Northern Shenandoah Business Park Development Plan

May 2016

Prepared for the Town of Strasburg, VA

Prepared by:

Contents

Executive Summary Report

It's time to Re-Invest in the Business Park. It's time to Re-Invest in Strasburg.

The Town of Strasburg is determined to have a strong, sustainable and vibrant economic future commensurate with its long history. The Northern Shenandoah Business Park ("the Park" or "NSBP") represents a significant opportunity for new industrial and business development, yet it has remained mostly undeveloped. The Town is seeking to broaden its economic base by attracting businesses and industries to the Park that will capitalize on the town's and the region's competitive advantages.

Strasburg retained the consultant team of Camoin Associates, Pennoni, and LPDA (collectively the "Camoin Team") to develop a plan that identifies (a) the industries that the Town should target for the Park, (b) analyze and identify infrastructure needs for the Park, and (c) provide a clear, step-by-step implementation plan. The Town has set the bar high for its economic development expectations and is seeking "a unique, viable and compelling alternative compatible with Strasburg's beautiful natural environment and complementing the culture, heritage and spirit of community we are determined to preserve."

Our approach.

The Town, Steering Committee, and Camoin Team made up of economic developers, planners, and engineers embarked on an interdisciplinary approach to develop this strategy for NSBP. The process included:

- Economic Base & Trends Analysis
- Real Estate Site Competitive Analysis
- Retail Market Analysis
- Targeted Industry Sector Analysis
- Infrastructure Assessment
- Property Use Analysis
- Committee Facilitation
- Conceptual Plan Development
- Public Design Charrette
- Financial Analysis
- Marketing & Communication Strategy

Through this process, the Town, Steering Committee and Camoin Team worked together to develop a collective vision for the Park, illustrated by two development concepts, and an implementation plan to achieve that vision.

What we learned.

The economic and market trends analysis shows that while communities around Strasburg are growing, the Town struggles to retain jobs. It is becoming harder for Strasburg's children to stay here and find a career path. The recession hit the community hard and it has not yet fully recovered. Something needs to be done to reverse this trend.

Economic development and growth is happening throughout the region **BUT not in Strasburg** because the park lacks basic infrastructure.

We can change the trend.

The Town has an opportunity to reverse these negative trends and take control of its future by making strategic investments into infrastructure, marketing, and overall economic development. Without investments in water, sewer, and roads, the park will remain undeveloped. Strasburg also needs to be branded as a welcoming place for business and investment, and the Town needs to broadcast that brand to the region and beyond.

Preparing the park for development will require complex coordination and management that only the Town can lead.

The necessary infrastructure costs total around $5 million. This is a BIG number BUT the Town can pay for it through:

- **Re-Investment:** The Town currently receives about $200,000 annually in tax revenue from the park following the annexation.
- **Partnerships:** There are opportunities to create public-private partnerships with current property owners and future developers to recover initial costs.
- **Tax Revenue:** Future tax revenue will cover the outlays.

Re-investing in the business park will resonate beyond the park itself. The risk is not zero, BUT, Strasburg is in a great position in a growing regional economy. The return on the Town's investment would come in the form of job creation and tax revenue. According to the financial analysis, development of the park could generate 2,400 – 2,800 new jobs and $620,000 - $1 M in average annual net tax revenue for Strasburg.

Opportunities exist.

The economic and market trends analysis identified several industries as having potential for Strasburg and the Economic Region, either for their concentration in employment (Manufacturing) or growth over the last decade (Transportation and Logistics), recent national trends that show increasing demand (Office Generating space), or critical elements in enhancing quality of place (Retail, Accommodations & Food Services).

Transportation, Warehousing, Logistics – Strasburg has local and regional strengths in transportation and distribution and has seen recent growth. Assets include access to major East Coast and inland markets, highway access, nearby Virginia Inland Port and marine ports (Norfolk, Baltimore), and rail.

Manufacturing – Strasburg has experienced historic losses in manufacturing, but it is still a major employer for the community. Transportation and logistics assets are a significant advantage. Modern manufacturing establishments are smaller than in the past and demand less square footage and less employment.

Retail, Accommodations & Food Services - With a growing population locally and in the region, local consumer demand for restaurants and eating places has increased significantly. Strasburg's rich history and natural environment offers many tourism and recreational assets to support this sector. Regional growth in retail is a positive trend.

Healthcare - Healthcare is a regional strength and growing. Strasburg is seeing growth locally in continuing care retirement and assisted living communities. Opportunities for the town will be smaller in terms of space demand and employment size (satellite centers, home health services, local health services, etc.).

Business & Professional Services - These industries are growing regionally, but are still small relative to major sectors. They typically drive demand for commercial office space (besides IT and healthcare). Strasburg has good fiber infrastructure, which is a competitive advantage. Both the Park and downtown Strasburg offer options for small and mid-sized offices.

It's not just about the park.

Successful development of the park is essential to the Town of Strasburg's ability to restore and strengthen the health of its downtown. The plan addresses specific actions to increase competitiveness of the park itself and presents fundamental economic issues critical to the success of the town as a whole.

If the Town does nothing, it will continue to lose jobs and the economic base will shrink. Re-investing in the park will reverse this trend, help save the downtown by diversifying the economy, and give Strasburg's kids an opportunity to work and live here.

A development framework.

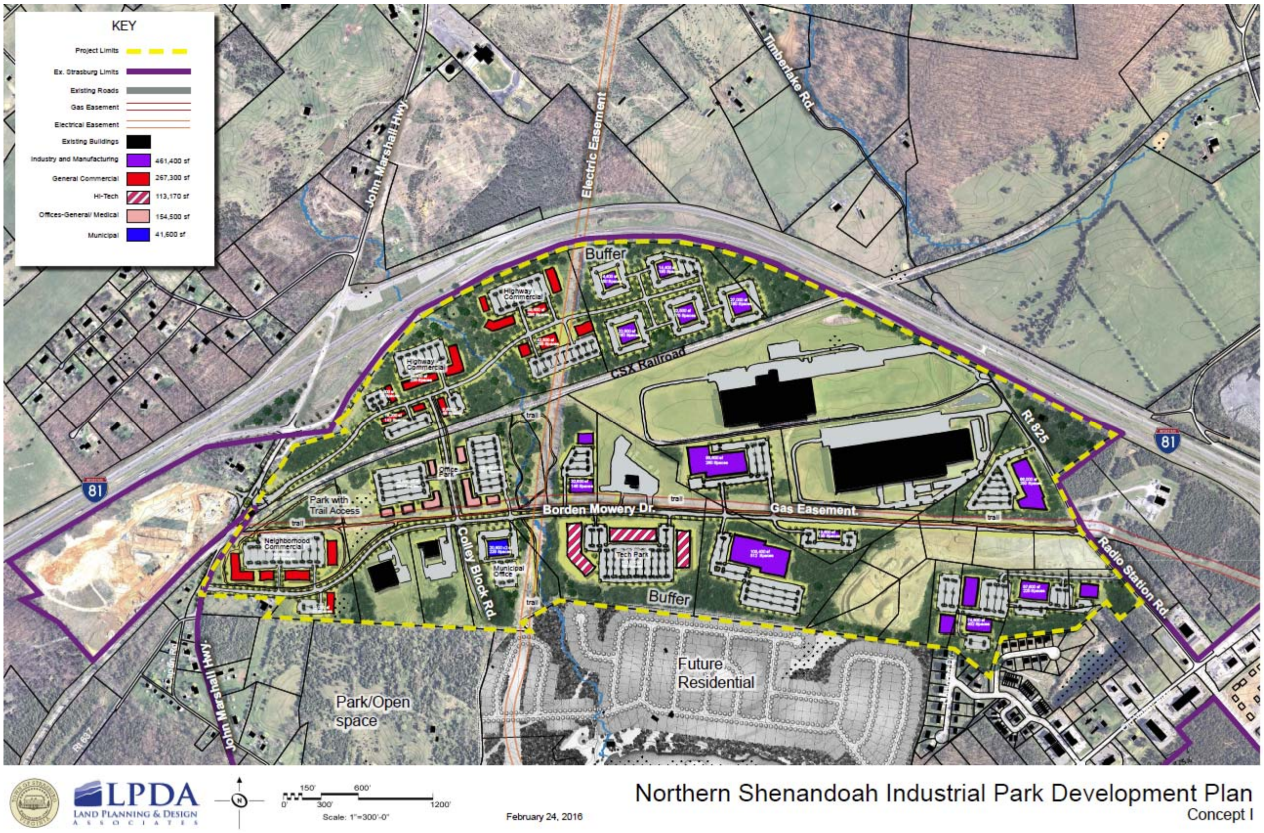
The project team prepared two development concepts that illustrate the Town's vision for the Northern Shenandoah Business Park (NSBP). The two concepts show buildout of the park with two different tactics:

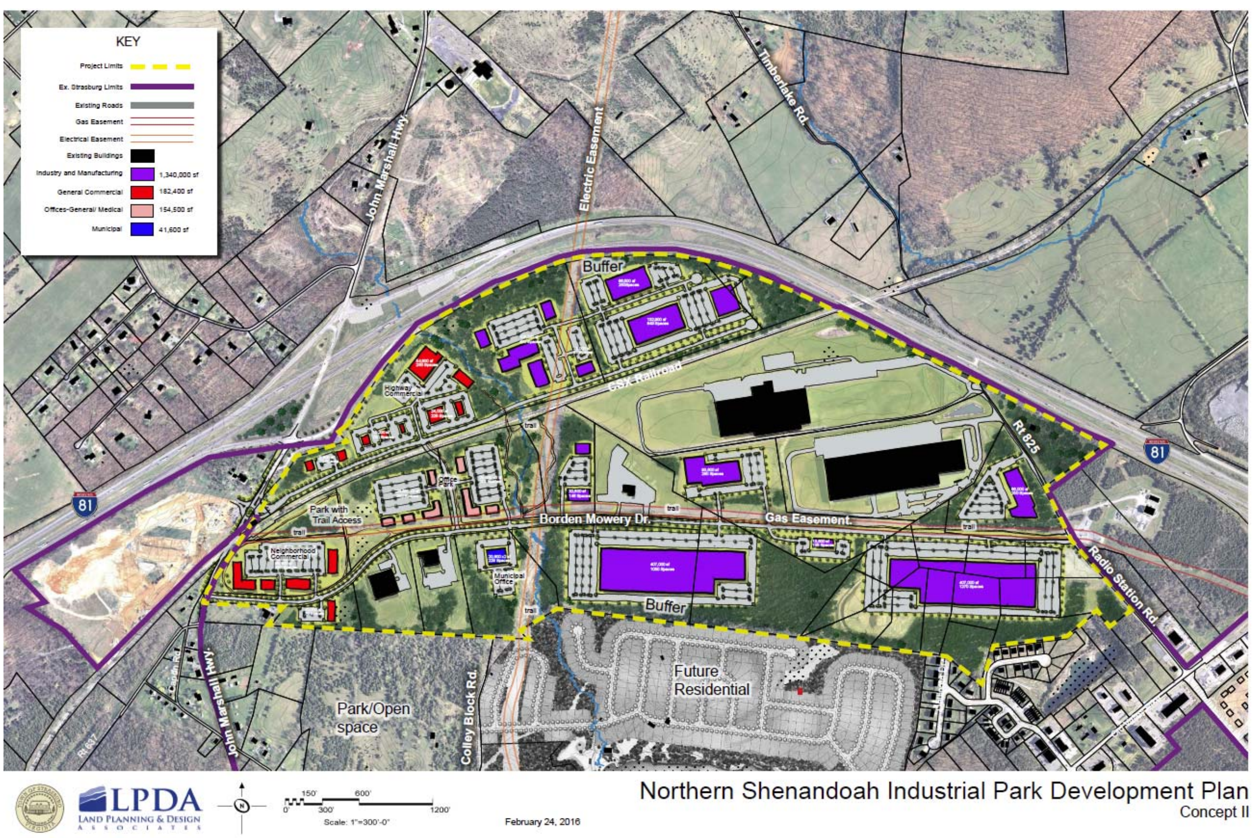
- **Concept I** contains smaller footprints of both industrial and commercial space representing what the park might look like if Strasburg was successful in attracting more knowledge-intensive type of industries and smaller light manufacturing users.

- **Concept II** represents a scenario in which more present opportunities are realized with businesses in the transportation and distribution industry occupying the eastern portion of the park.

The two concepts are not meant to represent a choice between two options. Rather, they represent a range of feasible buildout scenarios assuming the Town and its partners take strategic action to create an attractive, competitive environment for investment. Ultimately, the park will likely evolve containing elements from both concepts. We stress the importance of flexibility in design and use.

The purpose of this strategy is not to set a single path toward one development option but to create a framework of the Town's vision that will guide the private sector in adapting emerging market opportunities to the Town's desired development outcomes.


KEY
Project Limits
Ex. Strasburg Limits
Existing Roads
Gas Easement
Electrical Easement
Existing Buildings
Industry and Manufacturing 461,400 sf
General Commercial 267,300 sf
Hi-Tech 113,170 sf
Offices-General/ Medical 154,500 sf
Municipal 41,600 sf
John Marshall Hwy
Electric Easement
Timberlake Rd.
Buffer
Highway Commercial
CSX Railroad
Rt 825
81
Park with Trail Access
Borden Mowery Dr.
Gas Easement
Neighborhood Commercial
Colley Block Rd.
Municipal Office
Tech Park
Radio Station Rd.
Future Residential
Park/Open space
LPDA
LAND PLANNING & DESIGN ASSOCIATES
Scale: 1"=300'-0"
February 24, 2016
Northern Shenandoah Industrial Park Development Plan
Concept I


KEY
Project Limits
Ex. Strasburg Limits
Existing Roads
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Electrical Easement
Existing Buildings
Industry and Manufacturing 1,340,000 sf
General Commercial 182,400 sf
Offices-General/ Medical 154,500 sf
Municipal 41,600 sf
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LAND PLANNING & DESIGN ASSOCIATES
Scale: 1"=300'-0"
February 24, 2016
Northern Shenandoah Industrial Park Development Plan
Concept II

How we'll get there.

Downtowns are the heart and soul of a community. Successful development of the Northern Shenandoah Business Park is contingent on the Town of Strasburg's ability to restore and strengthen the health of its downtown and vice-versa. Downtown redevelopment and buildout of the business park are not mutually exclusive. Therefore, the Northern Shenandoah Business Park Development Plan is two-fold. It addresses specific actions the Town and its economic development partners can take to increase competitiveness of the park itself. At the same time, this plan presents fundamental economic issues critical to the success of the town as a whole such as quality of place, workforce, and growing the entrepreneurial network.

Park-Specific Initiatives

A. Site Readiness

Businesses today demand immediately available and ready property with all infrastructure and approvals in place or, if not in place, easily and quickly attainable. Without certainty in these areas, Strasburg is not "in play" for major new developments. By completing roadways through the park, extending infrastructure to un-served properties, and simplifying the development process, Strasburg can significantly increase the attractiveness of the park.

B. Marketability of the Park

The Northern Shenandoah Business Park (NSBP) does not have a well-known identity. During this strategic planning process, the Town and Steering Committee appropriately changed the name of the park giving it geographic context and flexibility; however, many still think of the park as the "Golden Triangle" (its former name). This name change must be carried through on physical signage and digital "virtual" media. Strategies to increase marketability of the park are designed to create a buzz about the proactive efforts the Town and regional economic development community is taking to promote development and **must be coordinated with efforts to market Strasburg overall.**

C. Land Availability

One of the NSBP's biggest impediments to successful development is the diffuse ownership of holdings within the park. To address this challenge, over time the Town may purchase and assemble parcels of land into larger groupings that will be much more attractive to prospective buyers. Additionally, because of the limited availability of large sites in the region, the Town could expand the park outside of the current town boundaries to encompass land of this size and nature. Both tactics will significantly increase the NSBP's competitiveness.

Overall Local Economic Development Initiatives

D. Business Environment

Successful implementation of the NSBP strategy requires building greater connections among the economic development network between local and regional economic development organizations and the business community. Having received the Community Business Launch

Grant, Strasburg has a unique opportunity to connect economic development partners, ensure that they are part of the network and that their needs are being met. A strong local business community is necessary to support business retention, expansion, and attraction efforts.

E. Marketing Strasburg

Marketing for the Northern Shenandoah Business Park must be integrated within marketing for Strasburg overall and coordinated with county, regional, and state economic development marketing efforts. Timing is a critical consideration. Promotion of the park itself will be a wasted effort without first completing the actions outlined under Site Readiness and Marketability. Otherwise, the park cannot realistically compete with other properties in the region that currently have basic infrastructure and access. The Town's role in marketing is to assemble and package information about available properties, the benefits of doing business and living in Strasburg, and provide that information to regional and state organizations responsible for economic development.

F. Quality of Place

As the economy becomes increasingly digitized and connected, talented workers are choosing where to reside based on their preferred lifestyle and quality of place over employment opportunities. Many employers are finding themselves in the unfamiliar situation of chasing talent instead of attracting it. Therefore, as noted in the introduction, it is absolutely critical that Strasburg continues to focus on its downtown as the core of the community in order to retain and attract talent. This will require that the Town's Planning Department and Economic Development Department work together, sharing information and collaborating on projects taking a "Community Development" approach.

The following matrix summarizes the strategies and actions that are detailed in the Action Plan Matrix into a framework, which includes:

- **Near Term:** Immediate findings based on what has happened and is happening recently, leveraging the assets of today to overcome today's challenges
- **Long-term:** Investing in and building capacity for long-term transformation

	Near Term	Long Term
Business & Industrial Park	• Infrastructure investments to increase site readiness: completion of road is key • Increase I-81 visibility • Marketing for expansion and attraction: manufacturing and logistics companies with regional interests, office utilizing industries, and medical office users. • "Roll back" requirements in UDO • Right Now Certification	• Land assembly • Expand size of park • Balancing warehouse and logistics sector growth with need for diversity in the park • Community center, mixed-use development • Amenities (paths, open space) • Marketing/branding campaign • Outpatient healthcare services integrated within mixed-use
Local Overall Economic Development	• Integrate with transportation planning to mitigate congestion in town • Make quality of place a priority (workforce attraction) • Make downtown a priority • Enhance Downtown Strasburg Marketing • Marketing for new office space downtown • Workforce partnerships • Integrate with healthy community initiatives	• Workforce partnerships • Balancing sector growth with diversifying the local economy • Education partnerships • Develop entrepreneurial culture • Partnerships with regional healthcare providers • Integrate with housing opportunities for diverse workforce

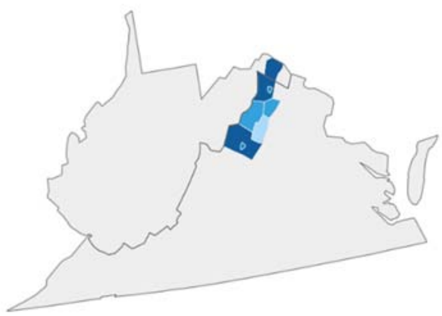
Appendix of Project Resources

Appendix A. Demographic & Socioeconomic Profile

Demographic & Socioeconomic Profile Summary

In the previous decade, Strasburg experienced substantial population growth. Between 2004 and 2014, the population increased by over 2,300 people, or 25% of its original population. This rate of growth outpaced that of the region, state, and nation. This is a positive sign for the potential of Strasburg as it is a place where people are choosing to live.

Income and workforce data show that Strasburg and the Economic Region[1] can be considered working middle class. Most people fall into the middle income levels without significant populations in the wealthy or extremely low incomes.



Population growth and a working middle class base bode well for building community and workforce in certain industries; however, the demographic, socio-economic, and workforce data also point to challenges for growing the local and regional economy, including:

- **Strasburg's population is aging**. The town lacks 20-29 year olds, a key demographic in terms of new potential participants in the workforce. The Economic Region fares better in this age group with the presence of higher education institutions a likely contributing factor.
- **Strasburg is an exporter of jobs**. Over 70% of Strasburg residents work outside of Shenandoah County. While this is understandable for a small community with easy access to job locations in the region, it does create challenges for growing local service and retail businesses.
- **Strasburg and the region have low education attainment at the higher education levels (beyond high school)**. While the Economic Region is served by a variety of post-secondary institutions, of which the highest completions are at James Madison University, Lord Fairfax Community College, and Shenandoah University, there is a need for both an overall increase in education attainment levels and increased alignment with education and training in fields were there are job openings and growth potential.
- **Strasburg and Shenandoah County have lower overall income levels and overall earnings per job compared to the state and nation.** This also presents challenges to the local economy in terms of demand for goods and services.

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[1] For the purpose of this analysis, the Town of Strasburg's Economic Region is defined as Berkeley County, WV; Frederick County, VA; City of Winchester, VA; Warren County, VA; Page County, VA; Rockingham County, VA; City of Harrisonburg, VA; and Shenandoah County, VA. See section "Geographies Studied" in Appendix A for additional information about the Economic Region.

Geographies Studied

As part of the overall market analysis, it is important to first understand the current socioeconomic conditions in the region and town in order to identify challenges and opportunities for future economic development initiatives. The following section highlights important socioeconomic characteristics of the region when compared to the other reference geographies.

Data was collected for six geographies: Strasburg ZIP Code (represented by the ZIP code 22657 and referenced below via "ZIP" or "Strasburg"), Shenandoah County, two regional groupings, Virginia, and the United States. The two regional groupings are:

- *Shenandoah Valley Partnership (SVP):* The SVP is one of 15 regional economic groups in Virginia, as defined by the Virginia Economic Development Partnership. The SVP is a public/private partnership "providing marketing and business assistance for the Shenandoah Valley region…to ensure a healthy economic future for the region."[2]

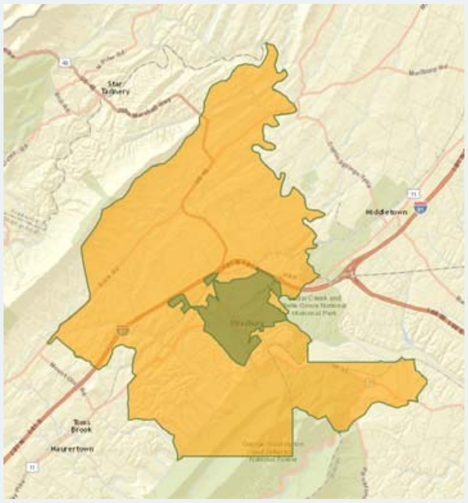
- *Economic Region:* This regional group is comprised of counties that stakeholders for this project felt represented the economic activity relevant to Shenandoah County and the Town of Strasburg.

The maps on the following page illustrate the boundaries of SVP and Economic Region.

Q: Why analyze the ZIP Code instead of the Town boundary?

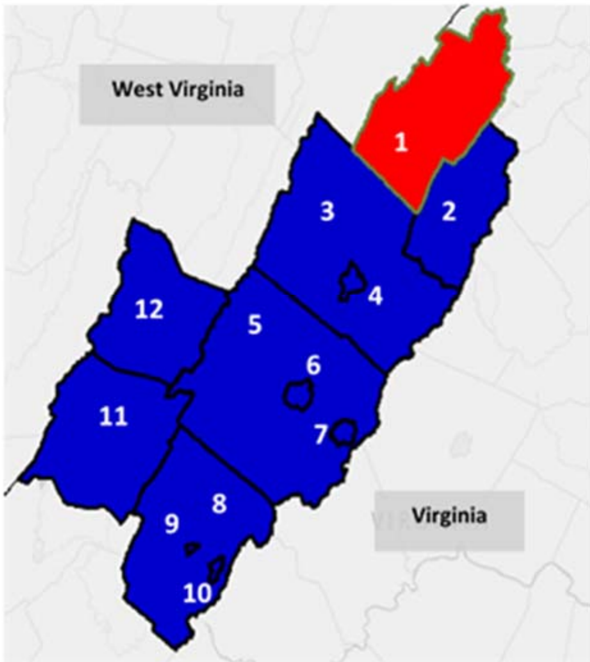
A: Industry and employment data is only available by county and ZIP code. Therefore, when studying local economies, it is common to analyze demographic and socioeconomic data by the same geography; in this case, ZIP code 22657.

Town of Strasburg - Green
ZIP Code 22657 - Orange

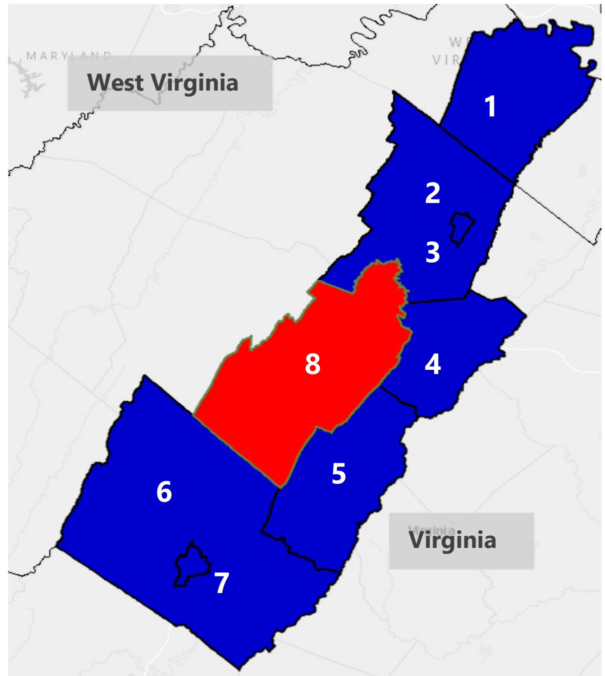


[2] *About SVP,* http://www.svp-va.org/

Shenandoah Valley Partnership



Economic Region



Shenandoah Valley Partnership

1. Shenandoah County, VA
2. Page County, VA
3. Rockingham County, VA
4. City of Harrisonburg, VA
5. Augusta County, VA
6. City of Staunton, VA
7. City of Waynesboro, VA
8. Rockbridge County, VA
9. City of Lexington, VA
10. City of Buena Vista, VA
11. Bath County, VA
12. Highland County, VA

Economic Region

1. Berkeley County, WV
2. Frederick County, VA
3. City of Winchester, VA
4. Warren County, VA
5. Page County, VA
6. Rockingham County, VA
7. City of Harrisonburg, VA
8. Shenandoah County, VA

Basic Demographics

In the current year (2015), the population of the Strasburg ZIP is 10,844. The ZIP region is expected to grow by about 470 people, or 4%, between 2015 and 2020. The number of households is also expected to increase by 4%, adding 184 households, over the same period. There is no expected change in average household size over the five year period; it will remain 2.46 person per household. The median age is expected to decrease slightly from 40.1 to 39.8. It was the only geography studied where the median age was expected to decrease between 2015 and 2020. The median household income is expected to grow by just over $3,000 between 2015 and 2020, to $53,841.

The Economic Region has the largest average household size, 2.57, out of all the geographies studied, while Strasburg's household size is 2.46. Strasburg's household size is slightly larger than the Shenandoah Valley Partnership, but smaller than Virginia's household size. There were no changes in average households size predicted for any of the geographies between 2015 and 2020.

Strasburg ZIP Basic Demographic Profile

	2015
Population	10,844
Households	4,413
Average Household Size	2.46
Median Age	40.1
Median Household Income	$50,560

Source: ESRI

Average Household Size

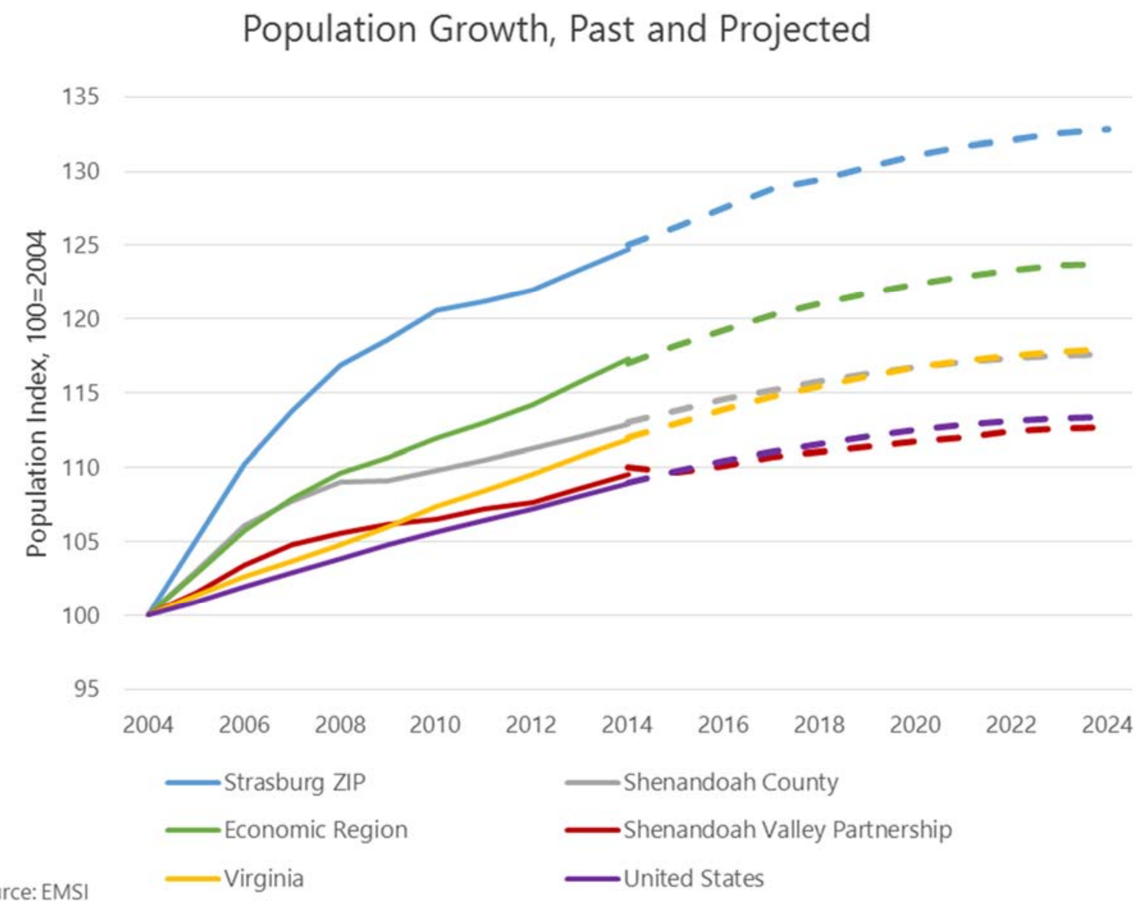
	2015	2020 (proj.)
Strasburg ZIP	2.46	2.46
Shenandoah County	2.44	2.44
Economic Region	2.57	2.57
Shenandoah Valley Partnership	2.43	2.43
Virginia	2.54	2.54
United States	2.57	2.57

Source: ESRI

Population

In the previous decade, Strasburg experienced substantial population growth. Between 2004 and 2014, the population increased by 25%. Most of this growth occurred between 2004 and 2009, after which the population continued to increase but at a more modest pace.

Over the same period, Shenandoah County grew by 13%, while the Economic Region and the Shenandoah Valley Partnership grew by 17% and 10%, respectively. Virginia's population increased by 12% while the population of the US increased by 9%.



Source: EMSI

Over the next 10 years, the geographies studied are not expected to experience population growth at the same rate as the previous decade, although Strasburg is projected to have the highest growth rate again. Between 2014 and 2024, Strasburg is estimated to grow by 7% or 769 people. Shenandoah County is only expected to grow by 1,818 people, or 4%. The Shenandoah Valley Partnership is projected to grow at the lowest rate of the geographies studied, only increasing by 3% or 10,588 people. Virginia and the nation are expected to grow by 5% and 4%, respectively.

Income

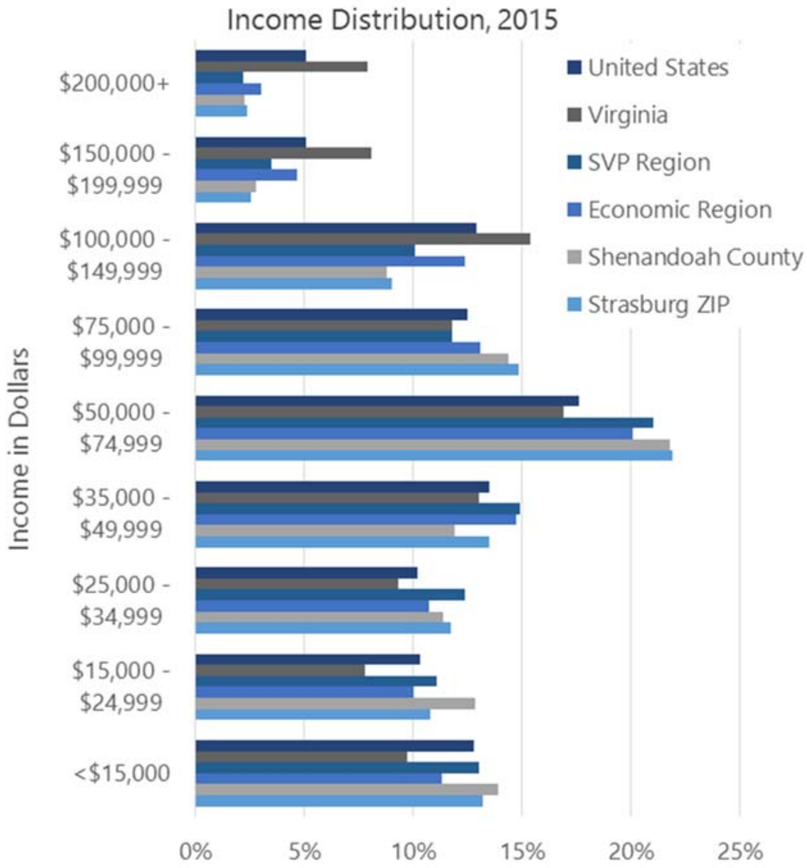
The Economic Region's median household income in 2015 is $52,789 and Strasburg's is $50,560. Both lag the State and the U.S. The Shenandoah Valley Partnership records the lowest household income of all reference groups at $47,982.

Median Household Income

	2015	2020 (proj.)
Strasburg ZIP	$50,560	$53,841
Shenandoah County	$49,977	$53,709
Economic Region	$52,789	$58,592
Shenandoah Valley Partnership	$47,982	$53,314
Virginia	$62,786	$72,473
United States	$53,217	$60,683

Source: ESRI

In Strasburg, the largest income cohort was the $50,000 and $74,999 range, which includes 21.9% of the town's population. This income bracket is also the largest in the other geographies studied; however, in the US and Virginia, this cohort only accounts for about 18% and 17% of households, respectively, compared to 20% to 22% in the town, county, Economic Region, and SVP region. Incomes in the ZIP and regional geographies are more clustered in the middle and lower income brackets than the US and Virginia, which has more representation in higher income brackets. As shown in the income data charted below, the Economic Region and Strasburg can be considered middle class, as most people fall into the middle income levels without significant populations in the wealthy or extremely low incomes.



Source: ESRI

The percent of households with an income below poverty level within the last twelve months in the Economic Region was 12.4%, or 20,620 households while only 8.7% of households in Strasburg were below the poverty level. The percentage of households with an income below the poverty line in the Economic Region was higher than in Shenandoah County and Virginia overall, but lower than the United States or the counties that comprise the Shenandoah Valley Partnership Region. The data concerning households below the poverty level confirm that the Economic Region and Strasburg do not have considerably high levels of families who are considered to be in poverty and therefore can be thought of as middle class.

Households with Income Below Poverty Level in the Last 12 Months

	Number of Households Below Poverty	Total Households	Percent of Total Households
Strasburg ZIP	385	4,401	8.7%
Shenandoah County	1,928	17,397	11.1%
Economic Region	20,620	166,560	12.4%
Shenandoah Valley Partnership Region	19,288	136,151	14.2%
Virginia	327,273	3,022,739	10.8%
United States	16,415,984	115,610,216	14.2%

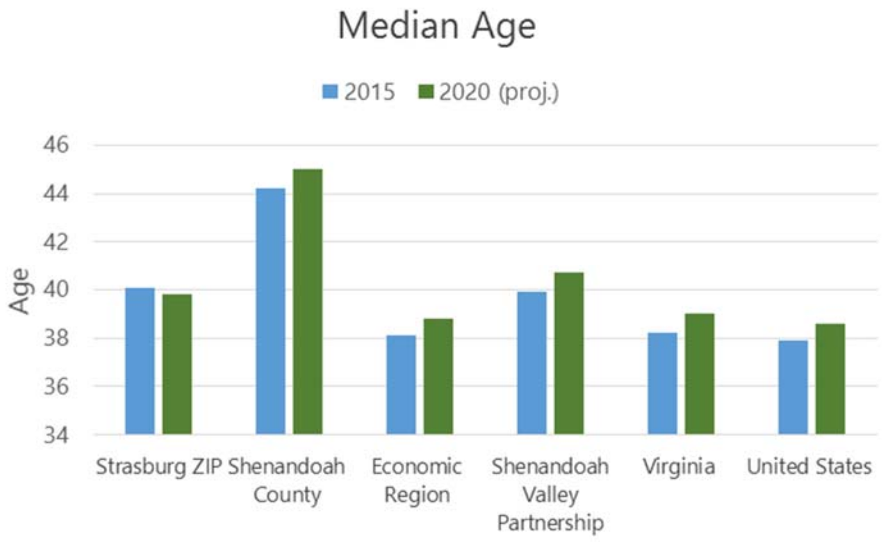
Source: 2009-2013 American Community Survey

Age

Shenandoah County has the highest median age, at 44.2, which is projected to increase to 45 by 2020. At 40.1, Strasburg's median age is the second highest among the geographies studied, however it is projected to decline to 39.8 by 2020. The Shenandoah Valley Partnership's median age is 39.9 and projected to increase to 40.7 years old, while the Economic Region is expected to increase 0.7 to 38.8 years old.

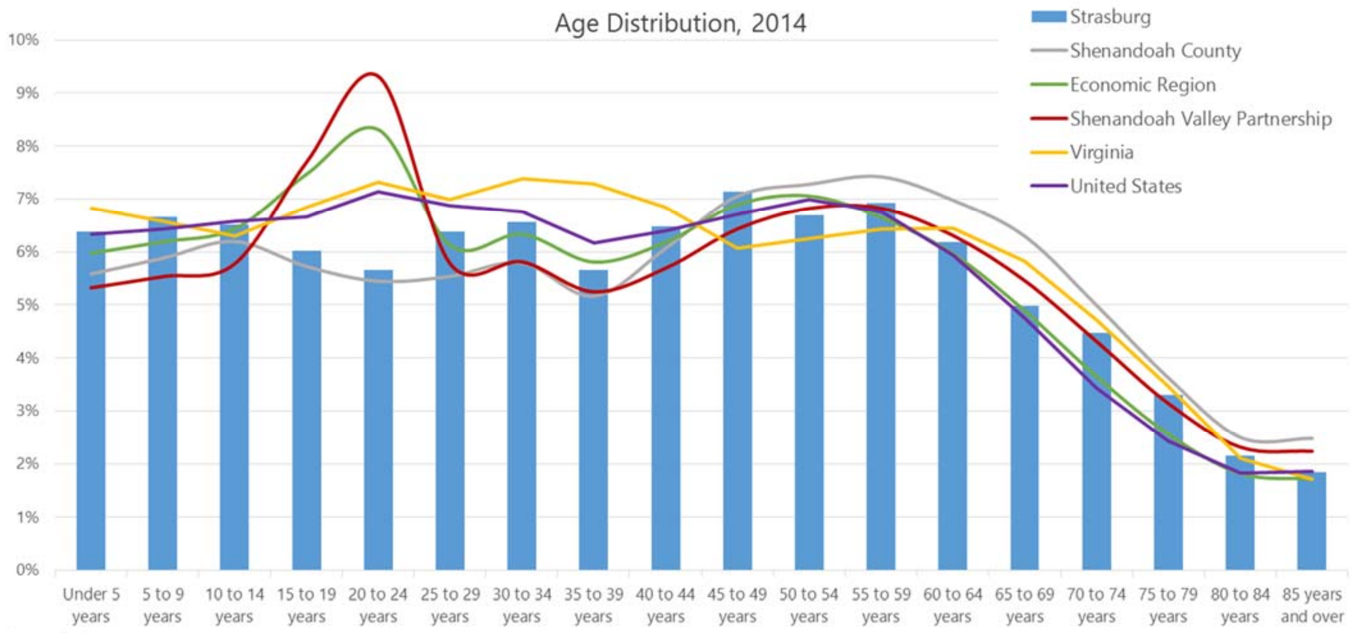
Between 2014 and 2024, Strasburg is expected to lose the most population in the 45-49 and 50-54 age brackets, which are expected to decline by nearly 26% and 18%, respectively. This mirrors declines in Shenandoah County, where these age cohorts are expected to decline by 27% and nearly 20%, respectively. While these age cohorts are projected to contract in the other geographies studied, they are expected to decline at a lower rate. All geographies are expected to see growth in the 60+ age cohorts.

In Strasburg, the 35-39 age cohort is expected to grow at the highest rate between 2014 and 2024, increasing by nearly 33%. This growth rate is over twice as high as the growth expected in the two regional groups and Virginia and three times as high as growth in this age cohort at the national level. The 30-34 age cohort is also expected to grow at a high rate, increasing by 15%, which is slightly higher than growth in the county and dramatically outpaces growth in the other geographies studied.



As shown in the table below, the largest gap between the composition of the population of

Strasburg and the other geographies studied occurs in the 15-19 and 20-24 age brackets. The 15-19 age bracket accounts for 6% of the ZIP's population while it accounts for 7.5% of the Economic Region's population and 7.7% of the Shenandoah Valley Partnership's population. The gap is even larger in the 20-24 age bracket, which constitutes 5.7% of Strasburg's population and 8.3% of the Economic Region's population and 9.3% of the Shenandoah Valley Partnership's population. The discrepancies in these age cohorts between the town and other geographies is likely due in part to the presence of colleges and universities in the regional groups.



Source: EMSI

Education

The percentage of Strasburg's population with a high school degree or higher is 85%. While Strasburg is only slightly lower in terms of the percentage of individuals who are high school graduates or higher when compared to Virginia or the United States, the town lags significantly behind these geographies in terms of post-secondary educational attainment.

Educational Attainment (Population Aged 25 Years and Older)

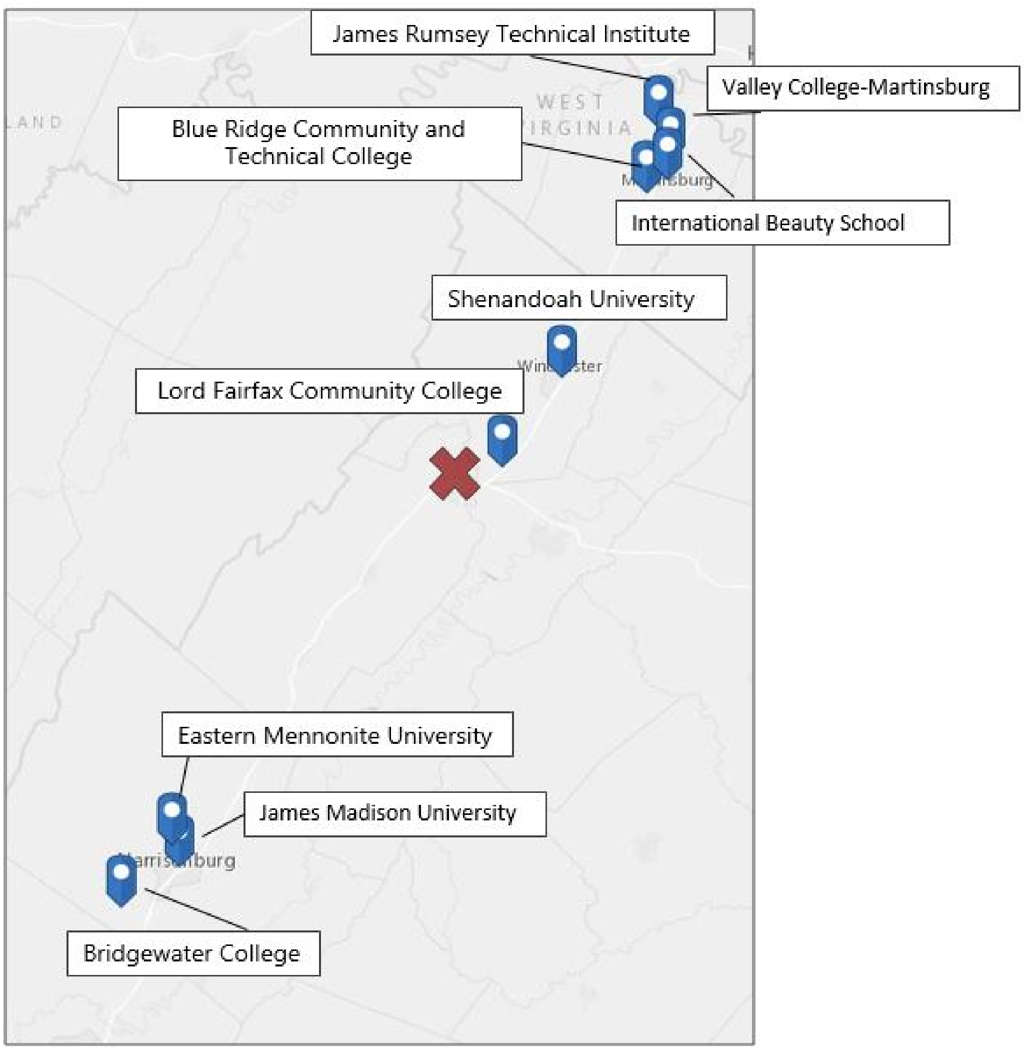
	Strasburg ZIP	Shenandoah County	Virginia	United States
High school graduate or higher	86%	85%	88%	86%
Some college, no degree or higher	45%	45%	62%	58%
Associate's degree or higher	21%	26%	42%	37%
Bachelor's degree or higher	15%	20%	35%	29%

Source: ACS 2009-2013

Overall, Strasburg and Shenandoah County have much lower education levels when compared to the state and the nation. The portion of the population with at least a Bachelor's degree is especially lagging. The educational attainment of the population can influence the types of industries and investments that are possible in the region, and consequently the overall economic development picture in Strasburg. Without an adequate supply of appropriately skilled workers, attracting high quality and well paid jobs to the area can be challenging.

The Economic Region is served by a variety of post-secondary institutions, of which the highest completions are at James Madison University, Lord Fairfax Community College, and Shenandoah University. There are no higher education institutions in Strasburg. In the map below, Strasburg is represented by the red X, while nearby schools are represented by the blue markers. The closest institution to Strasburg is one of Lord Fairfax Community College's campuses in Middletown. Of the over 9,100 completions in the Economic Region, 75% of the awards were for a Bachelor's Degree or higher and 11% were for Associate's degrees. The remaining awards were for other degrees or credentials.

Higher Education Institutions in Relation to Strasburg



Higher Education Institutions in the Economic Region

Institution	Total Completions (2013)
James Madison University	5,057
Lord Fairfax Community College	1,280
Shenandoah University	1,059
Blue Ridge Community and Technical College	802
Eastern Mennonite University	434
Bridgewater College	306
James Rumsey Technical Institute	113
Valley College-Martinsburg	63
International Beauty School 4	55
Total:	9,169

Source: EMSI

Lord Fairfax Community College (LFCC), located in Middletown, is the primary community college serving the Economic Region. According to Fall 2012 enrollment figures, 6,600 students attend LFCC, 857 of which come from Shenandoah County. LFCC offers programs which lead to Associate's Degrees, Bachelor's Degrees, as well as Master's and doctoral degree programs that are offered on site by a four year institution. Additionally, the school has transfer agreements with many four year colleges and universities throughout the state. Broadly, topics of study include:

- Business
- Early Childhood Education
- Engineering/Construction/Industrial Trades
- Health Information Management
- Health Science & Nursing

As well as a variety of educational opportunities, LFCC also offers a Workforce Solutions Program, which specializes in developing and enhancing workplace skills through online and on-site instruction. The program has already served over 1,000 employers and focuses on the following industries:

- Business & Professional Development
- Computers & Technology
- Healthcare & Wellness
- Industry
- Manufacturing & Construction Trades

In addition to the higher education institutions noted above, Triplett Tech Business and Technical School is located in Mount Jackson and offers a variety of employment-preparation skills for trained labor, such as carpentry, computer automation and design, and culinary arts (http://shenandoahtt.sharpschool.net).

Regional Completion and Openings

To assess potential strength of labor demand relative to the supply in the region we developed a Completions to Openings Ratio (COR) that estimates the number of graduates that will be competing for positions within the relevant occupational categories. The purpose of the COR is to compare and quantify the supply and demand for labor in the area. Completions are a measure of labor supply, in that they measure the number of new qualified members of the labor force that will be searching for various jobs. Openings indicate demand for labor—these are jobs that need to be filled by qualified workers.

COR was calculated by dividing the number of completions by the number of job openings. As an example, a Completions to Openings Ratio of 5.0 indicates that for every job opening in a given occupation in a given year, there will be 5 graduates of a relevant educational program competing. An occupation with a high COR indicates a potential oversupply of graduates in the field and higher competition for jobs. Conversely, a low COR indicates a potential shortage of graduates, and thus a labor gap. Table 2 shows the results of the analysis and is summarized as follows:

- The number of completions related to the fields that are strongest in the Economic Region and Strasburg are not sufficient to meet the demand for workers in those fields. For example, there were 12 completions in academic fields or training programs that relate to the Transportation and Materials Moving industry, while there were over 350 openings in related positions.[3]
- The fields with the lowest COR, or those fields where regional openings outnumber the completions, include: Transportation and Materials Moving, Construction Trades, and Personal and Culinary Services.
- The highest median hourly earnings were in occupations related to Biological and Biomedical Sciences programs. The number of completions in these fields was 283 while there were 139 openings in the region. Occupations related to Computer Information Sciences and Support Services programs also had high median earnings and produced 2 graduates for every 1 job opening in the Economic Region. While the Economic Region has academic programs to produce skilled workers, it does not have the job opportunities to capture all of those graduates. This is due in part to the presence of James Madison University and other institutions of higher education that produce a large number of graduates.
- The lowest median hourly earnings aside from Personal and Culinary Services were in occupations related to the Family and Consumer Sciences program and Agriculture and Related Science programs. In 2013 there were no completions in Agriculture and Related Sciences, however, there were over 900 regional openings in 2015.

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[3] It is worth footnoting that just because there are openings related to a program does not mean that a certification/degree in one of these programs is a requirement for a job in that occupation.

- The programs with the highest regional openings are Business, Management, Marketing and Related Services; Health Profession and Related Programs; and Personal and Culinary Services. While there is a high number of job openings related to these programs, there are relatively few graduates. Without a supply of trained workers in these fields, businesses who rely on workers with these skills in the region may suffer.

Regional Completions and Openings in the Economic Region

CIP Code	Program	Institutional Completions (2013)	Regional Openings (2015)	Median Hourly Earnings	Regional Jobs (2015)	Completions to Openings Ratio
52	Business, Management, Marketing, And Related Support Services	1,068	2,606	$18.60	66,124	0.41
51	Health Professions And Related Programs	1,733	1,648	$24.89	31,771	1.05
12	Personal And Culinary Services	97	1,532	$11.65	26,393	0.06
01	Agriculture, Agriculture Operations, And Related Sciences	0	903	$15.17	20,763	0.00
13	Education	671	653	$21.64	15,388	1.03
19	Family And Consumer Sciences/human Sciences	61	568	$14.31	11,321	0.11
43	Homeland Security, Law Enforcement, Firefighting And Related Protective Services	77	426	$25.11	11,004	0.18
44	Public Administration And Social Service Professions	151	410	$30.43	9,216	0.37
49	Transportation And Materials Moving	12	364	$17.46	10,064	0.03
46	Construction Trades	16	311	$17.16	12,081	0.05
15	Engineering Technologies And Engineering-related Fields	86	285	$23.96	8,041	0.30
31	Parks, Recreation, Leisure, And Fitness Studies	359	252	$28.18	6,665	1.43
47	Mechanic And Repair Technologies/technicians	28	244	$19.35	6,446	0.11
30	Multi/interdisciplinary Studies	183	211	$31.16	5,865	0.87
14	Engineering	52	179	$31.39	4,620	0.29
50	Visual And Performing Arts	404	170	$24.73	4,306	2.37
09	Communication, Journalism, And Related Programs	377	164	$23.94	3,976	2.30
11	Computer And Information Sciences And Support Services	353	164	$31.58	4,912	2.16
26	Biological And Biomedical Sciences	283	139	$33.12	3,828	2.04
22	Legal Professions And Studies	129	138	$28.34	3,963	0.93
45	Social Sciences	418	136	$26.82	3,679	3.08
39	Theology And Religious Vocations	31	127	$25.24	3,148	0.24
42	Psychology	336	117	$27.75	3,209	2.87
54	History	151	111	$27.52	3,088	1.36
27	Mathematics And Statistics	70	104	$28.10	2,763	0.68
40	Physical Sciences	87	103	$28.93	2,740	0.85
23	English Language And Literature/letters	251	101	$26.58	2,693	2.49
16	Foreign Languages, Literatures, And Linguistics	111	100	$26.65	2,641	1.10
03	Natural Resources And Conservation	18	99	$24.20	2,210	0.18
38	Philosophy And Religious Studies	50	89	$27.64	2,430	0.56
24	Liberal Arts And Sciences, General Studies And Humanities	1,500	87	$27.18	2,388	17.23
48	Precision Production	0	71	$16.57	2,907	0.00
10	Communications Technologies/technicians And Support Services	0	37	$15.40	1,220	0.00
41	Science Technologies/technicians	6	17	$20.76	412	0.36

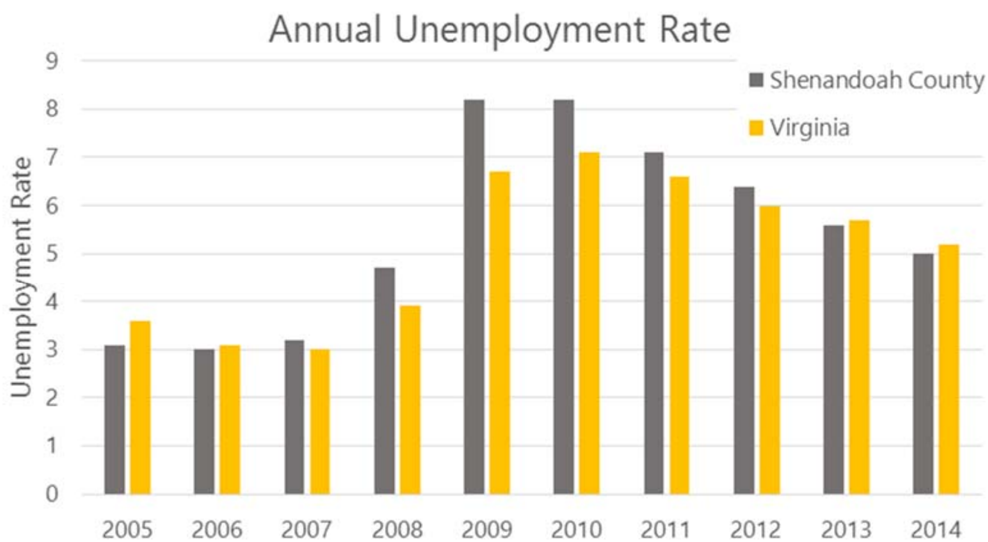
Source: EMSI

Designates column used to sort

Unemployment

In 2014, the unemployment rate in Shenandoah County was 5% compared to 5.2% for Virginia. In the years leading up to the economic crash in 2008, the unemployment rate was consistently around 3% and then it spiked in 2008 to almost 5%. Shenandoah County saw the highest unemployment rates in 2009 and 2010. The unemployment rate has been dropping since 2010 at around a percent to half a percent per year. In 2014, the unemployment rate had dropped back down to 5%.

In 2005 and 2006, Shenandoah County had a lower unemployment rate than Virginia overall. However, beginning in 2008, the county began to show higher unemployment rates than the state. In 2009, the difference was at its greatest, at 1.5%.



Source: Bureau of Labor Statistics

Commuter Trends

Where Strasburg Residents Work: Work Destination Analysis

There were 4,485 primary jobs[4] held by Strasburg residents in 2011.[5] About a third of those residents worked in Shenandoah County, while another third of residents commuted to Warren County, Winchester City, and Frederick County.

