates how the region has outpaced growth at the state and national level, with a higher rate in each respective decade. Within the region; Louisa, Albemarle, and Fluvanna counties have seen the highest rates of growth since 1990.

Looking into the future, the region’s growth is projected to accelerate, mirroring the state (albeit at a higher rate) through 2050, while the nation’s growth is expected to decelerate over the next 30 years.

Compound Annual Growth Rate

Region	CAGR						
	1990-2000	2000-2010	2010-2020	2020-2022	2020-2030	2030-2040	2040-2050
Albemarle County	2.1%	1.6%	1.3%	1.4%	1.0%	1.1%	1.1%
City of Charlottesville	-0.1%	0.8%	1.6%	0.2%	-0.4%	0.0%	0.2%
Fluvanna County	4.9%	2.5%	0.6%	1.1%	0.4%	1.1%	1.1%
Greene County	4.0%	1.9%	1.1%	1.5%	0.9%	1.0%	1.0%
Louisa County	2.3%	2.6%	1.3%	2.8%	1.0%	1.2%	1.2%
Nelson County	1.2%	0.4%	-0.2%	0.1%	-0.3%	0.0%	0.1%
Thomas Jefferson Planning District	2.0%	1.6%	1.2%	1.3%	0.6%	0.9%	0.9%
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 104,685 households in the region in 2022, a number that has grown steadily since 2010. As is expected based on the population totals, Albemarle County and Charlottesville have the most households in the region while Nelson County has the fewest.

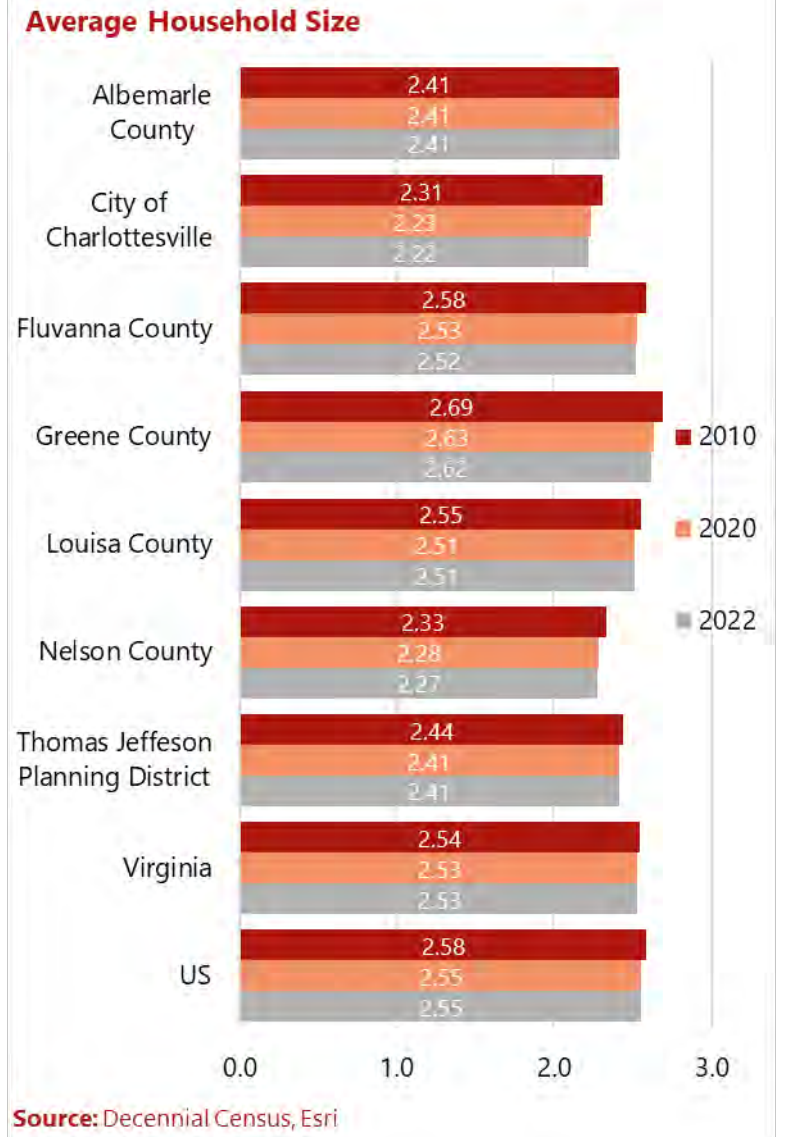
Households in the region are smaller in size on average at 2.41 compared to 2.53 for the state and 2.55 for the nation. Greene County has the largest household size at 2.62 and Charlottesville has the smallest household size at 2.22 in 2022.

From 2010-2020, all households within the region decreased in size, with Charlottesville falling the most, from 2.31 in 2010 to 2.23 in 2020. The state and nation have also both decreased in average household size over the last decade. This is important to note as a decreasing household size is an indication of an aging population, therefore it can be concluded that the region as whole is aging, in line with state and national trends.

Average Household Size

	2010	2020	2022
Albemarle County	2.41	2.41	2.41
City of Charlottesville	2.31	2.23	2.22
Fluvanna County	2.58	2.53	2.52
Greene County	2.69	2.63	2.62
Louisa County	2.55	2.51	2.51
Nelson County	2.33	2.28	2.27
Thomas Jefferson Planning District	2.44	2.41	2.41
Virginia	2.54	2.53	2.53
US	2.58	2.55	2.55

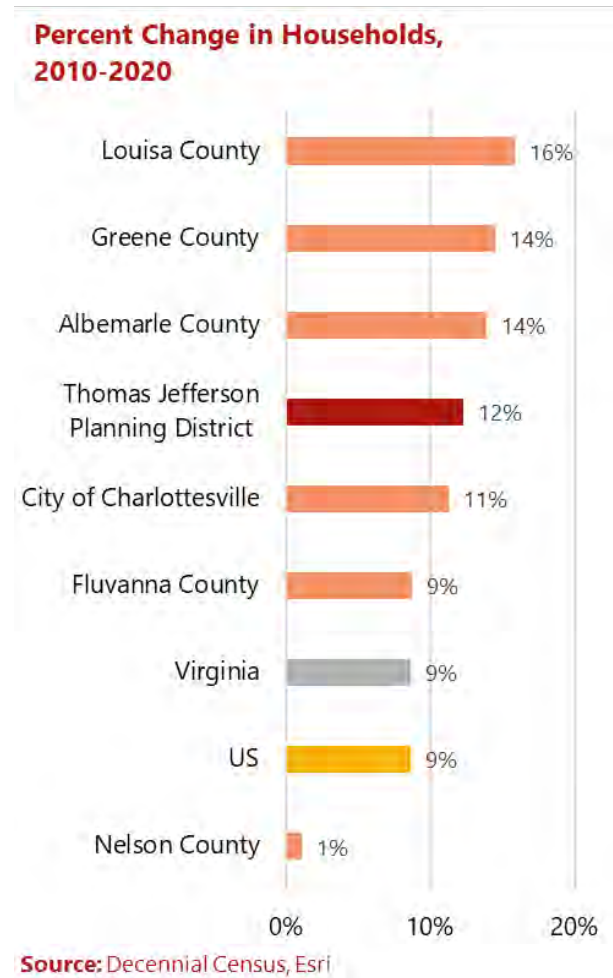
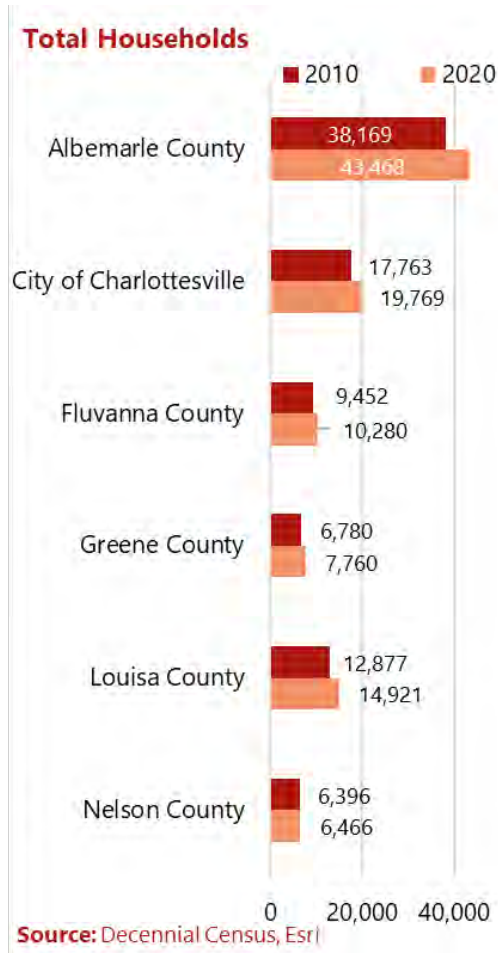
Source: Decennial Census, Esri



Household Growth

The growth in the total number of households in a region informs the number of new housing units that a region needs. In the TJPDC, the number of households increased by 12% from 2010 to 2020. This growth outpaced the state and national rate of 9%. Louisa and Greene counties

experienced the greatest household growth at 16% and 14%, respectively, while Nelson County has the smallest household growth at 1%. Nelson County's growth also lagged behind that of Virginia and the US while the growth in all other geographies exceeded the state and national rates.



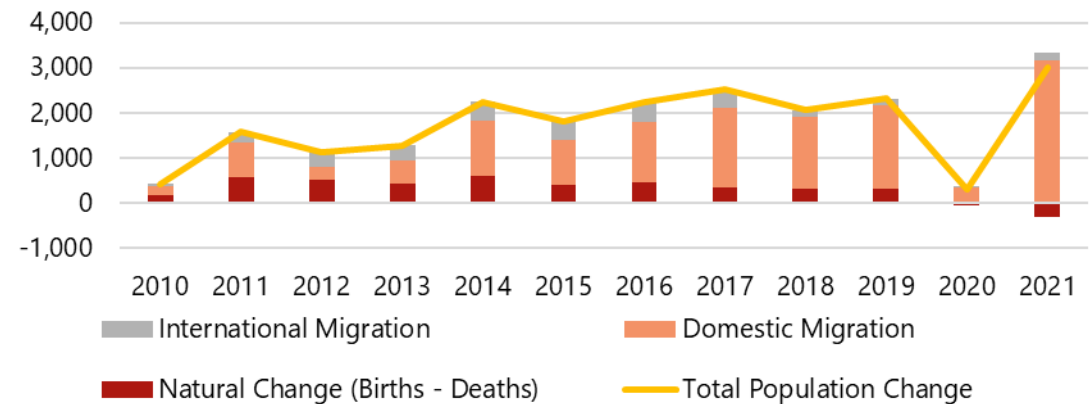
Components of Population Change

The largest source of population growth in the TJPDC has been from domestic migration with people migrating into the region from elsewhere in the United States. While domestic migration in the region has been net positive, domestic migration has been net negative at the state level. Despite this, the state’s population change remained positive each year from 2010-2021.

International migration is a much more significant contributor to population growth at the state level, year over year. However, it has not been a significant driver of population changes in the TJPDC.

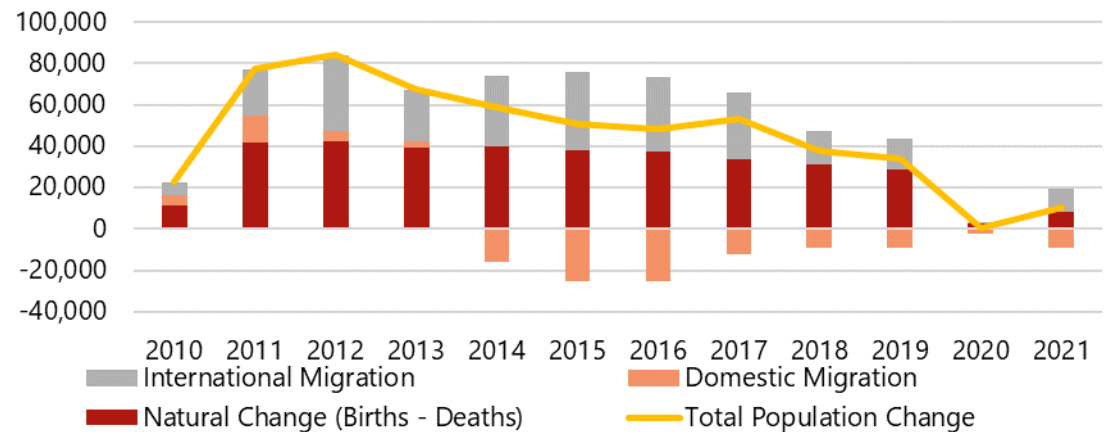
From 2010-2021, population change in the region has been positive each year. Births have outnumbered deaths year to year within the region, except in 2020 and 2021, which can likely be attributed to the COVID-19 pandemic.

Thomas Jefferson Planning District- Components of Population Change, 2010-2021



Source: Census 2021 Population Estimates

Virginia - Components of Population Change, 2010-2021



Source: Census 2021 Population Estimates

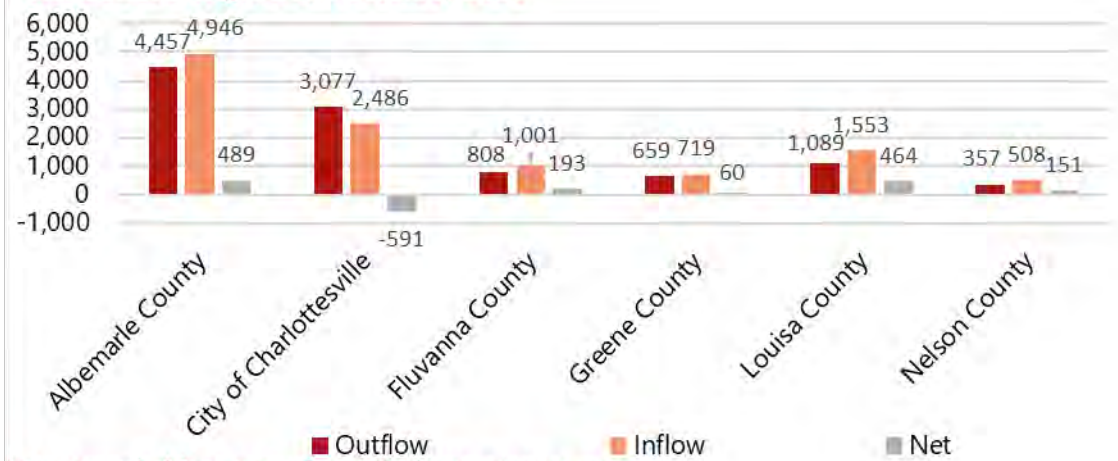


Migration

Based on IRS migration² data, a considerable number of new residents have relocated to the region, with all but one of the region’s counties experiencing positive net migration overall. Only Charlottesville saw negative migration in 2020.

The table below further delves into the 2020 IRS migration figures, adding the average adjusted gross income (AGI) of inbound and outbound movers. In every county, inbound movers had a higher average AGI than the outbound movers. This difference is most notable in Charlottesville, which had outbound movers with an average AGI of \$65,358 and inbound movers with a \$31,271 higher AGI at \$96,629.

Household Migration Patterns, 2020



Note: Households as approximated by income tax returns

Source: IRS 2020

Thomas Jefferson Planning District Household Migration Patterns, 2020

	Outflow				Average Adjusted Gross Income	Inflow				Average Adjusted Gross Income	Net				Average Adjusted Gross Income
	Same State	Different State	US Total	US Foreign		Same State	Different State	US Total	US Foreign		Same State	Different State	US	Foreign	
Albemarle County	2,663	1,767	4,430	27	\$86,832	2,912	1,996	4,908	38	\$109,173	249	229	478	11	\$22,341
City of Charlottesville	1,959	1,118	3,077	0	\$65,358	1,382	1,104	2,486	0	\$96,629	-577	-14	-591	0	\$31,271
Fluvanna County	584	224	808	0	\$63,443	746	255	1,001	0	\$64,874	162	31	193	0	\$1,431
Greene County	475	184	659	0	\$65,536	559	160	719	0	\$68,156	84	-24	60	0	\$2,620
Louisa County	812	277	1,089	0	\$60,863	1,221	332	1,553	0	\$79,567	409	55	464	0	\$18,704
Nelson County	303	54	357	0	\$61,070	388	120	508	0	\$90,770	85	66	151	0	\$29,700

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 not included in this file; under-representing the poor and the elderly. Also excluded is the small percentage of tax returns filed after late September. These taxpayers are likely to have complex returns that report relatively high income, and so the migration data set may under-represent the very wealthy, as well. The matching process also causes some returns to be excluded from the data.



Age Trends

The age distribution in the TJPDC heavily skews towards teens and young adults, with a greater share of residents aged 15-24 than the state or the nation. This is likely because over 20% of Charlottesville’s population falls into these two buckets. The region has slightly fewer younger adults and slightly more older adults than the state or the nation.

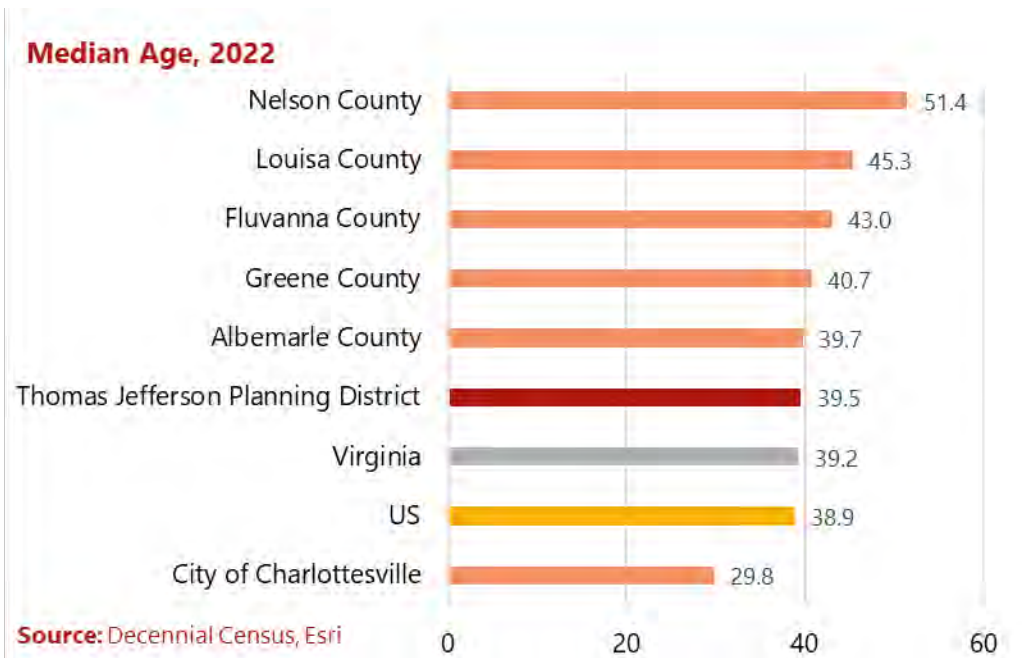
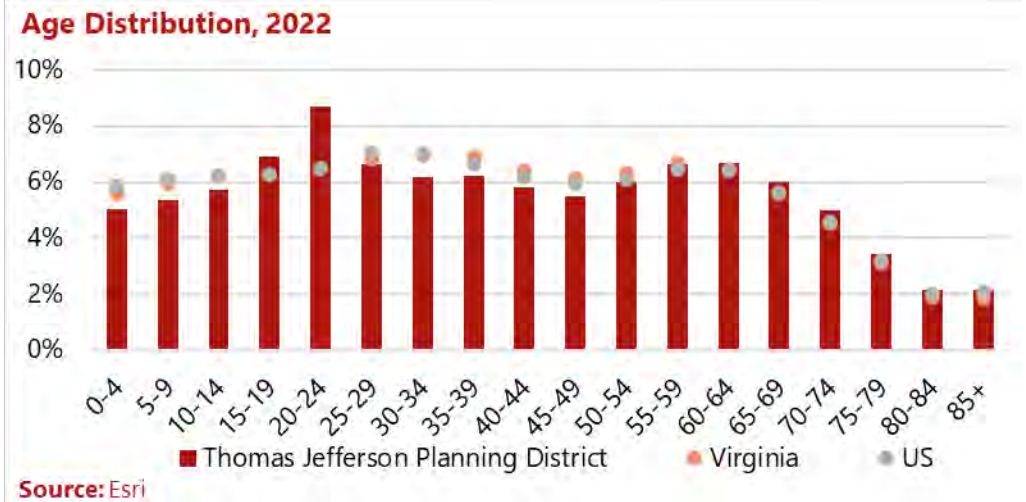
Outside of Charlottesville, the median ages in all the region’s geographies are higher than the state and nation, contributing to a regional median age of 39.5 compared to 39.2 for Virginia and 38.9 for the US.

The oldest of the five counties in the region is Nelson at 51.4 and the youngest is Charlottesville at 29.8. Since 2010, median ages have also increased in each of the regional geographies, following state and national trends.

Median Age

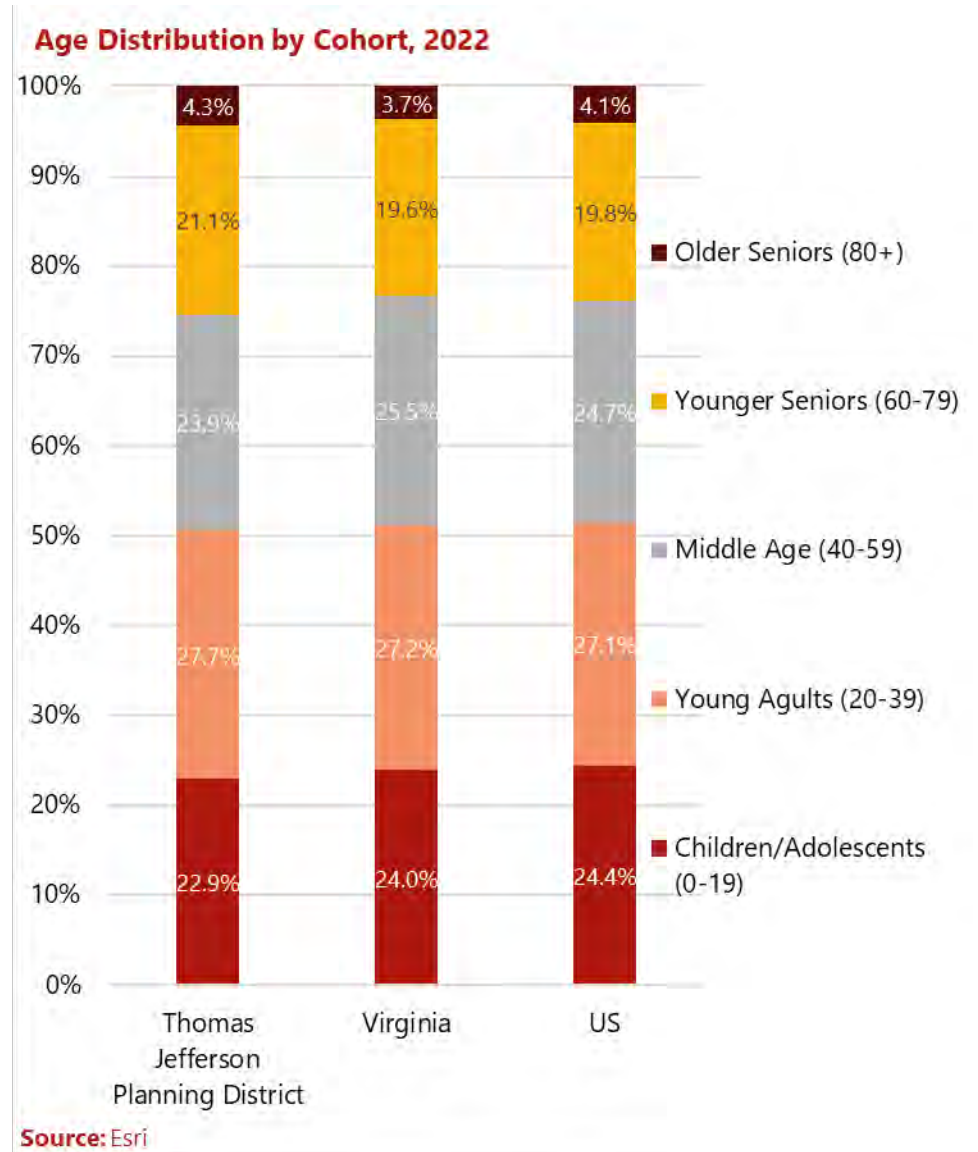
Region	2010	2022
Albemarle County	38.1	39.7
City of Charlottesville	28.0	29.8
Fluvanna County	41.1	43.0
Greene County	39.2	40.7
Louisa County	42.5	45.3
Nelson County	47.6	51.4
Thomas Jefferson Planning District	37.6	39.5
Virginia	37.4	39.2
US	37.1	38.9

Source: Esri



The population distribution by age cohort shows that the region has a higher concentration of young adults and young seniors than the state and the nation.

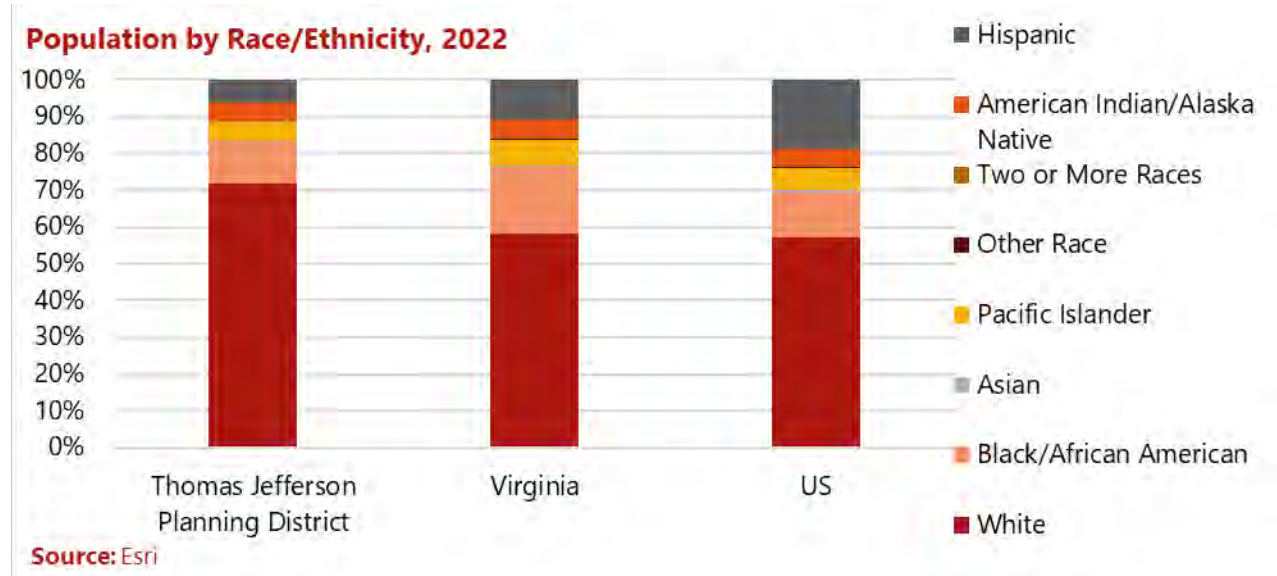
The region lags slightly behind the state and nation in its share of children/adolescents, middle-aged adults, and older seniors.



Race and Ethnicity

The TJPDC includes a substantially higher proportion of white residents than is seen at the state and national levels. 72% of residents in the region are white compared to 58% in Virginia and 57% in the US.

The region’s Hispanic population significantly lags state and national levels with only 6% of the population compared to 11% in Virginia and 19% in the US.



Population by Race/Ethnicity, 2022

Race/Ethnicity	Albemarle County	City of Charlottesville	Fluvanna County	Greene County	Louisa County	Nelson County	Thomas Jefferson Planning District	Virginia	US
White	71%	63%	76%	78%	76%	80%	72%	58%	57%
Black/African American	9%	15%	13%	7%	14%	10%	11%	18%	12%
Asian	0%	0%	0%	0%	0%	0%	0%	0%	1%
Pacific Islander	8%	9%	1%	2%	1%	0%	5%	7%	6%
Other Race	0%	0%	0%	0%	0%	0%	0%	0%	0%
Two or More Races	1%	0%	1%	0%	0%	0%	1%	1%	1%
American Indian/Alaska Native	5%	5%	5%	5%	5%	4%	5%	5%	4%
Hispanic	8%	7%	4%	7%	4%	5%	6%	11%	19%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Esri

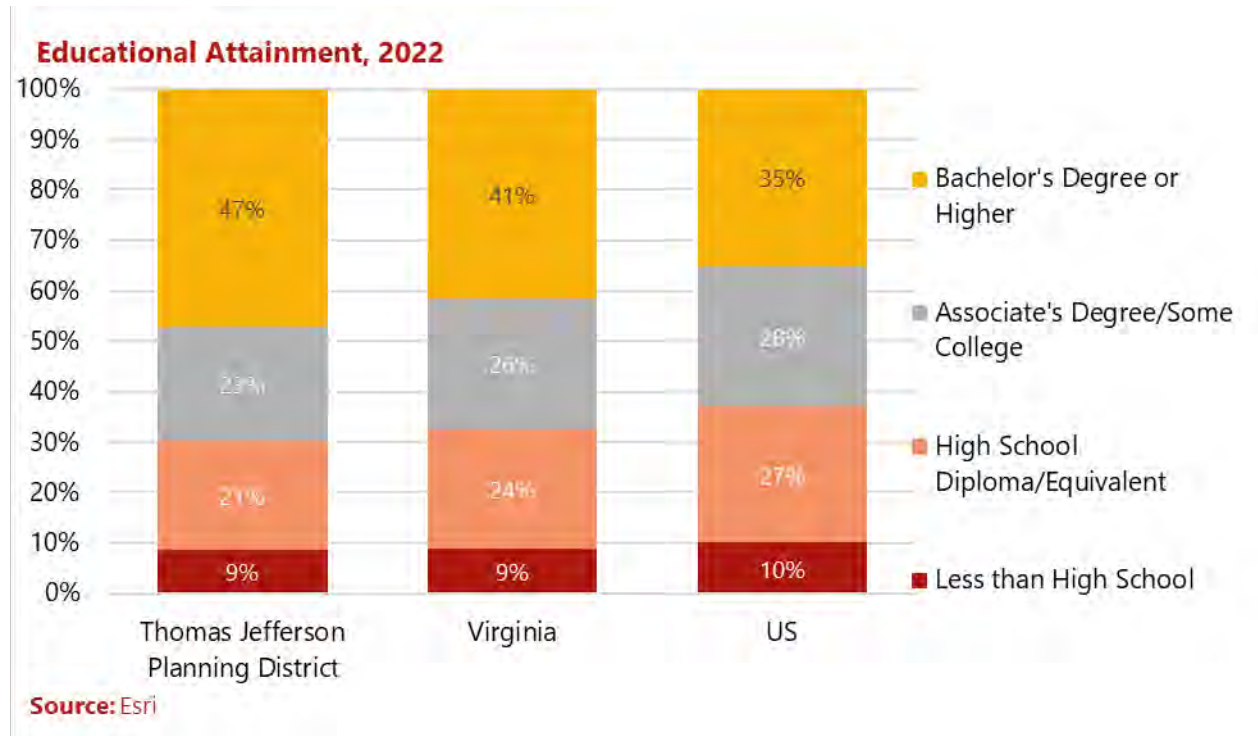


Educational Attainment

Educational attainment is presented here because it impacts the qualifications of the region's workforce and the types of industries and occupations that the region can support.

Almost half of the TJPDC's population, 47%, have a bachelor's degree or higher; a share that is significantly higher than the state (41%) or nation (35%).

On the opposite end of the spectrum, only 23% of the region's population have a high school diploma or equivalent, which is less than the state (26%) and the nation (28%).



Educational Attainment of Population 25+, 2022

Educational Attainment	Albemarle County	City of Charlottesville	Fluvanna County	Greene County	Louisa County	Nelson County	Thomas Jefferson Planning District	Virginia	US
Less than High School	5,271	2,092	1,548	1,781	3,703	1,412	15,807	540,326	23,334,861
High School Diploma/Equivalent	11,937	4,478	4,682	4,193	9,323	3,974	38,587	1,437,151	62,845,461
Associate's Degree/Some College	15,539	5,106	6,236	4,041	7,888	2,223	41,033	1,588,389	64,309,001
Bachelor's Degree or Higher	45,459	16,217	7,157	4,639	7,487	3,732	84,691	2,516,893	81,483,422
Total	78,206	27,893	19,623	14,654	28,401	11,341	180,118	6,082,759	231,972,745

Source: Esri



Household Income

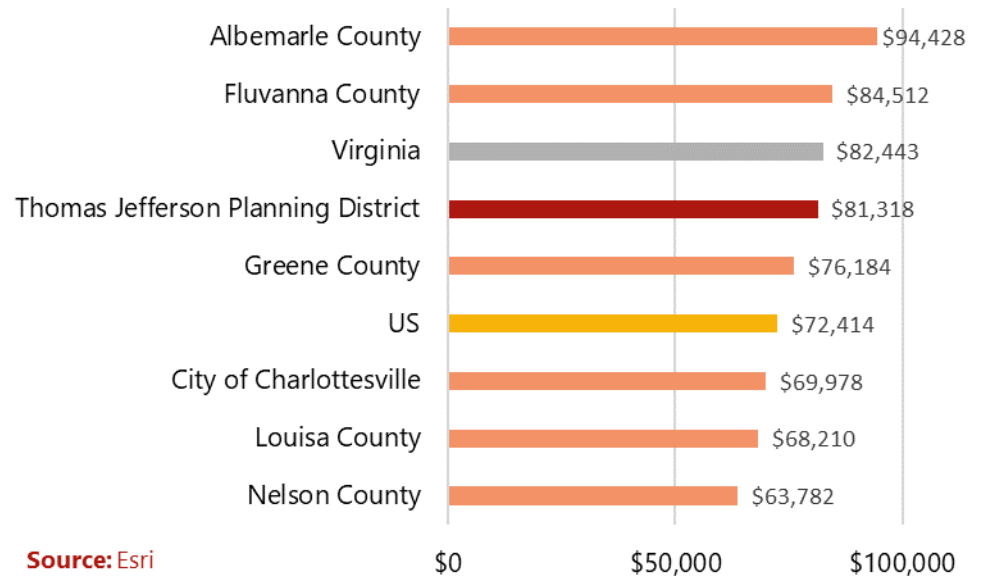
The median household income for the TJPDC is slightly lower than the state but almost \$10,000 higher than the national level. The 2022 annual median household income for the region was \$81,318 compared to \$82,443 for Virginia and \$72,414 for the US.

