

A Comprehensive Economic Development Strategy (CEDS) is a requirement from the Economic Development Association (EDA) to become a designated Economic Development District (EDD). As defined in 13 CFR 303.7, it must have the components outlined in the compliance table below. The table states each of the technical requirements for a CEDS, can where each be found within the Northern Shenandoah Valley CEDS document.

EDA CEDS Requirements Compliance Table	
Strategy Requirement	Where Compliance is Documented
(1) A CEDS must be the result of a continuing economic development planning process, developed with broad-based and diverse public and private sector participation. Consistent with section 302 of PWEDA, each CEDS must promote Regional resiliency and be unique and responsive to the relevant Region. Each CEDS must include: (i) A summary of economic development conditions of the Region; (ii) An in-depth analysis of economic and community development strengths, weaknesses, opportunities, and threats (commonly known as a “SWOT” analysis); (iii) Strategies and an implementation plan to build upon the Region's strengths and opportunities and resolve the weaknesses and threats facing the Region, which should not be inconsistent with applicable State and local economic development or workforce development strategies; and (iv) Performance measures used to evaluate the Planning Organization's successful development and implementation of the CEDS.	■ The planning process and participatory process used to create the CEDS is located in Appendix H. ■ Regional resiliency is explained in terms of already completed economic and natural hazard planning in Appendix D. Resiliency is also addressed in Goal Area 5, which can be found in the Action Plan Matrix in Appendix E. ■ Economic development conditions are explained in Appendix A and cover key demographic, industry, and occupational data. ■ The SWOT analysis is located in Appendix C. It provides a detailed look at the current and potential opportunities and challenges throughout the region. ■ In conjunction with planning efforts already underway in the region, the strategies and implementation plan located Appendix D move forward from the SWOT and craft five goal areas to direct implementation efforts. ■ Performance measures are located within the action plan so progress can be track on a task-by-task basis and give an overall indication of direction.



NORTHERN SHENANDOAH VALLEY REGION

Comprehensive Economic Development Strategy *2025 Update*

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EXECUTIVE SUMMARY

A Comprehensive Economic Development Strategy (CEDS) is a strategic plan required of Economic Development Districts and updated every 5 years. The regionally owned planning process is designed to **build capacity** and guide the economic prosperity and resiliency of a Region. The CEDS provides a vehicle for individuals, organizations, local governments, institutes of learning, and private industry to engage in meaningful conversation and debate about what capacity building efforts would best serve economic development in the region. Additionally, maintaining an EDA approved CEDS unlocks federal funding that would not otherwise be accessible.

The CEDS integrates and leverages other regional planning efforts, such as the Consolidated and Hazard Mitigation Plans, and intends to utilize other federal, state, local and private funds to advance the Region's goals and objectives.

The Northern Shenandoah Valley Regional Commission (NSVRC) maintains the CEDS on behalf of the region and operates as the Economic Development District authorized by the Economic Development Administration.

What does it mean to build capacity?

The term capacity building refers the public sector's role in investing in new ideas, knowledge transfer, and infrastructure to build a foundation so the private sector can flourish. The CEDS Action Plan is the tool we use to build capacity.

ABOUT THE NORTHERN SHENANDOAH VALLEY REGION

WHO WE ARE

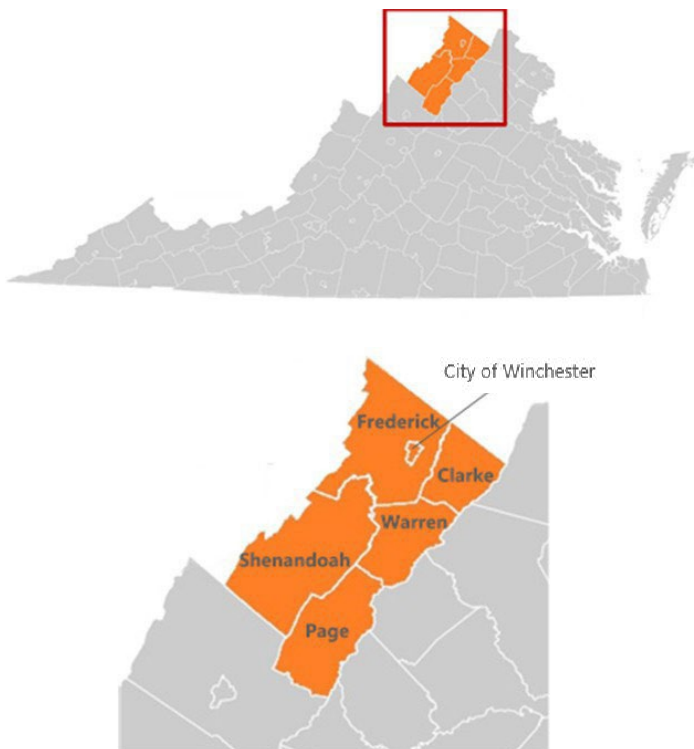
The Northern Shenandoah Valley Regional Commission (NSVRC) is comprised of Clarke, Frederick, Page, Shenandoah, and Warren Counties, and all the towns within, and the City of Winchester.

WHAT WE DO

NSVRC is a state established planning district, one of 22 in Virginia. Its mission is to pursue the common interests of its local governments with the goal of creating efficiencies through collaboration. The NSVRC is now a Designated Economic Development District.



The Northern Shenandoah Valley Region



Regional Strengths

- *Industry and employment diversity*
- *Proximity to population centers*
- *Diverse mix of educational institutions*
- *Rich in natural amenities and resources*
- *Excellent transportation routes*

Expected Outcomes of CEDS

- *Job creation and higher wages*
- *Enhanced quality of life*
- *A dynamic workforce prepared for technology advancements*
- *Improved visitor experience*
- *Asset based economic development*



Vision Statement

“The Northern Shenandoah Valley is a place where residents are meaningfully employed, beautiful natural resources are readily accessible, and a supportive business environment creates opportunity for residents and newcomers alike.”



How do we get from vision to reality?

Achieving the vision will take dedicated partners, resources, and regular progress updates. The

Action Plan Matrix is the NSVRC’s tool to monitor progress and adjust as economic circumstances change. The Action Plan Matrix is divided into 5 goal areas that were vetted by the CEDS Project Team and subject matter experts. Beneath each goal area are the objectives and specific tasks that will drive success. Each task has a designated priority level, anticipated resources, and a responsible party to facilitate implementation. Regular review and update of the Action Plan Matrix is key to maintaining momentum in the implementation process.



Five primary goal areas were translated into actions with associated objectives and tasks, as shown below. Goal areas include workforce, visitation, business development and support, site readiness, and environmental resiliency.

GOAL AREA 1: WORKFORCE DEVELOPMENT AND TALENT RETENTION

Build a skilled workforce that aligns with employer needs, promotes career readiness, and retains talent within the region.

GOAL AREA 2: SITE READINESS AND INFRASTRUCTURE DEVELOPMENT

Ensure the availability of modern and resilient physical infrastructure, develop shovel ready sites, and expand broadband and utility access to support community and economic development.

GOAL AREA 3: BUSINESS RETENTION, EXPANSION, AND INNOVATION

Create an environment where existing industry clusters can thrive while supporting emerging clusters and new business startups.

GOAL AREA 4: PLACEMAKING AND COMMUNITY VITALITY

Support local and regional efforts that enhance the region's quality of life, boost tourism, preserve history and natural resources, and draw new residents and workforce.

GOAL AREA 5: RESILIENCE AND REGIONAL CAPACITY BUILDING

Strengthen the region's ability to adapt to economic disruptions, environmental hazards, and demographic changes through collaborative planning and equitable investment.

Appendix E: Action Plan includes objectives and strategies for each goal area, as well as additional information including lead stakeholder, priority level and timeframe, funding sources, and resources. In addition, performance measures were added to guide next steps and implementation.

NORTHERN SHENANDOAH VALLEY REGIONAL COMMISSION ACTION PLAN SUMMARY

GOAL AREA 1: WORKFORCE DEVELOPMENT AND TALENT RETENTION

Build a skilled workforce that aligns with employer needs, promotes career readiness, and retains talent within the region.

OBJECTIVE 1.1 Ensure alignment of industry needs and available workforce and training programs at all of the regions training centers.

OBJECTIVE 1.2 Increase graduate retention and awareness of workforce opportunities by promoting regional career pathways.

OBJECTIVE 1.3 Improve labor force participation rates, especially in underserved populations by reducing barriers to training and employment.

OBJECTIVE 1.4 Develop a regional workforce scorecard.



GOAL AREA 2: SITE READINESS & INFRASTRUCTURE DEVELOPMENT

Work Ensure the availability of modern and resilient infrastructure, develop shovel ready sites, and expand broadband and utility access to support community and economic development.

OBJECTIVE 2.1 Ensure there is a regional inventory of sites available to suit target industry clusters with <18 months to market.

OBJECTIVE 2.2 Continue to resolve region-wide infrastructure needs.

OBJECTIVE 2.3 Pursue additional state/federal funding to expand broadband coverage and increase speed.

OBJECTIVE 2.4 Create a power availability plan for sites that best align with high power demand users such as data centers and advanced manufacturing.





GOAL AREA 3: BUSINESS RETENTION, EXPANSION, AND INNOVATION

Create an environment where existing industry clusters can thrive while supporting emerging clusters and startups.

OBJECTIVE 3.1 Work with localities in the Northern Shenandoah Valley to strengthen the Agribusiness industry, support farmers, and cultivate programs to expand the industry's output and geographic reach.

OBJECTIVE 3.2 Leverage local incentives and zone designations to increase development in key areas.

OBJECTIVE 3.3 Lean in to emerging industries and high-tech sectors.

OBJECTIVE 3.4 Partner with government, public schools, universities and colleges, and businesses to become an entrepreneurial region of innovative ideas and technologies capable of fulfilling future market demand.

GOAL AREA 4: PLACEMAKING AND COMMUNITY VITALITY

Support local and regional efforts to enhance the region's quality of life, boost tourism, preserve history and natural resources, and draw new residents and workforce.

OBJECTIVE 4.1 Increase connectivity and accessibility throughout the region for residents and visitors.

OBJECTIVE 4.2 Ensure Downtowns are thriving and vibrant places to live, work, and play.

OBJECTIVE 4.3 Ensure quality housing is available and accessible throughout the region.

OBJECTIVE 4.4 Support the Shenandoah Valley Tourism Partnership as they pursue activities that strengthen the brand and promote the region.

GOAL AREA 5: RESILIENCE AND REGIONAL CAPACITY

Strengthen the region's ability to adapt to economic disruptions, environmental hazards, and demographic changes through collaborative planning and equitable investment.

OBJECTIVE 5.1 Strengthen cross-jurisdictional coordination and planning.

OBJECTIVE 5.2 Expand technical assistance and institutional capacity.

OBJECTIVE 5.3 Rectify the pollution of the Shenandoah River and Chesapeake Bay Watershed from Agricultural byproducts and runoff.

OBJECTIVE 5.4 Implement the All Hazards Mitigation Plan.



Implementation

The planning process for the CEDS was initiated understanding that developing relationships among stakeholders in the public and private sectors would be essential to successful implementation. The factors, partners and other resources expected for implementation are detailed in the Action Plan Matrix, contained in Appendix D. Potential funding sources available, as well as those the NSVRC can pursue are already established so that the organization can launch into implementation. NSVRC anticipates taking on the role of facilitator, while enabling local experts to take on goal areas that match their expertise. Additionally, each objective has a performance measure, which will be updated along with other necessary elements during each annual review of the CEDS required by the Economic Development Administration.





Acknowledgements

This work would not be possible without the contributions of the CEDS Stakeholders, who provided insight and experience during the collection, synthesis, and presentation of the information contained in the Northern Shenandoah Valley CEDS. In addition, the NSVRC planning staff and the concurrent regional planning efforts they led supported the development of this document and action plan. All contributors are listed in Appendix H: Community Engagement. Additional thanks to the NSVRC Board of Commissioners for their unwavering support during this planning process.

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Appendix A: Background Conditions

Introduction

The Northern Shenandoah Valley Regional Commission (NSVRC) is a state-established planning district, one of 21 in Virginia. Its mission is to pursue the common interests of its local governments with the goal of creating efficiencies through collaboration.

This data report for the NSVRC meets part of the requirements to complete a Comprehensive Economic Development Strategy (CEDS). The CEDS process was created by the EDA and serves as a tool to effectively identify economic opportunities and establish ways to enhance a region's economic ecosystem. In addition to an effective economic development planning tool, it is also a requirement for maintaining EDD designation from the EDA.

This report concentrates on summary background data including an analysis of demographic and economic data and details the current state of physical assets. This information will be used to inform subsequent requirements of the CEDS process. In addition to this summary background of information, the CEDS document requires a SWOT (Strengths, Weakness, Opportunities and Threats) analysis, action plan, and evaluation framework which are included in the following appendices.

Overview

Throughout this report we explore a number of metrics retrieved from proprietary and public sources, primarily Chmura's JobsEQ and the Census Bureau's American Community Survey. During the development of the CEDS, Argonne National Laboratory's National Economic Resilience Data Explorer (NERDE) was made available to the public through a partnership with the Department of Commerce's Economic Development Administration. Its intended purpose is to inform planning activities like this CEDS. Data is available by county and Economic Development District. For more information on the NERDE, please visit <https://nerde.anl.gov/>.

NERDE presents an Economic Development Capacity Index (EDCI) to support the analytical needs of multiple audiences by consolidating more than 53 unique data sets into five capacity areas for ease of use. These are data-driven estimations of capacity in Human Capital, Financial Capital, Infrastructure, Industry, and Institutions and Partnerships. Results are presented as percentiles. Results are available for counties and cities only, not as a regional aggregate. For details about indicators or to use the tool, please visit <https://disgeoportal.egs.anl.gov/EDCI/>. The NERDE EDCI give us a good starting point for analysis.

Table 1 below presents the estimated local capacity for all five capacity areas. The capacities are presented as a percentile between 0 and 1. For instance, Clarke County is in the 96th percentile for the Human Capital index compared to all other counties in the United States. This table is presented for "at a glance" purposes. Many, but not all, of the data points used in these indices are presented in greater detail throughout this appendix. In addition, please remember these data can never account for the human connection, networks, knowledge, and experience present within each community and throughout the region; all of which is addressed to some extent in the SWOT analysis.

Table 1: Economic Development Capacity Index

Economic Development Capacity Index										
	Human Capital		Financial Capital		Infrastructure		Industry		Institutions and Partnerships	
	Rank	Percentile	Rank	Percentile	Rank	Percentile	Rank	Percentile	Rank	Percentile
Clarke	High	0.96	Moderate	0.81	Elevated	0.66	Moderate	0.36	Limited	0.48
Frederick	High	0.92	Moderate	0.48	Elevated	0.84	Elevated	0.53	Low	0.14
Page	Moderate	0.41	Limited	0.19	Elevated	0.73	Elevated	0.43	Limited	0.24
Shenandoah	Moderate	0.54	Limited	0.37	Elevated	0.82	Moderate	0.24	Limited	0.51
Warren	Elevated	0.63	Moderate	0.55	Elevated	0.89	Elevated	0.51	Limited	0.2
Winchester	Moderate	0.33	Moderate	0.79	High	0.97	Elevated	0.56	Limited	0.31

Source: NERDE

These percentiles were given qualitative rankings as they compare to the US average:

1. Low: Capacity well below the national average;
2. Limited: Capacity approaching the national average;
3. Moderate: Capacity close to the national average;
4. Elevated: Capacity above the national average; and
5. High: Capacity well above the national average

Most of the rankings presented here are moderate to high compared to the national average. In all localities, the Institutions and Partnerships capacity area ranks low or limited, which can be attributed three primary indicators for this capacity area: high distance to a university center (public), low percentage of grant funding in local budgets, and low local government employees per capita.

The only other capacity area that resulted in a limited ranking is Financial Capital in Shenandoah and Page Counties. This reflects the public and private monetary environment, specifically the accessibility of capital and the financial vulnerability of local governments to economic shocks. Indicators include the Local Government Revenue Vulnerability Index, Small Business Administration grants and loans, and access to financial institutions.

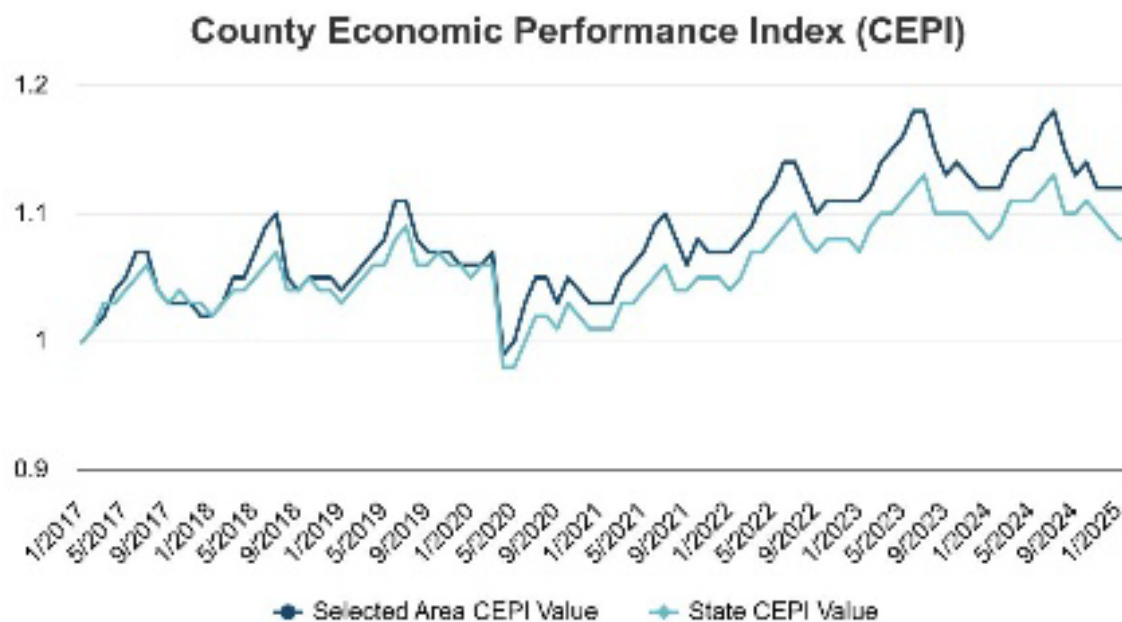
To determine local economic strength and vulnerability, we use the County Economic Performance Index (CEPI) and Local Government Revenue Vulnerability Index (LGRVI). These two metrics estimate monthly changes relative to a user selected baseline. Revenues included in both indices include: taxes on products and sales, transportation and housing revenues, individual income taxes, severance taxes and royalties, and property taxes. Local government revenues also include a local revenue from state revenue sharing component. In addition, the main index for the LGRVI for county-level governments includes revenue estimates for sub-county government units, including municipalities, school districts, and special districts. This revenue data is aggregated to produce the indices. Find a description of the methodology, including how estimates for each revenue source were produced, is available [here](#)

Local Economic Strength and Distress

Measures of Strength and Distress

Argonne National Laboratory included the County Economic Performance Index (CEPI) in the NERDE database for all places and aggregated for the region. This tool measures the total value added of all industries in a county effectively reflecting the Gross Regional Product. This index is important because it can help identify regions that are potentially vulnerable to economic disruptions. Figure 1 shows the aggregated CEPI for the NSV Region from January 2017 through January 2025 compared to Virginia. The region outperforms the state in this index by a larger margin now than in the last 12 years and experiences less drastic seasonal fluctuation.

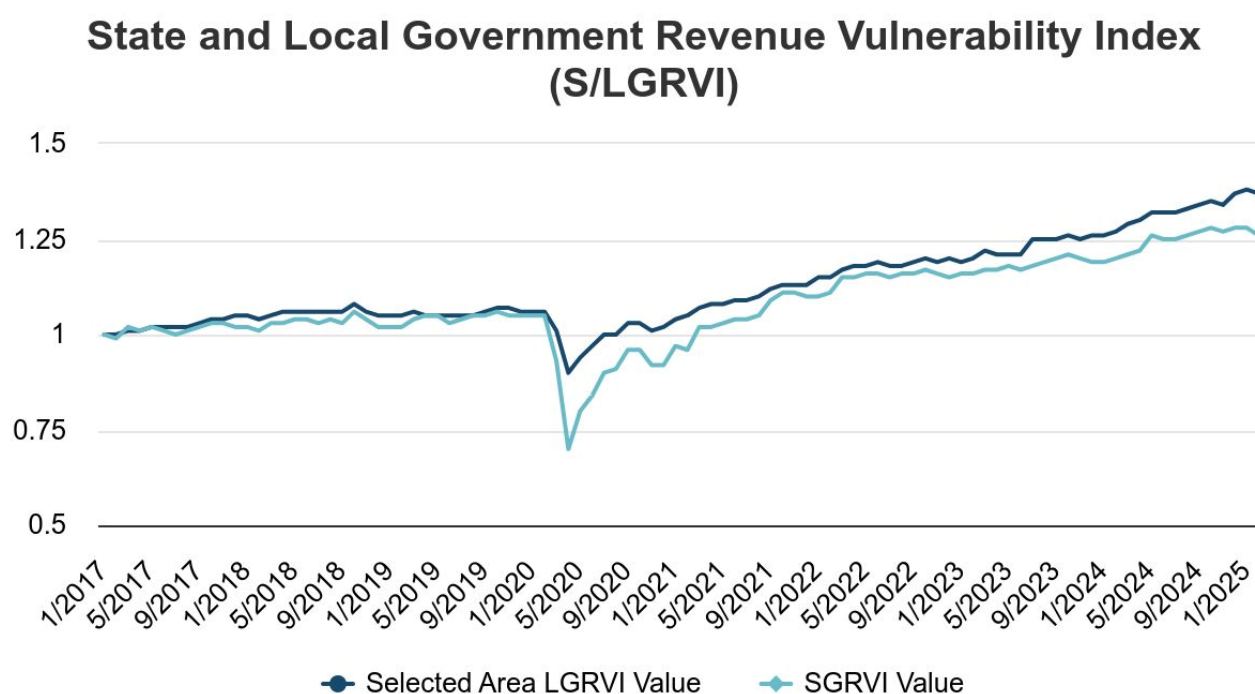
Figure 1: NSV Region County Economic Performance Index (CEPI) 2017-2025



Source: Argonne National Laboratory

Argonne National Laboratory has also developed a tool to assess the financial resilience of state and local governments by measuring the vulnerability of government revenues to economic downturns. This vulnerability index estimates monthly changes in key revenue sources relative to a January 2020 baseline. As seen in Figure 2, the region was aligned with the state prior to the onset of the COVID-19 pandemic. The region's expected losses were less substantial than the state as a whole and NSV Region has recovered quickly and continues to outperform the state on this index as well.

Figure 2: State and Local Government Revenue Vulnerability Index



Source: Argonne National Laboratory

Federal Measures of Distress

A few macro-indicators economic distress were identified by Argonne National Laboratory in the development of its NERDE database: a high concentration of coal sector jobs, has a nuclear power plant present, or is in a persistent state of poverty. No locality in the NSV Region meets those criteria. In addition, there are no tribal lands within or adjacent to the region's boundaries.

The Economic Development Administration refers to three indicators of economic distress from very specific sources. Per capita personal income (PCPI, Bureau of Economic Analysis), Per Capita Market Income (PCMI, American Community Survey), and 24-month unemployment. For 24-month unemployment a threshold calculation of more than 1% greater than the U.S. average would indicate distress. For per capital income thresholds, anything below 80% of the national average indicates distress.

Page County has PCPI and PCMI below the 80% threshold. Shenandoah County has PCPI and PCMI just above the 80% threshold. All other metrics in Table 2 below exceed the distress thresholds. While limited distress is visible at the county level, the region should explore distress at the ZCTA level for more in-depth examination.

Table 2: Federal Measures of Distress

NSV Region Economic Distress Criteria						
	24 Month Unemployment	Threshold Calculation	BEA PCPI	Threshold Calculation	ACS 5-Year PCMI	Threshold Calculation
Clarke County	2.53	-1.37	\$82,974	118.9	\$54,763	126.5
Frederick County	2.59	-1.31	\$65,119	93.3	\$45,248	104.5

Page County	3.51	-0.39	\$49,221	70.5	\$31,006	71.6
Shenandoah County	2.81	-1.09	\$56,651	81.2	\$35,360	81.7
Warren County	2.74	-1.16	\$59,324	85	\$39,834	92
NSV Region	2.75	-1.15	\$62,211	89.1	\$41,307	95.4
U.S.	3.9	0	\$69,810	100	\$43,289	100

Source: StatsAmerica

Note: 24-Month Average Unemployment Rate (BLS) period ending March 2025, 2023 Per Capita Personal Income (BEA PCPI), 2023 Per Capita Money Income (ACS 5-year PCMI)

Southeast Crescent Regional Commission Levels of Distress

The Southeast Crescent Regional Commission is one of seven federal regional commissions authorized by the U.S. Congress to address instances of economic distress. SCRC has identified the Northern Shenandoah Valley Regional Commission as a Local Development District (LDD) and applied one of four distress designations to each of the Counties and City in the Region. Those designations are:

Clarke County – Attainment

Shenandoah County – Transitional

Frederick County – Attainment

Warren County – Transitional

Page County – Transitional

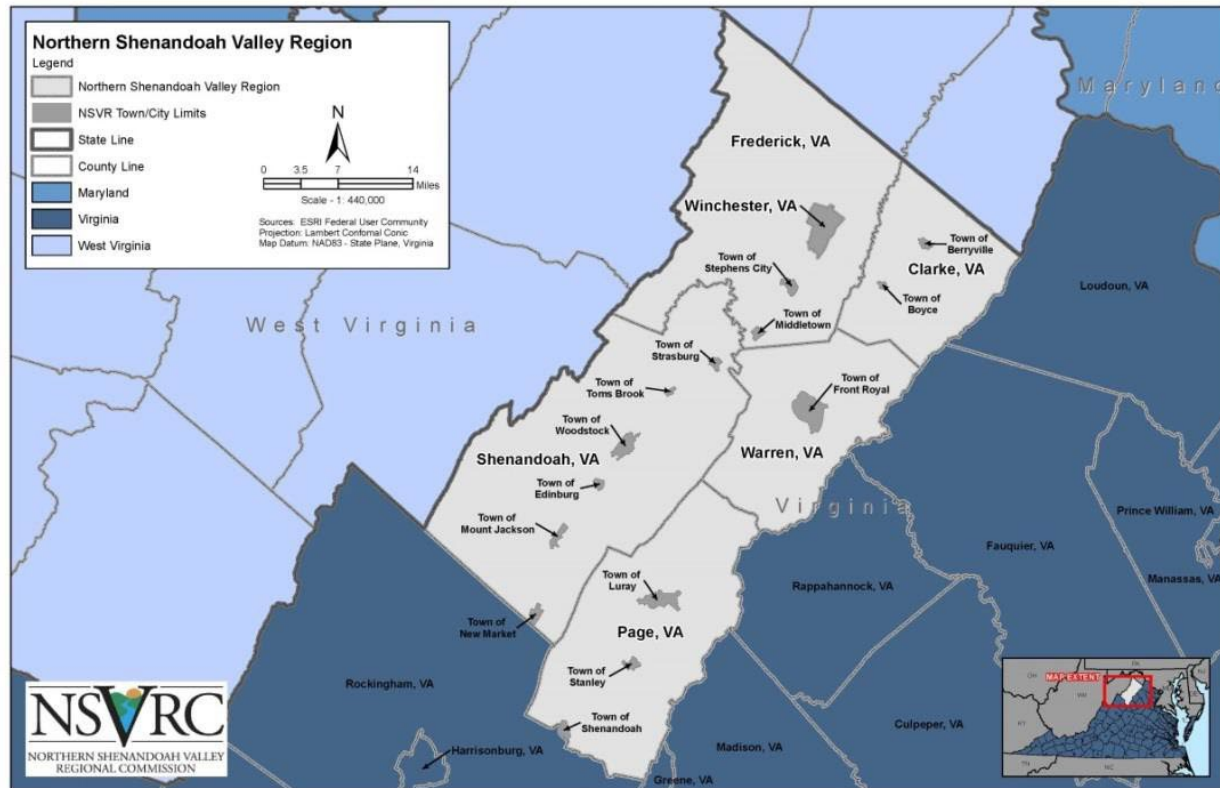
City of Winchester – Attainment with two Isolated area of distress (Census Tracts 1.01 and 1.02)

For more information on SCRC please visit <https://scrc.gov/>.