Where Strasburg Workers Live: Home Destination Analysis

There were 2,364 people who worked in Strasburg in 2011. Almost half of all Strasburg workers lived in Shenandoah County as well. About 14% of workers lived in Frederick County and another 7.7% lived in Warren County. The remaining workers lived in various counties clustered around Shenandoah County. About 15% of individuals who work in Strasburg live outside of the marked counties.

Since over 70% of Strasburg residents work outside of Shenandoah County, Strasburg can be seen as an exporter of jobs to the surrounding region. Of the primary jobs located in the town, about 54% are filled by workers who live outside of the county.

Top 10 Counties Where Strasburg Residents Work

County of Work	Number of Residents	Share
Shenandoah, VA	1,367	28.9%
Warren, VA	523	11.0%
Winchester City, VA	522	11.0%
Frederick, VA	519	11.0%
Fairfax, VA	416	8.8%
Loudoun, VA	241	5.0%
Prince William, VA	151	3.2%
Rockingham, VA	107	2.3%
Harrisonburg City, VA	92	1.9%
Fauquier, VA	68	1.4%

Source: U.S. Census, LEHD OnTheMap

Top 10 Counties Where Strasburg Workers Live

County of Residence	Number of Workers	Share
Shenandoah, VA	1,326	45.7%
Frederick, VA	412	14.2%
Warren, VA	224	7.7%
Rockingham, VA	148	5.1%
Winchester City, VA	107	3.7%
Hampshire, VA	61	2.1%
Page, VA	54	1.9%
Hardy, VA	54	1.9%
Berkeley, WV	41	1.4%
Harrisonburg City, VA	36	1.2%

Source: U.S. Census, LEHD OnTheMap

[4] Primary jobs data from Longitudinal Employer-Household Dynamics (LEHD) from the U.S. Census Bureau. A primary job is the highest-paying job held by a worker. Using primary jobs ensures that each worker is only counted once. 2011 is the most recent year for which data is available.

[5] Note: Commuter data provided in this section is based on the Town of Strasburg geography, not the ZIP code region.

Appendix B. Economic Base Analysis

Economic Base Summary

Strasburg was hit hard by the recession and has yet to fully recover in terms of employment. In 2014, there were approximately 3,428 total jobs in Strasburg. This was a decrease of 267 jobs from 2004. By 2014, employment in the other geographies analyzed had recovered to at or above its pre-recession peak. However, Strasburg was only at 92% of its pre-recession peak employment. Industries that shed the most jobs between 2004 and 2014 in Strasburg include Manufacturing; Construction; Wholesale Trade; and Arts, Entertainment, and Recreation.

While Strasburg has struggled to retain employment, the Economic Region added jobs at a faster rate than the other geographies, growing employment by 6% since 2004. The region's employment is projected to grow by another 10% over the next decade.

Regarding trends in the size of businesses, Shenandoah County is losing smaller stage companies (less than 100 employees) at a faster rate than the state, which suggests that startups and small to medium size businesses are having a more difficult time staying open in the county than the state overall. The county is also shedding a significant number of jobs at large employers, especially companies at Stage 3 (100 to 499 employees) and Stage 4 (500+ employees). In summary, Shenandoah County took a major hit across all sizes of companies during the recession and its recovery is lagging behind Virginia's as a whole.

Many of the high-growth industries in Strasburg in the past decade, including sectors related to home health care, assisted living facilities, restaurants, and hospitality establishments, also have lower than average wages. Over the same period, sectors in the Manufacturing industry have lost jobs that typically pay higher wages. These trends could lead to an overall decline in the quality of jobs available in the town.

The following are findings regarding specific industry trends:

Industry Growth

- In the Economic Region, industries that experienced the greatest employment growth between 2004 and 2014 were:
    - Government: 7,141 jobs added
    - Health Care and Social Assistance: 5,538 jobs added
    - Accommodation and Food Services: 4,079 jobs added
    - Transportation and Warehousing: 3,658 jobs added
    - Education Services: 1,054 jobs added
- In Strasburg, the industries that experienced the greatest employment growth between 2004 and 2014 were:
    - Administrative and Support and Waste Management and Remediation Services: 417 jobs added

- Health Care and Social Assistance: 89 jobs added
- Transportation and Warehousing: 51 jobs added
- Accommodation and Food Services: 36 jobs added
- Management of Companies and Enterprises: 33 jobs added

- The Health Care and Social Assistance, Accommodation and Food Services, and Transportation and Warehousing industries were among the top job creators in both the Economic Region and Strasburg.
- In the Economic Region, the industries that lost the most jobs between 2004 and 2014 were:
    - Manufacturing: 8,704 jobs lost
    - Construction: 4,064 jobs lost
    - Wholesale Trade: 1,056 jobs lost
    - Real Estate and Rental and Leasing: 282 jobs lost
    - Information: 229 jobs lost
- In Strasburg, the industries that lost the most jobs between 2004 and 2014 were:
    - Manufacturing: 728 jobs lost
    - Information: 82 jobs lost
    - Construction: 26 jobs lost
    - Crop and Animal Production: 17 jobs lost
    - Retail Trade: 16 jobs lost
- In terms of employment, the Manufacturing, Construction and Information industries declined the most over the past 10 years in both the region and Strasburg.
- Over the next ten years, employment in the Economic Region is projected to grow by 10%, adding 20,327 jobs, while employment in Strasburg is expected to contract by 4%, losing 147 jobs.
- Health Care and Social Assistance is projected to continue gaining jobs in both the Economic Region and Strasburg, adding 6,520 and 228 jobs, respectively. In the Economic Region, Health Care and Social Assistance will add more jobs and grow at a higher rate than any other industry.

Industry Concentration

Industry concentration is measured by location quotients and specifically measures the percent of employment in an industry within Strasburg relative to the percent that the industry represents for the nation as a whole. Concentration sheds light on what a community and region is specialized in.

- At the 2-digit NAICS level[6], the industries in the Economic Region with high concentrations are: Transportation and Warehousing, Manufacturing, and Crop and Animal Production.
- At the 4-digit NAICS level, in the Economic Region the top 10 industries in terms of concentration are:
    - Postal Service
    - Nonscheduled Air Transportation
    - Animal Slaughtering and Processing
    - Lime and Gypsum Product Manufacturing
    - Plastics Manufacturing
    - Dairy Product Manufacturing
    - Warehousing and Storage
    - Printing and Related Support Activities
    - Paint, Coating, and Adhesive Manufacturing
    - Animal Food Manufacturing
- At the 2-digit NAICS level, the industries in Strasburg with high concentrations are: Manufacturing, Crop and Animal Production, Administrative and Support and Waste Management and Remediation Services, Information, and Other Services (except Public Administration).
- At the 4-digit NAICS level, in Strasburg, the top 10 industries in terms of concentration are:
    - Lime and Gypsum Product Manufacturing
    - Pipeline Transportation of Natural Gas
    - Printing and Related Support Activities
    - Plastics and Product Manufacturing
    - Direct Selling Establishments
    - Petroleum and Petroleum Products Merchant Wholesalers
    - Animal Production
    - Newspaper, Periodical, Book and Directory Publishers
    - Employment Services
    - Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly

[6] North American Industry Classification System (NAICS) codes are maintained by the U.S. Census Bureau and are the standard used by Federal statistical agencies in classifying business establishments. 2-digit codes are the highest aggregate NAICS code level and represent broad categories such as "retail," whereas 4-digit industry codes present a finer level of detail such as "grocery stores." http://www.census.gov/eos/www/naics/

Industry Competitiveness

Industry competitiveness is measured by Shift/Share Analysis and indicates the level of employment growth or decline in a community or region that is beyond national economic trends.

- At the 2-digit NAICS level, the top five industries in terms of positive completive effect within the Economic Region are:
    - Health Care and Social Assistance
    - Government
    - Transportation and Warehousing
    - Accommodation and Food Services
    - Other Services (except public administration), which includes industries such as Automotive Repair and Maintenance and Religious Organizations)
- At the 2-digit level, within Strasburg the top five industries in terms of positive completive effect are:
    - Administrative and Support and Waste Management and Remediation Services
    - Health Care and Social Assistance
    - Transportation and Warehousing
    - Management of Companies and Enterprises
    - Educational Services

Occupations

While employment is based on the industry in which the employer operates (i.e. manufacturing), occupations are the specific job positions held by the employees (i.e. production operator, manager, driver, etc.).

- Production occupations, which primarily include jobs in the Manufacturing industry, represent over 22% of all jobs in the Town of Strasburg. However, these jobs have declined by nearly 30% since 2004, from 1,083 jobs to just 765 jobs. Production occupations are 3 to 5 times more concentrated in the town than in the Economic Region and Virginia.
- Office and administrative services jobs are also highly represented in Strasburg, accounting for over 13% of employment. Jobs in this occupational group have also declined, shrinking by 21 jobs since 2004.
- Healthcare Support Occupations in Strasburg have increased by 127% since 2004, growing from just 36 jobs to over 80 jobs. This outpaced growth in the Economic Region and Virginia.
- In 2014, the largest occupational groups in the Economic Region were:
    - Office and Administrative Support Occupations: 27,837 jobs
    - Sales and Related Occupations: 20,806 jobs
    - Food Preparation and Serving Related Occupations: 17,732 jobs
    - Transportation and Material Moving Occupations: 16,565 jobs
    - Production Occupations: 16,112 jobs

- In Strasburg, the largest occupational groups in 2014 were:
    - Production Occupations: 765 jobs
    - Office and Administrative Support Occupations: 465 jobs
    - Transportation and Material Moving Occupations: 403 jobs
    - Food Preparation and Serving Related Occupations: 319 jobs
    - Sales and Related Occupations: 266 jobs

- Between 2004 and 2014, the occupational groups that added the most jobs in the Economic Region were:
    - Food Preparation and Serving Related Occupations: 4,035 jobs added
    - Education, Training, and Library Occupations: 2,526 jobs added
    - Healthcare Practitioners and Technical Occupations: 1,918 jobs added
    - Office and Administrative Support Occupations: 1,839 jobs added
    - Personal Care and Service Occupations: 1,783 jobs added

- In Strasburg, the occupational groups that added the most jobs between 2004 and 2014 were:
    - Food Preparation and Serving Related Occupations: 73 jobs added
    - Healthcare Support Occupations: 46 jobs added
    - Education, Training, and Library Occupations: 25 jobs added
    - Healthcare Practitioners and Technical Occupations: 25 jobs added
    - Transportation and Material Moving Occupations: 19 jobs added

In terms of projections:

- In the Economic Region, the occupational groups that are projected to add the most jobs between 2014 and 2024 are:
    - Food Preparation and Serving Related Occupations: 3,070 jobs added
    - Healthcare Practitioners and Technical Occupations: 2,354 jobs added
    - Office and Administrative Support Occupations: 2,156 jobs added
    - Education, Training, and Library Occupations: 1,939 jobs added
    - Transportation and Material Moving Occupations: 1,712 jobs added

- In Strasburg, the occupational groups that are projected to add the most jobs between 2014 and 2024 are:
    - Healthcare Support Occupations: 39 jobs added
    - Food Preparation and Serving Related Occupations: 24 jobs added
    - Healthcare Practitioners and Technical Occupations: 24 jobs added
    - Construction and Extraction Occupations: 22 jobs added
    - Education, Training, and Library Occupations: 19 jobs added
- In terms of the wages these occupations pay, the median and average hourly wages in the town are significantly lower than those of the Economic Region, Virginia, or the US.

While low wages can be a competitive advantage for attracting new businesses, it also reflects a lower quality of jobs available in the town.

- This is also reflected in the data on occupations by entry level of education required. Nearly 80% of jobs in the town have a typical entry-level education of a high school diploma or less. This compares to 70% in the Economic Region and 62% in Virginia overall. In the Economic Region, jobs requiring a Master's degree and those requiring an Associate's degree are projected to grow at the fastest rate, increasing by 21% and 19% respectively. Georgetown University projects that of the openings (both new and replacement demand) created by 2018, about 33% will require a Bachelor's degree and another 30% will require some college or an Associate's degree.[7] To compete in the knowledge-driven economy, Strasburg needs a well-educated workforce that can meet employer's growing demand for skilled workers.

Industry Opportunity Summary

Looking at the demographic, socioeconomic, employment, and occupation data together, the industry opportunities for Strasburg can be summarized as follows:

Manufacturing

- Although manufacturing is declining, it is still a key industry to the region and to Strasburg. It plays a vital part of the current activities at the Park. It also must be noted that nearby Winchester remains a major hub for manufacturing companies.
- Losses in the Manufacturing industry were a major driver of the decline in employment in Strasburg since 2004. These losses are projected to continue over the next decade, with employment in the Manufacturing industry contracting by another 36% by 2024. Despite the losses over the past decade, the industry still accounts for over 30% of employment in Strasburg. [8]
- Printing and Related Support Activities is a primary industry in Strasburg; however, it only accounts for 1.5% of overall employment in the Economic Region. Employment in Printing and Related Support Activities and Plastics Product Manufacturing industries declined by nearly 600 jobs between 2004 and 2014. Losses in these sectors drove the overall decline in the Manufacturing industry experienced in the town over the past

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[7] Carnevale, A. P., Smith, N., & Strohl, J. (2010). *Help Wanted: Projections of Jobs and Education Requirements through 2018*. Washington, DC: Georgetown University Center on Education and the Workforce.

[8] The extremely large growth in Administrative and Support Services can be attributed to one of the local manufacturing companies using a temporary service for a significant portion of their workforce, which is represented in the data the Administrative and Support and Waste Management and Remediation Services industry sector instead of the Manufacturing sector. Therefore, this represents a shift from industry to industry in employment. In other words, the contraction of the Town's Manufacturing industry is slightly overstated in the data.

decade. Despite these losses, jobs in these sectors still account for nearly 1,000 jobs in the town as of 2014.

Health Care and Social Services

- Health Care and Social Assistance industries only account for a small portion of employment in Strasburg, representing 6% of jobs. In the Economic Region, Health Care and Social Assistance accounts for 12% of employment. Subsectors related to outpatient procedures and the aging population are growing in the town and Economic Region. The town is unlikely to be competitive for the establishment of a hospital or major medical hub; however, there are opportunities to establish satellites for major medical facilities or local offices and services, potentially through the construction of medical office buildings.
- Growth in the Health Care and Social Assistance industry in the town was primarily driven by moderate growth in the Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly and Home Health Services.

Transportation, Warehousing and Wholesale Trade

- Strasburg and the Economic Region grew rapidly in the Transportation and Warehouse industry, increasing by 67% and 55% respectively. This growth far exceeded growth in this industry over the same period in Virginia or the United States.
- Strasburg is situated in an ideal location for this sector. With the Virginia Inland Port nearby and direct access to I-66 and I-81, along with changing retail market trends, there are opportunities to capitalize on the Park's location and access to major distribution networks.

Service Industry (Retail, Accommodation and Food Services, Restaurants and Other Places to Eat)

- This compilation of sectors serves the local market as well as visitors to the region, and has experienced steady growth in the last decade.
- Accommodation and Food Services account for 9% of jobs in the Economic Region and Strasburg, while the Retail industry accounts for 12% of jobs in the Economic Region and 8% of jobs in Strasburg.

Office Utilizing Industries

- Office space is a wide-ranging real estate market and could encapsulate a range of sectors and subsectors previously mentioned. Key markets that could be explored are business services, professional and technical services, and health care.

High Tech & Knowledge-driven Industries

The Town has expressed interest in high wage, tech and knowledge-driven jobs including those that are tech and/or R&D intensive. Virginia as a whole, and certain regions of Virginia, compete very well for such industries. Critical assets for competing for these industries include:

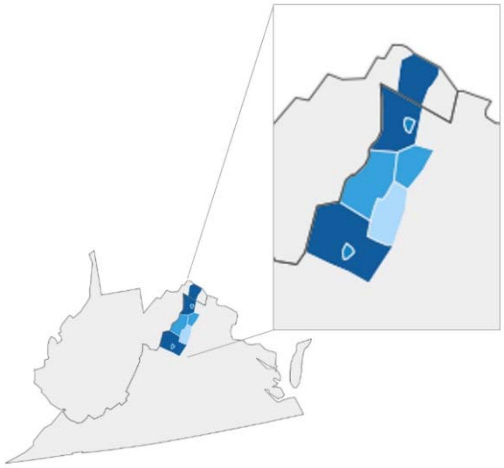
- High concentration of higher education institutions that are strong in education programs but also R&D
- Highly educated workforce
- Excellent broadband
- Proximity to major demand markets including Washington DC, Maryland, and east coast

While such opportunities in Strasburg and the Region are not out of the question, pursuing knowledge-driven and high-tech industries as an economic development strategy for Strasburg and the region will take a long, continued effort to build capacity in the areas of education, workforce, and entrepreneurial networks.

Economic Base Analysis Introduction

To fully understand the existing conditions of the local and regional economies, Camoin Associates analyzed data for the town, Economic Region, Virginia, and the US. This economic base analysis will help to hone in on the industries that are vital to the overall economy, while helping to inform other portions of the report, like the Targeted Industry Analysis and Retail Analysis.

Geographies Studied



In order to identify economic development opportunities for Strasburg and the Northern Shenandoah Business Park, economic data for the town, Economic Region, Virginia, and the US were analyzed. By analyzing economic trends at these various geographic levels, the role of the town's economy in the larger region and its relative strengths and weaknesses become evident. For the purposes of this analysis, the Town of Strasburg was represented by the zip code 22657.

Strasburg's Economic Region, as defined for this economic base analysis, is shown in this map and includes Berkeley County, Frederick County, the City of Winchester, Warren County, Page County, Rockingham County, the City of Harrisonburg, and Shenandoah County.

About the data

To analyze the economic base of the Town of Strasburg and Economic Region, industry data organized by the North American Industrial Classification System (NAICS) are assessed. Camoin Associates subscribes to Economic Modeling Specialists Intl. (EMSI), a proprietary data provider that aggregates economic data from approximately 90 sources. EMSI industry data, in our experience, is more complete than most or perhaps all local data sources.[9] Local data sources typically miss significant employment counts by industry because data on sole proprietorships and contractual employment (i.e. 1099 contractor positions) are not included and certain employment counts are suppressed from BLS/BEA figures for confidentiality reasons when too few establishments exist within a single NAICS code.

NAICS codes are maintained by the U.S. Census Bureau and are the standard used by Federal statistical agencies in classifying business establishments. 2-digit codes are the highest aggregate NAICS code level and represent broad categories such as "retail," whereas 4-digit industry codes present a finer level of detail such as "grocery stores."

Economy Overview

Economy Overview

	Population 2014	Total Number of Jobs 2004	Total Number of Jobs 2014	2004-2014	Average Earnings	Unemployment Rate*
Strasburg**	11,812	3,695	3,428	(7%)	$ 37,839	4%
Economic Region	459,440	184,258	196,165	6%	$ 45,275	5.5%
Virginia	8,365,888	4,021,067	4,179,814	4%	$ 60,826	4.9%
United States	319,076,238	146,163,720	153,804,968	5%	$ 58,918	6.4%

Source: EMSI

*Source: ESRI

** Note: For comparison purposes, 2014 population data in this table is derived from EMSI, which does not provide data at the town-level. Therefore, data for Strasburg in this table is based on the zip code region.

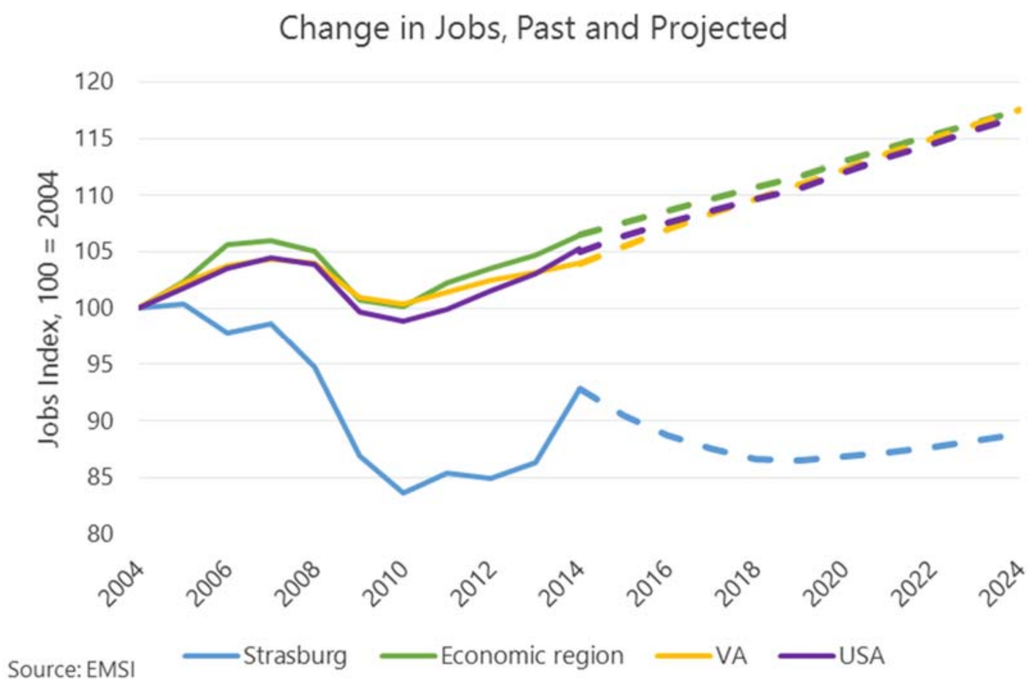
Key Findings:

- While employment in the other geographies analyzed grew between 2004 and 2014, employment in Strasburg declined. This trend is projected to continue, with employment in Strasburg decreasing by another 4% by 2024 and employment in the Economic Region, Virginia, and the US increasing by between 10% and 13%.
- Employment in Strasburg declined much more steeply during the recession than the other geographies and has yet to recover to its pre-recession employment. Industries that shed the most jobs between 2004 and 2014 in Strasburg include Manufacturing, Construction, Wholesale Trade and Arts, and Entertainment and Recreation.
- By 2014, employment in the other geographies analyzed had recovered to at or above their pre-recession peak. However, Strasburg was only at 92% of its pre-recession peak employment.
- While Strasburg has struggled to retain employment, the Economic Region added jobs at a faster rate than the other geographies, growing employment by 6% since 2004. The region's employment is projected to grow by another 10% over the next decade.

[9] Visit www.economicmodeling.com for more information.

- The Economic Region, Virginia, and the US had similar employment trends during and after the recent recession. The Economic Region managed to retain a larger share of its jobs than the US and began to recover jobs slightly ahead of Virginia or the US.
- The average earnings per job in Strasburg trails behind the average earnings in the Economic Region by more than $7,000. Virginia's average earnings is more than $15,000 higher than the Economic Region, and $2,000 more than the United States.[10]

The following graph shows past and projected job growth for the selected geographies, indexed to their respective 2004 job counts.



[10] The average earnings for a geography are calculated by totaling industry earnings for a study area, then divided that figure by the number of jobs. This figure Includes wages, salaries, supplements (i.e. additional employee benefits), and proprietor income.

Largest Industries

2-digit NAICS

The following table summarizes 2014 employment at the 2-digit NAICS level for Strasburg, the Economic Region, Virginia, and the United States. Rows highlighted indicate the five largest industries by 2014 employment for each geography. The following observations about employment across the four regions can be made from this data.

- The Manufacturing industry accounts for over one third of employment in Strasburg, but only accounts for 12% of jobs in the Economic Region, 6% of jobs in Virginia, and 8% of jobs in the US. Clearly, Strasburg benefits from a Manufacturing base and this continues to be one of its niches in the economy. However, this lack of diversification makes the Strasburg economy more vulnerable to contractions in the Manufacturing industry.
- Jobs in the Government and Health Care and Social Assistance industries only account for a small portion of employment in Strasburg, representing 2% and 6% of jobs respectively. These industries are strongly represented in the Economic Region, where Government accounts for nearly 18% of employment and Health Care and Social Assistance accounts for 12%.
- The second largest industry in Strasburg is the Administrative and Support and Waste Management and Remediation Services industry. While this broad categorization can represent a range of industries, in Strasburg, it is dominated by the temporary help services industry, which places temporary workers at businesses. According to members of the steering committee, one of the local manufacturing companies uses a temporary staffing service for a significant portion of their workforce, which is represented in the data as the Administrative and Support and Waste Management and Remediation Services industry instead of the Manufacturing industry. Thus this further increases the importance of Manufacturing in Strasburg.
- The Accommodation and Food Services and Retail Trade industries are major employers in both the Economic Region and Strasburg. Accommodation and Food Services account for 9% of jobs in the Economic Region and Strasburg, while the Retail Trade industry accounts for 12% of jobs in the Economic Region and 8% of jobs in Strasburg.

Largest Industries: 2014 Employment, 2-digit NAICS

NAICS	Description	Strasburg		Economic Region		Virginia		United States	
		2014 Jobs	% All Jobs	2014 Jobs	% All Jobs	2014 Jobs	% All Jobs	2014 Jobs	% All Jobs
90	Government	79	2%	34,361	18%	872,616	21%	24,164,450	16%
62	Health Care and Social Assistance	218	6%	23,731	12%	431,154	10%	19,044,134	12%
31	Manufacturing	1,150	33%	23,730	12%	237,586	6%	12,406,724	8%
44	Retail Trade	286	8%	23,334	12%	426,599	10%	15,968,283	10%
72	Accommodation and Food Services	308	9%	18,159	9%	324,106	8%	12,772,097	8%
23	Construction	163	5%	11,019	6%	229,707	5%	8,133,104	5%
48	Transportation and Warehousing	126	4%	10,257	5%	116,762	3%	5,028,539	3%
56	Administrative and Support and Waste Management and Remediation Services	447	13%	8,747	4%	237,508	6%	9,546,850	6%
81	Other Services (except Public Administration)	202	6%	8,262	4%	218,775	5%	7,384,645	5%
54	Professional, Scientific, and Technical Services	38	1%	6,004	3%	418,372	10%	9,671,845	6%
42	Wholesale Trade	30	1%	5,129	3%	112,377	3%	5,999,492	4%
52	Finance and Insurance	92	3%	4,569	2%	140,055	3%	6,227,517	4%
61	Educational Services	29	1%	4,503	2%	90,357	2%	3,866,452	3%
51	Information	79	2%	3618	2%	73,484	2%	2,873,746	2%
11	Crop and Animal Production	90	3%	3410	2%	23,116	1%	1,877,814	1%
71	Arts, Entertainment, and Recreation	22	1%	2,632	1%	61,685	1%	2,545,252	2%
53	Real Estate and Rental and Leasing	26	1%	2,629	1%	66,629	2%	2,532,085	2%
55	Management of Companies and Enterprises	38	1%	1,459	1%	76,154	2%	2,140,055	1%
22	Utilities	5	0%	391	0%	10,775	0%	552,992	0%
21	Mining, Quarrying, and Oil and Gas Extraction	5	0%	210	0%	7,742	0%	872,798	1%
99	Unclassified Industry	-	0%	10	0.01%	4,255	0.10%	196,093	0.13%
	Total (all jobs):	**3,428**		**196,165**		**4,179,814**		**153,804,968**	

Source: EMSI

*Industries with <10 jobs were assumed to have 5 jobs

Color designates top 5 largest industries by employment

Designates column used to sort

4-digit NAICS

The following series of tables take a deeper dive into regional and local industries, analyzing data for the largest industries at the 4-digit NAICS code level in the town, Economic Region, and Virginia. The 25 largest sectors in the Economic Region are compared to the largest sectors in the town and Virginia. Notable observations from the data include:

- Jobs are much more concentrated in the top three industries in Strasburg than in the Economic Region or in the state. Nearly 41% of the jobs in Strasburg are in its three largest industry sectors, while the largest three sectors in the Economic Region and Virginia account for about 16% of employment.
- Printing and Related Support Activities is the primary industry in Strasburg, however it only accounts for 1.5% of overall employment in the Economic Region. Printing and Related Support Activities are not among the 25 largest sectors in Virginia.
- Six sectors in the Economic Region overlap with both the town and the state: Restaurants and other Eating Places, Federal Government-Civilian, Grocery Stores, Employment Services, Traveler Accommodation, and Religious Organizations. The Economic Region and the town share 12 out of 25 top industries.
- The Federal Government, Military industry sector contributes to just over 3% of employment in the state but does not contribute to the top employment sectors in Strasburg or the Economic Region.
- Employment in Printing and Related Support Activities and Plastics Product Manufacturing industries declined by nearly 600 jobs between 2004 and 2014. Losses in these sectors drove the overall decline in the Manufacturing industry experienced in the town over the past decade. Despite these losses, jobs in these sectors still account for nearly 1,000 jobs in the town as of 2014. As noted previously, some of the employment decline in the Manufacturing industry can be accounted for by the growth of the Employment Services industry sector, as a local manufacturer has transitioned to using a temporary staffing agency to meet its employment needs over this period.
- Growth in the Health Care and Social Assistance industry in the town was primarily driven by moderate growth in the Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly and Home Health Services.
- The industry sector with the highest earnings in the Economic Region is Offices of Physicians, at $87,028. Federal Government, Civilian, which is one of the industries that gained the most jobs in the past decade, follows with average wages of $77,468. The Restaurants and Other Places sector, which gained the greatest number of jobs between 2004 and 2014, has the lowest average wages of the top 25 industries, $13,716. [11]

[11] The average earnings for a geography are calculated by totaling industry earnings for a study area, then divided that figure by the number of jobs. This figure Includes wages, salaries, supplements (i.e. additional employee benefits), and proprietor income.

- In Strasburg, the sector with the highest earnings is Management of Companies and Enterprises, at $96,249. Similar to the rest of the Economic Region, the Restaurants and Other Places sector has the lowest average earnings, at $12,432, yet is one of the industries that gained the most jobs over the last decade. While job creation was favorable in the Restaurants and Other Eating Places sector, the question of quality versus quantity arises as the earnings in this sector are much lower than the overall average earnings in these geographies.

Top 25 4-Digit Industries by 2014 Employment: Economic Region

NAICS	Description	2004 Jobs	2014 Jobs	2024 Jobs	2004-2014 Change	2004-2014 % Change	2014–2024 Change	2014–2024 % Change	Average Wages
7225	Restaurants and Other Eating Places	10,353	13,407	15,626	3,054	29%	2,218	17%	$ 13,716
9036	Education and Hospitals (Local Government)	10,671	12,401	13,693	1,730	16%	1,292	10%	$ 35,905
6221	General Medical and Surgical Hospitals	6,241	6,913	8,182	672	11%	1,269	18%	$ 55,596
9011	Federal Government, Civilian	4,242	6,633	6,352	2,391	56%	(281)	(4%)	$ 77,468
9039	Local Government, Excluding Education and Hospitals	5,200	6,480	7,381	1,280	25%	900	14%	$ 36,895
9026	Education and Hospitals (State Government)	4,080	5,520	6,294	1,440	35%	774	14%	$ 30,951
3116	Animal Slaughtering and Processing	6,999	5,201	4,727	(1,798)	(26%)	(474)	(9%)	$ 31,119
4931	Warehousing and Storage	2,625	4,648	6,118	2,023	77%	1,470	32%	$ 31,911
4529	Other General Merchandise Stores	3,544	4,289	4,689	745	21%	400	9%	$ 26,210
5617	Services to Buildings and Dwellings	2,865	3,519	3,978	654	23%	459	13%	$ 18,689
3261	Plastics Product Manufacturing	5,254	3,463	2,928	(1,791)	(34%)	(536)	(15%)	$ 57,435
4451	Grocery Stores	2,807	3,348	3,449	541	19%	101	3%	$ 18,617
5613	Employment Services	3,474	3,247	3,613	(227)	(7%)	366	11%	$ 25,267
6211	Offices of Physicians	2,650	3,055	4,039	405	15%	984	32%	$ 87,028
7211	Traveler Accommodation	2,875	2,986	3,018	111	4%	32	1%	$ 17,501
3231	Printing and Related Support Activities	3,442	2,801	2,898	(641)	(19%)	97	3%	$ 39,440
2382	Building Equipment Contractors	3,341	2,704	3,074	(637)	(19%)	370	14%	$ 40,457
5221	Depository Credit Intermediation	1,726	2,604	2,924	878	51%	320	12%	$ 43,386
8131	Religious Organizations	2,119	2,585	3,216	467	22%	631	24%	$ 16,543
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	2,015	2,277	2,751	262	13%	473	21%	$ 22,685
6241	Individual and Family Services	523	2,256	3,415	1,733	331%	1,159	51%	$ 18,674
4841	General Freight Trucking	2,018	2,214	2,269	195	10%	55	2%	$ 41,240
4471	Gasoline Stations	2,289	2,113	2,228	(176)	(8%)	114	5%	$ 18,485
4441	Building Material and Supplies Dealers	1,891	1,922	2,103	32	2%	180	9%	$ 30,977
2389	Other Specialty Trade Contractors	2,326	1,897	2,057	(429)	(18%)	160	8%	$ 30,909
	Total:	**95,569**	**108,485**	**121,019**	**12,916**	**14%**	**12,533**	**12%**	

Designates industries that shed the most jobs (2004-2014)

Designates industries that added the most jobs (2004-2014)

Source: EMSI

Top 25 4-Digit Industries by 2014 Employment: Strasburg

NAICS	Description	2004 Jobs	2014 Jobs	2024 Jobs	2004-2014 Change	2004-2014 % Change	2014–2024 Change	2014–2024 % Change	Average Wages
3231	Printing and Related Support Activities	662	509	442	(153)	(23%)	(66)	(13%)	$ 30,715
3261	Plastics Product Manufacturing	888	474	174	(414)	(47%)	(300)	(63%)	$ 48,628
5613	Employment Services	5	417	637	412	8249%	220	53%	$ 22,225
7225	Restaurants and Other Eating Places	203	260	272	57	28%	12	5%	$ 12,432
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	34	98	152	64	188%	54	55%	$ 17,136
3274	Lime and Gypsum Product Manufacturing	181	92	51	(88)	(49%)	(41)	(45%)	$ 66,765
4543	Direct Selling Establishments	69	77	63	8	11%	(14)	(18%)	$ 32,046
4471	Gasoline Stations	76	72	76	(4)	(6%)	4	6%	$ 17,817
5221	Depository Credit Intermediation	75	70	59	(5)	(7%)	(12)	(16%)	$ 43,632
5111	Newspaper, Periodical, Book, and Directory Publishers	131	61	20	(70)	(54%)	(40)	(67%)	$ 16,262
1120	Animal Production	84	60	32	(24)	(28%)	(28)	(46%)	$ 21,162
4451	Grocery Stores	54	56	54	2	4%	(2)	(4%)	$ 17,334
4841	General Freight Trucking	42	56	54	14	34%	(2)	(3%)	$ 40,024
8131	Religious Organizations	45	55	57	10	21%	2	4%	$ 13,264
2383	Building Finishing Contractors	33	49	75	17	51%	26	52%	$ 13,453
4862	Pipeline Transportation of Natural Gas	5	49	32	44	871%	(16)	(34%)	$ 67,251
8134	Civic and Social Organizations	43	43	48	(0)	(1%)	5	11%	$ 15,538
2381	Foundation, Structure, and Building Exterior Contractors	60	39	33	(20)	(34%)	(7)	(17%)	$ 24,343
5511	Management of Companies and Enterprises	5	38	47	33	656%	9	24%	$ 96,249
6216	Home Health Care Services	15	37	63	23	153%	26	69%	$ 19,038
9011	Federal Government, Civilian	38	35	29	(3)	(8%)	(6)	(17%)	$ 54,982
7211	Traveler Accommodation	61	32	5	(29)	(47%)	(27)	(85%)	$ 15,371
8111	Automotive Repair and Maintenance	15	29	47	15	98%	17	59%	$ 25,851
2373	Highway, Street, and Bridge Construction	24	29	48	5	20%	18	63%	$ 52,731
9012	Federal Government, Military	29	27	25	(2)	(7%)	(2)	(7%)	$ 28,157
	Total:	**2,877**	**2,766**	**2,596**	**(112)**	**(4%)**	**(170)**	**(6%)**	

Designates industries that shed the most jobs (2004-2014)

Designates industries that added the most jobs (2004-2014)

Source: EMSI

*Industries with <10 jobs asummed to have 5 jobs

Largest 25 Industries: Economic Region, 2014 Employment, 4-digit NAICS

NAICS	Description	2014 Jobs	% All Jobs
7225	Restaurants and Other Eating Places	13,407	6.83%
9036	Education and Hospitals (Local Government)	12,401	6.32%
6221	General Medical and Surgical Hospitals	6,913	3.52%
9011	Federal Government, Civilian	6,633	3.38%
9039	Local Government, Excluding Education and Hospitals	6,480	3.30%
9026	Education and Hospitals (State Government)	5,520	2.81%
3116	Animal Slaughtering and Processing	5,201	2.65%
4931	Warehousing and Storage	4,648	2.37%
4529	Other General Merchandise Stores	4,289	2.19%
5617	Services to Buildings and Dwellings	3,519	1.79%
3261	Plastics Product Manufacturing	3,463	1.77%
4451	Grocery Stores	3,348	1.71%
5613	Employment Services	3,247	1.66%
6211	Offices of Physicians	3,055	1.56%
7211	Traveler Accommodation	2,986	1.52%
3231	Printing and Related Support Activities	2,801	1.43%
2382	Building Equipment Contractors	2,704	1.38%
5221	Depository Credit Intermediation	2,604	1.33%
8131	Religious Organizations	2,585	1.32%
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	2,277	1.16%
6241	Individual and Family Services	2,256	1.15%
4841	General Freight Trucking	2,214	1.13%
4471	Gasoline Stations	2,113	1.08%
4441	Building Material and Supplies Dealers	1,922	0.98%
2389	Other Specialty Trade Contractors	1,897	0.97%
	Total:	**108,485**	**55%**

Source: EMSI

Designates overlap with Top 25 4-digit sectors in town and state

Largest 25 Industries: Strasburg, 2014 Employment, 4-digit NAICS

NAICS	Description	2014 Jobs	% All Jobs
3231	Printing and Related Support Activities	509	14.84%
3261	Plastics Product Manufacturing	474	13.82%
5613	Employment Services	417	12.18%
7225	Restaurants and Other Eating Places	260	7.58%
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	98	2.87%
3274	Lime and Gypsum Product Manufacturing	92	2.69%
4543	Direct Selling Establishments	77	2.25%
4471	Gasoline Stations	72	2.10%
5221	Depository Credit Intermediation	70	2.05%
5111	Newspaper, Periodical, Book, and Directory Publishers	61	1.77%
1120	Animal Production	60	1.75%
4451	Grocery Stores	56	1.65%
4841	General Freight Trucking	56	1.62%
8131	Religious Organizations	55	1.59%
2383	Building Finishing Contractors	49	1.44%
4862	Pipeline Transportation of Natural Gas	49	1.42%
8134	Civic and Social Organizations	43	1.26%
2381	Foundation, Structure, and Building Exterior Contractors	39	1.15%
5511	Management of Companies and Enterprises	38	1.10%
6216	Home Health Care Services	37	1.09%
9011	Federal Government, Civilian	35	1.02%
7211	Traveler Accommodation	32	0.95%
8111	Automotive Repair and Maintenance	29	0.86%
2373	Highway, Street, and Bridge Construction	29	0.85%
9012	Federal Government, Military	27	0.80%
	Total:	**2,766**	**81%**

Source: EMSI

Designates overlap with Top 25 4-digit sectors in Economic Region

Largest 25 Industries: Virginia, 2014 Employment, 4-digit NAICS

NAICS	Description	2014 Jobs	% All Jobs
7225	Restaurants and Other Eating Places	257,519	6.16%
9036	Education and Hospitals (Local Government)	221,912	5.31%
9011	Federal Government, Civilian	196,924	4.71%
9039	Local Government, Excluding Education and Hospitals	148,183	3.55%
5415	Computer Systems Design and Related Services	144,294	3.45%
9012	Federal Government, Military	140,097	3.35%
9026	Education and Hospitals (State Government)	104,435	2.50%
6221	General Medical and Surgical Hospitals	96,188	2.30%
5617	Services to Buildings and Dwellings	86,936	2.08%
5416	Management, Scientific, and Technical Consulting Services	84,720	2.03%
5511	Management of Companies and Enterprises	76,154	1.82%
4451	Grocery Stores	68,238	1.63%
6211	Offices of Physicians	68,120	1.63%
5613	Employment Services	64,163	1.54%
2382	Building Equipment Contractors	61,171	1.46%
9029	State Government, Excluding Education and Hospitals	61,065	1.46%
4529	Other General Merchandise Stores	55,617	1.33%
5413	Architectural, Engineering, and Related Services	55,462	1.33%
8131	Religious Organizations	51,205	1.23%
6241	Individual and Family Services	44,910	1.07%
7211	Traveler Accommodation	43,964	1.05%
6113	Colleges, Universities, and Professional Schools	38,171	0.91%
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	37,015	0.89%
7139	Other Amusement and Recreation Industries	36,204	0.87%
4521	Department Stores	36,098	0.86%
	Total:	**2,278,765**	**55%**

Source: EMSI

Designates overlap with Top 25 4-digit sectors in Economic Region

Employment Change

The following table shows past and projected employment trends in the town for 2-digit NAICS codes. The industries with the greatest job losses are highlighted in green while the industries with the greatest increases in jobs are highlighted in blue.

Key Findings:

- In 2014, there were approximately 3,428 total jobs in Strasburg. This was a decrease of 267 jobs from 2004.
- Losses in the Manufacturing industry were a major driver of the decline in employment in Strasburg since 2004. These losses are projected to continue over the next decade, with employment in the Manufacturing industry contracting by another 36% by 2024. Despite the losses over the past decade, the industry still accounts for over 30% of employment in Strasburg.[12]
- Administrative and Support Services, Management of Companies, Educational Services, and Health Care grew considerably over the past decade and are expected to continue growing over the next ten years. Despite this notable growth, these industries only account for a small percentage of Strasburg's total employment.

A similar analysis was conducted for the other geographies studied. In the second table, the change in employment between 2004 and 2014 in Strasburg, the Economic Region, Virginia, and the United States were compared.

Key Findings:

- Generally, employment declined in the same industries in all four geographies, including Construction, Manufacturing, Wholesale Trade, Information, and Real Estate. However, in Strasburg, employment in the Manufacturing, Wholesale Trade, Information, and Real Estate industries declined at a higher rate than in the other geographies.
- The town and Economic Region grew rapidly in the Transportation and Warehouse industry, increasing by 67% and 55% respectively. This growth far exceeded growth in this industry over the same period in Virginia or the United States.
- Strasburg experienced triple digit growth in the Management of Companies, and Enterprises, Administrative and Support, and Educational Services industries. These industries had extremely low employment (in some cases, fewer than 10 employees) in 2004. The growth is expected to continue over the next ten years, but at a lower rate.
- The Economic Region and Strasburg shared significant growth in five industries: Transportation and Warehousing, Management of Companies and Enterprises,

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[12] The extremely large growth in Administrative and Support Services can be attributed to one of the local manufacturing companies using a temporary service for a significant portion of their workforce, which is represented in the data the Administrative and Support and Waste Management and Remediation Services industry sector instead of the Manufacturing sector. Therefore this represents a shift from industry to industry in employment, not actual growth.

Educational Services, Health Care and Social Assistance and Accommodation and Food Services.

- The Economic Region and Strasburg experienced significant loss in five industries: Construction, Manufacturing, Wholesale Trade, Information, and Real Estate and Rental Leasing.

Town of Strasburg Past and Projected Employment Change: 2-digit NAICS

NAICS	Description	2004 Jobs	2014 Jobs	2024 Jobs (proj.)	2004-2014 Change	2004-2014 % Change	2014–2024 Change	2014–2024 % Change
11	Crop and Animal Production	107	90	64	(17)	(16%)	(27)	(29%)
21	Mining, Quarrying, and Oil and Gas Extraction	0	5	0	5	0%	0	0%
22	Utilities	5	5	5	0	0%	0	0%
23	Construction	190	163	194	(26)	(14%)	31	19%
31	Manufacturing	1,878	1,150	740	(728)	(39%)	(410)	(36%)
42	Wholesale Trade	42	30	30	(12)	(28%)	(1)	0%
44	Retail Trade	302	286	269	(16)	(5%)	(16)	(6%)
48	Transportation and Warehousing	75	126	112	51	67%	(14)	(11%)
51	Information	161	79	33	(82)	(51%)	(47)	(58%)
52	Finance and Insurance	103	92	78	(11)	(11%)	(14)	(15%)
53	Real Estate and Rental and Leasing	33	26	20	(7)	(20%)	(6)	(23%)
54	Professional, Scientific, and Technical Services	41	38	53	(2)	(6%)	14	39%
55	Management of Companies and Enterprises	5	38	47	33	656%	9	24%
56	Administrative and Support and Waste Management and Remediation Services	29	447	675	417	1420%	228	51%
61	Educational Services	5	29	48	24	490%	19	66%
62	Health Care and Social Assistance	129	218	308	89	69%	90	41%
71	Arts, Entertainment, and Recreation	37	22	17	(15)	(40%)	(5)	(23%)
72	Accommodation and Food Services	273	308	301	36	13%	(7)	(2%)
81	Other Services (except Public Administration)	195	202	220	7	3%	18	9%
90	Government	83	79	71	(4)	(5%)	(7)	(10%)
99	Unclassified Industry	0	0	0	0	0%	0	0%
	Total (all jobs):	**3,695**	**3,428**	**3,281**	**(267)**	**(7%)**	**(147)**	**(4%)**

Designates industries that shed the most jobs (2004-2014)

Designates industries that added the most jobs (2004-2014)

Source: EMSI

*Industries with <10 jobs were assumed to have 5 jobs

Percent Change in Employment 2004-2014: 2-digit NAICS

NAICS	Description	Strasburg	Economic Region	Virginia	United States
11	Crop and Animal Production	(16%)	23%	(17%)	(3%)
21	Mining, Quarrying, and Oil and Gas Extraction	0%	(28%)	(8%)	63%
22	Utilities	0%	41%	(9%)	(2%)
23	Construction	(14%)	(27%)	(20%)	(12%)
31	Manufacturing	(39%)	(27%)	(22%)	(15%)
42	Wholesale Trade	(28%)	(17%)	(5%)	3%
44	Retail Trade	(5%)	2%	(1%)	1%
48	Transportation and Warehousing	67%	55%	1%	9%
51	Information	(51%)	(6%)	(29%)	(12%)
52	Finance and Insurance	(11%)	27%	2%	(1%)
53	Real Estate and Rental and Leasing	(20%)	(10%)	(7%)	(5%)
54	Professional, Scientific, and Technical Services	(6%)	6%	21%	20%
55	Management of Companies and Enterprises	656%	42%	9%	26%
56	Administrative and Support and Waste Management and Remediation Services	1420%	12%	8%	10%
61	Educational Services	490%	31%	36%	24%
62	Health Care and Social Assistance	69%	30%	31%	26%
71	Arts, Entertainment, and Recreation	(40%)	26%	19%	14%
72	Accommodation and Food Services	13%	29%	15%	18%
81	Other Services (except Public Administration)	3%	7%	10%	2%
90	Government	(5%)	26%	4%	2%
99	Unclassified Industry	0%	(52%)	(12%)	(18%)

Source: EMSI

Indicates industries where Strasburg and the Economic Region experienced significant loss

Indicates industries where Strasubrg and the Economic Region expereinced high growth

Change in Employment, 2004-2014

The following analysis and tables summarize changes in employment in the Economic Region, Strasburg, Virginia, and the US at the 2-digit and 4-digit NAICS code levels between 2004 and 2014.

2-digit NAICS

- In the Economic Region, the industries that experienced the greatest employment growth between 2004 and 2014 were:
    - Government: 7,141 jobs added
    - Health Care and Social Assistance: 5,538 jobs added
    - Accommodation and Food Services: 4,079 jobs added
    - Transportation and Warehousing: 3,658 jobs added
    - Education Services: 1,054 jobs added
- In Strasburg, the industries that experienced the greatest employment growth between 2004 and 2014 were:
    - Administrative and Support and Waste Management and Remediation Services: 417 jobs added
    - Health Care and Social Assistance: 89 jobs added
    - Transportation and Warehousing: 51 jobs added
    - Accommodation and Food Services: 36 jobs added
    - Management of Companies and Enterprises: 33 jobs added
- The Health Care and Social Assistance, Accommodation and Food Services, and Transportation and Warehousing industries were among the top job creators in both the Economic Region and Strasburg.
- In the Economic Region, the industries that lost the most jobs between 2004 and 2014 were:
    - Manufacturing: 8,704 jobs lost
    - Construction: 4,064 jobs lost
    - Wholesale Trade: 1,056 jobs lost
    - Real Estate and Rental and Leasing: 282 jobs lost
    - Information: 229 jobs lost
- In Strasburg, the industries that lost the most jobs between 2004 and 2014 were:
    - Manufacturing: 728 jobs lost
    - Information: 82 jobs lost
    - Construction: 26 jobs lost
    - Crop and Animal Production: 17 jobs lost
    - Retail Trade: 16 jobs lost
- In terms of employment, the Manufacturing, Construction and Information industries declined the most over the past 10 years in both the region and Strasburg.

4-digit NAICS

- Out of the top 25 industries that gained the greatest number of jobs between 2004 and 2014 in the Economic Region, 9 overlap with both Strasburg and Virginia: Restaurants and Eating Places, Education and Hospitals (State Government), Special Food Services, Services to Buildings and Dwellings, Grocery Stores, Home Health Care Services, Management of Companies and Enterprises, and Offices of Other Health Practitioners. Based on these common growth industries, it is clear that employment growth is being driven by the education and health care-related sectors in multiple geographies.
- While all geographies increased employment in Home Health Care Services, employment in Strasburg grew at the highest rate.
- Strasburg also experienced high growth in the Continuing Care Retirement Communities and Assisted Living for the Elderly sector, which added 64 jobs.
- Out of the 25 sectors which gained the greatest number of jobs in the Economic Region, 10 overlap with Strasburg's top 25 industries, while 15 sectors overlap with the Economic Region and Virginia. This indicates that the industries that gained the most jobs over the last decade in Strasburg are not generally shared by the greater region and rest of the state.
- The top five industries in Virginia with overlap in the Economic Region are: Restaurants and Other Eating Places, Individual Family Services, Federal Government (Civilian), Offices of Physicians, and Education and Hospitals (State Government)

In summary, the following key findings are relevant in historic growth:

- The Economic Region and Strasburg took major hits with jobs losses in Manufacturing, Information (printing and publishing), and Construction. They both experienced gains in Health Care and Social Assistance, Accommodation and Food Services, and Transportation and Warehousing industries.
- Over the last decade, industries that gained jobs in Strasburg are not generally shared by the greater region or the rest of the state. Many of the high growth industries in the town, including sectors related to home health care, assisted living facilities, restaurants, and hospitality establishments, also have low average wages. Over the same period, sectors in the Manufacturing industry have lost jobs that typically pay higher wages. These trends could lead to an overall decline in the quality of jobs available in Strasburg.
- Whereas many of the top industry sectors in Strasburg are in the Manufacturing industry, the top sectors in the Economic Region are related to the hospitality, hospitals, physician's offices, outpatient care, and the government. Generally, these industry sectors are expected to grow at a steady rate over the next ten years. Excluding hospitality, these sectors also offer higher wages than many of the growth industries in Strasburg.