Albemarle County had the highest median household income of the five counties at \$94,428. Fluvanna County was the only other county with a higher median household income than both the state and nation at \$84,512, while Greene County fell below the state’s level but slightly above the nation. All other geographies’ median household incomes fell below both the state and nation’s levels.

The TJPDC maintains a solid base of upper-middle to upper income households and a relatively small share of low-income households. The region has a greater share of households with an annual income between \$75,000-\$99,000 than both the state and nation.

The region also has a smaller share of households with an income less than \$75,000 than the state and nation and a share of households with an income greater than \$200,000 that falls between the State of Virginia and the US.

Median Household Income, 2022



Source: Esri

Household Income Distribution, 2022



Source: Esri



ECONOMIC PROFILE

Labor Force Participation and Unemployment

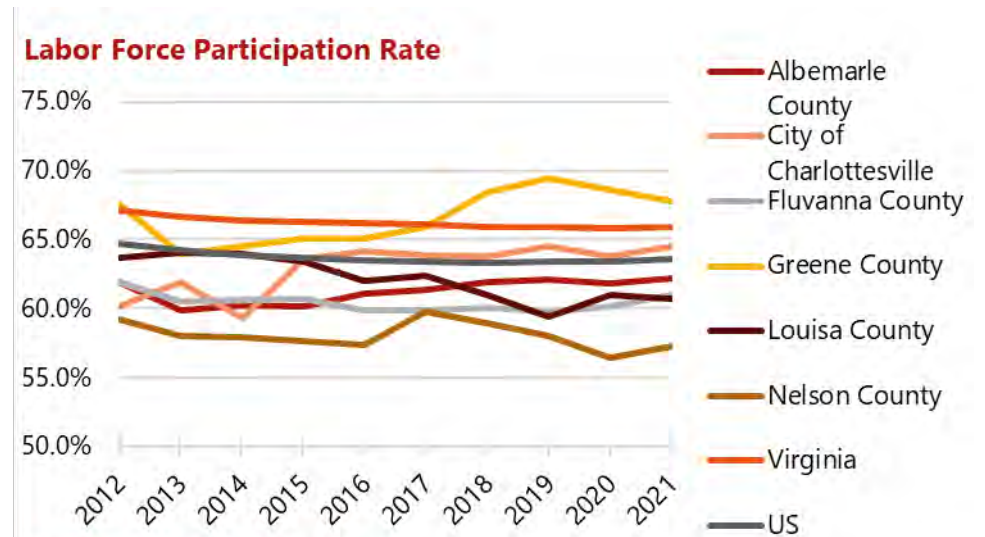
The Labor Force Participation Rate (LFPR) shows the ratio of the population over the age of 16 that is working or actively seeking work. This measure is important as it indicates how strong workers feel about the working climate of the region.

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.

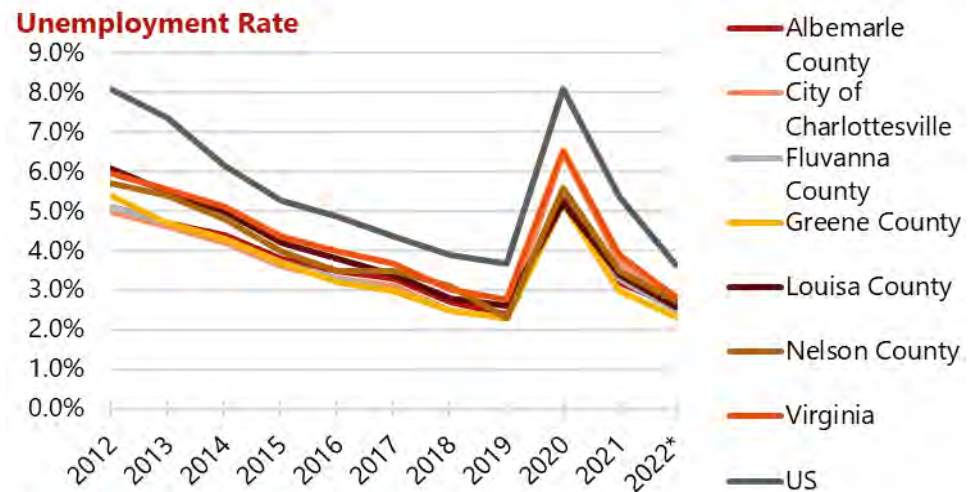
The LFPR in the TJPDC has mostly lagged the state’s rate, with Greene County being the only one with a 2022 LFPR greater than that of the State of Virginia, at 67.8%, compared to 65.9% for the state. Individual counties’ LFPRs have also fluctuated heavily over the last 10 years, with Charlottesville and Louisa County having the most volatility of the region’s counties.

Unemployment by county in the region decreased steadily from 2012-2019, in line with state and national trends. The COVID-19 pandemic caused a stark increase in unemployment in 2020, but over the last two years, unemployment has rebounded across the geographies to its 2019 rates.

Countywide unemployment in 2022 was highest in Nelson County, at 2.7%, right below the State of Virginia’s rate of 2.8%. All of the region’s geographies had an unemployment rate in 2022 below the state and national levels.



Source: Bureau of Labor Statistics



Source: Bureau of Labor Statistics

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



Jobs vs. Population

Population and jobs within the region have both grown over the last decade, with job growth outpacing that of the population growth.

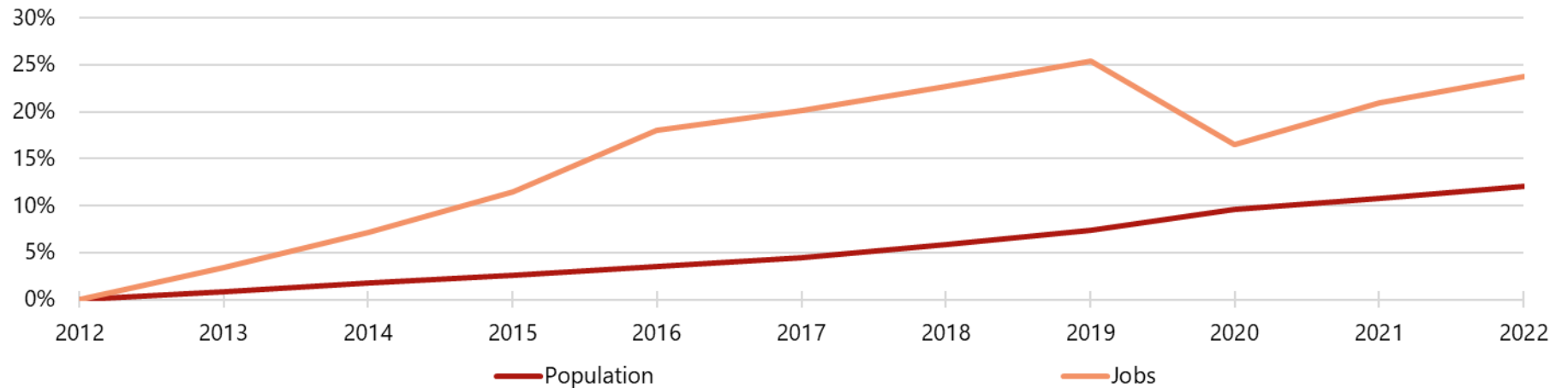
The job counts in the TJPDC took a notable dip in 2020 during the COVID-19 pandemic but have recovered completely over the last two years, exceeding the pre-pandemic peak reached in 2019.

Thomas Jefferson Planning District Population vs Jobs, 2012-2022

Year	Population	Jobs
2012	241,259	107,510
2013	243,202	111,196
2014	245,607	115,243
2015	247,510	119,861
2016	249,754	126,855
2017	252,095	129,164
2018	255,482	131,953
2019	259,054	134,766
2020	264,349	125,199
2021	267,273	129,986
2022	270,319	133,020

Source: Population: Weldon Cooper; Jobs: Lightcast

Thomas Jefferson Planning District Percent Change in Population vs Jobs, 2012-2022



Source: Population: Weldon Cooper; Jobs: Lightcast



Employment Totals

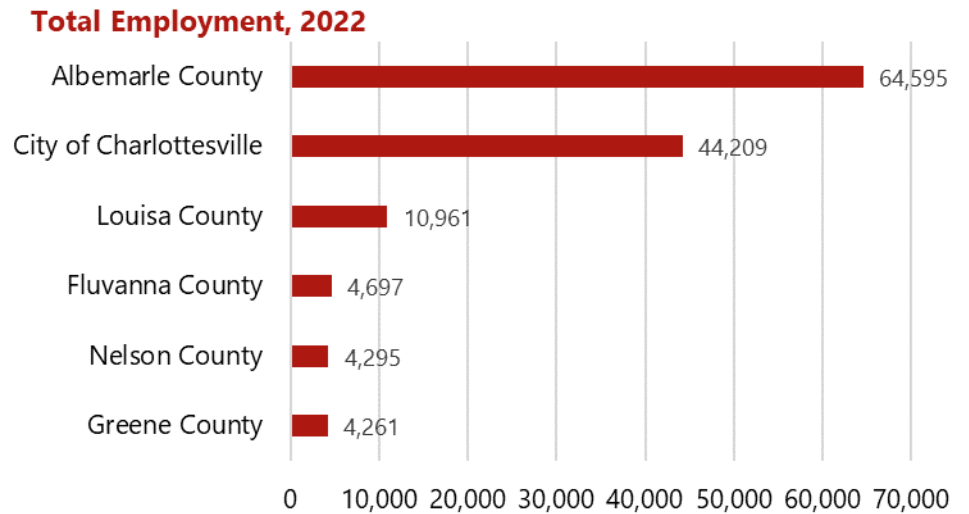
Total employment in 2022 in the TJPDC was 133,020 jobs. In line with the population and household totals, Albemarle County and Charlottesville had the highest employment numbers in the region, while Greene County had the lowest.

The region has added jobs over the last five years. From 2017 to 2022, it added 3,855 (+1%) total jobs. This growth rate was greater than that of the State of Virginia and the US during the same period.

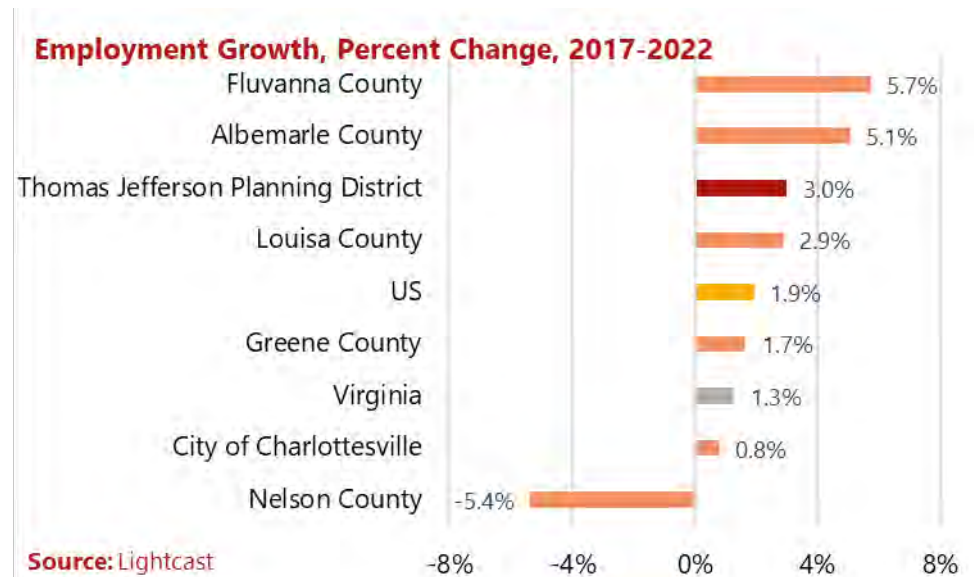
The largest employment growth in the region has been in Fluvanna and Albemarle counties. All geographies except Nelson County have experienced some job growth over the last five years.

The key leading industries, as seen in the graphic on the next page, are Government and Other Services. Accommodation and Food Services is a maturing industry, as there is a strong share of jobs in the region, but the number of jobs has fallen over the last five years.

Note that these figures refer to jobs within the TJPDC region, regardless of where the employee lives. Note that this is also the case for remote workers as well. For example, if an employer is located within the TJPDC Region, then their remote workforce will be counted in the region's total employment even if the jobs are outside of the area.



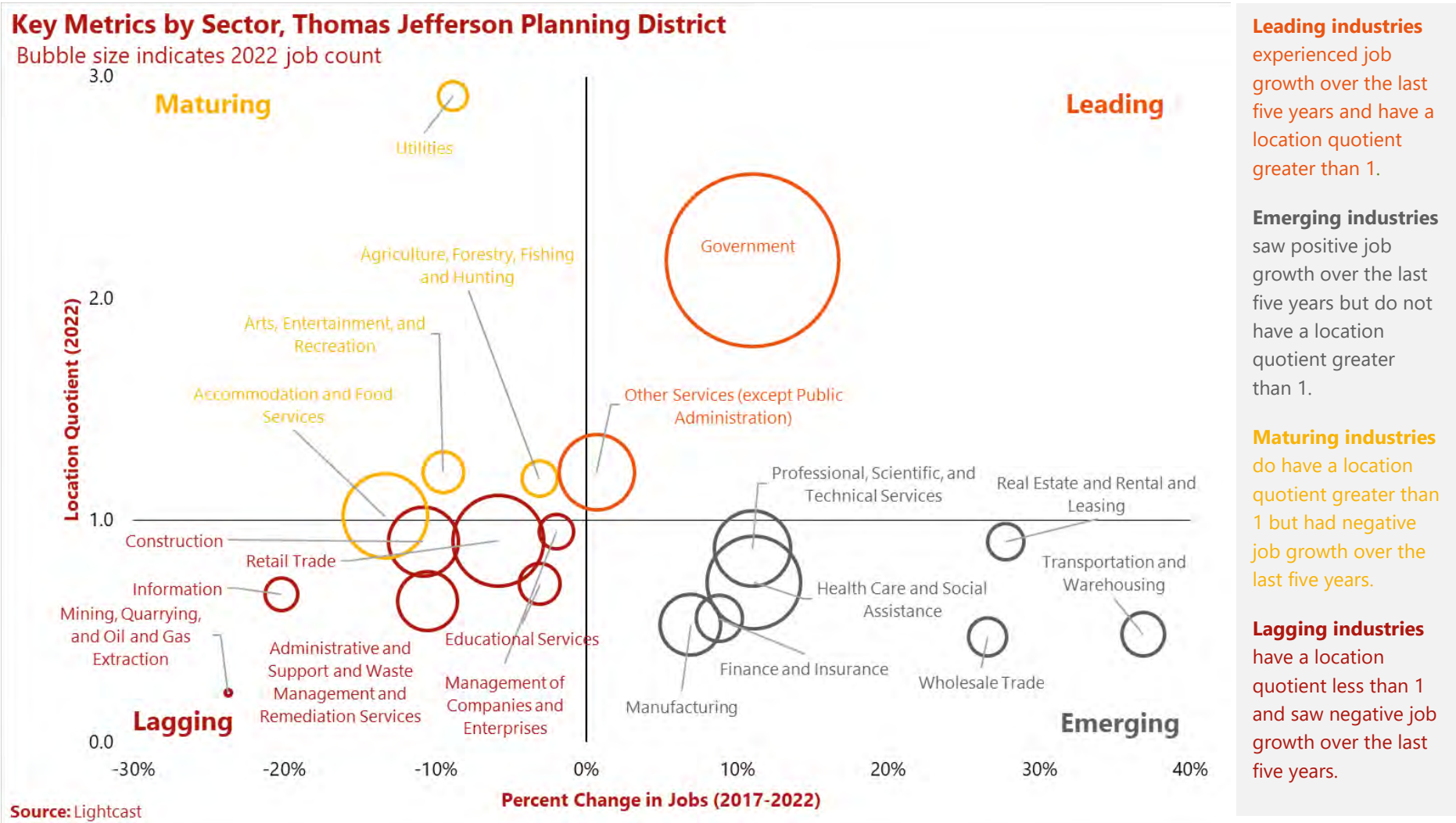
Source: Lightcast



Source: Lightcast



This chart compares different sectors. Each sector is classified as leading, emerging, maturing, or lagging. Definitions for those terms are listed in the grey column.



Employment Totals by Interest Sector in the Thomas Jefferson Planning Commission Region



Employment Growth by Sector

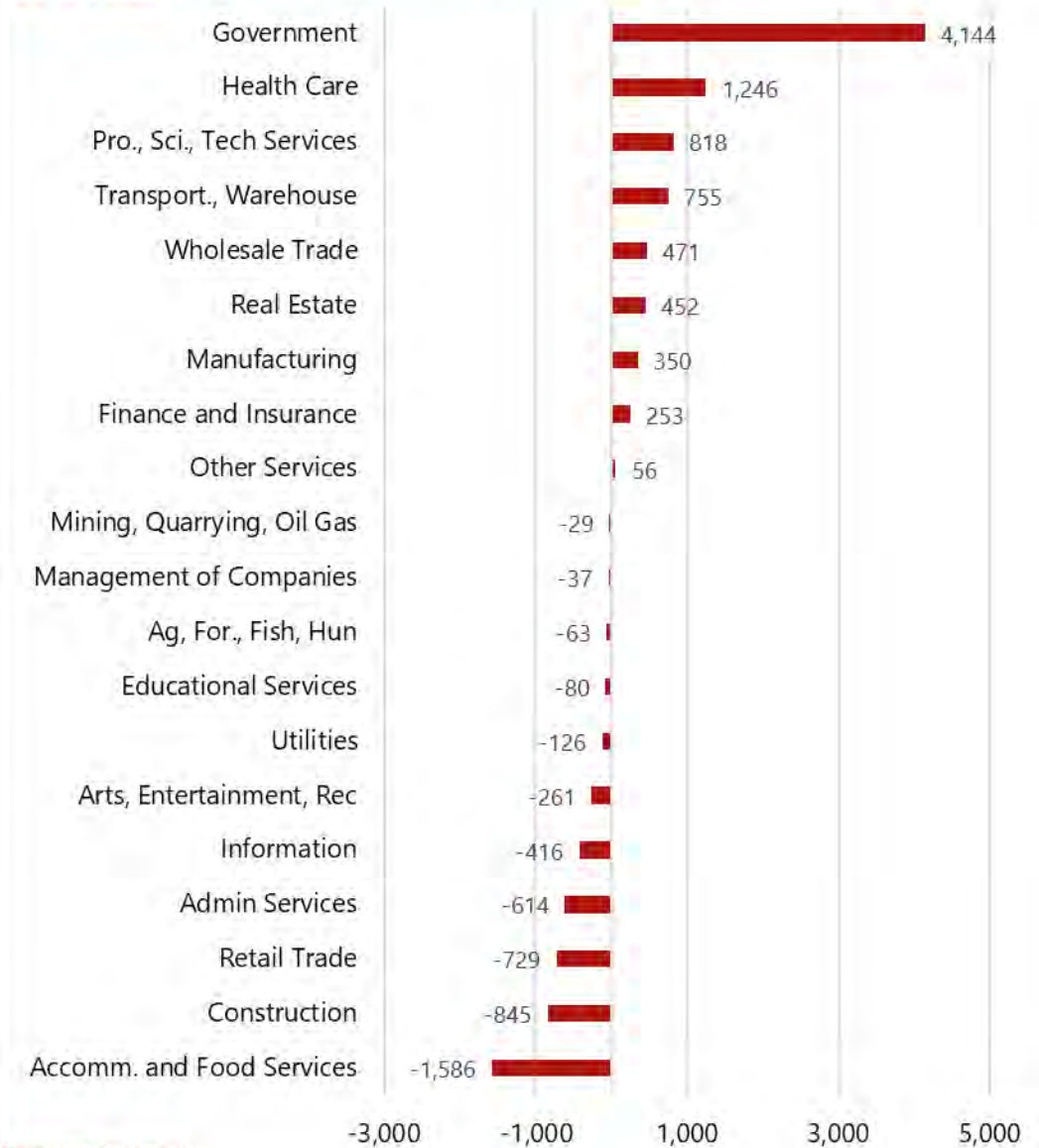
In total, from 2017 to 2022, the TJPDC district added 3,855 total jobs across all industry sectors, with nine industries increasing employment and 12 industries decreasing in employment.

Government and Health Care and Social Assistance are economic bright spots in the region. These two sectors were the leaders in job growth from 2017 to 2022, adding 4,144 and 1,246 jobs, respectively.

Accommodation and Food Services Jobs are on the decline. Despite being in the top 10 sectors by total jobs in 2022, this sector lost the most total jobs from 2017-2022, declining by 1,586 jobs.

Other industries with notable job declines include Construction, Retail Trade, Administrative and Support, and Waste Management and Remediation Services.

Thomas Jefferson Planning District Job Growth by Sector, 2017-2022



Source: Lightcast



Government and Health Care subsectors in particular have seen strong job growth over the last five years adding 4,041 total jobs from 2012 to 2017. The high number in the Education and Hospitals (State Gov) subsector is driven primarily by the University of Virginia, which is in the region.

Individual and Family Services, which is driven by Services for the Elderly and Disabled, has also shown growth over the last five years.

Thomas Jefferson Planning District Top 25 Subsectors by Job Growth, 2017-2022



Government Subsectors

Colleges, Universities, and Professional Schools (State Government) is the largest sector within NAICS 90, Government with 18,051 jobs. This accounts for 44.3% of the total jobs in the industry. Hospitals (State Government) is the second with 7,089 jobs (17.4%). This is followed by Elementary and Secondary Schools (Local Government) which accounts for 15.7% (6,399) jobs.

TJPDC Government Jobs, 2022

NAICS	Description	Count	Share
902612	Colleges, Universities, and Professional Schools (State Government)	18,051	44.3%
902622	Hospitals (State Government)	7,089	17.4%
903611	Elementary and Secondary Schools (Local Government)	6,399	15.7%
903999	Local Government, Excluding Education and Hospitals	4,279	10.5%
902999	State Government, Excluding Education and Hospitals	1,904	4.7%
901200	Federal Government, Military	1,303	3.2%
901199	Federal Government, Civilian, Excluding Postal Service	1,276	3.1%
901149	US Postal Service	374	0.9%
903619	All Other Schools and Educational Support Services (Local Government)	44	0.1%
902611	Elementary and Secondary Schools (State Government)	0	0.0%
902619	All Other Schools and Educational Support Services (State Government)	0	0.0%
903612	Colleges, Universities, and Professional Schools (Local Government)	0	0.0%
903622	Hospitals (Local Government)	0	0.0%
Total		40,718	100.0%

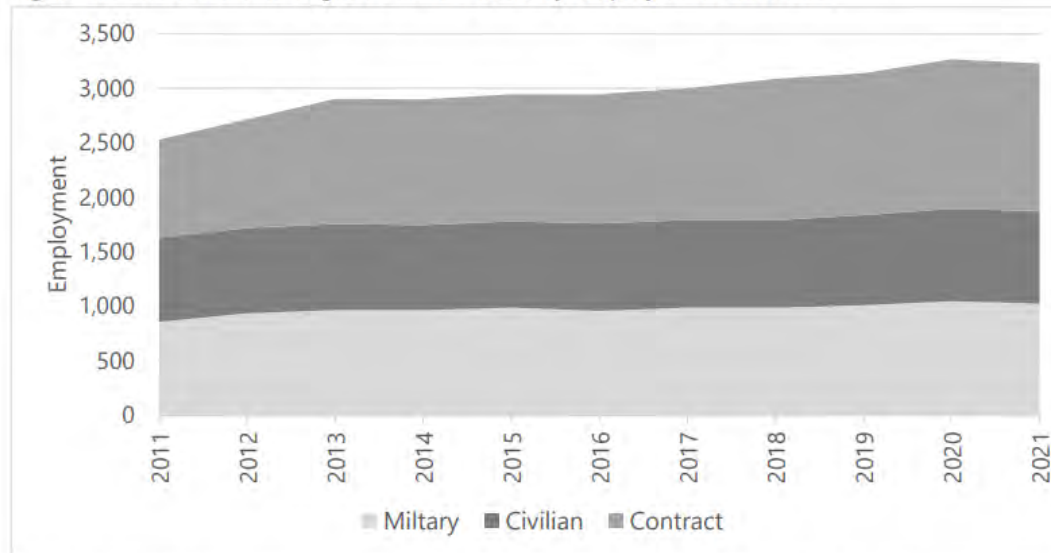
Source: Lightcast



Defense Sector

In 2023 Weldon Cooper published a [study](#) that analyzed the Defense industry’s impact on the Charlottesville region. The report identifies that more than 100 local entities are involved in a range of defense-related activities. Weldon Cooper Center estimates that the Department of Defense (DoD) military and civilian employment grew by 15% from 2011 to 2021. The defense industry has a significant economic impact in the TJPDC region, with 3,972 jobs, \$421 million in labor income, \$501 million in value-added, and \$642 million in output. The indirect effect is attributable to purchases of production inputs by defense industry entities, while the induced effect is attributable to worker households, veteran households, and active-duty military student household income and spending.

Figure 1.2 Charlottesville Region Defense Industry Employment, 2011-2021



Source: Bureau of Economic Analysis (BEA) State Personal Income and Employment; Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages; and Weldon Cooper Center estimates of contract employment using USAspending.gov and IMPLAN^{TM,2}

Rivanna Station is the largest single defense-related activity, accounting for approximately half of the total regional defense industry employment impact. Department of Defense (DoD) contracts for military equipment and services represent 18% of the total economic impact. The University of Virginia is the third largest component, representing 14% of the total employment impact. Veterans and the Judge Advocate General’s School and Legal Center have the fourth and fifth largest economic impacts respectively. The JAG Legal Center and School and Center account for 6% of the total defense industry regional impact.

In addition to directly supporting jobs in the region, the defense sector also plays a role in the innovation and startup ecosystem. Startups with licensed intellectual property and funding from the Department of Defense are located in Charlottesville and created jobs in the region.

To the left, a graph from the February 2023 Defense Industry’s Economic Impact on the Charlottesville Region documents the breakdown of workers in the Defense industry.



Nonprofit Sector

The not-for-profit and philanthropic sectors often provide critical programming in the community, particularly in areas where there are gaps in services. They also can play a role in workforce development and facilitating economic development. In the [2023 Virginia Nonprofit Sector report](#) it was documented that nonprofits employ about 26% of public service workers in Virginia. This represents roughly 65% of the state’s total workforce. In the Blue Ridge and Valley region⁴, nonprofits had a total revenue of \$13.9 billion.

In the NAICS categorization, jobs in most non-profits fall under NAICS 81, Other Services (except Public Administration). A breakdown of the subsectors within NAICS 81 is provided below. Religious Organizations make up the greatest number of jobs in this industry. Growth in jobs between 2017-2022 was seen in Religious Organizations, Environment, Conservation and Wildlife Organizations, and Business Associations.

Thomas Jefferson Planning District, 6-digit NAICS 81 by Employment

CS	Description	2017-2022		2017-2022		Avg. Earnings Per Job	2021 GRP
		2017 Jobs	2022 Jobs	Jobs Change	Jobs % Change		
110	Religious Organizations	1,335	1,415	80	6.0%	\$22,295	\$34,561,600
220	Professional Organizations	688	564	-124	-18.0%	\$136,167	\$84,223,451
	Other Similar Organizations (except Business, Professional, Labor, and						
390	Political Organizations)	391	525	134	34.3%	\$49,612	\$26,415,322
	Environment, Conservation and						
312	Wildlife Organizations	165	214	49	29.8%	\$62,645	\$15,503,511
211	Grantmaking Foundations	196	192	-4	-2.1%	\$116,576	\$25,716,841
410	Civic and Social Organizations	362	183	-179	-49.4%	\$56,848	\$13,642,218
310	Business Associations	101	147	46	45.7%	\$166,390	\$26,843,860
319	Other Social Advocacy Organizations	113	118	5	4.4%	\$64,237	\$9,121,723
	Other Grantmaking and Giving						
219	Services	49	80	30	61.9%	\$68,467	\$5,565,459
340	Political Organizations	<10	23	Insf. Data	Insf. Data	\$59,267	\$1,071,532
212	Voluntary Health Organizations	62	15	-47	-75.9%	\$82,527	\$1,949,893
311	Human Rights Organizations	29	12	-17	-57.9%	\$61,822	\$1,133,921
	Labor Unions and Similar Labor						
330	Organizations	22	<10	Insf. Data	Insf. Data	Insf. Data	\$412,393

Source: Lightcast

⁴ Data note: The report uses the Virginia Department of Education’s definition of regions, and the TJPDC is included in the Blue Ridge and Valley region.



Agriculture Sector Profiles

Every five years, the US Department of Agriculture conducts a Census of Agriculture. This data produces profiles for counties across the country. Key indicators from the most recent census (2017) for the TJPDC jurisdiction are documented below.

Albemarle County, VA

Albemarle County had 913 farms in 2017 that consisted of 182,781 acres. Compared to 2012, Albemarle's farms declined by -3%. The total market value of products sold in 2017 was \$29,647,000 which also saw a decline (-4%) when compared to 2012. Fruits, tree nuts, berries (\$9,756,000) and other crops and hay (\$3,712,000) were the two leading crop sectors in the county. This accounted for over 71% of the county's total crop sales. The leading livestock sales in the county were cattle & calves (\$7,219,000). Cattle & calves accounted for 67% of livestock sales.

Fluvanna County, VA

In 2017, there were 273 farms which is a -10% decline from 2012. The 273 farms consisted of 44,414 acres. The total market value of products sold by farms was \$6,126,000 which showed growth of 30% when compared to 2012. Nursery, greenhouse, floriculture, sod (\$1,434,000) and other crops & hay (\$694,000) were the two leading crops sectors in Fluvanna County. These sales made up 55% of the county's total crops sales of \$3,895,000. Cattle and calves (\$1,434,000) made up 64% of the total livestock sales (\$2,230,000) in Fluvanna County.

Greene County, VA

In 2017, Greene County had 214 farms that consisted of 28,518 acres. The number of farms declined by -1% when compared to 2012. The market value of products sold by the farms was estimated to be \$7,614,000 and saw a decline (-23%) when compared to the county's 2012 figures. The two highest sales crops in the county were other crops & hay and nursery, greenhouse, floriculture, sod. These two crops made up 77% of

the total crop sales in the county. The leading livestock product in the county was cattle & calves which had sales of \$2,368,000. This was almost 41% of the total livestock sales (\$5,819,000) in 2017.

Louisa County

Louisa County had 431 farms in 2017 that consisted of 68,499 acres. This was an -11% change in the number of farms since 2012. The total market value of products sold by Louisa County farms was \$14,971,000. This represented a 3% increase since 2012. The two highest sales crops in Louisa County are grains, oilseeds, dry beans, dry peas (\$3,161,000) and nursery, greenhouse, floriculture, sod (\$1,910,000), which accounted for 70% of the total crops sales (\$7,290,000). The leading livestock sector were cattle and calves. This sector had sales of \$4,130,000 in 2017 that accounted for 54% of the county's total livestock sales (\$7,681,000).

Nelson County

In 2017, Nelson County had 409 farms. This was a -10% decline in the number of farms since 2012. The 409 farms consisted of 67,841 acres and had a total market value of products sold of \$26,719,000. This represented a 69% increase since 2012. The two highest sales crops in the county were fruits, tree nuts, floriculture, sod (\$7,199,000) and vegetables, melons, potatoes, sweet potatoes (\$1,126,000). These two crop sectors accounted for 38% of total crop sales in 2017. The leading livestock sector were cattle and calves. Cattle and calves created \$3,953,00 in sales which was 87% of the county's total livestock sales for 2017.



Self-Employed by Industry

In 2022, the industries with the greatest number of workers who were self-employed in the TJPDC Region were:

- Specialty Trade (724 jobs)
- Private Households (615)
- Crop Production (538)

Self-employed positions made up about 3% of total employment across the region in 2017 and remained consistent for 2022.

The greatest gains in terms of the number of jobs came in Crop Production and Ambulatory Health Care Services.

Significant losses were felt in Performing Arts and Heavy and Civil Engineering Construction.

Average earnings per job are significantly lower when compared to the average for all employment across the TJPDC region (\$36, 683 vs. \$69,173.)