NSV Region Geography

The Northern Shenandoah Valley Regional Commission is comprised of Frederick County, City of Winchester, Clarke County, Shenandoah County, Warren County and Page County in the northwest corner of Virginia (NSV Region). This area encompasses about 1,645 square miles and is the geography used for this analysis.

Figure 3: Map of the NSV Region

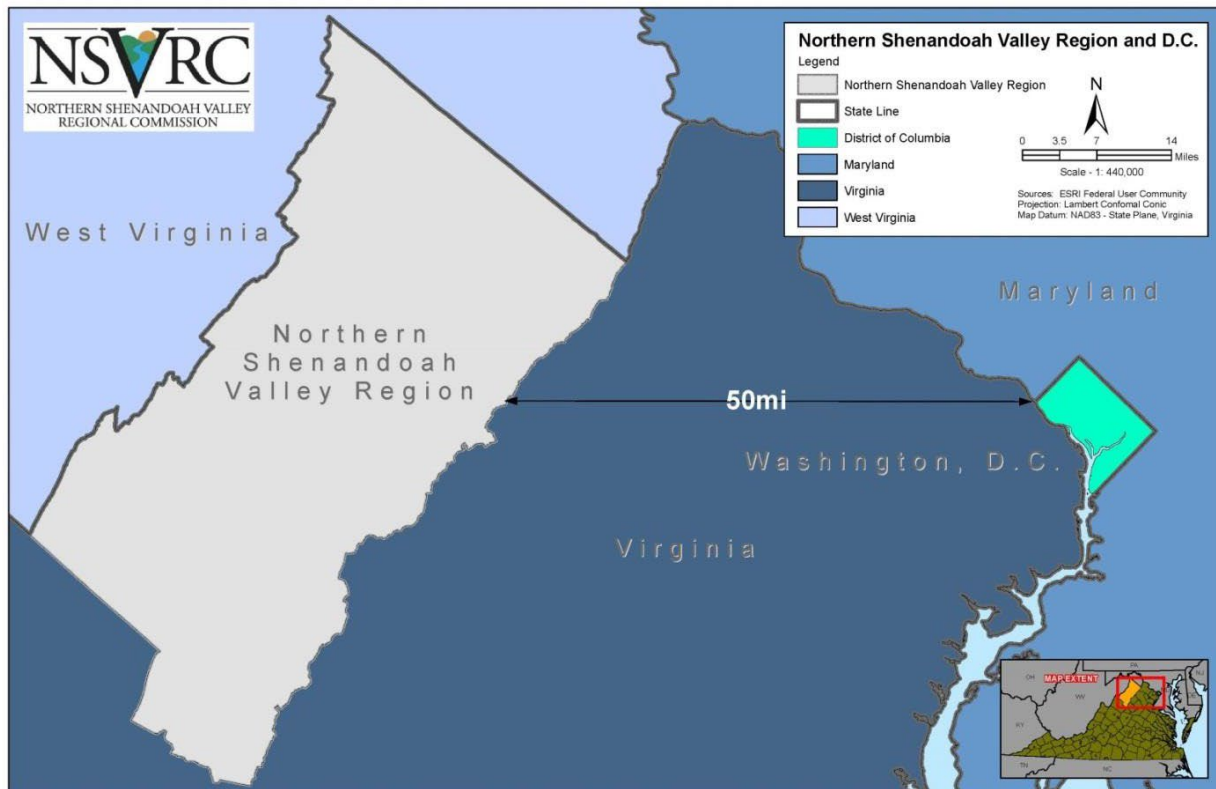


Source: ArcGIS

Location:

Situated within the Northern Virginia portion of the Appalachian Mountain Range, the Northern Shenandoah Valley lies approximately 50 miles east of the U.S. capitol of Washington, DC in the northwest most corner of the Commonwealth. A more rural counterpart to its neighbors to the east, this region features a rural makeup of rolling hills and open farmland. Its western border is shared with West Virginia, and it's a short distance from the state of Maryland. Approximately 60% of the U.S. population reside within a 600-mile radius of Winchester which is generally considered a feasible one-day drive for commercial freight and passenger vehicles.

Figure 4: Northern Shenandoah Valley Region and D.C.



Source: ArcGIS

Landscape:

Home to nearly 7,000 linear miles of rivers and streams, the region intersects 78 NRCS (Natural Resource Conservation Service) recognized watershed boundaries, which intersect over 36,000 acres of NWI (National Wetlands Inventory) inventoried wetlands. Flowing south to north, over 300 miles of the Shenandoah River and its branches run through the central part of the valley. It's separated from Virginia's Piedmont region by the Blue Ridge Mountain chain. Lying just within the eastern border of Page County is the region's highest point, known as Stony Man, rises to 4,000 feet above sea level (USGS). A topographical map can be found in Appendix F.

Demographic Analysis

Population

The NSV Region population as of 2023 is 245,880 and has increased by 22,728 since 2010. The population is expected to increase by 2,205 (0.9%) annually for the next 10 years. Similarly, the total number of households has increased by 8,005 (9.3%) since 2010 and will continue to increase. In 2017 data sources forecasted an increase in median age, but it remains 41.5. While population and household growth were on par with Virginia trends in the 2010-2017 time frame, the NSV Region has surpassed growth rates for the state from 2017-2023.

Table 3: NSV Region and Virginia Population Comparison, 2010-2023

NSV Region and Virginia Population Comparison, 2010 - 2023										
	2010		2017		2023		Percent Change 2010-2017		Percent Change 2017-2023	
	NSV	VA	NSV	VA	NSV	VA	NSV	VA	NSV	VA
Total Population	222,152	8,001,024	234,304	8,513,496	245,880	8,657,499	5.5%	6.4%	5.7%	1.7%
Total Households	85,887	3,056,058	89,972	3,234,614	93,892	3,326,260	4.8%	5.8%	4.4%	2.8%

Source: JobsEQ

The population is more or less dispersed throughout the region with some exceptions. Population density, household size and urban-rural mix are described in Tables 4 and 5.

Table 4: NSV Region Urban-Rural Mix

NSV Region Urban-Rural Mix					
	Percent Urban	Percent Rural	Land Area (sq mi)	Land Area Percent of NSV	Population Density
Clarke County	0.00%	100.00%	175.93	10.8%	85.6
Frederick County	60.59%	39.41%	413.14	25.3%	226.0
Page County	20.00%	80.00%	310.02	19.0%	76.6
Shenandoah County	30.38%	69.62%	508.08	31.2%	87.8
Warren County	39.76%	60.24%	214.6	13.2%	191.5
City of Winchester	100.00%	0.00%	9.19	.5%	3044.7
NSV Region			1630.93		

Source: NERDE

Note: Total land area presented in Table 3 is 15 square miles less than the total land area presented in previous section. This is a result of different sources. Land Area as a percent of the Region may not sum due to rounding.

Table 5 shows the population and household detail in the NSV Region. Frederick County accounts for 38% of the population while Clarke County is the least populated county in the region, accounting for

only 6%. The average household size ranges from a low of 2.39 in the City of Winchester to a high of 2.68 in Frederick County.

Table 5: 2023 NSV Region Population and Households by County

2023 NSV Region Population and Households				
Locality	Population	Pop Percent of NSV	Households	Average Household Size
Clarke County	15,060	6%	5,651	2.62
Frederick County	93,355	38%	34,338	2.68
Page County	23,750	10%	9,509	2.47
Shenandoah County	44,630	18%	17,782	2.49
Warren County	41,104	17%	15,357	2.62
Winchester	27,981	11%	11,255	2.39
NSV	245,880	100%	93,892	2.55

Source: U.S. Census Bureau, American Community Survey (2019-2023)

According to a Weldon Cooper Center for Public Service report from January 2024, The Winchester Metro area was the fastest growing in the state from 2020-2023 and grew at nearly five times the rate of Virginia's as a whole. Frederick and Clarke Counties are two of 14 rural counties in Virginia with a population change of more than 4% attributed to in-migration from larger metro areas during the same time period. The same study projects continued out migration from Virginia's largest metro areas to its more rural places.

Table 4 below presents Weldon Cooper Center for Public Service's population projections for the region for 2030, 2040, and 2050 with the 2020 Decennial Census population for reference. In the next 30 years 30,000 new residents are expected to enter Frederick County, growth of 46% over the 2020 estimate. Page County is projected to experience an overall decline in population by 2050.

Table 6: NSV Region Population Projections

NSV Region Population Projections					
	2020	2030	2040	2050	Percent Change 2020-2050
Clarke County	14,783	15,309	16,133	17,199	16%
Frederick County	91,419	103,035	117,383	133,488	46%
Page County	23,709	23,041	22,963	23,229	-2%
Shenandoah County	44,186	45,714	49,528	54,048	22%
Warren County	40,727	43,250	47,116	51,688	27%
Winchester	28,120	29,606	31,404	33,671	20%
NSV	242,944	259,955	284,527	313,323	29%

Source: Weldon Cooper Center for Public Service

Race and Ethnicity

In the Northern Shenandoah Valley Region 83% of the population identifies as white and 6% identifies as two or more races. The City of Winchester has the most diverse population where 20.1% of the population identifies as Hispanic or Latino, and 30% of the population identifies as non-white. Race and ethnicity are detailed by locality in Tables 7 and 8.

Table 7: NSV Region Local Race Detail

NSV Region Local Race Detail								
	White	Black or African American	American Indian or Alaskan Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	Total
Clarke County	84.7%	6.0%	0.3%	1.3%	0.0%	4.3%	3.5%	100%
Frederick County	82.4%	4.2%	0.5%	1.9%	0.1%	5.4%	5.5%	100%
Page County	92.5%	1.9%	0.1%	0.3%	0.0%	1.2%	4.0%	100%
Shenandoah County	86.9%	2.9%	0.1%	1.3%	0.0%	2.7%	6.1%	100%
Warren County	83.7%	5.1%	0.1%	1.2%	0.0%	4.4%	5.5%	100%
Winchester	69.0%	9.2%	0.2%	2.3%	0.0%	8.0%	11.2%	100%
NSV Region	83.0%	4.6%	0.3%	1.5%	0.0%	4.6%	6.0%	100%

Source: U.S. Census Bureau, American Community Survey (2019-2023)

Table 8: NSV Region Ethnicity

NSV Region Ethnicity							
	Clarke	Frederick	Page	Shenandoah	Warren	Winchester	NSV Region
Hispanic or Latino of any Race	7.10%	11.70%	2.40%	8.80%	6.70%	20.10%	10.10%

Source: U.S. Census Bureau, American Community Survey (2019-2023)

Age

The median age in the state and country are aligned, 38.8 and 38.7 respectively, while the median age in the region is higher at 41.5.

In general, distribution of age within the NSV Region is similar among each locality. In the entire NSV Region, 24% of the population is 19 or younger; 30% ages 20 to 44; 27% between the ages of 45 and 64; and 19% of the population 65 years old and older. Figure 5 below shows the cohorts in ranges of Under 18, 18-64, and 65+. While the population under age 18 has caught up with that of Virginia, the percentage of the population age 65 and up exceeds that of the state and the population aged 18-64 trails that of the state. Looking forward, an aging population will continue to have implications across the region, especially to those counties where a quarter or more of their population is approaching retirement age. Green text below indicates a metric that has increased since the last CEDS and red text indicates a metric that has decreased.

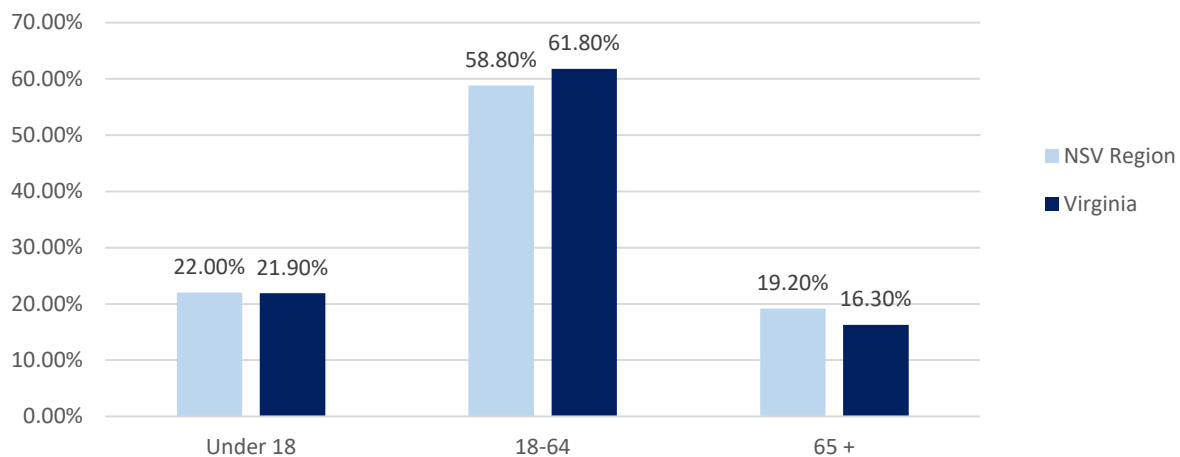
Table 9: 2023 NSV Region Population by Age

2023 NSV Region Population by Age

Locality	Median Age	0 to 19		20 to 44		45 to 64		65+		Total	
		#	%	#	%	#	%	#	%	#	%
Clarke County	48.3	3,216	21%	3,733	25%	4,826	32%	3,285	22%	15,060	100%
Frederick County	40.6	23,215	25%	28,513	31%	24,612	26%	17,015	18%	93,355	100%
Page County	45.4	5,198	22%	6,516	27%	6,862	29%	5,174	22%	23,750	100%
Shenandoah County	42.9	10,564	24%	12,556	28%	11,741	26%	9,769	22%	44,630	100%
Warren County	40.5	9,721	24%	12,989	32%	11,529	28%	6,865	17%	41,104	100%
Winchester	36.7	7,808	28%	8,878	32%	6,507	23%	4,788	17%	27,981	100%
NSV	41.5	59,722	24%	73,185	30%	66,077	27%	46,896	19%	245,880	100%

Source: U.S. Census Bureau, American Community Survey (2019-2023)

Figure 5: Population by Age Cohort



Source: U.S. Census Bureau, American Community Survey (2019-2023)

Educational Attainment

Within the entire NSV Region, 90% of those age 25 and older have completed a high school education, and 30% of the population have a bachelor's degree or higher. Across the NSV region, 8% have an Associate's degree, and 14% have a graduate degree. Relative to other NSV Region localities, Page County has the lowest educational attainment figures, with 86% of those 25 and older having received a high school diploma and 15% of the population holding a bachelor's degree or higher. Clarke County has the highest relative educational level with 94% of the population obtaining a high school education and 39% earning a bachelor's or higher. Table 10 presents educational attainment by locality.

Table 10: Educational Attainment by NSV Region Locality

2023 Educational Attainment by NSV Region Locality								
Educational Attainment	Clarke Co.	Frederick Co.	Page Co.	Shenandoah Co.	Warren Co.	Winchester	NSV	VA
9-12th Grade/No Diploma	6%	7%	14%	8%	9%	7%	10%	8%
High School Graduate	25%	24%	45%	33%	29%	25%	34%	23%

Some College/No Degree	22%	20%	19%	20%	19%	17%	21%	18%
Associate's Degree	8%	8%	7%	6%	9%	8%	8%	8%
Bachelor's Degree	25%	19%	9%	13%	15%	16%	17%	25%
Graduate/Professional Degree	14%	11%	6%	7%	7%	14%	10%	18%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: American Community Survey (2019-2023)

Income

Income is increased both by per capita income and by median household income in the NSV Region since 2017. Per capita income is the sum of all income divided by the total population. If a given population has incomes on either extreme, it can skew the number up or down. For this reason, we also examine median household income. Median household income is the income amount for which half the households are above, and half the households are below. For the NSV Region, per capita income and median household income have both increased since 2017.

Table 11: NSV Region Income, 2017-2022

NSV Region Income 2023		
	2017	2023
Per Capita Income	\$ 29,041	\$ 40,711
Median Household Income	\$ 57,777	\$ 81,598

Source: JobsEQ, American Community Survey, 2019-2023

Note* We cannot compare the regional aggregate of per capita income or median household income as sources are not the same, 2017 is presented for reference only.

Table 12 below shows the change in median income by NSV Locality from 2013 to 2023. Clarke County has the highest median income in the Region at \$114,185. Since 2013 Clarke County has experienced an increase in Median Household Income of 47%. Winchester and Frederick County had the next highest increases in Median income with 46% and 40% respectively. During that time Shenandoah County saw the lowest median income growth at 30%. Page County has the lowest median income at \$59,396 in 2023 but the fourth highest growth rate in the region. Figure 6 shows the share of households in the region by median income cohorts compared to the state, and Table 13 shows median income cohorts by locality.

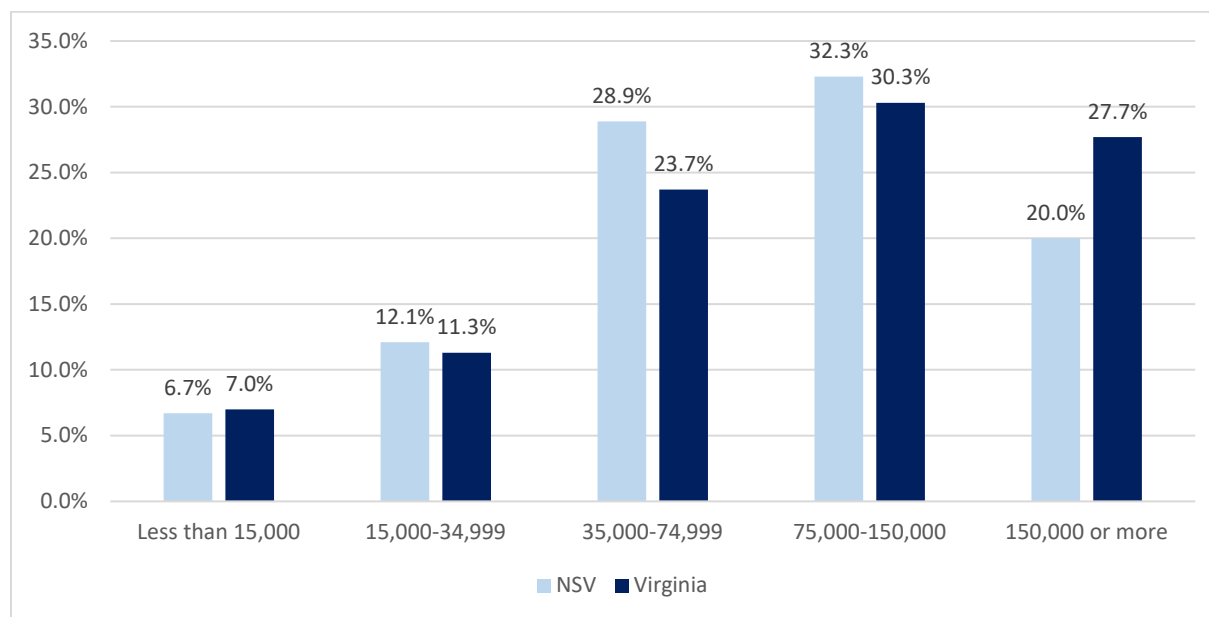
Table 12: 2013 - 2023 Median Income by NSV Locality

2013 - 2023 Median Household Income by NSV Locality						
Variable	Clarke Co.	Frederick Co.	Page Co.	Shenandoah Co.	Warren Co.	Winchester
2013 Median Income	\$ 77,597	\$ 68,424	\$ 42,906	\$ 49,625	\$ 61,610	\$ 44,200
2023 Median Income	\$ 114,185	\$ 95,603	\$ 59,396	\$ 64,473	\$ 84,331	\$ 64,648
Change 2017-2023	\$ 36,588	\$ 27,179	\$ 16,490	\$ 14,821	\$ 22,721	\$ 20,448
Percent Change 2013-2023	47%	40%	38%	30%	37%	46%

Source: JobsEQ, American Community Survey (2009-2013 and 2019-2023)

*Note Median Household Income is not available for the NSV Region as an aggregate for 2013.

Figure 6: Share of Households by Income



Source: American Community Survey, 2019-2023

Table 13: NSV Region Median Income Local Detail

NSV Region Median Income Local Detail							
	Virginia	Clarke	Frederick	Page	Shenandoah	Warren	Winchester
Less than \$15,000	7.0%	3.8%	4.4%	9.3%	8.7%	7.6%	8.8%
15,000-34,999	11.3%	6.5%	8.6%	17.9%	15.7%	10.4%	16.9%
35,000-74,999	23.7%	24.1%	25.7%	35.4%	31.9%	28.3%	31.6%
75,000-150,000	30.3%	34.0%	36.0%	28.9%	29.9%	31.0%	28.8%
150,000+	27.7%	31.6%	25.4%	8.5%	13.9%	22.8%	13.8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: American Community Survey, 2019-2023

Figure 6 illustrates the share of households by income, comparing the NSV Region to the state. While the state has a higher proportion of those making \$150,000 and higher (16% versus 9.4%) and specifically those making \$200,000 and up (8.6% versus 4.1%). The other income brackets are similar. The NSV Region have a higher proportion of households making \$34,999 or less (29% in the NSV Region versus 25.6% in the state).

Poverty Rate

As the Region works to increase economic prosperity across the entire region, documenting changes in the poverty rate can help target efforts to alleviate economic conditions that do not allow families to cover the costs of basic living.

The 2022 ALICE (Asset, Limited, Income, Constrained, Employed) Report, presented by the United Way of Virginia, categorizes not only poverty levels, but also challenging economic situations that prevent individuals

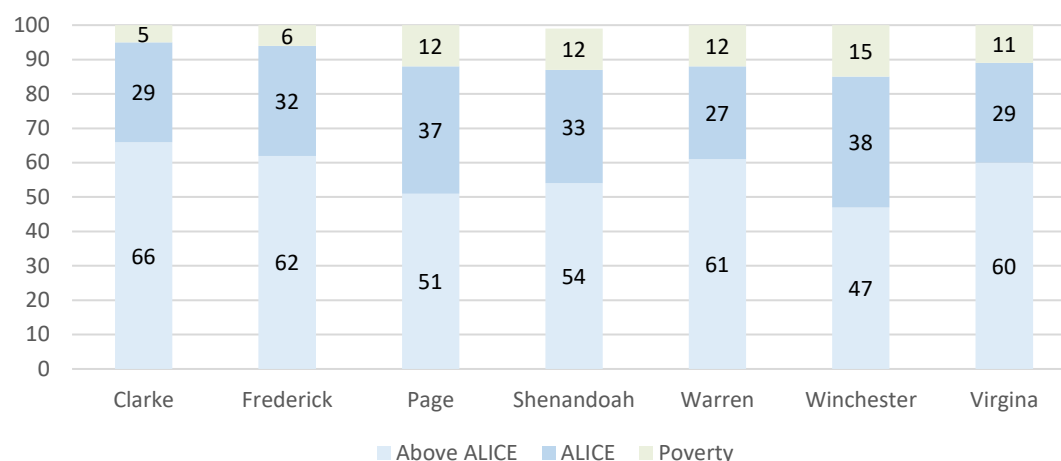
from achieving economic stability. The ALICE population represents individuals and families who earn more than the Federal Poverty Level, but less than the basic cost of living. This data, seen in Table 14, shows considerably more people in the NSV Region at ALICE levels than at the typical poverty rate. Since 2017, Clarke County has experienced a reduction in the percentage of households living below the poverty rate. This could be attributed to the influx of high-income earners moving into the county. In 2022, 66% of households were living above the ALICE threshold in Clarke County, the highest in the region. Frederick County has the next highest percentage of households living above the ALICE threshold at 62%. In Page, Shenandoah, Warren Counties and the City of Winchester, we see rates of poverty 11-15%. Warren County's statistics match the incidence of poverty and ALICE in Virginia. In Page County and the City of Winchester approximately half of all households are constrained. While the Region's incidence of poverty is 10.3%, it is aligned with the state (9.9%) and less than the rate of poverty throughout the country (12.4%).

Table 14: NSV Region 2022 ALICE and Poverty Households

NSV Region 2015 ALICE and Poverty Households				
	Above ALICE 2017 (% HH)	Above ALICE 2022 (HH)	Above ALICE Rate Change 2018- 2022	Poverty Rate Change
Clarke County	59%	66%	7%	-5%
Frederick County	64%	62%	-2%	-
Page County	52%	51%	-1%	-3%
Shenandoah County	61%	54%	-7%	-
Warren County	67%	61%	-6%	+3%
Winchester	47%	47%	-	-

Source: ALICE Virginia, Study of Financial Hardship, Spring 2017 Note: 2022 Point-in-time Data

Figure 7: NSV Region 2022 ALICE and Poverty as a Percent of Households



Source:

ALICE Virginia, Study of Financial Hardship, 2022

Note: For more information on ALICE data, methodology, household budgets and the essentials index please visit <https://www.unitedforalice.org/county-reports/virginia>

Housing Characteristics and Affordability

The median home value in the region has increased by 43% since 2015. Twenty-eight percent of the region's occupied households are renter-occupied and 72% owner-occupied. The highest rate of rental occupancy is in the City of Winchester at 58%. The U.S. Census Bureau suggests that a vacancy rate of 5-10% is generally healthy suggesting a balance between supply and demand. Table 15 details the local household characteristics.

Table 15: NSV Region Housing Units

NSV Region Housing Units, Density, Occupancy Rates and Median Values				
Locality - (Area)	Number of Units	Housing unit density	% Occupied	Median value of owner-occupied housing units
Clarke County - (175.9 sq mi)	6,478	37	87%	\$538,900
Frederick County - (413.14 sq mi)	36,617	89	94%	\$355,000
Page County - (310.02 sq mi)	11,878	38	80%	\$221,800
Shenandoah County - (508.08 sq mi)	21,319	42	83%	\$265,800
Warren County - (214.6 sq mi)	16,936	79	90%	\$315,800
Winchester City - (9.19 sq mi)	12,468	1,385	90%	\$325,900
NSV Region - (1,630.93 sq mi)	105,696	62	89%	\$328,183

Source: American Community Survey, 2019-2023

Experts suggest an affordable house price to income ratio is between 2.6-3.0. All counties in the NSV Region exceed this measure of affordability based on the region's median income.

Table 16: Housing Affordability

NSV Region Housing Affordability				
Locality	Median Home Price (2023)	Median Household Income (2019–2023)	House Price-to-Income Ratio	% of Renters Paying >30% of Income on Rent
Frederick County	\$365,000	\$95,603	3.82	41.20%
Clarke County	\$475,000	\$114,185	4.16	38.50%
Warren County	\$295,000	\$84,331	3.5	44.60%
Shenandoah County	\$270,000	\$64,437	4.19	46.30%
Page County	\$240,000	\$59,396	4.04	50.70%
Winchester	\$320,000	\$64,648	4.95	48.10%

Cost of Living

The Cost of Living Index (COLI) estimates the relative price levels for consumer goods and services. When applied to wages and salaries, the result is a measure of relative purchasing power. The salaries used are for the jobs available in a place, not per capita or household income of residents. Cost of living in the NSV Region is 4.8% higher than the U.S. average and 1.2% lower than the state. Clarke County cost of living is 24.2% higher than the U.S. base. Cost of living in Page and Shenandoah Counties falls below the U.S. average.