Historic Job Growth: Economic Region, 2004-2014, 2-digit NAICS

NAICS	Description	2004 Jobs	2014 Jobs	# Change	% Change
90	Government	27,220	34,361	7,141	26%
62	Health Care and Social Assistance	18,193	23,731	5,538	30%
72	Accommodation and Food Services	14,080	18,159	4,079	29%
48	Transportation and Warehousing	6,599	10,257	3,658	55%
61	Educational Services	3,448	4,503	1,054	31%
52	Finance and Insurance	3,584	4,569	985	27%
56	Administrative and Support and Waste Management and Remediation Services	7,790	8,747	956	12%
11	Crop and Animal Production	2,773	3,410	637	23%
71	Arts, Entertainment, and Recreation	2,091	2,632	541	26%
81	Other Services (except Public Administration)	7,739	8,262	523	7%
55	Management of Companies and Enterprises	1,029	1,459	431	42%
44	Retail Trade	22,980	23,334	355	2%
54	Professional, Scientific, and Technical Services	5,683	6,004	321	6%
22	Utilities	277	391	115	41%
99	Unclassified Industry	21	10	(11)	(52%)
21	Mining, Quarrying, and Oil and Gas Extraction	290	210	(80)	(28%)
51	Information	3,848	3,618	(229)	(6%)
53	Real Estate and Rental and Leasing	2,911	2,629	(282)	(10%)
42	Wholesale Trade	6,185	5,129	(1,056)	(17%)
23	Construction	15,083	11,019	(4,064)	(27%)
31	Manufacturing	32,434	23,730	(8,704)	(27%)
	Total (all jobs):	**184,258**	**196,165**	**11,907**	**6%**

Source: EMSI

Historic Job Growth: Strasburg, 2004-2014, 2-digit NAICS

NAICS	Description	2004 Jobs	2014 Jobs	# Change	% Change
56	Administrative and Support and Waste Management and Remediation Services	29	447	417	1420%
62	Health Care and Social Assistance	129	218	89	69%
48	Transportation and Warehousing	75	126	51	67%
72	Accommodation and Food Services	273	308	36	13%
55	Management of Companies and Enterprises	5	38	33	656%
61	Educational Services	5	29	24	490%
81	Other Services (except Public Administration)	195	202	7	3%
21	Mining, Quarrying, and Oil and Gas Extraction	0	5	5	0%
22	Utilities	5	5	0	0%
99	Unclassified Industry	0	0	0	0%
54	Professional, Scientific, and Technical Services	41	38	(2)	(6%)
90	Government	83	79	(4)	(5%)
53	Real Estate and Rental and Leasing	33	26	(7)	(20%)
52	Finance and Insurance	103	92	(11)	(11%)
42	Wholesale Trade	42	30	(12)	(28%)
71	Arts, Entertainment, and Recreation	37	22	(15)	(40%)
44	Retail Trade	302	286	(16)	(5%)
11	Crop and Animal Production	107	90	(17)	(16%)
23	Construction	190	163	(26)	(14%)
51	Information	161	79	(82)	(51%)
31	Manufacturing	1,878	1,150	(728)	(39%)
	Total (all jobs):	**3,695**	**3,428**	**(267)**	**(7%)**

Source: EMSI

*Industries with <10 jobs were assumed to have 5 jobs

Historic Employment Change: 2004-2014, 2-digit NAICS

NAICS	Description	Strasburg 2004-2014 Change	Strasburg 2004-2014 % Change	Economic Region 2004-2014 Change	Economic Region 2004-2014 % Change	Virginia 2004-2014 Change	Virginia 2004-2014 % Change	United States 2004-2014 Change	United States 2004-2014 % Change
90	Government	(4)	(5%)	7,141	26%	33,767	4%	448,547	2%
62	Health Care and Social Assistance	89	69%	5,538	30%	101,427	31%	3,944,857	26%
72	Accommodation and Food Services	36	13%	4,079	29%	42,853	15%	1,919,941	18%
48	Transportation and Warehousing	51	67%	3,658	55%	903	1%	407,250	9%
61	Educational Services	24	490%	1,054	31%	24,009	36%	742,315	24%
52	Finance and Insurance	(11)	(11%)	985	27%	2,797	2%	(35,039)	(1%)
56	Administrative and Support and Waste Management and Remediation Services	417	1420%	956	12%	17,504	8%	890,543	10%
11	Crop and Animal Production	(17)	(16%)	637	23%	(4,850)	(17%)	(52,714)	(3%)
71	Arts, Entertainment, and Recreation	(15)	(40%)	541	26%	9,729	19%	303,023	14%
81	Other Services (except Public Administration)	7	3%	523	7%	19,105	10%	155,714	2%
55	Management of Companies and Enterprises*	33	656%	431	42%	5,977	9%	443,518	26%
44	Retail Trade	(16)	(5%)	355	2%	(2,364)	(1%)	115,453	1%
54	Professional, Scientific, and Technical Services	(2)	(6%)	321	6%	72,998	21%	1,622,308	20%
22	Utilities	0	0%	115	41%	(1,007)	(9%)	(10,938)	(2%)
99	Unclassified Industry	0	0%	(11)	(52%)	(578)	(12%)	(43,086)	(18%)
21	Mining, Quarrying, and Oil and Gas Extraction	5	0%	(80)	(28%)	(686)	(8%)	338,439	63%
51	Information	(82)	(51%)	(229)	(6%)	(29,814)	(29%)	(378,968)	(12%)
53	Real Estate and Rental and Leasing	(7)	(20%)	(282)	(10%)	(4,804)	(7%)	(130,336)	(5%)
42	Wholesale Trade	(12)	(28%)	(1,056)	(17%)	(5,331)	(5%)	156,525	3%
23	Construction	(26)	(14%)	(4,064)	(27%)	(57,119)	(20%)	(1,059,299)	(12%)
31	Manufacturing	(728)	(39%)	(8,704)	(27%)	(65,769)	(22%)	(2,136,806)	(15%)
	Total (all jobs):	**(267)**	**(7%)**	**11,907**	**6%**	**158,748**	**4%**	**7,641,248**	**5%**

Source: EMSI

Designates industries that added the most jobs (2004-2014)

Designates column used to sort

Historic Job Growth in Top 25 Industries: Economic Region, 2004-2014, 4-digit NAICS

NAICS	Description	2004 Jobs	2014 Jobs	# Change	% Change
7225	Restaurants and Other Eating Places	10,353	13,407	3,054	29%
9011	Federal Government, Civilian	4,242	6,633	2,391	56%
4931	Warehousing and Storage	2,625	4,648	2,023	77%
6241	Individual and Family Services	523	2,256	1,733	331%
9036	Education and Hospitals (Local Government)	10,671	12,401	1,730	16%
9026	Education and Hospitals (State Government)	4,080	5,520	1,440	35%
9039	Local Government, Excluding Education and Hospitals	5,200	6,480	1,280	25%
5221	Depository Credit Intermediation	1,726	2,604	878	51%
7223	Special Food Services	516	1,275	759	147%
4529	Other General Merchandise Stores	3,544	4,289	745	21%
6221	General Medical and Surgical Hospitals	6,241	6,913	672	11%
4921	Couriers and Express Delivery Services	395	1,058	663	168%
5617	Services to Buildings and Dwellings	2,865	3,519	654	23%
5112	Software Publishers	13	666	653	4997%
6242	Community Food and Housing, and Emergency and Other Relief Services	152	790	639	421%
4812	Nonscheduled Air Transportation	15	557	542	3608%
4451	Grocery Stores	2,807	3,348	541	19%
8131	Religious Organizations	2,119	2,585	467	22%
6216	Home Health Care Services	614	1,065	451	73%
5511	Management of Companies and Enterprises	1,029	1,459	431	42%
6214	Outpatient Care Centers	550	980	430	78%
6213	Offices of Other Health Practitioners	649	1,074	424	65%
1110	Crop Production	1,116	1,530	414	37%
6211	Offices of Physicians	2,650	3,055	405	15%
6111	Elementary and Secondary Schools	1,468	1,857	389	26%
	Total (all jobs):	**184,258**	**196,165**	**11,907**	**6%**

Source: EMSI

Designates overlap with Top 25 4-digit sectors in town and state

Historic Job Growth in Top 25 Industries: Strasburg, 2004-2014, 4-digit NAICS

NAICS	Description	2004 Jobs	2014 Jobs	# Change	% Change
5613	Employment Services**	5	417	412	8249%
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	34	98	64	188%
7225	Restaurants and Other Eating Places	203	260	57	28%
4862	Pipeline Transportation of Natural Gas	5	49	44	871%
5511	Management of Companies and Enterprises	5	38	33	656%
6216	Home Health Care Services	15	37	22	147%
2383	Building Finishing Contractors	33	49	16	48%
4841	General Freight Trucking	42	56	14	33%
8111	Automotive Repair and Maintenance	15	29	14	93%
5617	Services to Buildings and Dwellings	12	25	13	108%
3222	Converted Paper Product Manufacturing	0	11	11	Insf. Data
7223	Special Food Services	5	16	11	220%
8131	Religious Organizations	45	55	10	22%
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	5	15	10	192%
8129	Other Personal Services	5	14	9	190%
6219	Other Ambulatory Health Care Services	5	14	9	187%
6213	Offices of Other Health Practitioners	5	14	9	183%
6117	Educational Support Services	5	14	9	176%
4543	Direct Selling Establishments	69	77	8	12%
1110	Crop Production	11	17	6	55%
2373	Highway, Street, and Bridge Construction	24	29	5	21%
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	10	15	5	50%
4842	Specialized Freight Trucking	12	15	3	25%
4451	Grocery Stores	54	56	2	4%
9026	Education and Hospitals (State Government)	15	16	1	7%
	Total (all jobs)	**3,695**	**3,428**	**(267)**	**(7%)**

Source: EMSI

Designates overlap with Top 25 4-digit sectors in Economic Region

*Industries with <10 jobs were assumed to have 5 jobs

**As previously noted, the growth in this sector has been driven by a manufacturing company in the town using a temporary employment agency to staff its facility

Historic Job Growth in Top 25 Industries: Virginia, 2004-2014

NAICS	Description	2004 Jobs	2014 Jobs	# Change	% Change
7225	Restaurants and Other Eating Places	218,642	257,519	38,877	18%
5415	Computer Systems Design and Related Services	110,685	144,294	33,609	30%
5416	Management, Scientific, and Technical Consulting Services	52,054	84,720	32,666	63%
6241	Individual and Family Services	13,775	44,910	31,135	226%
9011	Federal Government, Civilian	170,475	196,924	26,449	16%
6211	Offices of Physicians	51,037	68,120	17,083	33%
9026	Education and Hospitals (State Government)	90,783	104,435	13,652	15%
6113	Colleges, Universities, and Professional Schools	24,917	38,171	13,254	53%
4529	Other General Merchandise Stores	42,696	55,617	12,921	30%
9036	Education and Hospitals (Local Government)	210,379	221,912	11,533	5%
5617	Services to Buildings and Dwellings	75,883	86,936	11,053	15%
9039	Local Government, Excluding Education and Hospitals	137,515	148,183	10,668	8%
6216	Home Health Care Services	16,597	27,107	10,510	63%
4451	Grocery Stores	58,442	68,238	9,796	17%
6221	General Medical and Surgical Hospitals	88,827	96,188	7,361	8%
5417	Scientific Research and Development Services	18,419	25,515	7,096	39%
8121	Personal Care Services	27,005	33,895	6,890	26%
3366	Ship and Boat Building	21,616	28,432	6,816	32%
7139	Other Amusement and Recreation Industries	29,778	36,204	6,426	22%
5419	Other Professional, Scientific, and Technical Services	16,634	22,842	6,208	37%
5242	Agencies, Brokerages, and Other Insurance Related Activities	19,753	25,931	6,178	31%
6213	Offices of Other Health Practitioners	14,824	20,866	6,042	41%
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	20,851	26,843	5,992	29%
5511	Management of Companies and Enterprises	70,178	76,154	5,976	9%
7223	Special Food Services	15,589	20,840	5,251	34%
	Total (all jobs):	**4,021,067**	**4,179,814**	**158,748**	**4%**

Source: EMSI

Change in Employment, 2014-2024

The following analysis and tables summarize changes in employment in the Economic Region, Strasburg, Virginia, and the US at the 2-digit and 4-digit NAICS code levels between 2014 and 2024.

2-digit NAICS

- Over the next ten years, employment in the Economic Region is projected to grow by 10%, adding 20,327 jobs, while employment in Strasburg is expected to contract by 4%, losing 147 jobs.
- Health Care and Social Assistance is projected to continue gaining jobs in both the Economic Region and Strasburg, adding 6,520 and 228 jobs, respectively. In the Economic Region, Health Care and Social Assistance will add more jobs and grow at a higher rate than any other industry.
- In Strasburg, Administrative and Support Services is projected to add the greatest number of jobs, while Educational Services is projected to grow at the highest rate.

4-digit NAICS

- Growth in Home Health Care Services will continue in all three geographies, although at a slower rate than the previous ten years.
- Similar to historic growth, out of the top 25 industries that will experience job growth between 2014 and 2024, Virginia and the Economic Region share 18 industries, while the Economic Region and Strasburg will only share 11 industries. This data demonstrates again that Strasburg's strengths in job growth are not strongly aligned with the rest of the region and state.
- At the 4-digit NAICS level, Restaurants and Other Eating Places are project to gain the most jobs in the Economic Region, while Offices of Other Health Practitioners are projected to grow at the highest rate, increasing by 57%
- Virginia is expected to experience significant growth in high tech industries, as a combined 88,000 jobs will be added in Computer Systems Design and Management, Scientific and Technical Consulting Services sectors. The Economic Region is projected to grow by 30% in the Computer Systems Design sector, adding 293 jobs. Over the same period, Strasburg is not projected to add jobs in high tech industries, reflecting the obstacles this community faces in attracting employment in high tech industries, even as the Economic Region benefits from growth in these sectors. A major transformation will need to occur to develop capacity to accommodate investment from high tech companies.

Projected Job Growth: Economic Region, 2014-2024, 2-digit NAICS

NAICS	Description	2014 Jobs	2024 Jobs	# Change	% Change
62	Health Care and Social Assistance	23,731	30,250	6,520	27%
72	Accommodation and Food Services	18,159	21,114	2,955	16%
90	Government	34,361	37,018	2,657	8%
48	Transportation and Warehousing	10,257	12,245	1,988	19%
44	Retail Trade	23,334	25,203	1,869	8%
81	Other Services (except Public Administration)	8,262	9,499	1,237	15%
56	Administrative and Support and Waste Management and	8,747	9,965	1,218	14%
54	Professional, Scientific, and Technical Services	6,004	6,987	983	16%
61	Educational Services	4,503	5,247	744	17%
23	Construction	11,019	11,610	590	5%
52	Finance and Insurance	4,569	5,147	578	13%
71	Arts, Entertainment, and Recreation	2,632	3,072	440	17%
42	Wholesale Trade	5,129	5,374	245	5%
53	Real Estate and Rental and Leasing	2,629	2,767	138	5%
99	Unclassified Industry	10	10	0	2%
21	Mining, Quarrying, and Oil and Gas Extraction	210	191	(19)	(9%)
22	Utilities	391	342	(49)	(12%)
11	Crop and Animal Production	3,410	3,356	(54)	(2%)
55	Management of Companies and Enterprises	1,459	1,387	(72)	(5%)
51	Information	3,618	3,427	(191)	(5%)
31	Manufacturing	23,730	22,281	(1,449)	(6%)
	Total (all jobs):	**196,165**	**216,492**	**20,327**	**10%**

Source: EMSI

Projected Job Growth: Strasburg, 2014-2024, 2-digit NAICS

NAICS	Description	2014 Jobs	2024 Jobs	# Change	% Change
56	Administrative and Support and Waste Management and Remediation Services	447	675	228	51%
62	Health Care and Social Assistance	218	308	90	41%
23	Construction	163	194	31	19%
61	Educational Services	29	48	19	66%
81	Other Services (except Public Administration)	202	220	18	9%
54	Professional, Scientific, and Technical Services	38	53	14	39%
55	Management of Companies and Enterprises	38	47	9	24%
21	Mining, Quarrying, and Oil and Gas Extraction	5	0	0	0%
22	Utilities	5	5	0	0%
99	Unclassified Industry	0	0	0	0%
42	Wholesale Trade	30	30	(1)	0%
71	Arts, Entertainment, and Recreation	22	17	(5)	(23%)
53	Real Estate and Rental and Leasing	26	20	(6)	(23%)
72	Accommodation and Food Services	308	301	(7)	(2%)
90	Government	79	71	(7)	(10%)
52	Finance and Insurance	92	78	(14)	(15%)
48	Transportation and Warehousing	126	112	(14)	(11%)
44	Retail Trade	286	269	(16)	(6%)
11	Crop and Animal Production	90	64	(27)	(29%)
51	Information	79	33	(47)	(58%)
31	Manufacturing	1,150	740	(410)	(36%)
	Total (all jobs):	**3,428**	**3,281**	**(147)**	**(4%)**

Source: EMSI

Projected Employment Change: 2014-2024, 2-digit NAICS

NAICS	Description	Strasburg 2014-2024 Change	Strasburg 2014-2024 % Change	Economic Region 2014-2024 Change	Economic Region 2014-2024 % Change	Virginia 2014-2024 Change	Virginia 2014-2024 % Change	United States 2014-2024 Change	United States 2014-2024 % Change
62	Health Care and Social Assistance	90	41%	6,520	27%	127,737	30%	4,094,043	21%
72	Accommodation and Food Services	(7)	(2%)	2,955	16%	39,361	12%	1,511,779	12%
90	Government	(7)	(10%)	2,657	8%	46,192	5%	1,166,887	5%
48	Transportation and Warehousing	(14)	(11%)	1,988	19%	7,812	7%	530,430	11%
44	Retail Trade	(16)	(6%)	1,869	8%	33,512	8%	1,270,244	8%
81	Other Services (except Public Administration)	18	9%	1,237	15%	39,027	18%	773,988	10%
56	Administrative and Support and Waste Management and Remediation Services	228	51%	1,218	14%	42,799	18%	1,736,792	18%
54	Professional, Scientific, and Technical Services	14	39%	983	16%	122,241	29%	1,926,702	20%
61	Educational Services	19	66%	744	17%	21,817	24%	725,319	19%
23	Construction	31	19%	590	5%	43,107	19%	1,148,442	14%
52	Finance and Insurance	(14)	(15%)	578	13%	14,068	10%	569,367	9%
71	Arts, Entertainment, and Recreation	(5)	(23%)	440	17%	9,154	15%	326,159	13%
42	Wholesale Trade	(1)	0%	245	5%	10,128	9%	647,212	11%
53	Real Estate and Rental and Leasing	(6)	(23%)	138	5%	5,619	8%	157,190	6%
99	Unclassified Industry	0	0%	0	2%	(522)	(12%)	(46,194)	(24%)
21	Mining, Quarrying, and Oil and Gas Extraction	0	0%	(19)	(9%)	4	0%	177,847	20%
22	Utilities	0	0%	(49)	(12%)	(1,241)	(12%)	189	0%
11	Crop and Animal Production	(27)	(29%)	(54)	(2%)	(2,657)	(11%)	(34,944)	(2%)
55	Management of Companies and Enterprises	9	24%	(72)	(5%)	(4,221)	(6%)	198,822	9%
51	Information	(47)	(58%)	(191)	(5%)	(2,597)	(4%)	86,056	3%
31	Manufacturing	(410)	(36%)	(1,449)	(6%)	(7,203)	(3%)	71,989	1%
	Total (all jobs):	**(147)**	**(4%)**	**20,327**	**10%**	**544,138**	**13%**	**17,038,315**	**11%**

Source: EMSI

Designates industries that added the most jobs (2014-2024)

Designates column used to sort

Projected Job Growth: Economic Region, 2014-2024, 4-digit NAICS

NAICS	Description	2014 Jobs	2024 Jobs	# Change	% Change
7225	Restaurants and Other Eating Places	13,407	15,626	2,218	17%
4931	Warehousing and Storage	4,648	6,118	1,470	32%
9036	Education and Hospitals (Local Government)	12,401	13,693	1,292	10%
6221	General Medical and Surgical Hospitals	6,913	8,182	1,269	18%
6241	Individual and Family Services	2,256	3,415	1,159	51%
6211	Offices of Physicians	3,055	4,039	984	32%
9039	Local Government, Excluding Education and Hospitals	6,480	7,381	900	14%
9026	Education and Hospitals (State Government)	5,520	6,294	774	14%
7223	Special Food Services	1,275	1,924	650	51%
8131	Religious Organizations	2,585	3,216	631	24%
6213	Offices of Other Health Practitioners	1,074	1,683	610	57%
4521	Department Stores	1,778	2,324	546	31%
6216	Home Health Care Services	1,065	1,592	527	50%
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	2,277	2,751	473	21%
5617	Services to Buildings and Dwellings	3,519	3,978	459	13%
8111	Automotive Repair and Maintenance	1,673	2,089	417	25%
4529	Other General Merchandise Stores	4,289	4,689	400	9%
2382	Building Equipment Contractors	2,704	3,074	370	14%
5613	Employment Services	3,247	3,613	366	11%
6111	Elementary and Secondary Schools	1,857	2,214	357	19%
6231	Nursing Care Facilities (Skilled Nursing Facilities)	1,406	1,755	348	25%
5221	Depository Credit Intermediation	2,604	2,924	320	12%
5419	Other Professional, Scientific, and Technical Services	793	1,094	301	38%
5415	Computer Systems Design and Related Services	981	1,274	293	30%
6212	Offices of Dentists	993	1,276	282	28%
	Total (all jobs):	**196,165**	**216,492**	**20,327**	**10%**

Source: EMSI

Designates overlap with Top 25 4-digit sectors in town and State

Projected Job Growth: Strasburg, 2014-2024, 4-digit NAICS

NAICS	Description	2014 Jobs	2024 Jobs	# Change	% Change
5613	Employment Services	417	637	220	53%
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	98	152	54	55%
2383	Building Finishing Contractors	49	75	26	53%
6216	Home Health Care Services	37	63	26	70%
2373	Highway, Street, and Bridge Construction	29	48	19	66%
8111	Automotive Repair and Maintenance	29	47	18	62%
3222	Converted Paper Product Manufacturing	11	28	17	155%
7225	Restaurants and Other Eating Places	260	272	12	5%
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	15	25	10	67%
6213	Offices of Other Health Practitioners	14	24	10	71%
6117	Educational Support Services	14	24	10	71%
5511	Management of Companies and Enterprises	38	47	9	24%
5617	Services to Buildings and Dwellings	25	34	9	36%
6219	Other Ambulatory Health Care Services	14	23	9	64%
8134	Civic and Social Organizations	43	48	5	12%
3219	Other Wood Product Manufacturing	23	28	5	22%
7223	Special Food Services	16	21	5	31%
4471	Gasoline Stations	72	76	4	6%
1110	Crop Production	17	20	3	18%
4842	Specialized Freight Trucking	15	18	3	20%
8129	Other Personal Services	14	17	3	21%
8131	Religious Organizations	55	57	2	4%
2382	Building Equipment Contractors	15	17	2	13%
4533	Used Merchandise Stores	12	14	2	17%
9026	Education and Hospitals (State Government)	16	17	1	6%
	Total (all jobs):	**3,428**	**3,281**	**(147)**	**(4%)**

Source: EMSI

Designates overlap with Top 25 4-digit sectors in Economic Region

Projected Job Growth: Virginia, 2014-2024, 4-digit NAICS

NAICS	Description	2014 Jobs	2024 Jobs	# Change	% Change
5415	Computer Systems Design and Related Services	144,294	200,776	56,482	39%
7225	Restaurants and Other Eating Places	257,519	291,695	34,176	13%
5416	Management, Scientific, and Technical Consulting Services	84,720	116,555	31,835	38%
9036	Education and Hospitals (Local Government)	221,912	249,106	27,194	12%
6211	Offices of Physicians	68,120	93,101	24,981	37%
6241	Individual and Family Services	44,910	66,561	21,651	48%
9039	Local Government, Excluding Education and Hospitals	148,183	169,806	21,623	15%
6216	Home Health Care Services	27,107	42,668	15,561	57%
2382	Building Equipment Contractors	61,171	76,679	15,508	25%
5617	Services to Buildings and Dwellings	86,936	100,959	14,023	16%
6213	Offices of Other Health Practitioners	20,866	33,365	12,499	60%
6113	Colleges, Universities, and Professional Schools	38,171	50,225	12,054	32%
8131	Religious Organizations	51,205	61,743	10,538	21%
5419	Other Professional, Scientific, and Technical Services	22,842	33,152	10,310	45%
9026	Education and Hospitals (State Government)	104,435	114,603	10,168	10%
4529	Other General Merchandise Stores	55,617	65,092	9,475	17%
5413	Architectural, Engineering, and Related Services	55,462	64,439	8,977	16%
6212	Offices of Dentists	24,490	33,348	8,858	36%
5613	Employment Services	64,163	72,714	8,551	13%
2361	Residential Building Construction	30,826	38,694	7,868	26%
2389	Other Specialty Trade Contractors	29,358	37,203	7,845	27%
8111	Automotive Repair and Maintenance	28,661	36,120	7,459	26%
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	26,843	34,226	7,383	28%
5616	Investigation and Security Services	26,050	33,301	7,251	28%
4251	Wholesale Electronic Markets and Agents and Brokers	20,203	26,449	6,246	31%
	Total (all jobs):	**4,179,814**	**4,723,952**	**544,138**	**13%**

Source: EMSI

Designates overlap with Top 25 4-digit sectors in Economic Region

Industry Concentration - Location Quotient Analysis

Location Quotient (LQ) analysis determines how concentrated a particular industry, demographic group, or other variable is compared to a larger geography. Concentration is a measure of local and regional strength when assessing economic growth potential. In this section, employment by industry in Strasburg is compared to the nation to identify which industries are more highly concentrated in the region than at the national level.

LQ is calculated by dividing the percent of jobs within each industry locally by the percent of jobs in the same industry at the national level. For example, if the finance and insurance industry accounts for 2% of jobs in a community and at the national level this industry has 1% of the total jobs, the community has a LQ of 2.0 (0.02 ÷ 0.01 = 2). In this example, the local community employs twice as many individuals in the industry as would be expected based on national employment patterns. Typically, only values above 1.20 or below 0.80 are considered "significant" findings in LQ analysis. Industries with a high LQ and high employment numbers often produce more than what is needed locally (i.e. a surplus) and export their products and services generating new wealth in an area. They also are one measure of "clustering" of expertise and activity to create competitive advantages.

The tables below show employment by 2-digit NAICS and then 4-digit NAICS for the Economic Region and Strasburg, ordered by location quotient (LQ). A high location quotient indicates a higher than average concentration of jobs in a certain industry relative to the nation.

Key Findings:

- At the 2-digit NAICS level, the industries in the Economic Region with concentrations above 1.2 are: Transportation and Warehousing, Manufacturing, and Crop and Animal Production
- At the 2-digit NAICS level, the industries in Strasburg with concentrations above 1.2 are: Manufacturing, Crop and Animal Production, Administrative and Support and Waste Management and Remediation Services, Information, and Other Services (except Public Administration)
- At the 4-digit NAICS level, in the Economic Region the top 10 industries in terms of concentration are:
    - Postal Service
    - Nonscheduled Air Transportation
    - Animal Slaughtering and Processing
    - Lime and Gypsum Product Manufacturing
    - Plastics Manufacturing
    - Dairy Product Manufacturing
    - Warehousing and Storage
    - Printing and Related Support Activities
    - Paint, Coating, and Adhesive Manufacturing
    - Animal Food Manufacturing

- At the 4-digit NAICS level, in Strasburg, the top 10 industries in terms of concentration are:
    - Lime and Gypsum Product Manufacturing
    - Pipeline Transportation of Natural Gas
    - Printing and Related Support Activities
    - Plastics and Product Manufacturing
    - Direct Selling Establishments
    - Petroleum and Petroleum Products Merchant Wholesalers
    - Animal Production
    - Newspaper, Periodical, Book and Directory Publishers
    - Employment Services
    - Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly
- Despite declining employment in the town's Manufacturing industry, Manufacturing is still four times more concentrated in Strasburg than at the national level.
- While Crop and Animal production only account for 3% of jobs in Strasburg, the industry is two times more concentrated in the town compared to the rest of the US. The Administrative and Support Services sector, which added 417 jobs since 2004, is also two times more concentrated.
- Opportunities for growth can be seen in industries that make up a greater, or growing, percentage of Strasburg's workforce, but do not have a high location quotient. For example, the Health Care Industry and Educational Services grew at a fast rate in the Strasburg between 2004 and 2014, yet a location quotient less than 1 indicates that, despite the growth, these industries are still less concentrated in Strasburg than in the US.
- At the 4-digit NAICS code level, the Economic Region is highly concentrated in industries that do not account for a large percentage of total employment. The Postal Service sector is 11 times more concentrated in the Economic Region than the rest of the country, although it only accounts for .04% of total jobs. Strasburg displays a similar trend, to an even greater degree. While Lime and Gypsum Product Manufacturing only account for 3% of jobs in the town, the industry is 280 more concentrated than the rest of the country
- Printing and Related Support Activities and Plastics Product Manufacturing are both highly concentrated in Strasburg, with LQs of 48 and 39, respectively, and both industries individually contribute to 15% of the town's employment, almost a third of jobs when combined. A high LQ and high employment percentage indicate that these industries are vital to the stability and health of the town's overall economy.

2-digit NAICS, Location Quotient

Top Industries by Location Quotient: Economic Region, 2-digit NAICS

NAICS	Description	2014 Jobs	% of All Jobs	2014 LQ
48	Transportation and Warehousing	10,257	5%	1.60
31	Manufacturing	23,730	12%	1.50
11	Crop and Animal Production	3,410	2%	1.42
44	Retail Trade	23,334	12%	1.15
90	Government	34,361	18%	1.11
72	Accommodation and Food Services	18,159	9%	1.11
23	Construction	11,019	6%	1.06
51	Information	3,618	2%	0.99
62	Health Care and Social Assistance	23,731	12%	0.98
61	Educational Services	4,503	2%	0.91
81	Other Services (except Public Administration)	8,262	4%	0.88
53	Real Estate and Rental and Leasing	2,629	1%	0.81
71	Arts, Entertainment, and Recreation	2,632	1%	0.81
56	Administrative and Support and Waste Management and Remediation Services	8,747	4%	0.72
42	Wholesale Trade	5,129	3%	0.67
52	Finance and Insurance	4,569	2%	0.58
22	Utilities	391	0%	0.55
55	Management of Companies and Enterprises	1,459	1%	0.53
54	Professional, Scientific, and Technical Services	6,004	3%	0.49
21	Mining, Quarrying, and Oil and Gas Extraction	210	0%	0.19
99	Unclassified Industry	10	0%	0.04

Source: EMSI

Top Industries by Location Quotient: Strasburg, 2-Digit NAICS

NAICS	Description	2014 Jobs	% of All Jobs	National LQ
31	Manufacturing	1,150	33%	4.16
11	Crop and Animal Production	90	3%	2.15
56	Administrative and Support and Waste Management and Remediation Services	447	13%	2.10
51	Information	79	2%	1.24
81	Other Services (except Public Administration)	202	6%	1.22
48	Transportation and Warehousing	126	4%	1.12
72	Accommodation and Food Services	308	9%	1.08
23	Construction	163	5%	0.90
44	Retail Trade	286	8%	0.80
55	Management of Companies and Enterprises	38	1%	0.79
52	Finance and Insurance	92	3%	0.66
62	Health Care and Social Assistance	218	6%	0.51
53	Real Estate and Rental and Leasing	26	1%	0.46
71	Arts, Entertainment, and Recreation	22	1%	0.39
61	Educational Services	29	1%	0.34
22	Utilities	5	0%	0.34
42	Wholesale Trade	30	1%	0.23
54	Professional, Scientific, and Technical Services	38	1%	0.18
90	Government	79	2%	0.15
21	Mining, Quarrying, and Oil and Gas Extraction	5	0%	0.05
99	Unclassified Industry	0	0%	0.00

Source: EMSI

*Industries with <10 jobs were assumed to have 5 jobs

4-digit NAICS, Location Quotient

Top Industries by Location Quotient: Economic Region, 4-digit NAICS

NAICS	Description	2014 Jobs	% of All Jobs	2014 LQ
4911	Postal Service	87	0.04%	11.40
4812	Nonscheduled Air Transportation	557	0.28%	10.75
3116	Animal Slaughtering and Processing	5,201	3%	8.48
3274	Lime and Gypsum Product Manufacturing	147	0.1%	7.79
3261	Plastics Product Manufacturing	3,463	2%	5.00
3115	Dairy Product Manufacturing	847	0.4%	5.00
4931	Warehousing and Storage	4,648	2%	4.96
3231	Printing and Related Support Activities	2,801	1%	4.66
3255	Paint, Coating, and Adhesive Manufacturing	356	0.2%	4.60
3111	Animal Food Manufacturing	313	0.2%	4.50
6242	Community Food and Housing, and Emergency and Other Relief Services	790	0.4%	3.93
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	763	0.4%	3.54
7212	RV (Recreational Vehicle) Parks and Recreational Camps	288	0.1%	3.19
6114	Business Schools and Computer and Management Training	327	0.2%	3.12
3314	Nonferrous Metal (except Aluminum) Production and Processing	242	0.1%	3.02
3273	Cement and Concrete Product Manufacturing	644	0.3%	2.86
2372	Land Subdivision	172	0.1%	2.75
3254	Pharmaceutical and Medicine Manufacturing	947	0%	2.61
5111	Newspaper, Periodical, Book, and Directory Publishers	1,432	1%	2.47
3219	Other Wood Product Manufacturing	695	0.4%	2.45
3324	Boiler, Tank, and Shipping Container Manufacturing	294	0.2%	2.38
3121	Beverage Manufacturing	576	0.3%	2.32
1120	Animal Production	1,186	1%	2.21
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	949	0.5%	2.15
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	2,277	1%	2.13

Source: EMSI

Top Industries by Location Quotient: Strasburg, 4-digit NAICS

NAICS	Description	2014 Jobs	% of All Jobs	2014 LQ
3274	Lime and Gypsum Product Manufacturing	92	3%	280.46
4862	Pipeline Transportation of Natural Gas	49	1%	78.53
3231	Printing and Related Support Activities	509	15%	48.40
3261	Plastics Product Manufacturing	474	14%	39.14
4543	Direct Selling Establishments	77	2%	15.91
4247	Petroleum and Petroleum Products Merchant Wholesalers	18	1%	7.57
1120	Animal Production	60	2%	6.40
5111	Newspaper, Periodical, Book, and Directory Publishers	61	2%	5.98
5613	Employment Services	417	12%	5.35
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	98	3%	5.26
8134	Civic and Social Organizations	43	1%	4.85
3219	Other Wood Product Manufacturing	23	1%	4.70
5179	Other Telecommunications	5	0%	4.62
6114	Business Schools and Computer and Management Training	5	0%	4.39
2373	Highway, Street, and Bridge Construction	29	1%	4.22
6117	Educational Support Services	14	0%	3.91
8122	Death Care Services	12	0%	3.89
1142	Hunting and Trapping	5	0%	3.70
4471	Gasoline Stations	72	2%	3.66
3211	Sawmills and Wood Preservation	5	0%	3.38
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	15	0.4%	2.63
4442	Lawn and Garden Equipment and Supplies Stores	5	0.1%	2.57
4533	Used Merchandise Stores	12	0.3%	2.53
1133	Logging	5	0.1%	2.30
1152	Support Activities for Animal Production	5	0.1%	2.17

Source: EMSI

*Industries with <10 jobs were assumed to have 5 jobs

Industry Competitiveness: Shift Share Analysis

Shift Share Analysis distinguishes an industry's employment growth in a specific area that is attributable to local competitive advantages from growth which is attributable to national employment trends or overall industry employment trends.

The shift share analysis helps to answer the question of "*Why is employment growing or declining in this industry*?" Is it simply related to the industry growing nationally or are we more competitive regionally? To do this, shift share analysis splits regional job growth into three components: the national change effect, industrial mix effect, and regional competitive effect.

A shift share analysis is based on four factors:

- **The Industrial Mix Effect** – The industrial mix effect represents the share of regional industry growth explained by the growth of the specific industry at the national level. To arrive at this number, the national growth rate of the total economy is subtracted from the national growth rate of the specific industry, and this growth percentage is applied to the regional jobs in that industry.
- **The National Growth Effect** – The national growth effect explains how much of the regional industry's growth is explained by the overall growth of the national economy: if the nation's economy overall is growing, you would generally expect to see some positive change in each industry in your local region (the proverbial "rising tide that lifts all boats").
- **The Expected Change** – This is simply the rate of growth of the particular industry at the national level. The expected change is the sum of the industrial mix and the national growth effects.
- **The Regional Competitive Effect** – The regional competitive effect is the most vital in the shift share analysis. It explains how much of the change in a given industry is due to some unique competitive advantage that the region possesses, because the growth cannot be explained by national trends in that industry or the economy as whole. This effect is calculated by taking the total regional growth of the given industry and subtracting the national growth for that same industry. Note that this effect can be positive even as regional employment in the industry declines. This would indicate that regional decline is less than the national decline.

The following tables distinguish Strasburg and the Economic Region's "Competitive Effect" from the "Industrial Mix Effect" and "National Growth Effect."

Key Findings:

- At the 2-digit NAICS level, the top five industries in terms of positive competiveness effect within the Economic Region are:
    - o Health Care and Social Assistance
    - o Government
    - o Transportation and Warehousing
    - o Accommodation and Food Services

- Other Services (except public administration), which includes industries such as Automotive Repair and Maintenance and Religious Organizations)

- At the 2-digit level, within Strasburg the top five industries in terms of positive competiveness effect are:
  - Administrative and Support and Waste Management and Remediation Services
  - Health Care and Social Assistance
  - Transportation and Warehousing
  - Management of Companies and Enterprises
  - Educational Services
- The Manufacturing industry in Strasburg declined at a faster rate than would have been expected, based on national and industry trends. The same trend can be seen in the Economic Region, which lost over 8,700 jobs in the Manufacturing industry. About 45% of those losses can be attributed to competitive disadvantages in the region.
- Both Strasburg and the Economic Region added more jobs in the Transportation and Warehousing industry than would have been expected, based on industry and national trends. In both geographies, local competitiveness in this industry accounted for over 80% of job growth.
- While the Information and Finance and Insurance industries in Strasburg performed poorly relative to national and industry trends, these industries exhibited strong growth in the Economic Region, significantly outpacing expected growth.
- Strasburg and the Economic Region also demonstrated strong growth in the Educational Services and Health Care and Social Assistance industries.

Shift Share Analysis: Economic Region, 2-digit NAICS

NAICS	Description	2004 Jobs	2014 Jobs	2004 - 2014 Change	2004 - 2014 % Change	Ind. Mix Effect	Nat'l Growth Effect	Expected Change	Competitive Effect
90	Government	27,220	34,361	7,141	26%	(908)	1,423	515	6,626
48	Transportation and Warehousing	6,599	10,257	3,658	55%	237	345	582	3,077
72	Accommodation and Food Services	14,080	18,159	4,079	29%	1,755	736	2,491	1,588
52	Finance and Insurance	3,584	4,569	985	27%	(207)	187	(20)	1,005
62	Health Care and Social Assistance	18,193	23,731	5,538	30%	3,802	951	4,753	785
11	Crop and Animal Production	2,773	3,410	637	23%	(221)	145	(76)	713
81	Other Services (except Public Administration)	7,739	8,262	523	7%	(238)	405	167	357
71	Arts, Entertainment, and Recreation	2,091	2,632	541	26%	173	109	282	259
61	Educational Services	3,448	4,503	1,055	31%	639	180	819	235
51	Information	3,848	3,618	(230)	(6%)	(649)	201	(448)	219
44	Retail Trade	22,980	23,334	354	2%	(1,034)	1,201	167	187
55	Management of Companies and Enterprises	1,029	1,459	430	42%	215	54	269	162
56	Administrative and Support and Waste Management and Remediation Services	7,790	8,747	957	12%	394	407	801	155
22	Utilities	277	391	114	41%	(20)	14	(6)	120
99	Unclassified Industry	21	10	(11)	(52%)	(5)	1	(4)	(7)
53	Real Estate and Rental and Leasing	2,911	2,629	(282)	(10%)	(295)	152	(143)	(140)
21	Mining, Quarrying, and Oil and Gas Extraction	290	210	(80)	(28%)	169	15	184	(264)
54	Professional, Scientific, and Technical Services	5,683	6,004	321	6%	848	297	1,145	(825)
42	Wholesale Trade	6,185	5,129	(1,056)	(17%)	(158)	323	165	(1,222)
23	Construction	15,083	11,019	(4,064)	(27%)	(2,527)	789	(1,738)	(2,326)
31	Manufacturing	32,434	23,730	(8,704)	(27%)	(6,461)	1,696	(4,765)	(3,939)
	Total (all jobs):	**184,258**	**196,165**	**11,907**	**6%**	**(4,490)**	**9,633**	**5,143**	**6,765**

Source: EMSI

Designates column used to sort

Shift Share Analysis: Strasburg, 2-digit NAICS

NAICS	Description	2004 Jobs	2014 Jobs	2004 - 2014 Change	2004 - 2014 % Change	Ind. Mix Effect	Nat'l Growth Effect	Expected Change	Competitive Effect
56	Administrative and Support and Waste Management and Remediation Services	29	447	417	1420%	1	2	3	414
62	Health Care and Social Assistance	129	218	89	69%	27	7	34	55
48	Transportation and Warehousing	75	126	51	67%	3	4	7	44
55	Management of Companies and Enterprises*	5	38	33	656%	1	0	1	31
61	Educational Services*	5	29	24	490%	1	0	1	22
81	Other Services (except Public Administration)	195	202	7	3%	(6)	10	4	3
21	Mining, Quarrying, and Oil and Gas Extraction*	0	5	5	0%	1	0	1	0
99	Unclassified Industry	0	0	0	0%	0	0	0	0
22	Utilities*	5	5	0	0%	(1)	0	(1)	(3)
23	Construction	190	163	(26)	(14%)	(32)	10	(22)	(4)
53	Real Estate and Rental and Leasing	33	26	(7)	(20%)	(3)	2	(1)	(5)
90	Government	83	79	(4)	(5%)	(3)	4	1	(6)
52	Finance and Insurance	103	92	(11)	(11%)	(6)	5	(1)	(10)
54	Professional, Scientific, and Technical Services	41	38	(2)	(6%)	6	2	8	(11)
72	Accommodation and Food Services	273	308	36	13%	34	14	48	(13)
42	Wholesale Trade	42	30	(12)	(28%)	(1)	2	1	(13)
11	Crop and Animal Production	107	90	(17)	(16%)	(9)	6	(3)	(14)
44	Retail Trade	302	286	(16)	(5%)	(14)	16	2	(18)
71	Arts, Entertainment, and Recreation	37	22	(15)	(40%)	3	2	5	(19)
51	Information	161	79	(82)	(51%)	(27)	8	(19)	(63)
31	Manufacturing	1,878	1,150	(728)	(39%)	(374)	98	(276)	(452)
	Total (all jobs):	**3,695**	**3,428**	**(267)**	**(7%)**	**(398)**	**193**	**(205)**	**(62)**

Source: EMSI

*Industries with <10 jobs assumed to have 5 jobs

Designates column used to sort

Establishments by Stage

The following tables show changes in the number of establishments, jobs, and sales in Shenandoah County over the five-year period between 2008 and 2013. Tables are subdivided into the five business stages based on employment size:

- Self-employed- 1 employee
- Stage 1- 2 to 9 employees
- Stage 2- 10 to 99 employees
- Stage 3- 100 to 499 employees
- Stage 4- 500 or more employees

By understanding the composition of a region's economy by the stages (defined above) of its businesses, the health and resilience of the economy can be assessed. For example, an economy that includes many establishments at different employment stages may be more resilient to economic contractions and more adaptable to new economic trends than those where Stage 4 establishments dominate employment. In addition, the impact of the closure of a Stage 4 establishments (those with 500 or more employees) directly affects a much larger number of workers than the closure of Stage 3 business.

Shenandoah County lost establishments across all stages between 2008 and 2013, accounting for an overall contraction of 17% in the number of establishments. The number of sole-proprietorships contracted by a third, a net loss of 396 businesses. While there were only two Stage 4 establishments in Shenandoah County in 2008, one closed in the five-year period, accounting for the loss of at least 500 jobs. Over the same period, the number of establishments in Virginia increased by 5%. The number of Stage 1 and 3 establishments grew at the fastest rates, increasing by 21% and 18%, respectively.[13]

Change in Establishments by Stage in Shenandoah County

Stage of Establishments (# of jobs)	2008	2013	Change 2008-2013	% Change	% Change Virginia
Self-employed	1,201	805	(396)	(33%)	(23%)
Stage 1	1,960	1,820	(140)	(7%)	21%
Stage 2	282	250	(32)	(11%)	6%
Stage 3	19	16	(3)	(16%)	18%
Stage 4	2	1	(1)	(50%)	(2%)
Total	3,464	2,892	(572)	(17%)	5%

Source: YourEconomy.org, Camoin Associates

Shenandoah County lost jobs across all stages of businesses, while Virginia only lost jobs in the self-employed category. The county lost the greatest number of jobs at Stage 4 companies, which decreased by nearly 50% of total jobs. Stage 3 jobs and Self-Employed jobs also

[13] This data is displayed at the County and State level as data is not available by town

decreased by more the 20%. The county saw an overall job loss of 15%, while the state saw a 10% increase.

Change in Jobs, by Stage of Establishment in Shenandoah County

Stage of Establishments (# of jobs)	2008	2013	Change 2008-2013	% Change	% Change Virginia
Self-employed	1,201	805	(396)	(33%)	(23%)
Stage 1	5,827	5,407	(420)	(7%)	17%
Stage 2	6,946	6,538	(408)	(6%)	7%
Stage 3	4,068	3,131	(937)	(23%)	17%
Stage 4	1,768	918	(850)	(48%)	6%
Total	19,810	16,799	(3,011)	(15%)	10%

Source: YourEconomy.org, Camoin Associates

Every stage of business lost sales in the county between 2008 and 2013. Across the state, Stage 1 and Stage 3 businesses increased sales while there were decreases in the other business stages, and an overall sales loss of 1%. The county's greatest loss in sales was in Stage 4 businesses. The Stage 4 business that was lost clearly had significant economic ramifications as the jobs and sales figures show.

Change in Sales, by Stage of Establishment in Shenandoah County (In Millions of Dollars)

Stage of Establishments (# of jobs)	2008	2013	Change 2008-2013	% Change	% Change Virginia
Self-employed	$ 126	$ 91	($35)	(28%)	(13%)
Stage 1	$ 460	$ 352	($107)	(23%)	10%
Stage 2	$ 621	$ 468	($154)	(25%)	(10%)
Stage 3	$ 519	$ 465	($54)	(10%)	12%
Stage 4	$ 179	$ 84	($95)	(53%)	(10%)
Total	$ 1,904	$ 1,459	($445)	(23%)	(1%)

Source: YourEconomy.org, Camoin Associates

Overall, the county is losing smaller stage companies at a faster rate than the state, which suggests that startups and small to medium size businesses are having a more difficult time staying in business in the county than the state overall. The county is shedding a significant number of jobs at large employers, especially Stage 3 and 4 companies. However, the state gained jobs at businesses in these stages over the same period.

In summary, the county took a major hit across all stages of establishments during the recession and recovery is lagging behind Virginia overall.

Occupation Analysis

In addition to looking at employment by industry, Camoin Associates analyzed employment by occupation for all jobs located in the geographies analyzed. Occupations refer not to the product or service being provided, but by the defined set of tasks of the employee. Occupations are classified using the Standard Occupational Classification (SOC) system. This is the system used by Federal statistical agencies to classify workers into one of 840 occupational categories. For more detail on occupations and the "Standard Occupational Classification" system (SOC), we refer the reader to http://www.bls.gov/soc/.

All occupation data for this report was collected from EMSI Complete Employment.

Occupational data is helpful in evaluating how the skills, education, and certifications of a particular community's residents match up with needs of employers. The report identifies the top occupations and fastest-growing occupations within Strasburg, the Economic Region, and Virginia.

2-Digit SOC Analysis

Key Findings:

- Production occupations, which primarily include jobs in the Manufacturing industry, represent over 22% of all jobs in the Town of Strasburg. However, these jobs have declined by nearly 30% since 2004, from 1,083 jobs to just 765 jobs. Production occupations are 3 to 5 times more concentrated in the town than in the Economic Region and Virginia. In these geographies, this occupation group also lost jobs, however, jobs in Production Occupations decreased at a lower rate.
- Office and administrative services jobs are also highly represented in Strasburg, accounting for over 13% of employment. Jobs in this occupational group have also declined, shrinking by 21 jobs since 2004.
- Healthcare Support Occupations in Strasburg have increased by 127% since 2004, growing from just 36 jobs to over 80 jobs. This outpaced growth in the Economic Region and Virginia.

5-Digit SOC Analysis

Key Findings:

- Since 2004, the town has seen the strongest job growth in occupations related to logistics and distribution, food service, health care, and construction. These occupations also demonstrated strong growth in the Economic Region.
- Printing Press Operators, Supervisors of Production Workers, and Team Assemblers shed the most jobs between 2004 and 2014 in Strasburg. The decline in employment in these manufacturing-related occupations reflects the overall decline in the Manufacturing industry in the town. These occupations also lost employment in the Economic Region, suggesting that the contraction in employment in these occupations may be related to industry-wide trends.

- Of the town's 25 largest occupations, 16 have declined in terms of the number of jobs since 2004. These occupations, among others, are expected to continue to decline over the next ten years.

Largest Occupations

The following tables identify the largest occupational groups in each geography. Each occupational group is analyzed in terms of its size and the concentration of the group relative to overall employment in the geography. This assessment was conducted at both the 2-digit SOC code level, the broadest level of occupational classification, and the 5-digit level, the most specific.

2-digit SOC

Key Findings:

- In 2014, the largest occupational groups at the 2-digit level in the Economic Region were:
    - Office and Administrative Support Occupations: 27,837 jobs
    - Sales and Related Occupations: 20,806 jobs
    - Food Preparation and Serving Related Occupations: 17,732 jobs
    - Transportation and Material Moving Occupations: 16,565 jobs
    - Production Occupations: 16,112 jobs
- In Strasburg, the largest occupational groups at the 2-digit level in 2014 were:
    - Production Occupations: 765 jobs
    - Office and Administrative Support Occupations: 465 jobs
    - Transportation and Material Moving Occupations: 403 jobs
    - Food Preparation and Serving Related Occupations: 319 jobs
    - Sales and Related Occupations: 266 jobs
- The largest occupations in Strasburg are similar to those of the Economic Region, however, the town is much more concentrated in Production Occupations which account for 22% of employment in the town while comprising only 8% of employment in the Economic Region.
- The Economic Region has a much more diversified occupational base than the town, with significant representation in occupational groups such as Education, Training, and Library Occupations and Healthcare Practitioners and Technical Occupations, which represent 7% and 6% of jobs in the Economic Region, while just 1% and 2% of jobs in the town.
- Compared to Virginia, jobs in Business and Financial Operations Occupations are underrepresented in the Economic Region and town. In Virginia, jobs in this occupational group account for 6% of jobs, while they account for just 3% of jobs in the Economic Region and the town.

Largest Occupations: 2014 Employment, 2-digit SOC

SOC	Description	Strasburg 2014 Jobs	Strasburg % All Jobs	Economic Region 2014 Jobs	Economic Region % All Jobs	Virginia 2014 Jobs	Virginia % All Jobs	United States 2014 Jobs	United States % All Jobs
43-0000	Office and Administrative Support Occupations	465	14%	27,837	14%	587,408	14%	23,464,489	15%
41-0000	Sales and Related Occupations	266	8%	20,806	11%	410,779	10%	15,955,835	10%
35-0000	Food Preparation and Serving Related Occupations	319	9%	17,732	9%	321,702	8%	12,560,905	8%
53-0000	Transportation and Material Moving Occupations	403	12%	16,565	8%	232,354	6%	9,886,041	6%
51-0000	Production Occupations	765	22%	16,112	8%	186,137	4%	9,259,916	6%
25-0000	Education, Training, and Library Occupations	49	1%	13,616	7%	247,708	6%	8,834,656	6%
29-0000	Healthcare Practitioners and Technical Occupations	69	2%	10,876	6%	199,173	5%	8,232,001	5%
47-0000	Construction and Extraction Occupations	162	5%	8,753	4%	192,334	5%	6,947,721	5%
11-0000	Management Occupations	173	5%	8,612	4%	202,735	5%	8,155,318	5%
49-0000	Installation, Maintenance, and Repair Occupations	135	4%	8,375	4%	157,565	4%	5,843,574	4%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	80	2%	8,119	4%	165,596	4%	5,891,056	4%
39-0000	Personal Care and Service Occupations	133	4%	7,135	4%	167,398	4%	6,004,702	4%
13-0000	Business and Financial Operations Occupations	104	3%	6,588	3%	266,791	6%	7,508,517	5%
31-0000	Healthcare Support Occupations	83	2%	5,210	3%	94,942	2%	4,324,952	3%
33-0000	Protective Service Occupations	5	0%	3,394	2%	105,997	3%	3,442,494	2%
15-0000	Computer and Mathematical Occupations	30	1%	3,243	2%	200,399	5%	4,058,992	3%
21-0000	Community and Social Service Occupations	20	1%	3,160	2%	65,938	2%	2,455,778	2%
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	63	2%	3,033	2%	66,738	2%	2,669,725	2%
55-0000	Military occupations	27	1%	1,633	1%	140,097	3%	2,059,028	1%
45-0000	Farming, Fishing, and Forestry Occupations	31	1%	1,599	1%	14,461	0%	1,143,319	1%
17-0000	Architecture and Engineering Occupations	29	1%	1,578	1%	79,930	2%	2,551,435	2%
23-0000	Legal Occupations	5	0%	1,177	1%	40,614	1%	1,290,796	1%
19-0000	Life, Physical, and Social Science Occupations	5	0%	1,010	1%	33,018	1%	1,263,717	1%
99-0000	Unclassified Occupation	0	0%	0	0%	0	0%	0	0%
	Total (all jobs):	**3,428**		**196,165**		**4,179,814**		**153,804,968**	

*Occupations with <10 jobs were assumed to have 5 jobs

Color designates top 5 largest occupations by employment

Designates column used to sort

Source: EMSI

5-digit SOC

In the following tables, the largest 25 occupations at the 5-digit level in the Economic Region, town, and the state are presented. Occupational groups in the state and town that overlap with the largest occupational groups in the region are highlighted in green, while the occupational groups in the Economic Region that correlate with the largest groups in both the town and state are highlighted in blue.

Key Findings:

- In 2014, the largest occupational groups at the 5-digit level in the Economic Region were:
  - Retail Salespersons: 6,810 jobs
  - Combined Food Preparation and Serving Workers (including Fast Food): 6,139 jobs
  - Cashiers: 5,701 jobs
    Office Clerks (General): 5,259 jobs
  - Laborers and Freight, Stock, and Material Movers: 4,299 jobs
- In Strasburg, the largest occupational groups at the 5-digit level in 2014 were:
  - Printing Press Operators: 135 jobs
  - Laborers and Freight, Stock, and Material Movers: 114 jobs
  - Combined Food Preparation and Serving Workers (including Fast Food): 106 jobs
  - Cashiers: 97 jobs
  - Heavy and Tractor-Trailer Truck Drivers: 92 jobs
- In Strasburg, several manufacturing-related occupational groups, such as Printing Press Operators and Packers and Packagers, Hand, are among the largest occupational groups in the economy, while these groups do not make the top 25 in the state or Economic Region. This emphasizes the reliance of the Strasburg economy on the manufacturing industry for employment opportunities.
- While Strasburg is heavily concentrated in manufacturing-related jobs, it is lacking significant representation in health care-related jobs. Registered Nurses and Nursing Assistants are among the largest occupational groups in both the state and Economic Region but are not among the 25 largest occupational groups in the town.
- Many of the top occupations in the state overlap with those in the Economic Region. However, top occupations in the state also include business and information technology-related occupations, which are not highly represented in the Economic Region or the town. The Economic Region has strong employment in education-related occupations, which are not among the largest occupational groups in the town or state.

Largest 25 Occupations: Economic Region, 2014 Employment, 5-digit SOC

SOC	Description	2014 Jobs	% All Jobs
41-2031	Retail Salespersons	6,810	3%
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	6,139	3%
41-2011	Cashiers	5,701	3%
43-9061	Office Clerks, General	5,259	3%
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	4,299	2%
53-3032	Heavy and Tractor-Trailer Truck Drivers	3,820	2%
29-1141	Registered Nurses	3,695	2%
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	3,398	2%
43-5081	Stock Clerks and Order Fillers	3,380	2%
35-3031	Waiters and Waitresses	3,380	2%
25-1099	Postsecondary Teachers	2,964	2%
43-4051	Customer Service Representatives	2,431	1%
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2,391	1%
43-3031	Bookkeeping, Accounting, and Auditing Clerks	2,216	1%
41-1011	First-Line Supervisors of Retail Sales Workers	2,215	1%
25-2021	Elementary School Teachers, Except Special Education	2,192	1%
39-9021	Personal Care Aides	2,185	1%
31-1014	Nursing Assistants	2,164	1%
11-1021	General and Operations Managers	2,005	1%
37-2012	Maids and Housekeeping Cleaners	1,988	1%
49-9071	Maintenance and Repair Workers, General	1,945	1%
37-3011	Landscaping and Groundskeeping Workers	1,920	1%
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	1,895	1%
25-9041	Teacher Assistants	1,747	1%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	1,687	1%
	Total:	**77,827**	**40%**

Source: EMSI

Designates overlap with Top 25 5-digit occupations in Town and State

Largest 25 Occupations: Strasburg, 2014 Employment, 5-digit SOC

SOC	Description	2014 Jobs	% All Jobs
51-5112	Printing Press Operators	135	4%
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	114	3%
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	106	3%
41-2011	Cashiers	97	3%
53-3032	Heavy and Tractor-Trailer Truck Drivers	92	3%
43-9061	Office Clerks, General	81	2%
53-7064	Packers and Packagers, Hand	76	2%
35-3031	Waiters and Waitresses	59	2%
51-1011	First-Line Supervisors of Production and Operating Workers	57	2%
11-9013	Farmers, Ranchers, and Other Agricultural Managers	53	2%
43-4051	Customer Service Representatives	51	1%
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	50	1%
39-9021	Personal Care Aides	50	1%
43-3031	Bookkeeping, Accounting, and Auditing Clerks	47	1%
11-1021	General and Operations Managers	42	1%
41-2031	Retail Salespersons	40	1%
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	38	1%
43-5081	Stock Clerks and Order Fillers	37	1%
47-2061	Construction Laborers	37	1%
51-9191	Adhesive Bonding Machine Operators and Tenders	37	1%
51-2092	Team Assemblers	35	1%
49-9071	Maintenance and Repair Workers, General	34	1%
51-9198	Helpers--Production Workers	34	1%
31-1011	Home Health Aides	33	1%
51-9111	Packaging and Filling Machine Operators and Tenders	33	1%
	Total:	**1,470**	**43%**

Source: EMSI

Designates overlap with Top 25 5-digit occupations in Economic Region

Largest 25 Occupations: Virginia, 2014 Employment, 5-digit SOC

SOC	Description	2014 Jobs	% All Jobs
55-9999	Military occupations	140,097	3%
41-2031	Retail Salespersons	127,688	3%
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	98,029	2%
43-9061	Office Clerks, General	94,793	2%
41-2011	Cashiers	92,924	2%
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	69,798	2%
35-3031	Waiters and Waitresses	66,156	2%
29-1141	Registered Nurses	61,855	1%
43-4051	Customer Service Representatives	55,019	1%
11-1021	General and Operations Managers	53,207	1%
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	52,657	1%
43-5081	Stock Clerks and Order Fillers	50,712	1%
13-1111	Management Analysts	49,952	1%
43-3031	Bookkeeping, Accounting, and Auditing Clerks	49,434	1%
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	48,192	1%
39-9021	Personal Care Aides	46,284	1%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	42,802	1%
13-2011	Accountants and Auditors	42,758	1%
37-2012	Maids and Housekeeping Cleaners	42,502	1%
53-3032	Heavy and Tractor-Trailer Truck Drivers	42,006	1%
25-1099	Postsecondary Teachers	39,459	1%
31-1014	Nursing Assistants	38,309	1%
15-1132	Software Developers, Applications	37,777	1%
41-1011	First-Line Supervisors of Retail Sales Workers	37,325	1%
39-9011	Childcare Workers	36,648	1%
	Total:	**1,516,385**	**36%**

Source: EMSI

Designates overlap with Top 25 5-digit occupations in Economic Region

Historic Growth

The following tables identify the occupational groups that have added the most jobs between 2004 and 2014 in each geography. The tables show how past occupational trends in the Economic Region compare to those in Strasburg and Virginia. This assessment was conducted at both the 2-digit SOC code level, the broadest level of occupational classification, and the 5-digit level, the most specific.