Thomas Jefferson Planning District Economic Base, Industries by Self-Employment

NAICS	Description	2017 Jobs	2022 Jobs	2017 - 2022 % Change	2017 - 2022 Change	Avg. Earnings Per Job
238	Specialty Trade Contractors	715	724	1.2%	8	\$41,226
814	Private Households	749	615	-17.9%	-134	\$14,846
111	Crop Production	440	538	22.1%	97	\$35,158
561	Administrative and Support Services	285	297	4.3%	12	\$25,460
236	Construction of Buildings	282	294	4.3%	12	\$41,226
711	Performing Arts, Spectator Sports, and Related Industries	345	232	-32.7%	-113	\$21,952
541	Professional, Scientific, and Technical Services	120	157	31.5%	38	\$39,486
621	Ambulatory Health Care Services	26	114	338.3%	88	\$159,866
237	Heavy and Civil Engineering Construction	292	111	-62.0%	-181	\$41,226
811	Repair and Maintenance	86	104	20.2%	17	\$40,277

Source: Lightcast



Earnings

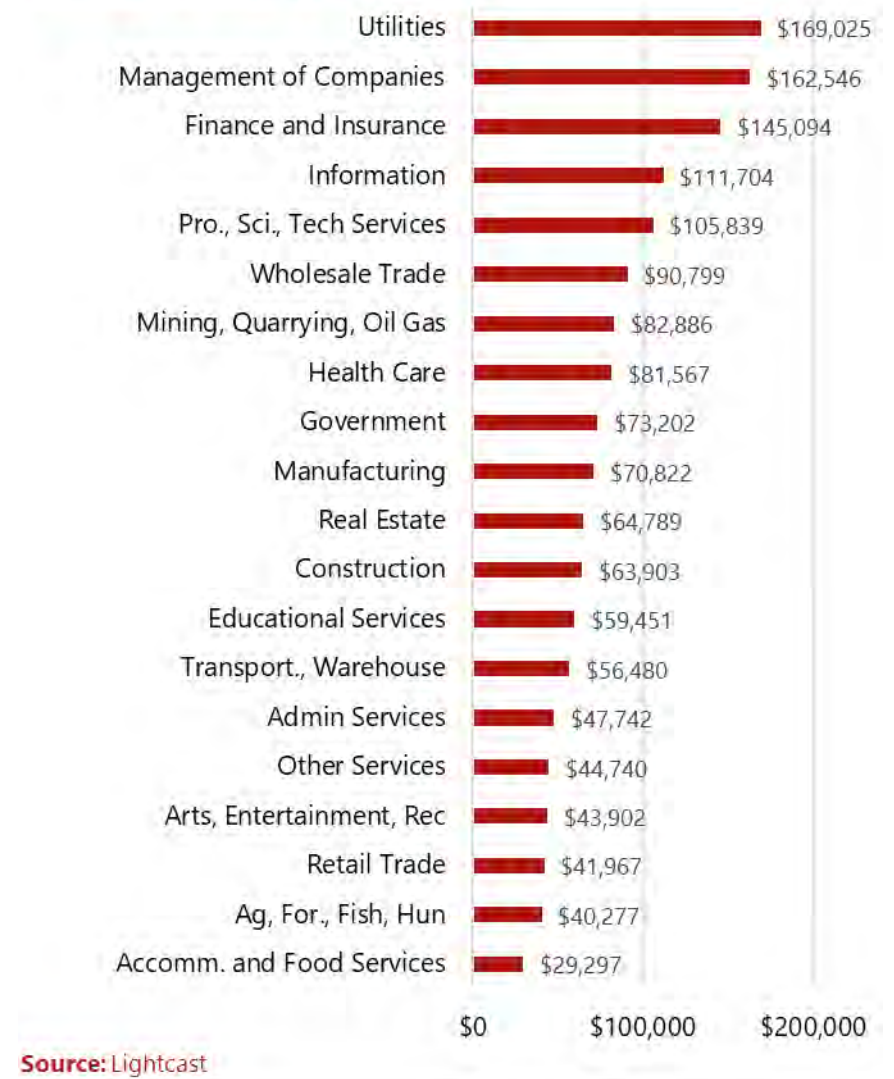
Jobs earnings are generally lower in the region than Virginia or the US overall. In 2022, the average annual earnings per job was approximately \$69,173 per year in the region compared to \$78,710 in Virginia and \$77,767 in the US. While these figures represent broad averages impacted by high earners in more urban areas, the data suggests relatively lower earning potential in the TJPDC district.

The average earnings across all industries in the five counties were below the state and national levels. This is true across most industries and occupations. Greene County has the lowest average earnings per job at \$46,593, well below Charlottesville which has the highest average earnings in the region at \$74,957.

Of all industries, Utilities had the highest average earnings in 2022 while Accommodation and Food Services had the lowest average earnings.



Average Earnings by Sector, 2022



Industry Competitive Effect and Shift Share

Shift share is being presented as a gauge of the region’s competitiveness.⁵ Competitive effect is a metric that indicates how much of the job change in the region or industry from 2017-2022 is the result of a unique competitive advantage for that particular region or industry by comparing it to the average national job change.

Competitive effect is calculated using the following equation:

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

The region as a whole has a competitive advantage given its 2,964 competitive effect, meaning that the region gained 2,964 more jobs than was expected. Within the region, Government, Health Care and Social Assistance and Wholesale Trade have a competitive advantage. While Construction, Administrative and Support, Waste Management and Remediation Services, and Information were all less competitive than would be expected (adding fewer jobs or losing more jobs than was expected).

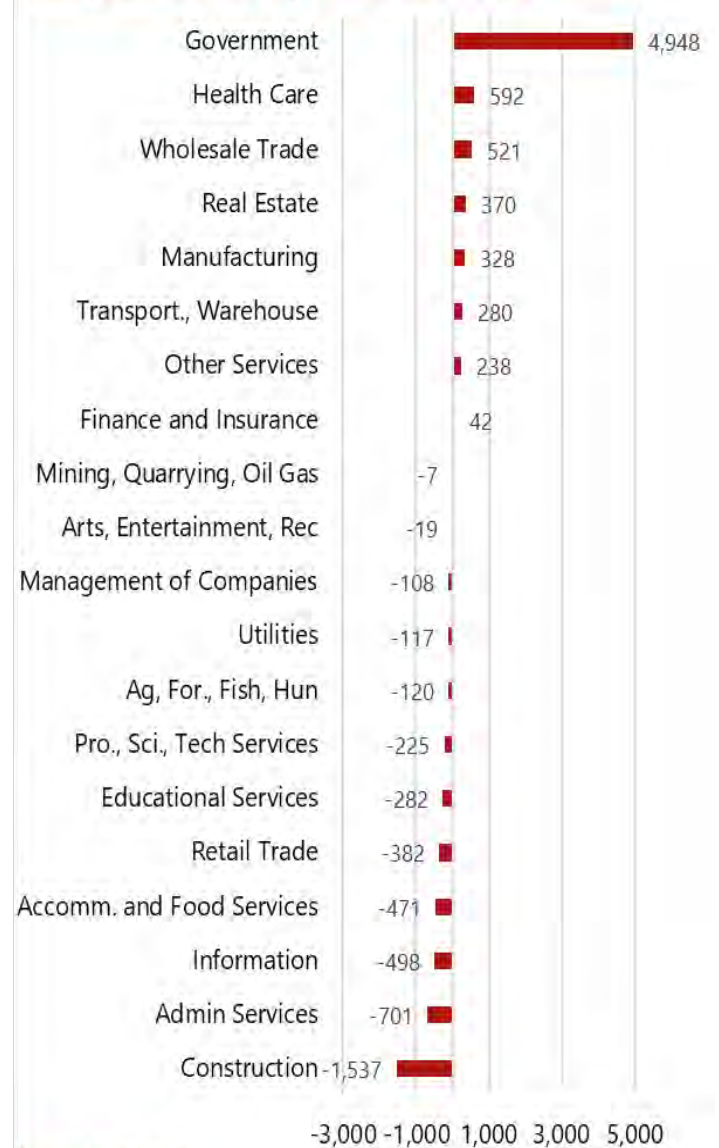
Shift Share Indicators, 2022

Region	Ind. Mix Effect	Nat'l Growth Effect	Expected Change	Competitive Effect
Albemarle County	-786	1,188	403	2,714
City of Charlottesville	-714	848	133	218
Fluvanna County	-32	86	54	200
Greene County	-33	81	48	22
Louisa County	52	206	257	51
Nelson County	-92	88	-4	-240
Thomas Jefferson Planning District	-1,606	2,497	891	2,964
Virginia	10,533	84,869	95,401	-39,405

Source: Lightcast

⁵ The industrial mix effect is the number of jobs we would expect to see within an industry in the region, based on the industry’s national growth/decline. The national growth effect shows the number of jobs an industry is expected to gain or lose according to the industry’s national job growth. Expected change is the amount of job growth or decline that we would expect to see for a particular regional industry based on the national growth effect and the industry mix effect. The regional competitive effect indicates how much of the job change within a given region is the result of some unique competitive advantage of the region.

Competitive Effect by Sector, 2017-2022



Source: Lightcast



Payrolled Business Locations

In the TJPDC, payrolled business locations have increased by 5% from 2017 to 2021, adding 435 locations. However, the region’s growth has significantly lagged the State of Virginia (+10%) and the US (+10.9%). Of the region’s geographies, Fluvanna County’s locations have increased by 13.1% over the last five years. Only Nelson County saw a decrease in payrolled business locations, falling 4.3% since 2017.

Health Care saw the largest increase in payrolled business locations, increasing by 352 over the last five years. Other notable increases include Professional, Scientific, and Technical Services (+80) and Real Estate (+54).

Only four other industries saw a reduction in locations since 2017 and include Other Services (-173), Retail Trade (-24), and Construction (-16).

Payrolled Business Locations

Region	2017	2021	2017-2021 Change	2017-2021 % Change
	Payrolled Business Locations	Payrolled Business Locations		
Albemarle County	3,674	3,911	237	6.5%
City of Charlottesville	2,483	2,511	28	1.1%
Fluvanna County	556	629	73	13.1%
Greene County	501	514	13	2.5%
Louisa County	923	1,031	108	11.7%
Nelson County	569	545	-24	-4.3%
Thomas Jefferson Planning District	8,706	9,141	435	5.0%
Virginia	270,059	297,076	27,017	10.0%
US	9,834,366	10,905,553	1,071,187	10.9%

Source: Lightcast

Payrolled Business Locations Change by Sector, 2017-2021



Source: Lightcast



Gross Regional Product (GRP)

The region’s 2021 GRP was \$14.6 billion, having increased by 19.7% since 2017. The region’s growth was higher than both the state (+17.4%) and the nation (+18.7%). Within the TJPDC, Charlottesville experienced the greatest growth in GRP, increasing 21.4%. All geographies within the region saw their GRP increase from 2017 to 2021.

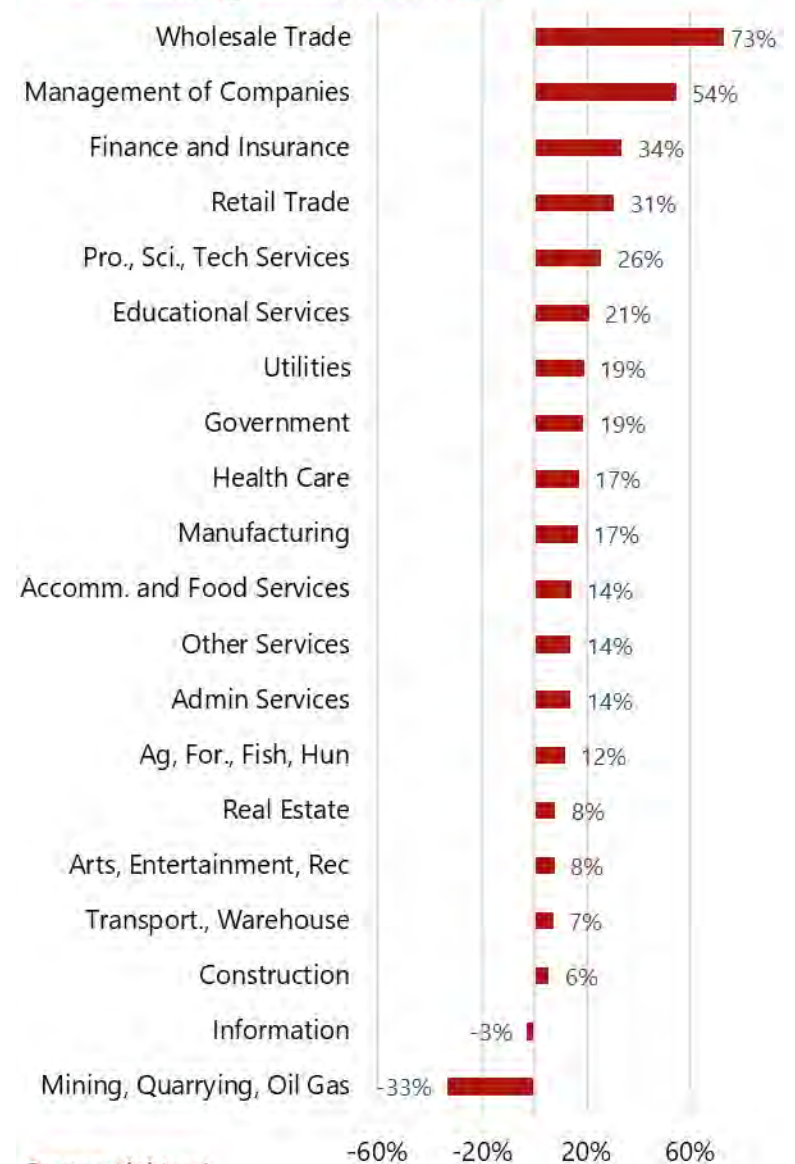
Across industry sectors in the region, all but two industries had GRP growth from 2017-2021. The greatest GRP increase was in Wholesale Trade, which increased 73%. This growth has been driven by Wholesale Trade Agents and Brokers. Other industries with notable increases include Management of Companies and Enterprises (+54%), Finance and Insurance (+34%), and Retail Trade (+31%). The largest decrease in GRP was in Mining, Quarrying, Oil, and Gas, which fell 33%, driven by decreases in the GRP for Oil and Gas Extraction. Information was the only other industry with a GRP decrease, falling 3% from 2017-2021.

GRP

Region	2021 GRP	2017-2021 Change	2017-2021 % Change
Albemarle County	\$6,882,462,803	\$1,160,101,528	20.3%
City of Charlottesville	\$4,808,885,566	\$847,403,061	21.4%
Fluvanna County	\$512,123,366	\$89,627,867	21.2%
Greene County	\$346,527,127	\$45,164,531	15.0%
Louisa County	\$1,633,073,119	\$217,456,844	15.4%
Nelson County	\$437,505,013	\$45,159,755	11.5%
Thomas Jefferson Planning District	\$14,620,576,993	\$2,404,913,587	19.7%
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



Employment Totals by Occupation

In 2022, the top 10 occupations in the chart on this page totaled 95,206 jobs or 72% of all jobs in the region.

Office and Administrative Support led all jobs and was primarily driven by Information and Record Clerks (4,076 jobs) and Office Clerks, General (3,331 jobs).

Educational Institution and Library were mostly comprised of Postsecondary Teachers (5,715 jobs).

Healthcare Practitioners and Technical were driven by Registered Nurses (3,778 jobs) and Physicians (1,163 jobs).



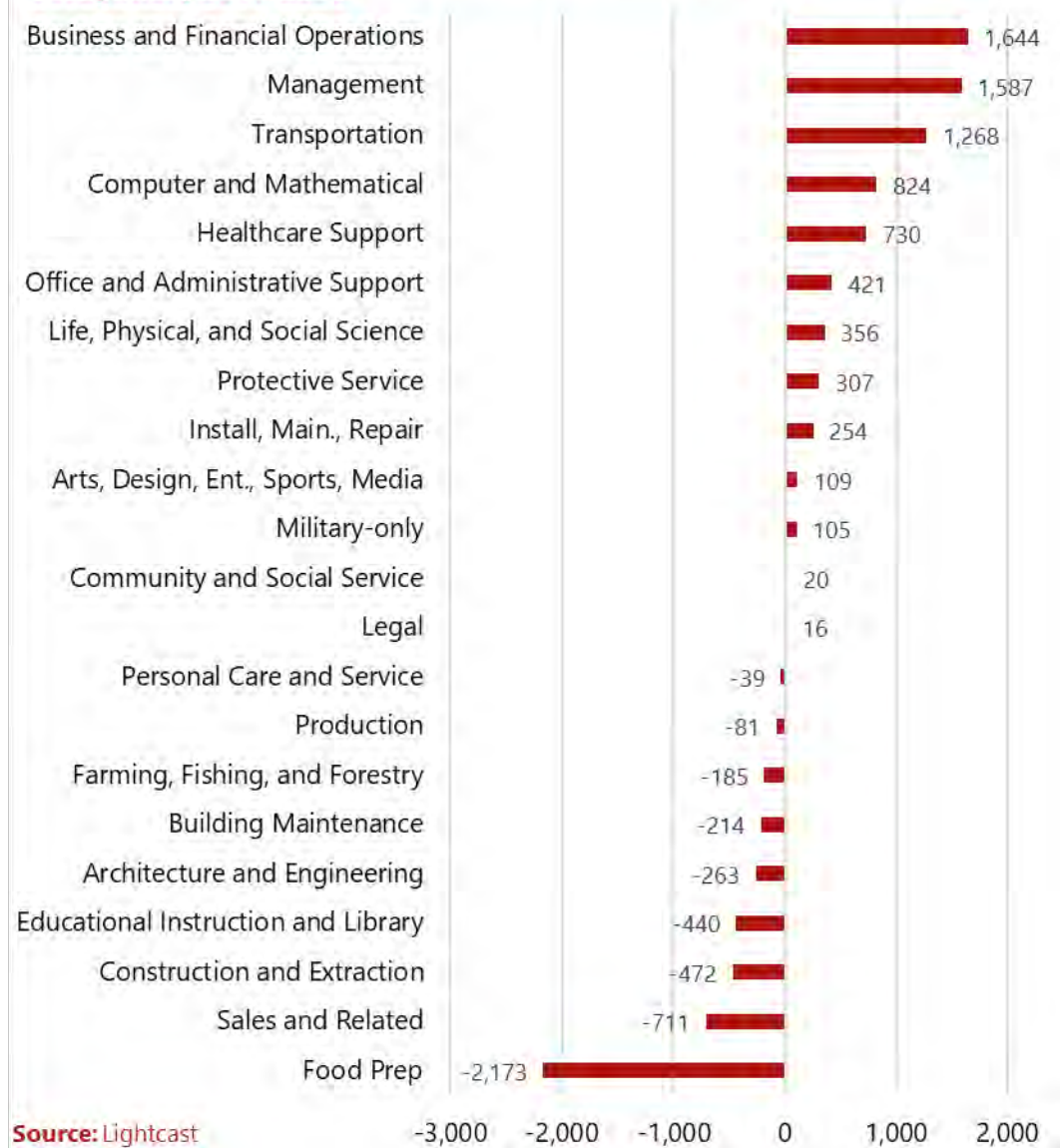
Employment Growth by Occupation

In total, from 2017 to 2022, the TJPDC added 3,855 total jobs across all occupations. With 13 occupation groups increasing employment and 10 occupation groups decreasing employment from 2017 to 2022.

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 1,644 and 1,587 jobs, respectively.

Food Preparation and Serving jobs are on the decline. Despite being in the top 10 occupations by total jobs in 2022, it lost the most total jobs from 2017-2022, declining by 2,173 jobs. Other occupations with notable job declines include Sales and Related (-711 jobs), Construction and Extraction (-472 jobs), and Educational Institution and Library (-440 jobs).

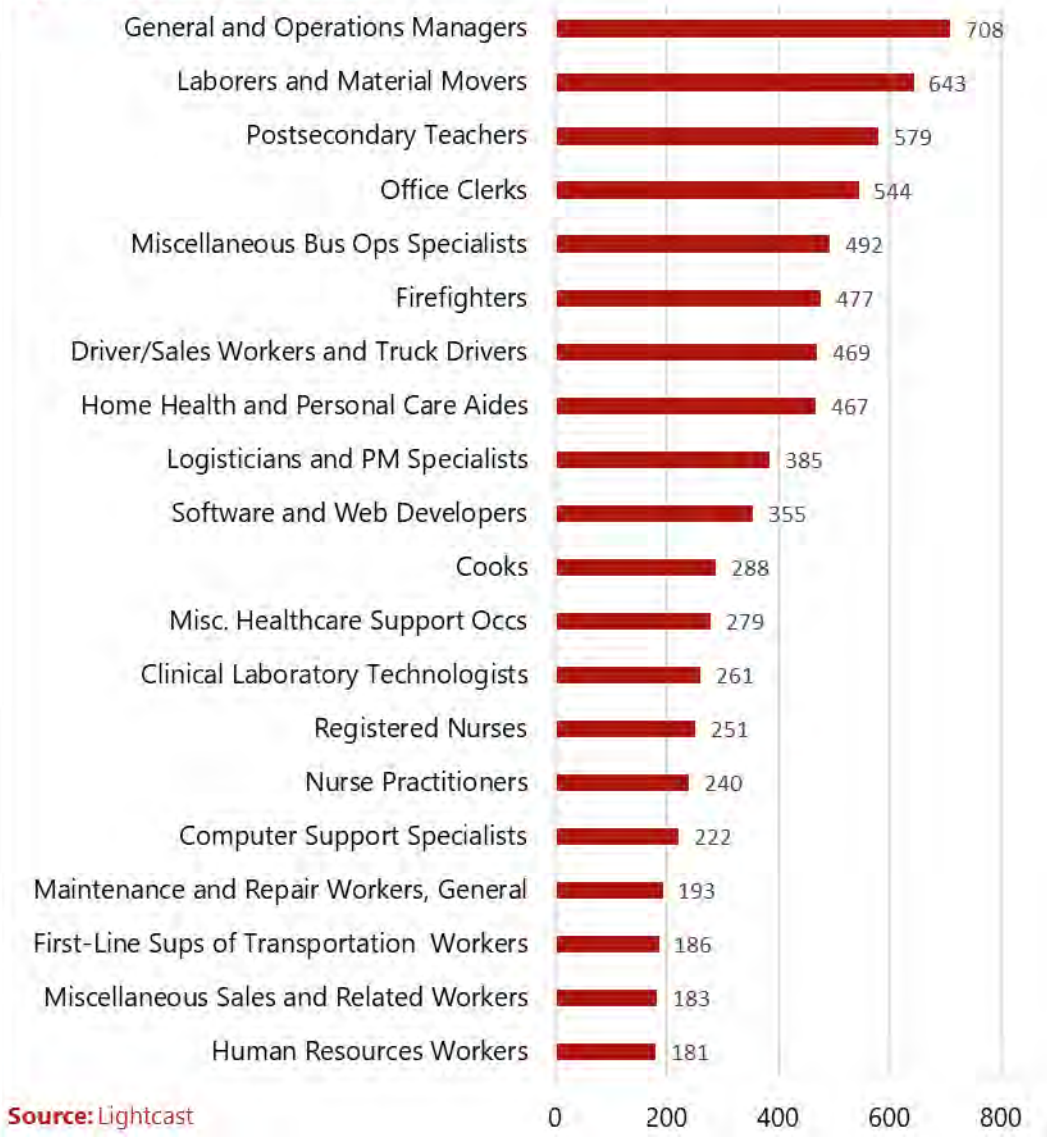
Thomas Jefferson Planning District Job Growth by Occupation, 2017-2022



Within the sub-occupation groups, the Healthcare sector once again showed its strength with the biggest job increases over the last five years in Home Health and Personal Aids (+469 jobs), Registered Nurses (+251 jobs), and Nurse Practitioners (+240 jobs) since 2017.

The top increase was for General and Operations Managers, which added 708 jobs from 2017-2022.

Thomas Jefferson Planning District Top 25 Sub-Occupations by Job Growth, 2017-2022



Wages

Across occupations in the TJPDC, Management had the highest median hourly wages at \$49.22. Other top earning occupations include Construction and Extraction occupations (\$40.86), Architecture and Engineering occupations (\$38.55), and Healthcare Practitioners (\$34.19).

On the other end of the spectrum, Food Preparation and Serving had the lowest median hourly earnings at \$12.06. Other low performing occupations include Personal Care and Service (\$13.26), Farming, Forestry, and Fishing (\$13.65), and Healthcare Support (\$13.80).

Median Hourly Wages by Occupation, 2022



Source: Lightcast



Occupation Competitive Effect and Shift Share

The shift share for the region’s occupations are presented to once again gauge how competitive the region was from 2017-2022.

The region as a whole has a competitive advantage given its 1,563 competitive effect, which indicates there are 1,563 more occupations than was expected in the region. Nelson County has the most negative competitive advantage in the region with a competitive effect of -279, while Albemarle County has the most positive competitive advantage of all the region’s counties with a competitive effect of 1,751.

When examining occupations within the region, Office and Administrative Support, Transportation and Material Moving, and Computer and Mathematics have a competitive advantage. On the opposite end of the spectrum, Food Preparation and Serving and Architecture and Engineering occupations all were less competitive than would be expected.

Shift Share Indicators, 2022

Region	Ind. Mix Effect	Nat'l Growth Effect	Expected Change	Competitive Effect
Albemarle County	177	1,188	1,365	1,751
City of Charlottesville	-223	848	625	-274
Fluvanna County	17	86	103	152
Greene County	-57	81	24	45
Louisa County	-65	206	141	167
Nelson County	-53	88	34	-279
Thomas Jefferson Planning District	-205	2,497	2,292	1,563
Virginia	21,878	84,869	106,747	-50,750

Source: Lightcast

Competitive Effect by Occupation, 2017-2022



Commute Patterns

In 2019, there were 67,799 individuals both living and working within the TJPDC, representing 68% of the population.

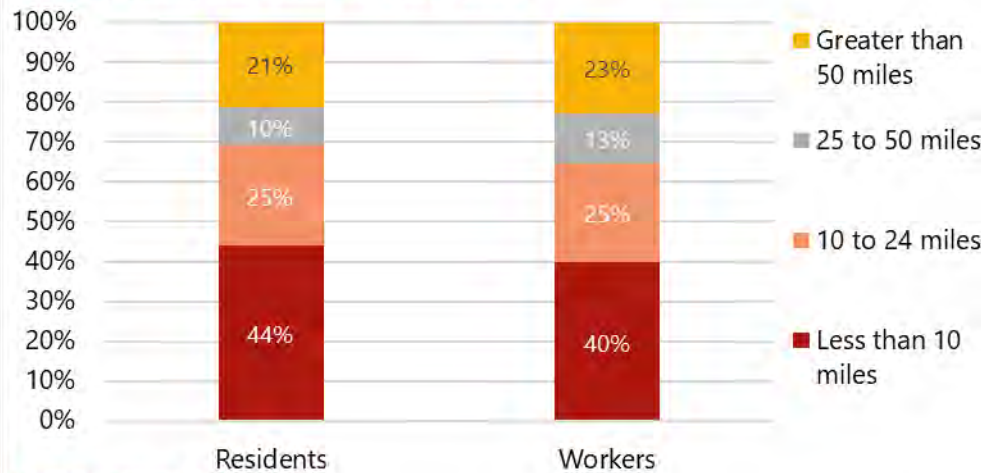
Total employment in the region was 110,860 workers. Of those, 43,061 or 39% work in the region but live outside it. Of the region's 99,869 residents, 32,070 or 32% work outside of the five counties.

The region as whole is a net importer of workers, with more of the region's residents working inside than outside its geographies.

Inflow/Outflow Job Counts in 2019



Commuting Distance for Thomas Jefferson Planning District Residents and Workers, 2019



Source: Census OnTheMap

Within the five-county region, residents have a shorter commute than workers. Seventy-nine percent (79%) of the region's workers commute less than 50 miles for work, while 77% of the region's residents commute less than 50 miles for work.

The largest share of workers and residents commute less than 10 miles to work (40% and 44% respectively). The shorter commute patterns for residents implies that there are better jobs inside the region that workers are willing to commute further for than exist for workers outside the region.

Commute Destinations

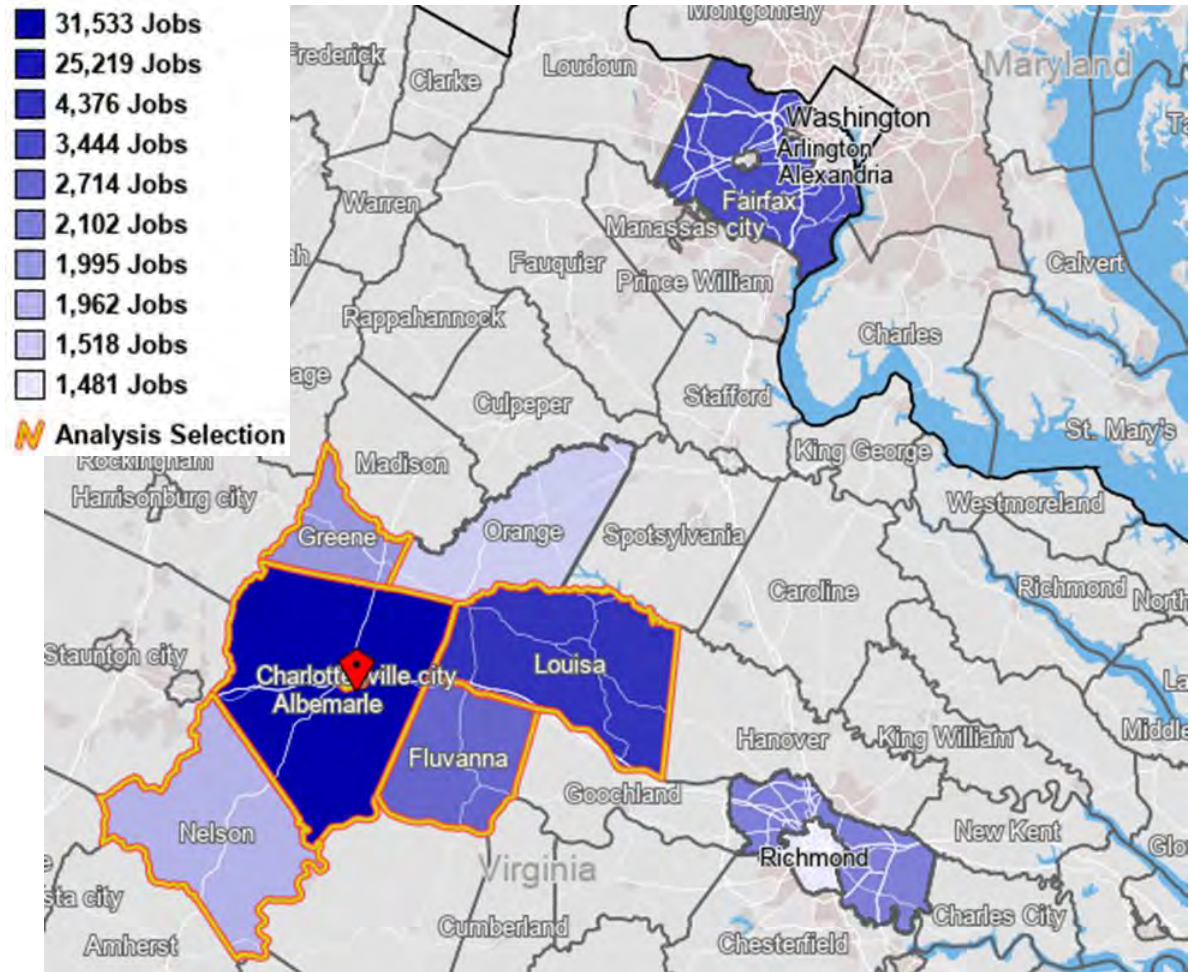
For residents of the TJPDC, the largest share (32%) work in Albemarle County, Charlottesville (25%), and Louisa County (4%). Fluvanna County employs 3%, and Greene and Nelson counties both employ 2%. Geographically, outside of the region, a decent share of the region’s residents commute to the Washington, DC, and Richmond metro areas with Fairfax County and Henrico County among the top 10 work destinations for residents of the region. Those commuting out of the TJPDC region are traveling to a diverse set of occupations that range from management to service workers to agricultural workers and mechanics.

Where Thomas Jefferson Planning District Residents Work, 2019, Primary Jobs

City/Town	Count	Share
Albemarle County, VA	31,533	32%
Charlottesville city, VA	25,219	25%
Louisa County, VA	4,376	4%
Fairfax County, VA	3,444	3%
Fluvanna County, VA	2,714	3%
Henrico County, VA	2,102	2%
Greene County, VA	1,995	2%
Nelson County, VA	1,962	2%
Orange County, VA	1,518	2%
Richmond city, VA	1,481	1%
All Other Locations	23,525	24%
Total	99,869	100%

Note: In Region Counties are Shaded

Source: Census OnTheMap



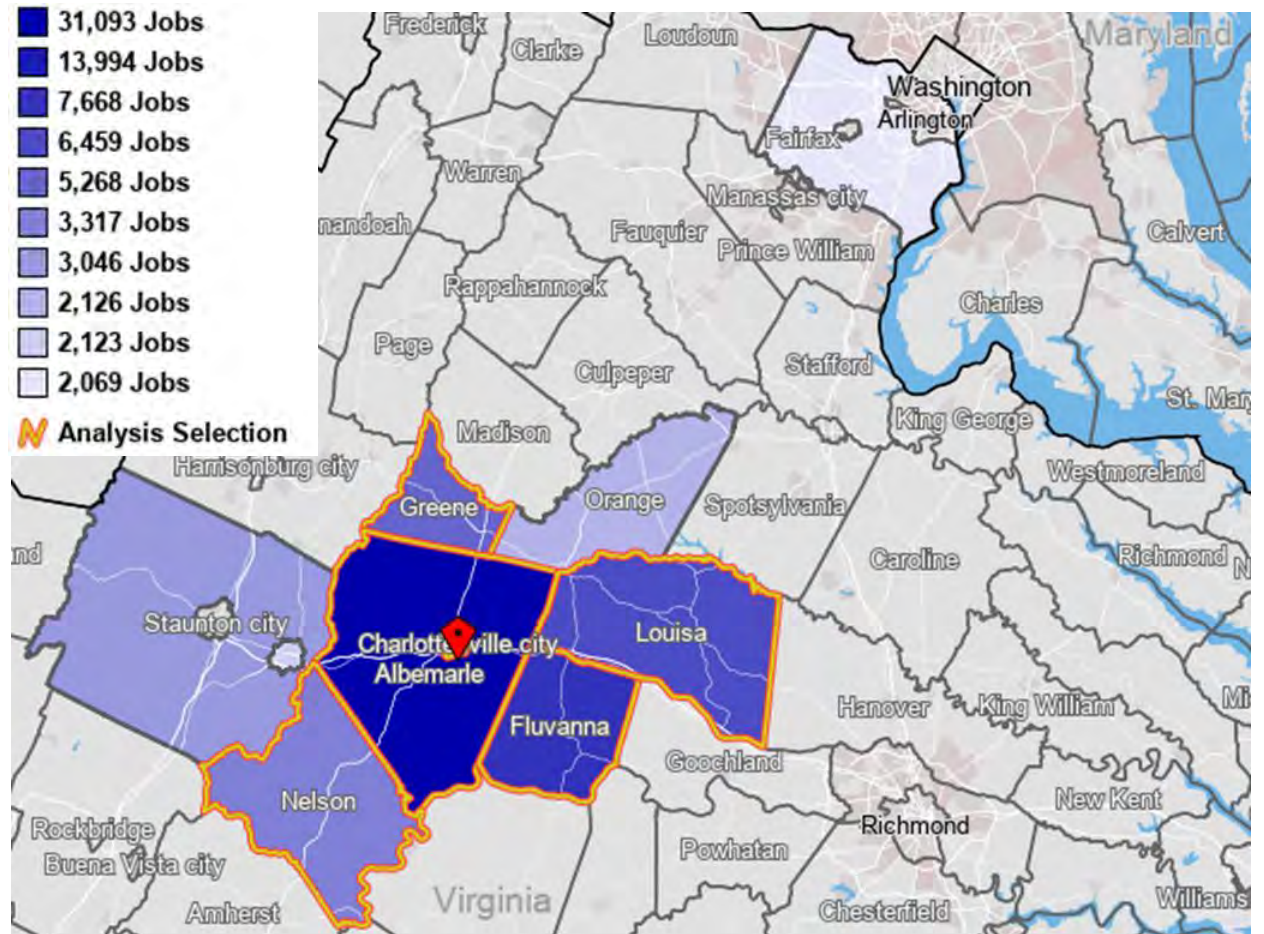
For workers in the region, the largest share (28%) live in Albemarle County, followed by Charlottesville (13%) and Fluvanna County (7%). Louisa, Greene, and Nelson counties are home to 6%, 5%, and 3% of the region’s workers, respectively. For those commuting into the region, the most common occupations revolve around education, health care, with some professional services.