Table 17: Cost of Living Index

Cost of Living Information			
	Average Annual Salary	Cost of Living Index (Base U.S.)	U.S. Purchasing Power
Clarke County	\$51,474	125.2	\$41,129
Frederick County	\$60,310	104.3	\$57,843
Page County	\$43,860	93.6	\$46,880
Shenandoah County	\$48,533	97.1	\$50,007
Warren County	\$50,974	114.0	\$44,702
Winchester	\$61,588	102.5	\$60,083
NSV Region	\$56,377	104.8	\$53,809
Virginia	\$75,076	106.0	\$70,840
U.S.	\$73,145	100.0	\$73,145

Source: COLI as of 2024Q4

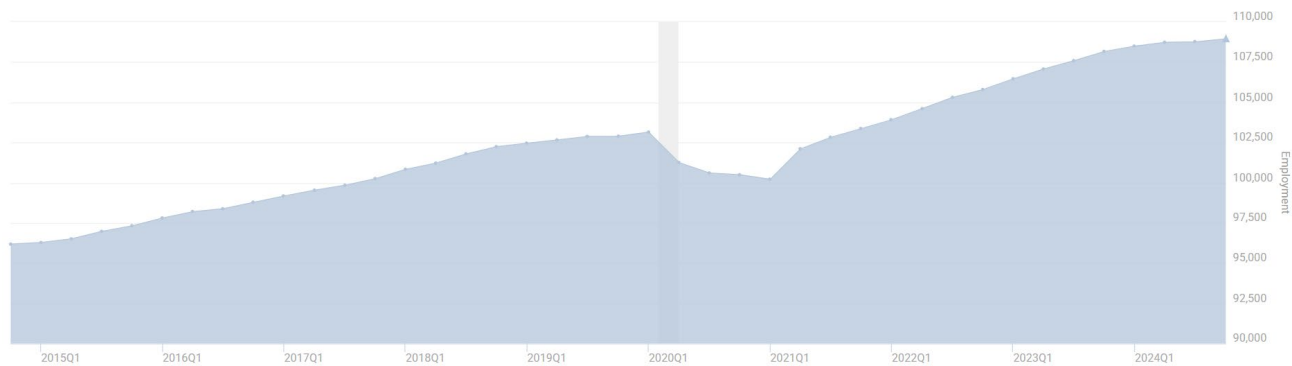
Economic Analysis

Employment

The North American Classification Standard (NAICS) are used to identify industries in this analysis. The standard is maintained by the US Census Bureau and is used by Federal statistical agencies in classifying business establishments. Under this standard, industries are organized into 2-digit through 6-digit levels. 2-digit codes show the highest aggregate NAICS code level representing broad categories such as “retail,” whereas 6-digit industry codes present a finer level of detail like “fruit and vegetable markets.” For this analysis, the 2-digit and 4-digit levels are utilized. These levels provide the balance of comprehensiveness and specificity needed to best understand the Region’s employment characteristics.

As of 2024, there were 108,946 jobs within the NSV Region, an increase of 13.3% from 2014. Jobs are expected to grow another 8.4% in the next ten years, an anticipated increase of 9,153 jobs. This detail is presented in Table 14 below. Notably, in the second quarter of 2020 the region lost approximately 6,793 jobs at the onset of the COVID-19 pandemic. By the end of Q3 2020 more than 80% of the lost jobs recovered. This can be attributed to the essential industry clusters represented in the region. The four-quarter moving average of employment is presented in Figure 6 below, this is not a point in time job count but an average of the total employment over the previous four quarters.

Figure 8: NSV Region 4 Quarter Moving Average of Employment



Source: JobsEQ, as of 2024Q4

Table 18: NSV Employment Overview

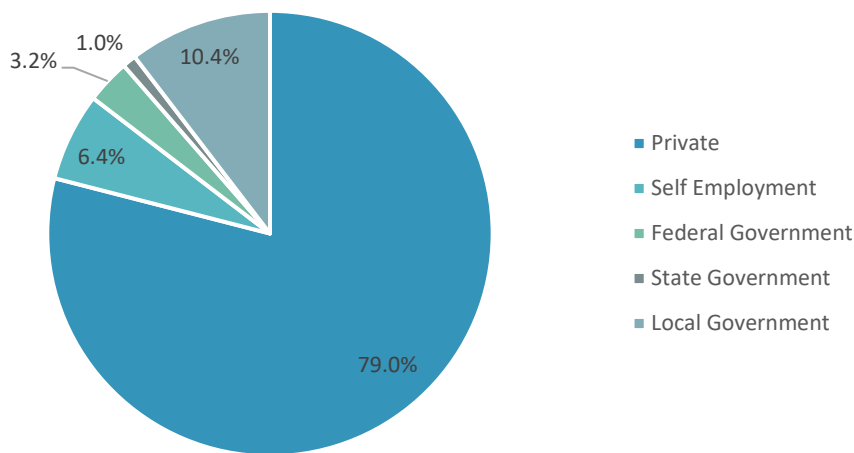
NSV Employment Overview						
2014 Jobs	2024 Jobs	2034 Jobs (Proj.)	2014 - 2024 Change	2014 - 2024 Percent Change	2024 - 2034 Change	2024 - 2034 Percent Change
96,179	108,946	118,099	12,767	13.3%	9,153	8.4%

Source: JobsEQ, as of 2024Q4

The top employment by 2024 jobs are listed in Table 19 and include Healthcare and Social Assistance (14,112), Manufacturing (13,709), Retail Trade (12,997), Educational Services (9,866), and Transportation and Warehousing (8,656). Average annual wages across all industries is \$56,377. Figure 10 shows all industries as a percentage of total employment in the NSV Region.

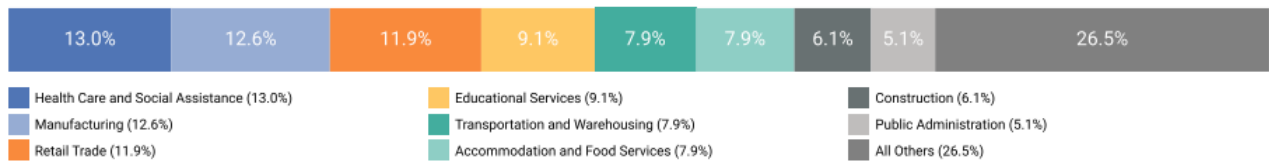
In the NSV Region 79% of employment is in the private sector. Government accounts for 14.6% of employment (Federal, State, and Local Government), and self-employment accounts for 6.4% of all employment, presented in Figure 9 below. For the purpose of the following analysis, “Total Employment” is considered, which includes government and self-employment, unless otherwise specified.

Figure 9: NSV Region Employment by Employment Type



Source: JobsEQ as of 2024Q4

Figure 10: Employment by Industry as a Percent of Total Employment



Source: JobsEQ as of 2024Q4

Table 19: Top Employment Industries in NSV Region

Top Employment Industries in NSV Region		
NAICS	Description	2024 Jobs
62	Health Care and Social Assistance	14,112
31	Manufacturing	13,709
44	Retail Trade	12,997
61	Educational Services	9,866
48	Transportation and Warehousing	8,656

Source: JobsEQ as of 2024Q4

Employment by Industry

Table 20 and Table 21 outline the distribution of industries within the NSV Region at the high-level 2-digit NAICS industry codes. Table 20 takes a historical look from 2014 to 2024 and Table 21 examines industry projections from 2024 to 2034.

From 2014 to 2024, Transportation and Warehousing grew by 99.5%, adding 4,318 jobs making it the largest growth industry in the decade. The next three highest growth industries were Finance and Insurance

(+1,478), Health Care and Social Assistance (+1,442), and Manufacturing (+1,431). These four industries account for 68% of job growth during the timeframe.

Administrative and Support and Waste Management and Remediation Services lost the most jobs (-380), 7.8% of its employment. Only two other industries saw a reduction in employment overall during that timeframe: Agriculture, Forestry, Fishing and Hunting (-173) and Mining, Quarrying, and Oil and Gas Extraction (-31).

From 2024-2034, projections indicate a continuing favorable job atmosphere growing by over 9,153 (8.4%) by 2034. No sector is projected to decrease employment in the next 10 years. Healthcare and Social Assistance, Transportation and Warehousing, and Manufacturing should see the greatest increases in employment adding 4,195 jobs total.

Table 20: NSV Region 2-Digit NAICS Industries, 2014-2024

NSV Region 2-Digit NAICS Industries, 2019-2024						
NAICS	Description	2014 Jobs	2024 Jobs	2014 - 2024 Change	2014 - 2024 % Change	Avg. Annual Wages
62	Health Care and Social Assistance	12,670	14,112	1,442	11.4%	\$64,661
31	Manufacturing	12,278	13,709	1,431	11.7%	\$68,684
44	Retail Trade	12,424	12,997	573	4.6%	\$36,468
61	Educational Services	9,305	9,866	561	6.0%	\$49,318
48	Transportation and Warehousing	4,338	8,656	4,318	99.5%	\$56,669
72	Accommodation and Food Services	8,494	8,594	100	1.2%	\$24,746
23	Construction	6,118	6,613	495	8.1%	\$64,022
92	Public Administration	4,577	5,556	979	21.4%	\$82,267
56	Administrative and Support and Waste Management and Remediation Services	4,890	4,510	(380)	(7.8%)	\$40,267
81	Other Services (except Public Administration)	4,351	4,476	125	2.9%	\$38,765
52	Finance and Insurance	2,840	4,318	1,478	52.0%	\$80,454
54	Professional, Scientific, and Technical Services	3,730	4,109	379	10.2%	\$82,435
71	Arts, Entertainment, and Recreation	2,104	2,344	240	11.4%	\$31,264
42	Wholesale Trade	2,155	2,222	67	3.1%	\$68,621
55	Management of Companies and Enterprises	1,387	1,986	599	43.2%	\$163,109
11	Agriculture, Forestry, Fishing and Hunting	1,888	1,715	(173)	(9.2%)	\$39,788
51	Information	921	1,130	209	22.7%	\$70,978
53	Real Estate and Rental and Leasing	1,083	1,123	40	3.7%	\$53,344
22	Utilities	462	550	88	19.0%	\$88,114
99	Unclassified	0	227	227		\$48,932
21	Mining, Quarrying, and Oil and Gas Extraction	167	136	(31)	(18.6%)	\$60,360
	Total – All Industries	96,179	108,946	12,767	13.3%	\$56,377

Source: JobsEQ as of 2024Q4

Table 21: NSV Region 2-Digit NAICS Industries, 2024-2034

NSV Region 2-Digit NAICS Industries, 2024-2029						
NAICS	Description	2024 Jobs	2034 Jobs	2024- 2034 Change (proj.)	2024 - 2034 % Change (proj.)	Avg. Annual Wages
62	Health Care and Social Assistance	14,112	15,630	1,518	10.8%	\$64,661
31	Manufacturing	13,709	14,990	1,281	9.3%	\$68,684
44	Retail Trade	12,997	13,113	116	0.9%	\$36,468
61	Educational Services	9,866	10,153	287	2.9%	\$49,318
48	Transportation and Warehousing	8,656	10,052	1,396	16.1%	\$56,669
72	Accommodation and Food Services	8,594	9,237	643	7.5%	\$24,746
23	Construction	6,613	7,373	760	11.5%	\$64,022
92	Public Administration	5,556	5,893	337	6.1%	\$82,267
56	Administrative and Support and Waste Management and Remediation Services	4,510	5,013	503	11.2%	\$40,267
81	Other Services (except Public Administration)	4,476	4,884	408	9.1%	\$38,765
52	Finance and Insurance	4,318	4,766	448	10.4%	\$80,454
54	Professional, Scientific, and Technical Services	4,109	4,628	519	12.6%	\$82,435
71	Arts, Entertainment, and Recreation	2,344	2,588	244	10.4%	\$31,264
42	Wholesale Trade	2,222	2,466	244	11.0%	\$68,621
55	Management of Companies and Enterprises	1,986	2,199	213	10.7%	\$163,109
11	Agriculture, Forestry, Fishing and Hunting	1,715	1,778	63	3.7%	\$39,788
51	Information	1,130	1,141	11	1.0%	\$70,978
53	Real Estate and Rental and Leasing	1,123	1,207	84	7.5%	\$53,344
22	Utilities	550	599	49	8.9%	\$88,114
99	Unclassified	227	241	14	6.2%	\$48,932
21	Mining, Quarrying, and Oil and Gas Extraction	136	152	16	11.8%	\$60,360
	Total – All Industries	108,946	118,099	9,153	8.4%	\$56,377

Source: JobsEQ as of 2024Q4

Table 22 indicates historical job growth or decline by locality from 2014 to 2024. This data provided isolates growth or decline by locality and can be helpful when deriving where to implement certain economic development initiatives. From 2014-2024 Frederick County enjoyed the highest new job growth with 11,469 new jobs, 90% of the region's overall job growth. Transportation and Warehousing accounted for one third of those new jobs. Warren County added 1,046 new jobs during that time frame and Winchester added 250. And Clarke County added 43.

Shenandoah County experienced a reduction of jobs by 187. A significant loss of jobs in Administrative and Support and Waste Management and Remediation Services and Manufacturing jobs was countered by growth in Information.

In Winchester half of the industries have reduced jobs while Health Care and Social Assistance grew by more than 1,100 jobs. Construction, Management of Companies, Educational Services, and Arts and Entertainment grew by more than 200 jobs each.

While the change in employment in Page County was less than 100 in either direction for most industries in the last 10 years, it is important to note the top growing and declining sectors. Unclassified sectors grew by 145 jobs and Real Estate and Rental Leasing grew by 122. Arts, Entertainment, and Recreation jobs reduced by 112.

To provide additional details about job loss and growth, the Virginia Economic Development Partnership (VEDP) Announcements and Closings for the last 5 years are available in Appendix D. The Region celebrated 24 VEDP location or expansion announcements that added 1,313 jobs and invested approximately \$695 million throughout the region. Of the 24 announcements, 16 were expansion of existing businesses and 8 were new business locations. Conversely, there were 9 reported closings or layoffs reducing jobs by 1,119. It is important to note that not all new business locations, expansions, layoffs, or closings are reported by VEDP.

Table 22: Historical Change in Jobs by NSV Region Localities, 2019-2024

Historical Change in Jobs by NSV Region Localities, 2014 - 2024								
NAICS	Industry Description	Clarke County	Frederick County	Page County	Shenandoah County	Warren County	Winchester City	NSV Region
11	Agriculture, Forestry, Fishing and Hunting	(69)	106	(26)	(74)	30	(140)	(173)
21	Mining, Quarrying, and Oil and Gas Extraction	(8)	(93)	(20)	64	6	-	(31)
22	Utilities	-	29	(52)	46	14	18	88
23	Construction	70	315	1	68	(176)	270	495
31	Manufacturing	72	1,647	(18)	(361)	429	(357)	1,431
42	Wholesale Trade	(61)	261	71	44	17	(178)	67
44	Retail Trade	82	877	(15)	147	12	(615)	573
48	Transportation and Warehousing	4	4,141	(10)	27	210	(48)	4,318
51	Information	3	3	47	306	(15)	(77)	209
52	Finance and Insurance	(21)	1,539	20	(28)	(1)	(57)	1,478
53	Real Estate and Rental and Leasing	(3)	186	122	(12)	43	(194)	40
54	Professional, Scientific, and Technical Services	(108)	294	8	136	132	(196)	379
55	Management of Companies and Enterprises	9	378	89	(96)	52	248	599

56	Administrative and Support and Waste Management and Remediation Services	37	440	(14)	(487)	(27)	(432)	(380)
61	Educational Services	(2)	201	32	104	46	227	561
62	Health Care and Social Assistance	(48)	290	(5)	38	(18)	1,148	1,442
71	Arts, Entertainment, and Recreation	(7)	(19)	(112)	(30)	18	282	240
72	Accommodation and Food Services	48	233	12	(150)	175	(94)	100
81	Other Services (except Public Administration)	63	302	7	(96)	(107)	(49)	125
92	Public Administration	(26)	300	8	101	131	465	979
99	Unclassified	8	39	145	66	76	30	227
	Total - All Industries	43	11,469	(25)	(187)	1,046	250	12,767

Source: JobsEQ

Table 23 examines the top 30 industries by 2024 jobs from the more detailed 4-digit NAICS codes. Also included is the Location Quotient (LQ) for each industry. By examining the Location Quotient (LQ) of an industry we can see how concentrated that industry is within its geographic boundaries. The higher the LQ, the more concentrated an industry is as compared to a larger geographic area. For this analysis we are using the US as our larger geographic area. An LQ of less than 1 typically means an industry is importing from other areas to meet its needs; an LQ equal to or greater than one typically means an industry is meeting its needs internally and may be producing surplus that can be used in other geographic locations. Typically, only values above 1.20 or below 0.80 are considered “significant” findings in LQ analysis, although in this analysis we chose to focus on values over 2.0 to show those most significant industries.

The NSV Region has a high concentration in several industries; those highlighted indicate an LQ over 2.00. These include Plastics Product Manufacturing (9.26), Dairy Product Manufacturing (8.79), Animal Slaughtering and Processing (4.46), Warehousing and Storage (4.38), Depository Credit Intermediation (2.88), and Gasoline Stations (2.32) Each of these high LQ industries had positive job growth between 2014 and 2024 totaling 5,563 new jobs.

Table 23: NSV Region Top 30 Industries by Job 2024 Job Count, 4-Digit NAICS

NSV Region Top 30 Industries by 2024 Job Count, 4-Digit NAICS						
NAICS	Description	2014 Jobs	2024 Jobs	2014 - 2024 Change	2014 - 2024 % Change	2024 Location Quotient
6111	Elementary and Secondary Schools	7,349	7,817	468	6.4%	1.41
7225	Restaurants and Other Eating Places	6,798	7,175	377	5.5%	0.99
4931	Warehousing and Storage	1,732	5,451	3,719	214.7%	4.38
6221	General Medical and Surgical Hospitals	3,747	3,867	120	3.2%	0.92
3261	Plastics Product Manufacturing	2,810	3,580	770	27.4%	9.26
5221	Depository Credit Intermediation	2,037	3,352	1,315	64.6%	2.88

9221	Justice, Public Order, and Safety Activities	2,686	3,303	617	23.0%	2.63
4552	Warehouse Clubs, Supercenters, and Other General Merchandise Retailers	2,220	2,816	596	26.8%	1.86
5511	Management of Companies and Enterprises	1,387	1,986	599	43.2%	1.17
6211	Offices of Physicians	1,835	1,982	147	8.0%	0.97
6241	Individual and Family Services	1,934	1,920	(14)	(0.7%)	0.85
5617	Services to Buildings and Dwellings	1,753	1,882	129	7.4%	1.01
9211	Executive, Legislative, and Other General Government Support	1,401	1,672	271	19.3%	0.79
4451	Grocery and Convenience Retailers	1,746	1,642	(104)	(6.0%)	0.88
3116	Animal Slaughtering and Processing	1,163	1,625	462	39.7%	4.46
2382	Building Equipment Contractors	1,218	1,506	288	23.6%	0.84
4571	Gasoline Stations	1,300	1,493	193	14.8%	2.32
8131	Religious Organizations	1,281	1,370	89	6.9%	1.28
6113	Colleges, Universities, and Professional Schools	1,127	1,298	171	15.2%	0.64
7139	Other Amusement and Recreation Industries	1,154	1,262	108	9.4%	1.14
4441	Building Material and Supplies Dealers	1,131	1,196	65	5.7%	1.51
4411	Automobile Dealers	984	1,195	211	21.4%	1.38
2389	Other Specialty Trade Contractors	1,028	1,173	145	14.1%	1.60
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	1,102	1,107	5	0.5%	1.68
2361	Residential Building Construction	967	1,084	117	12.1%	1.19
3115	Dairy Product Manufacturing	550	969	419	76.2%	8.79
5613	Employment Services	2,035	960	(1,075)	(52.8%)	0.44
2381	Foundation, Structure, and Building Exterior Contractors	886	945	59	6.7%	1.24
8111	Automotive Repair and Maintenance	818	939	121	14.8%	1.24
5413	Architectural, Engineering, and Related Services	903	932	29	3.2%	0.78

Source: JobsEQ as of 2024Q4

Self-Employment

Self-employment data is analyzed in part to examine the entrepreneurial activity of an area. Self-employment is shown to have positive economic impacts to per capita income and job creation, in addition to reducing poverty levels. Understanding self-employment patterns across sectors helps a region direct economic development resource as appropriate. Self-employment is explored at the 4-digit NAICS level and the top 20 industries by employment are presented in detail. The remaining industries are aggregated as “other Industries” and a total is presented.

Tables 24 and 25 examine self-employment between 2014 to 2024, and 2024 to 2034. Self-employment jobs did not follow trends in overall job numbers but saw a minimal decline over the last 10 years. Between 2014 and 2024 self-employed industries the NSV Region lost about 50 jobs. However, between 2024 and 2034 an increase of 406 jobs is projected. The top 6 self-employed industries with the highest LQ are: Support

Activities for Animal Production (2.96); Museums, Historical Sites, and Similar Institutions (2.92); Petroleum and Petroleum Products Merchant Wholesalers (2.73); Animal Production – Proprietors (2.33); Used Merchandise Retailers (2.25); and Traveler Accommodation (2.21).

The region's highest number of self-employment jobs is in Animal Production (595) even though it has lost 128 jobs in the last 10 years. This industry is expected to decline 1.7% between 2024 and 2034, stressing the importance of ensuring resources are available to maintain this industry in the NSV Region as two related industries have the highest LQ in the region. The total demand (sum of jobs needed to replace transfers, exits, and employment growth) for Animal Production is 582 by 2034.

The average annual wages for self-employment in the NSV Region are \$40,956, or 37.6% less than the average for all industries and employment types.

Table 24: NSV Region Top Self-Employed Industries by 2024 Job Count

NSV Region Top Self-Employed Industries by 2024 Job Count						
NAICS	Description	2014 Jobs	2024 Jobs	2014-2024 Change	2014 - 2024 % Change	2024 Location Quotient
1120	Animal Production (Proprietors)	723	595	(128)	-17.7%	2.33
2361	Residential Building Construction	378	420	42	11.1%	1.41
5617	Services to Buildings and Dwellings	375	410	35	9.3%	1.11
2383	Building Finishing Contractors	450	342	(108)	-24.0%	1.31
1110	Crop Production (Proprietors)	369	308	(61)	-16.5%	1.74
2389	Other Specialty Trade Contractors	344	298	(46)	-13.4%	1.39
8121	Personal Care Services	172	221	49	28.5%	0.72
7115	Independent Artists, Writers, and Performers	134	213	79	59.0%	0.96
5312	Offices of Real Estate Agents and Brokers	174	211	37	21.3%	1.12
5419	Other Professional, Scientific, and Technical Services	196	207	11	5.6%	0.90
8129	Other Personal Services	242	186	(56)	-23.1%	1.03
2382	Building Equipment Contractors	203	170	(33)	-16.3%	1.32
5416	Management, Scientific, and Technical Consulting Services	142	167	25	17.6%	0.80
2381	Foundation, Structure, and Building Exterior Contractors	190	150	(40)	-21.1%	1.30
5313	Activities Related to Real Estate	108	111	3	2.8%	1.03
6213	Offices of Other Health Practitioners	77	111	34	44.2%	0.77
4921	Couriers and Express Delivery Services	20	108	88	440.0%	0.97
6116	Other Schools and Instruction	82	95	13	15.9%	1.05
6244	Child Care Services	128	93	(35)	-27.3%	0.64

Other Industries	2,450	2,490	40	1.6%	
Total	6,957	6,906	(51)	(0.7%)	

Source: JobsEQ as of 2024Q4

Table 25: NSV Region Top Self-Employed Industries Forecast by 2024 Job Count

NSV Region Top Self-Employed Industries by 2024 Job Count						
NAICS	Description	2024 Jobs	2034 Jobs	2024 - 2034 Change	2024 - 2034 % Change	2024 Location Quotient
1120	Animal Production (Proprietors)	595	576	-19	-1.7%	2.33
2361	Residential Building Construction	420	465	45	5.2%	1.41
5617	Services to Buildings and Dwellings	410	433	23	2.9%	1.11
2383	Building Finishing Contractors	342	381	39	5.6%	1.31
1110	Crop Production (Proprietors)	308	321	13	2.3%	1.74
2389	Other Specialty Trade Contractors	298	334	36	5.7%	1.39
8121	Personal Care Services	221	250	29	6.3%	0.72
7115	Independent Artists, Writers, and Performers	213	235	22	5.2%	0.96
5312	Offices of Real Estate Agents and Brokers	211	220	9	1.9%	1.12
5419	Other Professional, Scientific, and Technical Services	207	228	21	4.8%	0.90
8129	Other Personal Services	186	221	35	9.1%	1.03
2382	Building Equipment Contractors	170	186	16	4.7%	1.32
5416	Management, Scientific, and Technical Consulting Services	167	183	16	4.8%	0.80
2381	Foundation, Structure, and Building Exterior Contractors	150	166	16	5.3%	1.30
5313	Activities Related to Real Estate	111	114	3	1.8%	1.03
6213	Offices of Other Health Practitioners	111	128	17	7.2%	0.77
4921	Couriers and Express Delivery Services	108	119	11	5.6%	0.97
6116	Other Schools and Instruction	95	107	12	6.3%	1.05
6244	Child Care Services	93	95	2	1.1%	0.64
	Other Industries	2,490	2,550	60	2.4%	
	Total	6,906	7,312	406	5.9%	

Source: JobsEQ as of 2024Q4

Employment by Occupations

The Standard Occupational Classification (SOC) is used to identify occupations in this analysis. The SOC system is a federal statistical standard to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into one of 867 detailed occupations according to their occupational definition (SOC 5-digit codes). To facilitate classification, detailed occupations are combined to form 459 broad occupations (4-digit codes), 98 minor groups (3-digit codes), and 23 major groups (2-digit codes).

Among the 2-digit SOC occupation data, several occupations emerge as significant within the NSV Region. The largest occupations are Transportation and Material Moving Occupations (12,583); Office and Administrative Support Occupation (11,532); Sales and Related Occupations (10,058); Food Preparations and Serving Related Occupations (8,448); and Production Operations (8,265).

Transportation and Material Moving occupations has grown 41.8% since 2014 adding 3,715 jobs.

Table 26 shows 2-digit SOC occupations, which are expected to grow collectively by about 1,700 over the next 10 years. The only occupations that are projected to decline over the next five years is Building Grounds Cleaning and Maintenance Occupations.

Table 26: NSV Region Occupations by 2-Digit SOC Codes

NSV Region Top Occupations by 2-Digit SOC Codes					
SOC	Description	2014 Jobs	2024 Jobs	2014 - 2024 % Change	Avg. Ann. Earnings
53-0000	Transportation and Material Moving Occupations	8,878	12,593	41.8%	\$46,900
43-0000	Office and Administrative Support Occupations	11,080	11,532	4.1%	\$46,300
41-0000	Sales and Related Occupations	10,058	10,286	2.3%	\$48,500
35-0000	Food Preparation and Serving Related Occupations	8,104	8,448	4.2%	\$34,700
51-0000	Production Occupations	8,053	8,265	2.6%	\$47,900
11-0000	Management Occupations	5,627	7,249	28.8%	\$124,100
25-0000	Educational Instruction and Library Occupations	6,539	6,856	4.8%	\$65,800
13-0000	Business and Financial Operations Occupations	4,773	6,670	39.7%	\$87,700
29-0000	Healthcare Practitioners and Technical Occupations	4,916	5,697	15.9%	\$103,500
31-0000	Healthcare Support Occupations	4,044	4,735	17.1%	\$36,400
47-0000	Construction and Extraction Occupations	4,676	4,711	0.7%	\$53,600
49-0000	Installation, Maintenance, and Repair Occupations	4,033	4,675	15.9%	\$58,600
37-0000	Building and Grounds Cleaning and Maintenance Occupations	3,652	3,560	(2.5%)	\$37,500
15-0000	Computer and Mathematical Occupations	1,858	2,651	42.7%	\$106,200
39-0000	Personal Care and Service Occupations	2,307	2,496	8.2%	\$38,700

33-0000	Protective Service Occupations	1,745	1,998	14.5%	\$56,100
21-0000	Community and Social Service Occupations	1,720	1,906	10.8%	\$55,700
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	1,338	1,484	10.9%	\$65,600
17-0000	Architecture and Engineering Occupations	1,089	1,194	9.6%	\$93,900
19-0000	Life, Physical, and Social Science Occupations	617	770	24.8%	\$86,700
45-0000	Farming, Fishing, and Forestry Occupations	556	628	12.9%	\$38,700
23-0000	Legal Occupations	516	543	5.2%	\$119,400
Total		96,179	108,946	13.3%	

Source: JobsEQ 2024Q4

Table 27 shows the top 30 occupations by 5-digit SOC code within the NSV Region sorted by highest job growth. The clear leader by current employment, job growth, and total annual demand is Laborers and Material Movers. Half of the top 6 occupations by job growth are Transportation and Material Moving Occupations reflecting significant historical and forecasted growth in the Transportation and Warehousing industry.

The average hourly wage for these top 30 occupations is \$34 and the median is \$25 and most require no more than a high school diploma or certificate to enter the field.

Aside from Transportation and Material Moving, the largest growth among these occupations is the Personal Care Aide occupation, growing by 562 jobs (24%) in the next ten years. There is also moderate growth among the Fast Food and Counter Workers (219, 9%); General and Operations Managers (218, 10%); Building Cleaning Workers (181, 8%); and Cooks (156, 9%).