2-digit SOC

Key Findings:

- Between 2004 and 2014, the occupational groups at the 2-digit level that added the most jobs in the Economic Region were:
    - Food Preparation and Serving Related Occupations: 4,035 jobs added
    - Education, Training, and Library Occupations: 2,526 jobs added
    - Healthcare Practitioners and Technical Occupations: 1,918 jobs added
    - Office and Administrative Support Occupations: 1,839 jobs added
    - Personal Care and Service Occupations: 1,783 jobs added
- In Strasburg, the occupational groups at the 2-digit level that added the most jobs between 2004 and 2014 were:
    - Food Preparation and Serving Related Occupations: 73 jobs added
    - Healthcare Support Occupations: 46 jobs added
    - Education, Training, and Library Occupations: 25 jobs added
    - Healthcare Practitioners and Technical Occupations: 25 jobs added
    - Transportation and Material Moving Occupations: 19 jobs added
- The Food Preparation and Serving Related occupational group increased the most in the Economic Region, growing by 29% between 2004 and 2014. While this was also the highest growth occupational group in Virginia, growth in the Economic Region and town outpaced growth in the state.
- The occupational groups that shed jobs in the Economic Region matched the groups that lost jobs at the state level. However, employment in these occupational groups decreased at a higher rate in the Economic Region than in Virginia.
- The Architecture and Engineering and Construction and Extraction occupational groups declined by 18% and 25% in the Economic Region, respectively, while these groups declined by just 1% and 16% in the state.
- Production Occupations, which are closely tied to the manufacturing industry, lost jobs at a higher rate in the Economic Region, where the group contracted by 24%, 6% more than in the state, where the group also declined, but by just 18%. In Strasburg, the group declined by 29%.
- In terms of absolute growth, Strasburg's top occupational groups were Food Preparation and Service Related Occupations and Healthcare Support Occupations. Growth in these occupational groups outpaced growth at the regional and state levels.

Historic Employment Change: 2004-2014 Employment, 2-digit SOC

SOC	Description	Strasburg		Economic Region		Virginia		United States	
		2004-2014 # Change	2004-2014 % Change	2004-2014 # Change	2004-2014 % Change	2004-2014 # Change	2004-2014 % Change	2004-2014 # Change	2004-2014 % Change
35-0000	Food Preparation and Serving Related Occupations	73	30%	4,035	29%	45,878	17%	1,872,711	18%
25-0000	Education, Training, and Library Occupations	25	104%	2,526	23%	28,442	13%	613,220	7%
29-0000	Healthcare Practitioners and Technical Occupations	25	55%	1,918	21%	30,289	18%	1,195,853	17%
43-0000	Office and Administrative Support Occupations	(21)	(4%)	1,839	7%	8,855	2%	520,286	2%
39-0000	Personal Care and Service Occupations	13	10%	1,783	33%	42,247	34%	1,008,057	20%
53-0000	Transportation and Material Moving Occupations	19	5%	1,242	8%	(3,820)	(2%)	280,096	3%
31-0000	Healthcare Support Occupations	46	127%	1,197	30%	18,263	24%	829,691	24%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	7	10%	1,127	16%	15,667	10%	539,337	10%
13-0000	Business and Financial Operations Occupations	10	11%	1,043	19%	33,739	14%	621,262	9%
21-0000	Community and Social Service Occupations	4	27%	969	44%	11,158	20%	327,440	15%
33-0000	Protective Service Occupations	0	0%	693	26%	11,494	12%	227,944	7%
15-0000	Computer and Mathematical Occupations	4	17%	679	26%	32,045	19%	610,695	18%
11-0000	Management Occupations	(29)	(14%)	316	4%	4,125	2%	262,592	3%
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	(30)	(32%)	199	7%	3,424	5%	80,215	3%
45-0000	Farming, Fishing, and Forestry Occupations	(8)	(21%)	174	12%	(1,482)	(9%)	48,357	4%
23-0000	Legal Occupations	0	0%	173	17%	2,384	6%	25,031	2%
19-0000	Life, Physical, and Social Science Occupations	0	0%	146	17%	4,175	14%	146,674	13%
49-0000	Installation, Maintenance, and Repair Occupations	(22)	(14%)	65	1%	(7,141)	(4%)	89,091	2%
55-0000	Military occupations	(2)	(7%)	48	3%	(27,845)	(17%)	(22,971)	(1%)
99-0000	Unclassified Occupation	0	Insf.	0	Insf.	0	Insf.	0	Insf.
41-0000	Sales and Related Occupations	(45)	(15%)	(62)	(0%)	(15,962)	(4%)	(10,955)	(0%)
17-0000	Architecture and Engineering Occupations	(7)	(19%)	(340)	(18%)	(745)	(1%)	47,403	2%
47-0000	Construction and Extraction Occupations	(12)	(7%)	(2,908)	(25%)	(36,248)	(16%)	(564,399)	(8%)
51-0000	Production Occupations	(319)	(29%)	(4,956)	(24%)	(40,196)	(18%)	(1,106,380)	(11%)
	Total (all jobs):	**(267)**	**(7%)**	**11,907**	**6%**	**158,747**	**4%**	**7,641,249**	**5%**

*Occupations with <10 jobs were assumed to have 5 jobs

Color designates occupations that added the most jobs

Designates column used to sort

Source: EMSI

Historic Job Growth: Economic Region, 2004-2014 Employment, 2-digit SOC

SOC	Description	2004 Jobs	2014 Jobs	# Change	% Change
35-0000	Food Preparation and Serving Related Occupations	13,697	17,732	4,035	29%
25-0000	Education, Training, and Library Occupations	11,091	13,616	2,526	23%
29-0000	Healthcare Practitioners and Technical Occupations	8,958	10,876	1,918	21%
43-0000	Office and Administrative Support Occupations	25,998	27,837	1,839	7%
39-0000	Personal Care and Service Occupations	5,352	7,135	1,783	33%
53-0000	Transportation and Material Moving Occupations	15,323	16,565	1,242	8%
31-0000	Healthcare Support Occupations	4,013	5,210	1,197	30%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	6,992	8,119	1,127	16%
13-0000	Business and Financial Operations Occupations	5,545	6,588	1,043	19%
21-0000	Community and Social Service Occupations	2,191	3,160	969	44%
33-0000	Protective Service Occupations	2,701	3,394	693	26%
15-0000	Computer and Mathematical Occupations	2,564	3,243	679	26%
11-0000	Management Occupations	8,296	8,612	316	4%
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	2,834	3,033	199	7%
45-0000	Farming, Fishing, and Forestry Occupations	1,424	1,599	174	12%
23-0000	Legal Occupations	1,004	1,177	173	17%
19-0000	Life, Physical, and Social Science Occupations	864	1,010	146	17%
49-0000	Installation, Maintenance, and Repair Occupations	8,310	8,375	65	1%
55-0000	Military occupations	1,585	1,633	48	3%
99-0000	Unclassified Occupation	0	0	0	Insf.
41-0000	Sales and Related Occupations	20,869	20,806	(62)	(0%)
17-0000	Architecture and Engineering Occupations	1,918	1,578	(340)	(18%)
47-0000	Construction and Extraction Occupations	11,661	8,753	(2,908)	(25%)
51-0000	Production Occupations	21,068	16,112	(4,956)	(24%)
	Total (all jobs):	**184,258**	**196,165**	**11,907**	**6%**

Source: EMSI

Historic Job Growth: Strasburg, 2004-2014 Employment, 2-digit SOC

SOC	Description	2004 Jobs	2014 Jobs	# Change	% Change
35-0000	Food Preparation and Serving Related Occupations	246	319	73	30%
31-0000	Healthcare Support Occupations	36	83	46	127%
25-0000	Education, Training, and Library Occupations	24	49	25	104%
29-0000	Healthcare Practitioners and Technical Occupations	45	69	25	55%
53-0000	Transportation and Material Moving Occupations	384	403	19	5%
39-0000	Personal Care and Service Occupations	120	133	13	10%
13-0000	Business and Financial Operations Occupations	94	104	10	11%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	73	80	7	10%
15-0000	Computer and Mathematical Occupations	26	30	4	17%
21-0000	Community and Social Service Occupations	15	20	4	27%
19-0000	Life, Physical, and Social Science Occupations	5	5	0	0%
23-0000	Legal Occupations	5	5	0	0%
33-0000	Protective Service Occupations	5	5	0	0%
99-0000	Unclassified Occupation	0	0	0	Insf.
55-0000	Military occupations	29	27	(2)	(7%)
17-0000	Architecture and Engineering Occupations	35	29	(7)	(19%)
45-0000	Farming, Fishing, and Forestry Occupations	40	31	(8)	(21%)
47-0000	Construction and Extraction Occupations	174	162	(12)	(7%)
43-0000	Office and Administrative Support Occupations	485	465	(21)	(4%)
49-0000	Installation, Maintenance, and Repair Occupations	156	135	(22)	(14%)
11-0000	Management Occupations	202	173	(29)	(14%)
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	93	63	(30)	(32%)
41-0000	Sales and Related Occupations	311	266	(45)	(15%)
51-0000	Production Occupations	1,083	765	(319)	(29%)
	Total (all jobs):	**3,695**	**3,428**	**(267)**	**(7%)**

*Occupations with <10 jobs were assumed to have 5 jobs

Source: EMSI

Historic Job Growth: Virginia, 2004-2014 Employment, 2-digit SOC

SOC	Description	2004 Jobs	2014 Jobs	# Change	% Change
35-0000	Food Preparation and Serving Related Occupations	275,824	321,702	45,878	17%
39-0000	Personal Care and Service Occupations	125,151	167,398	42,247	34%
13-0000	Business and Financial Operations Occupations	233,052	266,791	33,739	14%
15-0000	Computer and Mathematical Occupations	168,354	200,399	32,045	19%
29-0000	Healthcare Practitioners and Technical Occupations	168,885	199,173	30,289	18%
25-0000	Education, Training, and Library Occupations	219,266	247,708	28,442	13%
31-0000	Healthcare Support Occupations	76,679	94,942	18,263	24%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	149,928	165,596	15,667	10%
33-0000	Protective Service Occupations	94,503	105,997	11,494	12%
21-0000	Community and Social Service Occupations	54,779	65,938	11,158	20%
43-0000	Office and Administrative Support Occupations	578,552	587,408	8,855	2%
19-0000	Life, Physical, and Social Science Occupations	28,843	33,018	4,175	14%
11-0000	Management Occupations	198,610	202,735	4,125	2%
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	63,313	66,738	3,424	5%
23-0000	Legal Occupations	38,230	40,614	2,384	6%
99-0000	Unclassified Occupation	0	0	0	Insf.
17-0000	Architecture and Engineering Occupations	80,676	79,930	(745)	(1%)
45-0000	Farming, Fishing, and Forestry Occupations	15,943	14,461	(1,482)	(9%)
53-0000	Transportation and Material Moving Occupations	236,174	232,354	(3,820)	(2%)
49-0000	Installation, Maintenance, and Repair Occupations	164,706	157,565	(7,141)	(4%)
41-0000	Sales and Related Occupations	426,741	410,779	(15,962)	(4%)
55-0000	Military occupations	167,942	140,097	(27,845)	(17%)
47-0000	Construction and Extraction Occupations	228,582	192,334	(36,248)	(16%)
51-0000	Production Occupations	226,333	186,137	(40,196)	(18%)
	Total (all jobs):	**4,021,067**	**4,179,814**	**158,747**	**4%**

Source: EMSI

5-digit SOC

The following tables also show changes in employment between 2004 and 2014 across various occupational groups, however, this analysis is conducted at the 5-digit SOC level, the most specific level of classification for occupations. The 25 occupations that added the most jobs over the past 10 years in each geography are shown in the tables.

Occupations in Strasburg and Virginia that overlap with the high growth occupations in the Economic Region are highlighted in green. The occupations in the Economic Region that overlap with occupations in both the town and state are highlighted in blue.

Key Findings:

- Between 2004 and 2014, the occupational groups at the 5-digit level that added the most jobs in the Economic Region were:
    - Combined Food Preparation and Serving Workers, Including Fast Food: 1,622 jobs added
    - Personal Care Aides: 1,221 jobs added
    - Postsecondary Teachers: 796 jobs added
    - Waiters and Waitresses: 720 jobs added
    - Registered Nurses: 584 jobs added
- In Strasburg, the occupational groups at the 5-digit level that added the most jobs between 2004 and 2014 were:
    - Laborers and Freight, Stock, and Material Movers, Hand: 43 jobs added
    - Personal Care Aides: 25 jobs added
    - Waiters and Waitresses: 20 jobs added
    - Nursing Assistants: 20 jobs added
    - Home Health Aides: 20 jobs added
- The primary drivers of employment growth in the Economic Region were occupations related to the restaurant industry, including Food Preparation Workers, Waiters and Waitresses, and Cooks.
- Health care-related occupations were also a major driver of growth in the Economic Region. In total, health care-related occupations added 2,800 jobs between 2004 and 2014. These occupational groups were also primary drivers of employment growth in the state and town.
- Both the Economic Region and the town saw significant growth in the Laborers and Freight, Stock, and Material Movers occupational group which grew by 12% and 61% respectively. At the state-level, however, this occupation declined by 4%, shedding over 2,100 jobs.
- The state and Economic Region both experienced strong growth in education-related occupations, including Postsecondary Teachers and Elementary School Teachers. These occupations, however, are barely represented in the town, where each accounts for fewer than 10 workers.

- The state demonstrated strong growth in occupations in information and technology-related fields, specifically Software Developers, Applications and Software Developers, Systems Software. Those occupations also grew at a fast rate in the Economic Region, adding a total of over 90 jobs. The town has very low representation in these occupations, where each accounts for fewer than 10 positions.

Historic Job Growth: Economic Region, 2004-2014, 5-digit SOC

SOC	Description	2004 Jobs	2014 Jobs	# Change	% Change
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	4,517	6,139	1,622	36%
39-9021	Personal Care Aides	964	2,185	1,221	127%
25-1099	Postsecondary Teachers	2,168	2,964	796	37%
35-3031	Waiters and Waitresses	2,660	3,380	720	27%
29-1141	Registered Nurses	3,110	3,695	584	19%
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	3,834	4,299	465	12%
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	2,961	3,398	437	15%
35-2014	Cooks, Restaurant	1,171	1,571	400	34%
25-2021	Elementary School Teachers, Except Special Education	1,794	2,192	398	22%
31-1014	Nursing Assistants	1,783	2,164	382	21%
37-3011	Landscaping and Groundskeeping Workers	1,555	1,920	366	24%
31-1011	Home Health Aides	553	915	362	66%
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	1,071	1,417	346	32%
41-2011	Cashiers	5,359	5,701	342	6%
15-1199	Computer Occupations, All Other	546	878	331	61%
43-5081	Stock Clerks and Order Fillers	3,102	3,380	278	9%
25-9041	Teacher Assistants	1,491	1,747	256	17%
43-9061	Office Clerks, General	5,005	5,259	254	5%
13-1199	Business Operations Specialists, All Other	687	940	253	37%
29-2061	Licensed Practical and Licensed Vocational Nurses	987	1,241	253	26%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	1,462	1,687	225	15%
11-9013	Farmers, Ranchers, and Other Agricultural Managers	1,299	1,500	201	16%
43-4051	Customer Service Representatives	2,232	2,431	199	9%
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	1,264	1,461	197	16%
37-2012	Maids and Housekeeping Cleaners	1,792	1,988	196	11%
	Total (all jobs):	**184,258**	**196,165**	**11,907**	**6%**

Designates overlap with high growth occupational groups in the town and state

Source: EMSI

Historic Job Growth: Strasburg, 2004-2014, 5-digit SOC

SOC	Description	2004 Jobs	2014 Jobs	# Change	% Change
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	71	114	43	61%
39-9021	Personal Care Aides	25	50	25	103%
35-3031	Waiters and Waitresses	39	59	20	53%
31-1014	Nursing Assistants	11	31	20	191%
31-1011	Home Health Aides	14	33	20	140%
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	93	106	13	14%
43-9061	Office Clerks, General	69	81	12	17%
29-2061	Licensed Practical and Licensed Vocational Nurses	5	17	12	232%
51-2099	Assemblers and Fabricators, All Other	12	21	10	82%
35-2014	Cooks, Restaurant	16	26	9	56%
47-2061	Construction Laborers	28	37	9	31%
35-9021	Dishwashers	5	14	9	171%
13-1071	Human Resources Specialists	5	13	8	166%
29-1141	Registered Nurses	5	13	8	163%
37-3011	Landscaping and Groundskeeping Workers	12	19	7	63%
49-3023	Automotive Service Technicians and Mechanics	5	12	7	138%
25-3021	Self-Enrichment Education Teachers	5	12	7	137%
11-9199	Managers, All Other	5	11	6	120%
47-2141	Painters, Construction and Maintenance	5	10	5	107%
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	20	25	5	26%
53-7061	Cleaners of Vehicles and Equipment	5	10	5	101%
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	26	30	5	18%
35-2021	Food Preparation Workers	16	21	4	26%
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	34	38	4	13%
51-9199	Production Workers, All Other	21	26	4	19%
	Total (all jobs):	**3,695**	**3,428**	**(267)**	**(7%)**

*Occupations with <10 jobs were assumed to have 5 jobs

Designates overlap with high growth occupational groups in Economic Region

Source: EMSI

Historic Job Growth: Virginia, 2004-2014, 5-digit SOC

SOC	Description	2004 Jobs	2014 Jobs	# Change	% Change
39-9021	Personal Care Aides	21,352	46,284	24,932	117%
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	79,200	98,029	18,829	24%
13-1111	Management Analysts	37,411	49,952	12,541	34%
25-1099	Postsecondary Teachers	29,920	39,459	9,539	32%
29-1141	Registered Nurses	54,301	61,855	7,554	14%
35-3031	Waiters and Waitresses	58,827	66,156	7,329	12%
15-1132	Software Developers, Applications	30,490	37,777	7,287	24%
37-3011	Landscaping and Groundskeeping Workers	30,928	36,142	5,214	17%
31-1014	Nursing Assistants	33,167	38,309	5,142	16%
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	64,711	69,798	5,087	8%
15-1133	Software Developers, Systems Software	21,940	26,933	4,993	23%
33-9032	Security Guards	28,839	33,799	4,961	17%
35-2014	Cooks, Restaurant	25,334	30,198	4,864	19%
15-1121	Computer Systems Analysts	22,600	27,442	4,841	21%
11-9199	Managers, All Other	20,075	24,517	4,443	22%
31-1011	Home Health Aides	7,879	12,256	4,378	56%
13-2011	Accountants and Auditors	38,593	42,758	4,166	11%
43-4171	Receptionists and Information Clerks	29,001	33,095	4,095	14%
29-2061	Licensed Practical and Licensed Vocational Nurses	18,543	22,542	3,999	22%
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	20,036	24,003	3,967	20%
13-1161	Market Research Analysts and Marketing Specialists	12,232	16,147	3,915	32%
13-1199	Business Operations Specialists, All Other	29,921	33,601	3,680	12%
37-2012	Maids and Housekeeping Cleaners	38,858	42,502	3,644	9%
25-2021	Elementary School Teachers, Except Special Education	32,367	35,829	3,462	11%
39-5012	Hairdressers, Hairstylists, and Cosmetologists	15,884	18,972	3,088	19%
	Total (all jobs):	**4,021,067**	**4,179,814**	**158,747**	**4%**

Designates overlap with high growth occupational groups in Economic Region

Source: EMSI

Projected Growth

The following tables identify the occupational groups that are projected to add the most jobs between 2014 and 2024 in each geography. The tables show how projected occupational trends in the Economic Region compare to those in Strasburg and Virginia. This assessment was conducted at both the 2-digit SOC code level, the broadest level of occupational classification, and the 5-digit level, the most specific.

2-digit SOC

Key Findings:

- In the Economic Region, the occupational groups at the 2-digit level that are projected to add the most jobs between 2014 and 2024 are:
    - Food Preparation and Serving Related Occupations: 3,070 jobs added
    - Healthcare Practitioners and Technical Occupations: 2,354 jobs added
    - Office and Administrative Support Occupations: 2,156 jobs added
    - Education, Training, and Library Occupations: 1,939 jobs added
    - Transportation and Material Moving Occupations: 1,712 jobs added
- In Strasburg, the occupational groups at the 2-digit level that are projected to add the most jobs between 2014 and 2024 are:
    - Healthcare Support Occupations: 39 jobs added
    - Food Preparation and Serving Related Occupations: 24 jobs added
    - Healthcare Practitioners and Technical Occupations: 24 jobs added
    - Construction and Extraction Occupations: 22 jobs added
    - Education, Training, and Library Occupations: 19 jobs added
- Over the next 10 years, Strasburg is projected to continue to grow in occupations related to health care. The Economic Region and state are also projected to demonstrate strong growth in this occupational group.
- Employment in Computer and Mathematical Occupations is projected to grow at a fast rate over the next 10 years across all geographies, continuing the trend seen between 2004 and 2014. In the Economic Region, this group is projected to grow by 13%, lagging behind the 24% increase in employment expected in the state. This occupational group is also projected to grow in Strasburg, mirroring growth in the Economic Region.
- Employment in Office and Administrative Support Occupations, where Strasburg is projected to lose 24 jobs, is projected to grow in the Economic Region, state, and US, growing by between 8% and 11 % in these geographies.
- The Economic Region and Strasburg are projected to continue to shed jobs in Production Occupations, which are closely related to the manufacturing industry, however, the rate of decline is expected to be lower than it was between 2004 and 2014. Over the same period, the number of jobs in these occupations is projected to grow at a slow rate in Virginia.

Projected Job Growth: Economic Region, 2014-2024 Employment, 2-digit SOC

SOC	Description	2014 Jobs	2024 Jobs	# Change	% Change
35-0000	Food Preparation and Serving Related Occupations	17,732	20,802	3,070	17%
29-0000	Healthcare Practitioners and Technical Occupations	10,876	13,230	2,354	22%
43-0000	Office and Administrative Support Occupations	27,837	29,992	2,156	8%
25-0000	Education, Training, and Library Occupations	13,616	15,555	1,939	14%
53-0000	Transportation and Material Moving Occupations	16,565	18,277	1,712	10%
41-0000	Sales and Related Occupations	20,806	22,398	1,591	8%
31-0000	Healthcare Support Occupations	5,210	6,641	1,431	27%
39-0000	Personal Care and Service Occupations	7,135	8,301	1,166	16%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	8,119	9,033	914	11%
49-0000	Installation, Maintenance, and Repair Occupations	8,375	9,185	809	10%
13-0000	Business and Financial Operations Occupations	6,588	7,322	734	11%
21-0000	Community and Social Service Occupations	3,160	3,890	730	23%
11-0000	Management Occupations	8,612	9,257	645	7%
33-0000	Protective Service Occupations	3,394	3,887	492	14%
15-0000	Computer and Mathematical Occupations	3,243	3,679	436	13%
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	3,033	3,397	364	12%
47-0000	Construction and Extraction Occupations	8,753	9,059	306	3%
19-0000	Life, Physical, and Social Science Occupations	1,010	1,156	146	14%
23-0000	Legal Occupations	1,177	1,307	130	11%
99-0000	Unclassified Occupation	0	0	0	-
17-0000	Architecture and Engineering Occupations	1,578	1,554	(25)	(2%)
45-0000	Farming, Fishing, and Forestry Occupations	1,599	1,547	(52)	(3%)
55-0000	Military occupations	1,633	1,565	(68)	(4%)
51-0000	Production Occupations	16,112	15,457	(655)	(4%)
	Total (all jobs):	**196,165**	**216,492**	**20,327**	**10%**

Source: EMSI

Projected Job Growth: Strasburg, 2014-2024 Employment, 2-digit SOC

SOC	Description	2014 Jobs	2024 Jobs	# Change	% Change
31-0000	Healthcare Support Occupations	83	122	39	48%
35-0000	Food Preparation and Serving Related Occupations	319	344	24	8%
29-0000	Healthcare Practitioners and Technical Occupations	69	93	24	35%
47-0000	Construction and Extraction Occupations	162	184	22	13%
25-0000	Education, Training, and Library Occupations	49	68	19	40%
39-0000	Personal Care and Service Occupations	133	145	12	9%
13-0000	Business and Financial Operations Occupations	104	112	8	7%
33-0000	Protective Service Occupations	5	11	6	117%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	80	84	5	6%
15-0000	Computer and Mathematical Occupations	30	34	4	12%
21-0000	Community and Social Service Occupations	20	22	3	14%
19-0000	Life, Physical, and Social Science Occupations	5	5	0	0%
23-0000	Legal Occupations	5	5	0	0%
99-0000	Unclassified Occupation	0	0	0	-
55-0000	Military occupations	27	25	(2)	(7%)
53-0000	Transportation and Material Moving Occupations	403	399	(4)	(1%)
17-0000	Architecture and Engineering Occupations	29	22	(6)	(22%)
45-0000	Farming, Fishing, and Forestry Occupations	31	24	(7)	(24%)
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	63	50	(13)	(21%)
49-0000	Installation, Maintenance, and Repair Occupations	135	121	(14)	(10%)
41-0000	Sales and Related Occupations	266	248	(18)	(7%)
11-0000	Management Occupations	173	150	(23)	(13%)
43-0000	Office and Administrative Support Occupations	465	441	(24)	(5%)
51-0000	Production Occupations	765	566	(198)	(26%)
	Total (all jobs):	**3,428**	**3,281**	**(147)**	**(4%)**

*Occupations with <10 jobs were assumed to have 5 jobs

Source: EMSI

Projected Job Growth: Virginia, 2014-2024 Employment, 2-digit SOC

SOC	Description	2014 Jobs	2024 Jobs	# Change	% Change
43-0000	Office and Administrative Support Occupations	587,408	649,743	62,335	11%
15-0000	Computer and Mathematical Occupations	200,399	247,504	47,105	24%
35-0000	Food Preparation and Serving Related Occupations	321,702	365,573	43,872	14%
29-0000	Healthcare Practitioners and Technical Occupations	199,173	240,762	41,588	21%
25-0000	Education, Training, and Library Occupations	247,708	288,196	40,488	16%
13-0000	Business and Financial Operations Occupations	266,791	303,061	36,270	14%
41-0000	Sales and Related Occupations	410,779	446,233	35,454	9%
39-0000	Personal Care and Service Occupations	167,398	202,833	35,435	21%
47-0000	Construction and Extraction Occupations	192,334	222,923	30,588	16%
31-0000	Healthcare Support Occupations	94,942	123,547	28,605	30%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	165,596	190,083	24,488	15%
11-0000	Management Occupations	202,735	226,220	23,485	12%
53-0000	Transportation and Material Moving Occupations	232,354	253,813	21,460	9%
49-0000	Installation, Maintenance, and Repair Occupations	157,565	175,786	18,220	12%
33-0000	Protective Service Occupations	105,997	121,517	15,519	15%
21-0000	Community and Social Service Occupations	65,938	79,577	13,639	21%
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	66,738	75,910	9,172	14%
17-0000	Architecture and Engineering Occupations	79,930	87,394	7,464	9%
19-0000	Life, Physical, and Social Science Occupations	33,018	37,573	4,555	14%
23-0000	Legal Occupations	40,614	44,090	3,476	9%
51-0000	Production Occupations	186,137	188,160	2,024	1%
99-0000	Unclassified Occupation	0	0	0	-
55-0000	Military occupations	140,097	139,805	(293)	(0%)
45-0000	Farming, Fishing, and Forestry Occupations	14,461	13,650	(811)	(6%)
	Total (all jobs):	**4,179,814**	**4,723,952**	**544,138**	**13%**

Source: EMSI

5-digit SOC

The following tables also show projected changes in employment between 2014 and 2024 across various occupational groups, however, this analysis is conducted at the 5-digit SOC level, the most specific level available. The 25 occupations that are projected to add the most jobs over the next 10 years in each geography are shown in the table.

Occupations in Strasburg and Virginia that overlap with the high growth occupations in the Economic Region are highlighted in green. The occupations in the Economic Region that overlap with occupations in both the town and state are highlighted in blue.

Key Findings:

- In the Economic Region, the occupational groups at the 5-digit level that are projected to add the most jobs between 2014 and 2024 are:
    - Combined Food Preparation and Serving Workers, Including Fast Food: 1,012 jobs added
    - Personal Care Aides: 798 jobs added
    - Registered Nurses: 704 jobs added
    - Retail Salespersons: 695 jobs added
    - Laborers and Freight, Stock, and Material Movers, Hand: 608 jobs added
- In Strasburg, the occupational groups at the 5-digit level that are projected to add the most jobs between 2014 and 2024 are:
    - Laborers and Freight, Stock, and Material Movers, Hand: 20 jobs added
    - Personal Care Aides: 18 jobs added
    - Nursing Assistants: 17 jobs added
    - Home Health Aides: 17 jobs added
    - Construction Laborers: 14 jobs added
- Employment growth in Strasburg is projected to be driven by gains in occupations related to the health care field, with five health care related occupations projected to add over 65 jobs to the Strasburg economy. Health care-related occupations are also projected to grow in the Economic Region and the state.
- Positions related to business services, such as Accountants and Auditors and Management Analysts, and those related to information technology, such as Software Developers, Applications, are expected to be among the top contributors to employment growth in the state. While these occupations are also projected to have strong growth in the Economic Region, the total number of jobs in these fields is expected to remain low relative to other occupations.
- Both the Economic Region and the town are projected to add jobs in occupations related to the transportation and distribution industry, outpacing growth at the state level.

Projected Job Growth: Economic Region, 2014-2024, 5-digit SOC

SOC	Description	2014 Jobs	2024 Jobs	# Change	% Change
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	6,139	7,151	1,012	16%
39-9021	Personal Care Aides	2,185	2,984	798	37%
29-1141	Registered Nurses	3,695	4,399	704	19%
41-2031	Retail Salespersons	6,810	7,506	695	10%
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	4,299	4,907	608	14%
35-3031	Waiters and Waitresses	3,380	3,906	526	16%
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	3,398	3,825	427	13%
31-1014	Nursing Assistants	2,164	2,583	419	19%
25-2021	Elementary School Teachers, Except Special Education	2,192	2,573	381	17%
25-1099	Postsecondary Teachers	2,964	3,330	366	12%
31-1011	Home Health Aides	915	1,279	364	40%
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2,391	2,751	361	15%
35-2014	Cooks, Restaurant	1,571	1,924	354	23%
41-2011	Cashiers	5,701	6,042	341	6%
53-3032	Heavy and Tractor-Trailer Truck Drivers	3,820	4,139	318	8%
43-4051	Customer Service Representatives	2,431	2,699	268	11%
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	1,417	1,672	255	18%
11-1021	General and Operations Managers	2,005	2,246	241	12%
37-3011	Landscaping and Groundskeeping Workers	1,920	2,161	240	13%
25-9041	Teacher Assistants	1,747	1,978	231	13%
43-9061	Office Clerks, General	5,259	5,489	230	4%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	1,687	1,916	229	14%
29-2061	Licensed Practical and Licensed Vocational Nurses	1,241	1,463	222	18%
43-4171	Receptionists and Information Clerks	1,351	1,567	216	16%
43-3031	Bookkeeping, Accounting, and Auditing Clerks	2,216	2,429	213	10%
	Total (all jobs):	**196,165**	**216,492**	**20,327**	**10%**

Designates overlap with high growth occupational groups in the town and state

Source: EMSI

Projected Job Growth: Strasburg, 2014-2024, 5-digit SOC

SOC	Description	2014 Jobs	2024 Jobs	# Change	% Change
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	114	135	20	18%
39-9021	Personal Care Aides	50	68	18	36%
31-1014	Nursing Assistants	31	48	17	54%
31-1011	Home Health Aides	33	50	17	49%
47-2061	Construction Laborers	37	51	14	38%
35-3031	Waiters and Waitresses	59	68	8	14%
29-1141	Registered Nurses	13	20	7	55%
29-2061	Licensed Practical and Licensed Vocational Nurses	17	24	7	44%
37-3011	Landscaping and Groundskeeping Workers	19	25	6	32%
25-3021	Self-Enrichment Education Teachers	12	18	6	49%
49-3023	Automotive Service Technicians and Mechanics	12	18	6	48%
47-2031	Carpenters	31	37	5	17%
35-2014	Cooks, Restaurant	26	31	5	20%
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	38	42	4	11%
53-7061	Cleaners of Vehicles and Equipment	10	14	4	43%
13-1071	Human Resources Specialists	13	17	4	31%
51-2099	Assemblers and Fabricators, All Other	21	25	4	18%
51-9196	Paper Goods Machine Setters, Operators, and Tenders	10	13	2	22%
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	30	33	2	8%
47-2141	Painters, Construction and Maintenance	10	13	2	22%
43-9061	Office Clerks, General	81	83	2	3%
13-2011	Accountants and Auditors	23	25	2	9%
11-9199	Managers, All Other	11	13	2	18%
35-9021	Dishwashers	14	15	2	14%
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	25	27	1	6%
	Total (all jobs):	**3,428**	**3,281**	**(147)**	**(4%)**

*Occupations with <10 jobs were assumed to have 5 jobs

Designates overlap with high growth occupational groups in Economic Region

Source: EMSI

Projected Job Growth: Virginia, 2014-2024, 5-digit SOC

SOC	Description	2014 Jobs	2024 Jobs	# Change	% Change
39-9021	Personal Care Aides	46,284	63,539	17,255	37%
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	98,029	114,121	16,092	16%
41-2031	Retail Salespersons	127,688	140,587	12,899	10%
15-1132	Software Developers, Applications	37,777	48,482	10,705	28%
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	52,657	63,222	10,565	20%
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	69,798	80,027	10,230	15%
43-9061	Office Clerks, General	94,793	104,161	9,369	10%
29-1141	Registered Nurses	61,855	70,759	8,903	14%
11-1021	General and Operations Managers	53,207	61,812	8,605	16%
43-4051	Customer Service Representatives	55,019	63,032	8,013	15%
25-1099	Postsecondary Teachers	39,459	47,312	7,852	20%
31-1011	Home Health Aides	12,256	20,044	7,788	64%
33-9032	Security Guards	33,799	41,246	7,447	22%
15-1121	Computer Systems Analysts	27,442	34,625	7,183	26%
47-2061	Construction Laborers	29,997	37,157	7,160	24%
15-1133	Software Developers, Systems Software	26,933	33,809	6,876	26%
43-3031	Bookkeeping, Accounting, and Auditing Clerks	49,434	56,197	6,763	14%
13-1111	Management Analysts	49,952	56,664	6,712	13%
25-2021	Elementary School Teachers, Except Special Education	35,829	42,524	6,694	19%
35-3031	Waiters and Waitresses	66,156	72,569	6,413	10%
31-1014	Nursing Assistants	38,309	44,706	6,397	17%
37-3011	Landscaping and Groundskeeping Workers	36,142	42,507	6,365	18%
43-4171	Receptionists and Information Clerks	33,095	39,207	6,112	18%
13-2011	Accountants and Auditors	42,758	48,838	6,079	14%
15-1151	Computer User Support Specialists	20,926	26,782	5,856	28%
	Total (all jobs):	**4,179,814**	**4,723,952**	**544,138**	**13%**

Designates overlap with high growth occupational groups in Economic Region

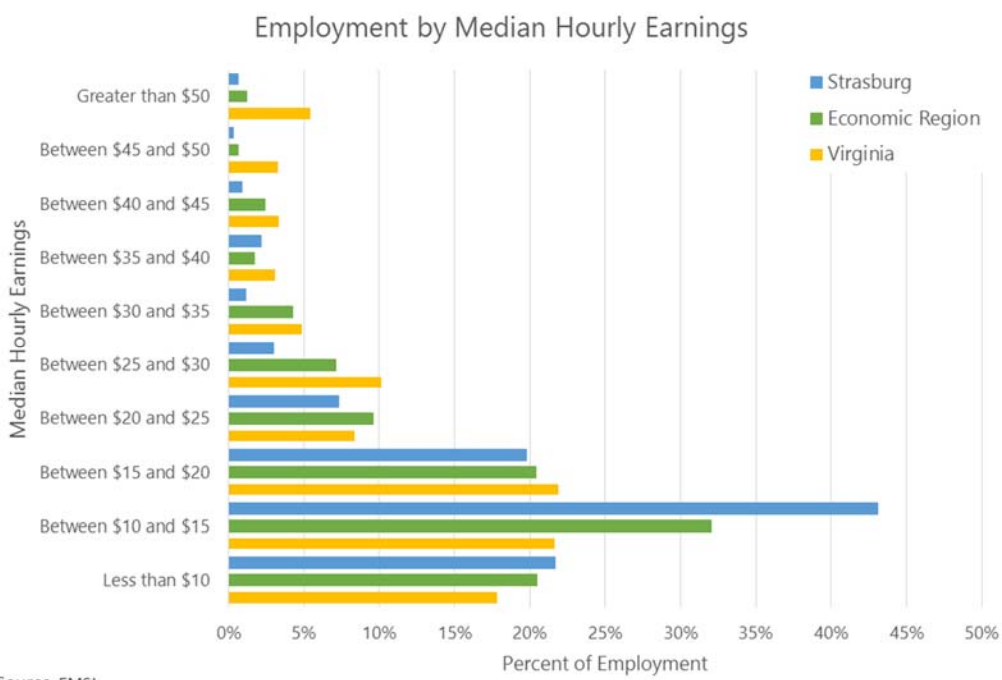
Source: EMSI

Employment by Median Wage

Using the median wage for each occupational group, the distribution of jobs by hourly wages was analyzed and compared to the Economic Region and Virginia.

Key Findings:

- The median and average hourly wages in the town are significantly lower than those of the Economic Region, Virginia, or the US. While low wages can be a competitive advantage for attracting new businesses, it also reflects a lower quality of jobs available in the town.
- Strasburg has a much higher concentration of workers in lower wage brackets than the Economic Region or Virginia, with 43% of workers in the town earning an hourly wage between $10 and $15. Correspondingly, the town has very few workers earning wages in the top income brackets.
- According to the Massachusetts Institute of Technology (MIT) Living Wage Calculator, the living wage in Shenandoah County is $19.90.[14] Using this standard, the town has 535 jobs in occupations with a median wage at or above $19.90, or 16% of all jobs. This number has declined by 69 jobs since 2004 and is expected to continue to decline to just 485 jobs by 2024. Most occupations with a living wage in the town are related to the manufacturing, financial and business services, and health care industries.



Source: EMSI

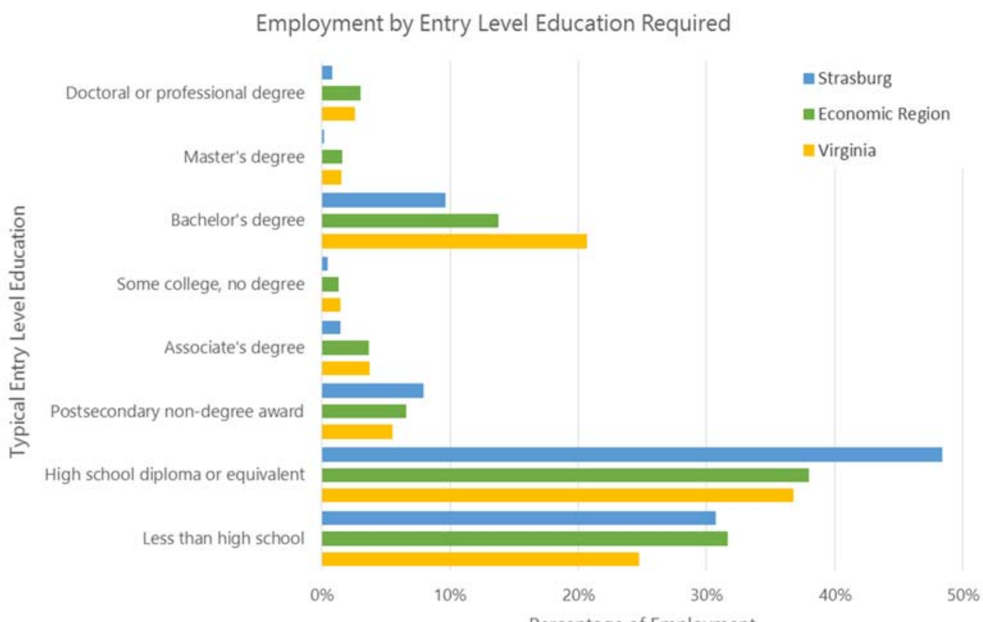
[14] Living wage for a 2 adult, 1 child household with 1 working adult

Employment by Entry Level of Education Required

The Bureau of Labor Statistics categorizes every occupation by the typical level of education required of workers. To better understand the composition of employment opportunities in Strasburg, the distribution of the jobs in the town across various education requirements was analyzed and compared to the Economic Region and Virginia.

Key Findings:

- Nearly 80% of jobs in the town have a typical entry-level education of a high school diploma or less. This compares to 70% in the Economic Region and 62% in Virginia overall.
- In the Economic Region, jobs requiring a Master's degree and those requiring an Associate's degree are projected to grow at the fastest rate, increasing by 21% and 19% respectively.
- Georgetown University projects that of the openings (both new and replacement demand) created by 2018, about 33% will require a Bachelor's degree and another 30% will require some college or an Associate's degree.[15] To compete in the knowledge-driven economy, Strasburg needs a well-educated workforce that can meet employer's growing demand for skilled workers.



Source: EMSI

[15] Carnevale, A. P., Smith, N., & Strohl, J. (2010). *Help Wanted: Projections of Jobs and Education Requirements through 2018*. Washington, DC: Georgetown University Center on Education and the Workforce.

Imports and Exports

Virginia Inland Port

The Economic Region is served by the Virginia Inland Port (VIP) in Front Royal, approximately a 20 minute drive from Strasburg. VIP is:

> *"...an intermodal container transfer facility owned by Virginia Port Authority. The VIP brings the Port of Virginia 220 miles closer to inland markets and enhances service to the D.C./Baltimore Metro Region by providing rail service to the terminals in Hampton Road. VIP also consolidates and containerizes local cargo for export."*[16]

VIP is in close proximity to I-66 and I-81 and uses rail track that runs along Norfolk's Southern Crescent Corridor. It is also part of Foreign Trade Zone #20.

The following tables break down import and export data from VIP by Harmonized Code (HC). HCs are the international system that categorizes traded goods.

Virginia Inland Port: Imports

- The annual average of imports over the last three years, 2012-2014, was $27,442.
- Over the ten year period ending in 2014 the largest import in terms of value was in the category of Aircraft, Spacecraft and related parts, totaling $72,685.
- Overall, there was very little import activity. There was no recorded activity between 2005 and 2011 and only four industries showed activity between 2012 and 2014.

[16] Virginia Inland Port, Homepage, http://www.portofvirginia.com/facilities/virginia-inland-port-vip/

Total Value of Imports at Virginia Inland Port

Harmonized Code	Description	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Ten Year Total
42	Leather Art; Saddlery Etc; Handbags Etc; Gut Art	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 900	**$ 900**
58	Spec Wov Fabrics; Tufted Fab; Lace; Tapestries Etc	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
62	Apparel Articles And Accessories, Not Knit Etc.	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
63	Textile Art Nesoi; Needlecraft Sets; Worn Text Art	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 720	**$ 720**
88	Aircraft, Spacecraft, And Parts Thereof	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 72,685	$0	$0	**$ 72,685**
90	Optic, Photo Etc, Medic Or Surgical Instrments Etc	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
95	Toys, Games & Sport Equipment; Parts & Accessories	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,020.00	$ -	$0	**$ 8,020**
98	Special Classification Provisions, Nesoi	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
	Annual Total:	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 80,705**	**$ -**	**$ 1,620**	

Source: WISERTrade, U.S. Census Bureau, Foreign Trade Division

Virginia Inland Port: Exports

- The annual average of exports over the last three years, 2012-2014, was $627,301.
- Over the ten year period ending in 2014 the largest export in terms of value was in the industry of Optics, Photo, Medical or Surgical Instruments, at nearly $3.9 million. The second highest value of exports was Miscellaneous Chemical Products, at $105,684.
- 2013 had the greatest activity in terms of value, $740,296.

Total Value of Exports at Virginia Inland Port

Harmonized Code	Description	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Ten Year Total
29	Organic Chemicals	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$6	$5	**$ 10,880**
38	Miscellaneous Chemical Products	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 11,918	$ 93,766	**$ 105,684**
40	Rubber And Articles Thereof	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 7,078	$ -	**$ 7,078**
49	Printed Books, Newspapers Etc; Manuscripts Etc	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,667	$ -	**$ 2,667**
70	Glass And Glassware	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
71	Nat Etc Pearls, Prec Etc Stones, Pr Met Etc; Coin	$ -	$ -	$ -	$ -	$0	$ -	$ -	$ -	$ -	$3	**$ 3,327**
73	Articles Of Iron Or Steel	$ 2,867	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 2,867**
82	Tools, Cutlery Etc. Of Base Metal & Parts Thereof	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 11,846	$ -	$ -	**$ 11,846**
84	Industrial Machinery, Including Computers	$ 5,966	$ -	$ -	$ 5,324	$ -	$ 39,820	$ -	$ 7,792	$ -	$ -	**$ 58,902**
85	Electric Machinery Etc; Sound Equip; Tv Equip; Pts	$ -	$ 7,286	$ 14,475	$ -	$ -	$ 9,104	$ 12,257	$ -	$ -	$ -	**$ 43,122**
87	Vehicles, Except Railway Or Tramway, And Parts Etc	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
88	Aircraft, Spacecraft, And Parts Thereof	$ -	$ -	$ 7,113	$ -	$ -	$ -	$ 5,999	$ 3,446	$ 4,156	$ -	**$ 20,714**
90	Optic, Photo Etc, Medic Or Surgical Instrments Etc	$ -	$ -	$ -	$ 439,170	$ 575,579	$ 637,285	$ 493,468	$ 596,863	$ 708,237	$ 419,927	**$ 3,870,529**
	Annual Total:	**$ 8,833**	**$ 7,286**	**$ 21,588**	**$ 444,494**	**$ 575,579**	**$ 686,209**	**$ 511,724**	**$ 619,947**	**$ 740,296**	**$ 521,660**	

Source: WISERTrade, U.S. Census Bureau, Foreign Trade Division

Other U.S. Ports

Winchester is the primary community where export and import companies are located and acts as a manufacturing hub for the region.

Top 3 Importers in Economic Region out of all U.S. ports (excluding inland ports)

Company	Location	Key Imports
Mercury Paper	Strasburg, VA	Paper and Paperboard products
Rubbermaid	Winchester, VA	Manufactured articles, Articles of iron or steel
Kysela Pere et Fils LTD	Winchester, VA	Beverages, spirits and vinegar

Source: Datamyne

*Information is based on May 2014-April 2015

Top 3 Exporters in Economic Region out of all U.S. ports (excluding inland ports)

Company	Location	Key Exports
Hakan USA Inc.	Broadway, VA	Meat and Edible Preperations
Rubbermaid Commercial Products	Winchester, VA	Plastics, Manufactured Goods, Furniture
O'Sullivan Films	Winchester, VA	Plastics

Source: Datamyne

*Information is based on May 2014-April 2015

Conclusion

Industry Opportunities: Opportunities for Investment, Employment, and Economic Development in Industry Sectors

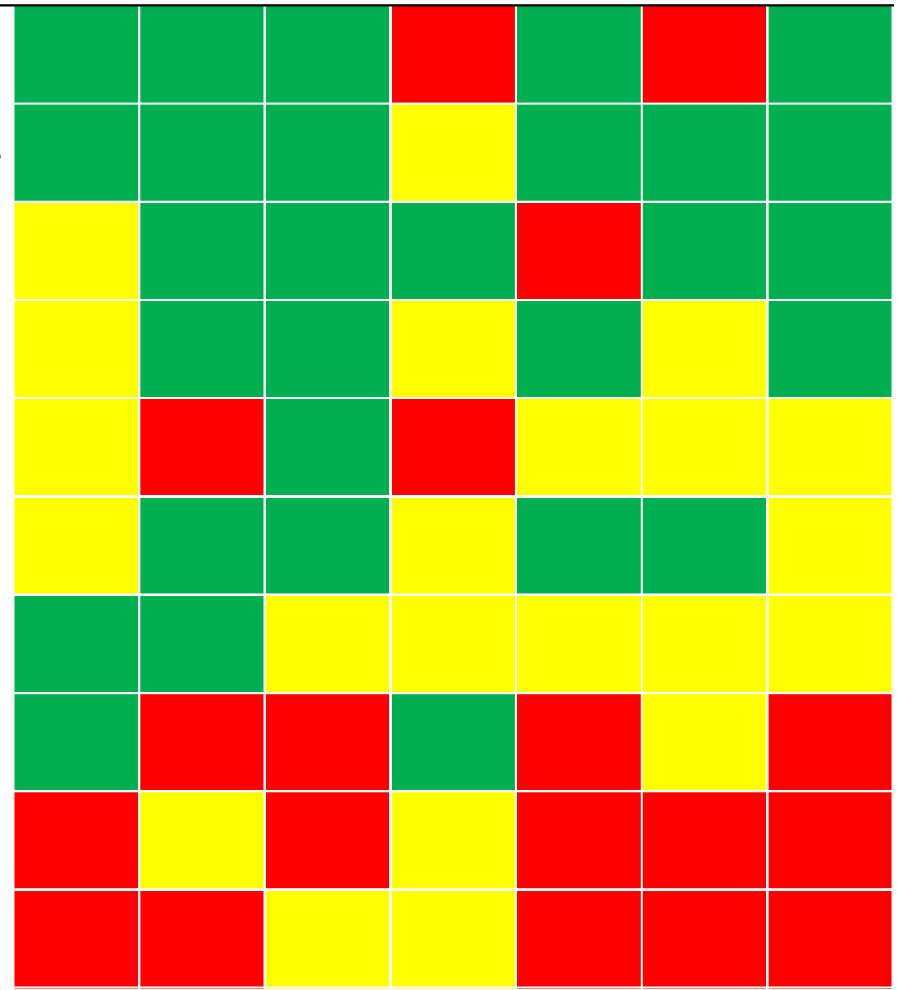
Based on the information collected in the Economic Base Analysis, the following industry inventory visually displays the industries driving demand for space, including those that have been growing and are projected to continue to grow and/or those where there are regional and local specialties. If a category is assigned a green box, that represents a growing or positive trend, a yellow box represents low or stagnant growth, while a red box represents a decline, slowed growth or limited opportunities.

- **Health Care and Social Services** –Subsectors related to outpatient procedures and the aging population are growing in the town and Economic Region. The town is unlikely to be competitive for the establishment of a hospital or major medical hub, however there are opportunities to establish satellites for major medical facilities or local offices and services, potentially through the construction of medical office buildings.
- **Transportation, Warehousing and Wholesale Trade** – Strasburg is situated in an ideal location for this sector. With the Virginia Inland Port nearby and direct access to I-66 and I-88, along with changing retail market trends, there are opportunities to capitalize on the Northern Shenandoah Business Park's location and access to major distribution networks.
- **Service Industry (Retail, Accommodation and Food Services, Restaurants and Other Places to Eat)** – This compilation of sectors serves the local market as well as visitors to the region, and has experienced steady growth in the last decade.
- **Manufacturing** – Although manufacturing is declining, it is still a key industry to the region and to Strasburg and plays a vital part of the current activities at the Golden Triangle Park. It must be noted that nearby Winchester remains a major hub for manufacturing companies.
- **Office Space** - Office space is a wide-ranging real estate market and could encapsulate a range of sectors and subsectors previously mentioned. Key markets that could be explored are business services, professional and technical services, and health care.

Opportunities in these sectors will be explored in more in detail in the Targeted Industry Analysis (Appendix E).

Economic Region- Targeted Industry Groups

Inudstry Groups	Space Demands	Size	Past Growth	Projected Growth	Concentration	Strong State Alignment	Drive demand for space	OVERALL
Service Industry- Retail, Arts, Entertainment Recreation, Accomodation and Food Services, Restaurants and Other Places to Eat	Commercial Retail							
Health Care and Social Assistance	Office/Medical Office							
Transportation, Warehousing and Wholesale Trade	Industrial/Flex							
Management of Companies and Enterprises; Administrative and Support Information;Professional and Scientific Technical Services	Office							
Finance, Insurance, Real Estate	Office							
Information, Professional, and Scientific Technical Services, other services	Office/Flex							
Government and Educational Services	Office/Flex							
Manufacturing, Food and Beverage Manufacturing	Industrial							
Resource Based Industries	Limited							
Construction	Limited							



Appendix C. Park Competitiveness Analysis

Site Competitive Analysis Summary

The Northern Shenandoah Business Park (NSBP) has significant competition in terms of the quantity and quality of the other industrial and business parks in the region, which we defined as Rockingham, Shenandoah, Frederick and Warren Counties, along with the Cities of Winchester and Harrisonburg. We see the strongest competition specifically from (1) Winchester and environs with respect to general commercial, office and light industrial space, and (2) Harrisonburg and environs particularly as it relates to large quantities of available and suitable land.

In general, the region has an adequate supply of medium-sized parcels (15-50 acres), albeit of varying quality and readiness. There are a multitude of small sites but only a few large (75+ acres), unconstrained sites available. Based on local, regional, and mega-regional trends, we see the significant opportunities in large, industrial-zoned sites with good infrastructure and quick highway access. Recent announcements of speculative development south of Winchester of this type serve to buttress this finding.

The strengths of the NSBP clearly lie in its excellent access to both I-81 and I-66, proximity to the Virginia Inland Port, appropriate zoning, and its relatively modest land asking prices. Other strengths include its relatively flat topography and the potential for good visibility from the highway.

To better compete in this regional real estate market, Strasburg can take a number of actions:

1. <u>Improve site readiness within the park</u> – Businesses today demand immediately available and ready property with all infrastructure and approvals in place or, if not in place, easily and quickly attainable. Without certainty in these areas, Strasburg is not "in play" for major new developments. There are a number of potential improvements that could be made to the NSBP:
    a. Water and sewer lines currently run north-south through the park and are of sufficient capacity. However, new lines must be drawn eastward from the north-south trunk lines, along Borden Mowery Drive all the way to Radio Station Drive.
    b. Borden Mowery Drive must be extended eastward as well through to Radio Station Drive, to allow for all park occupants to access both highway interchanges to the west and east of the NSBP. This will also open up a number of parcels that are otherwise effectively landlocked.
    c. Gas lines currently run along Radio Station Drive but only serve a small portion of the park. Running gas lines speculatively across the park would likely be prohibitively expensive, but the town can arrange for proper easements in advance to shorten the development timetable and provide better clarity on this topic.

d. Right Now certification – many of the sites in the region have attained the "Right Now" certification from the state, attesting to the readiness of their properties for development. This would be a logical certification for the town to seek in conjunction with, or on behalf of, the NSBP property owners.

2. Improve visibility from the highway – Currently, the town is not "visible" from I-81 in any meaningful way. Opening up visibility will help raise awareness of Strasburg and its real estate offerings and would boost the NSBP's visibility in the real estate marketplace. One way would be to allow unfettered lines-of-sight from the highway to adjacent parcels by allowing land to be cleared without highway buffering. In particular, a large commercial development near the Rt. 55 entrance visible from the highway would be excellent in this regard. Better, more prominent signage could also help, both on I-81 and on local roads.
3. Consider an expansion – Because of the limited availability of large sites in the region, the town could consider expanding the park outside of the current town boundaries to encompass land of this size and nature.
4. Consider changes to the UDO – We understand that the recently-adopted UDO may present challenges to development within the park given its more strict guidelines. The town could consider rolling back some of those requirements, particularly for parcels in the center and eastern edge of the park that are most likely to be used for light industrial purposes.
5. Consider land assembly – Given the diffuse ownership of holdings within the park, the town may wish to purchase and assemble parcels of land into larger groupings. This is true in a number of locations within the NSBP. For example, in the southeast corner of the park, there are a number of small parcels spread across three owners. Together, they constitute 44 acres and thus could be a substantial amount of land.
6. Consider a realignment of the proposed road – Borden Mowery Drive is currently planned to deviate from its current alignment with the gas line easements that run across the NSBP. We suggest the town consider re-aligning the road to follow the gas lines across the entire park, so as to avoid breaking up land into smaller and thus less attractive parcels.

Park Competitive Analysis Introduction

In order to understand the real estate market surrounding the Northern Shenandoah Business Park (NSBP), Camoin Associates conducted a competitive real estate market analysis, including:

1. A preliminary assessment of the strengths and weaknesses of the NSBP,
2. A general review of real estate trends in the northern Virginia market,
3. An inventory of industrial parks and business parks in selected counties surrounding Strasburg, including a discussion on the Right Now certification, and
4. A "market outlook", which included recent major real estate activity in the area and a deeper dive into three of the nearby industrial/business parks.

We then synthesized the above data to provide findings of interest with respect to how the NSBP could be positioned for success.