Where Thomas Jefferson Planning District Workers Live, 2019, Primary Jobs

City/Town	Count	Share
Albemarle County, VA	31,093	28%
Charlottesville city, VA	13,994	13%
Fluvanna County, VA	7,668	7%
Louisa County, VA	6,459	6%
Greene County, VA	5,268	5%
Nelson County, VA	3,317	3%
Augusta County, VA	3,046	3%
Orange County, VA	2,126	2%
Waynesboro city, VA	2,123	2%
Fairfax County, VA	2,069	2%
All Other Locations	33,697	30%
Total	110,860	100%

Note: In Region Counties are Shaded

Source: Census OnTheMap



REAL ESTATE

Key Takeaways

The Thomas Jefferson Planning District Commission (TJPDC) region is home to 31.8 million square feet (SF) of non-residential real estate along with 14,000 multifamily residential units. Demand for the region’s multifamily housing units is strong with vacancies registering less than 4%. This strong demand has rental rates currently registering over \$1,500/month.

Accounting for more than one-third of all non-residential square footage, retail represents the largest property type with a total of 11.3 million SF in the region. Office real estate ranks second with 9.7 million SF of space, which is highly concentrated in Charlottesville and Albemarle County. Industrial real estate ranks as the third largest non-residential segment with 5.4 million SF. Reflecting the national trend, demand remains quite strong for this type of space as seen in the local vacancy rates, which are down near 1%.

The region’s hospitality sector includes a total of 56 lodgings with 5,300 rooms. In 2022, lodging saw an occupancy rate of 64%, which is slightly above the national rate of 62%. Lodging is the one type of real estate where Nelson County draws particular attention as nightly rates at the Wintergreen Resort measure well above the regional average.

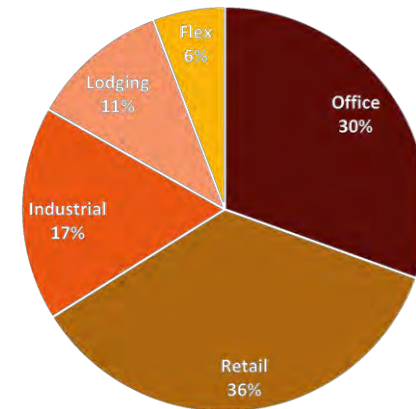
By county, the region’s non-residential real estate is most concentrated in the areas with the highest populations, Charlottesville (34% of non-residential area) and Albemarle County (47%). Louisa County holds 9% of all non-residential property followed by Greene County (5%). Fluvanna and Nelson counties represent a slim 3% and 2% share of the region’s non-residential square footage, respectively.

Currently, 54 developable properties comprising nearly 4,200 acres are available for sale throughout the region, comprising nearly 4,200 acres with a median area of 5.3 acres. Albemarle County claims nearly 3,000 acres with large tracts available in the Mount Ida Reserve area.

Strong demand for warehouse and distribution space has drawn vacancies in the industrial sector down nearly 1%. This is the third largest non-residential segment representing around one-sixth of all non-residential square footage in the region.

With almost 10 million SF of space in the region, offices currently see a vacancy rate approaching 8%. However, when compared to the national office vacancy rate in 2022 of more than 12%, this market is considered relatively healthy.

TJPDC Non-Residential Real Estate Inventory by Type 31.8 msf in 2022



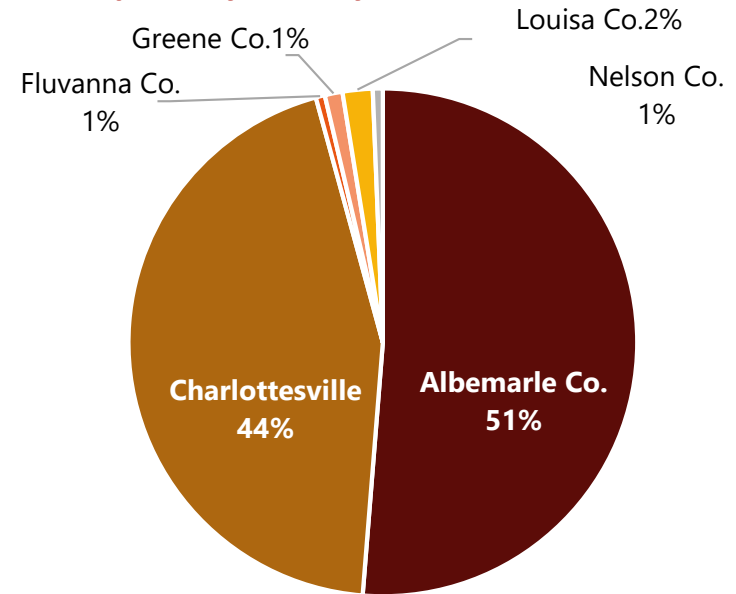
Source: CoStar



Office Space

- Nearly 5 million SF of office space is found in Albemarle County, more than half of the regional total. With over 500,000 SF of that space unoccupied, however, this county also has the region’s highest vacancy rates.
- Charlottesville maintains the bulk of the region’s remaining office space with well over 4 million SF. In contrast to Albemarle County, however, the city’s vacancy rate remains well under 5%. The city also sees the highest average rental rates for office space.
- The remaining 4% of the region’s office space is divided among the four other counties. Louisa County claims the most with 185,000 SF followed by Greene County at 109,000 SF. The other counties share another 117,000 SF accounting for under 1% of the total each.
- While the region’s overall office vacancy rate of just under 8%, may seem high, it remains significantly below the national rate of 12.9%.

Office Space by County - 2022



Source: CoStar

TJPDC Office Building Market Metrics - 2022

County	Buildings	Total SF	Regional Share	Vacancy Rate	Rental Rate/SF
Albemarle Co.	256	4,972,721	51.3%	10.8%	\$25.71
Charlottesville	243	4,314,992	44.5%	4.4%	\$28.43
Fluvanna Co.	13	56,130	0.6%	0.0%	N/A
Greene Co.	22	109,161	1.1%	3.6%	\$18.00
Louisa Co.	29	185,124	1.9%	5.3%	\$9.95
Nelson Co.	4	61,460	0.6%	6.6%	N/A
TJPDC Total	567	9,699,588	100.0%	7.7%	\$26.24

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

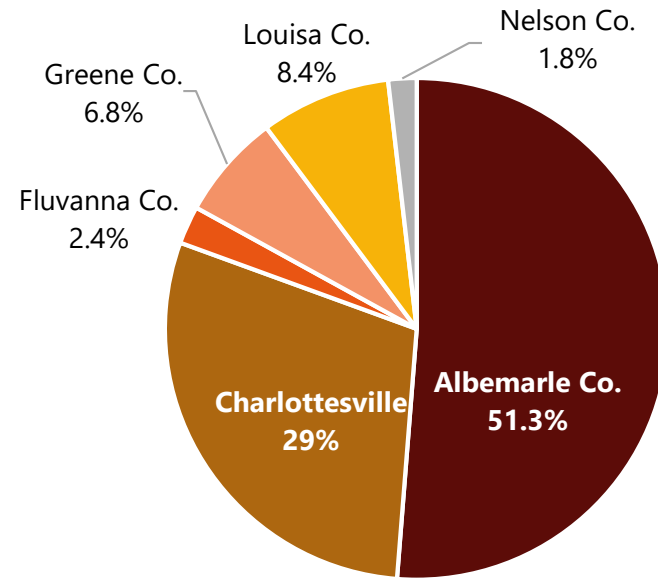
Source: CoStar/Camoin Associates



Retail Space

- With 11.3 million SF of total space, the TJPDC region’s retail market currently sees a vacancy rate of almost 5%. This exceeds the national rate of 4%.
- The largest retail market in the region with nearly 5.8 million SF of total space, Albemarle County currently holds over 420,000 SF of unoccupied space, yielding a vacancy rate of more than 7%.
- Despite its high vacancy rate, Albemarle County also posted the highest rental rate for retail space amongst the six localities in 2022.

Retail Space by County - 2022



Source: CoStar

TJPDC Retail Building Market Metrics - 2022

County	Buildings	Total SF	Regional Share	Vacancy Rate	Rental Rate/SF
Albemarle Co.	289	5,799,108	51.3%	7.3%	\$22.05
Charlottesville	283	3,318,870	29.3%	3.0%	\$18.21
Fluvanna Co.	31	276,718	2.4%	0.7%	N/A
Greene Co.	65	768,349	6.8%	1.6%	\$16.31
Louisa Co.	91	946,242	8.4%	0.8%	\$18.15
Nelson Co.	40	205,895	1.8%	1.3%	N/A
TJPDC Total	799	11,315,182	100.0%	4.9%	\$19.18

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

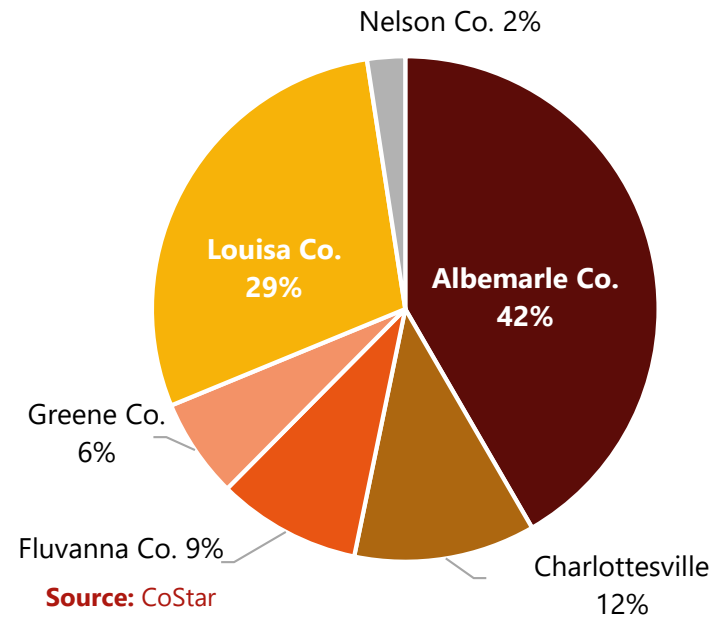
Source: CoStar/Camoin Associates



Industrial Space

- Demand for industrial space, especially warehouse and distribution centers, has proven to be exceptionally strong nationwide and this is also seen throughout the TJPDC region.
- Vacancies for industrial space in the region stand at just 1.2% — one-third of the 4% rate found at the national level.
- The largest amount of industrial space is found in Albemarle County with around 2.3 million SF.
- Louisa County also makes a strong showing with 1.6 million SF of industrial space. Accounting for 29% of the total market, this is three times the share the county sees across other non-residential segments. Notably, more than half of the county’s industrial space is accounted for by the 880,000 SF Walmart distribution center in Gordonsville.
- Also notable is the 500,000 SF Seminole Place warehouse in Albemarle County.

Industrial Space by County - 2022



TJPDC Industrial Building Market Metrics - 2022

County	Buildings	Total SF	Regional Share	Vacancy Rate	Rental Rate/SF
Albemarle Co.	56	2,269,003	41.7%	0.8%	\$15.98
Charlottesville	33	630,887	11.6%	0.0%	N/A
Fluvanna Co.	18	500,026	9.2%	0.0%	\$12.00
Greene Co.	20	346,157	6.4%	2.3%	\$6.97
Louisa Co.	24	1,569,322	28.8%	2.6%	\$10.00
Nelson Co.	5	131,994	2.4%	0.0%	N/A
TJPDC Total	156	5,447,389	100.0%	1.2%	\$11.08

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

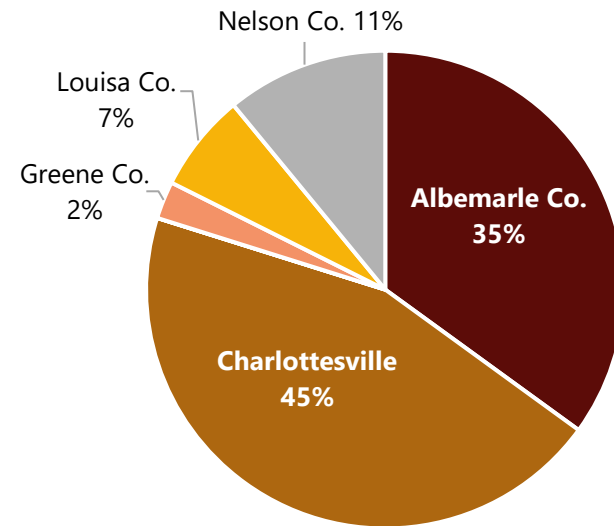
Source: CoStar/Camoin Associates



Hospitality Space

- With 25 properties and 2,384 rooms, Charlottesville rates as the largest hotel market within the region. This lead is supported by the inclusion of the Omni hotel and University Area Holiday Inn. In addition, a new hotel and conference center is currently under construction in the Ivy Corridor area which will include over 200 additional rooms.
- Albemarle County also makes a strong showing with over 1,800 rooms. Major properties here include the Double Tree and Boar’s Head Resort. The county will also see a boost from the Kimpton Forum Hotel, which is currently under construction.
- Nelson County, which accounts for a mere 2% of total non-residential space in the region, makes a relatively strong showing with 582 rooms (11% of the regional total) found primarily at the Wintergreen Resort.
- Occupancy rates here are generally on par with national trends, while daily room rates measure slightly above the level reported for the US.

Lodging Rooms by County - 2022



Source: CoStar

TJPDC Lodging Building Market Metrics - 2022

County	Buildings	Total SF	Total Rooms	Regional Share	Vacancy Rate	Rental Rate/SF
Albemarle Co.	19	1,311,320	1,861	35.0%	66.6%	\$150.59
Charlottesville	25	1,664,786	2,384	44.8%	66.3%	\$151.62
Fluvanna Co.	0	0	0	N/A	N/A	N/A
Greene Co.	3	75,352	135	2.5%	64.5%	\$118.65
Louisa Co.	6	205,419	354	6.7%	61.9%	\$128.69
Nelson Co.	56	250,490	582	10.9%	46.1%	\$218.89
TJPDC Total	109	3,507,367	5,316	100.0%	63.9%	\$156.11

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

Source: CoStar/Camoin Associates

Data Note: Camoin Associates draws data from the CoStar real estate information service and CoStar does not include data on campgrounds or short-term rentals (Airbnb/VRBO)



Short-term Rentals

- In the TJPDC Region there are 2,622 active STR with an average occupancy rate of 52%. The average rate for a STR is \$257.11.
- With 681 active rentals, the Charlottesville Market Area leads the region in number of rentals available.
- From 2020 to 2023, the region has seen 59% growth in total listings. In that same period, Charlottesville saw a -13% decline in rental growth. Conversely, Nelson County market areas saw substantial growth in that same three-year period.
- The highest average daily rate is in Louisa County with an average daily rate of \$542.00 in the Bumpass market area. The lowest average daily rate is in Fluvanna at \$159.00 in the Palmyra market area. On average, the daily rate for the TJPDC Region is about \$257 per night.

Short-Term Rentals Thomas Jefferson Planning District by Market Area*, 2022

Market Area	County	Average Daily Occupancy			Active Rentals	Percent Entire Home Rentals	Rental Growth (2020-2023)	Share Full-Time Rentals
		Rate	Rate	Revenue				
Charlottesville	Charlottesville	\$238.00	64%	\$3,289.00	681	84%	-13%	46%
Nellysford	Nelson	\$296.00	53%	\$3,818.00	543	98%	47%	62%
Mineral	Louisa	\$467.00	55%	\$5,714.00	206	99%	63%	62%
Roseland	Nelson	\$327.00	55%	\$4,309.00	194	98%	55%	66%
Afton	Nelson	\$307.00	52%	\$4,248.00	145	88%	66%	60%
Bumpass	Louisa	\$542.00	57%	\$7,163.00	133	97%	35%	62%
Standardsville	Greene	\$196.00	63%	\$2,977.00	116	86%	44%	73%
Gordonsville	Louisa	\$251.00	54%	\$2,880.00	108	79%	39%	44%
Crozet	Albermarle	\$198.00	58%	\$3,212.00	59	84%	-8%	59%
Louisa	Louisa	\$355.00	48%	\$4,145.00	49	83%	103%	61%
Scottsville	Albermarle	\$200.00	50%	\$2,205.00	40	95%	63%	51%
Ruckersville	Greene	\$189.00	57%	\$2,563.00	37	91%	80%	58%
Faber	Nelson	\$244.00	57%	\$3,782.00	31	83%	107%	72%
Palmyra	Fluvanna	\$159.00	52%	\$2,101.00	30	96%	167%	62%
Lovingston	Nelson	\$253.00	56%	\$3,606.00	27	44%	12%	73%
Arrington	Nelson	\$236.00	42%	\$2,689.00	27	66%	63%	48%
Earlsville	Albermarle	\$210.00	62%	\$3,086.00	24	91%	14%	74%
Keswick	Albermarle	\$224.00	38%	\$2,070.00	23	78%	27%	32%
Free Union	Albermarle	\$278.00	56%	\$2,958.00	23	91%	63%	76%
Tyro	Nelson	\$213.00	39%	\$2,799.00	22	100%	5%	69%
Montebello	Nelson	\$229.00	42%	\$2,677.00	22	100%	30%	71%
Barboursville	Albermarle	\$207.00	52%	\$2,532.00	19	78%	33%	60%
Dyke	Greene	\$246.00	46%	\$2,991.00	16	81%	40%	38%
Troy	Fluvanna	\$192.00	40%	\$2,120.00	16	87%	100%	47%
North Garden	Nelson	\$223.00	51%	\$3,436.00	12	83%	-43%	70%
Schuyler	Albermarle	\$220.00	67%	\$2,925.00	11	100%	57%	70%
Shipman	Nelson	\$242.00	41%	\$2,882.00	8	100%	350%	45%
Total/Average		\$257.11	52%	\$89,177	2,622	87%	59%	60%

*Region selected by Market Areas with the majority of listing within the Thomas Jefferson Planning District

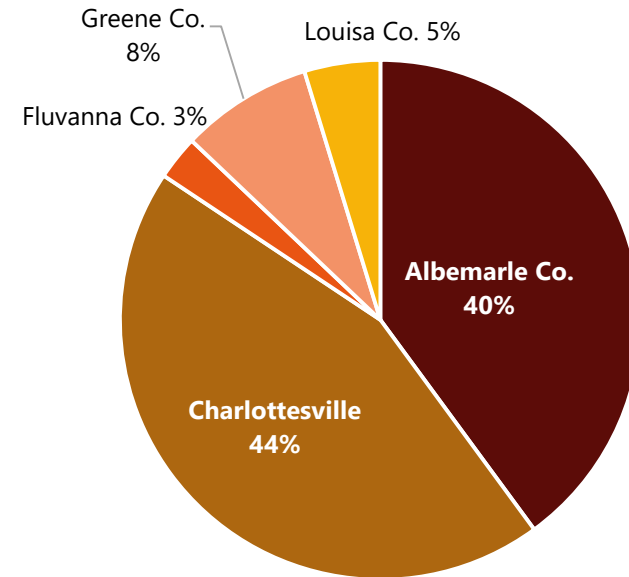
Source: AirDNA



Flex Space

- The flex space market in the TJPDC region is highly dominated by Charlottesville and Albemarle County which includes over 1.5 million SF of total space – more than four-fifths of the total market.
- Regional demand remains strong for this type of real estate with vacancies holding close to 0% - significantly below the national average which stands at over 5%.

Flex Space by County - 2022



Source: CoStar

TJPDC Flex Building Market Metrics - 2022

County	Buildings	Total SF	Regional Share	Vacancy Rate	Rental Rate/SF
Albemarle Co.	32	726,989	39.8%	0.0%	\$11.73
Charlottesville	28	808,626	44.3%	0.7%	N/A
Fluvanna Co.	4	49,900	2.7%	0.0%	N/A
Greene Co.	4	148,938	8.2%	0.0%	N/A
Louisa Co.	7	85,793	4.7%	0.0%	N/A
Nelson Co.	1	5,600	0.3%	0.0%	N/A
TJPDC Total	76	1,825,846	100.0%	0.3%	N/A

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

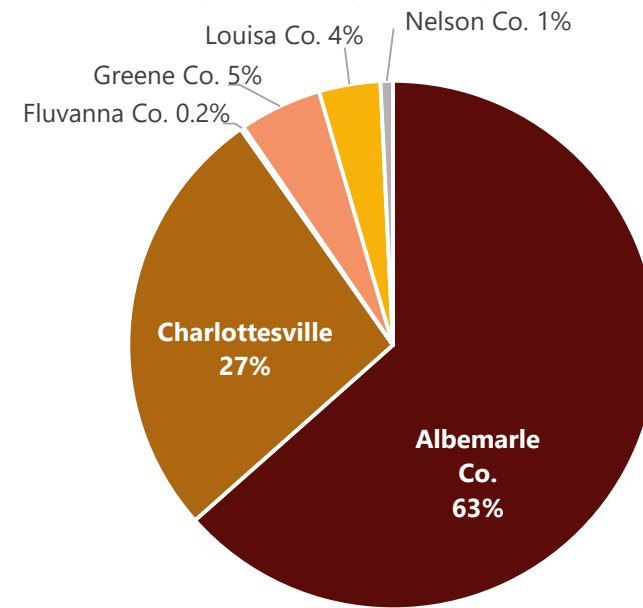
Source: CoStar/Camoin Associates



Multifamily Residential

- Of the region’s 14,000 multifamily residential units, Albemarle County accounts for 8,900 – a 63% share. Several of these are found in the neighborhoods just beyond the Charlottesville city limits such as Abbington Crossing, the Ivy Garden Apartments, and Seminole Place – each with more than 400 units.
- The City of Charlottesville also makes a strong showing with more than 3,700 units. Larger properties include the City Walk apartments, Beacon on 5th, and the Hearthwood Apartments – each with 200 units or more.
- Greene County includes two properties with 200 or more units while Louisa County shows two with 100 or more but the bulk of properties of this scale are located in Albemarle County (90% inclusive of Charlottesville).

Multifamily Units by County - 2022



Source: CoStar

TJPDC Multifamily Market Metrics - 2022

County	Buildings	Number of Units	Regional Share	Vacancy Percent	Rent Per Unit
Albemarle Co.	69	8,889	63.5%	4.4%	\$1,560
Charlottesville	126	3,752	26.8%	1.5%	\$1,584
Fluvanna Co.	3	30	0.2%	3.3%	N/A
Greene Co.	7	706	5.0%	6.3%	\$1,498
Louisa Co.	9	526	3.8%	0.3%	\$1,228
Nelson Co.	3	106	0.8%	1.2%	\$644
TJPDC Total	217	14,009	100.0%	3.5%	\$1,544

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

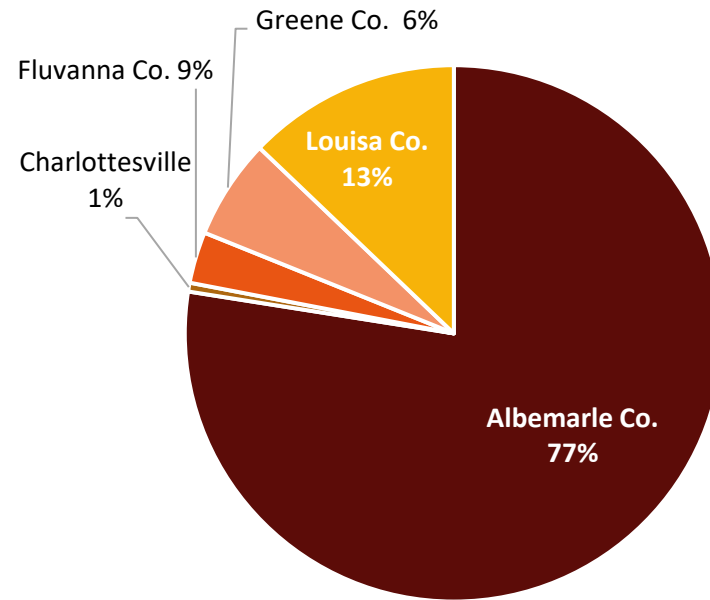
Source: CoStar/Camoin Associates



Available Land

- A total of 54 developable properties are identified by the CoStar real estate information service as available for sale throughout the region. These comprise a total of nearly 4,200 acres with a median size of 5.3 acres. Of note, this figure is boosted significantly by offerings at Mount Ida Reserve.
- The largest share of these properties is found in Albemarle County with just over 3,200 acres available representing more than half of the total area among all listings.
- Louisa County also holds one-quarter of all available sites, but due to their below average size, this county represents only one-eighth of the space for sale, totaling 540 acres.
- Though Fluvanna includes only five available properties it stands out as showing the largest median size at nearly 30 acres

Developable Land for Sale by County - 2022



Source: CoStar

Land Available in the TJPDC Region by County - 2022

	Albemarle County	Charlottesville	Fluvanna County	Greene County	Louisa County	Nelson County	TJPDC Total
Number of Properties	19	5	5	11	14	0	54
Total Acreage	3,253	22	130	253	539	0	4,197
Median Acreage	3.7	1.2	29.8	9.0	6.6	N/A	5.3
Percent of TJPDC Region							
Number of Properties	35.2%	9.3%	9.3%	20.4%	25.9%	0.0%	100.0%
Total Acreage	77.5%	0.5%	3.1%	6.0%	12.8%	0.0%	100.0%

Source: CoStar

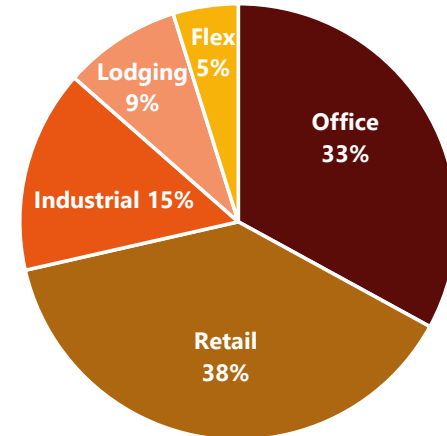
Note: Camoin Associates draws data from the CoStar real estate information service in developing our measures of for-sale land available for development in the region. Included in this data is a single listing for 2,500 acres at the Mount Ida Reserve. This vast area is in the process of being subdivided, primarily for residential development, but the precise number and size of sites that will eventually become available is not clear. At this time the single 2,500-acre site is included in the aggregated data seen on this page.



Albemarle County

- With a total of 15 million SF of non-residential real estate (nearly half of the entire region’s square footage), Albemarle County shows a higher-than-average concentration of office and retail space as compared with the other counties in the TJPDC area.
- At nearly 8,900 units, the county also sees an exceptionally high share of multifamily housing within the region.
- Notable residential developments in the county include the Lakeside Apartments and Abbingtion Crossing. Meanwhile the Doubletree hotel and Seminole Place represent some of the largest non-residential properties.

Albemarle County Non-Residential Real Estate Inventory by Type - 2022



Source: CoStar

Investment Real Estate in Albemarle County - 2022

Type	Buildings	Inventory (SF)	Regional Share	Vacancy Rate	Rent (SF/Ann)	Rent Index to Region
Office	256	4,972,721	51.3%	10.8%	\$25.71	98
Retail	289	5,799,108	51.3%	7.3%	\$22.05	115
Industrial	56	2,269,003	41.7%	0.8%	\$15.98	144
Lodging	19	1,311,320	37.4%	N/A	N/A	N/A
Flex	32	726,989	39.8%	0.0%	\$11.73	N/A
Total	633	15,079,141	48.7%	7.1%	N/A	N/A

Hospitality	Buildings	Inventory (Rooms)	Regional Share	Occupancy Rate	Daily Rate	Rate Index to Region
Lodging	19	1,861	35.0%	66.6%	\$151	96

Residential	Buildings	Inventory (Units)	Regional Share	Vacancy Rate	Rent (Monthly)	Rent Index to Region
Multifamily	69	8,889	63.5%	4.4%	\$1,560	101

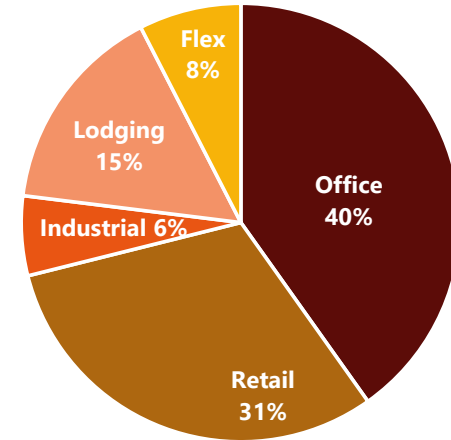
Source: CoStar/Camoin Associates



City of Charlottesville

- Not surprisingly, the city boasts exceptionally high shares of the region’s office space (45%) and hotel rooms (45%). Conversely, more expensive land also means a much lower concentration of industrial space (12% of the regional total).
- For the city’s 3,752 multifamily housing units, strong demand in the county has driven vacancies down to 1.5% - well below the regional average.
- A significant jump in hospitality space is anticipated for delivery in 2025 from the new University of Virginia (UVA) hotel and conference center currently under construction.

Charlottesville Non-Residential Real Estate Inventory by Type - 2022



Source: CoStar

Investment Real Estate in City of Charlottesville - 2022

Type	Buildings	Inventory (SF)	Regional Share	Vacancy Rate	Rent (SF/Ann)	Rent Index to Region
Office	243	4,314,992	44.5%	4.4%	\$28.43	108
Retail	283	3,318,870	29.3%	3.0%	\$18.21	95
Industrial	33	630,887	11.6%	0.0%	N/A	N/A
Lodging	25	1,664,786	47.5%	N/A	N/A	N/A
Flex	28	808,626	44.3%	0.7%	N/A	N/A
Total	587	10,738,161	32.1%	3.2%	N/A	N/A

Hospitality	Buildings	Inventory (Rooms)	Regional Share	Occupancy Rate	Daily Rate	Rate Index to Region
Lodging	25	2,384	44.8%	66.3%	\$152	97

Residential	Buildings	Inventory (Units)	Regional Share	Vacancy Rate	Rent (Monthly)	Rent Index to Region
Multifamily	126	3,752	26.8%	1.5%	\$1,584	103

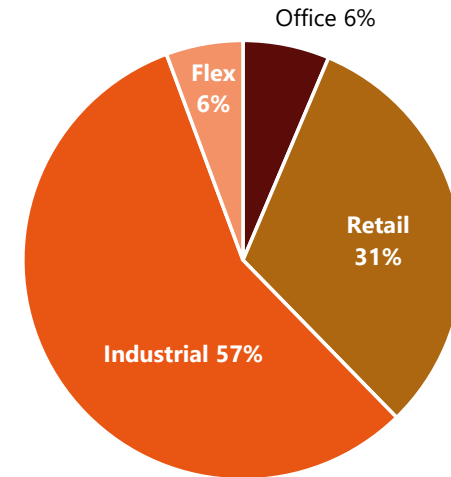
Source: CoStar/Camoin Associates



Fluvanna County

- Fluvanna County, with a total of just over 880,000 SF of non-residential real estate is unique within the region as more than half of this space is dedicated to industrial uses (55%).
- Notable elements of this extensive industrial market are the 188,000 SF warehouse on Carysbrook Rd in Fork Union and the 80,000 SF facility on Edgecomb Rd in Troy. This sector will continue to dominate the county with the anticipated delivery of an additional 175,000 SF on Richmond Rd in Troy (built in multiple phases).

Fluvanna County Non-Residential Real Estate Inventory by Type - 2022



Source: CoStar

Investment Real Estate in Fluvanna County - 2022

Type	Buildings	Inventory (SF)	Regional Share	Vacancy Rate	Rent (SF/Ann)	Rent Index to Region
Office	13	56,130	0.6%	0.0%	N/A	N/A
Retail	31	276,718	2.4%	0.7%	N/A	N/A
Industrial	18	500,026	9.2%	0.0%	\$12.00	108
Lodging	0	0	0.0%	N/A	N/A	N/A
Flex	4	49,900	2.7%	0.0%	N/A	N/A
Total	66	882,774	3.1%	0.2%	N/A	N/A

Hospitality	Buildings	Inventory (Rooms)	Regional Share	Occupancy Rate	Daily Rate	Rate Index to Region
Lodging	0	0	0.0%	N/A	N/A	N/A

Residential	Buildings	Inventory (Units)	Regional Share	Vacancy Rate	Rent (Monthly)	Rent Index to Region
Multifamily	3	30	0.2%	3.3%	N/A	N/A

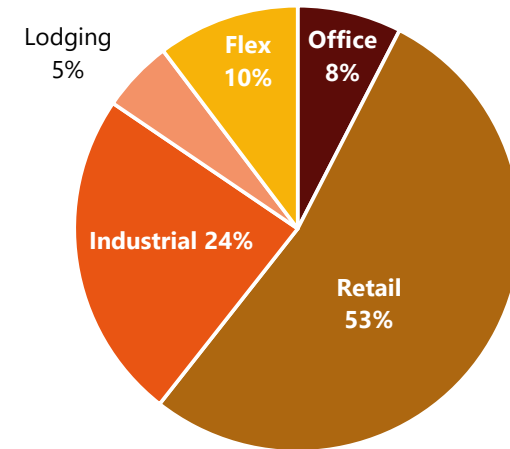
Source: CoStar/Camoin Associates



Greene County

- Just over half of Greene County’s 1.4 million SF of non-residential real estate is dedicated to retail, led by Walmart and Lowes on Seminole Trail Rd in Ruckersville.
- The county also holds more than 700 multifamily residential units with the largest developments being Terrace Greene in Barboursville and The Knoll at Stone View in Ruckersville.
- Greene County stands out as the region’s most affordability geographies for non-residential space. Rental rates for offices, retail space and industrial space, along with hotel room rates, all register significantly below regional averages.