Table 27: NSV Region Top 30 Occupations by 5-Digit SOC Codes by Forecasted Employment Growth

NSV Region Top 30 Occupations by 5-Digit SOC Codes, 2024 – 2029						
SOC	Description	2024 Jobs	2034 Jobs	2024 - 2034 Change	2024 - 2034 % Change	Total Annual Demand (2024-2034)
53-7060	Laborers and Material Movers	6,656	7,471	815	12%	1,099
31-1120	Home Health and Personal Care Aides	2,384	2,946	562	24%	402
53-3030	Driver/Sales Workers and Truck Drivers	2,981	3,419	438	15%	368
35-3020	Fast Food and Counter Workers	2,502	2,721	219	9%	628
11-1020	General and Operations Managers	2,118	2,336	218	10%	199
37-2010	Building Cleaning Workers	2,250	2,431	181	8%	344
53-7050	Industrial Truck and Tractor Operators	1,372	1,544	172	13%	158
35-2010	Cooks	1,759	1,915	156	9%	290
47-2060	Construction Laborers	1,051	1,207	156	15%	110

15-1250	Software and Web Developers, Programmers, and Testers	909	1,063	154	17%	68
49-9040	Industrial Machinery Installation, Repair, and Maintenance Workers	510	656	146	29%	59
13-1110	Management Analysts	834	974	140	17%	85
49-9070	Maintenance and Repair Workers, General	1,074	1,203	129	12%	115
21-1010	Counselors	711	827	116	16%	73
13-1080	Logisticians and Project Management Specialists	731	844	113	15%	69
31-9090	Miscellaneous Healthcare Support Occupations	939	1,050	111	12%	147
15-1210	Computer and Information Analysts	484	590	106	22%	40
41-2030	Retail Salespersons	2,891	2,992	101	3%	436
11-3030	Financial Managers	458	559	101	22%	44
37-3010	Grounds Maintenance Workers	923	1,023	100	11%	134
51-9110	Packaging and Filling Machine Operators and Tenders	682	782	100	15%	89
51-2090	Miscellaneous Assemblers and Fabricators	1,067	1,162	95	9%	140
35-1010	Supervisors of Food Preparation and Serving Workers	902	992	90	10%	141
13-2010	Accountants and Auditors	925	1,014	89	10%	82
53-1040	First-Line Supervisors of Transportation and Material Moving Workers	533	621	88	17%	65
51-3090	Miscellaneous Food Processing Workers	580	667	87	15%	87
11-9190	Miscellaneous Managers	768	851	83	11%	68
29-1140	Registered Nurses	1,917	1,998	81	4%	108
29-1170	Nurse Practitioners	173	253	80	46%	17
29-1120	Therapists	553	630	77	14%	34

Source: JobsEQ as of 2024Q4

Labor Force Participation & Unemployment

A healthy economy must consider both labor force participation rate (LFPR) and unemployment rate to identify workforce trends. The labor force are those people 16 years of age and older who are actively looking for work or are employed. Prime age labor force considers only the civilian population age 25-54, the core of any market's labor force. Labor force participation rate ranges from 59.0%-66.1% in the region, shortening the ten-point gap from the last iteration of this report. The region's Prime Age LFPR is 83.2% which compares with the State and the Country. According to the Bureau of Labor and Statistics, the US has not experienced an LFPR this high since 2007. The City of Winchester has the highest prime age LFPR at 88% while Page County has the lowest at 78.1%.

In April 2020 the Northern Shenandoah Valley Region experienced the highest unemployment rate in more than three decades. At the start of the COVID-19 pandemic unemployment rose from 2.5% to 11.2%. By February of 2021 unemployment had settled back to a healthy level at 3.5%, continuing down to 2.2% by February 2022, a ten-year low.

Unemployment rates for the NSV Region range from a low of 2.5% in Page County to a high of 5.1% in the City of Winchester. The widely accepted benchmark for a healthy job market is 3-5%; where a 3% unemployment rate would indicate that jobs are available and being filled, and a 5% unemployment rate would signal strain on the job market. Unemployment lower than 3% is considered “full employment”, where we can assume that everyone who wants a job has one. See Table 20 for the 2016 labor force breakdown by locality.

Table 28: NSV Region 2016 Labor Force Breakdown

NSV Region 2023 Labor Force Breakdown by Localities					
Locality	Labor Force (Civilian Population age 16 and over)	Labor Force Participation Rate*	Prime Age Labor Force (Civilian Population age 25-54)	Prime Age Labor Force Participation Rate*	Unemployment Rate**
Clarke Co.	7,694	60.9%	4,373	85.5%	2.7%
Frederick Co.	47,841	64.5%	29,229	83.9%	2.6%
Page Co.	11,596	59.2%	6,224	78.1%	2.5%
Shenandoah Co.	21,355	59.0%	12,932	83.4%	3.2%
Warren Co.	20,993	63.8%	12,850	80.1%	2.8%
Winchester	14,804	66.1%	9,111	88.0%	5.1%
NSV Region	124,283	62.8%	75,119	83.2%	2.8%
Virginia	4,450,159	65.0%	2,813,329	84.3%	3.1%
U.S.	168,567,852	63.3%	107,055,165	83.0%	4.0%

Source: American Community Survey, 2019-2024, LAUS

*The labor force participation rate is the labor force as a percent of the civilian non-institutional population. Persons who are neither employed nor unemployed are not in the labor force. This category includes retired persons, students, those taking care of children or other family members, and others who are neither working nor seeking work.

**Seasonally adjusted unemployment rate March 2025. Unemployment refers to persons who are willing and able to work, but are unable to find employment despite actively seeking it.

Table 29 indicates the number of unemployed workers by occupation and the percentage of total unemployed people in each standard occupation code as of 2024Q4. No SOC has a significantly high rate of unemployment except for Farming, Fishing, and Forestry which accounts for only 34 unemployed persons (5.0% unemployment). However, we should consider statistically low unemployment rates to identify those occupations that if they need to be filled, likely can not fill the jobs without creating new skilled workforce. Occupations with the lowest unemployment rates are Healthcare Practitioners and Technical Occupations (0.9%); Management Occupations (1.1%); Legal Occupations (1.1%); Architecture and Engineering Occupations (1.3%); Educational Institution and Library Occupations (1.7%); Business and Financial

Operations Occupations (1.8%); Computer and Mathematical Occupations (1.8%), and Life, Physical, and Social Science Occupations (1.9%).

Table 29: NSV Region Unemployment by Occupations, 2024

NSV Region Unemployment by Occupations, 2024				
SOC	Occupation	Mean Ann Wages	Unempl	Unempl Rate
53-0000	Transportation and Material Moving Occupations	\$46,900	567	3.8%
43-0000	Office and Administrative Support Occupations	\$46,300	338	2.2%
41-0000	Sales and Related Occupations	\$48,500	407	3.4%
35-0000	Food Preparation and Serving Related Occupations	\$34,700	461	4.0%
51-0000	Production Occupations	\$47,900	319	3.3%
11-0000	Management Occupations	\$124,100	86	1.1%
25-0000	Educational Instruction and Library Occupations	\$65,800	108	1.7%
13-0000	Business and Financial Operations Occupations	\$87,700	128	1.8%
29-0000	Healthcare Practitioners and Technical Occupations	\$103,500	54	0.9%
31-0000	Healthcare Support Occupations	\$36,400	141	2.3%
47-0000	Construction and Extraction Occupations	\$53,600	263	3.6%
49-0000	Installation, Maintenance, and Repair Occupations	\$58,600	147	2.0%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	\$37,500	168	3.3%
15-0000	Computer and Mathematical Occupations	\$106,200	60	1.8%
39-0000	Personal Care and Service Occupations	\$38,700	120	3.1%
33-0000	Protective Service Occupations	\$56,100	66	2.4%
21-0000	Community and Social Service Occupations	\$55,700	32	2.0%
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	\$65,600	31	2.4%
17-0000	Architecture and Engineering Occupations	\$93,900	16	1.3%
19-0000	Life, Physical, and Social Science Occupations	\$86,700	11	1.9%
45-0000	Farming, Fishing, and Forestry Occupations	\$38,700	34	5.0%
23-0000	Legal Occupations	\$119,400	6	1.1%
00-0000	Total - All Occupations	\$60,900	3,564	2.7%

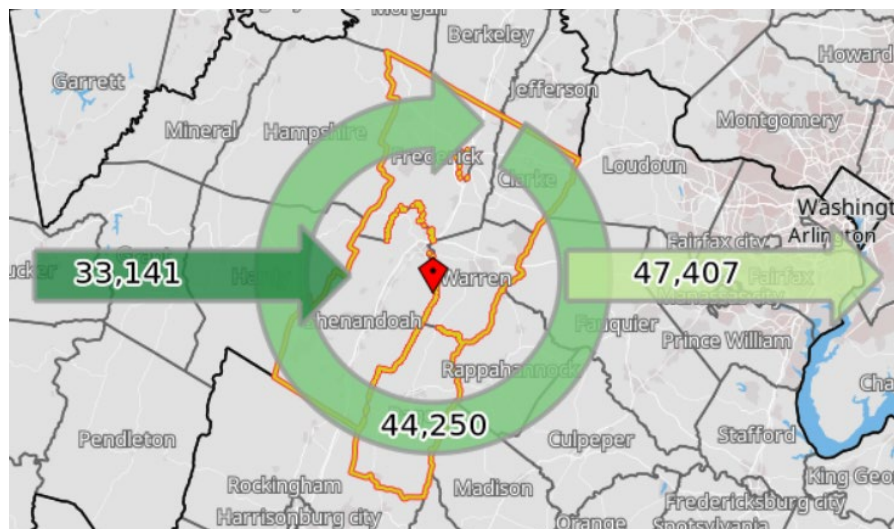
Source: JobsEQ as of 2024Q4

Commuting Patterns

Inflow-Outflow

As of 2022 the NSV Region has 33,141 workers who commute in from outside of the area to work, an increase of 18% since 2014. Also, 47,407 workers who live in the area commute elsewhere for work. The incidence of out commuting has only increased by about .6% since 2014. Additionally, 44,250 workers both live and work in the area. This results in a net loss of 14,000 workers from the NSV Region. The top localities where workers are employed are Winchester, VA (16,322); Frederick County, VA (13,115); Fairfax County, VA (8,784); Shenandoah County, VA (8,773); and Warren County, VA (7,892)

Figure 11: Commuting Patterns for NSV Region

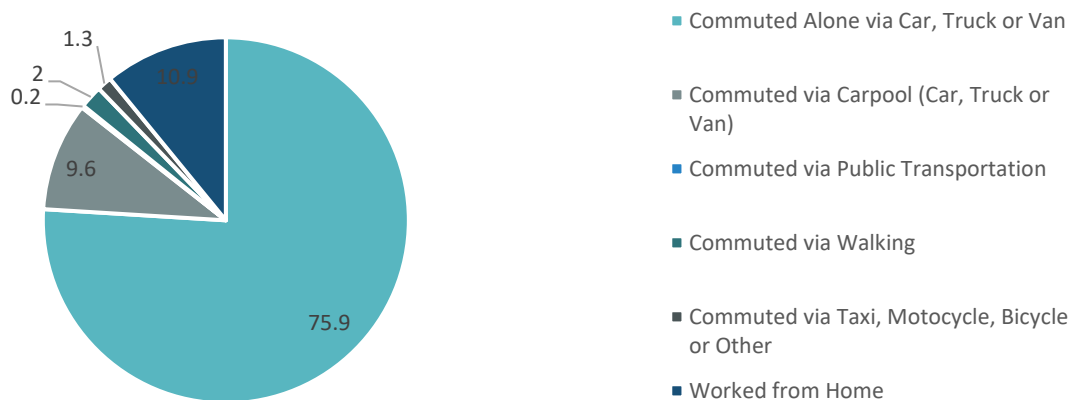


Source: U.S. Census Bureau, On the Map, 2022

Method of Commute

The preferred method of commute in the NSV region is to commute alone via car, truck, or van (75.9% of workers). Nearly 10% of workers carpool via car, truck, or van to their workplace. Since the onset of the COVID-19 pandemic, when work from home opportunities increased, 10.9% of workers work-from-home. Commute via walking, taxi, motorcycle, bicycle or other account for 3.3% of workers, and commuting via public transportation is the least utilized method for workers.

Figure 12: NSV Region Methods of Commute



Source: American Community Survey (2019-2023)

Regional Physical Assets

Highways, Interstates, Major Roads

Two major US Interstates intersect the Northern Shenandoah Valley Region. Interstate 81 operates North/South through the western portions of Frederick and Shenandoah Counties, while Interstate 66 enters Warren County from the East, connecting with Interstate 81 near the Frederick/Shenandoah County borders. Several notable arterial highways provide access to these interstates. US 11 runs parallel to Interstate 81, operating North/South throughout the entire length of region. US 522 proceeds diagonally through Frederick County, enters Clarke at its SW corner, and then connects with US 340 North/South in Warren County. US 50 operates East/West through Frederick County and intersects with US 17 in Clarke. Skyline Drive (State Route 48) is a scenic highway that runs along the Eastern border of Warren and Page Counties, attracting a continuous flow of tourists annually.

Virginia Inland Port

The Virginia Port Authority manages six cargo terminals throughout the state of Virginia. These port facilities generate nearly \$17.5 billion in annual compensation, contribute \$1.4 million in state and local taxes, and are responsible for almost 10% of the states resident workforce.

One of these 6 port facilities is the Virginia Inland Port in Front Royal. The site is a U.S. Customs designated Port of Entry on 161 acres. The port is strategically located to serve D.C. and Baltimore markets as well as Pennsylvania, Maryland and West Virginia. The Port offers wheeled storage, grounded storage, and general open storage with a capacity of 78,000 TEUs. The Port is home to 17,280 linear miles of railroad tracks served by Norfolk Southern. The VIP is currently investing \$15 million to increase on-track capacity by 40% as well as improve the terminals container yard efficiency.

Airports

Winchester Regional Airport (OKV/WGO)

Winchester Regional Airport (OKV) is a high-value general aviation asset strategically located just outside the Washington, D.C. Special Flight Rules Area (SFRA), offering unrestricted access to the national airspace system. The airport averages approximately 121 operations per day, serving a broad range of users including corporate executives, private pilots, agricultural operators, air ambulance providers, and flight training institutions. Its 5,500-foot runway and proximity to I-81 and the Virginia Inland Port make it an ideal hub for business aviation and logistical support.

OKV is actively advancing its role in the emerging Advanced Air Mobility (AAM) sector. In January 2025, the airport opened its new “Terminal of the Future,” equipped with fiber connectivity, high-capacity electrical infrastructure, and hydrogen/electric aircraft readiness. These enhancements directly support next-generation air taxi, autonomous flight, and sustainable aviation operations.

The airport’s national selection as the only general aviation site in NASA and NREL’s ÆNode study—focused on integrating clean energy systems into airport infrastructure—positions it as a pioneering site for rural AAM deployment. This designation has elevated the airport's visibility as a potential site for aerospace investment, R&D, and workforce innovation.

The region has three additional general aviation airports: Front Royal-Warren County Airport (FRR/KFRR), New Market Airport (FAA:8W2), and Luray Caverns Airport (LUA). The Shenandoah Valley Regional Airport (SHD) is located 84 miles from Winchester’s city center and 48 miles from Luray, and offers commercial and

general aviation services. This airport connects the Shenandoah Valley to Charlotte Douglas International Airport with daily round-trip flights on Contour Airlines (partnering with American Airlines).

Transit and Transportation

There are multiple fixed route and on demand transit services in the NSV Region. Fixed route transit services are limited to jurisdictional boundaries in most cases with the exception of bus transit that departs from the City of Winchester and arrives at Laurel Ridge Community College, but makes no other stops in Frederick County.

The NSV Region has eight park-and-ride lots with over 1,200 spaces to serve out-commuters and reduce traffic on primary commuting routes. Additionally, NSVRC's RideSmart program partners to provide two commuter buses (one from Clarke County and one from Warren County) to job locations in Northern Virginia and Washington DC.

While providing safe, lower emission commute out of the region is essential for our workers and roadways, RideSmart also recognizes the importance of providing transportation solutions that keep our workers within the region as well as transporting workers into the region. Currently, there are seven vanpools operating in Shenandoah County at two large employers in poultry processing industry. Increasing accessibility for workers without reliable transportation.

Fixed route transit is available in Winchester, Shenandoah County, Warren County/Front Royal. While on demand transit is available throughout the region.

Rail

The NSV Region features nearly 230 miles of rail. The two primary railroads operating in the region are CSX and Norfolk Southern. Norfolk Southern rail lines run through Clarke, Frederick, Page, Shenandoah, and Warren Counties. CSX lines operate mainly through Frederick County. Conrail Railroad is a shared asset of CSX and Norfolk Southern Railroads with tracks located north of Winchester. The Winchester and Western Railroad connects to the Conrail line operating through Winchester into the western portion of Frederick County. There is no passenger rail within the region.

Dry Utilities

The Northern Shenandoah Valley region is supported by a well-established and growing network of dry utilities, including electric power, natural gas, broadband, and telecommunications infrastructure. These systems provide the backbone for business operations, remote work, and the deployment of modern technologies across the region's rural and urban communities.

Electric

Electric service is primarily provided by Shenandoah Valley Electric Cooperative (SVEC), Dominion Energy, and Rappahannock Electric Cooperative (REC), with substation and transmission infrastructure that supports both residential and industrial loads. Several localities have invested in upgrading grid reliability and are actively preparing for future demands tied to advanced manufacturing and electric transportation systems. The region is also home to one of the few airports in Virginia equipped with infrastructure to support electric and hydrogen-powered aircraft, a sign of forward-thinking energy planning. Electric providers in the region work in partnership with local and state economic development offices to ensure industrial needs are met.

Natural Gas

The NSV Regions is served by two natural gas providers: Trans Canada and Shenandoah Gas Company. Natural gas service is more limited geographically but is available in key industrial corridors and urban centers

such as Winchester, Front Royal, and Strasburg. These assets are essential for food processing, manufacturing, and logistics operations and continue to be evaluated for strategic expansion.

Broadband

Broadband access has seen significant improvements through the efforts of the Virginia Telecommunications Initiative (VATI) and local public-private partnerships. High-speed internet is now available in most population centers, with ongoing expansion efforts targeting remaining unserved or underserved areas. Middle-mile fiber connectivity exists along major transportation corridors, supporting remote work, digital entrepreneurship, and business continuity.

Dry utility infrastructure is a critical enabler of the region's economic competitiveness. Continued investment in grid resilience, broadband deployment, and smart infrastructure will be necessary to support growth in key sectors, improve quality of life, and close digital divides across rural communities.

While 94% of the NSV Region is covered by broadband⁵, there are some tangible speed issues present in certain geographies. Figure 4 shows the areas that are underserved and unserved by broadband within the NSV Region. All localities in the NSV are affected with limited access, and this can impede economic development efforts as well as response and recovery to natural disasters.

Specifically, this map indicates Frederick County and Page County have the most unserved areas, those places with below 10 Mbps download and 1 Mbps upload speed. The remaining localities all have portions that are underserved by broadband. When considering access to information, means of communication, and ways to reach out to potential markets, having adequate broadband is key.

Table 30: NSV Region Internet Access

NSV Region Internet Access			
	Average Internet Accessibility	Median Download Speed (Mbps)	Median Upload Speed
Clarke County	0.28	18.14	5.83
Frederick County	0.31	60.79	10.22
Page County	0.26	10.78	3.01
Shenandoah County	0.25	29.8	8.99
Warren County	0.31	53.89	8.74
Winchester	0.3	76.6	11.73

Source: NERDE

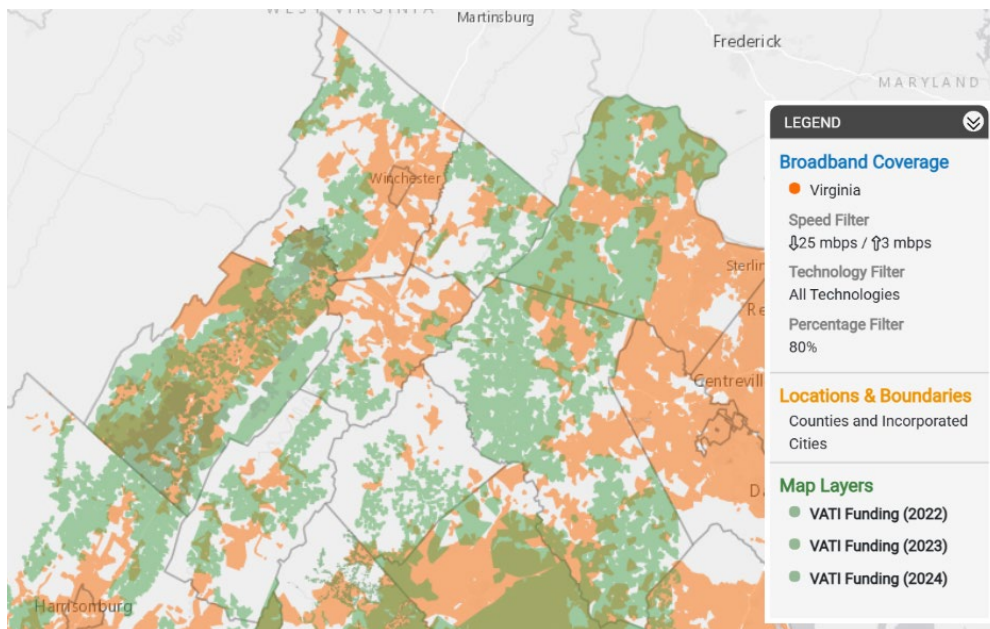
Table 31: NSV Region Households without Internet Subscriptions

NSV Region Household without Internet Subscription			
	Total Households	Number of Households Without Internet Subscription	Percent of Households
Clarke County	5651	561	9.9%

Frederick County	34,338	3,739	10.9%
Page County	9509	1978	20.8%
Shenandoah County	17782	2629	14.8%
Warren County	15357	1211	7.9%
Winchester	11255	1517	13.5%
NSV Region	93892	11635	12.4%

Source: American Community Survey 2019-2023

Figure 13: Underserved and Unserved Broadband Areas of the NSV



Source: Center for Geospatial Information Technology

Wet Utilities

The NSV Region is served by a diverse network of public water and sewer systems that collectively provide the foundational infrastructure to support residential growth, industrial development, and long-term economic expansion. These “wet utilities” are managed by a combination of municipal governments, regional authorities, sanitary districts, and independent service providers.

Water sources include both surface water—such as the North Fork of the Shenandoah River and local reservoirs—and groundwater wells. Notable systems include those operated by Frederick Water, the City of Winchester, and the towns of Strasburg, Woodstock, and Berryville. Many systems maintain excess capacity, positioning the region well to accommodate infill development and new industrial users, though localized constraints may exist in smaller towns or unincorporated areas.

Sewer infrastructure is similarly decentralized but robust, with several facilities utilizing advanced treatment technologies such as membrane bioreactors (MBRs) to meet Virginia Department of Environmental Quality (DEQ) nutrient reduction requirements. Key facilities include the Winchester Wastewater Treatment Plant, Frederick Water’s Opequon Water Reclamation Facility, and upgraded municipal plants in towns like Strasburg and Berryville.

Strategic investment in utility extensions, capacity upgrades, and maintenance planning has helped sustain reliable service across the region. However, continued coordination between local governments, utility providers, and economic development organizations will be essential to support targeted growth areas, business park expansions, and the region’s evolving industrial base—particularly in sectors like advanced manufacturing, food processing, and logistics.

Schools

The NSV Region is home to 75 schools that host more than 37,000 students on a given day. Most of the schools and students are in Frederick County, the region’s largest jurisdiction. A detail of primary and secondary schools and students can be found in Table and a full listing of K-12 schools is available in the appendix.

Table 32: NSV Region Primary and Secondary Schools

NSV Region Primary and Secondary School Count					
	Elementary	Middle	High	Private	Approx. # of Students
Clarke County	2	1	1	3	2,335
Frederick County	12	4	3	5	14,571
Page County	4	2	2	2	3,491
Shenandoah County	3	3	3	5	7,080
Warren County	5	2	2	2	5,825
Winchester	4	2	1	1	4,576
NSV Region	30	14	12	18	37,878

Source: HAZUS-MH Essential Facilities Data

Career and Technical Education Facilities

A 2021 addition to Winchester Public Schools, within walking distance of Handley High School, the Emil and Grace Shihadeh Innovation Center prepares students and community members for the in-demand, skilled workforce of tomorrow. Industry partners play an active role in the development of programs and commit to offering work-based learning opportunities for students. The cutting-edge facility houses three academies: Professional Skills, Health Sciences, and Advanced Technologies, each offering programs that equip students with the skills and credentials. Hands-on courses are aligned with rigorous industry and academic standards.

Dowell J. Howard, Triplett Tech, and Blue Ridge Technical Center are three additional career and technical education centers providing vocational training to students who have determined a career path and serve Frederick, Shenandoah, and Warren Counties respectively.

It is consistently reported throughout the region that career and technical education schools are at capacity and require investment to best meet regional employer demand for credentialed high school graduates entering the workforce. Additional research and study are needed in this area.

Colleges and Universities

The Region also celebrates the location of three colleges and universities in the region: Shenandoah University (SU), Laurel Ridge Community College, and Christendom College.

Nearly 5,000 students currently attend Shenandoah University in undergraduate and graduate programs. These students represent 48 states and 42 countries. At this private university, students may enroll in 200+ areas of study and will receive a blend of professional career experience and liberal education. Ninety-six percent of enrolled students attend full-time and 38% of students attend from out-of-state. Shenandoah University has campuses in Winchester, Leesburg, and Fairfax with an additional educational building in Bluemont. Degree and certificate programs at SU are awarded in business, healthcare, performing arts, and education.

Christendom College is a Catholic liberal arts college in Front Royal with B.A. degree options in classics, English, history, philosophy, mathematics, political science and economics, and theology; as well as M.A. degrees in theological studies. The College serves approximately 550 undergraduate students at a given time and employs more than 40 full time faculty.

Laurel Ridge Community College (Laurel Ridge) main campus is in Middletown, VA and serves all of the NSV Region. The Luray-Page Center is a Laurel Ridge satellite campus in Luray serving Page County. Laurel Ridge also serves Fauquier County with a campus in Warrenton, VA. Laurel Ridge offers 75 associate degree and certification programs and more than 60 fast-track career training programs focused on career attainment. Laurel Ridge is also the regions provider of corporate training and professional development and continuing education. Laurel Ridge Workforce Solutions recently celebrated the opening of a Mechatronics Lab focused on training for mechanical technicians, electromechanical technician, robotics, production, and industrial maintenance.

Sites and Buildings

Industry Market Overview

As the region moves to develop and attract clusters that it is uniquely suited to, having ready-to-accommodate industrial space will be helpful to draw new business. From the Colliers International Research and Forecast Report, Table 33 shows the existing and newest supply of industrial space. Colliers includes three additional markets on the I-81 corridor in the Northern Shenandoah Valley Region, and they are presented here for comparison.

Table 33 indicates that Frederick County has the largest inventory of existing space, with another 1.1 million square feet under construction, which will help expand offerings in the market that currently has a 1% vacancy rate. Rent per square foot (Triple Net) ranges from \$8.69/SF in Frederick County to \$4.25 in Page County. To entice prospective businesses with a range of product, the industrial market should have a healthy vacancy rate, typically between 5-10%. Warren County shows no vacant space but is currently adding 100,000 SF to their market. Page County demonstrates a healthy vacancy rate that allows for flexibility in the market.

Table 33: Square Feet of Industrial Space in the NSV Region

Industrial Space Overview in the NSV Region for 2024						
	Existing Inventory Q4 2021	Existing Inventory Q4 2024	Percent Change in Supply Q4 2021 - Q4 2024	Under Construction (Q4 2024)	Absorption (2024)	Overall Vacancy Rate Q4 2024
Frederick County & Winchester	16,556,010	16,710,553	1%	1,107,000	17,807	1%
Page County	488,872	488,872	-	-	-66,594	14%

Shenandoah County	2,292,641	2,292,641	-	324,000	30,000	2%
Warren County	3,547,647	4,003,678	13%	-	172,400	1%
Washington/Hagerstown	n/a	30,828,314	n/a	-	2,618,304	18%
Berkley-WV	11,897,624	15,217,592	28%	-	403,784	14%
Jefferson-WV	2,366,133	2,366,133	-	-	-120,000	5%

Source: Colliers International Research and Forecast Report, Shenandoah Valley, Industrial Market, Fourth Quarter 2024.