Strengths and Weaknesses of the NSBP

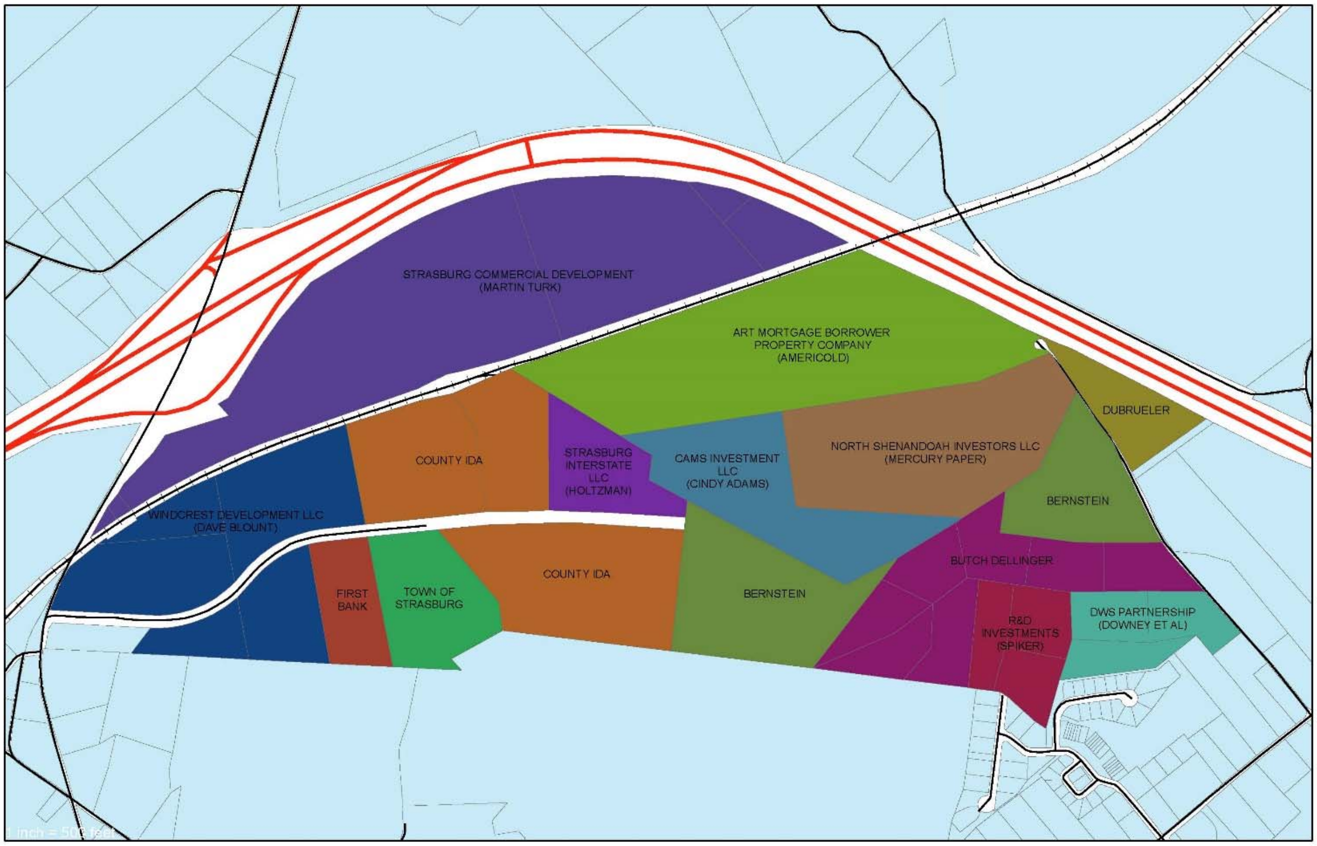
Before assessing the sites surrounding the Northern Shenandoah Business Park (NSBP), Camoin took an inventory of the strengths and weaknesses of the NSBP itself.

Ownership

The ownership situation of the NSBP is quite complex. Unlike some of the other parks in the region owned by one or two public or private entities, there are a multitude of owners across the park with small, medium and large holdings. Below is a map of the ownership stakes within the NSBP as currently known.

- As shown, Strasburg Commercial Development is the largest owner, with approximately 80 acres across six parcels in the northwest section of the park. We understand that they intend to develop the land into a mixed-use highway commercial center, but are also exploring other options.
- Windcrest Development Limited owns five parcels at the western edge of the park totaling approximately 37 acres bisected by Borden Mowery Drive. However, of the 11 acres to the south of the road, approximately seven have been developed with the remaining four acres available. To the north of the road there are 26 acres available.
- First Bank owns a single developed parcel.
- The Town of Strasburg owns a single parcel, set to be developed into the Town's DPW facility.
- The County IDA owns three parcels, two of which are to the north of Borden Mowery Drive totaling 22 acres with the third parcel south of the road of approximately 20 acres.
- Strasburg Interstate owns a single, fully developed parcel.
- "Bernstein Companies" owns two non-contiguous parcels of 19 and six acres.

- CAMS Investment owns a single parcel of 20 acres. However, it is bisected by a gas line easement and a planned road, with the northern developable portion at approximately 15 acres. Additionally, there are road access and site material composition issues.
- Terry "Butch" Dellinger owns seven parcels totaling approximately 24 acres.
- RD Investments owns three parcels totaling 10 acres, all of which are currently landlocked.
- DWS Partnership owns three parcels next to Radio Station Drive of approximately nine acres total.
- There are two other larger parcels that are fully developed with Mercury Paper and Americold. Dubrueler owns a single partially developed parcel.

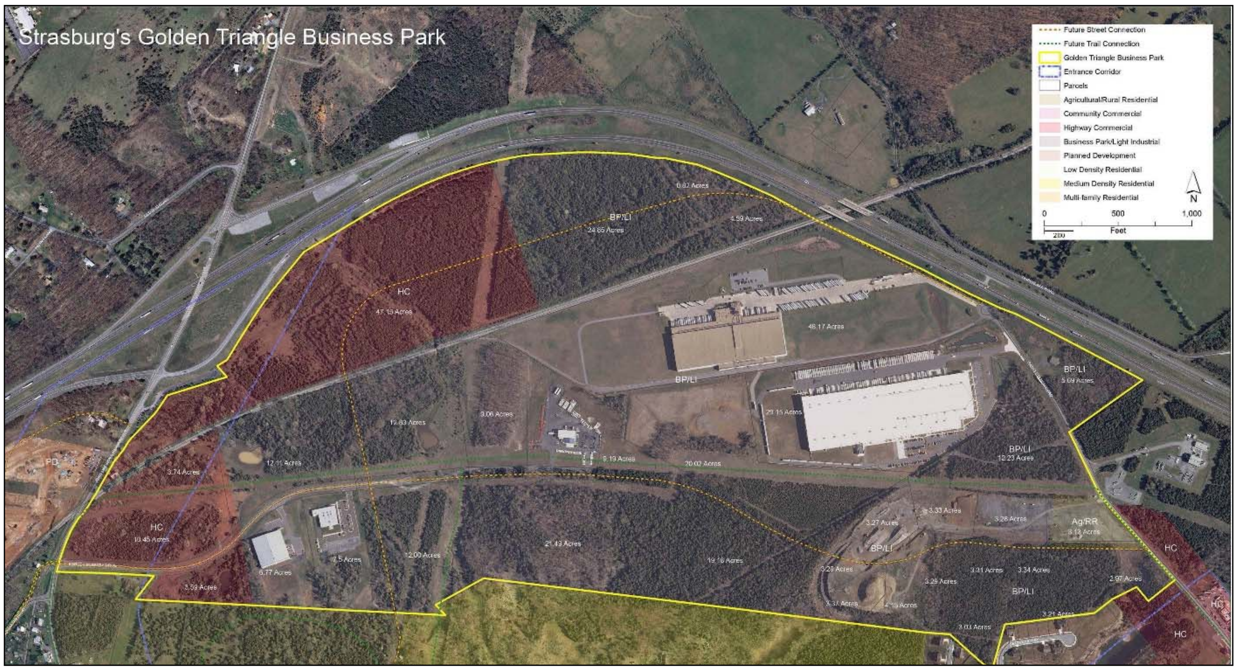


Ownership Map of Land in the NSBP

Zoning

The western and northwestern edges of the NSBP are zoned "Highway Commercial," allowing for a mix of uses including "highway oriented commercial uses, wholesale operations and similar uses that generate a large volume of traffic. This district draws highway uses, such as restaurants, services stations, and motels." (Source: Unified Development Ordinance for the Town of Strasburg).

The large majority of the park, however, is zoned business park / limited industrial which incorporates most light industrial uses: "industries which do not unduly detract from residential desirability to locate in areas which may be adjacent to this district. Intended for those manufacturing industries producing a finished product from semi-finished materials, commercial uses include those that would be convenient to industrial establishments and employees." (Source: Unified Development Ordinance for the Town of Strasburg).



Available Acreage and Pricing

Currently, only a few parcels are actively being marketed for sale:

- The County IDA's three parcels which are for sale at $65,000 per acre for 42 acres, split by the road as noted above. (Source: Brandon Davis). However, we note that none of them appear on a LoopNet or MLS search though they are listed on the YesVirginia site.
- RD Investment's three parcels are for sale at $850,500 (Source: Anita Rhodes) or approximately $90,000 per acre. Because this property is landlocked, it is unlikely to be developed in the short term.
- Strasburg Commercial Property is listing their main 47 acre parcel at $4.9 million or $104,000 per acre with approvals for a previously proposed commercial development. (Source: Loopnet.com). The other parcels are not currently being marketed to our knowledge. We understand the current owner is considering other possibilities beyond a

land sale, such as a joint-development project. (Source: Martin Turk). There are ingress and egress issues to be dealt with and a road has been proposed to cross the train tracks to the south of this property to deal with those ingress/egress issues.

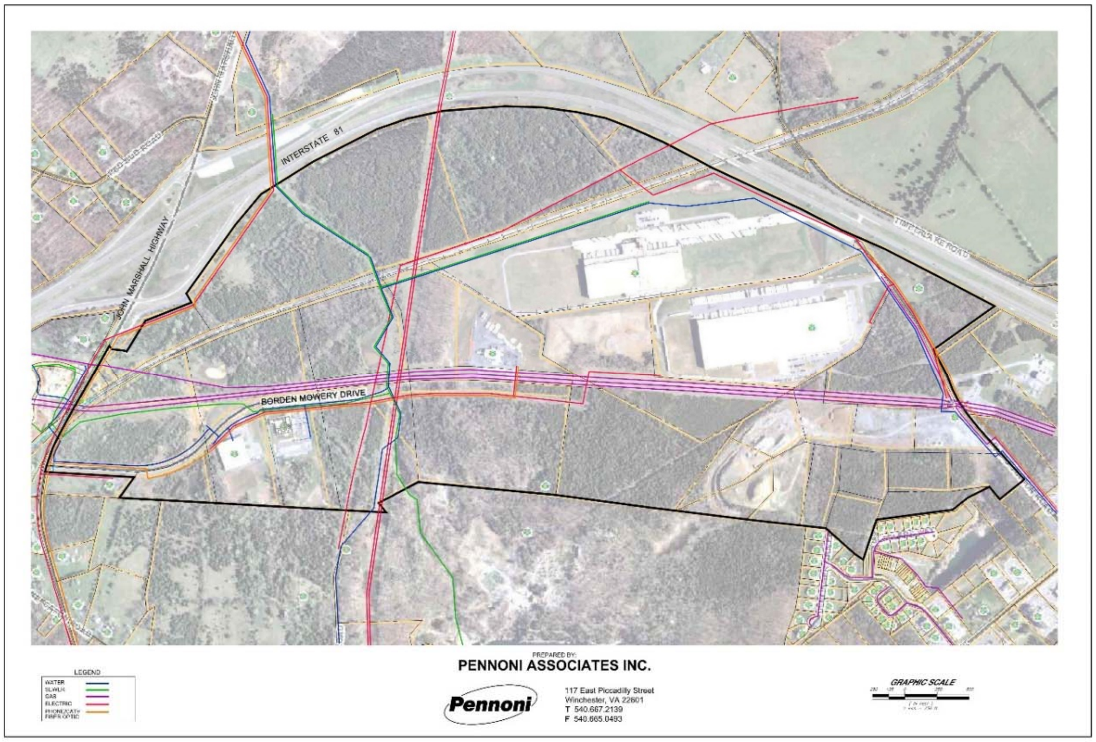
- DWS Partnership's 9.52 acres are listed at $475,000 or $50,000 per acre.
- Windcrest properties are not listed to our knowledge on the MLS and LoopNet, but do appear as available on YesVirginia.

We have reached out to a number of other property owners who are either not interested in selling (Dellinger) or are not actively attempting to sell or develop the property (Bernstein).

Infrastructure

Based on preliminary investigations from Karl Schaeffer of Pennoni Associates, a subconsultant on this project, it appears that the park is reasonably well served by infrastructure.

- Water lines run north-south through the middle of the park, along the rail road tracks to the northeast and along Borden Mowery Drive to the west. To complete service to the whole park, water and sewer lines would need to be laid along Borden Mowery Drive to the east to reach Radio Station Drive.
- Natural gas is plentiful in the areas to the east and southeast of the park. While a gas line serves a small portion of the park, to complete service to the whole park, local service gas lines would have to be run from Radio Station Drive westward along the planned route of the Borden Mowery Drive extension through to Route 55.
- Fiber optic connections are available with no capacity issues.
- Electric service runs for almost the entire length and width of the park with no known capacity issues.



Transportation Access

Roadway access is both a strength and a weakness of the park:

- Highway access is superb, with I-81 interchanges on either side of the park. In addition, very quick and easy access to I-66 is a major selling point.
- Local roads are more of a mixed picture within the park. Parcels in the western portion of the site are connected via Borden Mowery Drive. Parcels on the very eastern edge of the park have access to Radio Station Drive. However, there are a number of parcels that are currently landlocked or with very poor access in the middle of the park that would require Borden Mowery Drive to be extended to Radio Station Drive to remedy. In addition, the Strasburg Commercial Development parcels in the Northeast will require road access to be provided cross the train tracks to connect to Borden Mowery Drive (actions are pending on this matter).

Topography and Ground Cover

In general, the topography of the park is not a major obstacle to development. There are some very gentle elevation changes that will require grading on certain parcels, along with streams and the typical storm water management site issues that normally occur. The undeveloped properties are largely wooded and would need to be cleared. We are aware of one property, namely that is owned by CAM Investments, that has a large quantity of uncompacted fill which would need to be addressed for development.

Visibility

Visibility from I-81 is poor and there is little in the way of signage. For those types of uses that need visibility, such as retail, hotel and personal and professional services, clear cutting a visual path to the highway will be necessary. In addition, some kind of signage and branding of the site on I-81 would be necessary.

Contamination

There are no known brownfields-related issues.

Approvals

We have heard comments from at least two land owners that the recently-adopted Unified Development Ordinance of the Town presents a barrier to development because of the complexity of the code as well as the number and types of requirements.

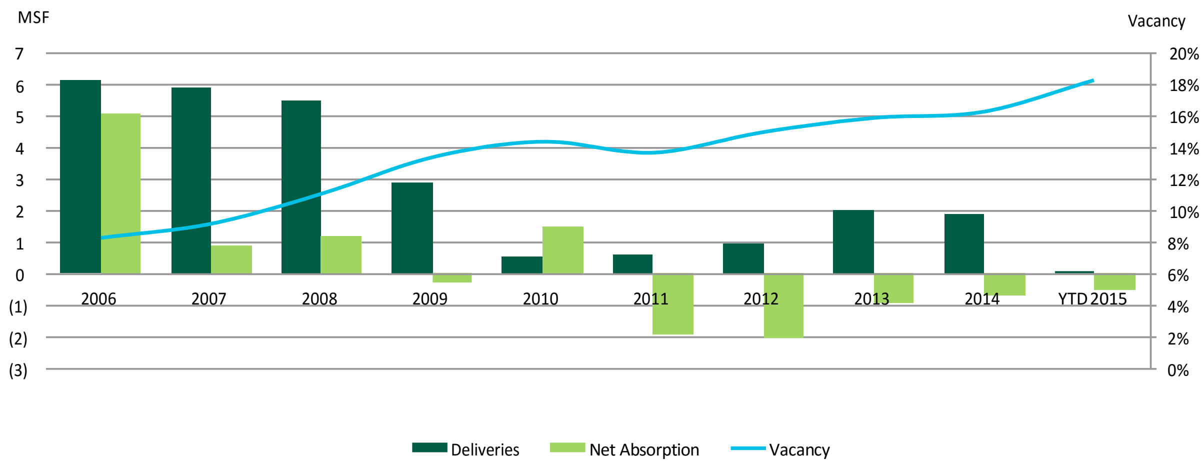
Review of Northern Virginia Real Estate Market

To look at a mega-regional real estate market, we gathered data on the "Northern Virginia" region, which includes Loudon, Fairfax, Arlington and Prince William Counties. We recognize that the local real estate market is quite different than this Northern Virginia region, but the DC Metro market undoubtedly has an influence on the local real estate market. The Northern Virginia market has excellent analyst coverage, including: CBRE, Cushman & Wakefield, Colliers International, etc. and is approximately a one-hour drive from Strasburg.

Office

We break the regional market trends into two categories – office and industrial. Below is a CBRE graph of office deliveries, net absorption, and vacancy rates.

Figure 3: Historical Trends



Source: CBRE Research, Q1 2015.

Clearly, there are overwhelmingly negative trends in the DC area for large office users. With that said, CBRE reports that small office users are actually showing some growth. Overall, there is a huge amount of vacant space and soft pricing, but this may be changing with an upswing in new federal spending.

Industrial

Below is the same graph from CBRE showing trends in the DC industrial market.

Figure 3: Historical Trends

Source: CBRE Research, Q1 2015.

Quoting the CBRE report, "*Low vacancy and high asking rates in the Route 29/I-66 warehouse submarket have generated interest in speculative development.*" As with office, the real growth has been in the smaller services sector as well in the data center niche market. Warehouse vacancies are around only 9%, with flex industrial space at an almost 12% vacancy rate. There are currently four speculative warehouses coming on market totaling 300,000 sf. Pricing averages $10.15 for warehouses and $11.88 for flex industrial space.

Competitive Locations

Inventory

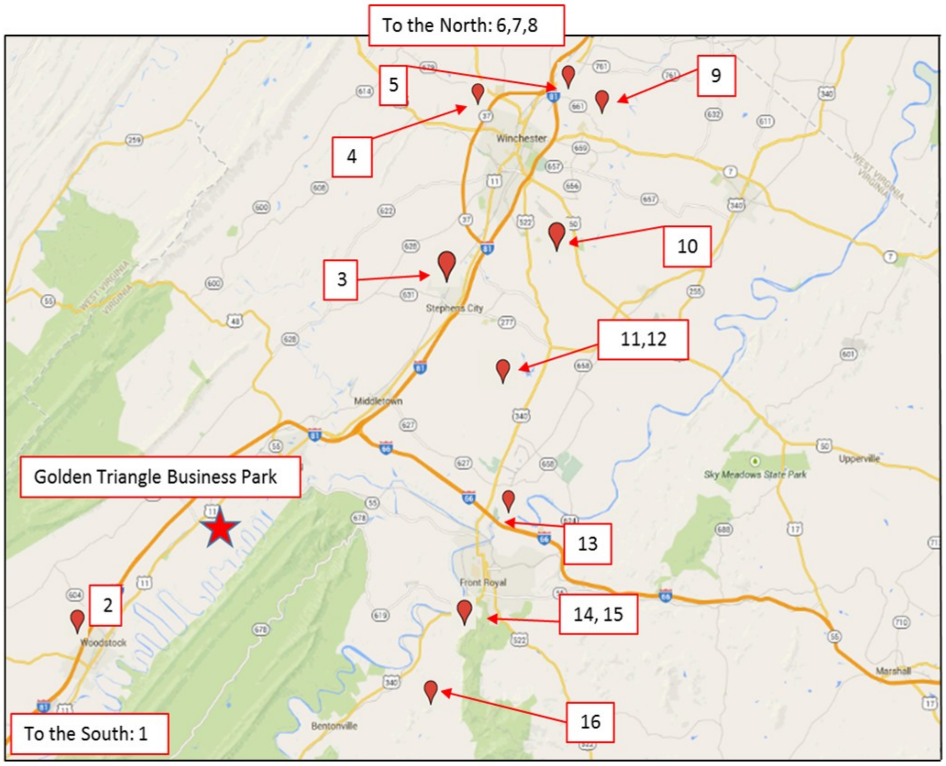
We attempted to inventory and evaluate local competitive market sites in and around Shenandoah County. This allowed us to understand the regional real estate competition better and to find characteristics that could set the NSBP apart from other sites. First, Shenandoah, Warren and Frederick Counties were considered for available sites, while Rockingham County and City of Harrisonburg sites were examined after input from the Steering Committee.

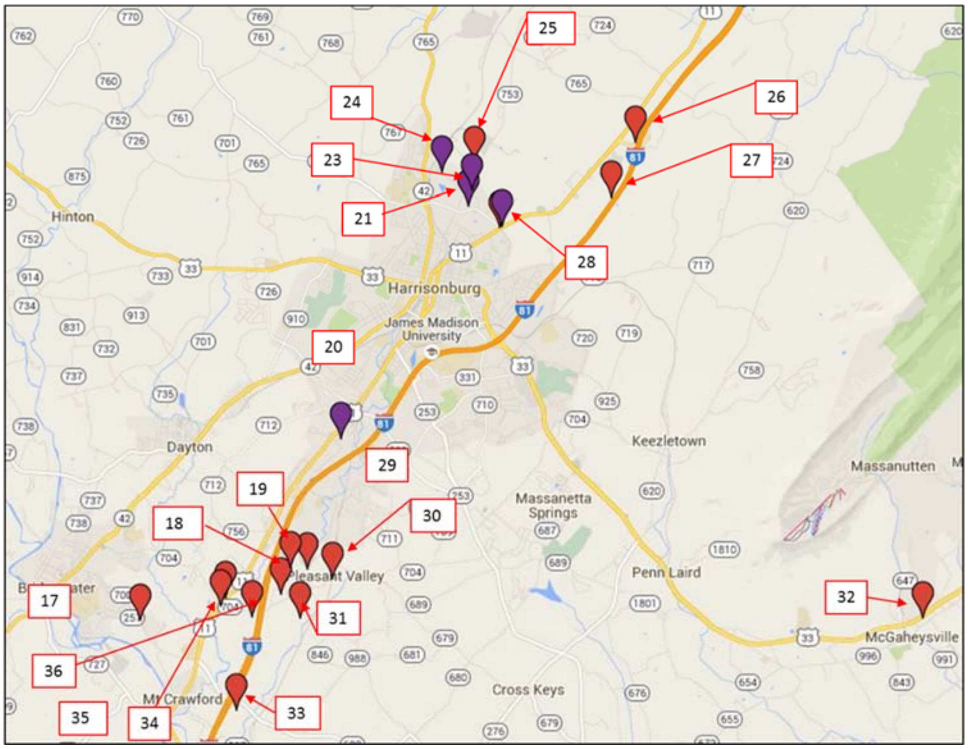
Initially, information for these properties was drawn from YesVirginia.org. This website is run by the Virginia Economic Development Partnership and compiles a comprehensive list of characteristics of available sites in Virginia, which can be narrowed down by characteristic, location, or name. Selected information was then verified with local officials or real estate agents and supplemented by information provided by steering committee members.

The following is a list of properties that were considered as part of the competitive real estate market analysis. For the full list of amenities associated with each property, please refer to the Matrix of Real Estate Sites at the end of this section.

1. Mt. Jackson Industrial Park
2. I-81 Interstate Land
3. Artillery Business Center
4. Stonewall Industrial Park
5. Carroll Industrial Park
6. Whitehall Commerce
7. Winchester Distribution
8. Light Tract
9. Greystone Business Park
10. Airport Business Parc
11. Eastgate Industrial Park
12. East Commerce Center
13. Stephens Industrial Park
14. Happy Creek Tech Park
15. Front Royal Industrial Park
16. Avtex
17. Garst Site
18. Shenandoah Valley Industrial Park Central Campus
19. I-81 Distribution Harrisonburg Pad #2
20. 2710 South Main Street
21. Meadowbrooke Corporate Center
22. Innovation Village @ Rockingham
23. ACORN LC Industrial park
24. Acorn Industrial and Business Park
25. North Pointe Corporate Center
26. Interstate 81 Project
27. 3085 North Valley Pike
28. Harrisonburg Technology Park
29. Pleasant Valley Commercial Park
30. Shenandoah Valley Industrial Park Pad #2
31. Shenandoah Valley Industrial Park South Campus
32. Interchange Rt. 33 East Site
33. North River Crossing
34. GSW Site #2
35. GSW Site #1
36. Interchange Commercial Park

The map on the following page shows the sites in relation to the surrounding region.





Purple markers denote sites in the City of Harrisonburg and red markers denote sites in Rockingham County.

After examining the array of sites available among four counties and one city, it is clear that there is an abundance of available land in the region surrounding the NSBP. This is especially true with respect to land to the South, in Rockingham County and the City of Harrisonburg. Closer to Strasburg, the main source of land competition is the City of Winchester and environs. Below we describe the basic findings of our analysis of these sites. Again, we direct the reader to a comprehensive listing in the appendices of each site and its individual characteristics.

Price Range

The price of land ranges from $30,000/acre-$260,000/acre. Within that range, land that is zoned M-1 or equivalent, with reasonable provisions for infrastructure and access, is on the market for around $100,000/acre. Land that is zoned commercial is typically slightly more expensive than industrial land, as well as properties around Winchester and Front Royal due to Winchester's manufacturing hub and Front Royal's proximity to the Virginia Inland Port. The further away a property is from a major transportation node, the less expensive the land is.

Size

The parcels run in an assortment of sizes, from one to two acres to 325 developable acres. Quality M-1 or commercial land with infrastructure is widely available in parcels 25-75 acres in size.

Infrastructure

A majority of the sites were stocked with basic infrastructure needs like water and sewer connections. Natural gas lines were common among sites, although there were a number of properties that did not have natural gas connections in place. About two thirds had a fiber connection.

Zoning

Many of the sites are zoned light/general industrial, M-1. Although other zoning included M-2 (limited Industrial), B-2 (limited business district), and B-1 (general business district), B-3 (Industrial Transition), B-2C (Business Commercial), A-1 (heavy industrial), and business and technology.

Transportation Access

Other amenities offered by the sites included: access to I-81, access to the Virginia Inland Port, and rail service availability. Many of the sites have access to I-81 but only a couple have direct access to I-66. Good access to the highway was one factor that seemed to be lacking in a number of instances.

Special Designation

Any special designation was noted as an additional characteristic for competitive sites.[17]

[17] Business Incentives, Yesvirginia.org, http://www.yesvirginia.org/ProBusiness/BusinessIncentives

- Enterprise Zone - A partnership between state and local government that encourages job creation.
- Technology Zone - Targets growth in industries associated with technology.
- Foreign Trade Zone - Virginia offers six foreign trade zones that encourage businesses to participate in international trade by heavily reducing and deferring customs duties.

Grading

Grading of sites is important as a parcel that needs to be cleared or leveled will lead to substantial development costs and a longer development timeline. Most sites are level to gently rolling, while some sites promote the fact that the land is 80-100% cleared and primed for development.

Ownership

Lastly, whether the land was privately or publically owned was considered in the analysis and we note that 28 out of 36 sites studied are privately owned.

Right Now Sites

One of the other characteristics considered in the competitive analysis was whether a property was a "Right Now" site, certified by The Virginia Economic Development Partnership (VEDP). In an effort to highlight those sites which are primed to proceed through the development process, the VEDP formulated requirements for land to meet certain standards in eight industry groups: light manufacturing, general manufacturing, heavy manufacturing, business/industrial parks, warehouse/distribution, office parks, research and development and mega sites.

The overall goals of Right Now Certification are to "*increase the inventory of high quality sites, increase the number of sites that are construction ready, streamline the site location process, and encourage investment in high quality sites at the local level*."[18] Each industry listed above has specific standards that must be met for Right Now certification. Additionally, land owners must also show their preparedness by displaying readiness in the following areas:

- Completed documentation in site control, zoning, sale price, site plan, aerial photographs
- Infrastructure in place such as signage, industrial access, water and sewer to site, fiber optic cable, natural gas line, rail line
- Environmental consideration plans in place such as Phase I Environmental study, Corps of Engineers Wetlands Delineation, Storm Water Management Plan, Rare and Endangered Species management plan, Archaeological Site assessment, Historic and Archeological treatment plan, geotechnical study

[18] "Right Now" Sites Program Manual, Virginia Economic Development Partnership, http://www.sussex.nj.us/documents/planning/vision2020/2020-11AppendixF.pdf

- Marketing materials completed such as Regional Maps, Area Maps, materials to distribute to prospective businesses

This is highly relevant to the Northern Shenandoah Business Park as it will be competing with some sites that are Right Now certified. These sites have a particular competitive advantage due to the possibility of immediate development. In today's world of fast development timetables, unless a site is immediately available, well provisioned and primed for approvals, it is unlikely to be in the running, but for the most patient development prospects.

A list of the Right Now sites in Virginia can be found here, http://virginiascan.yesvirginia.org/site_selection/VirtualRSIDesc.html

Market Outlook

Speculative Development

While site owners can enhance their property by completing infrastructure hookups and adding other amenities, the presence of an available, high quality, suitable building is the "holy grail" of economic developers. The lead time to move-in and operations is reduced essentially to only what the future tenant/owner needs to do for final fit ups. That can take as little time as a couple of weeks, versus six months for most development projects that are on advanced, site-ready "pads". These types of developments are called "spec buildings" because they are speculative developments taken in advance of securing an actual tenant or buyer ("build-to-suit" is the term used for developments that occur once a buyer/tenant is secured). Spec buildings are risky and expensive, but can be decisive factors for site selectors.

Recent news of a speculative development at The Stonewall Industrial Park, west of I-81 and north of Va. 37, shows signs that the real estate market in the region is stabilizing from the losses of the 2008 recession and gaining steam. A developer plans to add a 330,050 square foot warehouse to the property in fall 2015, with plans for a second 500,000 square foot warehouse building on the same parcel in roughly 2016 if demand is sufficient. The 330,050 square foot building will be the largest structure in the industrial park when completed and the developer is building with no tenants secured for the space. Instead, as a "spec building", the developer hopes to lease the property out to a local company or a company new to the area shortly after construction is finished in the spring. The Frederick County Economic Development Authority will aide in the search for tenants. The Executive Director from the Frederick County EDA notes that the organization is looking to attract large food companies to the space, like Kraft Foods, a sector that the region is already known for. The start of speculative building could signal an underlying demand for larger warehousing space, which developers will begin to act on if sites offer the right combination of location and services. It is a further proof that, in the site selection world, immediacy is paramount; it is not just enough that the land if ready for development, certain companies want to be able to move in immediately and begin operations.

Mount Jackson Expansion

As it stands, the Mount Jackson sites total 79 acres, of which the Shenandoah County IDA owns 2 parcels of 21 and 26 acres, the Town of Mt. Jackson owns a 10 acre parcel and the Mt. Jackson Press owns a 22 acre parcel. The site is zoned M-1 with level and cleared topography. The cost is

$65,000/acre and is available immediately. The site is Right Now certified for light manufacturing, general manufacturing, research and development or an office park. Incentives on the site include cash grants, tax credits and exemptions and recruitment and training. In terms of access to transportation nodes, the site is 1.5 miles away from I-81 and about a 40 minute drive to Virginia Inland Port.

The four available Mount Jackson parcels in Shenandoah County could be particularly competitive if plans come to fruition to annex hundreds of acres of agricultural land to the west, creating an industrial "mega site". In total, the industrial land would cover over 570 acres. The current owners of the agricultural land say that agriculture is no longer profitable nor is it providing necessary jobs for surrounding towns and cities, therefore rezoning the property to industrial land would give residents better job opportunities. The annexation needs approval before rezoning from agriculture to industrial can occur. We understand that access to these additional lands proposed as an expansion of the park is tricky and may be a hindrance to getting the full effect of the "mega site".

The annexation proposal has not been without opponents. Local residents began a "No Megasite Here" movement, which opposes the transition on the grounds that the bucolic nature of the town will be destroyed, hurting the tourism trade the town depends on from year to year.

Priority Sites Review

In addition to the Mount Jackson priority site, described immediately above, we also examined two other "priority sites" in the region, namely the Stephens Industrial Park in Warren County and the Artillery Business Center in Frederick County.

Stephens Industrial Park - Front Royal, Warren County

Proximity to the Virginia Inland Port in Front Royal makes this a highly desirable development location. There are two parcels available at Stephens Industrial Park, 54 and 25 acres, priced at $85,000/acre and zoned for industrial use. The parcels are solely owned by the Warren County IDA. The steepest grade on the land is 13%, while a majority of the site is level. The Warren County IDA has mandated the following steps take place before construction can begin on the site: 120 days for zoning and EDA approval, site work, and completing hookups to electrical, gas, and water from the main lines. Additional incentives include the site's location in an Enterprise and Foreign Trade Zone. The site is surrounded by other light industrial and warehouse/manufacturing land, which is home to Baugh/Sysco Food Distributors and Interbake Foods. An added bonus to the site are the amenities that the workforce may enjoy including a nearby golf course, river, housing, and two new shopping centers being constructed.

Artillery Business Center - Winchester, Frederick County

This site is 60 acres of privately owned land zoned for light industrial use. The price tag for the entire site is $2.9 million (i.e. $50,000 per acre), but could be subdivided with a cost ranging from $30,000-88,000/acre. The Frederick County EDA notes that offensive smells or excessive noise would be two things that would be development deterrents. The site is Right Now certified, in a Technology Zone, and is able to offer all utilities. It is located ½ mile from I-81, and 4 miles from Virginia Inland Port.

Matrix of Real Estate Sites

Property Inventory of Competitive Locations

County	Site Name	Developable Land	Cost per acre	Grading	Zoned	Right Now Certified	Tech Zone/Enterprise Zone/Foreign Trade Zone	Available Utilities	Ownership	Other characteristics
Shenandoah County	Golden Triangle	84 acres	$65,000-$85,000	Gently rolling	M-1, General Industrial	No	No	All infrastructure available, needs to be connected throughout property, fiber	Privately owned	1 mile from I-66, bound by I-81, U.S. Route 11, Route 55
	Mt. Jackson Industrial Park	79 acres, 26 largest contiguous	$65,000/acre	Level to gently rolling, cleared	M-1, General Industrial	No	No	All infrastructure, rail inactive, no fiber but can be provided	Publically owned	
	I-81 Interstate Land	224 acres	$18,000-$40,000/acre	Gently rolling, hilly	M-2 Limitied Industrial, B-2 General Business	No	No	Natural gas not available, some restrictions tied to zoning changes, water/sewer	Privately owned	
Warren County	Happy Creek Technology Park	3-4 acre lots, one 148 acre parcel	$65,000/acre	Level to gently rolling, cleared	I-2, Heavy Industry	No	Tech Zone	All infrastructre+fiber	Publically owned	Access to highway a problem
	Stephens Industrial Park	2 lots, 50 and 25 acres	$85, 000/acre	Gently rolling, 80% cleared	Industrial	No	Enterprise Zone, Foreign Trade Zone	All infrastructure, possible issues with cost of water/sewer	Publically owned	
	Royal Phoenix- Avtex Redevelopment	162 acres, 50 acres largest contiguous	$50,000-$75,000/acre	Flat	Business and Technology	No	Tech Zone	Water and Sewer, onsite rail, no natural gas, no fiber	Publically owned	Previous EPA Superfund Site
Frederick County	Carroll Industrial Park	107 acres, 80 acreslargest single parcel	$130,000/acre	Level	M-2	Yes	Tech Zone	All infrastructure + fiber	Privately owned	
	Stonewall Industrial	162 acres, 52 acres largest contiguous parcel	$100,000-$150,000/acre	Level to gently rolling, 90% cleared	M-1	No	Tech Zone	All infrastructure + fiber	Privately owned	A 330,000 Sf spec warehouse will be under construction in August 2015.
	Artillery Business Center	60 acres	$30,000-$88,000/acre	Level to rolling	M-1	Yes	Tech Zone	All infrastructure + fiber	Privately Owned	
	Graystone Business Park	270 acres, 120 acres is largest contiguous parcel	$100,000-$150,000/acre	Rolling flat	M-1	No	Tech Zone	All infrastructure + fiber	Privately owned	Possible historic site issues
	Airport Business Parc	35 acres, 24 acres largest contiguous parcel	$140,000/acre	Gently rolling	M-1 + B2	Yes	Foreign Trade Zone, Tech Zone	All infrastructure + fiber	Privately owned	
	Eastgate Industrial Park	63 acres, 25 acres largest contiguous parcel	$65, 000- $150,000/acre	Gently rolling	M-1	Yes	No	All infrastructure + fiber	Privately owned	
	East Commerce Center	25 acres	$100,000/acre	Level	B-2	Yes	Tech Zone	All infrastructure + fiber	Privately owned	
	Winchester I-81 Distribution Center	30 acres	$100,000/ acre	Flat	B-3, Industrial Transition	Yes	No	All infrastructure + fiber	Privately owned	
	Whitehall Commerce Center	102 acres, 187 acres across the rail line	$75,000-$85,000/acre	Gently rolling	M-1	Yes	No	All infrastructre	Privately owned	
	Light Tract	415 acres, 235 largest contiguous parcel	$75,000-$100,000/acre	Flat	Rural Areas	No	Tech Zone	All infrastructure + fiber	Privately owned	

Rockingham County	3058 North Valley Pike	28 acres	$30,000/acre	Level	M-2	No	No	All infrastructure	Privately owned	
	Garst Site	13 acres, 8.2 acres largest contiguous,	$100,00-200,000/acre	Level to gently rolling	B-2	No	No	All infrastructure	Publically owned	
	GSW Site #1	25 acres	No price	Gently rolling	M-1	No	No	All infrastructure + fiber	Privately owned	
	GSW Site #2	125 acres	No price	Gently rolling	A-1	No	No	All infrastructure + fiber	Privately owned	
	Interstate 81 Project	17.5 acres	Enitre site, $1.29 million	Gently rolling, 95% cleared	B-1	No	No	Power, water, sewer, no natural gas or fiber	Privately owned	Portion of the property lies in the 100 year flood plan
	I-81 Distribution Harrisonburg Pad #2	25 acres	No price avilable	Flat	M-1	Yes	No	All infrastructure + fiber	Privately owned	
	Innovation Village @ Rockingham	325 acres	$50,000-125, 000	Gently rolling	Business, Light Industrial	No	No	All infrastructure + fiber	Publically owned	Master planned for companies to faciliate partnerships with State universities
	Interchange Commercial Park	100 acres	$85,000-$200,000/acre	Level	B-1, Commercial	No	No	All infrastructure	Privately owned	
	Interchange RT.33 East Site	1.5 acres	Enitre site $495,000	Flat	B-2C Business Commercial	No	No	Natural gas not available, no fiber	Privately owned	Property has highway entrance
	North Pointe Corporate Center	60 acres, 25 acres largest contiguous parcel	No price avilable	Gently rolling, cleared	M-1 & M-2	No	No	All infrastructure	Privately owned	
	North River Crossing	100 acres	$150,000 - $250,000/acre	Level	Commercial zoning	No	No	All infrastructure	Privately owned	
	Pleasant Valley Commercial Park	38 acre, 23 largest contiguous parcel	$80,000 - $125,000/acre	Level to gently rolling to hilly	M-1 & M-2	No	No	All infrastructure	Privately owned	
	Shenandoah Valley Industrial Park Central Campus	40 acre, 20 largest contigous	$85,000 - $150,000/acre	Flat	M-1 Industrial	No	No	All infrastructure, + fiber	Privately owned	
	Shenandoah Valley Industrial Park South Campus	245 acres	$65,000 - $125,000/acre	Gently rolling, 50% cleared	M-1	No	No	All infrastructure	Privately owned	Property has frontage along I-81, less restrictive than Central Campus
	Shenandoah Valley Industrial Park pad #2	4.6 acres	No price	Flat, graded, pad ready	M-1	No	No	All infrastructure, + fiber	Privately owned	
City of Harrisonburg	2710 South Main Street	13.8 acres	$141,000/acre	Flat to gently rolling	M-1	No	No	All infrastructure	Privately owned	
	Acorn Industrial Business Park	6.7 acres	$125,000- $260,000/acre	Level, cleared	M-1	No	No	All infrastructure, + fiber	Privately owned	
	ACORN LC Industrial park	95 acres	$60,000/acre	Level to gently rolling	M-1	No	No	All infrastructure	Privately owned	
	Harrisonburg Technology Park	5 acres	$100,000/acre	Level to gently rolling, 100% cleared	M-1	Yes	Tech Zone	All infrastructure, + fiber	Publically owned	
	Meadowbrooke Corporate Center	32 acres	$125,000/acre	Gently rolling, 80% cropland	B-2, M-1	No	No	All infrastructure + fiber	Privately owned	

Source: yesvirginia.org
Note: "All infrastructure" includes electric, water, sewer and gas connections unless otherwise noted

Appendix D. Retail Market Analysis

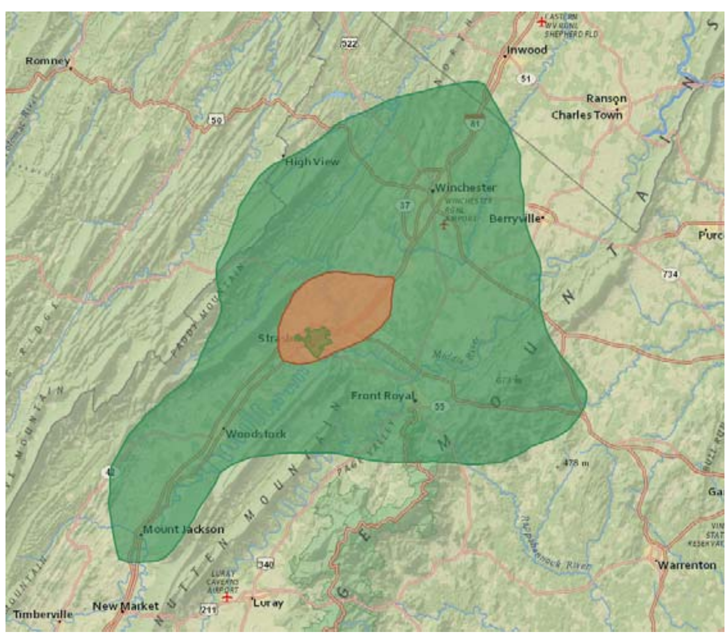
Introduction

The goal of a retail market analysis is to examine the supply and demand for goods and services within a particular region. This process also helps to identify the unique shopping characteristics and amenities that can be expanded upon. The market analysis outlines consumer habits within the region, estimates retail demand, classifies household characteristics of the consumer market, and can help identify business opportunities or niche markets that are not being served by current retail offerings.

Retail Trade Areas

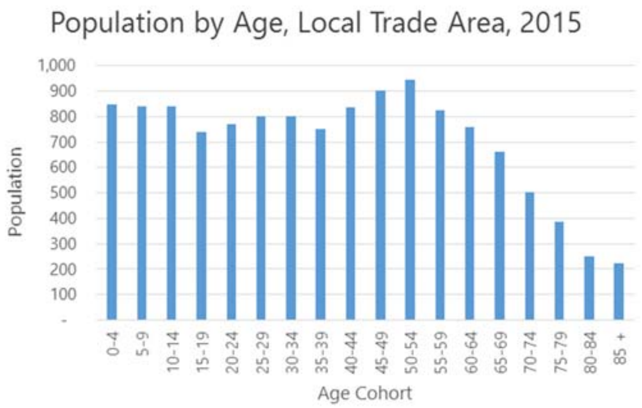
In community economic development, the retail trade area is the geographic extent within which businesses within a community generate the majority of their customers. Generally, 65-75% of customers of local businesses reside in the trade area. The map below delineates two retail trade areas for Strasburg, a local trade area and a regional trade area:

- **Local trade area** (orange on the map) - The trade area for Strasburg retail establishments that serve day-to-day needs of customers and offer convenience-type products and services. The local trade area applies to businesses such as supermarkets, gas stations, pharmacies, nail salons, coffee shops, etc. This area is generally within a 10- to 15-minute drive from Strasburg's downtown.
- **Regional trade area** (green on the map) - Applies to businesses that sell "destination" products and services. Consumers are willing to travel farther to frequent these businesses, which include car dealerships, clothing shops, department stores, specialty shops, and restaurants. Strasburg's regional trade area is within a 30- to 40-minute drive of the Town, and extends into the Winchester, Front Royal, and Mount Jackson. Residents of areas beyond the regional trade area generally tend to shop in other commercial centers outside of Strasburg.



Local Trade Area Demographics

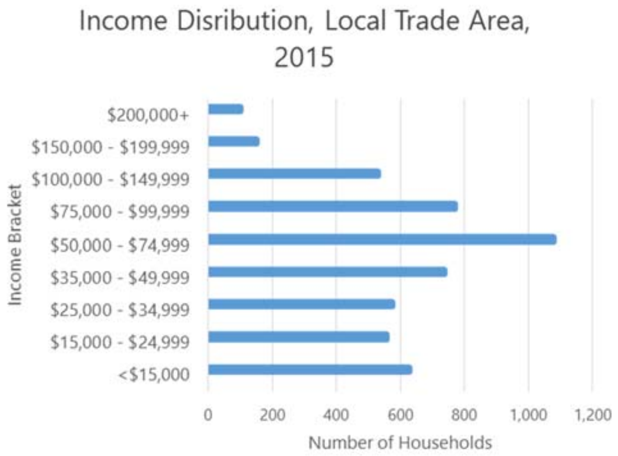
The total population of the local trade area was about 12,687 in 2015. Significant age groups include:



- **"Late" baby boomers** between the ages of 45 and 64 numbered 3,430 and accounted for 27% of the local trade area population.[19] Within this group, the 50 to 54 year old age range comprises the largest share of the population.

- **Children** aged 0-14 total about 2,530 in the local trade area in 2015 and make up 20% of the total population.

- There were also about 2,370 **young adults** between the age of 20 and 34 living in the local trade area, representing about 19% of the total population.



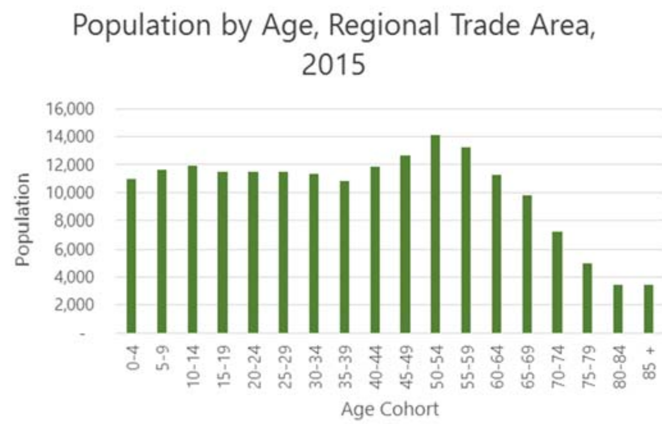
Local trade area household incomes were generally moderate. Median household income for the local trade area was $51,000. The largest income bracket was $50,000 to $74,999, which accounted for 21% of the 5,124 households in the area. Just over 15% of households had incomes of $100,000 or more, while 12% had incomes less than $15,000.

[19] Baby boomers are traditionally people born between 1946 and 1964, or people between the ages of 51 to 69. We are referring to "late" baby boomers as younger people in this cohort, around the ages of 45-50.

Regional Trade Area Demographics

The total population of the regional trade area was about 183,000 in 2015.

The **"late" baby boomer** age cohort (ages 45 to 64) is the largest demographic in the regional trade area, accounting for 28% of the population. There are 51,300 people in this segment.



The population of 5 to 44 year olds is relatively evenly distributed with around 11,500 individuals in each 5-yr segment. This trends suggests that the population in the regional trade area will remain consistent in size once the late baby boomers start aging out. The regional trade area is also relatively diverse in terms of at what stage people are in their lives.

Regional trade area household incomes were measurably greater than those in the local trade area. Median household income for the regional trade area was $57,500, higher compared to the local trade area ($51,000). The largest income bracket was $50,000 to $74,999, which accounted for 18.6% of the 31,258 households in the area. Over 25% of households had incomes of $100,000 or more, while only 9.9% had incomes less than $15,000.

Tapestry Segmentation

A tool used by retail site selectors in determining the characteristics of a particular trade area is tapestry segmentation, which is the classification of consumers according to demographic, socioeconomic, housing, and lifestyle characteristics. It is how retailers and site selectors compare consumer trends across trade areas when considering many site locations.

Tapestry segmentation is based on the concept that people with similar demographic characteristics, purchasing habits, and media preferences naturally gravitate toward each other and into the same communities. Every household in the U.S. falls into one of 67 lifestyle segments. Businesses utilize tapestry segmentation to understand their customers' lifestyle choices, purchasing preferences, and how they spend their free time.

Market segmentation data for the regional trade area were obtained from ESRI's Tapestry segmentation model. Additional information about ESRI's model can be found here: http://www.esri.com/landing-pages/tapestry. We will focus on the characteristics of consumers living in the broader regional trade area since the retail categories with the best potential for success in the area tend to have a regional reach.

It is important to recognize that the classifications and labels for defined market segments are generalizations. The descriptions of each segment are based on comparisons with the U.S. as a whole and reflect the propensity of households within that segment to exhibit certain demographic, lifestyle, and consumer characteristics relative to the overall population. The purpose of this exercise is to compare local consumer trends to those of consumers across the U.S. so businesses and developers not familiar with Strasburg or the Northern Shenandoah region understand consumer demand in this area.

The top ESRI Tapestry segments are listed in the table below with profiles of each segment, including household composition, housing type, income, age, education, and consumer habits following.

Top ESRI Tapestry Segments of the Regional Retail Trade Area

Rank	Tapestry Segment	Households	Percent
1	Green Acres	8,389	12.0%
2	Middleburg	8,179	11.7%
3	Salt of the Earth	5,103	7.3%
4	Soccer Moms	5,033	7.2%
5	Midlife Constants	3,915	5.6%
6	Front Porches	3,635	5.2%
7	Bright Young Professionals	3,495	5.0%
8	Southern Satellites	2,866	4.1%
	Total	40,617	58.1%

Source: ESRI

Green Acres (12%)

- Average Household Size: 2.69
- Median Age: 43.0
- Median Household Income: $72,000

The Green Acres lifestyle features country living and self-reliance. They are avid do-it-yourselfers, maintaining and remodeling their homes, with all the necessary power tools to accomplish the jobs. Gardening, especially growing vegetables, is also a priority, again with the right tools, tillers, tractors, and riding mowers. Outdoor living also features a variety of sports: hunting and fishing, motorcycling, hiking and camping, and even golf. Self-described conservatives, residents of Green Acres remain pessimistic about the near future yet are heavily invested in it.

Middleburg (11.7%)

- Average Household Size: 2.73
- Median Age: 35.3
- Median Household Income: $55,000

Middleburg neighborhoods transformed from the easy pace of country living to semirural subdivisions in the last decade, when the housing boom reached out. Residents are conservative, family-oriented consumers. Still more country than rock and roll, they are thrifty but willing to carry some debt and are already investing in their futures. They rely on their smartphones and mobile devices to stay in touch and pride themselves on their expertise. They prefer to buy American and travel in the US. This market is younger but growing in size and assets.

Salt of the Earth (7.3%)

- Average Household Size: 2.58
- Median Age: 43.1
- Median Household Income: $53,000

Salt of the Earth residents are entrenched in their traditional, rural lifestyles. Citizens here are older, and many have grown children that have moved away. They still cherish family time and also tending to their vegetable gardens and preparing homemade meals. Residents embrace the outdoors; they spend most of their free time preparing for their next fishing, boating, or camping trip. The majority has at least a high school diploma or some college education; many have expanded their skill set during their years of employment in the manufacturing and related industries. They may be experts with DIY projects, but the latest technology is not their forte. They use it when absolutely necessary, but seek face-to-face contact in their routine activities.

Soccer Moms (7.2%)

- Average Household Size: 2.96
- Median Age: 36.6

- Median Household Income: $84,000

Soccer Moms is an affluent, family-oriented market with a country flavor. Residents are partial to new housing away from the bustle of the city but close enough to commute to professional job centers. Life in this suburban wilderness offsets the hectic pace of two working parents with growing children. They favor time-saving devices, like banking online or housekeeping services, and family-oriented pursuits.

Midlife Constants (5.6%)

- Average Household Size: 2.30
- Median Age: 45.9
- Median Household Income: $48,000

Midlife Constants residents are seniors, at or approaching retirement, with below average labor force participation and above average net worth. Although located in predominantly metropolitan areas, they live outside the central cities, in smaller communities. Their lifestyle is more country than urban. They are generous, but not spendthrifts.

Front Porches (5.2%)

- Average Household Size: 2.55
- Median Age: 34.2
- Median Household Income: $39,000

Front Porches blends household types, with more young families with children or single households than average. This group is also more diverse than the US. Half of householders are renters, and many of the homes are older town homes or duplexes. Friends and family are central to Front Porches residents and help to influence household buying decisions. Residents enjoy their automobiles and like cars that are fun to drive. Income and net worth are well below the US average, and many families have taken out loans to make ends meet.

Bright Young Professionals (5.0%)

- Average Household Size: 2.40
- Median Age: 32.2
- Median Household Income: $50,000

Bright Young Professionals is a large market, primarily located in urban outskirts of large metropolitan areas. These communities are home to young, educated, working professionals. One out of three householders is under the age of 35. Slightly more diverse couples dominate this market, with more renters than homeowners. More than two-fifths of the households live in single-family homes; over a third live in 5+ unit buildings. Labor force participation is high, generally white-collar work, with a mix of food service and part-time jobs (among the college students). Median household income, median home value, and average rent are close to the US values. Residents of this segment are physically active and up on the latest technology.

Southern Satellites (4.1%)

- Average Household Size: 2.65
- Median Age: 39.7
- Median Household Income: $44,000

Southern Satellites is the second largest market found in rural settlements but within metropolitan areas located primarily in the South. This market is typically non-diverse, slightly older, settled married-couple families, who own their homes. Almost two-thirds of the homes are single-family structures; a third are mobile homes. Median household income and home value are below average. Workers are employed in a variety of industries, such as manufacturing, health care, retail trade, and construction, with higher proportions in mining and agriculture than the US. Residents enjoy country living, preferring outdoor activities and DIY home projects.

Common themes running through the top tapestry segments include:

- Country lifestyle and country living or "flavor"
- Small town, rural/exurban, small community
- Family-oriented, family and community centric
- Do-it-yourselfers, self-reliance, DIY projects, gardening
- Active living, outdoor lifestyles

Consumer Spending Patterns

Expenditures on goods and services are used to evaluate the spending patterns and purchasing power of residents in the regional trade area. This section of the report looks at spending by local residents but does not show where these expenditures were made.

The table below shows spending by regional trade area residents on select retail goods and services. Variables shown include the average annual spending per household on a particular good or service, the regional trade area total spending on that good, the spending potential index (SPI) for both the regional trade area and the local trade area. The SPI represents household expenditures on a product or service relative to a national average of 100. An SPI greater than 100 indicates that on average households within the local trade area spend more on that particular good than the average U.S. household. The difference between the regional trade area and local trade area SPI gives a snapshot of how the spending power of local residents compares with those in the greater region.

A very high SPI can mean a number of things:

- Costs of goods and services within that particular spending category are much higher within a trade area than they are elsewhere throughout the nation.
- Residents within a trade area may be wealthier than the national average.

- Population characteristics can drive up SPI in certain categories. For example, a trade area with a large retired population will likely spend more on healthcare and Medicare.

The SPI is a good preliminary measure used to identify market characteristics that may necessitate additional attention within an analysis. In the regional trade area, overall residents typically spend about the same on retail items as their national counterparts; the overall SPI is 101. Categories that have a high SPI (over 100) are in highlighted in green. The "discretionary spending" category with the greatest SPI is Maintenance and Remodeling Materials, although a SPI of 105 is not significantly above the national level.

The local trade area's average SPI of 83 is well below that of the region. The SPI is below 100 for every category of retail spending and also below the region's SPI for every category. This indicates that regional residents have greater purchasing power compared to local residents and new retail that targets regional residents may be more feasible as a result.