Greene County Non-Residential Real Estate Inventory by Type - 2022



Source: CoStar

Investment Real Estate in Greene County - 2022

Type	Buildings	Inventory (SF)	Regional Share	Vacancy Rate	Rent (SF/Ann)	Rent Index to Region
Office	22	109,161	1.1%	3.6%	\$18.00	69
Retail	65	768,349	6.8%	1.6%	\$16.31	85
Industrial	20	346,157	6.4%	2.3%	\$6.97	63
Lodging	3	75,352	2.1%	N/A	N/A	N/A
Flex	4	148,938	8.2%	0.0%	N/A	N/A
Total	111	1,447,957	4.9%	1.8%	N/A	N/A

Hospitality	Buildings	Inventory (Rooms)	Regional Share	Occupancy Rate	Daily Rate	Rate Index to Region
Lodging	3	135	2.5%	64.5%	\$119	76

Residential	Buildings	Inventory (Units)	Regional Share	Vacancy Rate	Rent (Monthly)	Rent Index to Region
Multifamily	7	706	5.0%	6.3%	\$1,498	97

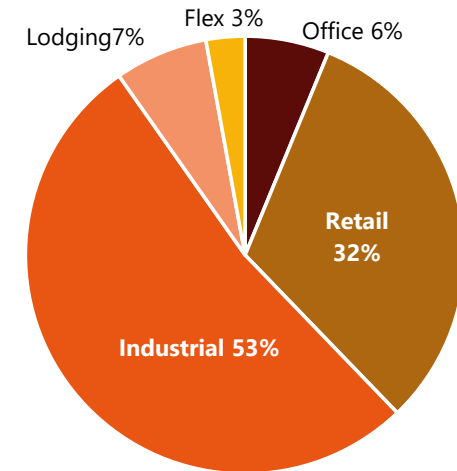
Source: CoStar/Camoin Associates



Louisa County Non-Residential Real Estate Inventory by Type- 2022

Louisa County

- Louisa County includes a total of nearly 3 million SF of non-residential real estate with industrial space accounting for more than half of the total. This 1.6 million SF of industrial space also accounts for 29% of the square footage in the entire region.
- The industrial sector is predominantly boosted by the Walmart distribution center in Gordonsville which accounts for 880,000 SF – more than half of the county’s total inventory.
- The county includes 9 multifamily properties totaling over 500 units. Notably, the average rental rate of these units is only \$1,228, 20% below the regional average.
- On the books are plans to expand the hospitality sector in Louisa County with a new Hampton Inn in Zion Crossing and a new Microtel Inn in Mineral.



Source: CoStar

Investment Real Estate in Louisa County - 2022

Type	Buildings	Inventory (SF)	Regional Share	Vacancy Rate	Rent (SF/Ann)	Rent Index to Region
Office	29	185,124	1.9%	5.3%	\$9.95	38
Retail	91	946,242	8.4%	0.8%	\$18.15	95
Industrial	24	1,569,322	28.8%	2.6%	\$10.00	90
Lodging	3	205,419	5.9%	N/A	N/A	N/A
Flex	7	85,793	4.7%	0.0%	N/A	N/A
Total	151	2,991,900	9.9%	2.1%	N/A	N/A

Hospitality	Buildings	Inventory (Rooms)	Regional Share	Occupancy Rate	Daily Rate	Rate Index to Region
Lodging	3	354	6.7%	61.9%	\$129	82

Residential	Buildings	Inventory (Units)	Regional Share	Vacancy Rate	Rent (Monthly)	Rent Index to Region
Multifamily	9	526	3.8%	0.3%	\$1,228	80

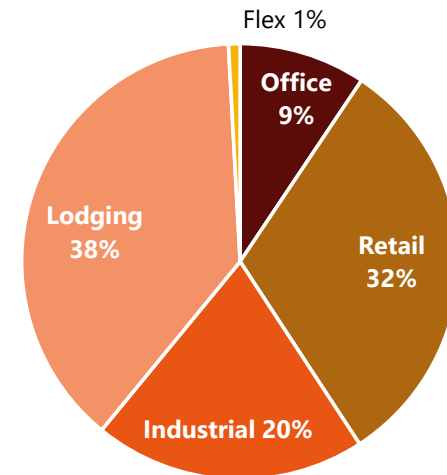
Source: CoStar/Camoin Associates



Nelson County

- Nelson County accounts for only 1.4% of the region’s non-residential real estate and for offices it captures half that share.
- The county does, however, host a substantial share of the region’s supply of lodging due to the hundreds of units found at the Wintergreen Resort.

Nelson County Non-Residential Real Estate Inventory by Type- 2022



Source: CoStar

Investment Real Estate in Nelson County - 2022

Type	Buildings	Inventory (SF)	Regional Share	Vacancy Rate	Rent (SF/Ann)	Rent Index to Region
Office	4	61,460	0.6%	6.6%	N/A	N/A
Retail	40	205,895	1.8%	1.3%	N/A	N/A
Industrial	5	131,994	2.4%	0.0%	N/A	N/A
Lodging	6	250,490	7.1%	N/A	N/A	N/A
Flex	1	5,600	0.3%	0.0%	N/A	N/A
Total	50	655,439	1.4%	1.7%	N/A	N/A

Hospitality	Buildings	Inventory (Rooms)	Regional Share	Occupancy Rate	Daily Rate	Rate Index to Region
Lodging	6	582	10.9%	46.1%	\$219	140

Residential	Buildings	Inventory (Units)	Regional Share	Vacancy Rate	Rent (Monthly)	Rent Index to Region
Multifamily	3	106	0.8%	1.2%	\$644	42

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 support staff for companies that produce a product or service, including 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 and 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, and quasi-retail sales, 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 feet, with light industrial zoning. Flex buildings have also been referred to as incubator, tech, and showroom buildings in markets throughout the country.

Flex uses can include a mix of:

- Office
- Light industrial (manufacturing, distribution, and warehousing)
- Research and Development (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 Residential

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:

- Apartment buildings 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 1-3 stories and four or more buildings
 - Low-rise with 1-3 stories
 - Mid-rise with 4-14 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, which is 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, price points, channels for distributing rooms and room promotions.



APPENDIX A: DATA TABLES

Thomas Jefferson Planning District Economic Base, 2-Digit NAICS Industries

NAICS	Description	2017	2022	2027	2017-2022	2017-2022	2022-2027	2022-2027	Avg.	2022	Competitive Effect	2021 Payrolled	2021 GRP (\$ 2017-2021 GRP		
		Jobs	Jobs	Jobs	Jobs Change	Jobs % Change	Jobs Change	Jobs % Change	Earnings Per Job	Location Quotient		Business Locations	2021 GRP	Millions)	% Change
11	Agriculture, Forestry, Fishing and Hunting	2,032	1,969	2,101	-63	-3.1%	132	6.7%	\$40,277	1.2	-120	150	\$167,244,212	\$167.2	11.7%
21	Mining, Quarrying, and Oil and Gas Extraction	124	94	100	-29	-23.7%	5	5.5%	\$82,886	0.2	-7	11	\$23,538,125	\$23.5	-33.4%
22	Utilities	1,425	1,299	1,221	-126	-8.8%	-78	-6.0%	\$169,025	2.9	-117	21	\$910,016,728	\$910.0	19.1%
23	Construction	7,826	6,982	6,812	-845	-10.8%	-170	-2.4%	\$63,903	0.9	-1,537	740	\$694,658,340	\$694.7	5.6%
31	Manufacturing	5,071	5,421	5,812	350	6.9%	391	7.2%	\$70,822	0.5	328	274	\$823,504,930	\$823.5	16.7%
42	Wholesale Trade	1,775	2,246	2,652	471	26.6%	406	18.1%	\$90,799	0.5	521	246	\$516,135,980	\$516.1	72.5%
44	Retail Trade	12,519	11,790	11,555	-729	-5.8%	-236	-2.0%	\$41,967	0.9	-382	769	\$967,447,168	\$967.4	30.6%
48	Transportation and Warehousing	2,047	2,802	3,205	755	36.9%	403	14.4%	\$56,480	0.5	280	124	\$236,957,817	\$237.0	7.3%
51	Information	2,062	1,646	1,826	-416	-20.2%	180	10.9%	\$111,704	0.7	-498	161	\$494,645,916	\$494.6	-2.7%
52	Finance and Insurance	2,875	3,128	3,250	253	8.8%	122	3.9%	\$145,094	0.6	42	418	\$1,066,287,234	\$1,066.3	33.5%
53	Real Estate and Rental and Leasing	1,628	2,080	2,319	452	27.8%	239	11.5%	\$64,789	0.9	370	368	\$636,809,344	\$636.8	8.1%
54	Professional, Scientific, and Technical Services	7,444	8,262	8,861	818	11.0%	599	7.2%	\$105,839	0.9	-225	1,069	\$1,323,903,220	\$1,323.9	25.8%
55	Management of Companies and Enterprises	1,844	1,808	1,701	-37	-2.0%	-107	-5.9%	\$162,546	1.0	-108	87	\$352,577,341	\$352.6	54.4%
56	Administrative and Support and Waste Management and Remediation Services	5,842	5,228	5,250	-614	-10.5%	21	0.4%	\$47,742	0.6	-701	413	\$439,398,886	\$439.4	13.8%
61	Educational Services	2,599	2,519	2,707	-80	-3.1%	187	7.4%	\$59,451	0.7	-282	129	\$182,313,901	\$182.3	21.0%
62	Health Care and Social Assistance	11,224	12,470	14,067	1,246	11.1%	1,596	12.8%	\$81,567	0.7	592	1,882	\$1,165,765,610	\$1,165.8	17.1%
71	Arts, Entertainment, and Recreation	2,758	2,496	3,070	-261	-9.5%	574	23.0%	\$43,902	1.2	-19	153	\$189,589,072	\$189.6	7.9%
72	Accommodation and Food Services	11,916	10,330	10,989	-1,586	-13.3%	659	6.4%	\$29,297	1.0	-471	600	\$513,254,218	\$513.3	14.2%
81	Other Services (except Public Administration)	8,155	8,211	8,856	56	0.7%	645	7.9%	\$44,740	1.2	238	1,064	\$473,037,907	\$473.0	13.9%
90	Government	37,690	41,833	46,187	4,144	11.0%	4,354	10.4%	\$73,202	2.2	4,948	267	\$3,443,491,044	\$3,443.5	19.0%
99	Unclassified Industry	308	403	521	95	31.0%	118	29.2%	\$53,205	2.4	114	197	Insf. Data	Insf. Data	Insf. Data
	Total	129,164	133,020	143,059	3,855	3.0%	10,040	7.5%	\$69,173		2,964	9,141	\$14,620,576,993	\$14,620.6	19.7%

Source: Lightcast

Job Change by Sector, 2017-2022

NAICS	Description	Albemarle County	City of Charlottesville	Fluvanna County	Greene County	Louisa County	Nelson County	Thomas Jefferson Planning District	Virginia
11	Agriculture, Forestry, Fishing and Hunting	0%	137%	-9%	30%	-35%	-18%	-3%	-9%
21	Mining, Quarrying, and Oil and Gas Extraction	-21%	Insf. Data	0%	-53%	Insf. Data	Insf. Data	-24%	-14%
22	Utilities	-16%	-9%	-46%	Insf. Data	-8%	44%	-9%	0%
23	Construction	-6%	-9%	52%	-12%	-41%	-18%	-11%	7%
31	Manufacturing	15%	-11%	118%	-2%	-7%	10%	7%	4%
42	Wholesale Trade	30%	29%	-32%	64%	27%	8%	27%	-1%
44	Retail Trade	-5%	-21%	33%	21%	5%	16%	-6%	-4%
48	Transportation and Warehousing	40%	-28%	-20%	20%	69%	7%	37%	16%
51	Information	-26%	-19%	92%	61%	Insf. Data	-33%	-20%	-1%
52	Finance and Insurance	17%	5%	2%	-14%	11%	-14%	9%	6%
53	Real Estate and Rental and Leasing	35%	-11%	200%	-16%	346%	28%	28%	5%
54	Professional, Scientific, and Technical Services	10%	16%	9%	-10%	23%	-19%	11%	11%
55	Management of Companies and Enterprises	-9%	12%	Insf. Data	Insf. Data	-11%	Insf. Data	-2%	8%
56	Administrative and Support and Waste Management and Remediation Services	-18%	-5%	-12%	0%	-13%	11%	-11%	5%
61	Educational Services	2%	-2%	-4%	-27%	0%	22%	-3%	5%
62	Health Care and Social Assistance	14%	8%	2%	2%	20%	-2%	11%	4%
71	Arts, Entertainment, and Recreation	-20%	16%	-73%	-6%	68%	72%	-9%	1%
72	Accommodation and Food Services	-18%	-15%	5%	17%	36%	-32%	-13%	-13%
81	Other Services (except Public Administration)	1%	2%	20%	3%	-21%	4%	1%	-2%
90	Government	15%	11%	-21%	-6%	5%	-3%	11%	-4%
99	Unclassified Industry	21%	38%	Insf. Data	101%	114%	169%	31%	60%

Source: Lightcast

Industry Location Quotients, 2022

NAICS	Description	Albemarle County	City of Charlottesville	Fluvanna County	Greene County	Louisa County	Nelson County	Thomas Jefferson Planning District	Virginia
11	Agriculture, Forestry, Fishing and Hunting	1.56	0.13	2.15	1.26	0.38	7.39	1.19	0.44
21	Mining, Quarrying, and Oil and Gas Extraction	0.24	0.02	0.00	1.11	0.69	0.35	0.22	0.37
22	Utilities	0.12	0.72	3.28	0.61	28.05	5.16	2.91	0.72
23	Construction	0.74	0.73	2.96	1.39	1.52	0.88	0.90	0.98
31	Manufacturing	0.50	0.22	0.78	0.22	1.41	1.94	0.53	0.71
42	Wholesale Trade	0.38	0.54	0.37	0.63	0.79	0.36	0.48	0.70
44	Retail Trade	0.96	0.66	0.91	2.06	1.21	0.70	0.91	0.96
48	Transportation and Warehousing	0.35	0.12	0.36	0.50	2.89	0.31	0.49	0.83
51	Information	0.49	1.17	0.52	0.32	0.04	0.28	0.67	0.86
52	Finance and Insurance	0.44	0.91	0.27	0.28	0.26	0.19	0.56	0.85
53	Real Estate and Rental and Leasing	1.07	0.70	0.84	0.32	1.03	0.93	0.90	0.92
54	Professional, Scientific, and Technical Services	0.93	1.04	0.28	0.80	0.32	0.46	0.87	1.59
55	Management of Companies and Enterprises	1.33	0.84	0.35	0.09	0.12	0.07	0.95	1.26
56	Administrative and Support and Waste Management and Remediation Services	0.48	0.81	1.24	0.92	0.45	0.68	0.64	0.98
61	Educational Services	0.54	0.96	1.62	1.89	0.07	0.38	0.71	0.85
62	Health Care and Social Assistance	0.88	0.64	0.54	0.46	0.42	0.50	0.72	0.83
71	Arts, Entertainment, and Recreation	1.58	1.09	0.15	0.69	0.56	0.51	1.22	0.94
72	Accommodation and Food Services	0.74	1.41	0.83	1.28	0.88	1.53	1.02	0.92
81	Other Services (except Public Administration)	1.02	1.40	1.94	1.37	0.92	2.08	1.22	1.06
90	Government	2.43	2.30	1.36	1.42	1.15	1.22	2.17	1.32
99	Unclassified Industry	1.75	2.47	0.66	4.01	4.81	6.58	2.43	4.52

Source: Lightcast

Competitive Effect by Sector, 2022

NAICS	Description	Albemarle County	City of Charlottesville	Fluvanna County	Greene County	Louisa County	Nelson County	Thomas Jefferson Planning District	Virginia
11	Agriculture, Forestry, Fishing and Hunting	-29	40	-16	14	-30	-99	-120	-3,257
21	Mining, Quarrying, and Oil and Gas Extraction	-2	2	0	-11	17	-13	-7	255
22	Utilities	-5	-9	-43	-3	-80	23	-117	85
23	Construction	-424	-374	230	-80	-815	-73	-1,537	-4,932
31	Manufacturing	314	-97	151	-2	-93	55	328	7,384
42	Wholesale Trade	221	210	-26	39	71	6	521	2,000
44	Retail Trade	-157	-649	113	168	96	46	-382	-6,500
48	Transportation and Warehousing	121	-164	-39	-3	373	-9	280	-9,922
51	Information	-238	-270	21	9	-8	-13	-498	-3,640
52	Finance and Insurance	95	-33	-3	-13	4	-9	42	-2,383
53	Real Estate and Rental and Leasing	266	-96	44	-6	149	12	370	-65
54	Professional, Scientific, and Technical Services	-171	54	-4	-63	17	-58	-225	-15,185
55	Management of Companies and Enterprises	-168	37	23	6	-3	-2	-108	3,016
56	Administrative and Support and Waste Management and Remediation Services	-447	-164	-53	-3	-49	15	-701	9,305
61	Educational Services	-51	-107	-25	-102	-2	5	-282	-2,337
62	Health Care and Social Assistance	504	66	-14	-11	71	-23	592	-6,308
71	Arts, Entertainment, and Recreation	-212	158	-25	1	43	16	-19	6,497
72	Accommodation and Food Services	-393	-289	40	94	244	-166	-471	-11,700
81	Other Services (except Public Administration)	96	134	85	15	-119	27	238	234
90	Government	3,364	1,727	-227	-40	128	-4	4,948	-12,552
99	Unclassified Industry	31	43	-32	11	37	23	114	10,599

Source: Lightcast

Average Earnings per Job, 2022

NAICS	Description	Albemarle County	City of Charlottesville	Fluvanna County	Greene County	Louisa County	Nelson County	Thomas Jefferson Planning District	Virginia
11	Agriculture, Forestry, Fishing and Hunting	\$36,388	\$60,291	\$47,223	\$42,908	\$45,114	\$40,591	\$40,277	\$43,538
21	Mining, Quarrying, and Oil and Gas Extraction	\$79,825	Insf. Data	\$89,007	\$37,586	\$82,571	Insf. Data	\$82,886	\$93,818
22	Utilities	\$141,475	\$139,127	Insf. Data	\$257,042	\$174,554	\$155,708	\$169,025	\$167,221
23	Construction	\$64,211	\$67,779	\$49,945	\$53,769	\$61,351	\$45,520	\$63,903	\$72,276
31	Manufacturing	\$79,500	\$64,815	\$49,009	\$71,093	\$72,616	\$47,486	\$70,822	\$80,564
42	Wholesale Trade	\$109,444	\$81,193	\$67,009	\$68,293	\$80,258	\$61,108	\$90,799	\$109,627
44	Retail Trade	\$47,895	\$38,865	\$33,506	\$37,172	\$31,226	\$27,088	\$41,967	\$43,019
48	Transportation and Warehousing	\$55,967	\$59,245	\$50,852	\$83,695	\$54,412	\$63,088	\$56,480	\$65,634
51	Information	\$97,323	\$123,354	\$110,148	\$63,272	Insf. Data	\$45,099	\$111,704	\$145,388
52	Finance and Insurance	\$143,729	\$157,528	\$66,449	\$79,775	\$74,529	\$62,750	\$145,094	\$131,264
53	Real Estate and Rental and Leasing	\$65,625	\$69,694	\$44,959	\$43,237	\$51,675	\$43,122	\$64,789	\$79,704
54	Professional, Scientific, and Technical Services	\$102,470	\$112,318	\$97,117	\$87,146	\$98,420	\$96,894	\$105,839	\$130,874
55	Management of Companies and Enterprises	\$95,838	\$335,066	Insf. Data	Insf. Data	\$86,894	Insf. Data	\$162,546	\$160,150
56	Administrative and Support and Waste Management and Remediation Services	\$50,736	\$43,831	\$38,003	\$43,024	\$40,115	\$69,387	\$47,742	\$59,869
61	Educational Services	\$58,312	\$66,921	\$49,085	\$44,382	\$42,035	\$39,552	\$59,451	\$51,238
62	Health Care and Social Assistance	\$73,070	\$113,971	\$46,049	\$48,244	\$43,674	\$49,635	\$81,567	\$69,256
71	Arts, Entertainment, and Recreation	\$47,954	\$38,663	\$21,752	\$46,802	\$29,627	\$17,928	\$43,902	\$37,400
72	Accommodation and Food Services	\$29,593	\$29,773	\$22,720	\$24,918	\$25,977	\$35,028	\$29,297	\$27,848
81	Other Services (except Public Administration)	\$45,712	\$53,624	\$27,306	\$33,231	\$24,859	\$30,566	\$44,740	\$43,095
90	Government	\$77,453	\$70,834	\$56,762	\$57,279	\$55,862	\$55,885	\$73,202	\$89,072
99	Unclassified Industry	\$56,113	\$63,390	\$41,334	\$33,981	\$45,080	\$22,800	\$53,205	\$63,936

Source: Lightcast

Payrolled Business Locations Percent Change by Sector, 2017-2021

NAICS	Description	Albemarle County	City of Charlottesville	Fluvanna County	Greene County	Louisa County	Nelson County	Thomas Jefferson Planning District	Virginia
11	Agriculture, Forestry, Fishing and Hunting	6%	163%	-8%	-26%	13%	9%	7%	4%
21	Mining, Quarrying, and Oil and Gas Extraction	-17%	Insf. Data	Insf. Data	0%	0%	0%	10%	-1%
22	Utilities	75%	-31%	33%	25%	150%	0%	40%	24%
23	Construction	-1%	-18%	14%	-5%	6%	-8%	-2%	5%
31	Manufacturing	17%	-11%	38%	-23%	2%	-6%	5%	16%
42	Wholesale Trade	3%	1%	-5%	20%	-11%	-14%	1%	-2%
44	Retail Trade	-7%	-8%	19%	5%	9%	14%	-3%	0%
48	Transportation and Warehousing	30%	-33%	-16%	-3%	26%	28%	9%	14%
51	Information	-8%	-4%	0%	14%	12%	0%	-5%	35%
52	Finance and Insurance	7%	6%	-30%	-13%	18%	-25%	3%	7%
53	Real Estate and Rental and Leasing	16%	16%	53%	83%	11%	-8%	17%	17%
54	Professional, Scientific, and Technical Services	9%	7%	20%	4%	4%	-3%	8%	16%
55	Management of Companies and Enterprises	103%	14%	Insf. Data	Insf. Data	163%	-50%	55%	9%
56	Administrative and Support and Waste Management and Remediation Services	2%	1%	-10%	9%	12%	-11%	2%	7%
61	Educational Services	16%	-1%	-14%	-67%	0%	75%	7%	15%
62	Health Care and Social Assistance	28%	10%	59%	17%	29%	4%	23%	22%
71	Arts, Entertainment, and Recreation	16%	18%	-30%	-27%	17%	7%	11%	17%
72	Accommodation and Food Services	-4%	1%	-2%	13%	15%	2%	1%	5%
81	Other Services (except Public Administration)	-11%	-9%	-13%	-29%	-25%	-34%	-14%	-5%
90	Government	9%	0%	3%	3%	7%	4%	4%	2%
99	Unclassified Industry	15%	43%	-42%	67%	98%	2%	27%	32%

Source: Lightcast

GRP Percent Change by Sector, 2017-2021

NAICS	Description	Albemarle County	City of Charlottesville	Fluvanna County	Greene County	Louisa County	Nelson County	Thomas Jefferson Planning District	Virginia
11	Agriculture, Forestry, Fishing and Hunting	14%	73%	20%	17%	-1%	4%	12%	12%
21	Mining, Quarrying, and Oil and Gas Extraction	-25%	-88%	-21%	-26%	115%	-28%	-33%	-10%
22	Utilities	105%	-10%	-35%	16%	24%	70%	19%	20%
23	Construction	11%	22%	71%	-2%	-35%	-4%	6%	26%
31	Manufacturing	26%	1%	61%	-32%	3%	25%	17%	18%
42	Wholesale Trade	100%	72%	-23%	90%	43%	-5%	73%	16%
44	Retail Trade	41%	5%	79%	39%	20%	24%	31%	27%
48	Transportation and Warehousing	-14%	-6%	42%	24%	34%	-17%	7%	-2%
51	Information	-9%	0%	96%	49%	-23%	-39%	-3%	25%
52	Finance and Insurance	32%	37%	12%	44%	31%	0%	34%	26%
53	Real Estate and Rental and Leasing	-10%	36%	53%	12%	37%	7%	8%	18%
54	Professional, Scientific, and Technical Services	17%	42%	17%	-1%	25%	9%	26%	19%
55	Management of Companies and Enterprises	9%	130%	296%	242%	-24%	14%	54%	21%
56	Administrative and Support and Waste Management and Remediation Services	16%	1%	57%	8%	9%	29%	14%	31%
61	Educational Services	36%	23%	-2%	-22%	11%	4%	21%	13%
62	Health Care and Social Assistance	21%	13%	-6%	29%	29%	3%	17%	16%
71	Arts, Entertainment, and Recreation	17%	-2%	-15%	2%	30%	-37%	8%	-4%
72	Accommodation and Food Services	10%	17%	46%	45%	67%	-22%	14%	16%
81	Other Services (except Public Administration)	25%	5%	33%	16%	0%	8%	14%	8%
90	Government	22%	16%	-5%	10%	20%	20%	19%	11%
99	Unclassified Industry	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data

Source: Lightcast

Thomas Jefferson Planning District, Top 20 4-Digit NAICS Industries by Job Count

NAICS	Description	2017-2022		2017-2022		2021-2027		2022-2027		Avg.	2022	Competitive Effect	2021 Payrolled Business		2017 -2021	
		2022 Jobs	Change	Jobs	Jobs %	Jobs	Jobs %	Jobs	Jobs %	Earnings Per Job	Location Quotient		Locations	2021 GRP	GRP %	Change
9026	Education and Hospitals (State Government)	26,484	3,566	15.6%		3,603	13.6%			\$72,131	10.93	4,462	13	\$1,992,146,874		17.7%
7225	Restaurants and Other Eating Places	7,575	-947	-11.1%		293	3.9%			\$26,572	0.94	-404	466	\$344,596,860		31.5%
9036	Education and Hospitals (Local Government)	6,263	180	3.0%		396	6.3%			\$63,780	0.94	376	7	\$394,177,276		9.6%
9039	Local Government, Excluding Education and Hospitals	4,082	-338	-7.7%		14	0.4%			\$76,241	0.92	-258	92	\$347,747,683		20.6%
6211	Offices of Physicians	2,945	441	17.6%		245	8.3%			\$157,405	1.28	228	135	\$503,745,514		17.3%
4451	Grocery Stores	2,889	-29	-1.0%		-9	-0.3%			\$33,068	1.29	-54	83	\$150,111,952		20.8%
8141	Private Households	2,710	142	5.5%		272	10.0%			\$18,970	2.14	338	573	\$50,977,034		20.3%
5617	Services to Buildings and Dwellings	2,154	102	5.0%		106	4.9%			\$39,817	0.91	42	227	\$130,614,939		28.6%
6241	Individual and Family Services	2,095	446	27.1%		352	16.8%			\$31,933	0.85	76	1,299	\$70,893,601		44.3%
9029	State Government, Excluding Education and Hospitals	1,957	475	32.0%		276	14.1%			\$72,495	1.10	511	90	\$177,794,068		37.7%
5415	Computer Systems Design and Related Services	1,846	-105	-5.4%		198	10.8%			\$136,922	0.88	-464	219	\$336,924,637		11.7%
5511	Management of Companies and Enterprises	1,808	-37	-2.0%		-107	-5.9%			\$162,546	0.95	-108	87	\$352,577,341		54.4%
2382	Building Equipment Contractors	1,802	30	1.7%		-81	-4.5%			\$60,025	0.78	-136	150	\$149,222,779		30.3%
5613	Employment Services	1,728	-185	-9.6%		-5	-0.3%			\$35,846	0.58	-237	54	\$155,301,731		56.2%
9011	Federal Government, Civilian	1,670	82	5.2%		-47	-2.8%			\$126,555	0.69	23	65	\$296,626,558		18.8%
7139	Other Amusement and Recreation Industries	1,648	-78	-4.5%		346	21.0%			\$28,389	1.53	33	79	\$61,717,758		10.3%
6111	Elementary and Secondary Schools	1,646	61	3.8%		59	3.6%			\$50,533	1.60	-123	30	\$83,664,969		22.0%
7211	Traveler Accommodation	1,545	-762	-33.0%		75	4.8%			\$39,753	1.36	-154	57	\$123,201,647		-10.1%
5417	Scientific Research and Development Services	1,525	256	20.1%		76	5.0%			\$124,785	2.18	-112	61	\$225,119,447		43.6%
3121	Beverage Manufacturing	1,464	329	29.0%		160	10.9%			\$45,780	5.95	100	51	\$191,918,281		49.2%

Source: Lightcast

Thomas Jefferson Planning District Top 20 4-Digit NAICS Industries by Job Growth, 2017-2022

NAICS Description	2017-2022		2017-2022		2021-2027		2022-2027		Avg.	2022	Competitive Effect	2021 Payrolled Business		2017 - 2021
	2022 Jobs	Jobs Change	Jobs % Change	Jobs Change	Jobs Change	Jobs % Change	Earnings Per Job	Location Quotient	Locations	2021 GRP		GRP % Change		
9026 Education and Hospitals (State Government)	26,484	3,566	15.6%	3,603	13.6%	\$72,131	10.93	4,462	13	\$1,992,146,874	17.7%			
9029 State Government, Excluding Education and Hospitals	1,957	475	32.0%	276	14.1%	\$72,495	1.10	511	90	\$177,794,068	37.7%			
4921 Couriers and Express Delivery Services	580	453	356.9%	112	19.3%	\$57,657	0.70	372	7	\$42,924,487	348.8%			
6241 Individual and Family Services	2,095	446	27.1%	352	16.8%	\$31,933	0.85	76	1,299	\$70,893,601	44.3%			
6211 Offices of Physicians	2,945	441	17.6%	245	8.3%	\$157,405	1.28	228	135	\$503,745,514	17.3%			
6216 Home Health Care Services	899	353	64.8%	198	22.1%	\$58,196	0.68	295	50	\$58,227,249	68.0%			
5241 Insurance Carriers	635	345	119.3%	105	16.6%	\$100,256	0.57	335	41	\$153,681,947	187.3%			
3121 Beverage Manufacturing	1,464	329	29.0%	160	10.9%	\$45,780	5.95	100	51	\$191,918,281	49.2%			
4541 Electronic Shopping and Mail-Order Houses	897	320	55.3%	126	14.0%	\$68,950	1.85	167	22	\$167,707,806	94.2%			
5419 Other Professional, Scientific, and Technical Services	1,133	309	37.5%	144	12.7%	\$77,514	1.35	137	118	\$195,182,041	51.9%			
6233 Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	1,244	273	28.1%	256	20.6%	\$43,049	1.69	285	28	\$55,387,380	46.3%			
4931 Warehousing and Storage	997	270	37.2%	37	3.7%	\$53,285	0.69	-270	8	\$58,571,217	38.9%			
5417 Scientific Research and Development Services	1,525	256	20.1%	76	5.0%	\$124,785	2.18	-112	61	\$225,119,447	43.6%			
5416 Management, Scientific, and Technical Consulting Services	1,319	255	24.0%	152	11.5%	\$111,297	0.79	27	232	\$215,684,376	22.9%			
5311 Lessors of Real Estate	733	204	38.5%	119	16.2%	\$56,162	1.12	186	87	\$276,576,478	17.4%			
3345 Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	578	203	54.0%	-54	-9.4%	\$110,597	1.71	183	17	\$157,805,209	24.5%			
5313 Activities Related to Real Estate	760	188	32.9%	67	8.9%	\$65,289	1.06	126	125	\$137,207,364	18.8%			
9036 Education and Hospitals (Local Government)	6,263	180	3.0%	396	6.3%	\$63,780	0.94	376	7	\$394,177,276	9.6%			
9012 Federal Government, Military	1,376	179	15.0%	112	8.1%	\$61,801	0.90	223	0	\$234,998,586	34.8%			
4251 Wholesale Electronic Markets and Agents and Brokers	315	169	115.5%	193	61.3%	\$184,036	0.80	236	66	\$110,830,682	213.8%			

Source: Lightcast

Thomas Jefferson Planning District Bottom 20 4-Digit NAICS Industries by Job Growth, 2017-2022