*Information for Clarke County unavailable

Table 34: Change in Direct Asking Rates for Overall Industrial in the NSV Region

Direct Asking Rate Overall Industrial			
	Direct Asking Rate (per SF) 2021	Direct Asking Rate (per SF) 2024	Percent Change 2021 - 2024
Frederick County & Winchester	\$5.97	\$8.69	76%
Page County	\$6.95	\$4.25	21%
Shenandoah County	\$4.00	\$6.00	58%
Warren County	\$5.95	n/a	n/a
Washington/Hagerstown	n/a	\$6.94	n/a
Berkley-WV	\$5.25	\$6.35	n/a
Jefferson-WV	\$3.75	\$5.10	n/a

Source: Colliers International Research and Forecast Report, Shenandoah Valley, Industrial Market, Fourth Quarter 2024.

*Information for Clarke County unavailable

**In 2018 data was reported for Frederick County and Winchester independently, the average of those two rates is presented for "Frederick County & Winchester"

Site Inventory and Prioritization

A continuing goal for Virginia and the Shenandoah Valley is Site Readiness, specifically to increase site inventory that can be delivered within 18 months to any target industry sector. or. Currently, there are 31 sites totaling 2,034 acres available for industrial use in the Northern Shenandoah Valley. Just under 100 acres are Virginia Business Ready Site Certified. The largest contiguous acreage site is the Gibson Assemblage in Frederick County. This site is currently zoned in the Rural Areas and privately owned.

Private ownership continues to be a threat to available inventory.

Table 35: Site Inventory by Acreage

NSV Region Available Sites by Acreage					
	0-50 Acres	50-100 Acres	100-300 Acres	300-500 Acres	500 Acres +
Clarke County	0	0	1	0	0
Frederick County	2	1	5	0	0
Page County	4	0	0	0	0
Shenandoah County	9	2	1	0	0
Warren County	1	1	1	0	0

City of Winchester	0	0	0	0	0
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Source: VEDP

Economic Development Organizations were asked to rank their sites with High, Medium, or Low Priority, 5 sites were ranked high. Table 36 details the sites.

Table 36: NSV Region Highest Priority Sites

NSV Site Inventory and Prioritization								
Site Name	Locality	Available Acreage	Contiguous Acreage	Ownership	Advantages	Limitations	Desired Use	Priority (H/M/L)
Valley Innovation Park	Frederick	147.27	106.25	Private	FTZ, Technology zone		BioScience, Advanced Manufacturing, Information Technology	H
Glendale	Shenandoah - Strasburg	91.87	91.87	Private	Rail served, HUB Zone	Water/Sewer	Food & Beverage, IT, Advanced Manufacturing	H
Northern Shenandoah Industrial and Business Park	Shenandoah - Strasburg	135	47.15	Public	Existing businesses in park	Grading	Food & Beverage, IT, Advanced Manufacturing	H
Industrial Development Authority Site #1	Shenandoah - Mount Jackson	23.68	23.68	Public	VBRSP Certified, Opportunity Zone		Food & Beverage, IT, Advanced Manufacturing	H
Toms Brook	Shenandoah -Toms Brook			Private	I-81 access, large contiguous acreage	Utilities	Food & Beverage, IT, Advanced Manufacturing	M
Camp 7	Clarke County	40.03	40.03	Public	Location 4 lane arterial access, 5 miles to VIP, public water and sewer available	Blighted building on site	Cold storage, Bioscience, Food and Beverage, Advanced Materials, Professional Services	H

Entrepreneurial Ecosystem

Entrepreneurship is a key driver of economic development because it creates new businesses, in turn creating employment and increasing GDP. A healthy entrepreneurial ecosystem stimulates consumer spending, increases wealth, and brings fresh energy and innovation to a community spurring community development initiative. The Economic Impact Catalyst suggests that startup density, access to capital, success

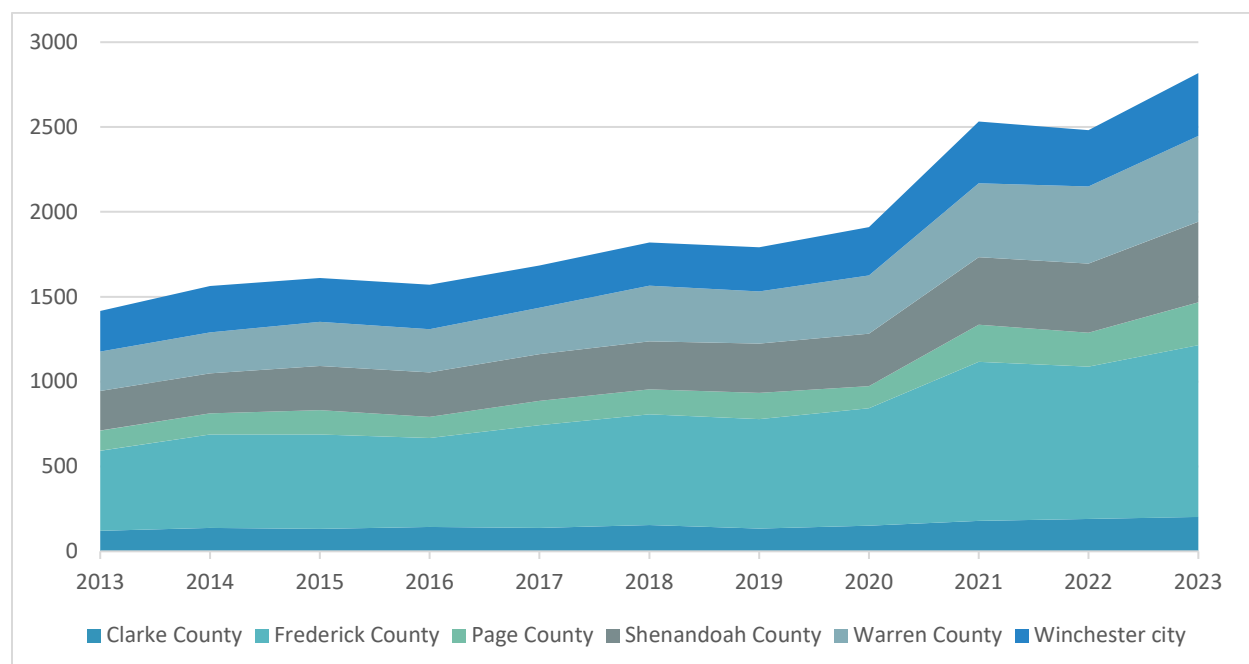
stories, talent pool, collaboration and networking, support organizations, government policies, and global connectivity are the primary factors contributing to a healthy entrepreneurial ecosystem. Some of these indicators are evaluated below.

The Northern Shenandoah Valley boasts a growing and increasingly accessible entrepreneurial capital ecosystem, anchored by a network of regional organizations, targeted programs, and private investors. The Shenandoah Community Capital Fund (SCCF) plays a central role, offering microloans, business bootcamps, and the Startup Shenandoah Valley (S2V) accelerator, while also stewarding federal and state funding to expand access to underserved communities. SCCF's REV Initiative, supported by a \$1.5 million combined investment, aims to build a scalable tech ecosystem. The Shenandoah Valley Angel Investors group aims to enhance access to private capital for early-stage ventures but has yet to invest in a company born from this region. Local banking institutions like F&M Bank and some local micro-loan funds provide community-based lending options tailored to the needs of small businesses, and programs like the Community Navigator initiative have distributed nearly \$290,000 in funding through microgrants and technical assistance to minority entrepreneurs. Additional support is available through Laurel Ridge SBDC, SCORE mentoring, and state programs offered by the Virginia Economic Development Partnership. Collectively, these resources create a robust and increasingly equitable environment for entrepreneurs seeking to launch or grow businesses within the region.

Likely as a result of the COVID-19 pandemic 2020 employment in firms aged 0-5 years declined by 6.8% while employment in firms over 6 years old declined by only 2.1%. Between 2020 and 2024 employment in firms 0-5 years increased by 3.5% while employment in firms over 6 years old increased by 5.7%. This is a testament to the power of creating an entrepreneurial ecosystem that supports new firms through time and focuses on longevity. In 2024, firms over 6 years old accounted for 91.6% of all private sector employment.

Figure shows new business formation statistics for the region. We see a spike in new business formation in 2020 potentially due to loss of employment elsewhere. That sharp rise declines slightly between 2021 and 2022, and we see a rise again between 2022 and 2023.

Figure 14: NSV Region Business Formation Statistics



Source: U.S. Census, Business Formation Statistics

Programming and Networks

Laurel Ridge and Blue Ridge Small Business Development Centers work in tandem to support new businesses in the NSV Region. Both Centers provide no-fee confidential business advising; regularly scheduled workshops and seminars covering topics such as business startup, growth strategies, and industry-specific challenges; and provide technical support to those interested in accessing SBA loan programs.

The Shenandoah Community Capital Fund (SCCF) serves the entirety of the Shenandoah Valley from Winchester to Lexington with programming and funding support for traditionally scalable and non-scalable businesses through Business Bootcamp, Business Intensive, and the Capacitor. SCCF also operates the Region’s technology council (Shenandoah Valley Technology Council – SVTC)

Access to Capital

SCCF is the Region’s single U.S. Treasury designated Community Development Financial Institution (CDFI). SCCF makes micro-loans ranging from \$1,000-\$50,000 and has lent \$1.7 million since 2008. Shenandoah Valley Angel Investors (SVAI) was founded in 2015 and operates out of Charlottesville, Virginia with ties to the NSV Region, but has not to date invested in the region.

Infrastructure

The HIVE, Hub for Innovators, Veterans, and Entrepreneurs at Shenandoah University is a dynamic innovation center that offers physical space and programming for SU students, faculty, and staff who have access to a number of critical spaces: the Emerging Media Lab and Makerspace, Shenandoah Center for Immersive Learning, Center (AR/VR), Entrepreneurship and Business Incubator, the SU Center for Trust (cyber, data analytics, and blockchain), the SU Collaboratory.

Other important infrastructure to consider are coworking space, makers space and fab labs and innovation hubs open to the public. These spaces are limited in the NSV Region.

Technology Transfer

Small Business Technology Transfer (STTR) Grants are federally funded through the Small Business Administration (SBA) to encourage partnership between small businesses and nonprofit research institutions focusing on bridge the gap between performance of basic science and commercialization of resulting innovations. Similarly, the Small Business Innovation Research grants are federally funded through the Small Business Administration (SBA) to encourage domestic small businesses to engage in Federal Research/Research and Development (R/R&D) with the potential for commercialization. The Northern Shenandoah Valley Region does not have a research university within its footprint, limiting its capacity to receive STTR and SBIR grants. The closest research university is James Madison University which is roughly 45-60 minutes south of the central NSV Region. Jame Madison University is currently a Carnegie Classified R2 university (high research activity) with growing research capacity and partnerships in health sciences, education, and applied STEM fields. Three Carnegie-classified research institutions are within a reasonably collaborative radius to the region for strategic initiatives: George Mason University, University of Virginia, and Virginia Tech. Another contributing factor to the limited utilization of STTR and SBIR programs is that the NSV Region has a relatively low concentration of early-stage innovation-driven tech companies. Most entrepreneurial activity is in sectors like logistics, manufacturing, agri-business, tourism, and small-scale services which do not typically align with the high-risk, high-tech R&D focus of the STTR and SBIR programs. Table 26 below details the innovation activity in the NSV Region for all-time. Note – private entities or individuals may be securing STTR/SBIR or patents outside of our networks with ideas originating in the region.

Table 37: NSV Region Entrepreneurial Ecosystem Indicators

Entrepreneurial Ecosystem Indicators	
	NSV Region Total

Patents (2019)	1
Patents All-Time	44
STTR Grants	0
SBIR Grants	6
SBIR Total Funding	\$1,929,717

Source: NERDE

Appendix B: Industry Cluster Identification

The Northern Shenandoah Valley is home to a diverse mix of businesses that enjoy the assets available here. If an industry is highly concentrated in an area, it means there are resources available that support that industry. Ensuring business diversification is crucial to maintaining economic resiliency. The NSV Region is well positioned with a diverse base of businesses to absorb the shock of an industrywide or nationwide impact. However, there are challenges that have been addressed from previous planning efforts, outlined below. The NSV Region is taking appropriate steps to meet these challenges with action and preparing for the future.

Local economic development organizations have each identified their target industry sectors through within their strategic and comprehensive plans. These industries fit the economic development, planning, historical, and natural assets and preferences of each place. Figure 8 below shows those target clusters. Target industries with an asterisk are also identified in the GO Virginia Region 8 Growth and Diversification Plan which is limited to traded sectors only.

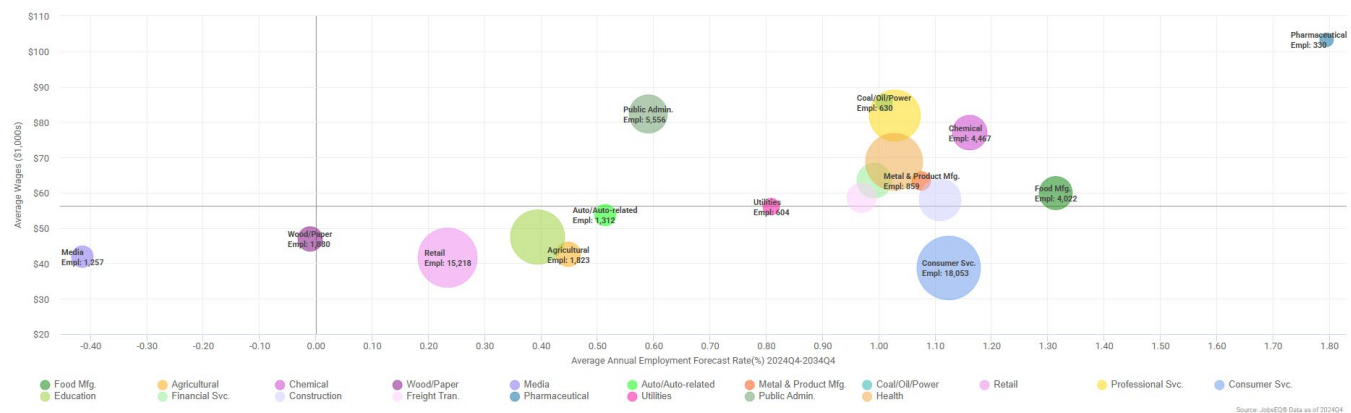
Table 38: NSV Local Target Industry Sectors

Target Industry	Clarke County	Frederick County	Page County	Shenandoah County	Warren County	Winchester
Agribusiness/Agriculture	X	X	X	X		
Business & Professional Services*	X	X	X	X	X	X
Information Technology & Data Centers*		X		X		X
Healthcare, Biomedical & Bioscience*	X	X		X	X	X
Lifestyle & Adventure	X		X			
Logistics		X		X	X	
Manufacturing*	X	X		X	X	
Emerging Aviation Technology		X	X		X	X

Industry Cluster Analysis

An analysis was performed to identify which industry clusters demonstrate the greatest potential for generating economic activity in the NSV Region. Figure 15 below demonstrates the size of the cluster by employment in a colored bubble. The location of the industry cluster bubble is determined by average annual growth rate (x-axis) and average annual wages (y-axis). Industry clusters are groups of industries that are linked to common products, labor pools, technologies, supply chains, and/or training needs. Identifying clusters is crucial in long-term economic development planning, as benefits to one industry will generally impact other industries within the same cluster. The most attractive clusters will be those in the top right quadrant of the diagram. Pharmaceutical Manufacturing, Chemical Manufacturing, Professional Services, Financial Services, Metal Product Manufacturing, Freight Transit, Construction, and Coal/Oil Power.

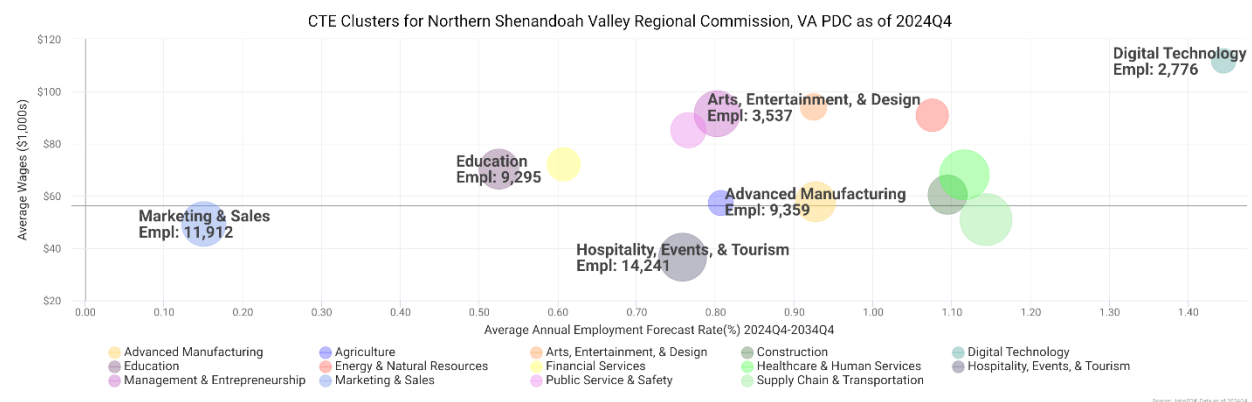
Figure 15: NSV Region Industry Cluster Concentration:



Source: JobsEQ as of 2024Q4

The Virginia Department of Education (VDOE) has identified 14 Career and Technical Education Clusters for curriculum development; those clusters are presented below as they relate to current concentration and forecasted employment growth of related occupations. These clusters can advise career and technical education specialists where there is need for new or increased capacity for training in the region. When evaluating CTE offerings, special attention should be paid to Digital Technology, Health Care and Human Services, Supply Chain and Transportation, Energy & Natural Resources, Construction, and Advanced Manufacturing.

Figure 16: Industry Cluster Identification by Career and Technical Education Cluster



Source: JobsEQ

Emerging Industries

According to the Virginia Department of Aviation, Advanced Air Mobility (AAM) refers to the emerging use of electric vertical takeoff and landing (eVTOL) aircraft aimed at enhancing air transportation. This innovation is expected to revolutionize the movement of people and goods by offering more efficient, safe, and cost-effective solutions, thereby expanding services to both major markets and various communities across Virginia.

In 2024, Winchester Regional Airport was selected by NASA and the U.S. Department of Energy's National Renewable Energy Laboratory to participate in a national study exploring how airports can serve as future energy hubs. Known as the ÆNode project, the study focuses on integrating clean energy infrastructure to support emerging technologies like electric and hydrogen-powered aircraft. Winchester is the only general aviation airport in the country included in the study, highlighting its proactive efforts to position itself within the evolving landscape of sustainable aviation.

In January 2025 the airport unveiled its new "Terminal of the Future", a state-of-the-art facility designed to accommodate the evolving needs of AAM. Key features of the terminal include fiber-optic data connectivity to support advanced communication systems; three-phase electricity and onsite backup power generation to ensure reliable energy supply; infrastructure to support electric and hydrogen powered aircraft, including concrete hardstands and charging capabilities; amenities tailored for air taxi services and autonomous aircraft operations.

The airport is conducting an Advanced Air Mobility Workforce Development Pipeline Study to assess and prepare for the workforce needs associated with AAM technologies. Additionally, plans are underway to develop an economic impact statement, marking the first such initiative for a Virginia airport, to quantify the potential benefits of AAM integration for the region

AAM has the potential to drive substantial economic diversification and job creation in the region, particularly in advanced manufacturing, data integration, transportation logistics, and maintenance operations. Proximity to Washington, D.C., the I-81 corridor, and other innovation hubs positions the Northern Shenandoah Valley as a strategic location for:

- AAM maintenance and service hubs;
- Vertiport and landing infrastructure development;
- R&D partnerships focused on battery systems, propulsion technologies, and autonomous flight software;
- Small business entry into aerospace supply chains.

As the AAM industry scales nationally, the Northern Shenandoah Valley is poised to become an early mover in rural and exurban AAM integration—driving innovation, workforce growth, and resilient infrastructure development in alignment with the region's long-term economic goals.

NSV Region

Industry Cluster Focus

The NSV Region's identified target clusters represent the highest priority traded sector industries for development; they are identified by the following characteristics: earnings potential, growth, regional competitiveness, regional specialization, and gross regional product. These clusters are aligned with the GO Virginia Region 8 Growth and Diversification Plan. Three additional clusters, Health Care, Education, and Government, were deemed significant by employment, this cluster identification focuses on traded sectors. While additional jobs in the public sector and health care can help facilitate economic activity through

placemaking and tourism, growth in the private sector has the most potential to increase economic growth. Therefore, we recommend investing in those clusters that show the most potential for private sector growth. While not identified as target industry clusters here, the project team did include a goal for placemaking that includes support activities addressing these clusters.

1. Advanced Manufacturing

Why This Cluster?

Advanced manufacturing remains a cornerstone of the regional economy, with established infrastructure, workforce familiarity, and a strong supply chain. The region has demonstrated strength in plastics, chemical products, and building products manufacturing. The Region's largest training provider offers customized training in all occupations that support advanced manufacturing. Additionally, this sector aligns with state and federal investment priorities.

- **Current Employment:** 13,709 jobs
 - **Key Industries:** Plastics Product Manufacturing (3,580 jobs), Printing and Related Support Activities (794), Other Wood Product Manufacturing (685), Architectural and Structural Metals Manufacturing (546), Pharmaceutical and Medicine Manufacturing (330)
 - **Major Employers:** Trex, Newell Brands (Rubbermaid), Thermofisher, Berryville Graphics
 - **Average Earnings:** \$68,684
 - **Supporting Assets:** I-81 access, available industrial sites, proximity to R&D at JMU and Virginia Tech, skilled trades training at Laurel Ridge Community College
-

2. Agriculture & Food and Beverage Processing

Why This Cluster?

The region's agricultural productivity is among the highest in Virginia, with substantial output from Shenandoah (\$225 million, 2022) and Page Counties (\$205 million, 2022) primarily from the sale of livestock and poultry products. Food and beverage manufacturing naturally builds on this foundation. The Region's LQ for Animal Slaughtering and Processing remains high, 4.26. While employment is declining, an infusion of resources into supporting sole proprietors and workforce development could recapture industry employment. It is recommended that the region complete a regional Agricultural Production study to support further action.

- **Current Employment:** 5,656 jobs
 - **Key Industries:** Animal Slaughtering and Processing (1,625), Dairy Product Manufacturing (969), Animal Production (595), Fruit and Vegetable Preserving and Specialty Food Manufacturing (552), Crop Production (308)
 - **Major Employers:** George's Chicken, H.P. Hood, Garber Ice Cream Co, Shawnee Canning Co, Stroehmann Bakeries
 - **Average Earnings:** \$60,693
 - **Supporting Assets:** Two counties in VA's top 5 ag producers; LQ of 4.26 in animal processing; robust rural land base and farm support services
-

3. Business and Professional Services

Why This Cluster?

Business services support both local enterprise and regional headquarters operations. The cluster is highly diverse enabling support across all regional industries, is technology-adjacent, location flexible, and offers high wage potential.

- **Current Employment:** 10,000 jobs
 - **Key Industries:** Depository Credit Intermediation (3,352), Management of Companies and Enterprises (1,986), Employment Services (960), Architectural, Engineering, and Related Services (932), and Other Professional, Scientific, and Technical Services (673)
 - **Major Employers:** Navy Federal Credit Union, Eagle Financial Services, First Financial Corp, Pioneer Bankshares
 - **Average Earnings:** \$72,799
 - **Supporting Assets:** Fiber expansion, high digital adoption, talent attraction from nearby metros (NOVA, DC)
-

4. Information Technology and Emerging Tech

Why This Cluster?

As remote work and digital infrastructure expand, the region can grow its IT base through targeted support for high-growth firms and entrepreneurship. This sector has the highest earnings of all target industry clusters.

- **Current Employment:** 1,130
 - **Key Industries:** Computer Systems Design and Related Services (809), Wired and Wireless Telecommunications (except Satellite) (591), Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services (54), Emerging Tech Applications
 - **Major Employers:** Shentel CMIT Solutions, Middletown Data Center
 - **Average Earnings:** \$76,706
 - **Supporting Assets:** Shenandoah University's HIVE innovation lab, Laurel Ridge cybersecurity and drone tech programs, SBDC services, proximity to data centers in Northern Virginia, Winchester Regional Airport
-

5. Transportation and Logistics

Why This Cluster?

Located on I-81 with access to I-66 and major CSX rail lines, the NSV region is a prime distribution and freight corridor. There is an existing pipeline of workforce in CDL, logistics, and operations. This sector provides economic stability as E-commerce continues to grow. Advancements in AAM will likely show up in employment in Scheduled and Unscheduled Air Transportation as well as Support Activities for Air Transportation included in this sector.

- **Current Employment:** 2,793 jobs
- **Key Industries:** Warehousing and Storage (5,451), General Freight Trucking (927), Couriers and Express Delivery Services (663), Specialized Freight Trucking (499)

- **Major Employers:** Amazon, WCS Logistics, Sysco, Capstone Logistics, McKesson
- **Average Earnings:** \$56,669
- **Supporting Assets:** Virginia Inland Port, I-81 corridor, Winchester Regional Airport AAM, warehousing capacity

Appendix C: SWOT Analysis

A SWOT analysis is a snapshot in time of a region’s unique assets; it looks at the Strengths, Weaknesses, Opportunities, and Threats of a region. It looks both internally within the region and externally outside of the region to help position exactly how to leverage assets and address shortcomings. The purpose of conducting a SWOT analysis as part of the CEDS process is twofold: it provides a benchmark to look back on to measure progress, and it provides direction moving forward. In other words, it helps provide a comprehensive understanding of a region’s current capacity which can then help to prioritize next best actions. The following are examined when conducting a SWOT:

State of the regional economy	Energy needs
Regional clusters	Natural hazards
External trends and forces	Equitable development
Workforce considerations	Partners for economic development
Spatial efficiencies/sustainability	Resources for economic development
Broadband needs	

As the NSVRC moves forward, this SWOT analysis will serve as the basis for a strategic direction through an Action Plan. The Action Plan will be consistent with plans and efforts previously underway by the NSVRC and previous sections of this CEDS document.

In 2016, 2018, 2020, and 2024 the NSVRC conducted stakeholder engagement in the planning processes of the GO Virginia Growth and Diversification Plans, Regional Economic Development Plan, and CEDS and compiled a SWOT analysis for each. Strengths, opportunities, and challenges were examined, and this SWOT will lean on this information. In addition, the information in this SWOT is supplemented by data in the background conditions section of this report, as well as pertinent regional and national trends.

Note | SWOT Definitions from CEDS Guidelines

Strengths are a region’s relative competitive advantages (e.g. industry supply chains and clusters, extensive port, rail, and broadband assets, specialized workforce skills, higher education, collaboration among stakeholders) and often internal in nature;

Weaknesses are a region’s relative disadvantages (e.g. risk-averse or change resistant regional culture), also often are internal in nature;

Opportunities are chances or occasions for regional improvement or progress (e.g., expansion of a biosciences research lab in the region), often external in nature;

Threats are changes or occasions for negative impacts on the region or regional decline (e.g. several companies in the area considering moving to lower-cost areas of the state), also often external in nature.