Consumer Spending Index: Regional Trade Area

Category	Average Spending	Total Spending	Regional SPI	Local SPI	Local SPI - Regional SPI
Apparel and Services					
Men's	$430	$30,064,187	99	81	-18
Women's	$809	$56,587,629	100	82	-18
Children's	$370	$25,868,341	99	82	-17
Footwear	$451	$31,554,676	99	82	-17
Watches & Jewelry	$147	$10,262,769	101	81	-20
Apparel Products and Services (1)	$97	$6,756,907	99	80	-19
Computer					
Computers and Hardware for Home Use	$216	$15,115,952	100	82	-18
Portable Memory	$5	$377,732	100	82	-18
Computer Software	$20	$1,382,408	98	77	-21
Computer Accessories	$19	$1,348,756	101	83	-18
Entertainment & Recreation					
Fees and Admissions	$651	$45,531,564	101	80	-21
Membership Fees for Clubs (2)	$174	$12,137,638	101	79	-22
Fees for Participant Sports, excl. Trips	$123	$8,570,406	102	80	-22
Admission to Movie/Theatre/Opera/Ballet	$163	$11,383,861	99	78	-21
Admission to Sporting Events, excl. Trips	$69	$4,835,912	104	85	-19
Fees for Recreational Lessons	$123	$8,564,674	100	78	-22
Dating Services	$1	$39,075	93	75	-18
TV/Video/Audio	$1,320	$92,304,163	101	85	-16
Cable and Satellite Television Services	$906	$63,325,782	101	86	-15
Televisions	$150	$10,504,535	102	84	-18
Satellite Dishes	$2	$111,660	102	87	-15
VCRs, Video Cameras, and DVD Players	$11	$771,902	101	83	-18
Miscellaneous Video Equipment	$11	$795,222	106	82	-24
Video Cassettes and DVDs	$32	$2,252,629	100	83	-17
Video Game Hardware/Accessories	$23	$1,603,267	99	84	-15
Video Game Software	$28	$1,946,653	101	85	-16
Streaming/Downloaded Video	$6	$394,940	98	77	-21
Rental of Video Cassettes and DVDs	$24	$1,649,540	100	84	-16
Installation of Televisions	$1	$80,026	102	79	-23
Audio (3)	$122	$8,505,573	99	79	-20
Rental and Repair of TV/Radio/Sound Equipment	$5	$362,433	96	81	-15
Pets	$582	$40,709,854	102	89	-13
Toys and Games (4)	$124	$8,664,096	101	86	-15
Recreational Vehicles and Fees (5)	$218	$15,210,902	100	88	-12
Sports/Recreation/Exercise Equipment (6)	$193	$13,522,450	102	87	-15
Photo Equipment and Supplies (7)	$83	$5,790,956	102	82	-20
Reading (8)	$154	$10,746,831	101	84	-17
Catered Affairs (9)	$23	$1,620,863	97	74	-23

Food					
Food at Home	$5,233	$365,844,921	100	85	-15
Bakery and Cereal Products	$732	$51,146,606	100	85	-15
Meats, Poultry, Fish, and Eggs	$1,149	$80,337,228	100	84	-16
Dairy Products	$563	$39,382,307	100	85	-15
Fruits and Vegetables	$981	$68,612,037	99	83	-16
Snacks and Other Food at Home (10)	$1,808	$126,366,742	101	85	-16
Food Away from Home	$3,301	$230,748,314	100	83	-17
Alcoholic Beverages	$552	$38,595,017	99	80	-19
Nonalcoholic Beverages at Home	$500	$34,987,439	100	85	-15
Financial					
Investments	$2,463	$172,171,382	89	73	-16
Vehicle Loans	$4,420	$309,014,059	104	88	-16
Health					
Nonprescription Drugs	$131	$9,162,211	101	88	-13
Prescription Drugs	$515	$35,988,222	103	90	-13
Eyeglasses and Contact Lenses	$92	$6,454,982	102	88	-14
Home					
Mortgage Payment and Basics (11)	$9,739	$680,857,209	104	85	-19
Maintenance and Remodeling Services	$1,747	$122,144,509	104	86	-18
Maintenance and Remodeling Materials (12)	$315	$22,037,422	105	96	-9
Utilities, Fuel, and Public Services	$5,144	$359,600,053	102	86	-16
Household Furnishings and Equipment					
Household Textiles (13)	$99	$6,938,155	101	83	-18
Furniture	$527	$36,834,305	102	84	-18
Rugs	$25	$1,749,700	102	85	-17
Major Appliances (14)	$279	$19,481,272	104	88	-16
Housewares (15)	$73	$5,135,711	102	85	-17
Small Appliances	$46	$3,217,459	101	85	-16
Luggage	$9	$632,888	98	78	-20
Telephones and Accessories	$50	$3,505,026	100	85	-15
Household Operations					
Child Care	$446	$31,145,720	100	80	-20
Lawn and Garden (16)	$448	$31,322,843	103	88	-15
Moving/Storage/Freight Express	$71	$4,986,824	96	76	-20
Housekeeping Supplies (17)	$731	$51,081,893	101	86	-15
Insurance					
Owners and Renters Insurance	$529	$36,972,727	105	90	-15
Vehicle Insurance	$1,232	$86,104,385	101	85	-16
Life/Other Insurance	$481	$33,617,714	104	88	-16
Health Insurance	$2,725	$190,510,332	103	88	-15
Personal Care Products (18)	$473	$33,037,323	101	84	-17
School Books and Supplies (19)	$180	$12,585,996	100	83	-17
Smoking Products	$466	$32,562,176	100	90	-10

Transportation					
Vehicle Purchases (Net Outlay) (20)	$4,180	$292,248,591	103	89	-14
Gasoline and Motor Oil	$3,591	$251,004,478	102	88	-14
Vehicle Maintenance and Repairs	$1,132	$79,115,554	101	85	-16
Travel					
Airline Fares	$471	$32,942,019	99	77	-22
Lodging on Trips	$459	$32,109,422	101	83	-18
Auto/Truck/Van Rental on Trips	$34	$2,391,250	101	78	-23
Food and Drink on Trips	$471	$32,961,020	101	83	-18
Average			101	83	-17
Source: ESRI		Color designates SPI >100			

(1) Apparel Products and Services includes material for making clothes, sewing patterns and notions, shoe repair and other shoe services, apparel laundry and dry cleaning, alteration, repair and tailoring of apparel, clothing rental and storage, and watch and jewelry repair.

(2) Membership Fees for Clubs includes membership fees for social, recreational, and civic clubs.

(3) Audio includes satellite radio service, sound components and systems, digital audio players, records, CDs, audio tapes, streaming/downloaded audio, tape recorders, radios, musical instruments and accessories, and rental and repair of musical instruments.

(4) Toys and Games includes toys, games, arts and crafts, tricycles, playground equipment, arcade games, and online entertainment and games.

(5) Recreational Vehicles & Fees includes docking and landing fees for boats and planes, purchase and rental of RVs or boats, and camp fees.

(6) Sports/Recreation/Exercise Equipment includes exercise equipment and gear, game tables, bicycles, camping equipment, hunting and fishing equipment, winter sports equipment, water sports equipment, other sports equipment, and rental/repair of sports/recreation/exercise equipment.

(7) Photo Equipment and Supplies includes film, film processing, photographic equipment, rental and repair of photo equipment, and photographer fees.

(8) Reading includes magazine and newspaper subscriptions, single copies of magazines and newspapers, and books.

(9) Catered Affairs includes expenses associated with live entertainment and rental of party supplies.

(10) Snacks and Other Food at Home includes candy, chewing gum, sugar, artificial sweeteners, jam, jelly, preserves, margarine, fat, oil, salad dressing, nondairy cream and milk, peanut butter, frozen prepared food, potato chips, nuts, salt, spices, seasonings, olives, pickles, relishes, sauces, gravy, other condiments, soup, prepared salad, prepared dessert, baby food, miscellaneous prepared food, and nonalcoholic beverages.

(11) Mortgage Payment and Basics includes mortgage interest, mortgage principal, property taxes, homeowners insurance, and ground rent.

(12) Maintenance and Remodeling Materials includes supplies/tools/equipment for painting and wallpapering, plumbing supplies and equipment, electrical/heating/AC supplies, materials for hard surface flooring, materials for roofing/gutters, materials for plaster/panel/siding, materials for patio/fence/brick work, landscaping materials, and insulation materials for owned homes.

(13) Household Textiles includes bathroom linens, bedroom linens, kitchen linens, dining room linens, other linens, curtains, draperies, slipcovers, decorative pillows, and materials for slipcovers and curtains.

(14) Major Appliances includes dishwashers, disposals, refrigerators, freezers, washers, dryers, stoves, ovens, microwaves, window air conditioners, electric floor cleaning equipment, sewing machines, and miscellaneous appliances.

(15) Housewares include plastic dinnerware, china, flatware, glassware, serving pieces, nonelectric cookware, and tableware.

(16) Lawn and Garden includes lawn and garden supplies, equipment and care service, indoor plants, fresh flowers, and repair/rental of lawn and garden equipment.

(17) Housekeeping Supplies includes soaps and laundry detergents, cleaning products, toilet tissue, paper towels, napkins, paper/plastic/foil products, stationery, giftwrap supplies, postage, and delivery services.

(18) Personal Care Products includes hair care products, nonelectric articles for hair, wigs, hairpieces, oral hygiene products, shaving needs, perfume, cosmetics, skincare, bath products, nail products, deodorant, feminine hygiene products, and personal care appliances.

(19) School Books and Supplies include school books and supplies for college, elementary school, high school, and preschool.

(20) Vehicle Purchases (Net Outlay) includes net outlay for new and used cars, trucks, vans, motorcycles, and motor scooters.

Retail Gap Analysis

In a retail gap analysis, the existing retail sales ("supply") of trade area businesses are compared to the estimated retail spending of trade area residents ("demand"). The difference between demand and supply is referred to as the "retail gap."[20] The retail gap can be positive or negative.

When the demand (spending by trade area residents) for goods and services is greater than sales at trade area businesses, sales are said to "leak out" of the trade area creating a positive retail gap (i.e. sales leakage).

Conversely, if the supply of goods sold (local trade area sales) exceeds trade area demand (spending by trade area residents), it is assumed that non-residents are coming into the trade area and spending money, creating a negative retail gap (i.e. sales surplus).

Sales leakage and sales surplus carry different implications. In many cases, sales leakage presents an opportunity to capture unmet demand in a trade area since a percentage of residential spending occurs outside the trade area. This demand can be met within the trade area by opening new businesses or expanding existing businesses within retail sectors that show sales leakage. However, not all retail categories that exhibit sales leakage within a particular trade area are a good fit for the region.

A sales surplus might exist for several reasons. For example, the region might be a popular shopping destination for tourists and other out-of-towners, or a cluster of competing businesses offering a similar product or service may be located within the trade area, creating a specialty

[20] Note that existing retail sales are specific to the defined trade area whereas retail spending is an estimate of gross spending by residents living in the trade area regardless of where the retail spending occurs.

cluster that draws in spending by households from outside the trade area. Alternatively, a sales surplus could be an indicator of market saturation.

The following Retail Gap Analysis table contains a list of industry groups sorted by 3- and 4-digit NAICS codes and includes figures for sales demand (estimated spending by local trade area residents), sales supply (existing retail sales within the trade area), retail gap (demand minus supply), leakage/surplus factor,[21] and number of businesses in the trade area. Retail categories with sales leakage are in black and those with sales surplus are in red.

To reflect the varying reach of the different retail categories, they were divided into two groups: local and regional. Data for each group are presented separately, with businesses that typically have a local reach (e.g., grocery stores, gas stations) listed under “local trade area” and businesses with a regional reach (e.g., clothing stores, department stores, specialty stores) listed under “regional trade area.”

Retail Gap - Local Trade Area

NAICS	Industry Group	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Leakage/ Surplus Factor*	Number of Businesses
445	Food & Beverage Stores					
4451	Grocery Stores	$18,128,457	$8,281,648	$9,846,809	37.3	9
4453	Beer, Wine & Liquor Stores	$799,403	$0	$799,403	100	0
446	Health & Personal Care Stores					
4461	Health & Personal Care Stores	$9,138,985	$2,699,202	$6,439,783	54.4	4
447	Gasoline Stations					
4471	Gasoline Stations	$12,677,812	$3,017,370	$9,660,442	61.6	1
453	Miscellaneous Store Retailers					
4531	Florists	$160,175	$52,663	$107,512	50.5	1
722	Food Services & Drinking Places					
7222	Limited-Service Eating Places	$6,042,782	$3,472,564	$2,570,218	27	8
7224	Drinking Places - Alcoholic Beverages	$343,121	$0	$343,121	100	0

Source: ESRI

[21] The Leakage/Surplus Factor presents a snapshot of retail opportunity. This is a measure of the relationship between supply and demand that ranges from +100 (total leakage) to -100 (total surplus). A positive value represents 'leakage' of retail opportunity outside the trade area. A negative value represents a surplus of retail sales, a market where customers are drawn in from outside the trade area.

Retail Gap - Regional Trade Area

NAICS	Industry Group	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Leakage/ Surplus Factor*	Number of Businesses
441	Motor Vehicle & Parts Dealers					
4411	Automobile Dealers	$353,631,226	$403,131,848	($49,500,622)	(6.5)	69
4412	Other Motor Vehicle Dealers	$22,705,690	$48,904,806	($26,199,116)	(36.6)	30
4413	Auto Parts, Accessories & Tire Stores	$27,149,748	$17,573,181	$9,576,567	21.4	42
442	Furniture & Home Furnishings Stores					
4421	Furniture Stores	$23,926,863	$23,230,051	$696,812	1.5	25
4422	Home Furnishings Stores	$20,472,386	$19,785,907	$686,479	1.7	34
443	Electronics & Appliance Stores					
4431	Electronics & Appliance Stores	$42,973,816	$61,069,374	($18,095,558)	(17.4)	52
444	Bldg Materials, Garden Equip. & Supply Stores					
4441	Bldg Material & Supplies Dealers	$56,996,712	$88,625,553	($31,628,841)	(21.7)	71
4442	Lawn & Garden Equip & Supply Stores	$9,965,946	$19,880,158	($9,914,212)	(33.2)	18
445	Food & Beverage Stores					
4452	Specialty Food Stores	$5,140,859	$4,464,967	$675,892	7.0	26
448	Clothing & Clothing Accessories Stores					
4481	Clothing Stores	$88,052,091	$126,773,220	($38,721,129)	(18.0)	77
4482	Shoe Stores	$16,180,623	$8,434,381	$7,746,242	31.5	13
4483	Jewelry, Luggage & Leather Goods Stores	$17,048,255	$12,902,308	$4,145,947	13.8	25
451	Sporting Goods, Hobby, Book & Music Stores					
4511	Sporting Goods/Hobby/Musical Instr Stores	$39,062,035	$33,541,773	$5,520,262	7.6	113
4512	Book, Periodical & Music Stores	$11,102,884	$8,976,647	$2,126,237	10.6	19
452	General Merchandise Stores					
4521	Department Stores Excluding Leased Depts.	$118,439,506	$256,233,160	($137,793,654)	(36.8)	28
4529	Other General Merchandise Stores	$236,366,935	$492,552,184	($256,185,249)	(35.1)	28
453	Miscellaneous Store Retailers					
4532	Office Supplies, Stationery & Gift Stores	$18,592,054	$26,371,304	($7,779,250)	(17.3)	58
4533	Used Merchandise Stores	$6,389,618	$11,674,545	($5,284,927)	(29.3)	55
4539	Other Miscellaneous Store Retailers	$23,362,445	$41,837,060	($18,474,615)	(28.3)	120
722	Food Services & Drinking Places					
7221	Full-Service Restaurants	$97,591,161	$78,207,123	$19,384,038	11.0	104
7223	Special Food Services	$8,067,813	$16,349,335	($8,281,522)	(33.9)	16

Source: ESRI

Most retail sectors within the local trade area exhibit a sales leakage, meaning that the value of goods demanded by trade area residents exceeds sales within the trade area. This indicates that many customers are being drawn out of the local trade area to shopping destinations elsewhere. It does not necessarily indicate that new businesses in these industries would succeed in Strasburg. The following spending and space demand analyses provide further insight into investment opportunities.

Spending Demand Analysis

In the following analysis, we compare the retail gaps within the retail categories that have sales leakage to the average sales of similar businesses in the State of Virginia. This allows us to identify which of the industries with sales leakage may have enough unmet demand to warrant opening a new store or expanding existing stores.

The table below identifies the number of new businesses that, theoretically, could be supported in the town, assuming:

1. 15% of the sales leakage is recaptured, and
2. New businesses have sales comparable to the average sales of all Virginia businesses in the same retail category.

Spending Demand Analysis (Potential For New Retail Businesses)

		A	B	C	D
NAICS	Industry Group	Retail Sales Gap (i.e. unmet demand)	20% Leakage Recapture (A x 15%)	Avg. Sales per Business (Virginia)	Potential Businesses (B/C)
	Local Trade Area				
4451	Grocery Stores	$9,846,809	$1,969,361.80	$2,579,678	0.8
4453	Beer, Wine & Liquor Stores	$799,403	$159,880.60	$1,574,951	0.1
4461	Health & Personal Care Stores	$6,439,783	$1,287,956.60	$1,959,407	0.7
4471	Gasoline Stations	$9,660,442	$1,932,088.40	$5,692,707	0.3
4531	Florists	$107,512	$21,502.40	$140,433	0.2
7222	Limited-Service Eating Places	$2,570,218	$514,043.60	$928,399	0.6
7224	Drinking Places - Alcoholic Beverages	$343,121	$68,624.20	$389,879	0.2
	Regional Trade Area				
4413	Auto Parts, Accessories & Tire Stores	$9,576,567	$1,436,485.05	$754,731	1.9
4421	Furniture Stores	$696,812	$104,521.80	$906,029	0.1
4422	Home Furnishings Stores	$686,479	$102,971.85	$497,866	0.2
4452	Specialty Food Stores	$675,892	$101,383.80	$150,056	0.7
4482	Shoe Stores	$7,746,242	$1,161,936.30	$1,231,722	0.9
4483	Jewelry, Luggage & Leather Goods Stores	$4,145,947	$621,892.05	$644,081	1.0
4511	Sporting Goods/Hobby/Musical Instr Stores	$5,520,262	$828,039.30	$588,243	1.4
4512	Book, Periodical & Music Stores	$2,126,237	$318,936	$522,460	0.6
7221	Full-Service Restaurants	$19,384,038	$2,907,605.70	$974,191	3.0

Source: ESRI; Camoin Associates

Color designates potential for at least 1 new retail business

While there are several industry sectors in the local trade area with sales leakage, the demand is not great enough to support opening a new business. The spending power of the regional trade area is greater; the following retail sectors have unmet demand:

- Auto Parts, Accessories & Tire Stores
- Jewelry, Luggage & Leather Goods Stores
- Sporting Goods/Hobby/Musical Instrument Stores
- **Full-Service Restaurants**

Space Demand Analysis

Another way to examine the potential for new or expanded retail businesses is to estimate space demands based on the same 15% leakage recapture used in the previous analysis. In the table below, the national average sales per square foot for the different retail categories is used to estimate the demand for retail space in square feet. Overall, the analysis shows that there is demand for up to about 42,000 square feet of additional retail space. Categories within the local trade area with the greatest space demands include Grocery Stores, Health & Personal Care Stores, and Limited-Service Eating Places. The regional trade area analysis shows that Full-Service Restaurants have the greatest demand for space at about 14,000 square feet. Shoe Stores rank second with demand for nearly 7,000 square feet and Sporting Goods/Hobby/Musical Instrument Stores is third with 5,350 square feet.

Space Demand Analysis (Potential For New Retail Businesses)

NAICS	Industry Group	A Retail Gap (Local Trade Area)	B 15% Leakage Recapture (A x 15%)	C Avg. Sales per Square Foot	D Calculated Capture (Square Feet)
	Local Trade Area				
4451	Grocery Stores	$9,846,809	$1,477,021	$383	3,853
4453	Beer, Wine & Liquor Stores	$799,403	$119,910		
4461	Health & Personal Care Stores	$6,439,783	$965,967	$255	3,788
4471	Gasoline Stations	$9,660,442	$1,449,066		
4531	Florists	$107,512	$16,127	$154	104
7222	Limited-Service Eating Places	$2,570,218	$385,533	$208	1,854
7224	Drinking Places - Alcoholic Beverages	$343,121	$51,468	$91	567
	Regional Trade Area				
4413	Auto Parts, Accessories & Tire Stores	$9,576,567	$1,436,485		
4421	Furniture Stores	$696,812	$104,522	$146	715
4422	Home Furnishings Stores	$686,479	$102,972	$173	595
4452	Specialty Food Stores	$675,892	$101,384		
4482	Shoe Stores	$7,746,242	$1,161,936	$164	7,096
4483	Jewelry, Luggage & Leather Goods Stores	$4,145,947	$621,892	$272	2,285
4511	Sporting Goods/Hobby/Musical Instr Stores	$5,520,262	$828,039	$155	5,358
4512	Book, Periodical & Music Stores	$2,126,237	$318,936	$166	1,919
7221	Full-Service Restaurants	$19,384,038	$2,907,606	$208	13,986
	Total				42,121

Source: ESRI; Camoin Associates; ULI's Dollars and Cents of Shopping Centers (figures adjusted for inflation)

Color indicates no estimate available

Competing Sites

There are several major retail shopping centers within a 30-minute drive of the Town of Strasburg. The most recent development was the Winchester South Marketplace that was completed in 2011 and is home to a Walmart Supercenter. In a two-year period from 2007 to 2008, there was a slew of building activity with three major shopping centers coming online with 1.15 million square feet of retail space representing 44% of all major shopping center retail space within the 30-minute radius of the Northern Shenandoah Business Park.

The table below provides additional details on the eight major shopping centers within the drive time radius. The map on the following tables shows the geographic distribution of those major shopping centers along with a few additional others that fall outside of the 30-minute drive area.

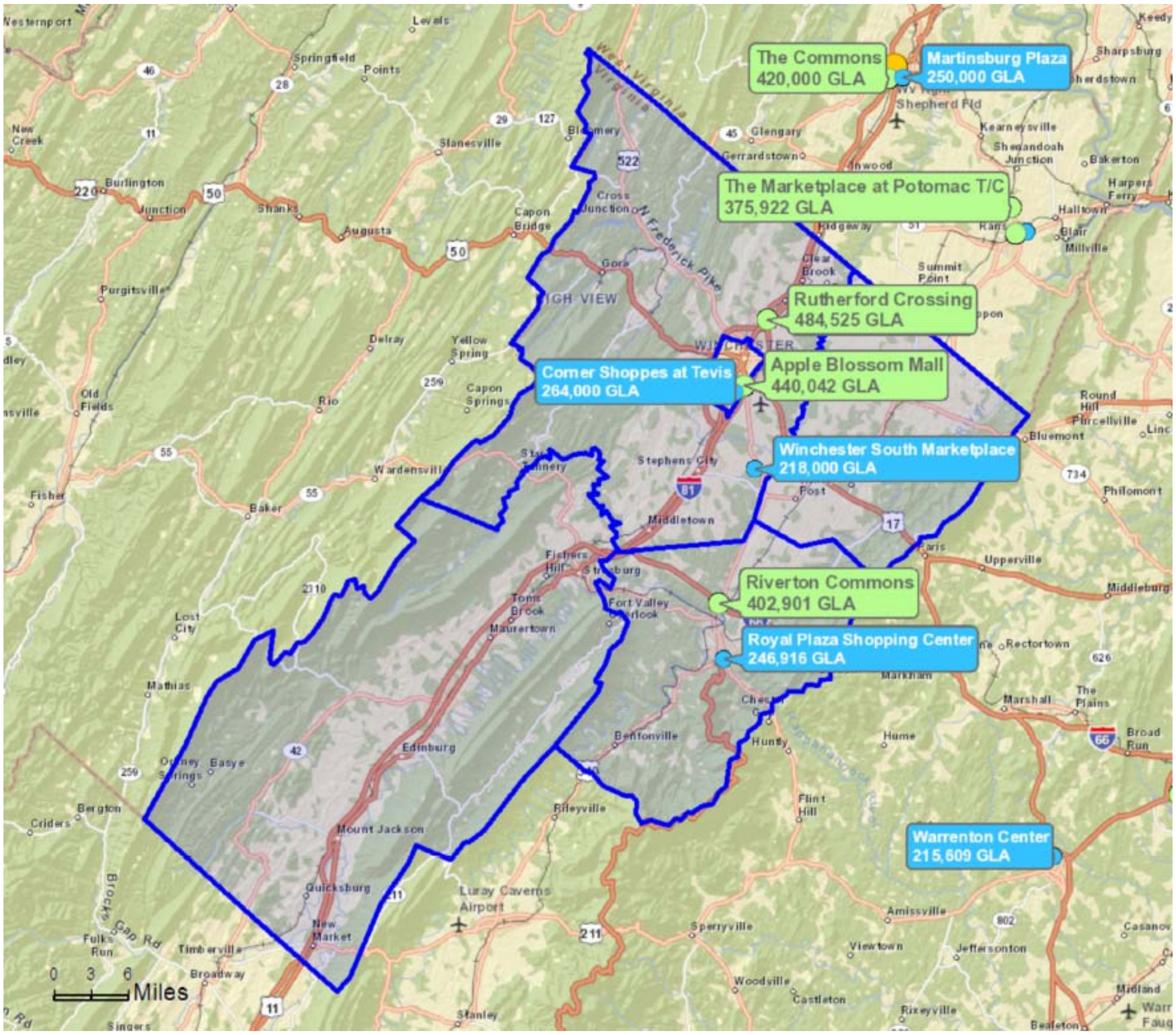
Major Regional Shopping Centers

Name	Gross Leasable Area (Square Feet)	Year Open	Total Stores	Anchors
Winchester South Marketplace	218,000	2011	10	Walmart Supercenter
Riverton Commons	402,901	2008	26	Walmart, Lowe's
Rutherford Crossing	484,525	2008	41	Target, Lowe's
Corner Shoppes at Tevis	264,000	2007	10	None
Winchester Commons	315,000	1998	10	None
Royal Plaza Shopping Center	246,916	1996	35	Kmart, Giant Food, Martin's Peebles
Apple Blossom Corners	240,560	1990	29	Kohl's, Martin's, OfficeMax, Books-A-Million
Apple Blossom Mall	440,042	1982	83	JCPenney, Sears, Belk
Total	2,611,944		244	

Note: Includes only "Major" Shopping Centers within a 30 minute drive of the site. Centers are ranked by year open.

Source: ESRI; Directory of Major Malls, Inc.

Major Shopping Center Map



Source: ESRI

Appendix E. Targeted Industry Sector Analysis

Targeted Industry Analysis Summary

As part of the research for the Northern Shenandoah Business Park, a relevant targeted industry sector analysis was conducted. This analysis is a deeper examination of industries identified in the economic base analysis that are in some way significant and/or relevant to the Northern Shenandoah economy and provides an understanding of the potential for growth. The four targeted industry areas include:

- Manufacturing
- Transportation and Logistics
- Office Generating space, e.g. business services, professional services, IT, and some subsectors of healthcare
- Retail, Accommodations & Food Services (Includes tourism and visitation)

These industries areas were identified as having potential for Strasburg and the Economic Region, either for their concentration in employment (Manufacturing) or growth over the last decade (Transportation and Logistics), recent national trends that show increasing demand (Office Generating space), or critical elements in enhancing quality of place (Retail, Accommodations & Food Services).

The following pages contain a summary of opportunities and challenges within each targeted industry followed by recommendations that specifically relate to the business park and recommendations for overall economic development.

Manufacturing Industry

Opportunities & Challenges

- The industry has experienced historic losses with projected decline, but it is still a major employer regionally and locally.
- Sewer and water at the site is a plus, while electricity rates and capacity are good.
- Some manufacturers will want the ability to connect to natural gas for manufacturing, cooling, heating, and even electricity, which will require further infrastructure investments.
- Based on educational attainment levels and R&D infrastructure capabilities, the NSBP, town, and region are not geared towards high tech/advanced manufacturing.
- Manufacturing establishments are generally downsizing, and require less square footage and less employment than in the past.
- Transportation and logistics assets are a plus in the town and Economic Region, including highway and port access.

In light of the findings from our research in the Manufacturing sector, the following recommendations highlight how Strasburg can use their existing manufacturing base to bolster growth in related industries while retaining the manufacturing jobs that currently exist:

Recommendations: Northern Shenandoah Business Park

- **Infrastructure investments:** In particular, completion of Borden Mowery Drive: Improving site readiness with infrastructure investments would make parcels more desirable to potential development. Borden Mowery Drive could be extended to the east, allowing park occupants access to both highway interchanges. Planning proper easements to speed up the development process would also be desirable.
- **"Roll back" requirements in UDO:** As highlighted in the Park Competitive Analysis (Appendix C), the recently-adopted UDO may act as a barrier to development within the park because of the strict guidelines associated with the UDO. It would be most beneficial to adjust requirements for land that would be used for light industrial purposes, specifically on the center and eastern edge of the park.
- **Obtain Right Now Certification:** Other regional sites have acquired Right Now certification, heightening the level of competitiveness for industrial sites in the area. Achieving this certification would increase NSBP's marketability in the region.
- **Expand the size of park:** Increasing the size of the park would allow more opportunities for manufacturers requiring larger parcels of land.
- **Market for expansion and attraction:** Specifically market to companies with regional interests, to build on local strengths, and move towards building a solidified industry cluster and an array of connected resources for that industry.

Recommendations: Overall Economic Development

- Build workforce partnerships with local community college programs to meet the needs of employers who are expanding.
- Make quality of place a priority to enhance workforce attraction success.
- Encourage an entrepreneurial environment as part of building a long-term capacity to transform local economic development.

Transportation, Warehousing and Logistics

Opportunities & Challenges

- There are local and regional strengths that pertain to the needs and logistics of this industry. There has been recent employment growth, 67% in town and 55% in the region.

- The region has access to major East Coast and inland markets. In the park specifically, highway access provides transportation routes to nearby Virginia Inland Port and other marine ports (Norfolk, Baltimore), as well as rail access.
- Jobs in this industry typically pay moderate wages, which would be beneficial for other opportunities in economic and workforce development.
- Automation is decreasing employment potential; however, land and warehouse space is still in demand.

The following recommendations seek to align the future of the Northern Shenandoah Business Park with the national market trends and 2015 outlook of Transportation and Warehousing.

Recommendations: Northern Shenandoah Business Park

- Regardless of the type of industry that locates in the NSBP, it will inevitably require quick and easy access in and out of the park to the interstate interchanges. To facilitate easier access, infrastructure investments are key, especially the completion of Borden Mowery Road to the east in the park.
- Increasing I-81 visibility will be key to attract businesses that want to be clearly marketed and branded from the park. Creating a visual path from the park to the highway will be necessary.
- Marketing the park to attract interest will be key to demonstrating what the park can offer potential developers.
- As with manufacturing, adjusting the requirements in the current UDO would help to promote and expedite potential development opportunities.
- Attaining Right Now Certification will help the NSBP become more attractive to potential developers in all industries.
- Increasing the size of lots through land assembly would make parcels more attractive to the needs of companies in Transportation and Warehousing. On a related note, expanding the overall size of the park across town boundaries would make it easier to assemble larger parcels of land.
- While there has been substantial growth in the Transportation and Warehousing industry, it will be necessary to balance growth within these sectors with need for diversity in the park.

Recommendations: Overall Economic Development

- Growth in this industry will require integration with the town’s transportation planning to mitigate congestion from any increase in trucking traffic.
- With anticipated job openings and latent shortage approaching, coordinating with local schools/training institutions and workforce partners to train people in Strasburg will balance employment growth with workforce capabilities.

- Balancing growth in Transportation and Warehousing subsectors will also require attention to the overall local economy's need for diversification.

Office space generating industries

Opportunities & Challenges

Business and Professional Related

- Employment data shows that professional services are growing regionally, but the industry is still small relative to major employment sectors like manufacturing.
- These industries typically drive demand for commercial office space (excluding IT Services).
- Fiber infrastructure is a plus for businesses and developers in this group of industries.
- The local workforce is not currently conducive to supporting competitive growth in this group of industries.
- NSBP and Strasburg's downtown offer options for small and mid-sized offices appropriate for a variety of professional services.

Healthcare Related

- Employment data shows that health care is a regional strength that is experiencing growth. This is in line with larger industry trends as growth is also projected locally, statewide, and nationally. While hospitals are still a major employer in the Economic Region, services in elderly care and outpatient services saw substantial growth over general hospital employment.
- Health care only contributes to a small portion of employment in town (6% of all jobs). Employment data shows growth locally in Nursing and Residential Care Facilities.
- Strasburg is not a regional health care center; however, there may be some opportunities in terms of space demand and employment size. For example, satellite centers for hospitals, space for home health services or local health services.
- Most job growth in the regional health care field, aside from some specialized professions in social work, will be in occupations requiring middle skills - which require more than a high school graduation, but less than a four-year degree. This makes health care and related sectors critical to local and regional workforce development as many of the occupations can be accessed with skills and training available at institutions and schools within the region, including community colleges.

Based on the findings regarding Office Generating industry sectors we offer the following recommendations.

Recommendations: Northern Shenandoah Business Park

Pertain to the Business Park, the following recommendations reiterate the steps that can be taken to enhance the infrastructure and heighten development potential:

- Consider developing Borden Mowery Drive to the east in the park
- Increase the park's visibility from I-81
- Integrate outpatient health care services within mixed-use development
- Obtain Right Now Certification status to increase the marketability of the park
- Marketing for attraction of office space will broaden the opportunities for development in the park.
- Expanding the park could offer developers larger parcels of land, which is often more desirable for many industries.

Recommendations: Overall Economic Development

- Consider economic opportunities within the context of workforce development, community health and wellness, and business development. Partnerships with health care service providers, companies, education and workforce, small business and entrepreneurship entities, health and wellness organizations will be critical. Workforce training can be tailored to the needs of health care professions like: Personal Care Aides, Home Health Aides, and Nursing Assistants.

- Work with both large and small businesses and organizations, particularly in health care: Larger health care entities will continue to be in need of workforce; smaller businesses and entrepreneurs will be looking for financing and technical support to enter markets and grow. Companies of all sizes will be in need of office space. Establishing partnerships with regional healthcare providers or local hospital(s) can facilitate discussions about the future need for MOB space.
- Assess land use and zoning: Appropriate zoning codes will enable and encourage mixed use development sites and districts, as well as allow for opportunities in small personal services including home-based occupations. All will play an important part of future demand for real estate in the coming years.

- The town could look to integrate health care economic opportunities with healthy community initiatives, collaborating with community development and health care professionals to coordinate efforts.
- Integrating office space opportunities with housing opportunities will ensure that business opportunities are considered in concert with the ability to house potential workforce.

- In the long term, marketing Strasburg's downtown for office space, as well as office space within the park, will help to attract small to mid-sized firms looking for relatively inexpensive office space to facilitate their activities around major distribution or manufacturing hubs like Winchester.

Retail, Accommodations & Food Services

Opportunities & Challenges

- Local and regional tourism assets are a plus.
- Characteristics of local and regional consumers include:
    - Country lifestyle and country living or "flavor"
    - Small town, rural/exurban, small community
    - Family-oriented, family and community centric
    - Do-it-yourselfers, self-reliance, DIY projects, gardening
    - Active living, outdoor lifestyles
- There are several major retail shopping centers within a 30-minute drive of the Town of Strasburg that serve the regional market. Competition for regional customers is likely to be difficult given the numerous regional shopping centers that have been built over the past few years. Development in Strasburg will have to be unique.
- The local market is well-served and there is not enough demand by local consumers to support opening new businesses with the possible exception of a small to mid-sized grocery store.
- The spending power of the regional market is greater within potential opportunities within certain industries such as full-service restaurants, and specialty retail stores (jewelry, sporting goods, etc.). However, these types of businesses may be a better fit in the downtown where access and visibility are greater.
- Because of the limited spending power of the local consumer market, for Retail, Accommodations and Food Services offerings to work within the park, they must rely heavily on the daytime workforce population for the majority of their business. Depending on the end-users in the park, this may or may not be viable. Many large companies incorporate cafeterias into their building footprint and workers do not leave the site for meals.
- May be some opportunities for local business to expand into a location with a larger footprint (i.e., not enough potential for a new business). All 3 of these may be appropriate for a business work – places people would go to for lunch/stop on the way home from work for quick needs.
    - Grocery Stores
    - Health & Personal Care Stores
    - Limited-Service Eating Places (might be enough demand for a new business, especially if with new workers in the vicinity following development of the park)

Recommendations: Northern Shenandoah Business Park

- Increase the park's visibility from I-81
- Integrate retail, services, and accommodations within mixed-use development
- Obtain Right Now Certification status to increase the marketability of the park
- Expanding the park could offer developers larger parcels of land, which is often more desirable for many industries.

Recommendations: Overall Economic Development

- Make growing this sector in the downtown a priority through enhanced marketing and business support services. A vibrant downtown with "feet on the street" will enhance Strasburg's quality of place and support growth within the park.
- Development within this industry sector follows growth in other sectors, which will increase consumer market demand for goods and services. Therefore, consider growing this sector a long-term, ongoing focus.

Targeted Industry Sector Analysis Introduction

As part of the research for the Northern Shenandoah Business Park, a relevant targeted industry sector analysis was conducted. This analysis is a deeper examination of industries identified in the economic base analysis that are in some way significant and/or relevant to the Northern Shenandoah economy and provides an understanding of the potential for growth. The four targeted industry areas include:

- Manufacturing
- Transportation and Logistics
- Office Generating space, e.g. business services, professional services, IT, and some subsectors of healthcare
- Retail, Accommodations & Food Services (Includes tourism and visitation)

These industry areas were identified as having potential for Strasburg and the Economic Region, either for their concentration in employment (Manufacturing) or growth over the last decade (Transportation and Logistics), recent national trends that show increasing demand (Office Generating space), or critical elements in enhancing quality of place (Retail, Accommodations & Food Services).

Relevant data from the Economic Base was incorporated into the following analysis, as well as trends and outlooks for each industry from national real estate reports and leading organizations in each respective industry. The following is a compilation of the major findings from this research, along with recommendations as to how Strasburg can best leverage opportunities within each industry.

Each section includes a description of the industry, a summary of performance in the Economic Region and in Strasburg, a discussion highlighting relevant market and real estate trends, and a summary of recommendations based on this information.

Note: Retail, Accommodations & Food Services is not addressed within this section as it requires a different type of analysis focused on consumer spending. Please refer to Appendix D for a Retail Market Analysis.

Manufacturing

Description

Manufacturing is the assembly of raw materials into a finished or semi-finished product. The Manufacturing sector encompasses a wide range of activities engaged in the mechanical, physical, and chemical transformation of materials into new products. The subsectors under Manufacturing relate to a distinct processes, which are related to the material inputs, machinery or the skills the employees must have in order to complete the work.[22] Within the North American Industrial Classification System (NAICS) manufacturing includes all industries with the 2-digit codes 31-33 and includes the subindustries listed in the adjacent table.

NAICS Code	Description
311	Food Manufacturing
312	Beverage and Tobacco Product Manufacturing
313	Textile Mills
314	Textile Product Mills
315	Apparel Manufacturing
316	Leather and Allied Product Manufacturing
321	Wood Product Manufacturing
322	Paper Manufacturing
323	Printing and Related Support Activities
324	Petroleum and Coal Products Manufacturing
325	Chemical Manufacturing
326	Plastics and Rubber Products Manufacturing
327	Nonmetallic Mineral Product Manufacturing
331	Primary Metal Manufacturing
332	Fabricated Metal Product Manufacturing
333	Machinery Manufacturing
334	Computer and Electronic Product Manufacturing
335	Electrical Equipment, Appliance, and Component Manufacturing
336	Transportation Equipment Manufacturing
337	Furniture and Related Product Manufacturing
339	Miscellaneous Manufacturing

Source: EMSI

[22] "*Manufacturing*. 2012 NAICS Definition. North American Industry Classification System

Performance

Manufacturing is very important to the Economic Region and Strasburg. As displayed in the table, the Manufacturing industry accounts for 12% of all jobs in the Economic Region and one third of all employment in Strasburg. These are substantially larger portions of overall employment when compared to Virginia and the United States, where Manufacturing comprises 6% and 8% of all employment, respectively.[23]

Manufacturing Employment by Geography

	2004	2014	# Change	% Change	% All Employment*
Economic Region	32,434	23,730	(8,704)	(27%)	12%
Strasburg	1,878	1,150	(728)	(39%)	33%
Virginia	303,354	237,586	(65,769)	(22%)	6%
United States	14,543,530	12,406,724	(2,136,806)	(15%)	8%

Source: EMSI

*Based on 2014 Job totals

However, both the Economic Region and Strasburg have experienced job loss in Manufacturing. In the Economic Region at the 2-digit NAICS level, Manufacturing lost the greatest number of jobs, shedding just over 8,700 jobs between 2004 and 2014, losing 27% of the 2004 workforce. The same is true for Strasburg, at the 2-digit NAICS level, Manufacturing lost the greatest number of jobs in the preceding decade, over 720 jobs, nearly 40% of its 2004 workforce. The Economic Region and Strasburg lost greater percentages of Manufacturing jobs when compared to Virginia and the United States; however, the state and the nation as a whole also experienced significant job loss, 22% and 15%, respectively.[24]

Although employment in Manufacturing is declining, the industry remains an important sector for the local and regional economy and it plays a vital part in the current activities at the Northern Shenandoah Business Park. It also must be noted that nearby Winchester remains a major hub for manufacturing, including many national companies. Thus, supporting manufacturing is important to both Strasburg and the region and offers opportunities at NSBP and beyond.

Printing and Related Support Activities is a primary manufacturing subsector in Strasburg; however, it only accounts for 1.5% of overall employment in the Economic Region. Employment

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[23] The second largest industry in Strasburg is the Administrative and Support and Waste Management and Remediation Services industry. While this broad categorization can represent a range of industries, in Strasburg it is dominated by the temporary help services industry, which places temporary workers at businesses. According to members of the steering committee, one of the local manufacturing companies uses a temporary staffing service for a significant portion of their workforce, which is represented in the data as the Administrative and Support and Waste Management and Remediation Services industry instead of the Manufacturing industry. Thus, this further increases the importance of Manufacturing in Strasburg.

[24] The loss of manufacturing jobs in Strasburg and the Economic Region are likely overstated here due to a classification change of some positions from production to temporary workers (see previous footnote) and are now classified under Administrative and Support and Waste Management and Remediation Services. This industry sector gained 417 jobs between 2004 and 2014.

in Printing and Related Support Activities and Plastics Product Manufacturing industries declined by a combined 567 jobs between 2004 and 2014 in Strasburg. Losses in these sectors drove the overall decline in the Manufacturing industry experienced in the town over the past decade. Despite these losses, jobs in Printing and Related Activities and Plastics and Rubber Products Manufacturing still accounted for nearly 1,000 jobs in the town as of 2014. Losses in these sectors are projected to continue over the next decade, with employment in the overall Manufacturing industry contracting by another 36% by 2024.

The subsectors and related companies behind the significant manufacturing employment in Strasburg are Plastics Product Manufacturing, at IAC LLC; Printing and Related Support Activities at Mercury Paper Incorporated; and Wood Product Manufacturing at Carpers Wood Creations.

Looking deeper into the Manufacturing subsectors at the 3-digit NAICS level, we see which subsectors are more concentrated across the different geographies and the major job losses across all areas. The green highlighting in the tables below indicates the top two highest Location Quotients (showing high industry concentration) within the 3-digit Manufacturing subsectors.

- In the Economic Region, Food Manufacturing, and Printing and Related Support Activities are the most concentrated subsectors. Both industries have Location Quotients greater than 4, indicating notable concentration. The same two subsectors lost jobs over the previous decade: 1,474 jobs in Food Manufacturing and 641 jobs in Printing and Related Support Activities.
- Not surprisingly, the highest Location Quotients in Strasburg, 48.4 and 31.4, correspond with Printing and Related Support Activities, and Plastics and Rubber Products Manufacturing. Like the Economic Region, these industries shed jobs between 2004 and 2014, but continue to support a majority of overall employment in the town.

Manufacturing Sector: 3-digit NAICS, Economic Region

NAICS	Description	2004 Jobs	2014 Jobs	2004-2014 Change	2004-2014 % Change	2014 National LQ
311	Food Manufacturing	9,607	8,133	(1,474)	(15%)	4.28
312	Beverage and Tobacco Product Manufacturing	568	576	8	1%	2.17
313	Textile Mills	14	0	(14)	(100%)	0.00
314	Textile Product Mills	29	12	(17)	(59%)	0.08
315	Apparel Manufacturing	816	203	(613)	(75%)	1.05
316	Leather and Allied Product Manufacturing	25	13	(12)	(48%)	0.35
321	Wood Product Manufacturing	1,830	846	(984)	(54%)	1.71
322	Paper Manufacturing	63	432	369	586%	0.92
323	Printing and Related Support Activities	3,442	2,801	(641)	(19%)	4.66
324	Petroleum and Coal Products Manufacturing	61	101	40	66%	0.69
325	Chemical Manufacturing	1,989	1,598	(391)	(20%)	1.53
326	Plastics and Rubber Products Manufacturing	5,457	3,684	(1,773)	(32%)	4.27
327	Nonmetallic Mineral Product Manufacturing	1,838	974	(864)	(47%)	1.91
331	Primary Metal Manufacturing	801	289	(512)	(64%)	0.55
332	Fabricated Metal Product Manufacturing	1,261	1,289	28	2%	0.69
333	Machinery Manufacturing	379	226	(153)	(40%)	0.15
334	Computer and Electronic Product Manufacturing	371	323	(48)	(13%)	0.24
335	Electrical Equipment, Appliance, and Component Manufacturing	791	156	(635)	(80%)	0.33
336	Transportation Equipment Manufacturing	1,365	1,261	(104)	(8%)	0.63
337	Furniture and Related Product Manufacturing	1,509	675	(834)	(55%)	1.33
339	Miscellaneous Manufacturing	219	141	(78)	(36%)	0.18

Source: EMSI

Manufacturing Sector: 3-digit NAICS, Strasburg

NAICS	Description	2004 Jobs	2014 Jobs	2004-2014 Change	2004-2014 % Change	2014 National LQ
311	Food Manufacturing	33	<10	Insf. Data	Insf. Data	0.05
312	Beverage and Tobacco Product Manufacturing	0	0	0	0%	0.00
313	Textile Mills	0	0	0	0%	0.00
314	Textile Product Mills	0	0	0	0%	0.00
315	Apparel Manufacturing	0	0	0	0%	0.06
316	Leather and Allied Product Manufacturing	0	0	0	0%	0.00
321	Wood Product Manufacturing	36	30	-6	(17%)	3.52
322	Paper Manufacturing	0	11	11	Insf. Data	1.35
323	Printing and Related Support Activities	662	509	-153	(23%)	48.40
324	Petroleum and Coal Products Manufacturing	0	0	0	0%	0.00
325	Chemical Manufacturing	0	0	0	0%	0.00
326	Plastics and Rubber Products Manufacturing	897	474	-423	(47%)	31.41
327	Nonmetallic Mineral Product Manufacturing	224	100	-124	(55%)	11.17
331	Primary Metal Manufacturing	0	0	0	0%	0.00
332	Fabricated Metal Product Manufacturing	<10	<10	Insf. Data	Insf. Data	0.08
333	Machinery Manufacturing	<10	<10	Insf. Data	Insf. Data	0.03
334	Computer and Electronic Product Manufacturing	<10	<10	Insf. Data	Insf. Data	0.08
335	Electrical Equipment, Appliance, and Component Manufacturing	0	0	0	0%	0.00
336	Transportation Equipment Manufacturing	0	<10	Insf. Data	Insf. Data	0.02
337	Furniture and Related Product Manufacturing	10	15	5	50%	1.69
339	Miscellaneous Manufacturing	<10	<10	Insf. Data	Insf. Data	0.28

Source: EMSI

Turning to occupations, the two tables below show the top 25 occupations within the Manufacturing sector for the Economic Region and Strasburg.

The top five 5-digit SOC occupations based on 2014 employment in the Economic Region were:

- Meat, Poultry, and Fish Cutters and Trimmers
- Packaging and Filling Machine Operators and Tenders
- Laborers and Freight, Stock and Material Movers, Hand
- First-Line Supervisors of Production and Operating Workers
- Industrial Machinery Mechanics

In Strasburg, the top five 5-digit SOC occupations based on 2014 employment figures were:

- Printing Press Operators
- First-Line Supervisors of Production and Operating Workers
- Packers and Packagers, Hand
- Inspectors, Testers, Sorters, Samplers, and Weighers
- Adhesive Bonding Machine Operators and Tenders

The occupational data show that jobs in the Economic Region revolve more around food manufacturing, while the occupations in Strasburg focus more on printing and plastics manufacturing industries.

Top 25 Occupations in Manufacturing in Economic Region

SOC	Description	Employed in Industry (2004)	Employed in Industry (2014)	Change (2004 - 2014)	% Change (2004 - 2014)	Median Hourly Earnings
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	2,390	1,844	(546)	(23%)	$11.95
51-9111	Packaging and Filling Machine Operators and Tenders	1,303	1,147	(156)	(12%)	$17.31
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1,088	822	(266)	(24%)	$11.78
51-1011	First-Line Supervisors of Production and Operating Workers	1,131	805	(326)	(29%)	$25.44
49-9041	Industrial Machinery Mechanics	635	622	(13)	(2%)	$20.20
51-5112	Printing Press Operators	710	573	(137)	(19%)	$15.08
51-2092	Team Assemblers	1,087	571	(516)	(47%)	$12.92
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	742	570	(172)	(23%)	$16.23
53-7064	Packers and Packagers, Hand	786	555	(231)	(29%)	$11.06
51-9198	Helpers--Production Workers	724	510	(214)	(30%)	$12.27
53-7051	Industrial Truck and Tractor Operators	668	495	(173)	(26%)	$15.38
53-3032	Heavy and Tractor-Trailer Truck Drivers	723	481	(242)	(33%)	$17.80
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	629	462	(167)	(27%)	$24.88
51-3099	Food Processing Workers, All Other	499	448	(51)	(10%)	$9.61
49-9071	Maintenance and Repair Workers, General	588	440	(148)	(25%)	$16.62
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	593	402	(191)	(32%)	$15.94
43-9061	Office Clerks, General	519	392	(127)	(24%)	$12.46
43-5071	Shipping, Receiving, and Traffic Clerks	506	383	(123)	(24%)	$14.59
43-4051	Customer Service Representatives	448	344	(104)	(23%)	$14.62
51-9199	Production Workers, All Other	415	321	(94)	(23%)	$13.46
11-1021	General and Operations Managers	459	317	(142)	(31%)	$41.85
51-3092	Food Batchmakers	294	285	(9)	(3%)	$13.22
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	495	281	(214)	(43%)	$14.77
51-4121	Welders, Cutters, Solderers, and Brazers	307	274	(33)	(11%)	$17.11
53-7063	Machine Feeders and Offbearers	347	266	(81)	(23%)	$17.19

Source: EMSI

Top 25 Occupations in Manufacturing in Strasburg

SOC	Description	Employed in Industry (2004)	Employed in Industry (2014)	Change (2004 - 2014)	% Change (2004 - 2014)	Median Hourly Earnings
51-5112	Printing Press Operators	168	131	(37)	(22%)	$12.76
51-1011	First-Line Supervisors of Production and Operating Workers	86	52	(34)	(40%)	$23.35
53-7064	Packers and Packagers, Hand	71	46	(25)	(35%)	$10.33
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	64	42	(22)	(34%)	$14.49
51-9191	Adhesive Bonding Machine Operators and Tenders	47	37	(10)	(21%)	$12.18
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	53	32	(21)	(40%)	$11.09
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	40	29	(11)	(28%)	$13.03
51-5113	Print Binding and Finishing Workers	41	29	(12)	(29%)	$8.52
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	65	28	(37)	(57%)	$16.15
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	53	27	(26)	(49%)	$16.33
51-5111	Prepress Technicians and Workers	35	26	(9)	(26%)	$14.18
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	42	26	(16)	(38%)	$19.77
51-2092	Team Assemblers	56	24	(32)	(57%)	$11.04
43-4051	Customer Service Representatives	36	24	(12)	(33%)	$14.02
51-9198	Helpers--Production Workers	39	23	(16)	(41%)	$12.19
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	39	23	(16)	(41%)	$16.99
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	37	22	(15)	(41%)	$20.78
43-9061	Office Clerks, General	32	21	(11)	(34%)	$11.75
51-9111	Packaging and Filling Machine Operators and Tenders	42	21	(21)	(50%)	$10.74
53-7051	Industrial Truck and Tractor Operators	39	21	(18)	(46%)	$11.69
11-1021	General and Operations Managers	34	21	(13)	(38%)	$35.09
49-9041	Industrial Machinery Mechanics	30	19	(11)	(37%)	$16.48
49-9071	Maintenance and Repair Workers, General	34	18	(16)	(47%)	$15.45
53-7063	Machine Feeders and Offbearers	27	18	(9)	(33%)	$14.64
43-3031	Bookkeeping, Accounting, and Auditing Clerks	24	17	(7)	(29%)	$14.84

Source: EMSI

Market and Real Estate Trends

Manufacturing has been undergoing industry-wide changes in order to keep up with global demand and technological changes. KMPG's Global Manufacturing Outlook Survey for 2015 notes that one in two manufacturers are focusing on innovation as part of their firm's overall success strategy. In industrial manufacturing specifically, companies will be focusing their technology resources on improving supply chain systems.[25] Technologies will also be focused on building "smart investments" that will work with new partners to improve certain aspects of the business without risking the stability of the entire business. KPMG's Outlook survey also reports that 32% of firms surveyed said that new products are a top priority and nearly 40% said that intense competition and pressure on prices is the greatest challenge to manufacturing companies today.[26]

U.S. manufacturing activity has picked up in recent years, and it is expected to see steady increases in output and employment in some subsectors. Since 2009, manufacturing has contributed to 12.5% of the U.S. Gross Domestic Product (GDP). Multiple year job growth has been seen in the following sectors: primary metals, fabricated metal products, apparel, leather and allied products, furniture, food, beverage and tobacco products, transportation equipment, appliances and components, paper products and wood products.[27] Some of this growth can be attributed to higher labor costs across the globe and less expensive energy costs on U.S. soil, leading firms to "insource" or keep their operations domestic. While there has been growth in manufacturing subsectors, there are still many issues facing this industry in the coming years. The following sections outline these trends and concerns.

Workforce

According to an Annual Industry Market Barometer (IMB) from ThomasNet taken in November 2014, a lack of skilled workers is a major issue facing manufacturing firms. This workforce issue is especially pressing as the older generation of workers think about retirement within the next ten years. The survey used to compile the IMB found that nearly 40% of workers surveyed were planning on leaving their jobs within the next one to ten years. The IMB sites persisting negative perceptions of the work that manufacturing entails, which prevents firms from attracting new, younger workers.[28]

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[25] Global Manufacturing Outlook, 2015. KPMG. https://assets.kpmg.com/content/dam/kpmg/pdf/2015/06/kpmg-2015-global-manufacturing-outlook-preparing-for-battle.pdf

[26] Global Manufacturing Outlook Infographic, 2015. KPMG. http://www.sablog.kpmg.co.za/wp-content/uploads/2015/06/2015GMO-InnovationInfographic.jpg

[27] Industrial Real Estate Forecast, 2015-2017, 2015. Cushman & Wakefield Research Publication. http://www.cushmanwakefield.com/~/media/reports/unitedstates/2015/industrial-forecast2015-17.pdf

[28] Industry Market Barometer, 2014. THOMASNET. http://www.thomasnet.com/pressroom/Industry_Market_Barometer.html

While attracting a new generation of workforce is vital, keeping current employees healthy is necessary no matter the age of the worker. Healthcare spending remains a prominent concern for manufacturers, especially as new regulations for the Affordable Care Act that affect small and medium size businesses come into effect. The National Association of Manufacturers (NAM) maintains that firms in the industry are proud to offer their workers healthcare options, but are looking to offer more flexible options in order to reduce overall costs. Providing healthcare coverage is necessity to stay competitive as an employer; therefore, in order to not eliminate healthcare coverage all together, firms have increased copays or deductibles to keep costs lower. The average annual cost of a family health insurance plan in the manufacturing sector in the United States has consistently risen since 2000.[29]

Jobs at manufacturing plants are only one aspect of the industry. Efficient distribution of goods is vital to responding to market demand. Trucks are the primary way that goods are distributed domestically but according to Cushman and Wakefield there is a nationwide shortage of truck drivers that negatively affects the distribution process and threatens any future uptick in market demands for manufactured goods.[30] Further information on the transportation and logistics industry will be examined in the next section.