NAICS Description	2017-2022		2017-2022		2021-2027		2022-2027		Avg.	2022	Competitive Effect	2021 Payrolled Business		2017 - 2021
	2022 Jobs	Jobs Change	Jobs % Change	Jobs Change	Jobs Change	Jobs % Change	Earnings Per Job	Location Quotient	Locations	2021 GRP		GRP % Change		
7225 Restaurants and Other Eating Places	7,575	-947	-11.1%	293	3.9%	\$26,572	0.94	-404	466	\$344,596,860	31.5%			
7211 Traveler Accommodation	1,545	-762	-33.0%	75	4.8%	\$39,753	1.36	-154	57	\$123,201,647	-10.1%			
2371 Utility System Construction	384	-552	-59.0%	-30	-7.9%	\$67,852	0.68	-640	30	\$36,876,575	-59.4%			
5111 Newspaper, Periodical, Book, and Directory Publishers	574	-427	-42.6%	-38	-6.7%	\$126,181	2.74	-106	34	\$142,345,629	-39.3%			
2373 Highway, Street, and Bridge Construction	214	-375	-63.7%	-61	-28.4%	\$78,888	0.61	-415	7	\$24,138,747	-46.3%			
6221 General Medical and Surgical Hospitals	1,138	-362	-24.1%	116	10.2%	\$106,488	0.29	-392	1	\$139,386,924	-0.7%			
5615 Travel Arrangement and Reservation Services	200	-345	-63.3%	-99	-49.4%	\$65,750	1.47	-173	15	\$28,260,475	-46.6%			
9039 Local Government, Excluding Education and Hospitals	4,082	-338	-7.7%	14	0.4%	\$76,241	0.92	-258	92	\$347,747,683	20.6%			
4811 Scheduled Air Transportation	72	-272	-79.1%	-36	-50.2%	\$49,470	0.21	-246	2	\$5,867,449	-89.1%			
3344 Semiconductor and Other Electronic Component Manufacturing	328	-266	-44.7%	-7	-2.0%	\$97,722	1.09	-277	7	\$55,772,813	-48.0%			
4511 Sporting Goods, Hobby, and Musical Instrument Stores	323	-245	-43.1%	-67	-20.6%	\$30,024	0.80	-189	34	\$16,270,791	-7.8%			
3261 Plastics Product Manufacturing	511	-222	-30.3%	-83	-16.2%	\$83,087	1.06	-244	8	\$88,014,155	-9.2%			
4522 Department Stores	645	-193	-23.0%	-150	-23.2%	\$28,886	0.91	11	7	\$32,658,341	1.3%			
5613 Employment Services	1,728	-185	-9.6%	-5	-0.3%	\$35,846	0.58	-237	54	\$155,301,731	56.2%			
6231 Nursing Care Facilities (Skilled Nursing Facilities)	939	-184	-16.4%	49	5.2%	\$59,508	0.86	1	16	\$62,504,528	18.1%			
4461 Health and Personal Care Stores	570	-183	-24.3%	-33	-5.8%	\$47,471	0.67	-157	64	\$36,744,148	-5.1%			
8134 Civic and Social Organizations	183	-179	-49.4%	-47	-25.5%	\$56,848	0.79	-77	14	\$13,642,218	-10.4%			
2379 Other Heavy and Civil Engineering Construction	22	-175	-88.9%	-7	-33.3%	\$67,794	0.18	-191	6	\$2,581,831	-83.9%			
1120 Animal Production	176	-165	-48.4%	-55	-31.5%	\$41,707	0.43	-195	40	\$36,126,343	-25.7%			
5611 Office Administrative Services	452	-150	-24.9%	5	1.0%	\$96,346	0.95	-217	31	\$53,489,791	-20.6%			

Source: Lightcast

Thomas Jefferson Planning District Top 20 4-Digit NAICS Industries by Location Quotient, 2022

NAICS	Description	2017-2022		2017-2022		2021-2027		2022-2027		Avg.	2022	Competitive	2021 Payrolled		2017 - 2021	
		2022 Jobs	Jobs	Jobs %	Jobs	Jobs %	Jobs	Jobs %	Earnings	Location	Effect		Business	2021 GRP	GRP %	Change
9026	Education and Hospitals (State Government)	26,484	3,566	15.6%	3,603	13.6%	\$72,131	10.93	4,462	13	\$1,992,146,874	17.7%				
3121	Beverage Manufacturing	1,464	329	29.0%	160	10.9%	\$45,780	5.95	100	51	\$191,918,281	49.2%				
7213	Rooming and Boarding Houses, Dormitories, and Workers' Camps	55	4	7.5%	11	20.7%	\$28,534	4.11	9	8	\$4,462,008	-33.1%				
2211	Electric Power Generation, Transmission and Distribution	1,262	-119	-8.6%	-77	-6.1%	\$170,358	4.09	-88	14	\$897,291,853	18.7%				
8139	Business, Professional, Labor, Political, and Similar Organizations	1,267	64	5.3%	119	9.4%	\$103,408	3.83	125	51	\$138,966,557	8.3%				
3211	Sawmills and Wood Preservation	291	41	16.3%	13	4.6%	\$62,104	3.78	44	7	\$30,109,091	42.2%				
1132	Forest Nurseries and Gathering of Forest Products	<10	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data	3.52	9	3	\$527,303	Insf. Data				
1133	Logging	197	-54	-21.5%	-15	-7.6%	\$60,955	3.48	-50	23	\$15,818,081	-3.2%				
4859	Other Transit and Ground Passenger Transportation	255	131	104.6%	104	40.8%	\$52,555	3.07	143	9	\$13,996,064	113.1%				
5259	Other Investment Pools and Funds	34	6	20.1%	6	18.8%	\$154,161	3.04	-17	6	\$18,811,188	38.3%				
7114	Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures	93	0	0.3%	26	27.4%	\$118,967	3.02	17	6	\$18,575,371	-36.1%				
3271	Clay Product and Refractory Manufacturing	94	75	406.3%	32	33.7%	\$69,185	2.95	77	3	\$9,750,269	268.2%				
4812	Nonscheduled Air Transportation	127	Insf. Data	Insf. Data	49	38.5%	\$66,954	2.87	119	2	\$11,039,408	123.5%				
3159	Apparel Accessories and Other Apparel Manufacturing	30	6	25.7%	3	11.1%	\$33,948	2.81	8	2	\$1,938,836	41.1%				
5111	Newspaper, Periodical, Book, and Directory Publishers	574	-427	-42.6%	-38	-6.7%	\$126,181	2.74	-106	34	\$142,345,629	-39.3%				
1131	Timber Tract Operations	<10	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data	2.53	8	2	\$879,009	141.9%				
9999	Unclassified Industry	403	95	31.0%	118	29.2%	\$53,205	2.43	114	197	Insf. Data	Insf. Data				
8132	Grantmaking and Giving Services	286	-20	-6.7%	37	12.8%	\$101,702	2.35	-29	24	\$33,232,193	16.2%				
6117	Educational Support Services	377	108	40.1%	115	30.4%	\$102,822	2.33	49	31	\$47,568,667	60.1%				
4871	Scenic and Sightseeing Transportation, Land	18	18	21110.7%	18	100.1%	\$12,630	2.26	18	1	\$200,879	720.6%				

Source: Lightcast

Thomas Jefferson Planning District Economic Base, 2-Digit SOC Occupations

SOC	Description	2017	2022	2027	2017-	2017-	2022-	2022-	Median	2022	Competitive
		Jobs	Jobs	Jobs	Change	Change %	Change	Change %	Hourly Earnings	Location Quotient	
11-0000	Management	5,996	7,583	8,375	1,587	26%	792	10%	\$49.22	0.82	175
13-0000	Business and Financial Operations	6,857	8,501	9,202	1,644	24%	702	8%	\$33.40	1.01	22
15-0000	Computer and Mathematical	3,950	4,774	5,256	824	21%	482	10%	\$40.86	1.14	376
17-0000	Architecture and Engineering	2,236	1,973	2,019	-263	-12%	46	2%	\$38.55	0.92	-258
19-0000	Life, Physical, and Social Science	2,513	2,868	3,088	356	14%	220	8%	\$31.62	2.34	189
21-0000	Community and Social Service	2,438	2,458	2,748	20	1%	291	12%	\$23.74	1.04	-171
23-0000	Legal	759	776	847	16	2%	71	9%	\$32.94	0.66	-69
25-0000	Educational Instruction and Library	12,733	12,293	14,056	-440	-3%	1,763	14%	\$27.83	1.62	-168
27-0000	Arts, Design, Entertainment, Sports, and Media	2,623	2,732	2,994	109	4%	262	10%	\$24.89	1.11	16
29-0000	Healthcare Practitioners and Technical	10,173	10,966	11,824	793	8%	858	8%	\$34.19	1.44	105
31-0000	Healthcare Support	5,624	6,354	7,264	730	13%	910	14%	\$13.80	1.03	132
33-0000	Protective Service	2,775	3,082	3,260	307	11%	178	6%	\$18.27	1.07	313
35-0000	Food Preparation and Serving Related	12,069	9,896	10,620	-2,173	-18%	724	7%	\$12.06	1.02	-886
37-0000	Building and Grounds Cleaning and Maintenance	5,582	5,368	5,786	-214	-4%	418	8%	\$14.01	1.17	78
39-0000	Personal Care and Service	3,826	3,787	4,359	-39	-1%	573	15%	\$13.26	1.07	307
41-0000	Sales and Related	10,951	10,240	10,306	-711	-6%	66	1%	\$14.42	0.85	-83
43-0000	Office and Administrative Support	15,021	15,442	15,929	421	3%	487	3%	\$18.60	0.96	1,313
45-0000	Farming, Fishing, and Forestry	1,240	1,055	1,140	-185	-15%	86	8%	\$13.65	1.09	-134
47-0000	Construction and Extraction	6,198	5,726	5,714	-472	-8%	-12	0%	\$21.39	0.95	-641
49-0000	Installation, Maintenance, and Repair	4,293	4,547	4,834	254	6%	287	6%	\$22.61	0.87	113
51-0000	Production	3,756	3,676	3,840	-81	-2%	164	4%	\$18.39	0.51	75
53-0000	Transportation and Material Moving	6,936	8,204	8,820	1,268	18%	617	8%	\$15.63	0.72	643
55-0000	Military-only	614	719	777	105	17%	58	8%	\$21.96	0.90	116
99-0000	Unclassified	0	0	0	0	0%	0	0%	\$0.00	0.00	0
Total		129,164	133,020	143,059	3,855	3%	10,040	8%			1,563

Source: Lightcast

Location Quotient by Occupation, 2022

SOC	Description	Albemarle	City of				Thomas Jefferson		Virginia
		County	Charlottesville	Fluvanna County	Greene County	Louisa County	Nelson County	Planning District	
11-0000	Management	0.87	0.80	0.78	0.68	0.61	1.17	0.82	0.89
13-0000	Business and Financial Operations	1.02	1.21	0.85	0.56	0.53	0.66	1.01	1.39
15-0000	Computer and Mathematical	1.14	1.51	0.50	0.55	0.42	0.37	1.14	1.71
17-0000	Architecture and Engineering	0.84	0.91	0.69	0.48	1.89	0.42	0.92	1.11
19-0000	Life, Physical, and Social Science	2.66	2.32	1.15	0.81	2.31	0.74	2.34	1.11
21-0000	Community and Social Service	0.99	1.21	1.41	0.68	0.68	0.94	1.04	1.02
23-0000	Legal	0.52	1.02	0.63	0.59	0.23	0.38	0.66	1.09
25-0000	Educational Instruction and Library	1.64	1.81	0.82	1.75	1.13	1.39	1.62	1.02
27-0000	Arts, Design, Entertainment, Sports, and Media	1.14	1.41	0.71	0.50	0.27	0.78	1.11	0.93
29-0000	Healthcare Practitioners and Technical	2.02	1.11	0.62	0.60	0.32	0.60	1.44	0.93
31-0000	Healthcare Support	1.28	0.75	1.04	0.90	0.77	0.98	1.03	0.79
33-0000	Protective Service	0.85	1.36	1.83	1.19	1.03	0.73	1.07	1.13
35-0000	Food Preparation and Serving Related	0.81	1.32	0.85	1.09	1.02	1.31	1.02	0.95
37-0000	Building and Grounds Cleaning and Maintenance	1.06	1.13	1.30	2.00	1.17	2.12	1.17	1.01
39-0000	Personal Care and Service	1.14	1.08	1.11	1.09	0.58	0.98	1.07	1.04
41-0000	Sales and Related	0.81	0.79	0.74	1.52	0.98	0.94	0.85	0.98
43-0000	Office and Administrative Support	0.94	1.08	0.88	0.82	0.78	0.83	0.96	0.91
45-0000	Farming, Fishing, and Forestry	1.27	0.28	2.25	1.31	0.68	6.18	1.09	0.48
47-0000	Construction and Extraction	0.79	0.78	2.98	1.40	1.52	0.91	0.95	1.02
49-0000	Installation, Maintenance, and Repair	0.80	0.73	1.17	1.10	1.48	1.31	0.87	1.04
51-0000	Production	0.40	0.36	0.74	0.49	1.52	0.84	0.51	0.75
53-0000	Transportation and Material Moving	0.61	0.51	0.97	1.06	1.93	0.84	0.72	0.88
55-0000	Military-only	1.16	0.37	1.61	1.31	0.99	0.93	0.90	2.32
99-0000	Unclassified	0.00	0.00	0.00		0.00	0.00	0.00	0.00

Source: Lightcast

Competitive Effect by Occupation, 2022

SOC	Description	Albemarle	City of				Thomas Jefferson		
		County	Charlottesville	Fluvanna County	Greene County	Louisa County	Nelson County	Planning District	Virginia
11-0000	Management	60	174	2	-7	-15	-38	175	845
13-0000	Business and Financial Operations	9	112	-26	-42	-28	-4	22	17,863
15-0000	Computer and Mathematical	-147	517	-15	4	19	0	376	-2,389
17-0000	Architecture and Engineering	-68	-20	-17	-10	-108	-35	-258	-2,589
19-0000	Life, Physical, and Social Science	124	45	-22	-16	50	7	189	1,023
21-0000	Community and Social Service	55	-174	-48	4	0	-9	-171	1,624
23-0000	Legal	5	-68	-20	13	-1	2	-69	-2,843
25-0000	Educational Instruction and Library	-352	468	-63	-131	-20	-70	-168	-492
27-0000	Arts, Design, Entertainment, Sports, and Media	123	-138	6	6	1	19	16	818
29-0000	Healthcare Practitioners and Technical	935	-729	-79	-14	4	-12	105	-1,953
31-0000	Healthcare Support	346	-141	-8	-33	-7	-25	132	-8,064
33-0000	Protective Service	59	214	-1	27	16	-3	313	-3,350
35-0000	Food Preparation and Serving Related	-515	-608	12	-7	253	-22	-886	9,833
37-0000	Building and Grounds Cleaning and Maintenance	2	94	3	28	19	-69	78	-1,651
39-0000	Personal Care and Service	114	172	30	14	-40	16	307	4,170
41-0000	Sales and Related	-138	-306	73	108	129	52	-83	-10,395
43-0000	Office and Administrative Support	726	452	42	42	35	16	1,313	-16,257
45-0000	Farming, Fishing, and Forestry	-72	14	-17	11	-6	-64	-134	-976
47-0000	Construction and Extraction	-178	-184	156	-47	-341	-47	-641	2,470
49-0000	Installation, Maintenance, and Repair	241	-14	36	17	-188	22	113	-5,754
51-0000	Production	99	-71	67	9	-9	-19	75	-1,616
53-0000	Transportation and Material Moving	235	-89	36	65	394	3	643	-19,048
55-0000	Military-only	88	8	6	3	10	1	116	-12,019
99-0000	Unclassified	0	0	0	0	0	0	0	0

Source: Lightcast

Median Hourly Earnings by Occupation, 2022

SOC	Description	Albemarle	City of				Thomas Jefferson	Virginia	
		County	Charlottesville	Fluvanna County	Greene County	Louisa County	Nelson County		Planning District
11-0000	Management	\$48.11	\$55.97	\$42.61	\$40.72	\$42.52	\$31.19	\$49.22	\$55.01
13-0000	Business and Financial Operations	\$32.72	\$35.07	\$31.79	\$30.62	\$30.03	\$30.96	\$33.40	\$38.98
15-0000	Computer and Mathematical	\$39.87	\$42.28	\$37.92	\$35.88	\$36.81	\$35.83	\$40.86	\$51.53
17-0000	Architecture and Engineering	\$37.90	\$35.15	\$31.82	\$33.95	\$46.41	\$34.28	\$38.55	\$42.21
19-0000	Life, Physical, and Social Science	\$31.07	\$30.07	\$31.69	\$31.00	\$37.71	\$31.60	\$31.62	\$37.58
21-0000	Community and Social Service	\$23.70	\$24.33	\$21.51	\$22.12	\$20.88	\$21.72	\$23.74	\$23.15
23-0000	Legal	\$33.28	\$33.25	\$38.61	\$29.53	\$22.76	\$29.96	\$32.94	\$48.93
25-0000	Educational Instruction and Library	\$28.20	\$30.51	\$22.45	\$21.81	\$24.02	\$21.81	\$27.83	\$25.39
27-0000	Arts, Design, Entertainment, Sports, and Media	\$24.26	\$26.19	\$23.36	\$21.09	\$23.98	\$23.92	\$24.89	\$25.00
29-0000	Healthcare Practitioners and Technical	\$34.49	\$34.79	\$30.67	\$26.95	\$32.16	\$32.28	\$34.19	\$33.69
31-0000	Healthcare Support	\$14.17	\$15.20	\$10.29	\$10.90	\$11.05	\$10.08	\$13.80	\$13.88
33-0000	Protective Service	\$18.81	\$16.39	\$19.06	\$15.97	\$21.31	\$19.60	\$18.27	\$21.71
35-0000	Food Preparation and Serving Related	\$11.82	\$12.45	\$10.59	\$10.57	\$11.50	\$12.41	\$12.06	\$12.01
37-0000	Building and Grounds Cleaning and Maintenance	\$13.92	\$14.89	\$13.02	\$13.03	\$13.21	\$13.34	\$14.01	\$14.00
39-0000	Personal Care and Service	\$13.58	\$13.65	\$10.93	\$11.09	\$11.61	\$10.80	\$13.26	\$13.43
41-0000	Sales and Related	\$14.58	\$15.32	\$12.73	\$12.27	\$12.64	\$13.30	\$14.42	\$14.77
43-0000	Office and Administrative Support	\$18.29	\$19.66	\$17.55	\$16.80	\$16.85	\$16.82	\$18.60	\$18.90
45-0000	Farming, Fishing, and Forestry	\$12.94	\$14.42	\$18.96	\$14.89	\$14.31	\$14.75	\$13.65	\$13.90
47-0000	Construction and Extraction	\$22.24	\$21.95	\$21.61	\$19.81	\$19.79	\$19.70	\$21.39	\$22.25
49-0000	Installation, Maintenance, and Repair	\$22.81	\$22.10	\$24.15	\$20.10	\$23.46	\$22.11	\$22.61	\$24.10
51-0000	Production	\$18.45	\$17.46	\$18.03	\$14.72	\$19.64	\$17.70	\$18.39	\$18.28
53-0000	Transportation and Material Moving	\$15.87	\$15.41	\$16.98	\$13.79	\$15.51	\$15.48	\$15.63	\$17.18
55-0000	Military-only	\$23.15	\$23.15	\$18.75	\$18.75	\$18.75	\$18.75	\$21.96	\$20.84
99-0000	Unclassified	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Source: Lightcast

Thomas Jefferson Planning District 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	
25-1090	Postsecondary Teachers	5,715	579	11.3%	1,058	18.5%	\$35.93	3.92	658
53-7060	Laborers and Material Movers	3,883	643	19.8%	230	5.9%	\$14.09	0.74	392
29-1140	Registered Nurses	3,778	251	7.1%	284	7.5%	\$38.09	1.48	44
37-2010	Building Cleaning Workers	3,645	-171	-4.5%	303	8.3%	\$13.16	1.17	154
43-9060	Office Clerks, General	3,331	544	19.5%	150	4.5%	\$18.16	1.45	853
35-3020	Fast Food and Counter Workers	2,871	-716	-20.0%	309	10.8%	\$11.24	1.10	13
31-1120	Home Health and Personal Care Aides	2,779	467	20.2%	585	21.0%	\$11.20	0.84	-11
43-6010	Secretaries and Administrative Assistants	2,769	-104	-3.6%	124	4.5%	\$19.99	0.99	254
41-2030	Retail Salespersons	2,671	-801	-23.1%	-60	-2.2%	\$13.20	0.85	-295
41-2010	Cashiers	2,608	-332	-11.3%	-134	-5.1%	\$11.53	0.96	-142
11-1020	General and Operations Managers	2,123	708	50.1%	194	9.1%	\$48.51	0.82	176
35-2010	Cooks	2,000	288	16.8%	184	9.2%	\$13.38	0.91	108
15-1250	Software and Web Developers, Programmers, and Testers	1,945	355	22.3%	218	11.2%	\$46.51	1.14	-19
53-3030	Driver/Sales Workers and Truck Drivers	1,781	469	35.8%	174	9.8%	\$18.83	0.57	288
31-1130	Nursing Assistants, Orderlies, and Psychiatric Aides	1,736	0	0.0%	160	9.2%	\$14.97	1.47	187
35-3030	Waiters and Waitresses	1,690	-1,093	-39.3%	-21	-1.2%	\$11.42	1.08	-370
43-4050	Customer Service Representatives	1,595	171	12.0%	51	3.2%	\$17.35	0.68	141
31-9090	Miscellaneous Healthcare Support Occupations	1,469	279	23.5%	115	7.8%	\$16.18	1.08	120
43-3030	Bookkeeping, Accounting, and Auditing Clerks	1,403	-142	-9.2%	27	1.9%	\$19.43	1.01	-157
49-9070	Maintenance and Repair Workers, General	1,374	193	16.3%	162	11.8%	\$18.53	1.05	103

Source: Lightcast

Thomas Jefferson Planning District Top 20 4-Digit SOC Occupations by Job Growth (2017-2022)

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	
11-1020	General and Operations Managers	2,123	708	50.1%	194	9.1%	\$48.51	0.82	176
53-7060	Laborers and Material Movers	3,883	643	19.8%	230	5.9%	\$14.09	0.74	392
25-1090	Postsecondary Teachers	5,715	579	11.3%	1,058	18.5%	\$35.93	3.92	658
43-9060	Office Clerks, General	3,331	544	19.5%	150	4.5%	\$18.16	1.45	853
	Miscellaneous Business Operations								
13-1190	Specialists	961	492	105.0%	119	12.4%	\$30.02	1.04	152
33-2010	Firefighters	704	477	209.7%	11	1.6%	\$13.90	2.72	478
53-3030	Driver/Sales Workers and Truck Drivers	1,781	469	35.8%	174	9.8%	\$18.83	0.57	288
31-1120	Home Health and Personal Care Aides	2,779	467	20.2%	585	21.0%	\$11.20	0.84	-11
	Logisticians and Project Management								
13-1080	Specialists	797	385	93.4%	66	8.3%	\$43.05	0.94	96
	Software and Web Developers, Programmers, and Testers								
15-1250	Programmers, and Testers	1,945	355	22.3%	218	11.2%	\$46.51	1.14	-19
35-2010	Cooks	2,000	288	16.8%	184	9.2%	\$13.38	0.91	108
	Miscellaneous Healthcare Support								
31-9090	Occupations	1,469	279	23.5%	115	7.8%	\$16.18	1.08	120
	Clinical Laboratory Technologists and								
29-2010	Technicians	770	261	51.4%	44	5.7%	\$24.99	2.80	255
29-1140	Registered Nurses	3,778	251	7.1%	284	7.5%	\$38.09	1.48	44
29-1170	Nurse Practitioners	409	240	142.5%	96	23.3%	\$54.49	1.95	158
15-1230	Computer Support Specialists	845	222	35.7%	75	8.8%	\$28.09	1.14	180
	Maintenance and Repair Workers, General								
49-9070	General	1,374	193	16.3%	162	11.8%	\$18.53	1.05	103
	First-Line Supervisors of Transportation and Material Moving Workers								
53-1040	and Material Moving Workers	387	186	92.4%	30	7.8%	\$23.71	0.82	104
	Miscellaneous Sales and Related Workers								
41-9090	Miscellaneous Sales and Related Workers	296	183	161.2%	1	0.3%	\$14.40	1.15	129
13-1070	Human Resources Workers	743	181	32.2%	61	8.2%	\$31.14	1.02	23

Source: Lightcast

Thomas Jefferson Planning District Bottom 20 4-Digit SOC Occupations by Job Growth (2017-2022)

SOC	Description	2022	2017 - 2022	2017 - 2022	2022-2027	2022-2027	Median	2022	Competitive Effect
		Jobs	Jobs Change	% Change	Jobs Change	Jobs % Change	Hourly Earnings	Location Quotient	
35-3030	Waiters and Waitresses	1,690	-1,093	-39.3%	-21	-1.2%	\$11.42	1.08	-370
41-2030	Retail Salespersons	2,671	-801	-23.1%	-60	-2.2%	\$13.20	0.85	-295
35-3020	Fast Food and Counter Workers	2,871	-716	-20.0%	309	10.8%	\$11.24	1.10	13
25-2020	Elementary and Middle School Teachers	1,263	-508	-28.7%	101	8.0%	\$26.42	0.79	-468
25-3030	Substitute Teachers, Short-Term	371	-481	-56.4%	32	8.6%	\$13.22	1.18	-180
	Security Guards and Gambling								
33-9030	Surveillance Officers	471	-459	-49.4%	64	13.5%	\$16.07	0.51	-432
41-2010	Cashiers	2,608	-332	-11.3%	-134	-5.1%	\$11.53	0.96	-142
39-9030	Recreation and Fitness Workers	648	-329	-33.7%	135	20.8%	\$15.37	1.35	-163
35-9020	Dishwashers	328	-324	-49.7%	4	1.3%	\$12.12	1.01	-187
	Adult Basic Education, Adult Secondary								
	Education, and English as a Second								
25-3010	Language Instructors	23	-235	-91.2%	4	16.6%	\$28.00	0.56	-160
	Hosts and Hostesses, Restaurant, Lounge,								
35-9030	and Coffee Shop	309	-225	-42.1%	-2	-0.8%	\$11.42	1.10	-136
29-1210	Physicians	1,163	-193	-14.2%	73	6.3%	\$32.87	1.96	-286
37-2010	Building Cleaning Workers	3,645	-171	-4.5%	303	8.3%	\$13.16	1.17	154
27-3040	Writers and Editors	418	-166	-28.4%	11	2.6%	\$29.88	1.61	-146
47-2110	Electricians	479	-159	-24.9%	4	0.8%	\$24.27	0.78	-201
47-2030	Carpenters	863	-150	-14.9%	-20	-2.3%	\$22.07	1.01	-154
45-2090	Miscellaneous Agricultural Workers	785	-144	-15.5%	82	10.5%	\$12.81	1.00	-107
19-4020	Biological Technicians	94	-144	-60.5%	15	16.5%	\$23.72	1.33	-153
	Bookkeeping, Accounting, and Auditing								
43-3030	Clerks	1,403	-142	-9.2%	27	1.9%	\$19.43	1.01	-157
25-3040	Tutors	168	-132	-44.1%	34	20.5%	\$18.58	0.93	-154

Source: Lightcast

Thomas Jefferson Planning District Top 20 4-Digit SOC Occupations by Location Quotient, 2022

SOC	Description	2022	2017 - 2022	2017 - 2022	2022-2027	2022-2027	Median	2022	Competitive Effect
		Jobs	Jobs Change	% Change	Jobs Change	Jobs % Change	Hourly Earnings	Location Quotient	
19-4050	Nuclear Technicians	202	95	89.2%	-22	-11.0%	\$40.05	42.30	118
17-2160	Nuclear Engineers	184	-97	-34.4%	-21	-11.2%	\$49.11	15.29	-21
39-3020	Motion Picture Projectionists	22	22	33465.1%	10	42.5%	\$11.27	12.11	22
19-3090	Miscellaneous Social Scientists and Related Workers	547	96	21.4%	24	4.4%	\$48.17	9.72	53
19-4060	Social Science Research Assistants	184	90	95.4%	25	13.6%	\$18.34	6.15	97
17-2030	Bioengineers and Biomedical Engineers	87	31	56.8%	3	3.2%	\$38.21	5.71	37
39-3030	Ushers, Lobby Attendants, and Ticket Takers	320	39	13.7%	105	32.7%	\$23.52	5.53	163
19-1040	Medical Scientists	586	122	26.3%	63	10.7%	\$30.10	5.36	111
25-9020	Farm and Home Management Educators	60	31	106.2%	9	14.4%	\$22.77	4.97	28
29-1080	Podiatrists	51	2	4.1%	1	1.3%	\$71.84	4.86	-3
41-9010	Models, Demonstrators, and Product Promoters	203	13	7.1%	13	6.2%	\$13.69	4.47	81
47-4090	Miscellaneous Construction and Related Workers	135	-11	-7.3%	1	1.1%	\$24.04	4.44	8
19-2090	Miscellaneous Physical Scientists	92	16	21.4%	8	9.0%	\$49.73	3.94	1
25-1090	Postsecondary Teachers	5,715	579	11.3%	1,058	18.5%	\$35.93	3.92	658
19-2010	Astronomers and Physicists	78	21	36.6%	7	9.1%	\$43.48	3.77	9
39-7010	Tour and Travel Guides	135	-25	-15.6%	-1	-0.4%	\$12.23	3.61	8
51-8010	Power Plant Operators, Distributors, and Dispatchers	121	44	57.6%	-4	-3.6%	\$46.08	3.26	59
13-1130	Fundraisers	293	23	8.5%	29	10.0%	\$30.16	3.21	-9
11-2030	Public Relations and Fundraising Managers	231	151	189.6%	20	8.8%	\$57.33	2.90	130
45-4020	Logging Workers	127	-32	-20.3%	-7	-5.8%	\$19.03	2.85	-33

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.](#)



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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.](#)



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.](#)

Population Estimates Program | US Census Bureau

The Census Bureau's **Population Estimates Program** (PEP) produces estimates of the population for the US and its states, counties, cities, and towns. Demographic components of population change—births, deaths, and migration—are produced at the national, state, and county levels. PEP provides population estimates on an annual basis. [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.](#)

Economic Census | US Census Bureau

The **Economic Census** is the US Government's official five-year measure of American business and the economy. It is conducted by the US Census Bureau for years ending in 2 and 7. The Economic Census is the most comprehensive public source of information about American businesses from the national to the local level. Published statistics cover more than 1,000 industries, 15,000 products, every state, over 3,000 counties, 15,000 cities and towns, and Puerto Rico and other US Island Areas. [Click to learn more.](#)

Comprehensive Economic Development Strategy

Thomas Jefferson Planning District Commission

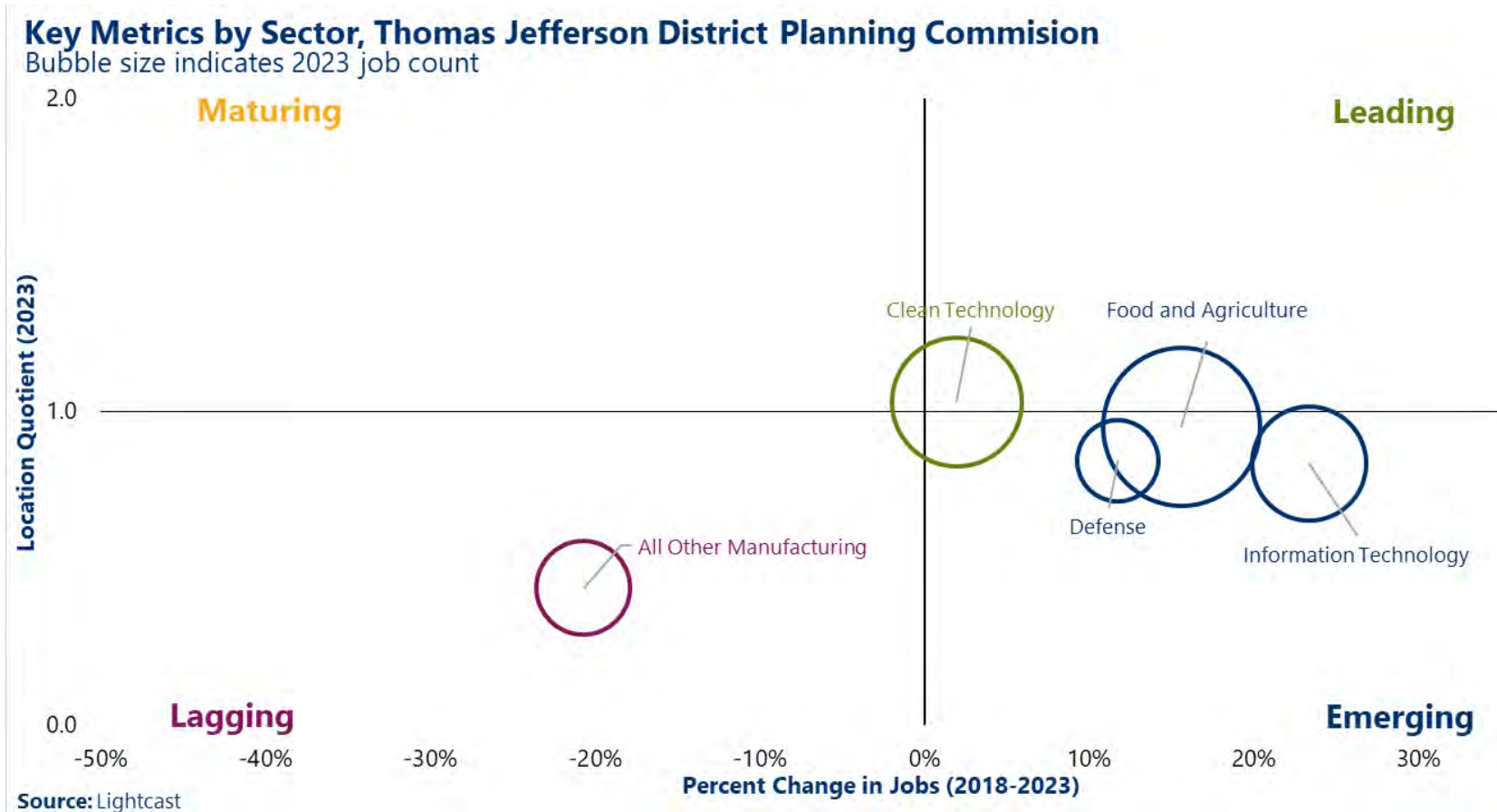
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Appendix II

Emerging Industries

This chart displays how emerging sectors are performing in the TJPDC 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 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 have 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, strengths within subsectors, and look forward to opportunities.



Food & Agriculture

Why Food & Agriculture?

The Food and Agriculture cluster is a critical part of Thomas Jefferson's Regional economy. The cluster has historical significance to the region and experienced job growth during the study period. On a national level, factors including technological innovation and an increased demand for local food continue to reshape the Food and Agriculture cluster.

Food & Agriculture Industry Snapshot, 2018-2023

Employment

6,862

or about 5% of the region's jobs

Job Change

+925

Jobs in the Industry group increased by 16%.

Employment Concentration

0.95

The industry is approximately as specialized in the region as it is in the United States, overall.

Average Earnings Per Job, 2022

\$68,627

Average earnings per job fall below the national average of \$80,831.

Competitive Forces

-458

In the Thomas Jefferson Region, competitive forces resulted in a job decrease.