Strengths	Weaknesses
■ Diverse business mix resistant to economic disruptions. ■ Rich natural, recreational and historic assets. ■ Strong production and revenue generation in the agricultural sector. ■ Population is expected to increase by 1% annually for the next 10 years (14,075). ■ Median household income has increased by 30-47% in each locality. ■ From 2024-2034 there is an anticipated increase of 9,153 jobs (an overall 8.4% growth in employment). ■ Diverse mix of educational institutions that provide technical training certificates, Associate's degrees, Bachelor degrees, Master's Degrees, workforce training. Offerings continue to grow as workforce changes. ■ Recent investments in increased capacity at the Virginia Inland Port ■ Multiple iterations of long-term plans are in place to mitigate natural hazard events. ■ Regional transportation routes that cut across the valley, including I-81, I-66 ■ Virginia Inland Port in Front provides industry with international market access. ■ Three major airports and one regional airport within a 2-hour drive for commercial air. ■ 3 general aviation airports within the region. ■ Winchester Regional Airport (OKV) is positioned to play a role in Advanced Air Mobility as a growing sector in the region. ■ Regional Economic Development collaboration has increased since last CEDS and development and deployment of regional talent attraction efforts. ■ Significant VATI investment deployed. ■ The availability of local transit and commuting options is increasing throughout the region. ■ The center of the region sits 68 miles west from the center of Washington DC and 110 miles from the center of Richmond, Virginia. ■ Shenandoah and Page Counties Rank in the top 10 Virginia localities for Ag output. ■ Strong regional GDP and LGRVI. ■ Limited county level distress.	■ Skill gap between available labor force and available jobs. ■ Cost of living and lack of affordable housing. ■ Environmental and man-made threats to natural resources. ■ Lack of amenities for young adults and families. ■ Availability and affordability of quality child care options. ■ Rail/ port facilities are import heavy. ■ High incidence of out commuting. ■ Uneven broadband coverage across the region. ■ Lack of shovel ready sites for development prospects. ■ Low industrial vacancy rates, lack of move in ready space for business. ■ Underutilization of vacant and/or blighted properties for creative mixed uses. ■ Centralization of some hospital services to the Valley Health Main Campus in Winchester reduces accessibility for communities ■ New workforce entrants exhibit underdeveloped workplace readiness skills. ■ Limited bike and pedestrian options throughout the region. ■ Career and Technical Education schools are at capacity throughout the region limiting opportunities for students to graduate with workplace credentials. ■ Low public participation in public meetings. ■ NSV region is not accessible without a vehicle for residents or visitors. Additional fixed route or on-demand public transportation is needed to connect the region. ■ Federal furloughs shut down Battlefields and Shenandoah National Park reducing visitation and spending with little notice. ■ Aging water systems in industrial areas are at capacity. ■ Lack of community infrastructure to support cultural diversity. ■ EDCI ranking is low in Institutions and partnerships.

Opportunities	Threats
■ Support advanced air mobility as an emerging industry cluster and align career and technical education and workforce training programs as needed to support OKV. ■ Expand workforce training programs and capacity through local investments and regional collaborations including technical schools, certification programs, and collaboration between schools. ■ Invest in entrepreneurial/Small Business Development opportunities including access to capital, programming, and support services. ■ Market intra-regional supply of products and services. ■ Reinvigorate Ag industry with investments in workforce, shared production facilities and supply chain. ■ Regional initiatives to support renewable energy businesses. ■ Public engagement through community development efforts including Main Street designations. ■ Increased capacity on major routes including I-81, I- 66, and the Virginia Inland Port. ■ Redevelopment of underutilized properties. ■ Retaining workers from the region who commute out for employment. ■ Preparing the regional workforce to fill positions that will be required for elder care as the population continues to age. ■ Study distress at sub-county levels. ■ Expand on agri-tourism and recreation assets. ■ Improve available sites through the Commonwealth's Site Readiness Program. ■ Develop stronger broadband availability to unserved and underserved portions of the NSV Region to expand business development opportunities and quality of life for residents. ■ Relatively high unemployment rate in Page County means people are looking for work and could be directed to jobs available in the northern part of the NSV region, where many new jobs are expected. ■ Expansion or addition of local transit systems to ensure service throughout entire NSV region.	■ The Virginia Inland Port is import heavy. ■ An increasing amount of materials and services to support the agricultural industry are produced outside the NSV region. ■ Continued loss of workers to locations outside the region – especially out commuting to Northern Virginia. ■ The number of retiring workers and how the region will adequately keep up with new workforce demand, in addition to replacement demand. ■ As the availability of sites and buildings suited for data centers declines in localities to the east, we must be prepared to support them in the Valley. The availability of power and water is of concern. ■ High-risk environmental hazards include flooding, winter storms, hurricanes, and tornadoes. ■ Increased usage of major transportation routes like I-81 mean that upkeep and necessary repairs are vital to ensuring adequate flow of goods and passengers. ■ Aging infrastructure – especially in terms of water and sewer systems. Poor infrastructure could hinder development potential across the NSV. ■ Brain drain – college and university graduates leaving the region after they have completed their degree. ■ Substance abuse a growing issue that affects families, workforce and overall quality of life. ■ Business location and expansion in surrounding areas that require skills found in our region will put increased pressure on availability of labor. ■ Shifting dynamics in demographics will affect labor force participation and have implications on workforce availability throughout the region. ■ Some grant funding is based on local and regional distress factors. Comparatively, the NSV Region is less distressed than its peers, which may limit grant competitiveness requiring additional local public and private investment. ■ An inadequate supply of affordable housing could negatively impact business and workforce retention and attraction.

Appendix D: Economic Risk and Resilience

Risk and Resilience refer to the region's capacity to prepare for and respond to economic disruption. Regional economic prosperity is linked to an area's ability to prevent, withstand, and quickly recover from major disruptions, or shocks, to its economic base. These disruptions could be the result of natural disasters, industry trends such as innovation that leads to job displacement, or economic downturns or recessions.

The EDA defines two strategy types for creating a resilient region, steady-state and responsive. Examples of each type of strategy is listed below:

1. Steady State
 - Comprehensive planning efforts like the Hazard Mitigation Plan
 - Efforts to broaden the industrial base
 - Adapting business retention and expansion programs to assist firms with recovery during downturns
 - Building a resilient workforce that can shift between jobs or industries when their core employment is threatened
 - Linking geographic information systems with municipal business licenses, tax information, and other business establishment data bases to track local and regional "churn" and available development sites
 - Employing safe development practices in business districts and surrounding communities, including locating structures outside of floodplains, preserving natural lands that act as buffers from storms, and protecting downtowns from extreme weather.
2. Responsive
 - Conduct pre-disaster recovery planning to define key stakeholders, roles responsibilities, and key actions
 - Establishing a process for regular communication, monitoring, and updating of business community needs and issues which can then be used after an incident
 - Establishing and using coordination mechanisms and leadership succession plans for short, intermediate, and long-term recovery needs

The National Risk Index, built by FEMA, is a metric comprised of 18 indicators to identify communities at risk for natural hazards. Learn more about the NRI [here](#). All NSV Region localities score Very Low or Relatively Low on this index.

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The FEMA Community Resilience Challenges Index (CRCI) identifies resilience by percentile across the country. The value below is a ranking from 1 least resilient, to 100 most resilient according to 22 indicators of resilience. See more about the CRCI [here](#) and explore the Resilience Analysis Planning Tool (RAPT) [here](#). Clarke County performs in a striking low percentile for this index. The top three indicators that are most affecting the CRCI score for Clarke County are: limited population affiliation with a religion, size of population over the age of 65, and low number of hospitals in the locality. Similarly in Frederick County, the lack of hospitals, religious affiliation, and the low presence of civil and social organizations reduced the score. Page County lands in the highest percentile in the region limited by population without a smart phone, low medical professional capacity, and moderate religious affiliation. In Shenandoah County, no affiliation with a religion, population without a smartphone, and number of limited English speaking population affect the score. Warren County's score is impacted by medical professional capacity, affiliation with a religion, and number of hospitals, which the data presents as 0. We know this to be

false as Valley Health operates the Warren Memorial Hospital in Warren County. Winchester's score is impacted by the lower rate of home ownership, higher number of single-parent households, and limited English speaking population.

The Gini Index is a summary measure of income inequality. The Gini coefficient ranges from 0, indicating perfect equality (where everyone receives an equal share), to 1, perfect inequality (where only one recipient or group of recipients receives all the income). Learn more about the Gini Index [here](#). As lower GINI values are preferable, any value under .50 is preferred. While the region is within range of middle ground, it still has opportunities to distribute wealth equally throughout the region.

Table 39: NSV Region Risk and Resilience Indicators

NSV Region Risk and Resilience Indicators			
	National Risk Index	Community Resilience Challenges Index	GINI Coefficient (Income Inequality)
Clarke County	Very Low	2.76	0.42
Frederick County	Relatively Low	15.39	0.41
Page County	Very Low	64.12	0.4
Shenandoah County	Relatively Low	35.97	0.45
Warren County	Very Low	24.05	0.41
Winchester	Very Low	45.5	0.46

Source: NERDE

Figure 17: NSV Region Natural Hazard Ranking

Hazard	Annual Loss (Est.)	Rating
Clarke County (VA) , Frederick County (VA) , Page County (VA) , Shenandoah County (VA) , Warren County (VA) , Winchester city (VA)		
Total Hazards	\$ 24.00M	Very Low / Relatively Low
Avalanche	-	
Drought	\$ 342.25K	Very Low / Relatively Low
Tornado	\$ 2.17M	Very Low / Relatively Low
Riverine Flooding	\$ 6.07M	Relatively Low / Relatively Moderate
Hurricane	\$ 8.05M	Very Low / Relatively Low
Lightning	\$ 565.85K	Relatively Low / Relatively Moderate
Strong Wind	\$ 2.81M	Relatively Low / Relatively Moderate
Heat Wave	\$ 862.47K	Relatively Low / Relatively Moderate
Landslide	\$ 267.45K	Relatively Low / Relatively Moderate
Hail	\$ 892.44K	Very Low / Relatively Low
Winter Weather	\$ 554.18K	Relatively Low / Relatively High
Earthquake	\$ 293.69K	Very Low
Ice Storm	\$ 62.48K	Very Low
Wildfire	\$ 823.08K	Very Low / Relatively Low
Cold Wave	\$ 237.89K	Relatively Low / Relatively Moderate
Coastal Flooding	-	
Tsunami	-	
Volcanic Activity	-	

Source: NERDE

Climate

The climate of the Shenandoah Valley, particularly regarding precipitation, is strongly influenced by the surrounding mountains. When moist air flows toward Virginia from areas to the west and northwest, it encounters the high relief of the Allegheny Mountain system to the west of the Shenandoah Valley.

A double "rain shadow" effect, due to orographic uplift on either side of the Blue Ridge Mountains, puts the Shenandoah Valley in the driest portion of Virginia and makes it one of the driest locations in the eastern United States.

Typical annual precipitation amounts for nearby stations on the east-facing slopes of the Blue Ridge Mountains run about ten inches higher than the Shenandoah Valley (around 48 inches as opposed to 38 inches). Statewide average annual precipitation is around 40 to 44 inches. Figure 18 shows climate characteristics for the NSV Region annually and by season.

Figure 18: Climate Variables

Climate Projection Variable	Value
Clarke County (VA) , Frederick County (VA) , Page County (VA) , Shenandoah County (VA) , Warren County (VA) , Winchester city (VA)	
Annual	
Change in Days Without Precipitation	▼ +0.43 to +3.29 (Days)
Change in Maximum Average Temperature	▼ +2.86 to +3.21 (Degrees F)
Change in Minimum Average Temperature	▼ +3.05 to +3.46 (Degrees F)
Autumn	
Change in Maximum Daily Precipitation	▼ +0.01 to +0.20 (Inches)
Change in Minimum Average Temperature	▼ +3.51 to +3.70 (Degrees F)
Change in Fire Weather Index	▼ -1.14 to -0.52
Winter	
Change in Maximum Daily Precipitation	▼ +0.20 to +0.26 (Inches)
Change in Minimum Average Temperature	▼ +2.79 to +3.21 (Degrees F)
Change in Fire Weather Index	▼ -0.11 to -0.04
Spring	
Change in Maximum Daily Precipitation	▼ +0.11 to +0.27 (Inches)
Change in Minimum Average Temperature	▼ +3.97 to +4.20 (Degrees F)
Change in Fire Weather Index	▼ +0.18 to +0.34
Summer	
Change in Days with Max Heat Index Over 105	▼ +1.34 to +3.18
Change in Days with Max Heat Index Over 115	▼ +0.87 to +1.79
Change in Days with Max Heat Index Over 125	▼ +0.65 to +1.42
Change in Days with Max Heat Index Over 95	▼ +5.59 to +12.25
Change in Daily Max Heat Index	▼ +5.20 to +6.00
Change in Seasonal Max Heat Index	▼ +12.06 to +14.44
Change in Maximum Daily Precipitation	▼ -0.17 to +0.33 (Inches)
Change in Minimum Average Temperature	▼ +4.63 to +4.76 (Degrees F)
Change in Fire Weather Index	▼ -0.39 to +0.01

Source: NERDE

Announcements and Closings

Since 2020, Shenandoah County has lost 588 jobs in the manufacturing sector. In 2020 IAC announces the creation of 47 new jobs and a \$5 million capital investment into its Strasburg operation. By 2024, the same firm laid off 135 employees and closed the facility permanently shortly after for a total loss of 204 jobs. This follows the closing of LCS communications 4 years prior, causing the loss of 384 jobs.

Table 40: NSV Region Business Closings 2020-2025

NSV Region Business Closings							
Company Name	Locality	NAICS	Business Description	HQ Location	Jobs Lost	Type	Year
IAC Strasburg	Shenandoah	336390	Global supplier of automotive components and systems	Luxembourg	69	Closing	2024
IAC Strasburg	Shenandoah	336390	Global supplier of automotive components and systems	Luxembourg	135	Layoff	2024
RPC Superfos US, Inc.	Frederick	326112	Provide injection molded plastic packaging solutions	Denmark	23	Closing	2020
LSC Communications	Shenandoah	323117	Book, magazine, and other printing services	IL	384	Closing	2020
Sum:					611		

Source: Virginia Economic Development Partnership, as of May 2025

The NSV Region celebrates the announcements totaling 1,313 jobs and \$694 million

Table 41: NSV Region VEDP Announcements 2020-2025

NSV Region Announcements								
Company Name	Locality	NAICS	Business Description	HQ	Year Announced	New / Expansion	New Jobs	Investment (\$M)
Clasen Quality Chocolate, Inc	Frederick	311351	U.S. manufacturer of chocolate	WI	2025	N	250	230
Serioplast	Shenandoah	326160	Global manufacturer of rigid plastic packaging material	Italy	2025	N	45	26
Logan's Sausage	Shenandoah	311612	Produces sausage	VA	2024	E	60	15
Desi Fresh Foods	Frederick	311511	HQ relocation; manufactures drinkable yogurt and spoonable yogurt products	VA	2024	N	56	13
Axys	Winchester	541690	Engineering and consulting firm specializing in building management and security systems	MI	2024	N	46	2
AD Engineering	Shenandoah	333415	Manufactures insulated copper linesets, coils, and mini splits for HVAC equipment	VA	2024	E	25	1
WCS Logistics	Frederick	493110	Cold storage facility	VA	2024	E	15	27

HP Hood LLC	Frederick	311511	Dairy and non-dairy beverage processing facility	MA	2024	E	0	84
Evermark	Shenandoah	493110	Warehouse and distribution center for stair parts, railing, moulding, doors, frames, jambs, hinges, and hardware	GA	2023	E	11	0
Bowman Andros	Shenandoah	311421	R&D; Fruit processing, frozen desserts, dairy, and confectionery products manufacturer	Belgium	2023	E	0	40
Shahi Foods	Warren	311520	Manufactures ice cream and other frozen foods	TX	2022	E	100	13
Ashworth Bros., Inc.	Winchester	333922	Designs and manufactures conveyor systems for the food processing, industrial, transportation, and technology sectors	VA	2022	E	45	5
Kingspan Insulation LLC	Frederick	326150	Provides advanced insulation and innovative building solutions	Ireland	2022	E	37	27
TFC Poultry	Winchester	311615	Specializes in deboning turkey thigh meat for sale to food manufacturers	MN	2021	N	111	31
Evolve Services, Inc.	Frederick	327991	Produces composite productions and reproductions	VA	2021	E	84	1
Nature's Touch Frozen Foods LLC	Warren	311411	Processes and packages produce for distributors	Canada	2021	E	67	40
Parallel	Warren	325411	Produces cannabis products	GA	2021	N	0	1
Silent Falcon UAS Technologies	Warren	336411	Unmanned aircraft systems services provider and original equipment manufacturer	VA	2020	N	249	6
IAC	Shenandoah	336390	Global supplier of automotive components and systems	Luxembourg	2020	E	47	5
Cerio, LLC	Frederick	518210	Data center	VA	2020	E	25	90
Geodis	Frederick	493110	Provider of logistic	France	2020	E	15	14

Logistics			services					
Mercury Paper	Frederick	493110	Distributes tissue products	China	2020	E	15	14
Kirklands	Frederick	493110	Distributes home decor and gifts	TN	2020	N	10	3
Melnor, Inc.	Frederick	423820	Distributes lawn and gardening watering products	VA	2020	E	0	6
							Sum:	1313 694

Source: Virginia Economic Development Partnership, as of May 2025

Major Risks

The Northern Shenandoah Valley region faces several interrelated risks that could threaten the resilience and sustained prosperity of its communities. These risks span workforce dynamics, housing and infrastructure limitations, environmental hazards, and structural economic vulnerabilities. Addressing these threats is critical to ensuring the region can adapt to disruption, recover from shocks, and pursue inclusive, long-term growth.

1. Workforce Contraction and Skills Gaps

The region's aging population and continued outmigration of younger residents present a major threat to economic competitiveness. Many employers—particularly in manufacturing, logistics, and healthcare—report persistent difficulties finding qualified workers. Without targeted interventions in workforce development, career pipelines, and retention strategies, the region risks falling behind in attracting and retaining business investment.

2. Limited Housing Availability and Affordability

A lack of affordable and workforce housing across the region is constraining labor force participation and limiting options for younger workers and families. Rising construction costs, aging housing stock, and restrictive zoning policies exacerbate this problem. Left unaddressed, the housing shortage could undermine business recruitment efforts and worsen regional inequities.

3. Infrastructure Capacity Constraints

Aging water, sewer, and transportation systems—particularly in small towns and rural areas—limit site readiness for new development. Gaps in broadband access further constrain opportunities for remote work, online learning, and entrepreneurship in outlying areas. These infrastructure limitations pose a structural barrier to economic diversification and business growth.

4. Transportation System Vulnerabilities

The region's strategic location along the I-81 corridor makes it an asset for logistics and distribution, but also a point of risk. Congestion, accidents, and wear on the highway system can disrupt freight movement and pose public safety concerns. Limited transit options for workers without reliable vehicles further restrict access to employment and services, especially in lower-income and rural communities.

5. Environmental and Climate Risks

Communities in the Shenandoah Valley are increasingly vulnerable to flooding, stormwater runoff, and heat events—especially in riverine and karst landscapes. These hazards threaten public infrastructure, agricultural viability, and housing stability. The presence of private wells and septic systems in rural areas creates additional exposure to water quality risks during storm events.

6. Economic Concentration and Automation Risk

The region's economy is heavily concentrated in manufacturing, logistics, retail, and healthcare—sectors that are susceptible to global supply chain disruptions, automation, and demographic shifts. Without diversification into emerging industries such as clean energy, technology, and advanced manufacturing, the region remains vulnerable to sector-specific downturns and economic shocks.

7. Limited Fiscal and Administrative Capacity

Many local governments in the region, particularly in rural and low-growth areas, operate with limited staff and financial resources. This constrains their ability to plan proactively, pursue grant funding, or implement long-term economic development strategies. As a result, communities may struggle to respond effectively to disruptions or compete for state and federal investment.

8. Disparities in Opportunity and Access

Persistent gaps in access to education, employment, and infrastructure affect lower-income populations, communities of color, and rural residents across the region. These disparities compound the impact of economic and environmental shocks and reduce the overall resilience of the regional economy. Building a more inclusive economic base is essential to long-term sustainability.

Preparedness

Despite the challenges and risks outlined in the previous section, the Northern Shenandoah Valley region demonstrates a growing foundation of preparedness that supports economic resilience and adaptive capacity. Through regional coordination, institutional investment, and ongoing community engagement, the region is taking measurable steps to mitigate vulnerabilities and build long-term stability.

1. Strong Regional Planning and Coordination

The Northern Shenandoah Valley Regional Commission (NSVRC) plays a central role in convening local governments, aligning infrastructure planning, and facilitating regional initiatives. Through multi-jurisdictional collaboration on transportation planning, housing studies, broadband expansion, and watershed management, the region is well-positioned to coordinate responses to shared challenges.

2. Workforce Development Infrastructure

A robust network of educational and training institutions—including Laurel Ridge Community College, James Madison University, and regional career and technical education (CTE) centers—provides a strong base for reskilling, upskilling, and workforce pipeline development. Programs aligned with logistics, advanced manufacturing, and healthcare prepare the region for industry shifts and labor market needs.

3. Commitment to Infrastructure Investment

Localities across the region are actively pursuing investments in water, sewer, broadband, and transportation improvements. Projects supported by state and federal funds, such as Virginia Telecommunication Initiative (VATI) grants and EDA infrastructure funding, are expanding capacity and enhancing site readiness. The region's industrial parks and transportation corridors are being strategically positioned for growth and resilience.

4. Economic Diversification Efforts

The region is increasingly focused on diversifying its economic base by supporting entrepreneurship, expanding the technology and business services sectors, and promoting sustainable tourism and agriculture. NSVRC and partner organizations work with local economic development authorities to attract new industries and support small business ecosystems, which reduces dependence on any single sector.

5. Emergency Management and Hazard Mitigation Planning

Each jurisdiction in the NSVRC footprint maintains a local emergency operations plan (EOP), and the region participates in coordinated hazard mitigation planning. These frameworks support continuity of government, coordinated disaster response, and post-disruption recovery efforts. Ongoing collaboration with regional emergency services and the Virginia Department of Emergency Management (VDEM) enhances preparedness for climate-related and economic shocks.

6. Strong Community Institutions and Civic Engagement

The region benefits from a robust nonprofit and civic infrastructure, including regional food banks, housing coalitions, and community health providers. These organizations play a critical role in disaster recovery, social support, and community resilience. Local governments and institutions increasingly engage the public in planning efforts, supporting transparency and inclusion in decision-making.

7. Access to State and Federal Support

The region has a successful track record of securing competitive state and federal grants to support broadband expansion, industrial site development, small business recovery, and resilience planning. Active participation in programs such as GO Virginia, Appalachian Regional Commission (ARC), and FEMA hazard mitigation funding positions the region to implement forward-looking investments.

Appendix E: Action Plan

The Northern Shenandoah Valley Regional Commission's first Comprehensive Economic Development Strategy was Approved by the US EDA in 2019 and the Commission pursued Economic Development District Designation which was approved at the end of 2019. The Implementation Plan presented in that CEDS was interrupted by the COVID-19 pandemic. The largest impacts of the economic disruption were to the health and wellness of the region's residents and workers, financial hardship on small businesses, supply chain disruptions affecting the region's largest industries, education and training disruptions, childcare availability, and a transition to remote work. While the largest industries were considered essential business and employment in the sectors recovered quickly, the same cannot be said for Main Streets and small businesses.

For the two years following the pandemic, the Commission rearranged its priorities to address these resultant deficits. Focus moved from economic growth to preservation and then recovery. Action was delayed on some of the goals and objectives of the first CEDS, and for that reason some goals, objectives, and actions may be unchanged.

From examining the current and trending economic conditions of the area, and conducting an in-depth SWOT analysis, themes on how to increase the region's economic resiliency have emerged. These themes have been formulated into goals with specific objectives and supporting performance metrics. Goals

encompass workforce, business, and site development; natural hazard mitigation efforts; and the region's tourism potential. While there is diversity within the NSV Region, and some of these goals may apply more specifically to one locality over another, they all aim to achieve the following vision:

The Northern Shenandoah Valley is a place where residents are meaningfully employed, beautiful natural resources are readily accessible, and a supportive business environment creates opportunity for residents and newcomers alike.

The following goals, objectives, and actions are also incorporated into the Action Plan Matrix in Appendix E, which is the guiding document to move implementation of this CEDS plan. In addition to goals, objectives, and supporting performance measures, the Action Plan Matrix will also identify the lead stakeholder for each task, priority level, timeframe, cost estimate, and possible funding sources. Identifying these components across all objectives and tasks creates a foundation from which to spring forward into implementation.

Actions with a high priority level require action within 12 months, actions with a moderate priority level require action within 2 years, and actions with a low priority level require action in 3 or more years.

Goals

Goal Area 1 | Workforce Development and Talent Retention

Northern Shenandoah Valley Regional Commission - CEDS

Focus: Build a skilled workforce pipeline that aligns with employer needs, promotes career readiness, and retains talent within the region.

Why? A competitive workforce is central to economic growth. Enhancing training opportunities, closing skills gaps, increasing labor force participation, and retaining local talent – especially young people and graduates – are critical to supporting regional businesses and attracting new employers.

Goal 1 Objectives and Tasks

- 1.1 Ensure alignment of industry needs and available workforce training programs at the region's training centers.
 - 1.1.1 Maintain an industry-led advisory committee for each of the region's training facilities that advise on required skills and training.

- 1.1.2 Annually review the industry employment needs projected out 10 years through survey and data collection to detect any needs not currently being met by the service providers.
- 1.1.3 Increase enrollment capacity at training facilities including Laurel Ridge Community College Workforce Solutions and Career and Technical Education programs within public and private secondary school systems.
- 1.1.4 Identify novel ways to increase teacher/trainer availability at training centers throughout the region.
- 1.2 Increase graduate retention and awareness of workforce opportunities by promoting regional career pathways.
 - 1.2.1 Collaborate with workforce stakeholders to create a specific marketing campaign that presents all options post high school.
 - 1.2.2 Promote collaboration between schools and employers focusing on work-based learning programs.
 - 1.2.3 Increase the number of regional employers hosting internships to encourage talent retention following post-secondary graduation.
 - 1.2.4 Maintain the region's talent attraction website and increase marketing capacity.
- 1.3 Improve labor force participation rates, especially in underserved populations by reducing barriers to training and employment in the NSV Region (e.g. transportation, childcare, etc.).
 - 1.3.1 Expand available childcare options and expand provider and business training for new childcare startups.
 - 1.3.2 Ensure existing transit in each locality extends to Laurel Ridge Community College and other training facilities and consider additional fixed route transit from currently unserved locations.
 - 1.3.3 Ensure wraparound services are available and accessible in the NSV Region by promoting and pursuing funding for Valley Assistance Network and Shenandoah Valley Workforce Development Board.
 - 1.3.4 Address additional barriers to employment as they present.
 - 1.3.5 Reconsider the feasibility of a public/private training loan pool to offer a resource for individuals who want to upskill in the wake of lost training subsidies at the state level. Collaborate with the GO Virginia Regional Council to establish.
- 1.4 Develop a regional Workforce Scorecard with key performance indicators to review annually
 - 1.4.1 Identify key performance indicators to include in the workforce scorecard.
 - 1.4.2 Publish regional and local versions of the workforce scorecard.

Goal 2 | Infrastructure and Site Readiness

Focus: *Ensure the availability of modern and resilient physical infrastructure, develop shovel ready sites, and expand broadband and utility access to support community and economic development.*

Why?

Goal 2 Objectives and Tasks

- 2.1 Ensure there is a regional inventory of sites available to suit target industry clusters with <18 months to market.
 - 2.1.1 Ensure sites that are available for sale or lease are identified with full data on VEDP's site selection tool increasing visibility.
 - 2.1.2 Pursue state and/or federal funding to expand on current site characterization efforts to include completion of due diligence work at a minimum (Tier 3 Characterization) reducing time-to-market.
 - 2.1.3 Identify and resolve barriers to attracting target industries to high and medium priority sites.
- 2.2 Continue to resolve region-wide infrastructure needs and track ongoing projects with localities.
 - 2.2.1 Develop a regional capital improvement plan and pursue state and/or federal funding to resolve issues of aging infrastructure including wet and dry utilities, roads and bridges, and dams.
 - 2.2.2 Hold quarterly calls with regional economic development and planning departments.
 - 2.2.3 Track the progress of, and continue to contribute to, the I-81 improvement effort.
 - 2.2.4 Establish councils of related utility providers to advise and support local planners and EDOs.

- 2.2.5 Evaluate the necessity and feasibility of a regional water authority.
- 2.3 Pursue additional state and/or federal funding to expand broadband coverage and increase speed of broadband.
 - 2.3.1 Monitor progress of ongoing VATI project deployment and plan for additional investments to complete broadband coverage in the NSV Region.
 - 2.3.2 Assess internet connection availability in industrial zones, focus on those where the implementation of Industry 4.0 and the Industrial Internet of Things is required.
- 2.4 Ensure power availability for sites that best align with high power demand users such as data centers and advanced manufacturing.
 - 2.4.1 Ensure collaboration between utilities, local governments, and private sector to fund and fast track energy infrastructure projects.
 - 2.4.2 Create a power availability plan for sites that best align with high power demand users such as data centers and advanced manufacturing.
 - 2.4.3 Design fast-track permitting and regulatory approval systems for new energy projects.
 - 2.4.4 Implement energy efficiency measures and demand response programs to optimize power use and reduce unnecessary.