Taxes and Federal Regulations

A new ruling by the Environmental Protection Agency (EPA) in December of 2014 aims to improve the National Ambient Air Quality Standard from 75 parts per billion to between 65-70 parts per billion. However, NAM research found that the EPA's new standards could reduce Gross Domestic Product (GDP) by $140 billion annually and cause the elimination of 1.4 million job equivalents per year. NAM argues that the goal set is unattainable and would instead damage the already struggling manufacturing industry. The industry organization cites that ozone-forming emissions have already been cut in half since 1980 and there are already many other regulations in place intended to cut emissions by a significant amount. [31]

Aside from federal regulations, the taxation of manufacturing firms is a contentious issue that the NAM claims is negatively affecting the potential of manufacturing firms. The NAM maintains that the U.S. needs a more competitive corporate tax system in order to remain at the peak of competitiveness in this globally responsive industry. The organization reports that during the last twenty years, competitor countries like China, Canada, and Japan have lowered their

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[29] Shaping Up, 2015. National Association of Manufacturers. http://www.nam.org/Data-and-Reports/Reports/Shaping-Up/Shaping-Up-Report.pdf

[30] Industrial Real Estate Forecast, 2015-2017, 2015. Cushman & Wakefield Research Publication. http://www.cushmanwakefield.com/~/media/reports/unitedstates/2015/industrial-forecast2015-17.pdf

[31] Assessing Economic Impacts of a Stricter National Ambient Air Quality Standard for Ozone, 2014. NERA Economic Consulting. http://www.nam.org/Issues/Energy-and-Environment/Ozone-Regulations/NERA-NAM-Ozone-Full-Report-20140726/

corporate tax rates, while the United States has remained at the same level, 40%. In 2014, China's corporate tax rate was 25%, Canada's was 26.5%, and Japan's was 35.6%. [32]

As mentioned above, due to rising global labor costs, more large firms are deciding to keep their production on American soil. Consequently, more space is needed to house production facilities for companies like General Electric, Dupont and Whirpool, who have all expanded or built new facilities in the last few years. With a greater number of large firms deciding to keep their operations on U.S. soil, space that can accommodate the needs of these employers is in high demand and low supply. Even while there are older facilities available, they lack the technologies that most companies require to perform to their peak efficiency. Because of this increased demand, Cushman and Wakefield reports that rental rates will increase for a majority of manufacturing submarkets through 2018.[33]

The following provides a brief overview in terms of national market trends in manufacturing subsectors important to Strasburg and the Economic Region.

Plastics Products Miscellaneous (NAICS 32619):

- Revenue grew at an annualized rate of 1.8% to $92.9 billion in the five years from 2010 to 2015, although revenue will fall in 2015 by 1.3%.
- Demand is expected to rise based on consumer spending; however, revenue profits will be tamed by the appreciating U.S. dollar, as exports will become more expensive abroad.
- Recovery in the construction and housing market will be key to growth in plastics manufacturing.
- Overseas growth in the industry has slowed domestic growth, since 2001 the U.S. has imported more plastic products than it has exported.
- Concentration in this industry is low, consisting of small, regional companies.
- **Key external drivers:** Demand from car and automobile manufacturing, demand from electrical equipment manufacturing, demand from tool and hardware wholesaling, price of plastic materials and resin, value of construction, trade-weighted index
- **Major markets**: Automotive manufacturers, hardware and home improvement wholesalers, electrical and electronic manufacturing, furniture

Printing Services (NAICS 32312)

- Based on the slowing demand for paper products, the industry is expected to decline at an average annual rate of 4.7% in the five years to 2015.
- Advancements in desktop publishing have enabled many former industry customers to do their own publishing in-house, which has decreased the number of industry operators.

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[32] The United States Needs a More Competitive Corporate Tax System, 2015. National Association of Manufacturers. http://www.nam.org/Data-and-Reports/Reports/MAPI---Tax-Competitiveness.pdf

[33] Industrial Real Estate Forecast, 2015-2017, 2015. Cushman & Wakefield Research Publication. http://www.cushmanwakefield.com/~/media/reports/unitedstates/2015/industrial-forecast2015-17.pdf

- Industry revenue is forecasted to shrink at a five year annualized rate of 2.2% to $3.2 billion in 2020.
- Print Services is a highly fragmented industry, with the top four companies in the industry accounting for less than 5% of the industry's revenue.
- **Key external drivers:** External competition for the Printing Support Services Industry, print advertising expenditure, price of paper, access to credit
- **Major markets**: Printing industry, packaging industry, book and magazine publishers, newspaper publishers

Transportation, Warehousing and Logistics

Description

This industry includes modes of transportation for passengers and cargo alike, along with secondary activities to different modes of transportation. The types of transportation include: air, rail, water, road and pipeline, or a combination of those five. There are three distinct activities within Transportation and Logistics:

- subsectors for each mode of transportation
- a subsector for warehousing and storage
- a subsector for establishments providing support activities for transportation.

NAICS	Description
481	Air Transportation
482	Rail Transportation
483	Water Transportation
484	Truck Transportation
485	Transit and Ground Passenger Transportation
486	Pipeline Transportation
487	Scenic and Sightseeing Transportation
488	Support Activities for Transportation
491	Postal Service
492	Couriers and Messengers
493	Warehousing and Storage

Source: EMSI

This industry often involves establishments that are spread across expansive geographic areas.[34] Within the North American Industrial Classification System (NAICS) Transportation and Warehousing includes all industries with the 2-digit codes of 48 and 49 and includes the subindustries listed in the adjacent table.

Note that transportation and logistics activities are closely tied to manufacturing and in many cases manufacturing facilities house or perform these functions.

Performance

Strasburg is situated in an ideal location for this sector. With the Virginia Inland Port nearby and direct access to I-66 and I-81, along with changing retail market trends, there are opportunities

[34] Definition adapted from the 2012 NAICS Definition for Transportation and Warehousing and associated subsectors.

to capitalize on the Northern Shenandoah Business Park's location and access to major distribution networks.

In the Economic Region, there are 580 companies that are listed under the Transportation and Warehousing industry (48-49, 2-digit NAICS code), and about half of those businesses, 280, are firms with between one and four employees.[35] The largest of these companies is Schneider in Winchester, who employs just over 560 people and generates over $81.7 million in annual revenue at the Winchester location. Schneider provides trucking, logistics and intermodal transportation and shipping services.

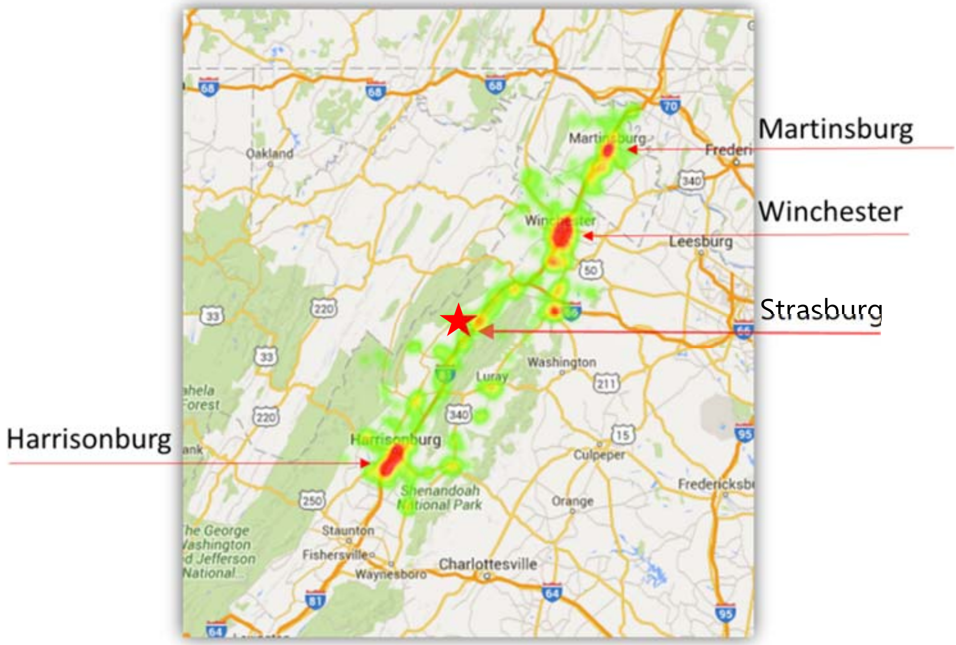
According to Reference USA, an expansive nation-wide business database, there are 12 companies under the NAICS codes 48-49 in Strasburg (as defined by the zip code 22657). They are listed below:

- Americold Logistics
- Blue Ridge Taxi Service
- Columbia Gas Transmission
- Get R Done Construction LLC
- HD Smith Junior Trucking
- JR's 24 Hour Towing
- Marquis Chauffeur & Limo Service
- Marquis Motorcoach Service
- Pingley Trucking LLC
- R&M Trucking Dump Truck Service
- TK Auto Sales & 24 Hr Towing
- United States Post Office

Americold Logistics is located within the business park's boundaries and falls into the subsector of Refrigerated Warehousing and Storage. Reference USA lists that the branch has 72 employees with $5.5 million in sales. The Atlanta-based company is a leading third-party provider of supply chain solutions in consumer packaged goods and is retained by such companies as General Mills and Unilever. In 2010 Americold acquired Versacold International, strengthening its hold of the logistics market, which is estimated to be 16.3% currently. The company's total revenue in 2015 is estimated to be $776.1 million, which is a more than 8% increase from 2014.

[35] Figure according to ReferenceUSA, a leading provider in business and consumer research across the United States.

The heat map shows the concentrations of Transportation and Warehousing businesses in the Economic Region (based on the NAICS Codes, 48-49). The red coloring indicates high concentrations while the lighter green shows less concentrated areas. The highly concentrated areas are formed around Martinsburg, Winchester, and Harrisonburg.



In 2014, Transportation and Warehousing (2-digit NAICS) contributed to 10,257 jobs in the Economic Region, accounting for 5% of jobs. 126 of those jobs were located in Strasburg, which made up 4% of the town's total workforce. Strasburg and the Economic Region grew rapidly in the industry over the last decade, increasing by 67%, or 51 jobs and 55%, 3,658 jobs, respectively. The industry growth in the town and region far exceeded growth over the same period in Virginia or the United States.

Transportation and Warehousing Employment by Geography

	2004	2014	# Change	% Change	% All Employment*
Economic Region	6,599	10,257	3,658	55%	5%
Strasburg	75	126	51	67%	4%
Virginia	115,859	116,762	903	1%	3%
United States	4,621,289	5,028,539	407,250	9%	3%

Source: EMSI

*Based on 2014 Job totals

The three following tables show data relating to subsectors within the 3-digit NAICS level in Transportation and Warehousing. The green highlighting indicates the top two Location Quotients for this industry in the labelled geography:

- In the Economic Region, only two 3-digit subsectors in Transportation and Warehousing lost jobs in the last decade, Rail Transportation and Support Activities for Transportation. The degree of loss was not substantial, especially when compared to losses experienced in the Manufacturing sector.

- The Postal Service is over eleven times more concentrated in the Economic Region than the rest of the country and added 70 jobs in the last ten years. Warehousing and Storage is nearly 5 times more concentrated in the Economic Region than the rest of the United States, and gained over 2,000 jobs, expanding the industry by 77%.
- In Strasburg, Truck Transportation and Pipeline Transportation are the most concentrated subsectors in Transportation and Warehousing. Pipeline Transportation is 47 times more concentrated in Strasburg than the rest of the country and gained at least 40 jobs in the last 10 years. Truck Transportation showed moderate growth, gaining 17 jobs between 2004 and 2014.
- Each geography shows specialization in a different subsector, although Transportation and Warehousing subsectors are highly interrelated, especially as intermodal transportation becomes a growing market trend in the industry. Intermodal transportation will be discussed more in-depth in the Market and Real Estate Trends of this section.

Transportation and Warehousing Sector : 3-digit NAICS, Economic Region

NAICS	Description	2004 Jobs	2014 Jobs	2004-2014 Change	2004-2014 % Change	2014 National LQ
481	Air Transportation	15	561	546	3640%	0.97
482	Rail Transportation	326	318	(8)	(2%)	1.00
483	Water Transportation	0	0	0	0%	0.00
484	Truck Transportation	2,699	2,998	299	11%	1.45
485	Transit and Ground Passenger Transportation	118	146	28	24%	0.21
486	Pipeline Transportation	<10	49	Insf. Data	Insf. Data	0.83
487	Scenic and Sightseeing Transportation	<10	0	Insf. Data	Insf. Data	0.00
488	Support Activities for Transportation	358	341	(17)	(5%)	0.41
491	Postal Service	17	87	70	412%	11.40
492	Couriers and Messengers	438	1,108	670	153%	1.41
493	Warehousing and Storage	2,625	4,648	2,023	77%	4.96

Source: EMSI

Indicates the top two LQ

Transportation and Warehousing Sector: 3-digit NAICS, Strasburg

NAICS	Description	2004 Jobs	2014 Jobs	2004-2014 Change	2004-2014 % Change	2014 National LQ
481	Air Transportation	0	<10	Insf. Data	Insf. Data	0.06
482	Rail Transportation	<10	<10	Insf. Data	Insf. Data	0.45
483	Water Transportation	0	0	0	0%	0.00
484	Truck Transportation	54	71	17	31%	1.96
485	Transit and Ground Passenger Transportation	<10	<10	Insf. Data	Insf. Data	0.11
486	Pipeline Transportation	<10	49	Insf. Data	Insf. Data	47.64
487	Scenic and Sightseeing Transportation	0	0	0	0%	0.00
488	Support Activities for Transportation	10	0	(10)	(100%)	0.00
491	Postal Service	0	0	0	0%	0.00
492	Couriers and Messengers	<10	<10	Insf. Data	Insf. Data	0.11
493	Warehousing and Storage	0	<10	Insf. Data	Insf. Data	0.04

Source: EMSI

Indicates the top two LQ

With regard to specific occupations in Transportation and Warehousing:

- Heavy and Tractor-Trailer Truck Drivers was the largest occupation in the Economic Region and in Strasburg in 2014. Strasburg employs 50 Tractor-Trailer Truck Drivers, while the Economic Region employs a total of 2,505 workers in this position.
- In the Economic Region, Laborers and Freight, Stock, and Material Movers (Hand) gained the greatest number of jobs, 774, expanding the industry by 85% between 2004 and 2014. There was little activity, positive or negative, among occupations in the Transportation and Warehousing sector in Strasburg, although the largest occupation, Heavy and Tractor-Trailer Truck drivers added 9 positions over the last decade, growing the industry by 22%.
- Of the top 25 occupations related to Transportation and Warehousing in the Economic Region, none lost any jobs over the last decade. In Strasburg, one occupation, Taxi Drivers and Chauffeurs, lost 2 jobs.
- General & Operations Managers and Transportation, Storage, and Distribution Managers are the top two highest paying occupations in the Economic Region, $41.85/hour and $37.38/hour, respectively. The highest paying positions in Strasburg, Software Developers, at $41.98/hour and Financial Analysts, at$41.31/hour, employ less than ten people.

Top 25 Occupations in Transporation and Warehousing in the Economic Region

SOC	Description	Employed in Industry (2004)	Employed in Industry (2014)	Change (2004 - 2014)	% Change (2004 - 2014)	Median Hourly Earnings
53-3032	Heavy and Tractor-Trailer Truck Drivers	2,052	2,505	453	22%	$ 17.80
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	911	1,685	774	85%	$ 11.78
53-3033	Light Truck or Delivery Services Drivers	296	601	305	103%	$ 13.78
53-7051	Industrial Truck and Tractor Operators	379	532	153	40%	$ 15.38
43-5081	Stock Clerks and Order Fillers	309	504	195	63%	$ 10.66
43-5071	Shipping, Receiving, and Traffic Clerks	156	293	137	88%	$ 14.59
53-7064	Packers and Packagers, Hand	147	290	143	97%	$ 11.06
43-9061	Office Clerks, General	135	229	94	70%	$ 12.46
49-3011	Aircraft Mechanics and Service Technicians	23	153	130	565%	$ 26.96
43-4051	Customer Service Representatives	89	142	53	60%	$ 14.62
53-1021	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	85	141	56	66%	$ 24.18
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	114	139	25	22%	$ 17.95
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	97	129	32	33%	$ 25.59
53-7063	Machine Feeders and Offbearers	86	128	42	49%	$ 17.19
43-5032	Dispatchers, Except Police, Fire, and Ambulance	87	126	39	45%	$ 16.03
11-1021	General and Operations Managers	71	109	38	54%	$ 41.85
49-9071	Maintenance and Repair Workers, General	61	108	47	77%	$ 16.62
43-1011	First-Line Supervisors of Office and Administrative Support Workers	59	94	35	59%	$ 21.46
43-5021	Couriers and Messengers	47	93	46	98%	$ 10.93
53-3041	Taxi Drivers and Chauffeurs	71	91	20	28%	$ 9.68
11-3071	Transportation, Storage, and Distribution Managers	56	86	30	54%	$ 37.38
43-3031	Bookkeeping, Accounting, and Auditing Clerks	48	73	25	52%	$ 15.91
53-2031	Flight Attendants	<10	72	69	2300%	$ 19.42
43-5061	Production, Planning, and Expediting Clerks	33	62	29	88%	$ 16.09
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	31	62	31	100%	$ 10.21

Source: EMSI

Top 25 Occupations in Transporation and Warehousing in Strasburg

SOC	Description	Employed in Industry (2004)	Employed in Industry (2014)	Change (2004 - 2014)	% Change (2004 - 2014)	Median Hourly Earnings
53-3032	Heavy and Tractor-Trailer Truck Drivers	41	50	9	22%	$ 18.95
51-1011	First-Line Supervisors of Production and Operating Workers	0	<10	2	Insf. Data	$ 23.35
49-9099	Installation, Maintenance, and Repair Workers, All Other	0	<10	0	0%	$ 12.97
15-1132	Software Developers, Applications	0	<10	0	0%	$ 41.98
15-1121	Computer Systems Analysts	0	<10	0	0%	$ 29.14
15-1151	Computer User Support Specialists	0	<10	0	0%	$ 20.45
23-1011	Lawyers	0	<10	0	0%	$ 36.09
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	0	<10	1	Insf. Data	$ 14.49
47-2152	Plumbers, Pipefitters, and Steamfitters	0	<10	1	Insf. Data	$ 16.44
43-4051	Customer Service Representatives	<10	<10	0	0%	$ 14.02
53-1021	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	0	<10	1	Insf. Data	$ 19.98
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	<10	<10	1	100%	$ 24.93
53-3033	Light Truck or Delivery Services Drivers	<10	<10	0	0%	$ 11.36
53-3041	Taxi Drivers and Chauffeurs	<10	<10	-2	(67%)	$ 9.30
53-4011	Locomotive Engineers	<10	<10	0	0%	$ 28.22
13-1199	Business Operations Specialists, All Other	0	<10	0	0%	$ 30.00
13-2011	Accountants and Auditors	0	<10	2	Insf. Data	$ 26.98
43-1011	First-Line Supervisors of Office and Administrative Support Workers	<10	<10	1	Insf. Data	$ 19.72
13-2051	Financial Analysts	0	<10	0	0%	$ 41.31
49-9071	Maintenance and Repair Workers, General	0	<10	0	0%	$ 15.45
17-2051	Civil Engineers	0	<10	1	Insf. Data	$ 30.62
43-5011	Cargo and Freight Agents	<10	<10	1	Insf. Data	$ 20.78
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	<10	<10	0	0%	$ 13.91
43-6011	Executive Secretaries and Executive Administrative Assistants	0	<10	1	Insf. Data	$ 20.06
17-3023	Electrical and Electronics Engineering Technicians	0	<10	0	0%	$ 20.67

Source: EMSI

Market and Real Estate Trends

The Virginia Economic Development Partnership (VEDP) reports that the Distribution sector, a subsector of the larger Transportation and Warehousing industry, is especially prominent to Virginia's overall economy and draws on activity from shipping centers belonging to national retailers such as The Home Depot, Best Buy, and Amazon. VEDP notes that Virginia's location is advantageous due to six major interstate highways that cross the state, which can take trucks back and forth across the country. The Northern Shenandoah Business Park benefits from its placement along key transportation corridors I-66 and I-81. Virginia's six general cargo terminals are key nodes for transportation and the Port of Virginia is one of the three busiest container ports on the East Coast.

Among other global trends impacting transportation of goods across the county, e-commerce is changing the way that firms locate themselves in relation to consumers. With consumers wanting - and expecting - one-day shipping for many items, firms must have warehouses and supply chain capabilities to ensure that their products reach the consumer in an expedited fashion.[36]

In order to accommodate demanding consumers, faster and more cost effective ways of transporting goods has been a primary goal for firms of all sizes. Intermodal transportation has grown in popularity due to its cost effectiveness and speed. It is coming into favor for many firms due to its efficiency and relatively environmentally friendly byproducts. According to the Intermodal Association of North American (IANA) the 2015 Traffic Totals thus far have exceed all other previous years back to 2011, and have exceed 2014 by about half a million when comparing June 2015 and June 2014.[37]

Intermodal refers to the transportation of goods in a container that can be moved onto a variety of carriers- such as trucks, railroad or ocean carriers.

Wagner Logistics, a leading third-party logistics coordinator, projects that a consistently strong American dollar, and decreasing oil prices will boost consumer confidence, leading to greater market demand for goods. While the entire Transportation and Warehousing industry can count on picking up steam with greater consumer confidence, the efficiency and ability of heavy trucks and other transportation to make it from one side of the country to the other greatly depends on the infrastructure which it uses on a daily basis. However, an increasing number of our nation's roads, bridges and railroad tracks are in a dismal state of repair, hindering the maximum productivity in the transportation of goods in intermodal and traditional shipping

[36] "Logistics and Supply Chain Sector Rebound." *Business Xpansion Journal.* September 2015, pg. 18-22.

[37] Data and Statistics, Intermodal Association of North America. http://www.intermodal.org/information/statistics/index.php

methods.[38] The push to improve road condition relies on bipartisan agreement at the federal level, as funding to undertake such massive improvements is a costly matter.

Digging deeper into subsector market trends, leading market research firm IBIS reports that Long Distance and Local Freight Trucks (NAICS 484112) are benefitting from the economic recovery, as downstream markets and individuals' disposable income greatly dictate how much product there is to truck back and forth across the country. The industry will compete in the upcoming years with other modes of transportation, especially rail, as rail is estimated to be more fuel efficient than road/trucking transportation when moving one ton of freight one mile. Additionally, changing emissions standards by the federal government is forcing companies to innovate and begin to invest in hybrid vehicles.

There is a workforce imbalance in the trucking subsector. The American Trucking Association (ATA) reports that there are currently 25,000 unfilled freight truck driving positions across the country, and this figure is expected to increase in the next five years. The industry is dealing with the issue of the ageing workforce, as most of their workers are over 55 and set to retire in the near future.

Like other Transportation and Warehousing subsectors, Refrigerated Storage (NAICS 49312)[39] also depends on downstream markets for the majority of its business. IBIS notes that establishments should locate near high population or port areas in order to attract the best business. New operators coming into this business are focusing on emerging and growing markets like health food products.

Public Storage and Warehousing (NAICS 49311)[40] grew 3% in the last five years and is expected to grow 1.9% between 2015 and 2020. Efficiency will be key for this industry as warehouse automation and technology increase the speeds and quantity of work that can be done. This is another industry that has benefited from the economic recovery. To bolster efficiency, warehousing companies are also offering supply chain logistics along with their typical storage services. The concentration in the industry is low, as there are over 6,500 companies vying for 75% of the market.

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[38] 2015 Logistics and Transportation Industry Forecast, Wagner Logistics. http://www.wagnerlogistics.com/index.php/wagner-blog/117-2015-logistics-transportation-industry-forecast

[39] **NAICS 493120 Refrigerated Warehousing and Storage** - *This industry comprises establishments primarily engaged in operating refrigerated warehousing and storage facilities. Establishments primarily engaged in the storage of furs for the trade are included in this industry. The services provided by these establishments include blast freezing, tempering, and modified atmosphere storage services.* Source: http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=493120&search=2012%20NAICS%20Search

[40] **NAICS 493110: Public warehousing and storage (except self-storage), general merchandise** - *This industry comprises establishments primarily engaged in operating merchandise warehousing and storage facilities. These establishments generally handle goods in containers, such as boxes, barrels, and/or drums, using equipment, such as forklifts, pallets, and racks. They are not specialized in handling bulk products of any particular type, size, or quantity of goods or products.* Source: http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=493110&search=2012%20NAICS%20Search

Virginia is one of the major industry locations for Specialized Freight Trucking, Local (NAICS 48422)[41] according to the IBIS report on the industry. This industry includes: local agricultural products trucking, car carrier services, resource services, dump trucking, and local refrigerated products trucking. The industry grew nationally at 5.1% from 2010 to 2015 and is expected to grow another 2.7% over the next five years. The popularization of Just-in-time (JIT) business manufacturing styles mean that these types of trucks are needed more often, as the industry depends on rapid access to transportation services. JIT manufacturing focuses on producing only as many goods as the market demands, instead of keeping a surplus on hand, which means that if there is a sudden jump in demand production must keep pace.[42] This industry is heavily reliant on the value of construction, price of crude oil and consumer spending. Success in the industry relies on accessibility to consumers, good reputation, local support, how companies are able to address cost increases, keeping up with the latest technology and the availability of a good workforce.

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[41] **484220 Specialized Freight (except Used Goods) Trucking, Local**: *This industry comprises establishments primarily engaged in providing local, specialized trucking. Local trucking establishments provide trucking within a metropolitan area that may cross state lines. Generally the trips are same-day return.* Source: http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=484220&search=2012%20NAICS%20Search

[42] "Just-in-time", *The Economist*, July 2009

Office space generating- e.g. business services, healthcare

Description

While almost all industries have some office space associated with them, there are certain industries that typically drive demand for office space. They include Finance and Insurance (NAICS 52); Professional, Scientific, and Technical Services (NAICS 54); and Health Care and Social Assistance (NAICS 62). The following definitions outline the assortment of activities within each industry.

The **Finance and Insurance (NAICS 52)** industry includes businesses like: commercial banks, credit intermediation, securities and other financial investments, insurance carriers, and employee benefit funds. These establishments partake in a range of financial transactions including the creation, liquidation, or change in ownership of financial assets.

The **Professional, Scientific and Technical Services (NAICS 54)** industry involves jobs that require a high level of expertise and training. Activities in this industry range from: legal services and representation, accounting, and bookkeeping, to architectural, engineering and design services. General consulting, research, advertising, veterinary, and photographic services are also encompassed under this NAICS code.

The **Health Care and Social Assistance (NAICS 62)** industry is a wide-ranging sector that includes businesses that offer a combination of health services and social assistance, or each service line individually. The professionals in this sector include physicians, dentists, chiropractors, optometrists, mental health practitioners, speech therapists, and nurses. Major subsectors of services in this industry include: family planning, outpatient care procedures, blood and medical testing, among others. This NAICS code covers inpatient and outpatient activities, meaning those that require overnight stays at the hospital (inpatient) and those procedures which do not require an overnight stay at a hospital (outpatient). Ambulatory services typically refers to the subsector of health care involving outpatient care. Social assistance categories like Community Food and Housing Services, Child Day Care Services, and Emergency Relief Services are also classified under this NAICS Code.

Throughout the remainder of this section, "Office Generating" industries refers to the combination of Finance and Insurance; Professional, Scientific and Technical Services; and Health Care and Social Assistance

NAICS	Description
521	Monetary Authorities-Central Bank
522	Credit Intermediation and Related Activities
523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities
524	Insurance Carriers and Related Activities
525	Funds, Trusts, and Other Financial Vehicles
541	Professional, Scientific, and Technical Services
621	Ambulatory Health Care Services
622	Hospitals
623	Nursing and Residential Care Facilities
624	Social Assistance

Source:EMSI

industries and their respective subsectors. The table contains is a list of subsectors in all three major industry categories.

Performance

Compared to the Economic Region, Virginia and the U.S., Office Generating industries made up the smallest amount of total employment in Strasburg, 10%, while these industries comprised 17% of all jobs in the Economic Region and 24% of jobs in the state. Across all four geographies, Office Generating industries gained jobs over the last decade. Strasburg added the greatest percentage of jobs, 28%, or 76 jobs. The Economic Region added 25%, or 6,844 jobs, while the state added 177,222 jobs, or 22%.

Office Generating Industry Employment by Geography

	2004	2014	# Change	% Change	% All Employment*
Economic Region	27,460	34,304	6,844	25%	17%
Strasburg	272	348	76	28%	10%
Virginia	812,359	989,581	177,222	22%	24%
United States	29,411,369	34,943,496	5,532,127	19%	23%

Source: EMSI

*Based on 2014 Job totals

The three following tables show data relating to subsectors within the 3-digit NAICS level in Office Generating industries. The green highlighting in each table indicates the subsectors with the top two Location Quotients in the labelled geography:

- The Economic Region did not lose jobs in any of the Office Generating subsectors, while Strasburg shed jobs in four categories:
    - Credit Intermediation and Related Activities
    - Insurance Carriers and Related Activities
    - Professional, Scientific, and Technical Services
    - Social Assistance
- In the Economic Region, the largest employers within the Office Generating subsectors are Ambulatory Health Care Centers and Professional Scientific and Technical Services. The Social Assistance subsector gained the greatest amount of jobs in the Economic Region. In Strasburg, the largest employers are Nursing and Residential Care Facilities and Ambulatory Health Care Services.
- The subsector employment data shows that the Health Care industry, specifically nursing home facilities and social assistance, play a vital component to the economies of each geography, while Professional Services is more prevalent in the Economic Region.
- The town and Economic Region share a slightly above average concentration of Nursing and Residential Care Facilities based on 2014 Location Quotients. In the region, the

industry added 792 jobs, an increase of 22%, over the last decade, while Strasburg added 59 jobs, or an increase of 105%. This was also the subsector that gained the greatest number of absolute jobs in the town.

- Strasburg also has a slightly higher than average Location Quotient in Credit Intermediation and Related Activities. This subsector lost eight jobs over the last ten years. However, within that same subsector in the Economic Region, the industry expanded by 775 jobs, or 35%, in the same time frame.
- None of the Location Quotients in the Office Generating subsectors demonstrate the exceptionally high concentrations that appear in the Manufacturing or Transportation and Warehousing, indicating this subset of industries is not specialized within the region.

Office Generating Sectors: 3-digit NAICS, Economic Region

NAICS	Description	2004 Jobs	2014 Jobs	2004 - 2014 Change	2004 - 2014 % Change	2014 Location Quotient
521	Monetary Authorities-Central Bank	<10	<10	Insf. Data	Insf. Data	0.04
522	Credit Intermediation and Related Activities	2,240	3,015	775	35%	0.91
523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	239	339	100	42%	0.28
524	Insurance Carriers and Related Activities	1,104	1,213	109	10%	0.36
525	Funds, Trusts, and Other Financial Vehicles	<10	<10	Insf. Data	Insf. Data	0.12
541	Professional, Scientific, and Technical Services	5,683	6,004	321	6%	0.49
621	Ambulatory Health Care Services	5,701	7,707	2,006	35%	0.85
622	Hospitals	6,244	6,913	669	11%	1.13
623	Nursing and Residential Care Facilities	3,569	4,361	792	22%	1.05
624	Social Assistance	2,679	4,750	2,071	77%	0.95

Source: EMSI

Office Generating Sectors: 3-digit NAICS,Strasburg

NAICS	Description	2004 Jobs	2014 Jobs	2004 - 2014 Change	2004 - 2014 % Change	2014 Location Quotient
521	Monetary Authorities-Central Bank	0	0	0	0%	0.00
522	Credit Intermediation and Related Activities	78	70	(8)	(10%)	1.21
523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	<10	<10	Insf. Data	Insf. Data	0.11
524	Insurance Carriers and Related Activities	24	19	(5)	(21%)	0.33
525	Funds, Trusts, and Other Financial Vehicles	0	0	0	0%	0.00
541	Professional, Scientific, and Technical Services	41	38	(3)	(7%)	0.18
621	Ambulatory Health Care Services	53	91	38	72%	0.58
622	Hospitals	0	0	0	0%	0.00
623	Nursing and Residential Care Facilities	56	115	59	105%	1.57
624	Social Assistance	20	12	(8)	(40%)	0.14

Source: EMSI

Regarding occupations, the following tables display the top ten occupations for the Office Generating 2-digit NAICS codes, first for the Economic Region and then for Strasburg.

- In the Economic Region, there were only two occupational categories out of the thirty combined occupations analyzed that lost jobs over the last decade, Legal Secretaries, which lost 19 jobs, while Childcare Workers shed 117 jobs.
- Barring a couple outliers, average wages are higher across Finance and Insurance and Professional Services, when compared to Health Care and Social Assistance.
- All industry growth in Finance and Insurance and Health Care and Social Assistance occurred in double digits in the Economic Region; however, industry growth was not as significant in Professional Services.
- In the Health Care field, there was substantial growth in Personal Care Aides and Home Health Aides in the town and the region – which is indicative of the needs of the aging population and the future workforce trends in health care.
- General employment numbers across Office Generating occupations are low in Strasburg. Health Care and Social Assistance employed the greatest number of workers out of the three industries.

Top 10 Occupations in Finance and Insurance in the Economic Region

SOC	Description	Employed in Industry (2004)	Employed in Industry (2014)	Change (2004 - 2014)	% Change (2004 - 2014)	Median Hourly Earnings
43-3071	Tellers	565	735	170	30%	$12.21
41-3021	Insurance Sales Agents	471	567	96	20%	$19.86
43-4051	Customer Service Representatives	310	441	131	42%	$14.62
43-1011	First-Line Supervisors of Office and Administrative Support Workers	192	286	94	49%	$21.46
41-3031	Securities, Commodities, and Financial Services Sales Agents	148	185	37	25%	$25.38
13-2072	Loan Officers	164	181	17	10%	$27.10
43-4131	Loan Interviewers and Clerks	134	179	45	34%	$14.38
13-2052	Personal Financial Advisors	111	170	59	53%	$33.01
43-9061	Office Clerks, General	123	147	24	20%	$12.46
11-3031	Financial Managers	91	125	34	37%	$45.15

Source: EMSI

Top 10 Occupations in Professional, Scientific and Technical Services in the Economic Region

SOC	Description	Employed in Industry (2004)	Employed in Industry (2014)	Change (2004 - 2014)	% Change (2004 - 2014)	Median Hourly Earnings
13-2011	Accountants and Auditors	373	385	12	3%	$29.24
23-1011	Lawyers	349	383	34	10%	$41.68
43-9061	Office Clerks, General	288	300	12	4%	$12.46
23-2011	Paralegals and Legal Assistants	219	231	12	5%	$21.99
13-1111	Management Analysts	156	220	64	41%	$34.87
43-3031	Bookkeeping, Accounting, and Auditing Clerks	203	214	11	5%	$15.91
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	128	162	34	27%	$12.18
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	143	148	5	3%	$14.95
43-6012	Legal Secretaries	150	131	(19)	(13%)	$16.77
43-4171	Receptionists and Information Clerks	124	131	7	6%	$11.83

Source: EMSI

Top 10 Occupations in Health Care and Social Assistance in the Economic Region

SOC	Description	Employed in Industry (2004)	Employed in Industry (2014)	Change (2004 - 2014)	% Change (2004 - 2014)	Median Hourly Earnings
29-1141	Registered Nurses	2,633	3,050	417	16%	$30.46
39-9021	Personal Care Aides	770	1,982	1,212	157%	$8.78
31-1014	Nursing Assistants	1,616	1,957	341	21%	$11.65
29-2061	Licensed Practical and Licensed Vocational Nurses	788	977	189	24%	$18.82
31-1011	Home Health Aides	511	868	357	70%	$9.81
39-9011	Childcare Workers	932	815	(117)	(13%)	$8.19
43-4171	Receptionists and Information Clerks	508	641	133	26%	$11.83
43-9061	Office Clerks, General	496	607	111	22%	$12.46
31-9092	Medical Assistants	434	493	59	14%	$13.00
37-2012	Maids and Housekeeping Cleaners	325	395	70	22%	$9.20

Source: EMSI

Top 10 Occupations in Finance and Insurance in Strasburg

SOC	Description	Employed in Industry (2004)	Employed in Industry (2014)	Change (2004 - 2014)	% Change (2004 - 2014)	Median Hourly Earnings
43-3071	Tellers	29	26	(3)	(10%)	$13.50
41-3021	Insurance Sales Agents	14	12	(2)	(14%)	$17.84
13-1161	Market Research Analysts and Marketing Specialists	<10	<10	0	0%	$22.72
13-1151	Training and Development Specialists	<10	<10	0	0%	$25.89
43-3031	Bookkeeping, Accounting, and Auditing Clerks	<10	<10	0	0%	$14.84
13-2011	Accountants and Auditors	<10	<10	0	0%	$26.98
13-2041	Credit Analysts	<10	<10	0	0%	$23.04
43-3011	Bill and Account Collectors	<10	<10	0	0%	$13.23
13-1071	Human Resources Specialists	<10	<10	0	0%	$23.26
43-6011	Executive Secretaries and Executive Administrative Assistants	<10	<10	0	0%	$20.06

Source: EMSI

Top 10 Occupations in Professional, Scientific and Technical Services in Strasburg

SOC	Description	Employed in Industry (2004)	Employed in Industry (2014)	Change (2004 - 2014)	% Change (2004 - 2014)	Median Hourly Earnings
13-1161	Market Research Analysts and Marketing Specialists	<10	<10	0	0%	$22.72
27-3091	Interpreters and Translators	<10	<10	1	Insf. Data	$17.37
13-2011	Accountants and Auditors	<10	<10	3	100%	$26.98
43-4051	Customer Service Representatives	<10	<10	0	0%	$14.02
13-2082	Tax Preparers	<10	<10	1	100%	$11.12
43-3031	Bookkeeping, Accounting, and Auditing Clerks	<10	<10	2	200%	$14.84
13-1111	Management Analysts	<10	<10	0	0%	$40.27
11-9199	Managers, All Other	<10	<10	0	0%	$21.02
23-2011	Paralegals and Legal Assistants	<10	<10	0	0%	$16.54
23-1011	Lawyers	<10	<10	0	0%	$36.09

Source: EMSI

Top 10 Occupations in Health Care and Social Assistance in Strasburg

SOC	Description	Employed in Industry (2004)	Employed in Industry (2014)	Change (2004 - 2014)	% Change (2004 - 2014)	Median Hourly Earnings
39-9021	Personal Care Aides	20	40	20	100%	$8.52
31-1011	Home Health Aides	14	30	16	114%	$8.70
31-1014	Nursing Assistants	<10	24	14	140%	$9.93
29-2061	Licensed Practical and Licensed Vocational Nurses	<10	10	5	100%	$17.34
21-1093	Social and Human Service Assistants	<10	<10	0	0%	$13.20
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	<10	<10	1	Insf. Data	$13.69
29-1021	Dentists, General	<10	<10	(1)	(50%)	$102.32
33-9032	Security Guards	0	<10	0	0%	$12.58
29-1062	Family and General Practitioners	<10	<10	0	0%	$103.58
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	<10	<10	1	100%	$13.91

Source: EMSI

Market and Real Estate Trends

General Business, Financial and Professional Services Trends

As the economic recovery continues, subsectors involving professional, financial, insurance and business services are benefitting from corporate and business growth. As businesses recover profits from the 2008 recession, they are able to expend more funds on professional services like tax preparation, outside legal counsel, IT consulting and investment management. This range of services typically grows in line with the overall U.S. economy and the stability of private sector organizations. Additionally, as ever-constant technological changes create the need for innovative business strategies, management consulting firms are in demand to create business plans that ensure profitability and efficiency.

The following subsectors at the 5-digit NAICS level are driving growth in Office Generating industries at the regional level and, therefore, deserve a deeper dive into understanding market trends:

- Credit Unions (NAICS 52213)
- Community Food Services (NAICS 62421) and Services for the Elderly and Persons with Disabilities (NAICS 62412)

Credit Unions

In the Economic Region, Credit Unions gained 924 jobs, an increase of 700% for the industry. The Location Quotient for the subsector is 3.44, indicating a higher concentration of these services in the Economic Region than the rest of the county. Credit Unions are financial institutions that are member-owned, but provide many of the same services as savings or commercial banks. They are generally able to provide lower loan rates, and higher savings rates. Nationally, the industry contracted by 1.5% over the last five years; however, it is expected to grow by 2.6% over the next five years. According to leading industry research from IBIS, Virginia is one of the states that requires the most financial services due to areas of high density.

Arising from the latest economic crisis in 2008, regulations coming out of Congress will shape the future of the industry. IBIS reports that the level of regulation is heavy and at the same time, operational efficiencies are necessary to be competitive against the larger banking institutions. IBIS reports that consolidation will increase in order to improve efficiency of operations.

Credit unions have enjoyed growing memberships due to positive public perception when compared to larger institutional banks, especially after the 2008 recession. However, they are still undergoing consolidation in order to combine services and remain stronger. According to the National Credit Union Association, 67.8% of all credit unions are considered "small," meaning they hold less than $50 million in assets. For success in this industry, establishments must have exceptionally good financial and debt management systems to keep a positive customer perception, have the ability to raise revenue from additional sources, and they must be able to successfully gain customers from other banks in order to keep growing.

The Navy Federal Credit Union (NFCU) holds the largest single share of the market in this industry, 7.5%, with a membership of more than 5.2 million people. This subsector is of particular importance to Frederick County, as NFCU is the county's largest private employer, with 1,255 jobs as of July 2015.[43] EMSI data shows that there are no jobs in the Credit Union subsector in Strasburg and the Commercial Banking subsector lost 3 jobs over the last decade.

Community Food Services, Services for the Elderly and Services for the Elderly

Occupational and industry data for the town and the Economic Region show that elder care and Community Food Services are growing subsectors of the health care field. Ambulatory Health Care Services also expanded across all three geographies, reinforcing the demographic shift towards an aging population and procedures which require only outpatient care, as opposed to an overnight stay at the hospital. While hospital employment is still a major employer in the Economic Region, the growth of elderly care and outpatients services outpaced that of general hospital employment, identifying these subsectors as key industries to watch.

On the social assistance spectrum of NAICS 62, Community Food Services, added over 550 jobs in the Economic Region over the last decade, growing the industry by 970%. This industry includes collecting, preparing, and delivering food to the needy through food banks or soup kitchens. Across the country the industry grew 3.1% over the last five years and is expected grow another 3% between 2015 and 2020. While other industries are benefiting from a shrinking unemployment rate, thereby increasing individual disposable income, employment opportunities post-2008 recession are not always full time, and can lead to precarious employment situations for individuals and families. Unstable income can lead to families having to resort to food banks to provide nourishment during times of unstable employment.

IBIS reports that food prices are expected to experience higher inflation than other commodities, enabling the Community Food Services industry to fill the gap for families who may not be able to afford groceries on top of other living expenses. For a facility to be successful at providing services in this field they must be able to maintain compliance with regulations and federal funding mandates, and integrate operations to increase efficiencies.

The other subsector that showed growth over the last decade, Services for the Elderly, has boomed nationwide, due to the aging Baby Boomer generation, those individuals born between 1946 and 1964. New legislation from the Affordable Care Act that encourages states to fund in-home service programs, instead of institutionalizing the elderly, will drive growth for home aides. A total of $3.7 billion was made available to states for this program.[44] This funding will be an opportunity for new establishments to enter into the market in the coming years. With

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[43] "Navy Federal collects another honor." *Winchester Star,* July 2015.
[44] IBISWorld, *Elderly and Disabled Services in the U.S.,* August 2015

overall high demand and low concentration in this subsector, IBIS reports that nationally, new businesses are expected to increase by an annualized rate 6.9%.

Medical Office Buildings

While the aging population is driving growth for home aides, the ever rising cost of health care is facilitating the popularity of outpatient procedures, those that require less intensive, and less expensive care than inpatient services. The growth in these services brings to light the growth in Medical Office Buildings (MOBs). Office buildings tailored to medical purposes can be a much more cost effective location for ambulatory services than hospitals. Colliers International, a major U.S.-based real estate development firm, reports in their 2015 Medical Office Outlook Report that MOB vacancy rates are at their lowest level since the 2008 recession, and are continuing on a downward trend, as there continues to be strong tenant demand.[45] There are several factors contributing to the strong demand for MOBs.

While the full ramifications of the Affordable Care Act cannot be judged yet, the expected increase in patients has driven demand for health care-related real estate. Additionally, the aging population will continue to tax the health care system and force hospitals and their affiliates to expand their square footage if they are to keep up with the demand for services from the population. Further contributing to growth in outpatient facilities is both a consolidation of larger companies, while smaller companies are entering into the market. An industry report for a leading market research firm writes:

> "Enticed by growing margins and the potential to strike lucrative acquisition deals with larger industry players, new operators will continue to enter the industry in the next five years, pushing the number of companies upward at an annualized rate of 3.6% during the period."[46]

During the recession, MOBs were more stable than suburban or Central Business District (CBD) commercial office space, due in part to relatively long term leases of 7-10 years. Colliers International, as well as other real estate developers, note that MOBs are becoming more common as investment properties. About 78% of MOB sellers and buyers were investors, as opposed to developers or hospitals in 2013. This is more than double the number of investors the previous year.[47]

Other significant trends in the field of MOBs include: the necessity for flexible space and multi-specialty offices, which has resulted in the overall increasing size of MOBs. Due to technology

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[45] Colliers International, *Medical office Highlights*, *2015 Outlook*, 2015, http://www.colliers.com/-/media/files/marketresearch/unitedstates/2015-market-reports/1HMedicalOffice_d10_FINAL.pdf

[46] IBISWorld, *Emergency & Other Outpatient Care Centers in the US,* May 2015

[47] JLL, *Medical office buildings top investors' wish lists*, , 2013, http://www.us.jll.com/united-states/en-us/Research/medical-office-buildings-top-investors-wish-lists.pdf?9eb409c9-b566-474c-8a69-3431848b3159

advances and the growing amount of technological equipment being used in procedures and follow-ups, space must allow for the technology to be used efficiently. Flexible space opens the possibility for adaptability when technology or the needs of the patient change. Flexibility also pertains to the variety of specialties capable of being housed under one roof. Offices with more than one specialty can increase cost but also operating efficiency, as overhead costs are lower per physician with a larger group. The Senior Vice President and National Director at Skanska USA, a construction management company specializing in health care says that while he estimates the average MOB used to be 30,000-60,000 sf, today he says the average is closer to 100,000 sf.[48]

Because of its current and projected future impacts on economic, community, and individual health, the health care and related sectors could be an important part of economic development efforts at the local and regional level. While the hospital and service network components of the industry continue to experience consolidation, health care also offers future growth opportunities for medium and small businesses focusing on emerging services and technologies including personal and home-based care and tele-health. Also, by focusing on community health systems and preventive care through an approach that integrates providers and stakeholders in mental, physical, and social health, communities can improve quality of life while leveraging additional business and employment opportunities.

[48] Ashok Selvam, "Medical office buildings grow in girth", *Modern Healthcare,* September 2012 http://www.modernhealthcare.com/article/20120915/MAGAZINE/309159938

Appendix F: Summary of Prior Reports

To ensure this plan builds on and complements past efforts, Camoin Associates reviewed various reports and other materials that outline the community and economic goals of the town, county, and region. Reports reviewed include:

- Town of Strasburg Community Plan
- Shenandoah County Comprehensive Plan
- Shenandoah County Economic Development Strategic Plan
- Shenandoah Valley Partnership Annual Report and Website
- Community Profiles for Shenandoah County, the Shenandoah Valley Partnership region, and the Northern Shenandoah Valley region

Key Findings from Prior Reports

Target Industries

The target industries identified by both the Shenandoah Valley Partnership region and Shenandoah County are:

- Information Security
- HVAC
- Administrative Centers, Tech-Support Centers, and Back Offices
- Production Machinery & Equipment Manufacturing
- Plastics Manufacturing

Workforce

Both Shenandoah County and the Shenandoah Valley Partnership have identified the availability of skilled workers as a challenge for businesses in this area. The Shenandoah Valley Partnership has embarked upon a campaign to market "in-demand careers in the Shenandoah Valley." The goal of this campaign is to enhance awareness of local career opportunities for students, parents, and "career switchers," and encourage people to enroll in associated training programs. The campaign focuses on careers in manufacturing, health care, and information technology.

Efforts, such as this marketing campaign, to improve the overall quality of the region's workforce will be essential to attracting businesses to locate in the business park and support the existing businesses in the town and region.

Economic Development and Land Use

Both Town and County plans expressed a desire to maintain the rural nature of the area and small town feel of Strasburg. This desire was coupled with an interest in economic development, specifically attracting businesses that are well-suited to the rural nature of the area and encouraging development in identified growth areas.

Town of Strasburg Community Plan

Vision:

Strasburg must preserve our cultural and natural heritage while attracting desirable growth through realistic and far-sighted planning, a focus on human and physical infrastructure and a citizenry committed to bringing prosperity, creating opportunity and ensuring equality to all who call Strasburg home.

Goals:

1. Manage future growth so as to maintain the town's distinctive, rural, small-town character
2. Encourage the maintenance and development of historic and cultural resources and the preservation of natural resources
3. Ensure that Strasburg residents, both present and future, will have adequate housing choices in a safe, healthy, and attractive environment
4. Encourage the growth of commercial uses that will serve the community and create a suitable environment for commercial uses
5. Continue to work in a collaborative effort to further develop the North Shenandoah Industrial Park and surrounding area for business and industrial uses
6. Provide a transportation network that ensures safe, convenient, and efficient travel for vehicles and pedestrians, promotes regional travel, and enhances the human-scale environment of the town
7. Provide an environment that attracts businesses compatible with the rural small-town character of the town in order to increase employment opportunities and broaden the tax base
8. Provide a variety of high quality community facilities and services to meet the needs of residents
9. Encourage the active participation by and collaboration with citizens and officials of Shenandoah County and other neighboring jurisdictions in planning efforts that will benefit the town and the region

Land Use Principles

Related to the business park

Industrial Park Route 55 Corridor

- Designate the proposed retail commercial area at the southeast corner of the interchange as industrial as the site does not lend itself to good commercial development due to access problems
- Designate an alternative location for a community-scale retail commercial development to compliment, not compete with, downtown commercial uses
- Area should be an employment center; focus on uses that create jobs
- Maintain rural residential character of Route 55 corridor
- Limit additional residential uses in this area
- Continue pattern of using utility corridors for trail connections

Shenandoah County Economic Development Strategy

Strengths:

- Location
    - Near I-81 and I-66 corridor
    - Proximate to population/employment hubs, including Winchester, Harrisonburg, and DC Metro area
    - 20 minutes from Front Royal Inland Port
    - Close to James Madison University, Shenandoah University, and Lord Fairfax Community College
- Labor Force
    - Low wages
    - Low cost of living
- Two major industrial parks

Threats:

- Availability of skilled workforce

Goals:

1. Developing and strengthening industry partnerships and economic gardening
2. Strategic location marketing
3. Commitment to workforce development: Industry & Education Roundtable
4. Exceptional intergovernmental communication

Shenandoah County Comprehensive Plan

Goals:

1. Preserve and enhance the natural environment of the County
2. Protect and promote the historic resources of the County
3. Guide and direct growth into and around the towns and other areas served by public utilities, while preserving the rural and open space balance of the County
4. Create a business climate conducive to economic activity and encourage a diversity of business & industrial activity
5. Promote affordable housing for all segments of the population
6. Provide for the improvement of public facilities and for the delivery of necessary public services
7. Provide a safe and efficient transportation system throughout the County
8. Provide for a continuing planning process which results in policies to manage the County's growth and development

Appendix G. Market Analysis Data Sources

Camoin Associates derived the data for this analysis from several different sources. Proprietary data providers such as EMSI, described below, pull raw data from local, state, and national government data sources as well as private and non-profit research organizations. Individual data providers apply adjustments and corrections to the data based on proprietary models, which can sometimes cause discrepancies when comparing data points from different sources.

Brief summaries of the proprietary and public data sources used in this analysis are provided below along with links to where additional information can be found.

American Community Survey (ACS)

The American Community Survey (ACS) is a yearly survey that asks about: age, sex, race, family and relationships, income and benefits, health insurance, education, veteran status, disabilities, where you work and how you get there, and where you live and how much you pay for some essential items. The survey is mandatory to fill out, but the survey is only sent to a small percentage 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 help to create yearly snapshots of the nation as a whole, as well as our smaller communities.

Bureau of Labor Statistics (BLS)

The BLS collects data on monthly unemployment figures using the Current Population Survey (CPS). The survey reaches approximately 110,000 individuals, or 60,000 households, each month. The sample is chosen to represent the United States population as a whole, which means about 800 geographic areas are chosen to represent each state and the District of Colombia. The sample includes urban and rural areas, industrial and farming lands, and major geographic divisions of each state. The live interview survey is conducted by a Census Bureau employee every month. The respondent's answers are input into a computer where individuals are then classified as employed, unemployed, or not in the labor force. Additional information can be found at: http://www.bls.gov/cps/cps_htgm.pdf

Datamyne

Datamyne provides useful trade market data for 50 countries across five continents for import-export transactions. The data is compiled from house and master bills of lading, filed with customs authorities and official trade ministries. The bill of lading is the document issued by a carrier which details the contents of a shipment and the content's owner. The major industries served by this data include: the global transportation sector, the chemical industry, the energy industry and the food and beverage industry.

Economic Modeling Specialists International (EMSI)

To analyze the industrial makeup of a study area, industry data organized by the North American Industrial Classification System (NAICS) is assessed. Camoin Associates subscribes to Economic Modeling Specialists Intl. (EMSI), a proprietary data provider that aggregates economic data from approximately 90 sources. EMSI industry data, in our experience, is more complete than most or perhaps all local data sources (for more information on EMSI, please see www.economicmodeling.com). This is because local data sources typically miss significant employment counts by industry because data on sole proprietorships and contractual employment (i.e. 1099 contractor positions) is not included and because certain employment counts are suppressed from BLS/BEA figures for confidentiality reasons when too few establishments exist within a single NAICS code.

The U.S. Census Bureau maintains NAICS codes, which are the standard used by Federal statistical agencies in classifying business establishments. 2-digit codes are the highest aggregate NAICS code level and represent broad categories such as "retail", whereas 4-digit industry codes present a finer level of detail such as "grocery stores". For those interested in understanding the composition of the NAICS and for more detail about what is included in each industry, the reader is directed to http://www.census.gov/eos/www/naics/.

Environmental Systems Research Institute, Business Analyst Online (ESRI BAO)

ESRI's base data are the 2000 and 2010 Census. It uses proprietary statistical models and updated data from the U.S. Census Bureau, the U.S. Postal Service, and various other sources to project current statistics and future trends. Examples of data acquired from these sources include: civilian unemployment rate, income distribution, average household size, median age, and current population as well projected population figures. ESRI data are used for economic development, marketing, site selection, and strategic decision-making. For more information, visit www.esri.com.

U.S. Census On-the-Map

OnTheMap helps to visualize US Census and 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.

World Institute for Strategic Economic Research (WISERTrade)

This data source offers domestic and foreign trade statistics, built on a database from a variety of sources including: the U.S. Census Bureau, government customs agencies, and the United Nations database. The data specializes in helping companies determine their market for manufacturing or distributing a product, helping government development professionals determine which countries or regions are their most valuable trading partners and can answer many other spatial and longitudinal economic inquiries.

YesVirginiga.org

This multi-purpose website is populated and maintained by the Virginia Economic Development Partnership (VEDP). The VEDP's services and initiatives all serve to enhance the following in Virginia: business attraction, business expansion and international trade. This website offers comprehensive data to aid in those three topics. Available data helps individuals and businesses to learn about key industries, company opening and closings, and available sites all across the state, organized by county or region. Additional information is available at www.yesvirginia.org.