Industry Opportunities

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

Indoor and Vertical Farming: These practices provide controlled environments for enhanced production scalability and improved product quality.

Biomaterials and Bio-pharmaceuticals: The extraction and processing of agricultural products for non-food purposes, including medicines, fuels, bio-plastics, and packaging materials.

Data, Analytics, and AI: Utilization of data-driven insights and artificial intelligence for farm management, supply chain optimization, and market analytics.

Specialized Workforce

Looking at Food and Agriculture occupations in the Thomas Jefferson Region with the largest number of jobs

- 21 of the top 25 occupations require a high school diploma or less.
- Two occupations require a bachelor's degree.
- 21 of the top 25 occupations don't require previous work experience.
- Two occupation requires 5+ years and two occupation requires less than 5 years of experience.
- 19 of the 25 occupations provide some level of on-the-job training.

Industry Challenges

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

Workforce: Acquiring and retaining a skilled workforce in low-density areas.

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.

Cleantech

Why Cleantech?

The Cleantech cluster is concentrated in the region and experienced job growth during the study period. Cleantech industries are also growing rapidly across the US. The 2022 Inflation Reduction Act continues to drive some of this growth. On a global scale, the International Energy Agency predicts that renewables will soon surpass coal as the primary source of global electricity.

Cleantech Industry Snapshot, 2018-2023

Employment

4,638

or just over 3% of the region's jobs

Job Change

+89

Jobs in the industry group increased by 2%.

Employment Concentration

1.03

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

Average Earnings Per Job, 2022

\$107,511

Average earnings per job are above the state average (\$83,419) and national average (\$80,831).

Competitive Forces

-265

In the Thomas Jefferson Region, competitive forces resulted in a job decrease.

National 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.

Green Hydrogen: Production of hydrogen from renewable sources, such as water electrolysis powered by wind or solar energy, offers a clean fuel alternative for various industries and power generation.

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

Specialized Workforce

Virginia's \$1.1 billion Tech Talent Investment Program, launched in 2018. The program focuses on performance-based investments in higher education to produce a skilled workforce. Amazon attributes its selection of Virginia for its HQ2 to the state's dedication to higher education and talent pipeline development.

Looking at Cleantech occupation with the largest number of jobs

- 13 of the top 25 occupations require a high school diploma or less.
- Seven occupations require a bachelor's degree.
- 20 of the top 25 occupations don't require previous work experience.
- Two occupation requires 5+ years and three occupations require less than 5 years of experience.
- 16 of the 25 occupations require some level of on-the-job training.

National Industry Challenges

Interconnection Delays: Rapid growth in clean energy projects may strain existing grid infrastructure, necessitating updates or enhancements to accommodate additional capacity.

Defense

Why Defense?

The Defense cluster is an important part of Virginia's economic landscape, and the industry is growing in the Thomas Jefferson Region. A 2021 Weldon Cooper report stated that the total direct and indirect regional economic impacts from the defense industry reached \$1.2 billion.* The region is home to three military intelligence agencies, which are supported by numerous educational institutions and private sector stakeholders.

Defense Industry Snapshot, 2018-2023

Employment

1,869

or about 1% of the region's jobs

Job Change

+1,869

Jobs in the Industry group increased by 12%

Employment Concentration

0.84

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

Average Earnings Per Job, 2022

\$82,976

Average earnings per job fall slight below the state average (\$83,419) but above the national average (\$80,831)

Competitive Forces

+156

In the Thomas Jefferson Region, competitive forces resulted in job increases

***The region for the study was defined as Albemarle County, Charlottesville, and Greene County.*

Industry Opportunities

Space to Grow in the Region: In 2023, Albemarle County acquired 462 acres of property to support the buildout of the intelligence and defense sectors at Rivanna Station. This property will be a key feature in the region's growing defense economy.

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 in defense and civilian capacities.

Specialized Workforce

Looking at the Defense related occupations in the Thomas Jefferson Region with the largest number of jobs

- Only 9 of the top 25 occupations require a high school diploma or less.
- 16 occupations require postsecondary training credential or an associate's or bachelor's degree.
- 23 of the top 25 occupations don't require previous work experience.
- One occupation requires 5+ years and four occupation requires less than 5 years of experience.
- Eight of the 25 occupations provide some level of on-the-job training.
- In addition to traditional training, Top Secret/Sensitive Compartmented Information (TS/SCI) security clearance may also be required.

What does it mean?

The Defense cluster in the Thomas Jefferson Planning District provides decent paying jobs but the majority of these jobs have moderate to high employment eligibility barriers.

Industry Needs

Reliable Supply Chain: The supply chain has not recovered to pre-pandemic performance levels. There continues to be a shortage of raw materials, semiconductors, microelectronics, and other key components or parts. Supply chain issues will likely remain prevalent through 2024.

Workforce Talent: Globally, the industry experienced significant jobs growth in 2022 but is currently struggling to attract talent. The industries employment demand ranges from technicians and manufacturers to engineers.

Information Tech

Why Information Tech?

The region's Information Tech cluster had high average earnings, and positive job growth during the study period. This job growth was partially driven by the region's competitive forces. Furthermore, support and growth in the Information Tech cluster will ultimately support growth in all emerging clusters as improvements in IT can make processes more efficient.

Information Tech Industry Snapshot, 2018-2023

Employment

3,635

or about 3% of the region's employment

Job Change

687

Jobs in the Industry group increased by 23%.

Employment Concentration

0.84

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

Average Earnings Per Job, 2022

\$129,238

Average earnings per job are above the state average (\$83,419) and national average (\$80,831).

Competitive Forces

+17

In the Thomas Jefferson Region, competitive forces resulted in job increases.

Industry Growth

Revenue Growth: Key drivers of revenue growth in the IT cluster include Software Publishing, Data Processing & Hosting, Search Engines, and Graphic Designers, all of which are expected to continue driving growth through 2027.

Top Products & Services: The IT cluster's main outputs include application software publishing, custom services, system software publishing, and other services.

Specialized Workforce

Through the Tech Talent Investment Program, Virginia is in the process of investing more than \$2 billion to expand its tech talent pipeline. The program aims to double the annual number of graduates in computer science and closely related fields.

Looking at Information tech-related occupations in the Thomas Jefferson Region with the largest number of jobs

- Only 4 of the top 25 occupations require a high school diploma or equivalent.
- 20 occupations require a bachelor's degree while one occupation requires some college.
- 19 of the top 25 occupations don't require previous work experience.
- Three occupation requires 5+ years and three occupation requires less than 5 years of experience.
- Four of the 25 occupations provide some level of on-the-job training.

Industry 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 increases 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, including the US.

Manufacturing

Why Manufacturing?

Manufacturing is an integral part of the region's economic fabric. From the automobile industry to aerospace to metals, the region has a diverse mix of businesses. This cluster, like other portions of the economy, is transforming with the uptake of AI and other digital technologies.

Manufacturing Industry Snapshot, 2018-2023

Employment

2,439

or about 2% of the region's jobs

Job Change

-637

Jobs in the industry group declined by 21%.

Employment Concentration

0.44

The industry is about half as specialized in the region as it is in the United States, overall.

Average Earnings Per Job, 2022

\$78,659

Average earnings per job fall slight below the national average of \$80,831.

Competitive Forces

-749

In the Thomas Jefferson Region, competitive forces resulted in a job decrease.

Industry Needs

Labor Force: Need for engineers, production managers, technicians, and production workers

- Few manufacturing production positions require advanced education, most require only a high school degree, limited certifications, and on job training.
- High school CTE programs help meet these labor force needs.

Shovel Ready Sites: Locations that are appropriately zoned, approved and ready for move in, development, or redevelopment

Specialized Workforce

Looking at manufacturing occupations in the Thomas Jefferson Region with the largest number of jobs

- 22 of the top 25 occupations require a high school diploma or less.
- Two occupations require a bachelor's degree.
- 23 of the top 25 occupations don't require previous work experience.
- One occupation requires 5+ years and one occupation requires less than 5 years of experience.
- 23 of the 25 occupations provide some level of on-the-job training.

Site Requirements

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 can be a big deal 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

Thomas Jefferson Planning District Commission
In partnership with GO Virginia Region 9

Appendix III

Resilience and Vulnerability Indicators

Thomas Jefferson Planning District 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 Thomas Jefferson Planning District Commission (TJPDC) 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 TJPDC 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

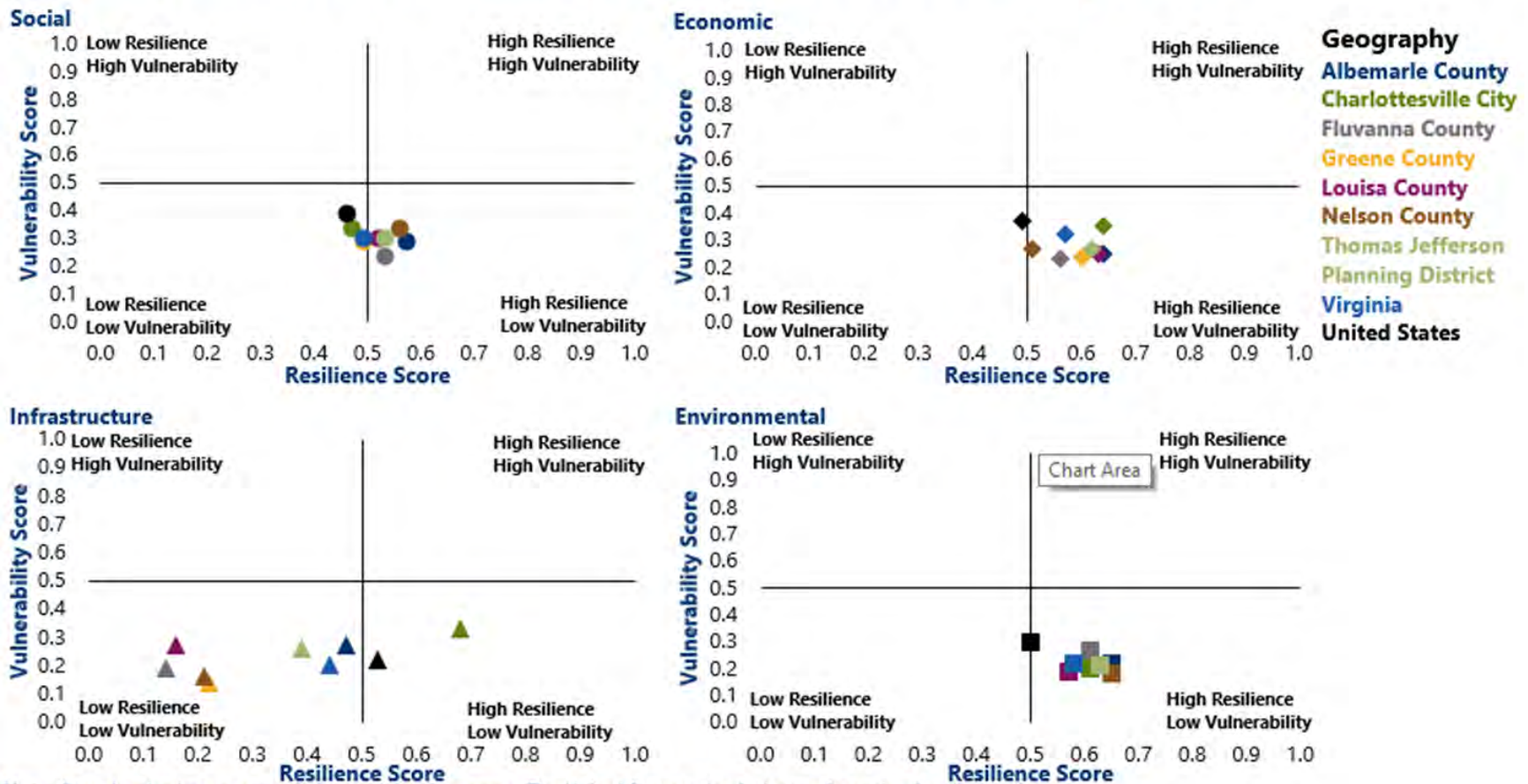
Resilience Measures	Vulnerability Measures
Environmental Diversity	Drought
	Seismic Hazard
	Proximity to Levees
	Number of Severe Storm Events
	Diversity of Storm Events

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 vs. Vulnerability, Thomas Jefferson Planning District

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 with some key takeaways being that all geographies are least resilient in their infrastructure and most resilient in their environment. None of the geographies were highly vulnerable across any of the categories.

Community Resilience and Vulnerability Scores, Thomas Jefferson Planning District

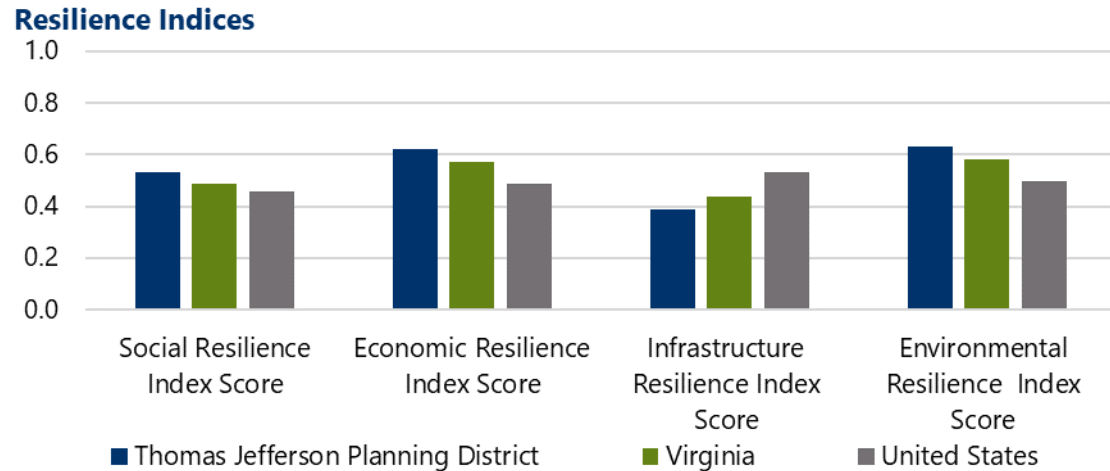


Note: State-level values are population-weighted averages. The United States value is the median value for all counties.

Source: University of Missouri Community Resilience Assessment Tool

Thomas Jefferson Planning District Resilience

The graph on the right indicates the relative performance of the Thomas Jefferson Planning District’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.



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 responders. The region could also look to find ways to incentivize labor force participation to improve the resilience of the region.

Thomas Jefferson Planning District Resilience

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

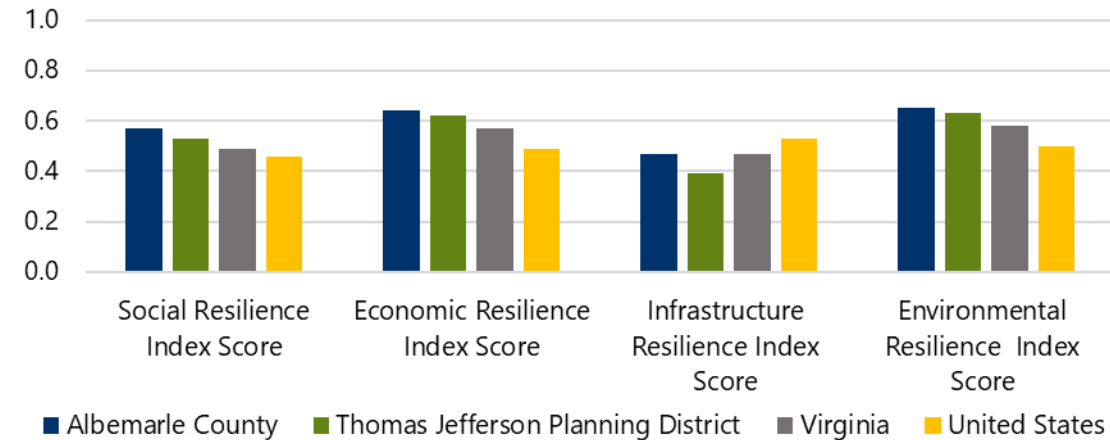
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Albemarle County Resilience

The graph on the right indicates the relative performance of Albemarle County's resilience in comparison to the Thomas Jefferson Planning District, State of Virginia, and the US as a whole. The county is more resilient than the state in social, environmental, and economic resilience. For infrastructure, the county matches the state on the resiliency index.

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 increasing emergency response occupations and investment in police and fire. The county could also look to find ways to incentivize labor force participation to improve the resilience of the county.

Albemarle County Resilience

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

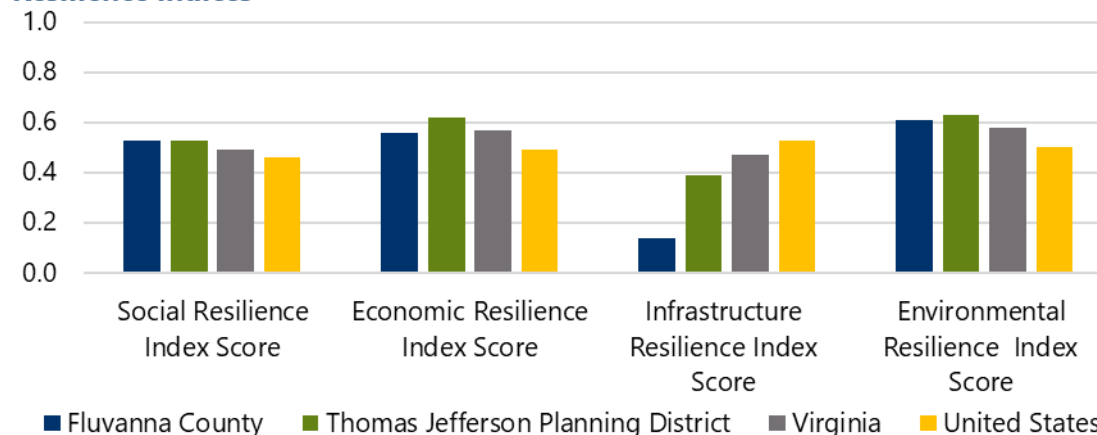
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Fluvanna County Resilience

The graph on the right indicates the relative performance of Fluvanna County's resilience in comparison to the Thomas Jefferson Planning District, State of Virginia, and the US as a whole. The county is more resilient than the state in social and environmental resilience. The county is less resilient than the state in its economic measure and most especially 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 county could also look to find ways to increase labor force participation to improve the resilience of the county.

Fluvanna County Resilience

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

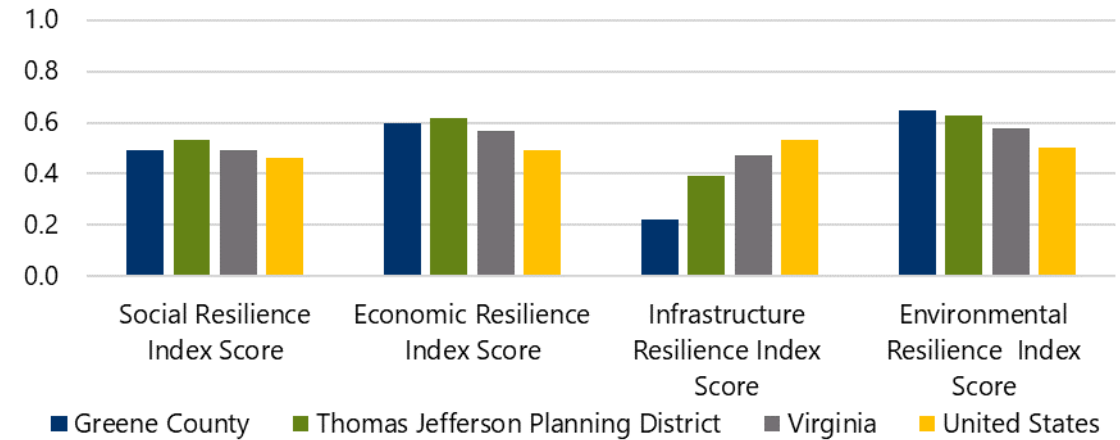
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Greene County Resilience

The graph on the right indicates the relative performance of Greene County's resilience in comparison to the Thomas Jefferson Planning District, State of Virginia, and the US as a whole. The county is more resilient than the state in environmental and economic resilience but is significantly less resilient than the state in its infrastructure. For social resiliency, the county rates at the same index level as 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 medical professionals.

Greene County 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	Fewer Associations per Capita
	Higher Voter Participation Rate	Fewer Non-Profits per Capita
Economic	Higher Proprietor Employment	
	More Establishment Births	
	More Employment Diversity	
Infrastructure	More Emergency Response Occupations	Less Access to Emergency Facilities
	More Evacuation Routes	Less Access to Medical Professionals
		Less Access to Grocery Stores
Environmental	Greater Environmental Diversity	

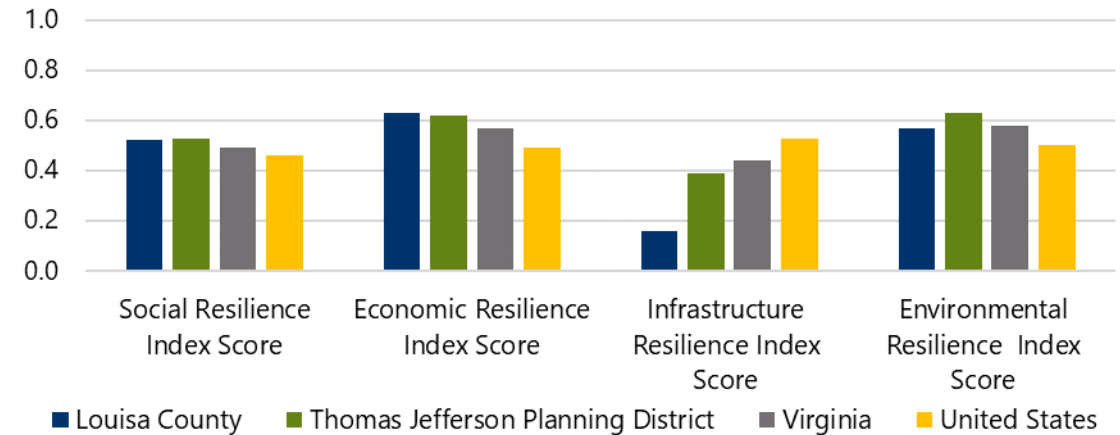
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Louisa County Resilience

The graph on the right indicates the relative performance of Louisa County's resilience in comparison to the Thomas Jefferson Planning District, State of Virginia, and the US as a whole. The county is more resilient than the state in social and economic resilience but is far less resilient than the state in its infrastructure. The environmental resilience index value is nearly the same for Louisa County and 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 medical professionals. The county could also look to find ways to increase establishment births, incentivize labor force participation to improve the resilience of the county.

Louisa County 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	Fewer Non-Profits per Capita
Economic	Higher Proprietor Employment	Fewer Establishment Births
	Higher Proprietor Income	Lower Labor Force Participation Rate
	More Employment Diversity	
Infrastructure	More Evacuation Routes	Less Access to Emergency Facilities
		Less Access to Grocery Stores
		Less Access to Medical Professionals
Environmental		Less Environmental Diversity

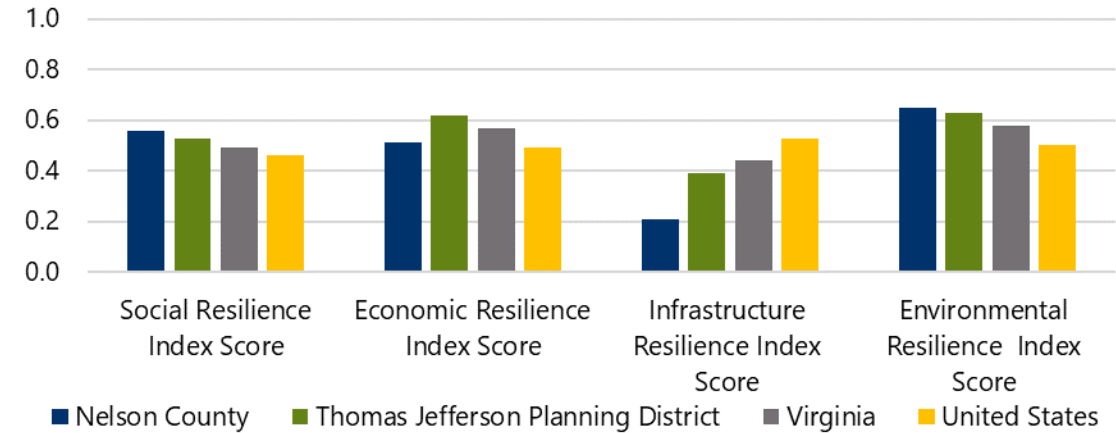
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Nelson County Resilience

The graph on the right indicates the relative performance of Nelson County's resilience in comparison to the Thomas Jefferson Planning District, State of Virginia, and the US as a whole. The county is more resilient than the state in social and environmental resilience but is less resilient than the state in its economic measure and 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 investing more in police and fire. The county could also look to find ways to incentivize labor force participation to improve the resilience of the county.

Nelson County Resilience

Indicator	More Resilient	Less Resilient
Social	Higher Share lived in the Same County a Year Ago	Lower Life Expectancy
	More Non-Profits per Capita	Lower Share with College Degrees
	Higher Voter Participation Rate	
Economic	Higher Proprietor Employment	Lower Labor Force Participation Rate
	More Establishment Births	
	More Employment Diversity	
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	

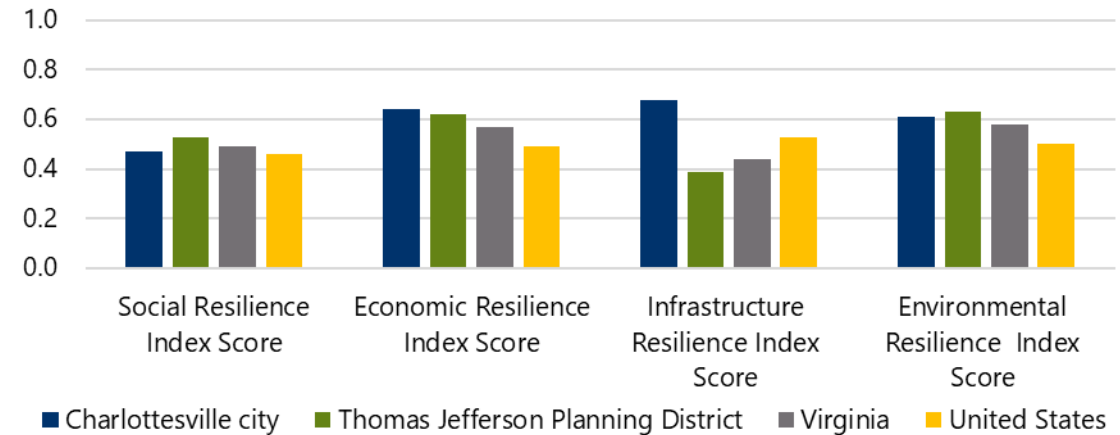
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Charlottesville City Resilience

The graph on the right indicates the relative performance of Charlottesville City’s resilience in comparison to the Thomas Jefferson Planning District, State of Virginia, and the US as a whole. The city is more resilient than the state in infrastructure, environmental, and economic resilience but is less resilient than the state in its social resilience.

Resilience Indices



Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the city’s resilience, allowing us to see the drivers of the four categories. The city would benefit from increasing evacuation routes and emergency responders. The city could also look to find ways to incentivize labor force participation and increase establishment births to improve the resilience of the county.

Charlottesville City Resilience

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

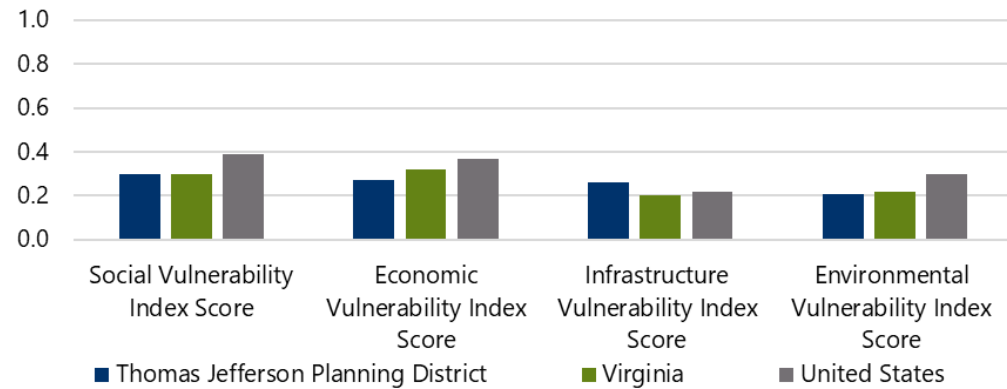
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Thomas Jefferson Planning District Vulnerability

The graph on the right indicates the relative performance of the Thomas Jefferson Planning District’s vulnerability in comparison to the State of Virginia and the US as a whole. The region is less vulnerable than the state on the economic and environmental scales but more vulnerable concerning infrastructure. The region and the state score similarly for social 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 improvements to drinking water safety to decrease the vulnerability of the region.

Thomas Jefferson Planning District Vulnerability

Indicator	Less Vulnerable	More Vulnerable
Social	Lower Share of Population Under 18	Higher Income Inequality
	Lower Linguistic Isolation	Higher Share of Population 65+
	Lower Violent Crime Rate	Higher Poverty Rate
Economic	Lower Unemployment Rate	Higher Share of Employment in Extractive Industries
	Lower Business Vacancy Rate	
	Fewer Cost-Burdened Households	
Infrastructure	Fewer High-Detour Bridges	Close to Major Dams
	Fewer Older Homes	Close to Nuclear Power Facility
	Higher Share with Motor Vehicles	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	

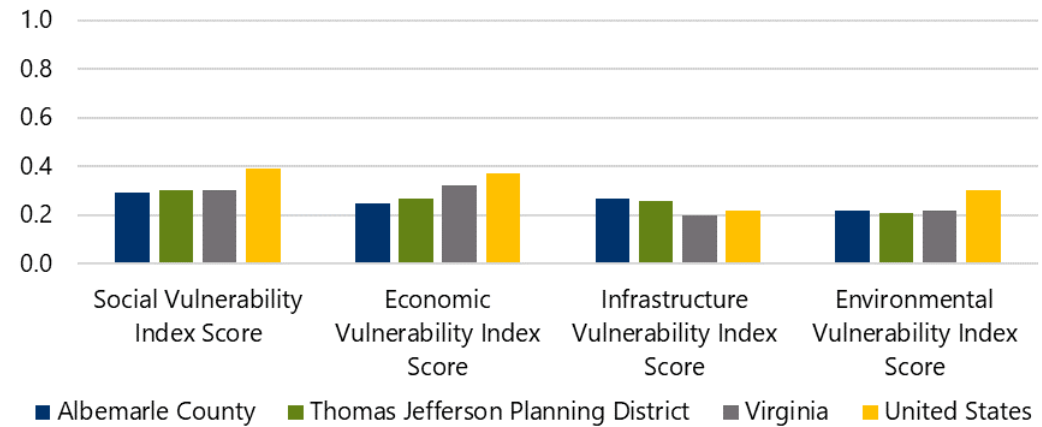
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Albemarle County Vulnerability

The graph on the right indicates the relative performance of Albemarle County’s vulnerability in comparison to the Thomas Jefferson Planning District, State of Virginia, and US as a whole. The county is less vulnerable than the state in social and economic vulnerability but more vulnerable in infrastructure vulnerability. For environmental vulnerability, the county and state receive the same index value.

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 county would benefit from decreasing its jurisdictions and high-detour bridges to decrease the vulnerability of the county.

Albemarle County Vulnerability

Indicator	Less Vulnerable	More Vulnerable
Social	Lower Uninsured Population	Greater Income Inequality
	Lower Violent Crime Rate	Greater Share of Population 65+
	Lower Share of Population Disabled	More Jurisdictions
Economic	Lower Unemployment Rate	
	Fewer Cost-Burdened Households	
	Lower Business Vacancy Rate	
Infrastructure	Fewer Older Homes	Close to Major Dams
	Higher Share with Motor Vehicles	More High-Detour Bridges
	Far From Nuclear Facility	
Environmental	Less Diversity of Storm Events	More Severe Storm Events
	Far From Levees	Higher Likelihood of Seismic Hazard
		Higher Likelihood of Drought

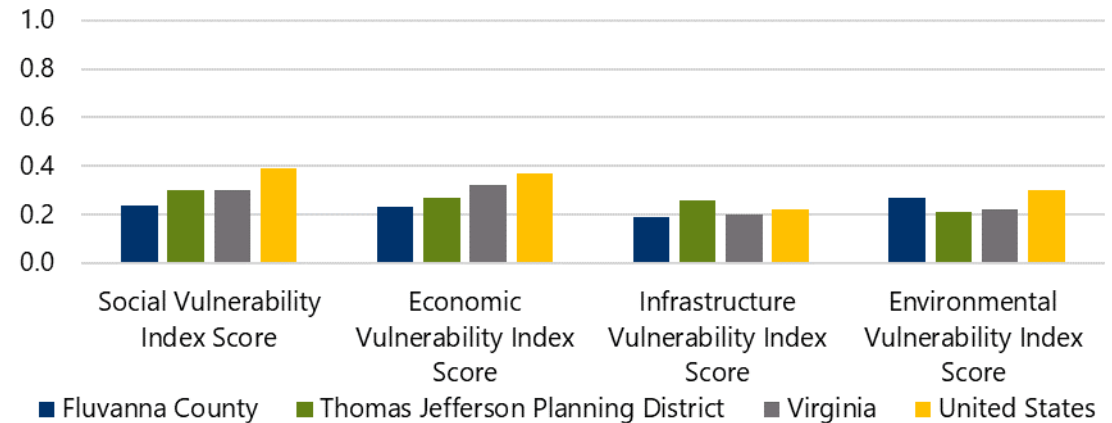
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Fluvanna County Vulnerability

The graph on the right indicates the relative performance of Fluvanna County's vulnerability in comparison to the Thomas Jefferson Planning District, State of Virginia, and US as a whole. The county is less vulnerable than the state across the social, economic, and infrastructure categories. The county rated higher than the state for environmental vulnerability, however.