Goal 3 | Business Retention, Expansion, and Innovation

Focus: Create an environment where existing industry clusters can thrive while supporting emerging clusters and new business startups increasing profitability and community vitality. Continue to target those industries supported by the region's unique assets.

Why? Small businesses and legacy employers form the backbone of the regional economy. Supporting their growth and resilience, while encouraging innovation and startups, ensures economic dynamism and job creation.

Goal 3 Objectives and Tasks

- 3.1 Work with localities in the Northern Shenandoah Valley to strengthen the Agribusiness industry, support farmers, and cultivate programs to expand the industry's output and geographic reach.
 - 3.1.1 Establish a "Northern Shenandoah Valley Regional Agricultural Development Council" to guide the business support efforts as well as retention and expansion activities directly related to agribusiness.
 - 3.1.2 Establish a regional agribusiness brokerage, as a physical and virtual presence.
 - 3.1.3 Identify a strategy to increase regional food processing capacity for crops and livestock.
 - 3.1.4 Support agricultural R&D efforts.
- 3.2 Leverage local incentives and zone designations to increase development in key areas.
 - 3.2.1 Provide technical assistance in the active marketing and utilization of Enterprise and Hub Zones.
 - 3.2.2 Determine opportunities to designate new/additional zones.
 - 3.2.3 Identify novel local incentives for business location and expansion.
- 3.3 Lean in to emerging technologies and prepare for high-tech sectors.
 - 3.3.1 Support the Winchester Regional Airport in the development and deployment of AAM programs.
 - 3.3.2 Evaluate land use and zoning regulations to ensure they are supportive of future industries.
 - 3.3.3 Implement site and infrastructure objectives and tasks listed in Goal 2 keeping in mind these future high-tech industry sectors.
- 3.4 Partner with government, entrepreneur support organizations, public schools, universities and colleges, and businesses to become an entrepreneurial region of innovative ideas and technologies capable of fulfilling future market demands.
 - 3.4.1 Increase access to capital for start-ups and scaling businesses by establishing a CDFI in the region.
 - 3.4.2 Support the development of incubators, accelerators, makers spaces and coworking spaces that support entrepreneurship programming in the region.
 - 3.4.3 Support the creation of support networks for new startups, including mentorships that connect entrepreneurs with established business owners.
 - 3.4.4 Involve local businesses and community leaders in mentoring area university students in business and entrepreneurship.

Goal 4 | Placemaking and Community Vitality

Focus: Promote development of diverse, affordable housing and create vibrant inclusive places through investment in public spaces, community amenities, and cultural assets. Support local and regional efforts that enhance and highlight the region's amenities and quality of life to boost the tourism industry, preserve natural resources, and draw new residents and workforce.

Why? Accessible housing and appealing communities are critical for attracting and retaining residents and workforce. Investments in livability and placemaking foster local pride, support tourism and entrepreneurship, and make the region more resilient and attractive to future growth.

Goal 4 Objectives and Tasks

- 4.1 Increase connectivity and accessibility throughout the region for residents and visitors.
 - 4.1.1 Connect local fixed route transit for seamless transition across municipal boundaries.
 - 4.1.2 Ensure on-demand and fixed route transit serves the medical, employment, and education centers throughout the region.
 - 4.1.3 Increase the availability of ride matching services, including car and van-pools, and employer subsidy of associated costs.
 - 4.1.4 Identify roadway segments appropriate for retrofit with bike lanes; work with VDOT to implement.
 - 4.1.5 Determine the best use case for the unused portion of the Norfolk Southern rail and pursue grant funding to implement that best use.
- 4.2 Ensure Downtowns are vibrant, thriving areas to live, work, and play.
 - 4.2.1 Pursue Virginia Main Street designations for towns and maintain community development committees.
 - 4.2.2 Leverage federal and state funding to reduce blight, maintain historic assets, and increase recreational space in downtown areas.
 - 4.2.3 Increase access to quality childcare by encouraging new childcare facility startups through increased technical and business training.
- 4.3 Ensure quality housing is available and accessible throughout the region.
 - 4.3.1 Conduct local housing needs assessments.
 - 4.3.2 Identify parcels for mixed income housing projects in each locality and leverage Public Private Partnerships to deliver units in a timely manner.
 - 4.3.3 Update zoning and land use regulations to allow for diverse housing types such as accessory dwelling units (ADUs), duplexes, and townhomes in the regions transit corridors and employment centers.
 - 4.3.4 Integrate housing with other community assets and repurpose underutilized commercial properties to residential use.
- 4.4 Support the Shenandoah Valley Tourism Partnership as they work to strengthen activities that brand and promote the region.
 - 4.4.1 Continue to staff the Shenandoah Valley Tourism Partnership and provide technical assistance in strategic planning, procurement, and marketing.
 - 4.4.2 Establish taskforce subcommittee responsible for revitalizing the outdoor asset map for the whole valley (NSVRC & CSPDC).

Goal 5 | Resilience and Regional Capacity Building

Focus: Strengthen the region's collaborative infrastructure, institutional partnerships, and economic resilience.

Why? Advancing cross-jurisdictional coordination, equity, and disaster preparedness with grant writing support, shared tools and resources, inclusive planning practices, and resilience investments creates opportunity and increases opportunity for the region.

Goal 5 Objectives and Tasks

- 5.1 Strengthen cross-jurisdictional coordination and planning.

- 5.1.1 Convene a regional economic development working group of EDOs, planners, and utility providers to coordinate infrastructure, workforce, and site readiness strategies.
 - 5.1.2 Develop a regional capital improvement plan with projects, investments, and timelines focusing on those projects that mitigate hazards and increase economic resilience.
 - 5.1.3 Increase awareness of regional plans and encourage reference and incorporation of local plans in all NSVRC planning efforts.
- 5.2 Expand technical assistance and institutional capacity.
 - 5.2.1 Develop and maintain an expanded interactive map that supports planning and economic development.
 - 5.2.2 Increase data access for localities by building out the NSVRegion.org web page for economic development.
 - 5.2.3 Formalize interlocal agreements for shared staffing, data analysis tools, and grant administration.
 - 5.2.4 Determine necessity and feasibility of a template library for planning efforts.
- 5.3 Rectify the pollution of the Shenandoah River and Chesapeake Bay Watershed
 - 5.3.1 Support and help coordinate implementation of the Chesapeake Bay Phase III Watershed Implementation Plan's recommendations affecting the Chesapeake Bay plant life.
 - 5.3.2 Support agricultural roundtable discussion about challenges farmers face in managing byproducts and other environmental hazards.
 - 5.3.3 Incorporate agricultural environmental challenges into the hazard mitigation plan for future consideration.
- 5.4 Implement the All Hazards Mitigation Plan
 - 5.4.1 Review the impacts of hazards on economic development as part of the annual HMP review.
 - 5.4.2 Pursue state and federal funding to mitigate hazards affecting economic development.

Action Plan Matrix

Northern Shenandoah Valley Regional Commission CEDS Action Plan Matrix					
Vision Statement:					
<i>The Northern Shenandoah Valley is a place where residents are meaningfully employed, beautiful natural resources are readily accessible, and a supportive business environment creates opportunity for residents and newcomers alike.</i>					
GOAL AREA 1: WORKFORCE DEVELOPMENT AND TALENT RETENTION					
Focus: Build a skilled workforce pipeline that aligns with employer needs, promotes career readiness, and retains talent within the region.					
OBJECTIVE 1.1 : Ensure alignment of industry needs and available workforce and training programs at the regions training centers.					
Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Other Resources	Performance Measures
1.1.1 Maintain an industry-led advisory committee for each of the region's training facilities that advise on required skills and training.	Laurel Ridge Community College, Shenandoah University, Public School Divisions	High	Personnel	Each training facility should manage their own industry-led advisory committee.	Number of advisory committee meetings, annual assessment of curriculum
1.1.2 Annually review the industry employment needs projected out 10 years through survey and data collection to detect any needs not currently being met by service providers.	NSVRC	High	Personnel	Industry-led advisory committees, JobsEQ	Creation of survey, Number of responses, JobsEQ industry snapshot report generated, create a metric report out
1.1.3 Increase enrollment capacity at training facilities including Laurel Ridge Community College Workforce Solutions and Career and Technical Education programs within public and private secondary school systems.	Public school divisions, Laurel Ridge Community College	High	EDA, GO Virginia, SCRC	VDOE, Local Capital Improvement plans	Current number of available programs and capacity, post investment enrollment capacity, number of credentials awarded annually
1.1.4 Identify and implement novel solutions to increase teacher/trainer availability at training centers throughout the region.	CEDS Committee, Laurel Ridge Community College, Shenandoah University, CTE training centers	High	Personnel, EDA, GO Virginia	VDOE, Local Capital Improvement plans	Teacher trainer need met (y/n), number of CTE teacher/training positions unfilled
OBJECTIVE 1.2 Increase graduate retention and awareness of workforce opportunities by promoting regional career pathways.					
Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
1.2.1 Collaborate with workforce stakeholders to create a specific marketing campaign that presents all options post high school.	NSV Region EDOs	Moderate	Personnel	Existing assets	Career Pathway marketing assets developed for top employment industries
1.2.2 Promote collaboration between schools and employers focusing on work-based learning programs.	CTE Advisory Committees	Moderate	Personnel	Existing private sector collaborations	Number of new private sector relationships established

1.2.3 Increase the number of regional employers hosting internships to encourage talent retention following post-secondary education.	Valley Internship Experience Workgroup, SCHEV, VTOP	Moderate	Personnel	VTOP and SCHEV	Number of available internships in the NSV Region, number of students participating in internships, number of businesses hosting internships
1.2.4 Maintain the region's talent attraction website and increase marketing capacity.	NSV Region EDOs	High	Personnel, VTC	https://www.liveloveshenandoah.com/	Clicks, requests for information

OBJECTIVE 1.3 Improve labor force participation rates, especially in underserved populations by reducing barriers to training and employment in the NSV Region (e.g. transportation, childcare, etc.).

Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
1.3.1 Expand available childcare options and expand provider and business training for new childcare startups.	NSVRC, SBDC, Laurel Ridge Community College	High	SBDC, SCRC, Personnel		Number of childcare providers, number of waitlisted families
1.3.2 Ensure existing transit in each locality extends to Laurel Ridge Community College and other training facilities and consider additional fixed route transit from currently unserved locations.	NSVRC, local governments	High	DRPT	Commuter Assistance Program Strategic Plan, MPO	Number of transit extensions to Laurel Ridge Community College, ridership increase
1.3.3 Ensure wraparound services are available and accessible in the NSV Region by promoting and pursuing funding for Valley Assistance Network and Shenandoah Valley Workforce Development Board.	Shenandoah Valley Workforce Development Board, Valley Assistance Network	High	WIOA	NSVRC will support SVWDB and VAN initiatives	Number of clients served, available funding for services, number of job seekers employed
1.3.4 Address additional barriers to employment as they present.	Shenandoah Valley Workforce Development Board	Low	TBD	TBD	TBD
1.3.5 Reconsider the feasibility of a public/private training loan pool to offer a resource for individuals who want to upskill in the wake of lost training subsidies at the state level. Collaborate with the GO Virginia Regional Council to establish.	SVWDB	Moderate	Local governments, EDAs, private sector, GO Virginia, SCRC	GO Virginia growth and diversification plan	Number of businesses contributing to training loan pool, number of job seekers employed

OBJECTIVE 1.4 Develop a regional workforce scorecard with key performance indicators to be reviewed and published annually

Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
1.4.1 Identify Key Performance Indicators to include in the workforce scorecard.	CEDS Committee, Laurel Ridge Community College, Shenandoah University, CTE Coordinators, SVWDB	Moderate	Personnel	Agency scorecards	KPIs identified
1.4.2 Publish regional and local versions of the workforce scorecard.	NSVRC	Moderate	Personnel	Agency scorecards	Scorecards developed and published

GOAL AREA 2: SITE READINESS AND INFRASTRUCTURE DEVELOPMENT

Focus: Ensure the availability of modern and resilient physical infrastructure, develop shovel ready sites, and expand broadband and utility access to support community and economic development.

OBJECTIVE 2.1 2.1 Ensure there is a regional inventory of sites available to suit target industry clusters with <18 months to market.

Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
2.1.1 Ensure sites that are available for sale or lease are identified with full data on VEDP's site selection tool increasing visibility.	Local EDOs	High	Personnel	VEDP site selection website	Number of sites added to VEDP site selection website

2.1.2 Pursue state and/or federal funding to expand on current site characterization efforts to include completion of due diligence work at a minimum (Tier 3 Characterization) reducing time-to-market..	NSVRC, Local DMOs, Regional DMOs	High	GO Virginia, VEDP, EDA, DEQ	Site prioritization list	Total funding, number of sites characterized
2.1.3 Identify and resolve barriers to attracting target industries to high and medium priority sites.	Local EDOs, NSVRC	Moderate	EDA, VEDP, Public-private investments	Site prioritization list	Number of projects identified, number of projects completed, number of business locations to high and medium priority sites, jobs created

OBJECTIVE 2.2 Continue to resolve region-wide infrastructure needs and track ongoing projects with localities.

Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
2.2.1 Develop a regional capital improvement plan and pursue state and/or federal funding to resolve issues of aging infrastructure including wet and dry utilities, roads and bridges, and dams.	NSVRC, MPO, VDOT, Winchester Wheel Men, Shenandoah Bike Coalition	High	Personnel	Local capital improvement plans	Creation of regional capital improvement plan, number of funding requests, total funding received, number of projects completed.
2.2.2 Hold quarterly calls with regional economic development and planning departments.	NSVRC, Local EDOs and Planning Departments	High	Personnel	Microsoft teams, local agendas	Number of quarterly calls completed
2.2.3 Track the progress of, and continue to contribute to, the I-81 improvement effort.	VDOT	Moderate	VDOT	VDOT I-81 Improvement Plan	Number of miles improved
2.2.4 Establish councils of related utility providers to advise and support local planners and EDOs.	NSVRC, Local utilities, SVEC, REC, Dominion Energy, Frederick Water	Moderate	Personnel	TBD	Number of meetings
2.2.5 Evaluate the necessity and feasibility of a regional water authority.	NSVRC, Frederick Water, Local Water Utilities	Low	DEQ, Personnel, NSVRC	TBD	Local water authority established (y/n)

OBJECTIVE 2.3 Pursue additional state and/or federal funding to expand broadband coverage and increase speed of broadband.

Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
2.3.1 Monitor progress of ongoing VATI project deployment and plan for additional investments to complete residential broadband coverage in the NSV Region.	NSVRC	High	VATI, BEAD	VATI Dashboard	Existing project completion (y/n), number of clients served, total funding awarded
2.3.2 Assess internet connection availability in industrial zones, focus on those where the implementation of Industry 4.0 and the Industrial Internet of Things is required.	NSVRC	Moderate	VATI, BEAD, GO Virginia, SCRC	Industry 4.0	Assessment complete (y/n)

OBJECTIVE 2.4 Ensure power availability for sites that best align with high power demand users such as data centers and advanced manufacturing.

Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
2.4.1 Ensure collaboration between utilities, local governments, and private sector to fund and fast track energy infrastructure projects.	NSVRC, Local EDOs and Planning Departments, Utility providers	High	Department of Energy, EDA	Clean energy infrastructure program, Infrastructure Investment and Jobs Act	Number of projects completed, average time to project approval
2.4.2 Create a power availability plan for sites that best align with high power demand users such as data centers and advanced manufacturing.	NSVRC, Local EDOs and Planning Departments, Utility providers	Moderate	EDA, Department of Energy	National Renewable Energy Laboratory, DOE grid modernization frameworks	Power availability plan completed (y/n)
2.4.3 Design fast-track permitting and regulatory approval systems for new energy projects.	Local Planners	Low	Personnel	Existing comprehensive plans and zoning and land use regulations	Fast-track approval systems in place (y/n)

2.4.4 Implement energy efficiency measures and demand response programs to optimize power use and reduce unnecessary strain on the grid.	SVEC, REC, Dominion Energy	High	Staff time	Department of Energy clean energy resources	Load factor improvement, dollars saved by customers, reduction in energy intensity, number of grid stress event avoided
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GOAL AREA 3: BUSINESS RETENTION, EXPANSION, AND INNOVATION

Focus: Create an environment where existing industry clusters can thrive while supporting emerging clusters and new business startups increasing profitability and community vitality. Continue to target those industries supported by the region's unique assets.

OBJECTIVE 3.1 Work with localities in the Northern Shenandoah Valley to strengthen the Agribusiness industry, support farmers, and cultivate programs to expand the industry's output and geographic reach.

Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
3.1.1 Establish a "Northern Shenandoah Valley Regional Agricultural Development Council" to guide the business support efforts as well as retention and expansion activities directly related to agribusiness.	NSVRC	High	Personnel	VCE	NSV Region Ag Development Council established (y/n), number of meetings, priorities identified (y/n)
3.1.2 Establish a regional agribusiness brokerage, as a physical and virtual presence.	NSVRC, Agricultural Development Council	Low	VDACS	VCE	Physical presence established, virtual presence established
3.1.3 Identify and implement strategies to increase regional food processing capacity for livestock and crops.	NSVRC, Agricultural Development Council	High	VDACS, GO Virginia, EDA	VCE	Regional livestock output (\$), number of businesses supported, number of jobs created
3.1.4 Support agricultural R&D efforts.	NSVADC, Local EDAs, Virginia Cooperative Extension, Tourism partners, NSVRC	Moderate	VDACS, USDA, GO Virginia, EDA	JMU R2 research facility, VCE	Number of NSV region establishments participating in ag R&D, total dollars invested in ag R&D

OBJECTIVE 3.2 Leverage local incentives and zone designations to increase development in key areas..

Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
3.2.1 Provide technical assistance in the active marketing and utilization of Enterprise and Hub Zones	NSVRC, Local EDOs	High	Personnel	Existing materials, SBA, DHCD	Number of locations to Hub or Enterprise Zones, number of jobs created
3.2.2 Determine opportunities to designate new/additional zones.	NSVRC, EDOs	Low	Personnel	SBA, DHCD	Number of zones established or maintained
3.2.3 Identify novel local incentives for business location and expansion.	Local EDOs, NSVRC, SBDC	Moderate	Staff time	Incentives, HUD,	Number of incentives established, total incentive \$ distributed, number of locations

OBJECTIVE 3.3 Lean in to emerging technology sectors and prepare for high-tech sectors.

Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
3.3.1 Support the Winchester Regional Airport (OKV) in the development and deployment of Advanced Air Mobility projects and programs.	Winchester Regional Airport, NSVRC	Moderate	EDA,	Winchester Regional Airport AAM Plan	Jobs created, studies completed, training programs developed
3.3.2 Evaluate land use and zoning regulations to ensure they are supportive of future industries.	Local Governments, Local EDOs	Low	Personnel	Comprehensive plans, emerging industry research	Land use regulations allow for emerging industrial uses (y/n)

3.3.3 Implement site and infrastructure objectives and tasks listed in Goal 2 keeping in mind these future high tech sectors.	GO Virginia Support Organizations, Economic Development Ad Hoc Committee	Moderate	EDA, DEQ	GO Virginia Growth and Diversification plan	Number of projects NSVRC supports on GO Virginia Council, REDAC Established
OBJECTIVE 3.4 Partner with government, entrepreneur support organizations, public schools, universities and colleges, and businesses to become an entrepreneurial region of innovative ideas and technologies capable of fulfilling future market demands.					
Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
3.4.1 Increase access to capital for start-ups and scaling businesses by establishing a CDFI in the region.	SCCF	Moderate	Department of Treasury	Ongoing CDFI certification efforts	CDFI established (y/n), total loan capacity from CDFI, number of loans made
3.4.2 Support the development of incubators, accelerators, makers spaces and coworking spaces that support entrepreneurship programming in the region.	SCCF, SBDC	Low	EDA, SCRC	TEconomy Regional Entrepreneurial Assessment Report, GO Virginia Growth and Diversification Plan, Winchester EDA Strategic Plan	Establishment of physical space for incubator, establishment of incubator programming; # of companies assisted, # of new employees, # of new companies,
3.4.3 Support the creation of support networks for new startups, including mentorships that connect entrepreneurs with established business owners.		Moderate	Localities, Shenandoah University, Economic Development Administration		Number of new establishments, number of establishments surviving more than 6 years
3.4.4 Involve local businesses and community leaders in mentoring area university students in business and entrepreneurship.	Shenandoah University, Local EDAs	High	Personnel	Startup Shenandoah Valley	Number of new establishments, number of establishments surviving more than 6 years

GOAL AREA 4: PLACEMAKING AND COMMUNITY VITALITY

Focus: Promote development of diverse, affordable housing and create vibrant inclusive places through investment in public spaces, community amenities, and cultural assets. Support local and regional efforts that enhance and highlight the region's amenities and quality of life to boost the tourism industry, preserve natural resources, and draw new residents and workforce.

OBJECTIVE 4.1 Increase connectivity and accessibility throughout the region for residents and visitors.

Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
4.1.1 Connect local fixed route transit for seamless transition across municipal boundaries.	RideSmart, NSVRC	Moderate	DRPT	Commuter Assistance Strategic Plan, MPO	Number of connections made
4.1.2 Ensure on-demand and fixed route transit serve the medical, employment, and education centers throughout the region.	RideSmart, NSVRC	High	DRPT, Personnel	Commuter Assistance Strategic Plan	Metrics on marketing efforts of sites within each locality; Number of businesses attracted to currently vacant sites
4.1.3 Increase the availability of ride matching services including car and van-pools and employer subsidy of associated costs.	Local EDOs, VEDP	High	Staff time	Commuter Assistance Strategic Plan	Number of employees served
4.1.4 Identify roadway segments appropriate for retrofit with bike lanes; work with VDOT to implement.	NSVRC	Low	VDOT	Bike-Ped Plan	Number of miles of bike lanes established
4.1.5 Determine the best use case for the unused portion of the Norfolk Southern rail and pursue grant funding to implement that best use.	NSVRC, Friends of the Rail Trail, DOT	Low	VDOT	Existing feasibility studies	Miles secured for rail or rail trail, total funding secured for improvements

OBJECTIVE 4.2 Ensure Downtowns are vibrant, thriving areas to live, work, and play.

Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
4.2.1 Pursue Virginia Main Street designations for towns and maintain community development committees.	Local Governments	Moderate	DHCD	Main Street America	Number of Main Street designations

4.2.2 Leverage federal and state funding to reduce blight, maintain historic assets, and increase recreational space in downtown areas.	NSVRC, Local governments	Moderate	DHCD	Comprehensive plans	Number of proposed projects, number of completed projects
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OBJECTIVE 4.3 Ensure quality housing is available and accessible throughout the region.

Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
4.3.1 Conduct local housing needs assessments.	NSVRC, Local governments	High	HUD, DHCD, Virginia Housing	Consolidated Plan, Virginia Housing	Housing needs assessments completed (y/n)
4.3.2 Identify parcels for mixed income housing projects in each locality and leverage Public Private Partnerships to deliver units in a timely manner.	Local planning departments	Moderate	Virginia Housing	Comprehensive plans	Number of proposed projects identified, number of completed projects, Number of units developed
4.3.3 Update zoning and land use regulations to allow for diverse housing types such as accessory dwelling units (ADUs), duplexes, and townhomes in the regions transit corridors and employment centers.	Local planning departments	Moderate	Local Comprehensive Plans	Comprehensive plans	Number of housing types identified and allowed

OBJECTIVE 4.4 Support the Shenandoah Valley Tourism Partnership as they work to strengthen activities that brand and promote the region.

Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
4.4.1 Continue to staff the Shenandoah Valley Tourism Partnership and provide technical assistance in strategic planning, procurement, and marketing.	SVTP, NSVRC	High	Personnel	VTC	Number of meetings attended, number of contracts managed
4.3.2 Establish taskforce subcommittee responsible for revitalizing the outdoor asset map for the whole valley (NSVRC & CSPDC).	SVTP, NSVRC	Moderate	Personnel	Existing GIS resources and local contributions	Completion of asset map (y/n)

GOAL AREA 5: RESILIENCE AND REGIONAL CAPACITY BUILDING

Focus: Strengthen the region's collaborative infrastructure, institutional partnerships, and economic resilience.

OBJECTIVE 5.1 Strengthen cross-jurisdictional coordination and planning.

Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
5.1.1 Convene a regional economic development working group of EDOs, planners, and utility providers to coordinate infrastructure, workforce, and site readiness strategies.	NSVRC	High	Personnel	Existing quarterly calls, NADO	Inventory of locations for training, dates established for each training location
5.1.2 Develop a regional capital improvement plan with projects, investments, and timelines focusing on those projects that mitigate hazards and increase economic resilience.	NSVRC	Moderate	Personnel	Local CIPs, NADO	Number of projects identified, number of projects completed, total funding requested, total funding awarded
5.1.3 Increase awareness of regional plans and encourage reference and incorporation of local plans in all NSVRC planning efforts.	NSVRC	Low	Personnel	www.NSVRegion.org	Number of local governments who have received public presentations on how to implement mitigation policies

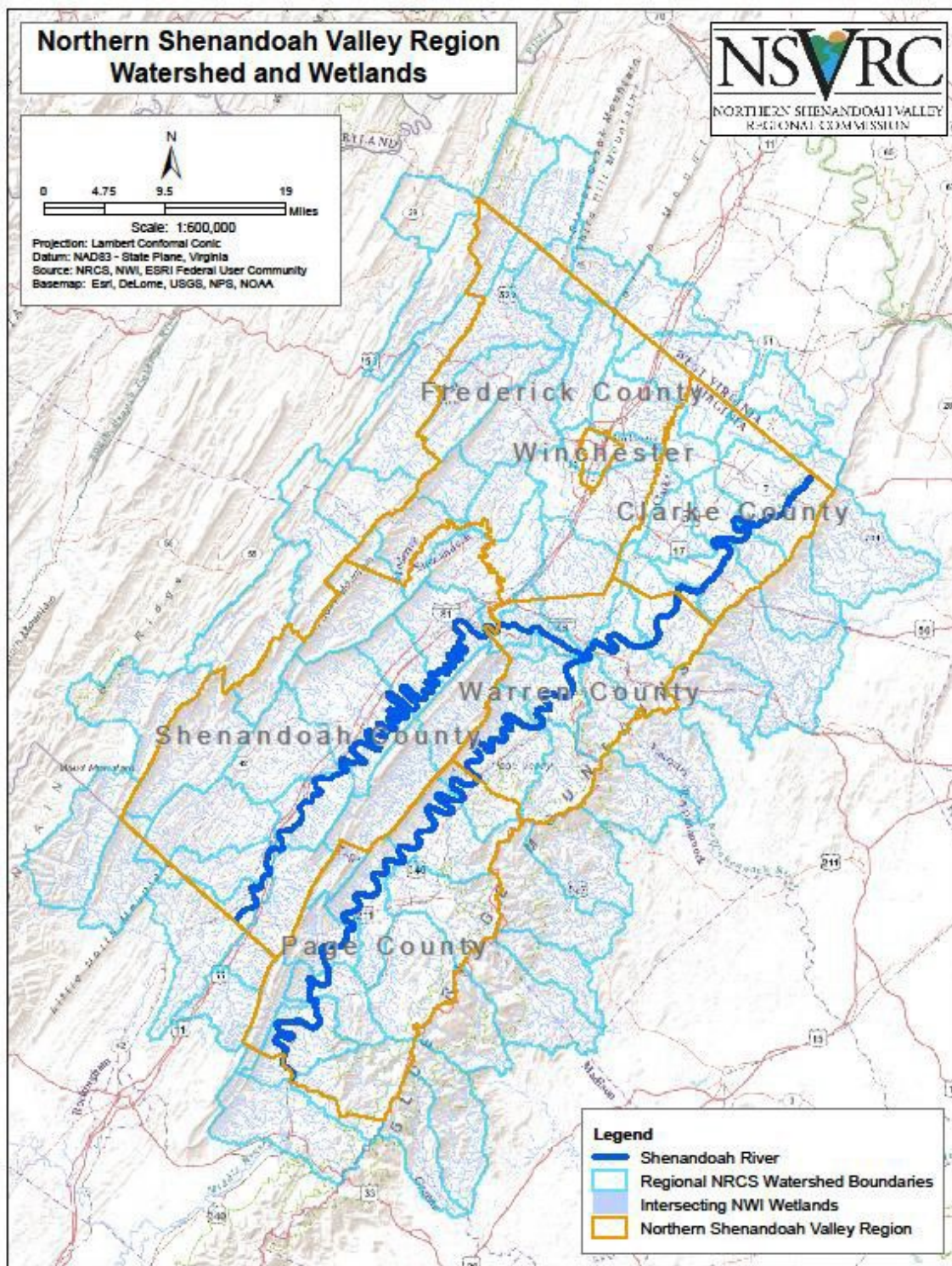
OBJECTIVE 5.2 Expand technical assistance and institutional capacity.

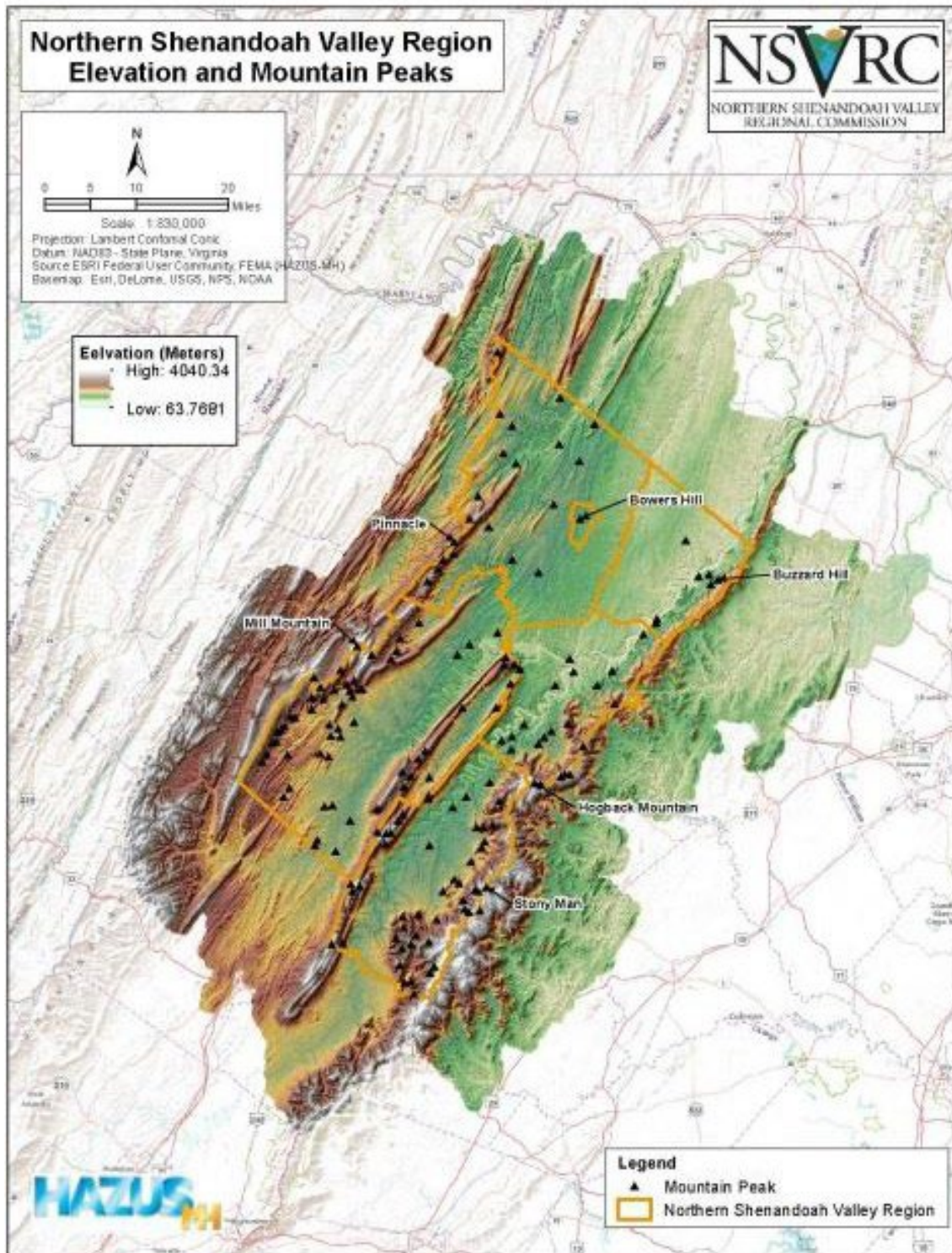
Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
5.2.1 Develop and maintain an expanded interactive map that supports planning and economic development.	NSVRC, Local GIS	Moderate	Personnel, EDA	Existing GIS resources and local contributions	Number of layers included in GIS tool, number of metrics presented in GIS form

5.2.2 Increase data access for localities by building out the NSVRegion.org web page for economic development.	NSVRC	High	Personnel	HMP	Data up to date and reported out as necessary
5.2.3 Formalize interlocal agreements for shared staffing, data analysis tools, and grant administration.	NSVRC	Moderate	Personnel	Existing interlocal agreements	Number of agreements needed, number of agreements in place
5.2.4 Determine necessity and feasibility of a template library for planning efforts.	NSVRC	High	Staff time	Existing plans	Number of templates developed
OBJECTIVE 5.3 Rectify the pollution of the Shenandoah River and Chesapeake Bay Watershed from Agricultural byproducts and runoff.					
Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
5.3.1 Support and help coordinate implementation of the Chesapeake Bay Phase III Watershed Implementation Plan's recommendations affecting the Chesapeake Bay plant life.	NSVRC, Lord Fairfax Soil and Water Conservation District, DEQ	High	DEQ	WIIP	Number of recommendations progressed from idea to implementation for maintaining water quality
5.3.2 Support agricultural roundtable discussion about challenges farmers face in managing byproducts and other environmental hazards.	Virginia Cooperative Extension, NSVRC	Moderate	Personnel	VCE and Chesapeake Bay Watershed educational resources	Number of farmers at agricultural roundtable; number of projects established out of agricultural roundtable
5.3.3 Incorporate agricultural environmental challenges into the hazard mitigation plan for future consideration.	NSVRC	High	Personnel	Existing HMP	Agricultural environmental challenges addressed in HMP
OBJECTIVE 5.4 Implement the All Hazards Mitigation Plan					
Task	Lead Stakeholder / Partners	Priority Level	Funding Sources	Resources	Performance Measures
5.4.1 Review the impacts of hazards on economic development as part of the annual HMP review.	NSVRC, HMP Committee	Moderate	Personnel	Annual HMP review	Annual report includes economic development impacts
5.4.2 Pursue state and federal funding to mitigate hazards affecting economic development.	NSVRC, Local Emergency Managers	Moderate	FEMA, VDEM, Local investment	FEMA and VDEM technical resources	Number of grants, number of projects completed, total funding

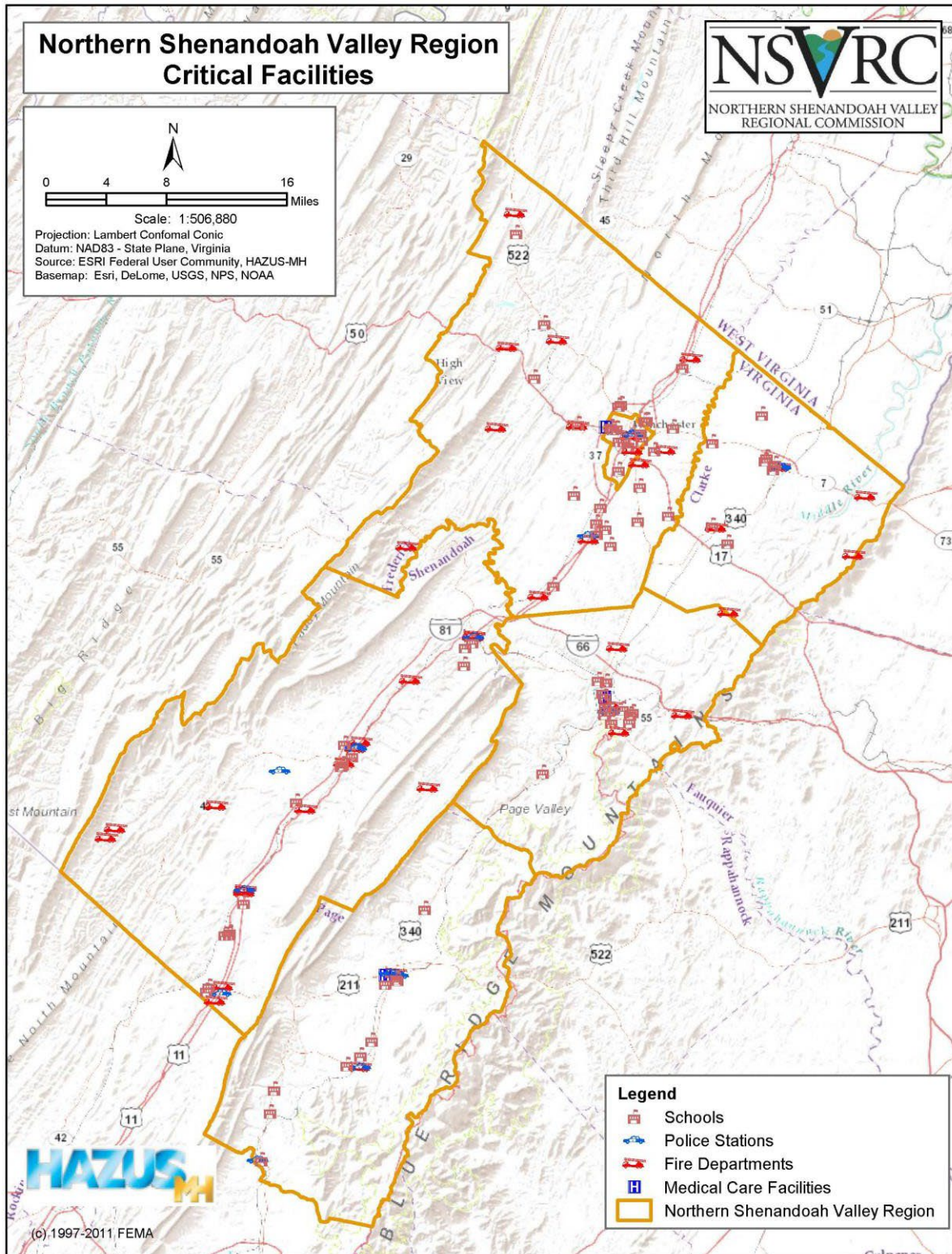
Appendix F: Maps

Landscape:

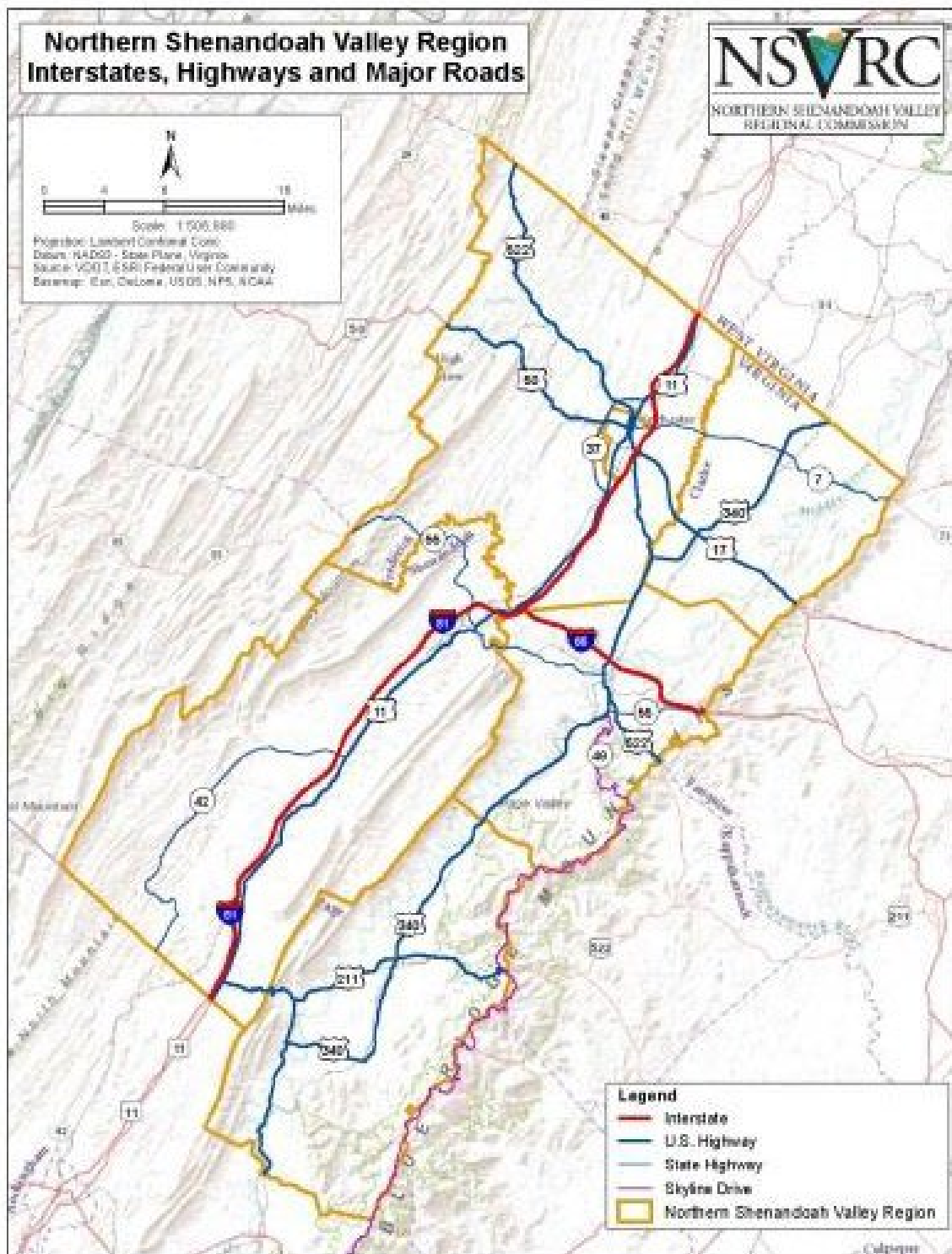


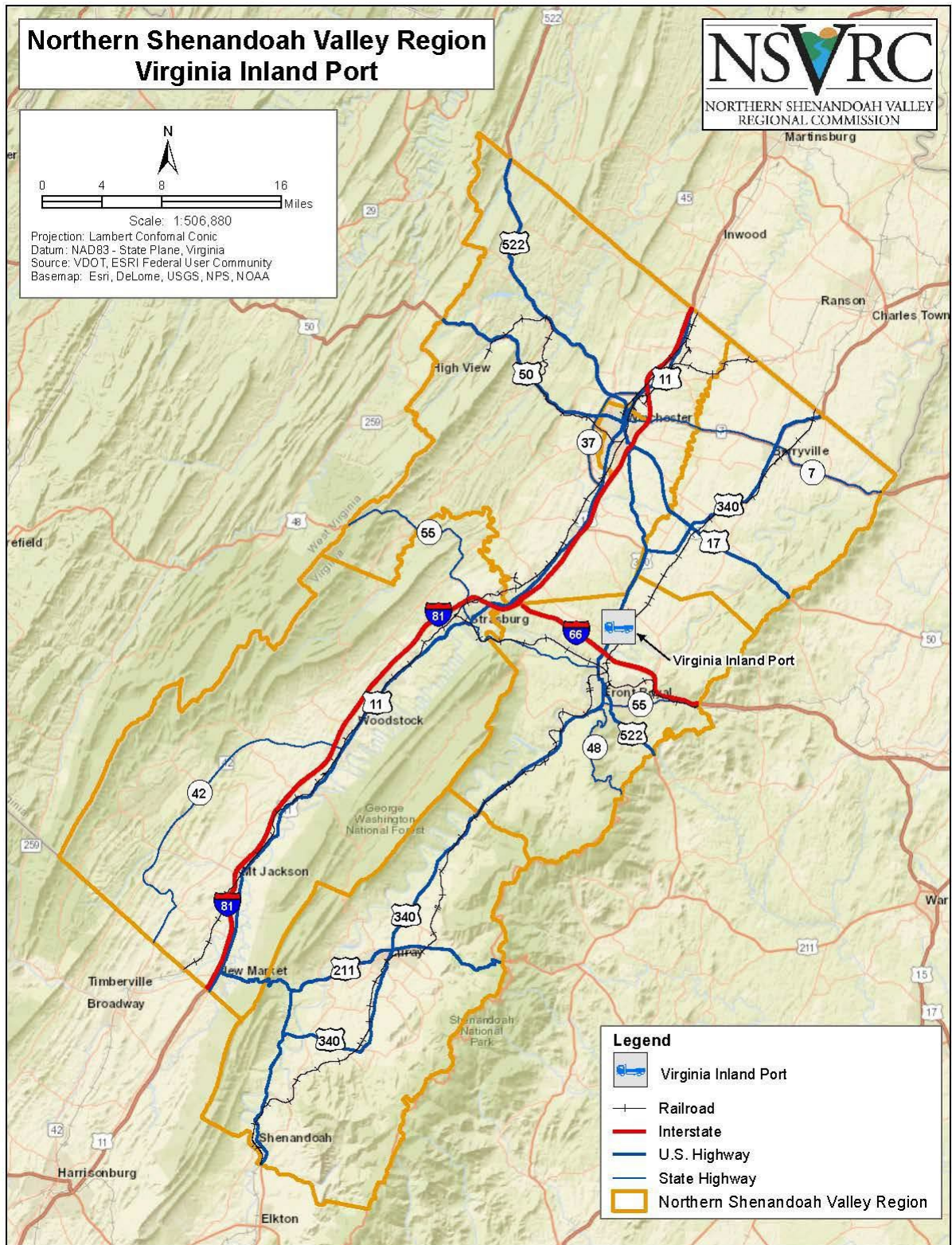


Critical Facilities Map:



Transportation:





Appendix G: Data Sources

Proprietary Data Sources

JobsEQ

To analyze the industrial makeup of a study area, industry data organized by the North American Industrial Classification System (NAICS) is assessed. The Northern Shenandoah Valley Regional Commission subscribes to Chmura's JobsEQ, a proprietary data provider that aggregates economic data from approximately 90 sources.

Public Data Sources

Argonne National Laboratory National Economic Resilience Data Explorer and Economic Development Capacity Index

American Community Survey (ACS), U.S. Census

The American Community Survey (ACS) is an ongoing statistical survey by the U.S. 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. The survey is mandatory to fill out, but the survey is only sent to a small sample of the population on a rotating basis. The survey is crucial to major planning decisions, like vital services and infrastructure investments, made by municipalities and cities. 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. For more information on the ACS, visit <http://www.census.gov/programs-surveys/acs/>

OnTheMap, U.S. Census

OnTheMap is a tool developed through the U.S. 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. There are also visual mapping capabilities for data on age, earnings, industry distributions, race, ethnicity, educational attainment, and sex. The OnTheMap tool can be found here, along with links to documentation: <http://onthemap.ces.census.gov/>.

StatsAmerica

StatsAmerica provides numerous public tools. Distress level data includes Per Capita Income and Unemployment relative to the US. This was collected for all counties and the City of Winchester at the county level.

The Innovation Intelligence and Innovation Capacity Profile tool did not provide definitive data for any locality in the Northern Shenandoah Valley. The Innovation Intelligence Index was N/A or "undetermined" at the time data was collected.

Appendix H: Partner and Funding Key

ALICE	Asset Limited, Income Constrained, Employed
AFID	Agriculture and Forestry Industries Development
BRCC	Blue Ridge Community College
CIP	Capital Improvement Program
CSPDC	Central Shenandoah Planning District Commission
CTE	Career and Technical Education
CSX	Class I Railroad System
DARS	Department for Aging and Rehabilitative Services
DBVI	Department for the Blind and Vision Impaired
DEQ	Department of Environmental Quality
DMO	Destination Marketing Organizations
DHCD	Department of Housing and Community Development
DRPT	Department of Rail and Public Transportation
EDA	Economic Development Administration (or Economic Development Association)
EDO	Economic Development Organization
FEMA	Federal Emergency Management
Agency HMP	Hazard Mitigation Plan
HUD	Department of Housing and Urban Development
LFCC	Lord Fairfax Community College
MPO	Metropolitan Planning Organizations
NSVRC	Northern Shenandoah Valley Regional Commission
NSV	Northern Shenandoah Valley
NSVADC	Northern Shenandoah Valley Agribusiness Development Council
PATC	Potomac Appalachian Trail Club
REDAC	Regional Economic Development Advisory Council
SBDC	Small Business Development Council
SHRM	Society for Human Resource
Management SET	Stronger Economies Together
SVP	Shenandoah Valley Partnership
SVTA	Shenandoah Valley Travel Association
SVTP	Shenandoah Valley Tourism Partnership
SVWDB	Shenandoah Valley Workforce Development Board
USDA-RD	United States Department of Agriculture Rural Development
VAN	Valley Assistance Network
VBRS	Virginia Blue Ridge Section
	Northern Shenandoah Valley Regional Commission - CEDS

VDEM	Virginia Department of Emergency Management
VDACS	Virginia Department of Agriculture and Consumer Services
VDOT	Virginia Department of Transportation
VEDP	Virginia Economic Development
Partnership VEDA	Virginia Economic Developers Association
VTC	Virginia Tourism Corporation
VEC	Virginia Employment Commission (Virginia Careerworks)
VCE	Virginia Cooperative Extension
WoW!	Worlds of Work
WBL	Work-Based Learning
WIB	Workforce Investment Board
WIIP	Chesapeake Bay Watershed Implementation Plan

Appendix I: Community Engagement

This work would not be possible without the contributions of the NSV Region Economic Development Stakeholders who provided insight and experience in guiding the collection, synthesis, and presentation of the information contained in the Northern Shenandoah Valley CEDS. Additionally, previous engagement efforts throughout

Through this intensive engagement process we were able to involve the community and key stakeholders in the creation of the Northern Shenandoah Valley Region CEDS in accordance with the U.S. Economic Development Administration CEDS requirements. These efforts help to ensure stakeholder participation and buy-in for long term planning initiatives spurred through the CEDS.

Note that individuals' titles and positions were current for the time that they were engaged in this process, which ranges from Spring 2024 - Spring 2025. Titles may have since changed.

NSVRC CEDS STAKEHOLDERS

Northern Shenandoah Valley Regional Commission Team Members		
Brandon Davis	Executive Director	Public - Regional
Ashley Shickle	Economic Development Program Coordinator	Public - Regional
Karen Taylor	Senior Project and Operations Manager	Public – Regional
Becky Sandretzky	Commuter Assistance Program Coordinator	Public – Regional
Alexandria Gearin	Community Development COoprinator	Public – Regional
Amanda Kerns	Senior Planner	Public – Regional
Taryn Logan	Principal Planner	Public – Regional
Emma Rusnak	GIS Coordinator	Public - Regional
Clarke County		
Christine Kraybill	Berryville Main Street & Clarke County Economic Development Advisory Committee	Non-profit
Christy Dunkle	Planner, Town of Berryville	Public - Local
Brandon Stidham	Planner, Clarke County	Public - Local
Bill Waite	Clarke County IDA	Public - Local
Christian Borel	L'Auberge Provencale	Private
Jay Arnold	Mayor, Town of Berryville	Public - Local
Shaine Coleman	WBL Coordinator, Clarke County Public Schools	Education - K-12
Cathy Seal	Clarke County Public Schools	Education - K-12
Michelle Brown	Clarke County Economic Development and Tourism	Public - Local
Frederick County & City of Winchester		

Vanessa Santiago	Winchester Economic Development	Public - Local
Patrick Barker	Frederick County Economic Development	Public - Local
Cynthia Schneider	Top of Virginia Regional Chamber	Non-profit
Nick Sabo	Winchester Regional Airport (OKV)	Public
Brandon Davis	Northern Shenandoah Valley Regional Commission	Public - Regional
Rick Till	Ashworth Brothers, FC EDA	Private
Josh Phelps	Winchester Metals	Private
Katie Lockhart	Winchester Public Schools	K-12 Education
Christine Kriz	Laurel Ridge Small Business Development Center	Non-profit
Jeanian Clark	Laurel Ridge Community College Workforce Solutions	Public - Community College
Dilton "Dee" Gibbs	Winchester EDA	Private
Jeanie Alexander	Shockey Companies	Private
Kit Redmer	City of Winchester Communications	Public - Local
Candace Davenport	First Bank	Private
Samantha Barber	People Inc.	Private
Patricia Young	Shenandoah University-HIVE	Private University
Marguerite Landenberger	Shenandoah University	Private University
Ryan Hall	Shenandoah Community Capital Fund	Non-profit
Kristy Powers	Navy Federal Credit Union	Private
Wyatt Pearson	Frederick County Planning	Public - Local
Tristan Walters	Shenandoah Valley Workforce Development Board	Non-profit
Jason Craig	Valley Health	Private
Dr. Feit	Valley Health	Private
Page County		
Sara Levinson	Small Business Development Center, Page County EDA	Public - Local
Melissa Deibert	Page County EDA	Public - Local
Leslie Currle	Page County EDA, People Inc	Public - Local, Non-profit
Stephanie Lillard	Town of Luray, People Inc	Public,
Regina Hilliard	Page County Chamber of Commerce	Non-profit
Ron Vickers	Town of Luray, NSVRC Board	Public
Dennis Flemming	Page County EDA	Public
Patty Secrist	Page County Public Schools	Education – K-12
Allen Louderback	Page County Board of Supervisors	Public
Jonathan Comer	Page County EDA, First Bank & Trust	Private

Nina Fox	Page County Economic Development and Tourism	Public
Rebecca Armstrong	Page County Economic Development and Tourism	Public
English	Page County Economic Development and Tourism	Public
Shenandoah County		
Jenny Groomes	Valley Health	Private
Lemuel Hancock	Shenandoah County Community Development	Public - Local
Tyler Hinkle	Shenandoah County Community Development	Public - Local
John Fogle	Shenandoah County Economic Development	Public -Local
Jason Craig	Valley Health	Private
Randy Doyle	Shenandoah Valley Workforce Development Board	Non-Profit
Nathan Garrison	Town of New Market	Public - Local
Bev Butterfield	Community Foundation, Shenandoah County EDA	Non-profit
Sharon Baroncelli	Shenandoah County Chamber of Commerce	Non-profit
Jim Guisewhite	SVN Commercial	Private
Katie Mercer	Town of Woodstock	Public - Local
Leslie Currle	People Inc.	Private
Dan Harshman	Town of Edinburg	Public - Local
Todd Lynn	Shenandoah County Public Schools	K-12 Education
Jenna French	Shenandoah County Tourism and Economic Development	Public - Local
Warren County		
Joe Petty	Warren County Economic Development	Public - Local
Scott Jenkins	Mountain Home Bed and Breakfast, Front Royal – Warren County EDA	Private
Rick Novak	Royal Lanes, Royal Cinemas, Front Royal EDA	Private
Joe Waltz	Town of Front Royal	Public - Local
Lizi Lewis	Town of Front Royal	Public
Cole Haas	On Cue Sports Bar	Private
Chris Gullickson	The Port of Virginia	Public - State
Leslie Bowery	County of Warren	Public - Local
Cheryl Culler	Warren County Board of Supervisors	Public - Local
Matt Wendling	County of Warren, Planning	Public - Local
Individual Interviews		
Deborah Flipppo	GO Virginia, Region 8	Public - Regional

Ryan Hall	Shenandoah Community Capital Fund	Non-Profit
Kaycee Childress	United Way of the Northern Shenandoah Valley	Non-Profit
Amanda Kerns	NSVRC	Public - Regional
Alex Gearin	NSVRC	Public – Regional
Karen Taylor	NSVRC	Public - Regional
Becky Sandretzky	NSVRC	Public - Regional
Sharon Johnson	Shenandoah Valley Workforce Development Board	Workforce Development Board
Kelli Weaver	Virginia Tourism Corporation	Public - State
Steve Dalton	GENEDGE	Private
Chris West	Jackson-West Consulting	Private
Marguerite Landenberger	Shenandoah University	Private University
Jeanian Clark	Laurel Ridge Community College Workforce Solutions	Public – Community College
John Ragone	Rappahannock Electric Cooperative	Utility

Appendix I: Public Comment

This report will be available to the public for comment from July 23, 2025 – August 23, 2025.

All public comments, requested edits, and recommendations will be published here, and implemented within the document by August 25, 2025 when it will be sent to the U.S. EDA for review and approval.