Vulnerability Indices



Source: University of Missouri Community Resilience Assessment Tool

Fluvanna County Vulnerability

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

Note: Region is compared to Virginia

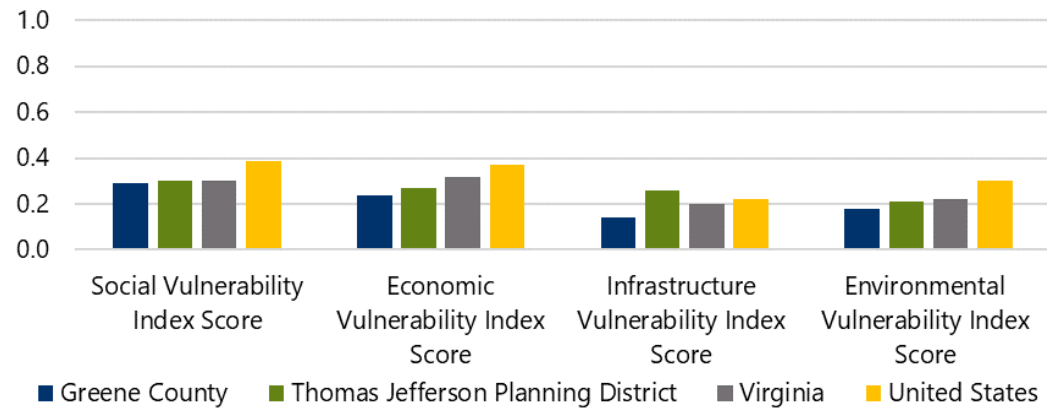
Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the county's vulnerability, allowing us to see the drivers of the four categories. The county would benefit from exploring ways to prepare for environmental disasters like storms and droughts.

Greene County Vulnerability

The graph on the right indicates the relative performance of Fluvanna County's vulnerability in comparison to the Thomas Jefferson Planning District, State of Virginia, and US as a whole. The county is less vulnerable than the state across all categories.

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 county would benefit from exploring ways to decrease the unemployment rate and unsafe drinking water to decrease the vulnerability of the county.

Greene County Vulnerability

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

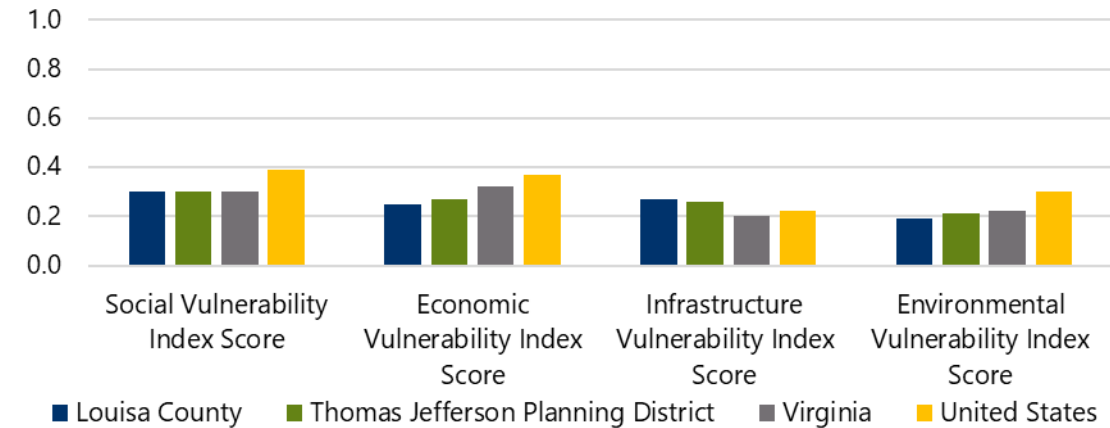
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Louisa County Vulnerability

The graph on the right indicates the relative performance of Louisa County's vulnerability in comparison to the Thomas Jefferson Planning District, State of Virginia, and US as a whole. The county is less vulnerable than the state in the economic and environmental categories but registers a greater degree of infrastructure vulnerability as compared to the state. For social vulnerability, the county and state marked the same degree of 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 county would benefit from exploring ways to decrease the unemployment rate and unsafe drinking water to decrease the vulnerability of the county.

Louisa County Vulnerability

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

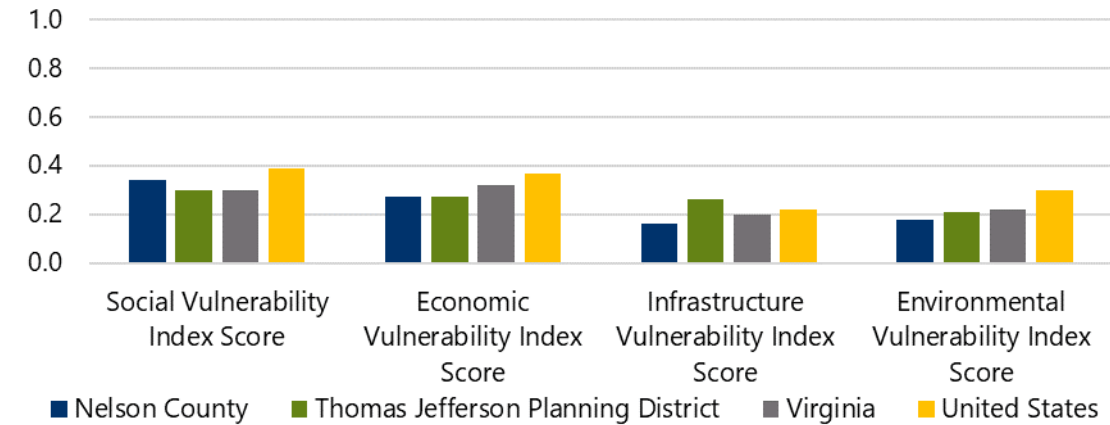
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Nelson County Vulnerability

The graph on the right indicates the relative performance of Nelson County's vulnerability in comparison to the Thomas Jefferson Planning District, State of Virginia, and US as a whole. The county is less vulnerable than the state in all categories but 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 county would benefit from exploring ways to decrease unsafe drinking water and mobile homes to decrease the vulnerability of the county.

Nelson County Vulnerability

Indicator	Less Vulnerable	More Vulnerable
Social	Lower Violent Crime Rate	Higher Share of Population 65+
	Lower Linguistic Isolation	Higher Income Inequality
	Lower Share of Population Under 18	Higher Share of Population Disabled
Economic	Lower Business Vacancy Rate	Higher Share of Employment in Extractive Industries
	Fewer Cost-Burdened Households	
	Lower Unemployment Rate	
Infrastructure	Far From Major Dams	Higher Share of Unsafe Drinking Water
	Fewer High-Detour Bridges	More Mobile Homes
	Far From Nuclear Power Facilities	Higher Share with No Motor Vehicle
Environmental	Less Diversity of Storm Events	Higher Likelihood of Droughts
	Fewer Severe Storm Events	Higher Likelihood of Seismic Hazards
	Far From Levees	

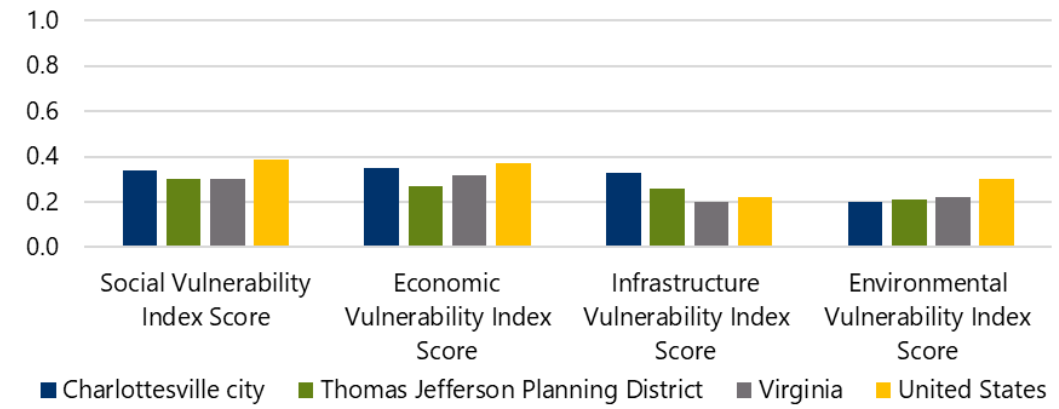
Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

City of Charlottesville Vulnerability

The graph on the right indicates the relative performance of Charlottesville City's vulnerability in comparison to the Thomas Jefferson Planning District, State of Virginia, and the US as a whole. The city is less vulnerable than the state in environmental vulnerable but is more vulnerable than the state in all other categories.

Vulnerability Indices



Source: University of Missouri Community Resilience Assessment Tool

The table to the right explores the determinants of the city's vulnerability, allowing us to see the drivers of the four categories. The county would benefit from exploring ways to decrease the business vacancy rate, violent crime rate to decrease the vulnerability of the city.

Charlottesville City Vulnerability

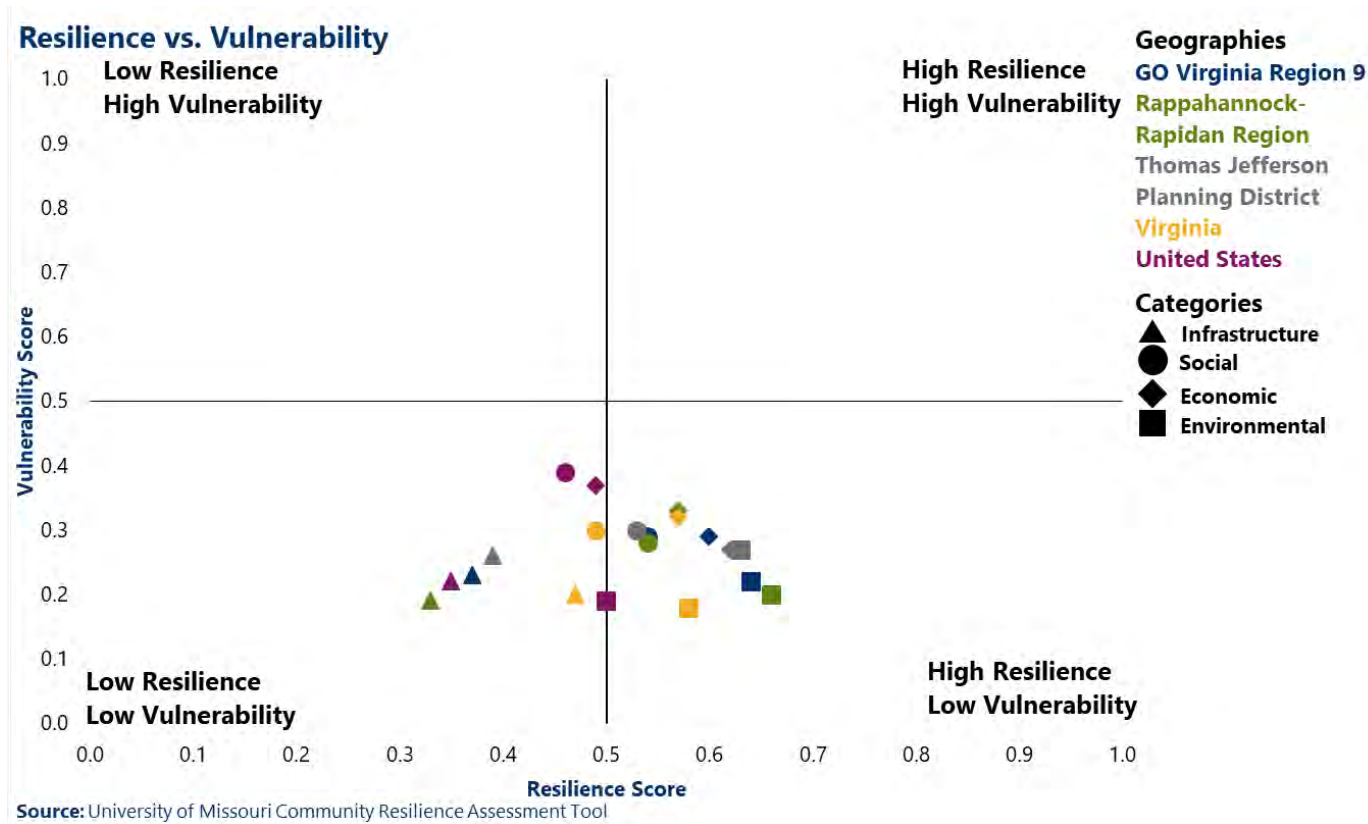
Indicator	Less Vulnerable	More Vulnerable
Social	Lower Share of Population Under 18	Higher Poverty Rate
	Lower Share of Population Over 65	Higher Income Inequality
	Lower Share of Population Disabled	Higher Violent Crime Rate
Economic	Lower Unemployment Rate	More Cost-Burdened Households
	Lower Share of Employment in Extractive Industries	Higher Business Vacancy Rate
Infrastructure	Fewer High-Detour Bridges	Close to Major Dams
	Fewer Mobile Homes	More Older Homes
Environmental	Far From Nuclear Power Facilities	Higher Share with No Motor Vehicle
	Fewer Severe Storm Events	Higher Likelihood of Seismic Hazard
	Less Diversity of Storm Events	Higher Likelihood of Drought
	Far From Levees	

Note: Region is compared to Virginia

Source: University of Missouri Community Resilience Assessment Tool

Resilience and Vulnerability, GO Virginia Region 9

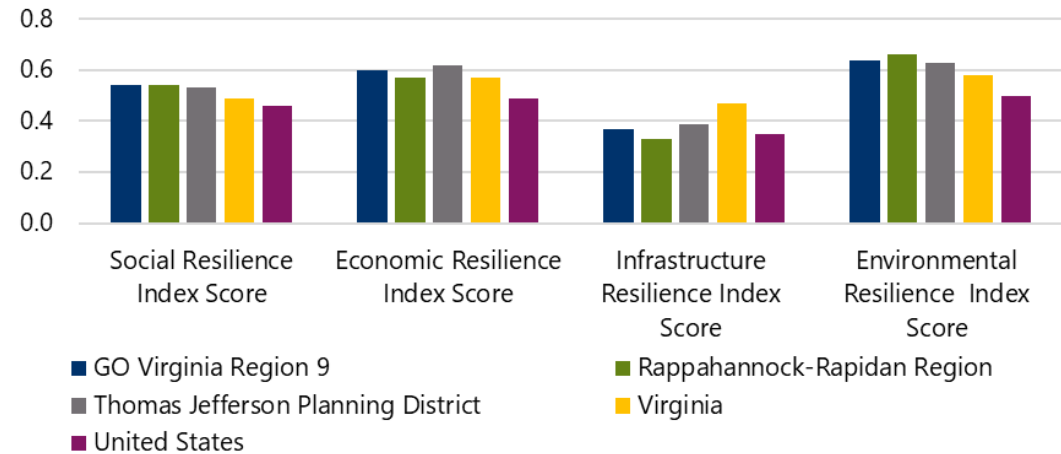
The graphic below displays an overview of the resilience and vulnerability performance of each of the region’s geographies benchmarked to the state and national performance. Each of the four categories is also displayed. Key takeaways include: i) all geographies are *least resilient* in infrastructure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



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	
Infrastructure	More Access to Medical Professionals	Less Access to Emergency Facilities Less Access to Grocery Stores Fewer Emergency Response Occupations
	More Evacuation Routes	
Environmental	Greater Environmental Diversity	

Note: Region is compared to Virginia

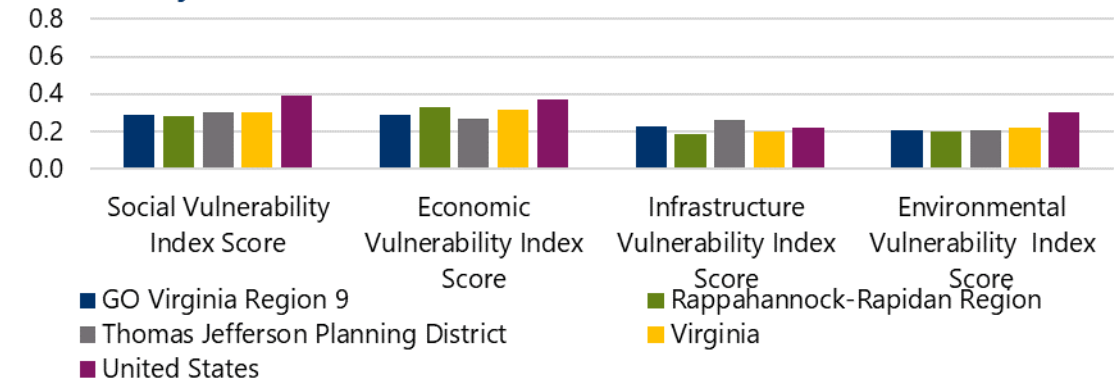
Source: University of Missouri Community Resilience Assessment Tool

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

Thomas Jefferson Planning District 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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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.

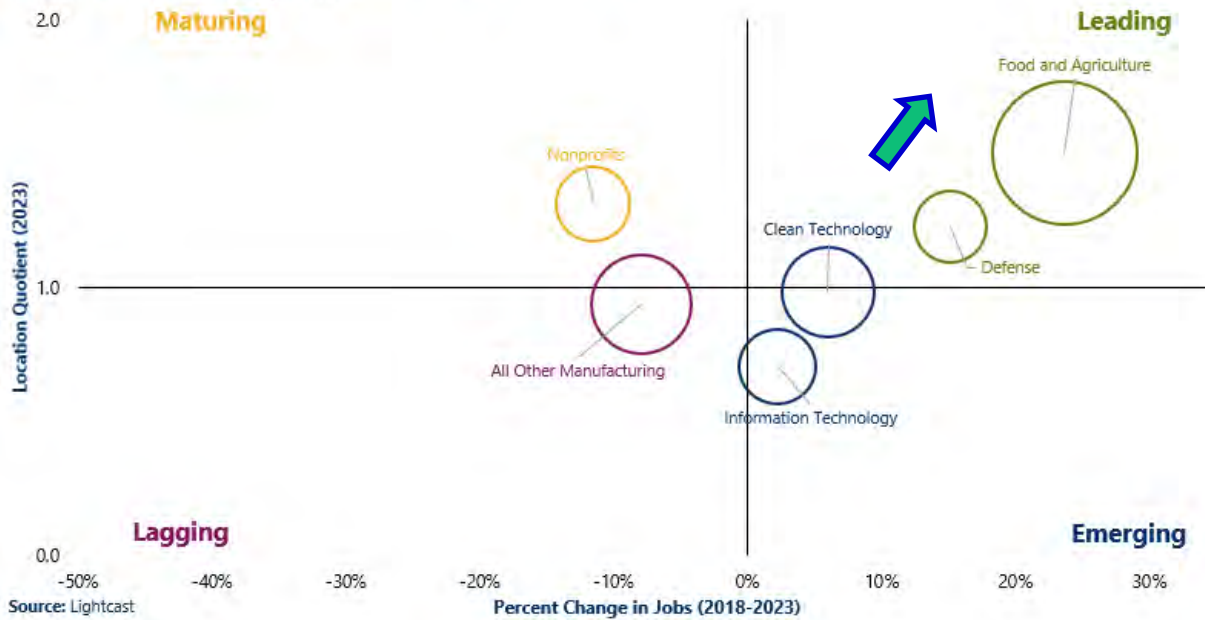
Shovel-ready sites on which to build new facilities are needed throughout the region to accommodate growth. Smaller parcels can be found but infrastructure requirements limit industry use on some sites. Acquiring and preparing sites takes many years and a full analysis must be done to identify new sites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

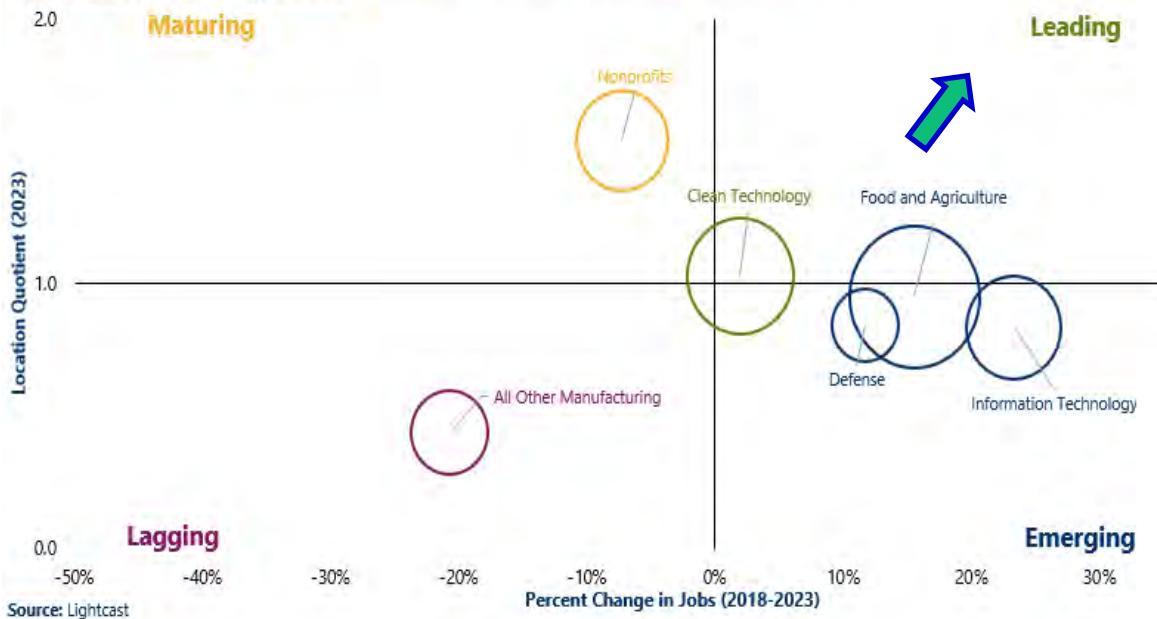
Key Metrics by Sector, Rappahannock-Rapidan Region

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.

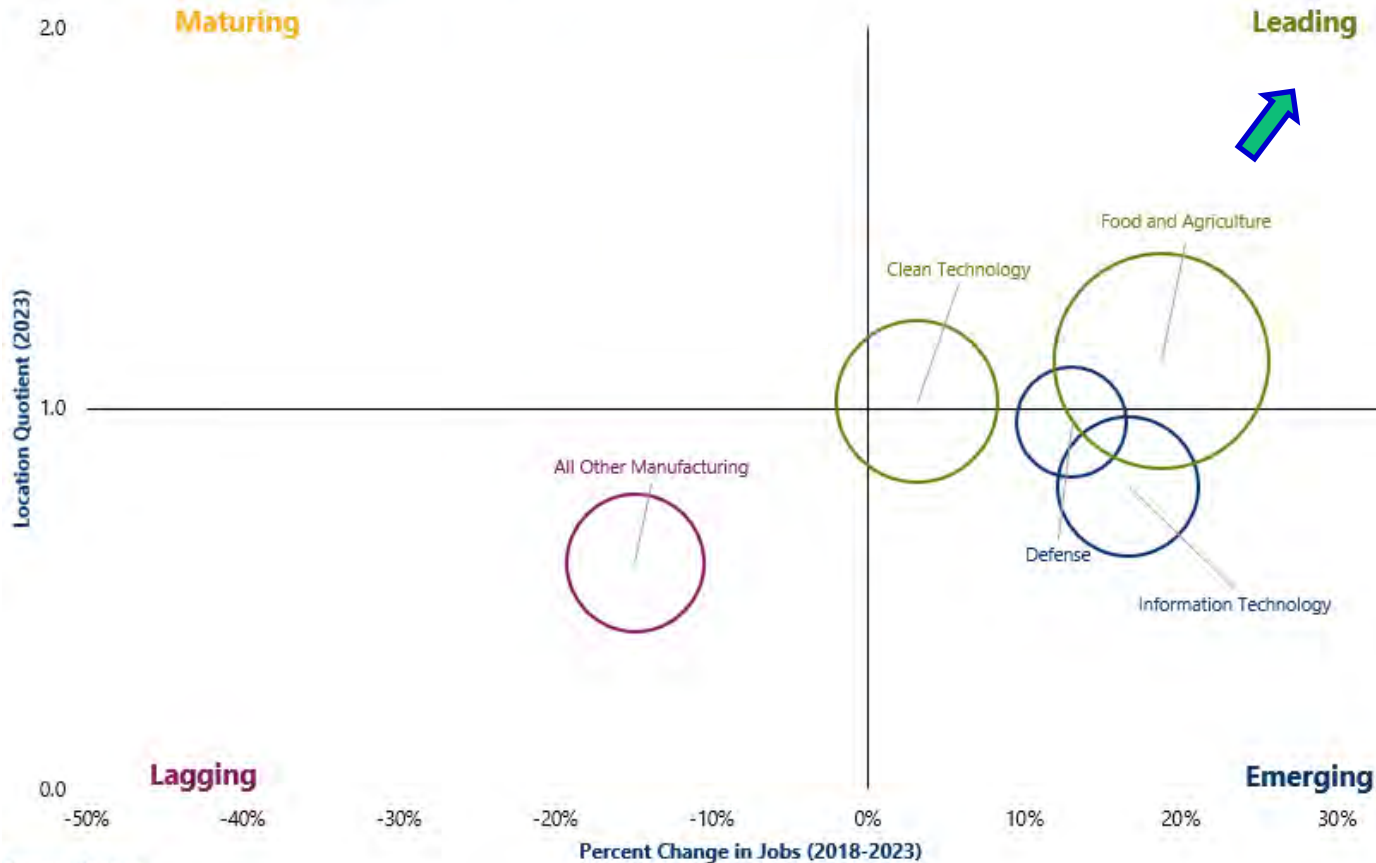
Region 9 Industry Sector Focus: The leading industry sector in Region 9 is Food and Agriculture. It has the highest concentration of job count and is projected to continue to grow.

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



Leading and Emerging Industries for Super Regional Focus

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

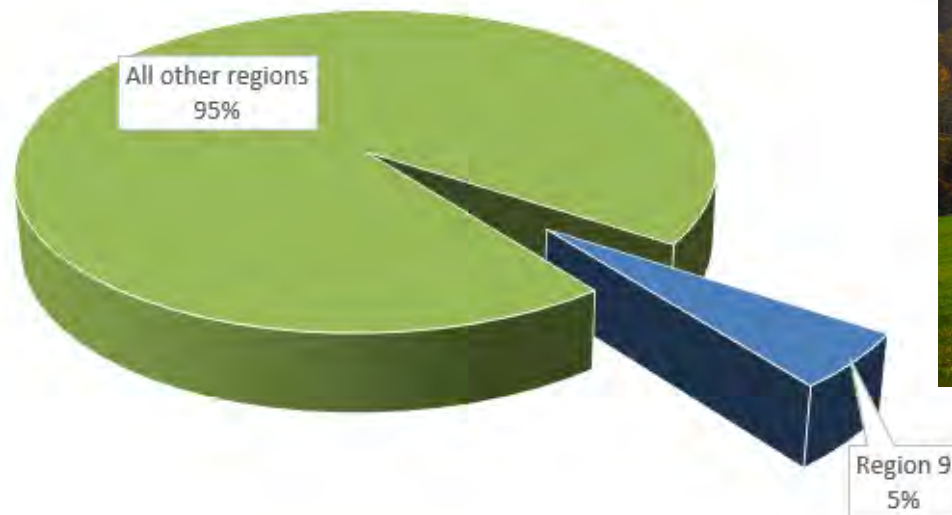
B. Tourism

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



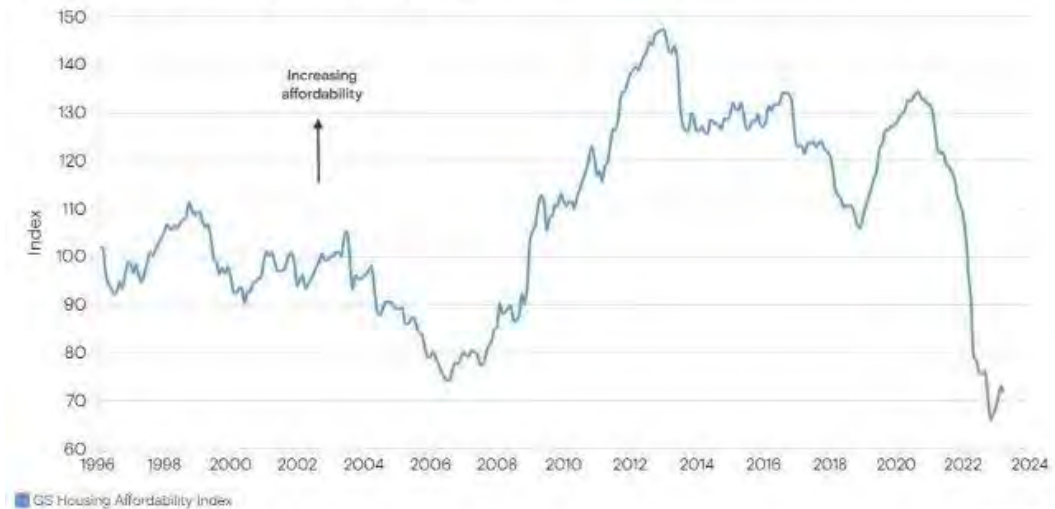
C. Housing

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

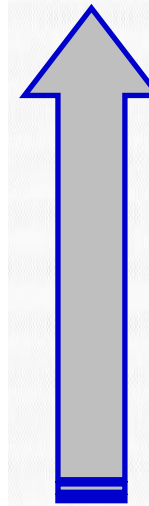
Source: Central Virginia Partnership

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 Blueridge/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 Blue Ridge/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 Blue Ridge/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>

	Action	Rationale	Strategy Components
6.C.	<p>Strengthen partnerships with regional planners and public/private partnerships and establish creative financing mechanisms.</p>	<p>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.</p>	<p>Partnership Formation: Forge strategic partnerships with private developers, financial institutions, and community organizations to leverage resources and expertise in housing development and financing.</p>

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.		
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.	Program Development: Design and implement tailored training programs that are aligned with industry demands and workforce needs.
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

As the nation's only full-service economic development and lead generation consulting firm, Camoin Associates empowers communities through human connection backed by robust analytics.

Since 1999, Camoin Associates has helped local and state governments, economic development organizations, nonprofit organizations, and private businesses across the country generate economic results marked by resiliency and prosperity.

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The Project Team

Dan Gundersen, FM, HLM
Principal

Alex Tranmer, CEcD
Senior Project Manager

Service Lines



Strategic and
Organizational
Planning



Real Estate
Development
Services



Impact
Analysis



Lead Generation
and Relationships



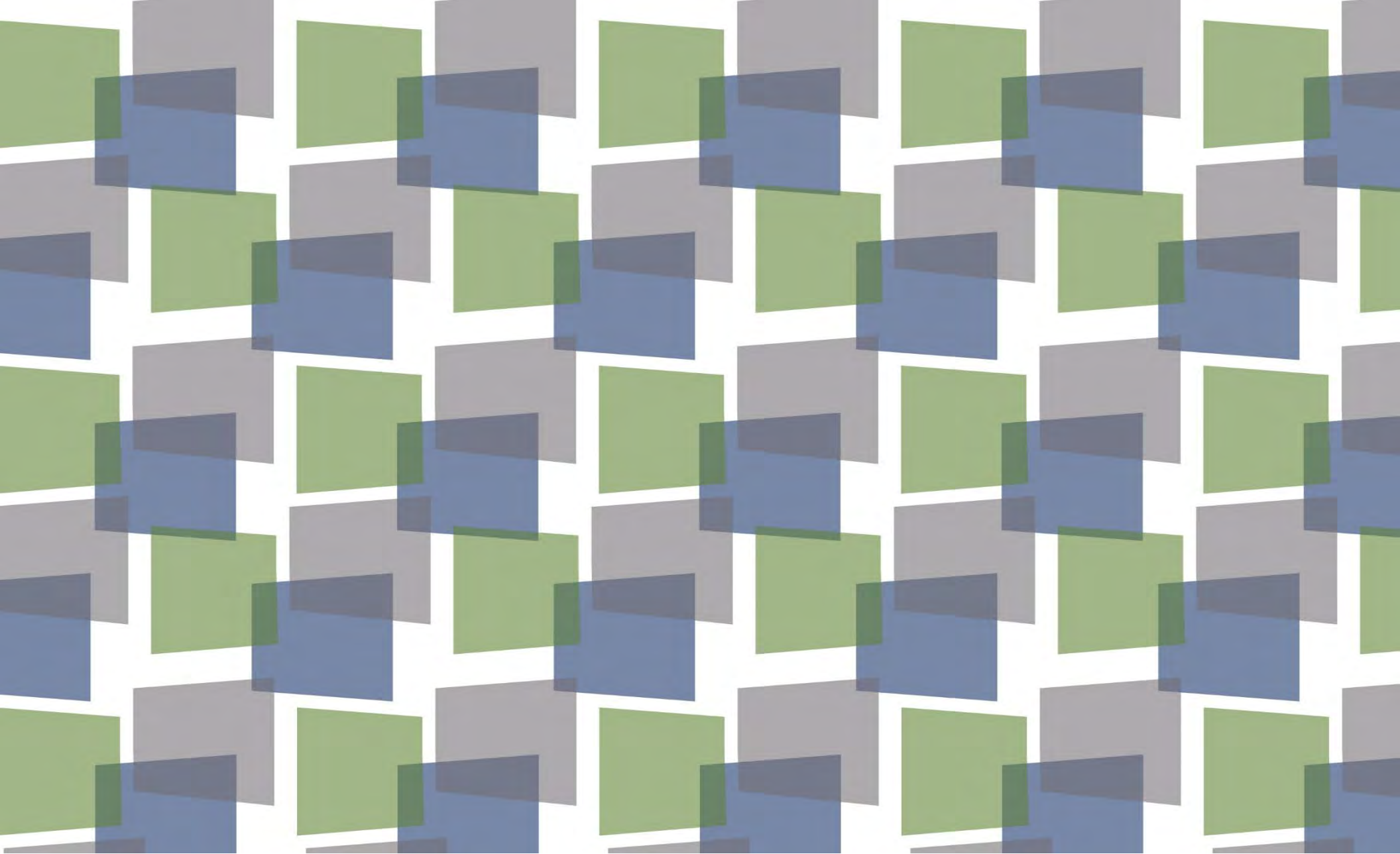
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