YourEconomy.org

Developed by the Edward Lowe Foundation, YourEconomy.org (YE) tracks more than 54 million U.S. businesses from 1995 through the most recent calendar year. Data includes detailed information about jobs, sales, and establishment growth broken down into 13 indicators and by business stage based on the number of employees. This data helps to understand what types of businesses are influencing the economy. The data allows analysis of what type of companies (by establishment type and stage) are growing the fastest and what their growth means in terms of jobs and sales for a specific region. Additional information is available at www.youreconomy.org.

Appendix H. Definition of Economic Terms

Average Earnings

Total industry earnings for a study area divided by the number of jobs. Includes wages, salaries, supplements (i.e. additional employee benefits), and proprietor income.

Establishment

An economic unit that produces goods or services at a single physical location and has a unique DUNS number.

Industry Sector

A group of companies that operate in the same segment of the economy and/or share similar business traits. They produce similar goods and services and share similar production processes. Industries are classified using NAICS codes.

Job

A job is defined as a position held by a worker. In EMSI, jobs are tabulated by the worker's place of employment, not by the worker's place of residence. There is no distinction made between full-time, part-time, and seasonal workers. Any worker employed in a position is counted as one job.

Location Quotient Analysis

Location Quotient (LQ) analysis compares a specific geographic region to a larger reference area by quantifying how concentrated a particular industry, demographic group, or other variable is as compared to the larger geography. LQ is calculated by dividing the percent of jobs within each industry locally by the percent of jobs in the same industry at the national level. For example, if the finance and insurance industry accounts for 2% of jobs in a community and at the national level this industry has 1% of the total jobs, the community has an LQ of 2.0 (0.02 ÷ 0.01 = 2). In this example, the local community employs twice as many individuals in the industry as expected based on national employment patterns. Typically, only values above 1.20 or below 0.80 are considered "significant" findings in LQ analysis. Industries with a high LQ and high employment numbers are assumed to produce more than what is needed locally (i.e. a surplus) and export their products and services.

North American Industrial Classification System (NAICS)

Standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

Occupation

A worker job description that contains a defined set of tasks and responsibilities. Classified using SOC codes.

Openings

Estimated employment change and turnover for an occupation for a specific timeframe.

Primary Job

If an individual has two jobs, the primary job is the dominant one that provides the greatest income for the individual. Counting primary jobs ensures that each worker is only counted once, and not multiple times if they hold more than one position.

Projection

A method of trending past employment numbers for an industry or occupation into the future. A projection is not a prediction, and projected job growth is not the same thing as “demand”.

Self-Employment

Includes workers who, when responding to the Census surveys, consider self-employment to be a significant part of their income or time spent working. Most people normally considered “self-employment” would fall into this dataset.

Appendix I: Charrette Summary

Northern Shenandoah Business Park Redevelopment Strategy: Charrette Summary

The charrette took place on the evening of November 17, 2015 at the Strasburg Town Hall. It started with a review of the context of the discussion and subject matter. Site quality, marketability, community readiness and benefit was emphasized. After a briefing on market analysis results, target market opportunities and site opportunities and constraints meeting participants counted off into 4 groups of approximately 5 people per group. Each group addressed the subject matter outlined in a check list format and offered comments and ideas. Group facilitators kept track of time and subject matter and kept notes. Each group picked a team presenter to review their concerns, comments and ideas. There were many common ideas and themes which became evident during the report backs.

Using the information gathered during the charrette, the project team will prepare concept alternatives for the park that test the main ideas and themes around land use type, pattern, yield, etc. The final plan will serve as a basis for code of development revisions and clarifications, inform infrastructure planning, and be used as a marketing tool.

Key Themes and Ideas

Site Access

Important views

Groups identified the importance of ensuring an attractive view shed into the park from Interstate 81. This included, specifically, views from the interchange exit and entrance ramps. The North bound exit ramp and view from Rt. John Marshall Highway South Bound were identified as key entrance corridors where views, attractive landscape and wayfinding signage was important.

Access points

The most important access points are the existing entrance at Borden Mowery Drive and a potential entrance off of Radio Station Road. Groups also identified the extension and connection of Colley Block Rd to and across Borden Mowery Drive as an important secondary entrance to help with site traffic and to provide connectivity from future residential neighborhoods to the developing neighborhood commercial areas.

Internal circulation

Most groups identified the extension and connection of Colley Block Rd to and across Borden Mowery Drive as an important intersection and critical to the success of development of the commercial parcels along I-81. The extension of Borden Mowery Drive and its connection to Radio Station Road was noted as critical to the success of the park long term.

Important wayfinding nodes/gateways

The I-81 interchange Rt. 48 corridor and the entrance at Borden Mowery Drive were identified as the primary gateways needing attention. Specifically the Borden Mowery Drive entrance and entrance signage was discussed as an area needing improvement. Way finding was noted as being needed along these corridors as well as at a proposed (primarily truck) entrance from Radio Station Road.

Development pattern

Identify areas where attractive development is beneficial

Most teams identified the commercial parcels as the primary location where good views, good design and pedestrian scale architecture was important. The potential for controlled and select views was discussed. The land bays adjacent to the proposed intersection of Colley Block Rd. and Borden Mowery Drive were also identified as areas where appropriate scale and quality of architecture and landscape was important.

Identify areas where less attractive, larger industrial type uses are appropriate

These uses were noted as most appropriate starting east of the power line easement up to Radio Station Road. Transition to smaller footprint, light industrial uses was discussed as being appropriate South of Borden Mowery Drive and adjacent to proposed and existing residential neighborhoods.

Identify potential uses and development patterns on site

Groups identified a transition of land use types from neighborhood/highway commercial to office and light industrial to heavy industrial. This was based predominately on views, access, zoning, parcel size and existing development pattern. Concern was expressed in regards to the types of industries that would be appropriate along residential edges of the park.

Site environmental

Identify important environmental areas

Most groups identified the Town Run corridor as the most important environmental feature.

Identify important existing buffers

Groups identified the existing vegetation along the interchange, John Marshall Highway and the park's south property boundary as the most important buffers. Comments were made regarding the buffer along the I-81 gate way allowing filtered views to quality development.

Identify important proposed buffers

Augmentation of the existing buffer along the Ameri-Cold and Mercury Paper parcels was discussed. The Southern boundary buffer was also discussed.

Site Amenity

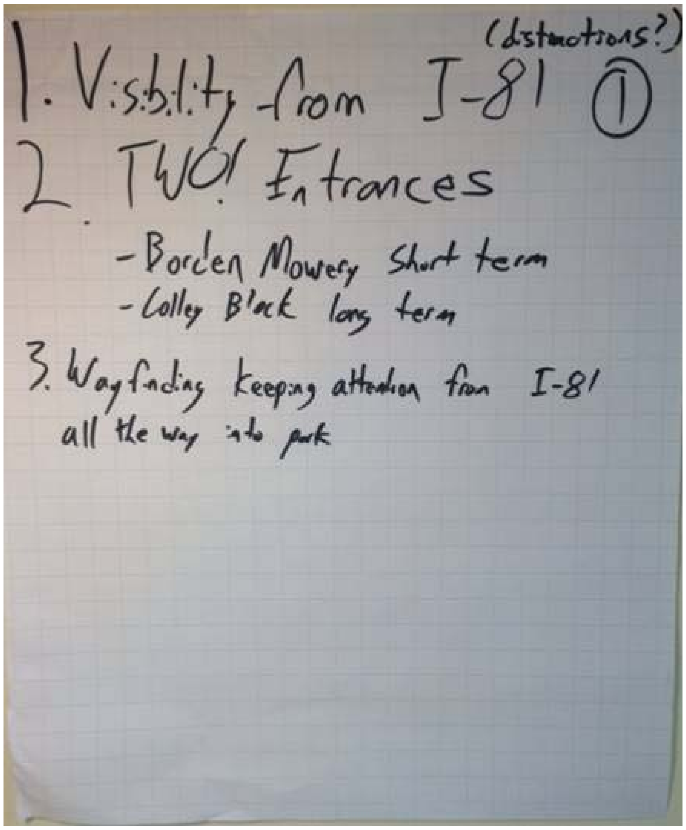
Identify important internal pedestrian systems
Sidewalks were discussed as being needed along Borden Mowery Drive and the proposed intersection at Colley Block Rd. Internal circulation was noted as being desirable in the commercial areas and parcels adjacent to the proposed intersection.

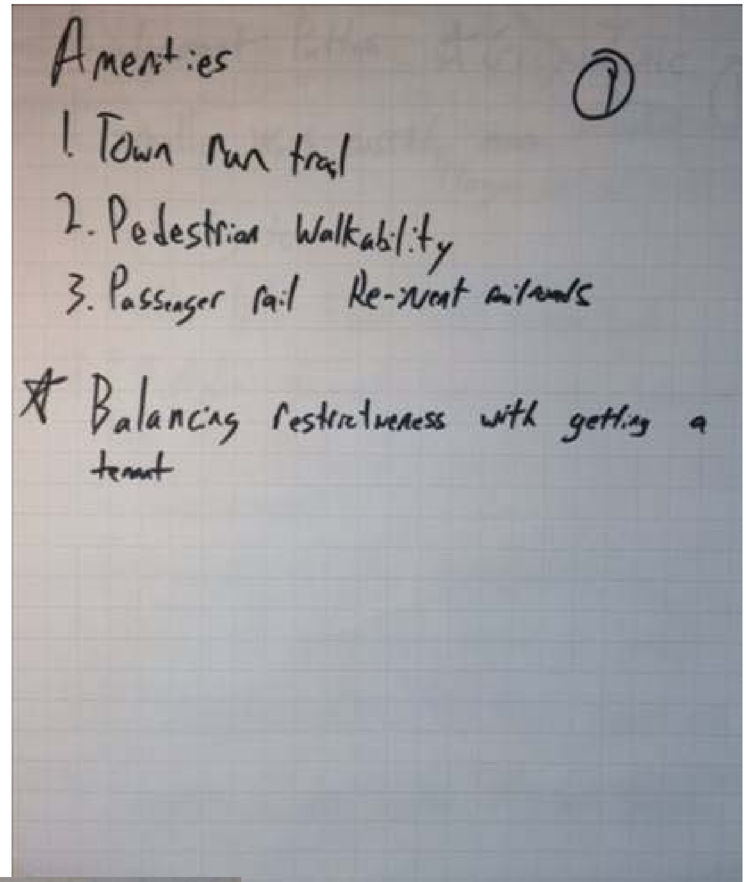
Identify important external pedestrian connectivity
Connections along the proposed extension of Colley Block Rd. were identified as the most important.

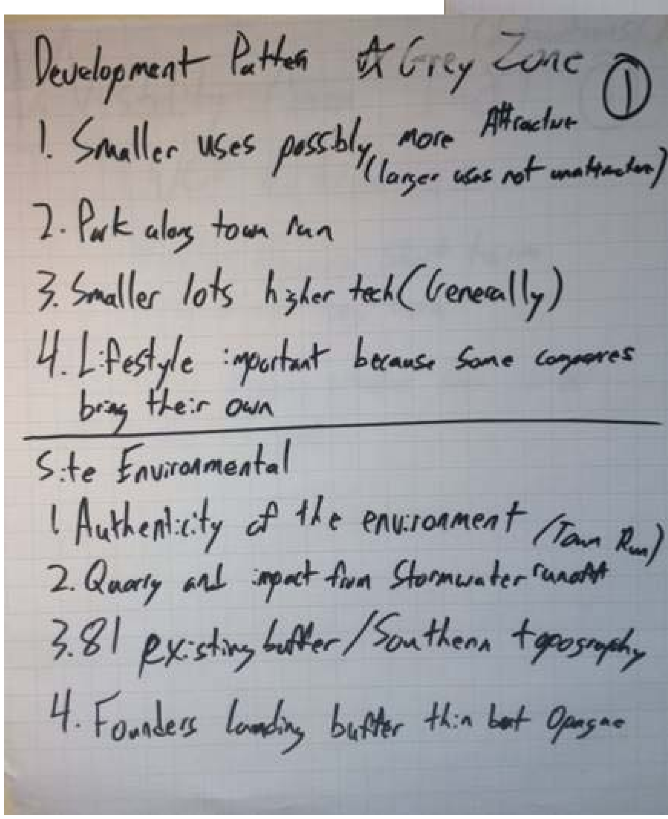
Identify potential open space and parks
The Town Run corridor, buffers and utility easements were identified as potential opens space, trail and amenity areas. Pocket parks with in the proposed commercial and office transition areas were noted as desirable.

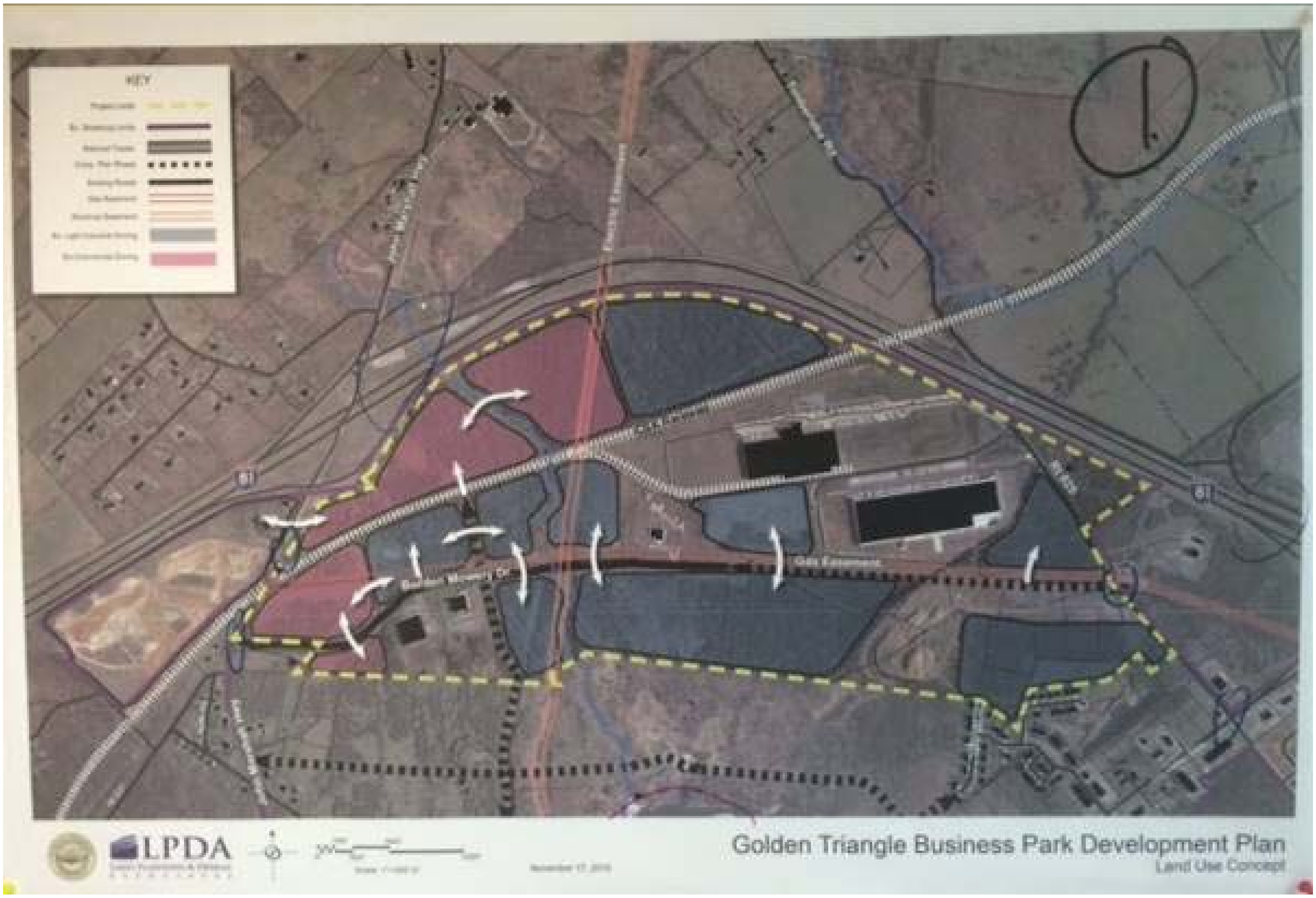
Group Notes and Plans

Group 1

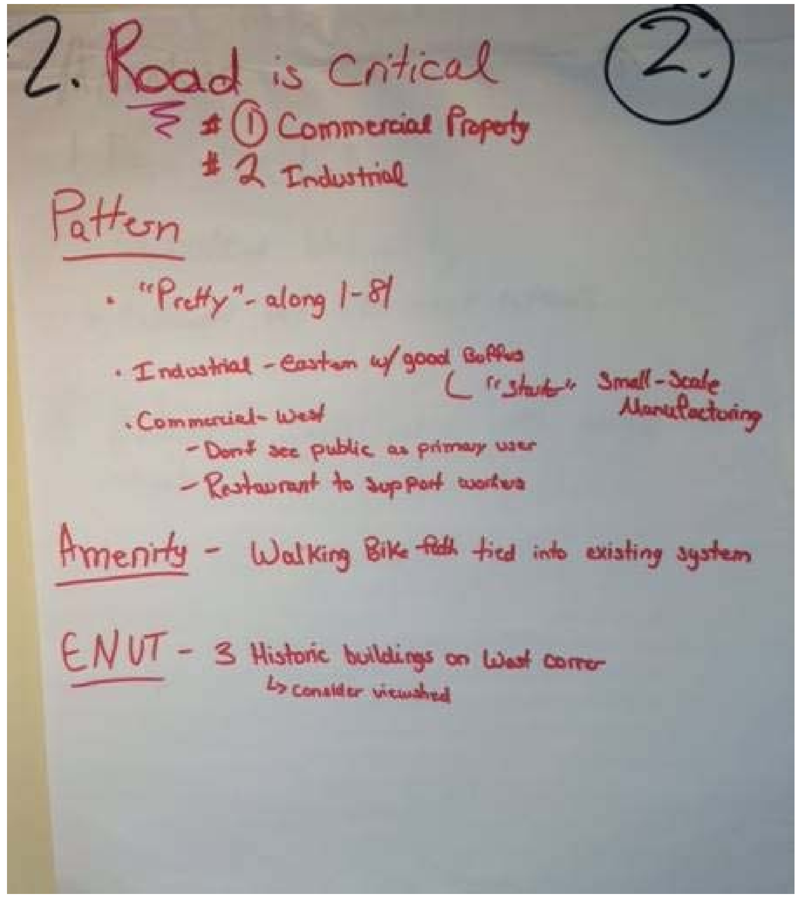


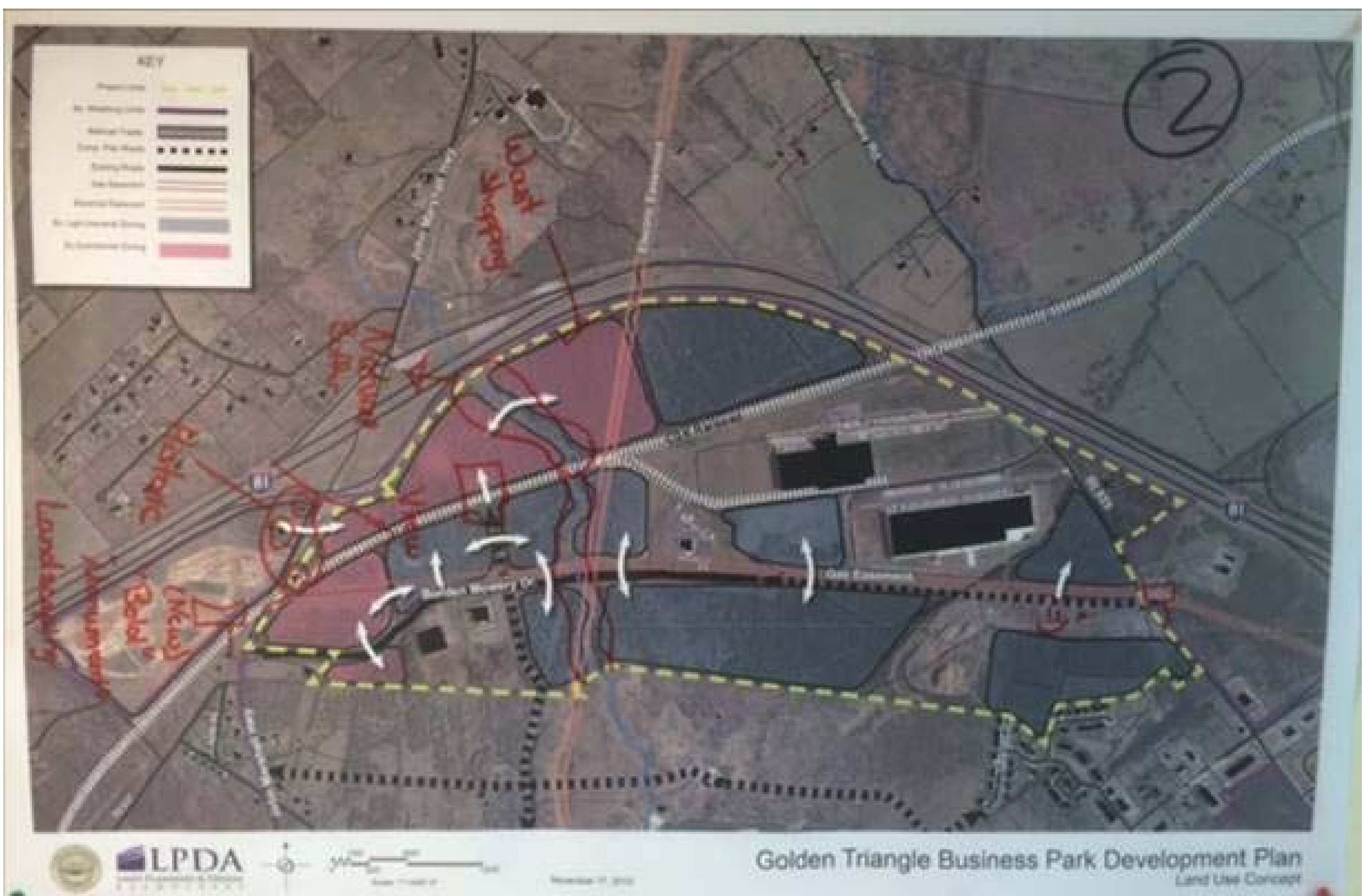





KEY
LPDA
81
81
Golden Triangle Business Park Development Plan
Land Use Concept

Group 2


2. Road is Critical
#① Commercial Property
#2 Industrial
Pattern
• "Pretty" - along I-81
• Industrial - Eastern w/ good Buffers
"Starter" Small-Scale Manufacturing
• Commercial - West
- Don't see public as primary user
- Restaurant to support workers
Amenity - Walking Bike Path tied into existing system
ENVT - 3 Historic buildings on West corner
Consider viewshed
2.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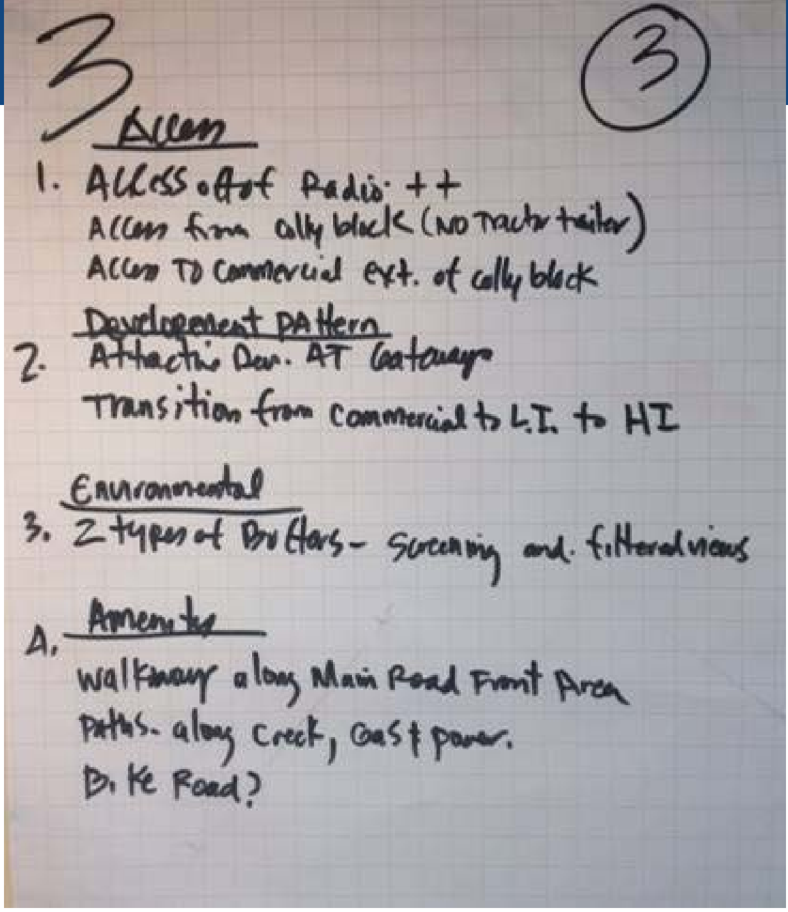
LPDA
Golden Triangle Business Park Development Plan
Land Use Concept

Group 3



3

Access

1. Access off of Radio ++
Access from Cally block (No Tractor trailer)
Access to Commercial ext. of Cally block

Development Pattern

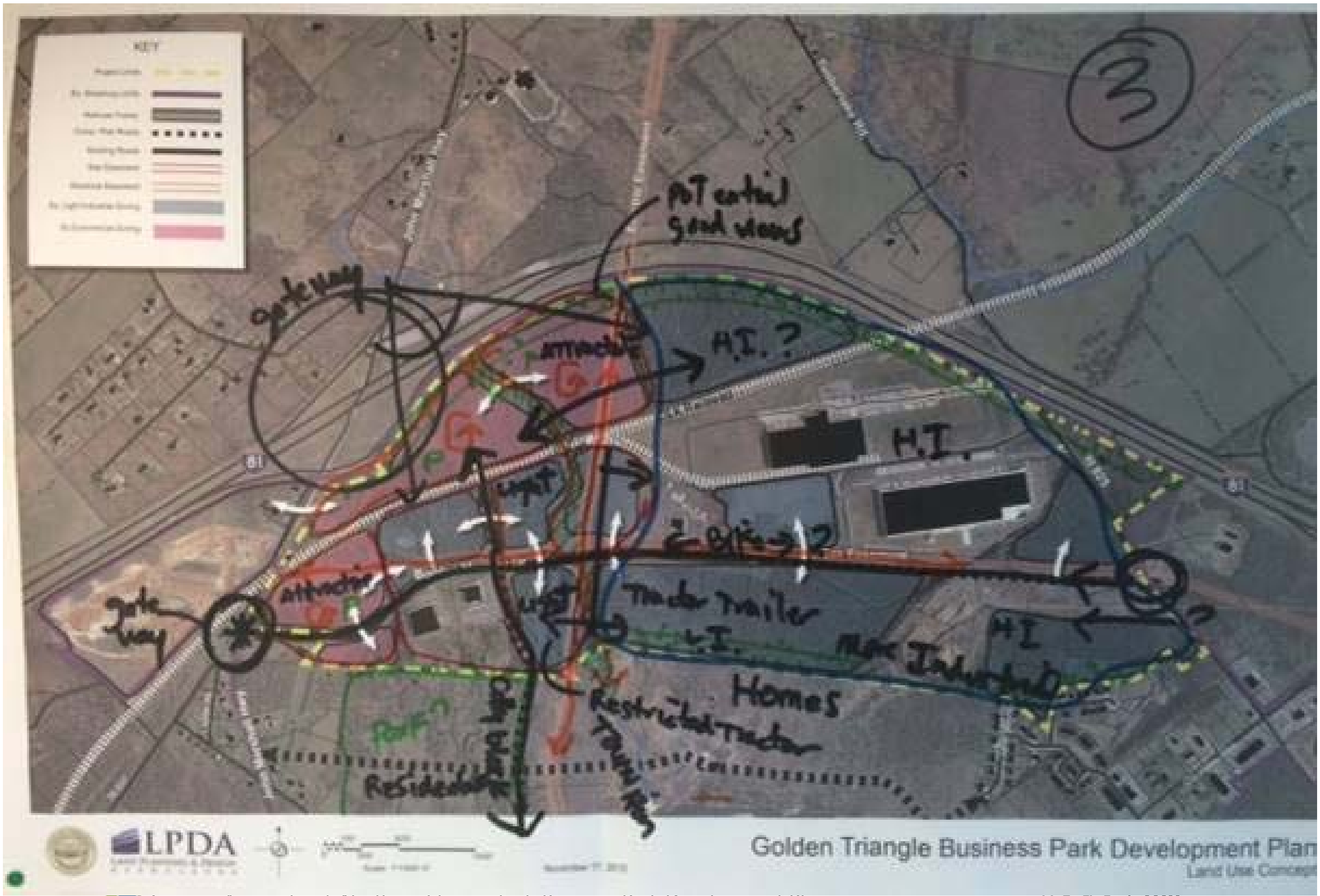
2. Attractive Dev. AT Gateways
Transition from Commercial to L.I. to HI

Environmental

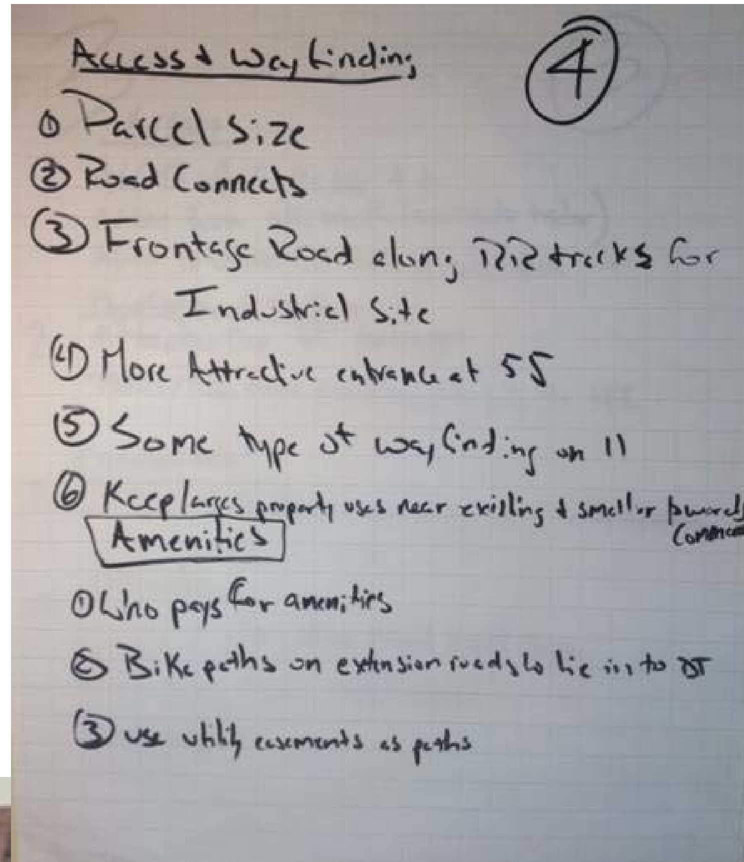
3. 2 types of Buffers - Screening and filtered views

Amenities

A. walkway along Main Road Front Area
Paths - along Creek, Gas & power.
Bike Road?



Group 4


Access & Wayfinding

4

① Parcel size
② Road Connects
③ Frontage Road along RR tracks for Industrial Site
④ More Attractive entrance at 55
⑤ Some type of wayfinding on 11
⑥ Keep larger property uses near existing & smaller parcels Commercial

Amenities

① Who pays for amenities
② Bike paths on extension roads to tie in to
③ use utility easements as paths

Appendix J: NSBP Plan Illustration Narratives

Land Use Analysis

LPDA's land use analysis served to graphically identify in plan form the relationships of property uses, adjacent uses, and physical conditions and encumbrances on the site. The objective was to clearly define developable lands, access points, circulation, desired land use relationships, sensitive environmental areas and potential site amenities. The land use analysis illustrated existing zoning patterns, property ownership—as well as proposed or planned infrastructure—and previously proposed development projects. The resulting land use analysis clearly illustrated the potential structure of future development on site and its relationship to offsite land uses and infrastructure.

Site Functional Diagram

Based on the land use analysis a site relational functional diagram was prepared. The site functional diagram illustrated the location of developable land bays and their relationship to other land bays, site roads, amenities and site features. Developable land bays were identified based on topography, environmental features, access to infrastructure and the land ownership pattern (parcel lines) on site. General site access and circulation was proposed based on required connectivity to parcels and developable land bays, connectivity to existing and proposed roads adjacent to the business park and alternate points of ingress and egress required to ultimate build out capacity of the property and to provide alternate routes for truck access.

Land Uses

Camoin Associates prepared a market analysis which identified land use and business types which were most likely to be successful given regional competition, gaps in the regional market and business trends. LPDA translated these business types into general land use categories which were located on the site based on visibility, access, and appropriate relationships to adjacent uses. Proposed land use types were:

- Industry and manufacturing
- General commercial
- Hi-tech
- Offices/medical office
- Municipal services

Design Charrette

LPDA conducted a design charrette where participants were asked to identify important features, relationships and desired development patterns on site given specific project objectives. Areas of review and discussion included the following categories:

Site Access

This included identification of important views, access points, site circulation and important entry points, gateways and wayfinding nodes.

Desired Development Patterns

This included identification of where architecturally-controlled or attractive development may be important and where more pedestrian-oriented or amenity-oriented development patterns would be desirable.

Important Environmental features

This included identification environmental features which were important to preserve and incorporate into the development plan for the purposes of protecting sensitive features such as wetlands and water ways, providing stormwater benefits, buffering views, and providing site amenity and open space.

Potential Site Amenities

This included identification of important open space, pedestrian connectivity and landscape amenities.

Concepts

Based on the charrette input LPDA prepared two alternate site development concept plans. Each plan illustrated desired land use type location, relationships, circulation, environmental features and amenities. Development yields were tested and included determining the appropriate yield of building gross square footage based on setbacks, constraints and net developable area. Appropriate land development patterns were shown based on the type of land use, developable land area, visibility, access and proximity to adjacent land uses. Parking-to-building ratios were proven based on appropriate parking ratios required for each use type.

The concept explored different approaches which were primarily focused on access, parcel consolidation and density of the industrial land use. Primary differences included the following:

Colley Block Road Construction

Concept 1 shows the construction of this planned road. This would allow neighborhood connectivity and alternate access points from adjacent proposed residential development. This would reduce additional trips at the John Marshall Highway entrance. There would be additional infrastructure costs and impacts to the Town owed parcel. Concept 2 does not utilize this connector road, saving cost but creating more reliance on the John Marshall Highway entrance.

Parcel Consolidation

Concept 1 illustrates a land use pattern which utilizes the existing parcel layout and ownership pattern on site. Concept 2 illustrates a land development pattern which assumes some parcel consolidation which would allow for larger buildings and more efficient development and access.

Industrial Land use density

Concept 1 includes a lower yield of industrial land use and utilizes smaller footprint industrial uses based on parcel layout and the inclusion of the Hi-tech land use type. Concept 2 incorporates a higher yield of larger industrial land use types based on utilization of more land and consolidation of parcels.

Development Yields

Yields for the two concepts were varied based on proposed land use types, parcel layout, and access. It is important to note that the yields achieved are probable but subject to change. Actual yields will depend on exact type of uses, traffic capacity, and site development techniques. The following development yields were achieved.

Concept 1	
Use	Gross Square Footage
Industry and Manufacturing	461,400
General Commercial	267,300
High-Tech	113,170
Offices (General & Medical)	154,500
Municipal	41,600

Concept 2	
Use	Gross Square Footage
Industry and Manufacturing	1,340,000
General Commercial	182,400
High-Tech	113,170
Offices (General & Medical)	154,500
Municipal	41,600

Visual Analysis

LPDA prepared 3D models that utilized existing digital terrain derived from actual site topography, high resolution aerial photography and overlays of the aforementioned concepts. Existing vegetation, site features, and building massing were modeled to accurately represent the relationship of the proposed development pattern to existing site conditions and adjacent roads. LPDA utilized digital rendering software to determine views from key locations which effect the visual quality of the development and gateway corridors such as I-81 and John Marshall Highway. The key locations included external gateway corridors and entrances which would be affected by the views into the proposed development in positive or negative ways. The overall goal was to define a proposed development, landscape and buffering pattern which allowed views of aesthetically-controlled development while screening views of industrial type uses which would not be practical to control architecturally. The study accomplished the following objectives which inform decisions regarding development codes and architectural controls related to the business park:

- Determined the most visible areas of the site from I-81 and John Marshall Highway.
- Determined views important to creating a positive visual impression and contributing to the character of gateway zones along I-81 and John Marshall Highway.
- Determined areas needed to be buffered.
- Determined areas requiring existing buffer preservation.
- Determined which development areas would require architectural controls.

The most visible portions of the property from external viewpoints were the development parcels along the main entry at Borden-Mowery Drive and those parcels between the railroad and Interstate 81. Generally the parcels of land at the interchange were the most visible. This was due to the raised elevation of the bridge and exit ramps and the close proximity of the parcel. The remaining parcels to the east were less visible due to existing vegetative buffers and topography. Recommendations resulting from the visual analysis were:

- Maintain existing natural buffers along Interstate 81 and entrance ramp
- Allow filtered views of development along the Interstate 81 entrance ramp and John Marshall highway.
- Require buffered views toward parking areas
- Require architectural controls for development along the Interstate 81 entrance ramp and John Marshall highway.
- Maintain a minimum 50-foot buffer along the Interstate 81 right of way.

Appendix K: Financial Analysis

This analysis estimates the future cash flow to the Town of Strasburg expected from the two development concepts and compares that to the anticipated expenses to calculate the net revenue to the Town. This analysis also shows the town's return on investment in terms of direct job creation (jobs that will be on-site). Note that the analysis does not consider other costs to the town such as new public service expenses (police, fire, EMS, etc.).

Concept Summary

The table below shows the full-build out of each concept by square feet and broken down by use type.

Build-Out by Use Type (Square Feet)

Use Type	Concept 1	Concept 2
Industry and Manufacturing	461,400	1,340,000
General Commercial	267,300	182,400
Offices-General/Medical	154,500	154,500
Hi-Tech	113,170	0
Total	996,370	1,676,900

The tables below show the anticipated construction phasing for both concepts. It is assumed that Phase I will be mostly site preparation with the buildings beginning to be constructed in Phase II. For Concept 1, it is also assumed that 1/3 of the development will be built in Phase II and 2/3 of the development will be built in Phase III. We assume the opposite for Concept 2 (i.e., Concept 2 will be built out faster) because, unlike Concept 1, there is no high-tech component.

Build-Out by Use Type (Square Feet) - Concept 1

	Phase I (Years 1-2)	Phase II (Years 3-5)	Phase III (Years 6-10)	Total
Industry and Manufacturing	0	153,800	307,600	461,400
General Commercial	0	89,100	178,200	267,300
Offices-General/Medical	0	51,500	103,000	154,500
Hi-Tech	0	37,723	75,447	113,170
Total	0	332,123	664,247	996,370

Build-Out by Use Type (Square Feet) - Concept 2

	Phase I (Years 1-2)	Phase II (Years 3-5)	Phase III (Years 6-10)	Total
Industry and Manufacturing	0	893,333	446,667	1,340,000
General Commercial	0	121,600	60,800	182,400
Offices-General/Medical	0	103,000	51,500	154,500
Total	0	1,117,933	558,967	1,676,900

New Direct Jobs (on-site)

Both concepts will lead to a significant number of new jobs. The future number of jobs is calculated based on industry-standard square-foot ratios for each use type. Based on this analysis, at full build-out Concept 1 will generate 2,439 jobs and Concept 2 will create 2,788 jobs.

Direct Employment by Use Type - Concept 1

Use Type	Square Feet	Square Feet per Job	Number of Jobs
Industry and Manufacturing	461,400	500	923
General Commercial	267,300	600	446
Offices-General/Medical	154,500	250	618
Hi-Tech	113,170	250	453
Total	996,370		2,439

Source: Building Area per Employee by Business Type (http://w w w .usgbc.org/Docs/Archive/General/Docs4111.pdf); Cyburbia Forums (http://w w w .cyburbia.org/forums/show thread.php?t=25827); Institute of Transportation Engineers, Trip Generation

Direct Employment by Use Type - Concept 2

Use Type	Square Feet	Square Feet per Job	Number of Jobs
Industry and Manufacturing	526,000	500	1,052
Industry and Manufacturing (Warehousing and shipping)	814,000	1,000	814
General Commercial	182,400	600	304
Offices-General/Medical	154,500	250	618
Total	1,676,900		2,788

Source: Building Area per Employee by Business Type (http://w w w .usgbc.org/Docs/Archive/General/Docs4111.pdf); Cyburbia Forums (http://w w w .cyburbia.org/forums/show thread.php?t=25827); Institute of Transportation Engineers, Trip Generation

Revenue

This section considers the revenue that the Town of Strasburg will receive through property taxes, machinery & tools taxes, and personal property taxes.

Property Tax

The new development will be subject to the Town's property tax rate of $0.16 per $100 of assessed valuation (AV). In this analysis, the construction costs are assumed to be a close proxy to what the development's AV will be. That is, construction costs are a close reflection of the final value of a building. Therefore, the average construction cost per square foot is equal to the AV per square foot.

At full build-out, Concept 1 will generate approximately $300,000 in property taxes annually. Concept 2 will generate close to $400,000 annually in property taxes.

Full Build-Out Annual Property Tax Revenue - Concept 1

	Total Sq. Ft.	AV per SF	Total AV	Tax Rate (per $100 AV)	Tax Revenue
Industry and Manufacturing	461,400	$150	$69,210,000	0.16	$110,736
General Commercial	267,300	$200	$53,460,000	0.16	$85,536
Offices-General/Medical	154,500	$200	$30,900,000	0.16	$49,440
Hi-Tech	113,170	$300	$33,951,000	0.16	$54,322
Total	996,370		$187,521,000		$300,034

Full Build-Out Annual Property Tax Revenue - Concept 2

	Total Sq. Ft.	AV per SF	Total AV	Tax Rate (per $100 AV)	Tax Revenue
Industry and Manufacturing	1,340,000	$135	$180,650,000	0.16	$289,040
General Commercial	182,400	$200	$36,480,000	0.16	$58,368
Offices-General/Medical	154,500	$200	$30,900,000	0.16	$49,440
Total	1,676,900		$248,030,000		$396,848

Note that the AV per SF for Industry and Manufacturing is a blended rate based on the mix of warehousing and shipping and other industrial uses.

The following table shows the anticipated flow of property tax revenue from each concept over ten years (adjusted for inflation). It is based on the phasing schedule described in the "Concept Summary" section.

Property Tax Summary (Years 1-10)

Year	Inflation Factor	Concept 1	Concept 2
1	1.00	$0	$0
2	1.03	$0	$0
3	1.06	$35,367	$93,559
4	1.09	$72,857	$192,732
5	1.13	$112,563	$297,771
6	1.16	$162,317	$337,374
7	1.19	$214,953	$379,086
8	1.23	$270,603	$422,997
9	1.27	$329,397	$469,201
10	1.30	$391,476	$517,797
Total		$1,589,533	$2,710,515

Machinery & Tools Tax

The Town of Strasburg will receive new revenues from the developed properties through its machinery & tools tax. To estimate what this revenue will be, Camoin Associates calculated the existing ratio between total assessed value of properties compared to the assessed value of machinery and tools. The calculation found that the value of machinery and tools in the town is equal to 5.4% of the total townwide assessed valuation. Therefore, it is assumed that the new machinery and tools assessed valuation will equal 5.4% of the new total assessed value of the development.

The tables below show the flow of machinery & tools tax revenue for each of the concepts over ten years.

Machinery & Tools Tax Revenue - Concept 1

Year	Cumul. AV	Machinery and Tools AV	Tax Rev
1	$0	$0	$0
2	$0	$0	$0
3	$20,835,667	$1,125,126	$9,676
4	$41,671,333	$2,250,252	$19,352
5	$62,507,000	$3,375,378	$29,028
6	$87,509,800	$4,725,529	$40,640
7	$112,512,600	$6,075,680	$52,251
8	$137,515,400	$7,425,832	$63,862
9	$162,518,200	$8,775,983	$75,473
10	$187,521,000	$10,126,134	$87,085

Machinery & Tools Tax Revenue - Concept 2

Year	Cumul. AV	Machinery and Tools AV	Tax Rev
1	$0	$0	$0
2	$0	$0	$0
3	$57,473,333	$3,103,560	$26,691
4	$114,946,667	$6,207,120	$53,381
5	$172,420,000	$9,310,680	$80,072
6	$195,008,000	$10,530,432	$90,562
7	$217,596,000	$11,750,184	$101,052
8	$240,184,000	$12,969,936	$111,541
9	$262,772,000	$14,189,688	$122,031
10	$285,360,000	$15,409,440	$132,521

The following table shows the anticipated flow of machinery & tools tax revenue from each concept over ten years (adjusted for inflation) based on the town's tax rate of $0.86 per $100 of assessed value.

Machinery & Tools Tax Revenue Summary (Years 1-10)

Year	Inflation Factor	Concept 1	Concept 2
1	1.00	$0	$0
2	1.03	$0	$0
3	1.06	$10,265	$28,316
4	1.09	$21,147	$58,331
5	1.13	$32,672	$90,122
6	1.16	$47,112	$104,986
7	1.19	$62,390	$120,661
8	1.23	$78,542	$137,182
9	1.27	$95,608	$154,586
10	1.30	$113,626	$172,910
Total		$461,362	$867,093

Personal Property Tax

The Town of Strasburg will also receive new revenues from the developed properties through its personal property tax. To estimate what this revenue will be, Camoin Associates calculated the existing ratio between total assessed value of properties compared to the assessed value of personal property. The calculation found that the value of personal property in the town is equal to 7.2% of the total townwide assessed valuation. Therefore, it is assumed that the new personal property assessed valuation will equal 7.2% of the new total assessed value of the development.

The tables below show the flow of personal property tax revenue for each of the concepts over ten years.

Personal Property Tax Revenue - Concept 1

Year	Cumul. AV	Personal Property AV	Tax Rate (per $100 AV)	Tax Rev
1	$0	$0	3.50	$0
2	$0	$0	3.50	$0
3	$20,835,667	$1,491,730	3.50	$16,558
4	$41,671,333	$2,983,459	3.50	$33,116
5	$62,507,000	$4,475,189	3.50	$49,675
6	$87,509,800	$6,265,264	3.50	$69,544
7	$112,512,600	$8,055,340	3.50	$89,414
8	$137,515,400	$9,845,415	3.50	$109,284
9	$162,518,200	$11,635,491	3.50	$129,154
10	$187,521,000	$13,425,566	3.50	$149,024

Personal Property Tax Revenue - Concept 2

Year	Cumul. AV	Personal Property AV	Tax Rate (per $100 AV)	Tax Rev
1	$0	$0	3.50	$0
2	$0	$0	3.50	$0
3	$57,473,333	$4,114,803	3.50	$45,674
4	$114,946,667	$8,229,607	3.50	$91,349
5	$172,420,000	$12,344,410	3.50	$137,023
6	$195,008,000	$13,961,598	3.50	$154,974
7	$217,596,000	$15,578,786	3.50	$172,925
8	$240,184,000	$17,195,973	3.50	$190,875
9	$262,772,000	$18,813,161	3.50	$208,826
10	$285,360,000	$20,430,349	3.50	$226,777

The following table shows the anticipated flow of personal property tax revenue from each concept over ten years (adjusted for inflation) based on the town's tax rate of $1.11 per $100 of assessed value.

Personal Property Tax Revenue Summary (Years 1-10)

Year	Inflation Factor	Concept 1	Concept 2
1	1.00	$0	$0
2	1.03	$0	$0
3	1.06	$17,567	$48,456
4	1.09	$36,187	$99,819
5	1.13	$55,909	$154,221
6	1.16	$80,621	$179,657
7	1.19	$106,765	$206,481
8	1.23	$134,406	$234,753
9	1.27	$163,608	$264,535
10	1.30	$194,442	$295,892
Total		$789,506	$1,483,813

Expenditures

The town will be required to make investments to realize the revenues discussed in the previous section. The table below details the public investments needed to support the development of either concept.

Estimated Expenditures

Phase 1	
Complete Roadways	$ 1,570,000
Extend Infrastructure	$ 806,000
Expansion via Annexation	$ 50,000
Phase 1 Total	$ 2,426,000
Phase 2	
Extend Infrastructrue	$ 653,250
Marketability	$ 52,500
Land Assembly	$ 45,000
Phase 2 Total	$ 750,750
Phase 3	
Complete Roadways	$ 1,040,000
Extend Infrastructure	$ 589,875
Marketability	$ 250,000
Land Assembly	$ 15,000
Establish Communication Channels	$ 20,000
Phase 3 Total	$ 1,914,875
Total	$ 5,091,625

The following table summarizes the expenditures by phase.

Summary of Expenditures

Phase	Total Spend
1	$2,426,000
2	$750,750
3	$1,914,875
Total	$5,091,625

It is assumed that the Town will issue debt (bond) to pay for the necessary investments and that there will be one bond issue for each of the three phases (i.e., in Year 1, Year 3, and Year 6). The analysis assumed a bond rate of 3.5% with a 30-year repayment schedule.

The table below shows the full bond repayment schedule over 36 years.

Summary of Debt Service on Bonds (Years 1-36)

Year	Bond 1	Bond 2	Bond 3	Total
1	($130,941)			($130,941)
2	($130,941)			($130,941)
3	($130,941)	($40,521)		($171,462)
4	($130,941)	($40,521)		($171,462)
5	($130,941)	($40,521)		($171,462)
6	($130,941)	($40,521)	($103,353)	($274,815)
7	($130,941)	($40,521)	($103,353)	($274,815)
8	($130,941)	($40,521)	($103,353)	($274,815)
9	($130,941)	($40,521)	($103,353)	($274,815)
10	($130,941)	($40,521)	($103,353)	($274,815)
11	($130,941)	($40,521)	($103,353)	($274,815)
12	($130,941)	($40,521)	($103,353)	($274,815)
13	($130,941)	($40,521)	($103,353)	($274,815)
14	($130,941)	($40,521)	($103,353)	($274,815)
15	($130,941)	($40,521)	($103,353)	($274,815)
16	($130,941)	($40,521)	($103,353)	($274,815)
17	($130,941)	($40,521)	($103,353)	($274,815)
18	($130,941)	($40,521)	($103,353)	($274,815)
19	($130,941)	($40,521)	($103,353)	($274,815)
20	($130,941)	($40,521)	($103,353)	($274,815)
21	($130,941)	($40,521)	($103,353)	($274,815)
22	($130,941)	($40,521)	($103,353)	($274,815)
23	($130,941)	($40,521)	($103,353)	($274,815)
24	($130,941)	($40,521)	($103,353)	($274,815)
25	($130,941)	($40,521)	($103,353)	($274,815)
26	($130,941)	($40,521)	($103,353)	($274,815)
27	($130,941)	($40,521)	($103,353)	($274,815)
28	($130,941)	($40,521)	($103,353)	($274,815)
29	($130,941)	($40,521)	($103,353)	($274,815)
30	($130,941)	($40,521)	($103,353)	($274,815)
31		($40,521)	($103,353)	($143,874)
32		($40,521)	($103,353)	($143,874)
33			($103,353)	($103,353)
34			($103,353)	($103,353)
35			($103,353)	($103,353)
36			($103,353)	($103,353)
	($3,928,228)	($1,215,629)	($3,203,957)	($8,347,814)

Summary of Impacts

The table below shows the anticipated benefits (jobs and inflation-adjusted tax revenues) and public investments (costs). Over 36 years, Concept 1 will generate an average annual net revenue to the town of $620,000 while Concept 2 will generate an average annual net revenue of nearly $1 million.

Summary of Impacts (Years 1-36): Concept 1

Year	Jobs	Property Tax (Town)	Machinery & Tools Tax	Personal Property Tax	Total Revenue	Expenditures	Net Revenue
1	0	$0	$0	$0	$0	($130,941)	($130,941)
2	0	$0	$0	$0	$0	($130,941)	($130,941)
3	271	$35,367	$10,265	$17,567	$63,199	($171,462)	($108,263)
4	542	$72,857	$21,147	$36,187	$130,190	($171,462)	($41,271)
5	813	$112,563	$32,672	$55,909	$201,144	($171,462)	$29,682
6	1,138	$162,317	$47,112	$80,621	$290,050	($274,815)	$15,235
7	1,463	$214,953	$62,390	$106,765	$384,109	($274,815)	$109,294
8	1,789	$270,603	$78,542	$134,406	$483,551	($274,815)	$208,735
9	2,114	$329,397	$95,608	$163,608	$588,613	($274,815)	$313,798
10	2,439	$391,476	$113,626	$194,442	$699,544	($274,815)	$424,729
11	2,439	$403,220	$117,035	$200,276	$720,530	($274,815)	$445,715
12	2,439	$415,317	$120,546	$206,284	$742,146	($274,815)	$467,331
13	2,439	$427,776	$124,162	$212,472	$764,410	($274,815)	$489,595
14	2,439	$440,609	$127,887	$218,846	$787,343	($274,815)	$512,527
15	2,439	$453,828	$131,724	$225,412	$810,963	($274,815)	$536,148
16	2,439	$467,443	$135,675	$232,174	$835,292	($274,815)	$560,477
17	2,439	$481,466	$139,745	$239,139	$860,351	($274,815)	$585,535
18	2,439	$495,910	$143,938	$246,314	$886,161	($274,815)	$611,346
19	2,439	$510,787	$148,256	$253,703	$912,746	($274,815)	$637,931
20	2,439	$526,111	$152,704	$261,314	$940,128	($274,815)	$665,313
21	2,439	$541,894	$157,285	$269,154	$968,332	($274,815)	$693,517
22	2,439	$558,151	$162,003	$277,228	$997,382	($274,815)	$722,567
23	2,439	$574,895	$166,863	$285,545	$1,027,304	($274,815)	$752,488
24	2,439	$592,142	$171,869	$294,111	$1,058,123	($274,815)	$783,308
25	2,439	$609,907	$177,025	$302,935	$1,089,867	($274,815)	$815,051
26	2,439	$628,204	$182,336	$312,023	$1,122,563	($274,815)	$847,747
27	2,439	$647,050	$187,806	$321,383	$1,156,239	($274,815)	$881,424
28	2,439	$666,461	$193,440	$331,025	$1,190,927	($274,815)	$916,111
29	2,439	$686,455	$199,244	$340,956	$1,226,654	($274,815)	$951,839
30	2,439	$707,049	$205,221	$351,184	$1,263,454	($274,815)	$988,639
31	2,439	$728,260	$211,378	$361,720	$1,301,358	($143,874)	$1,157,483
32	2,439	$750,108	$217,719	$372,571	$1,340,398	($143,874)	$1,196,524
33	2,439	$772,611	$224,250	$383,749	$1,380,610	($103,353)	$1,277,257
34	2,439	$795,790	$230,978	$395,261	$1,422,029	($103,353)	$1,318,675
35	2,439	$819,663	$237,907	$407,119	$1,464,690	($103,353)	$1,361,336
36	2,439	$844,253	$245,045	$419,332	$1,508,630	($103,353)	$1,405,277
Total		$17,134,893	$4,973,403	$8,510,735	$30,619,032	($8,347,814)	$22,271,217
Average Annual		$475,969	$138,150	$236,409	$850,529	($231,884)	$618,645

Summary of Impacts (Years 1-36): Concept 2

Year	Jobs	Property Tax (Town)	Machinery & Tools Tax	Personal Property Tax	Total Revenue	Expenditures	Net Revenue
1	0	$0	$0	$0	$0	($130,941)	($130,941)
2	0	$0	$0	$0	$0	($130,941)	($130,941)
3	620	$93,559	$28,316	$48,456	$170,331	($171,462)	($1,131)
4	1,239	$192,732	$58,331	$99,819	$350,882	($171,462)	$179,420
5	1,859	$297,771	$90,122	$154,221	$542,113	($171,462)	$370,651
6	2,045	$337,374	$104,986	$179,657	$622,017	($274,815)	$347,202
7	2,230	$379,086	$120,661	$206,481	$706,228	($274,815)	$431,412
8	2,416	$422,997	$137,182	$234,753	$794,931	($274,815)	$520,116
9	2,602	$469,201	$154,586	$264,535	$888,321	($274,815)	$613,506
10	2,788	$517,797	$172,910	$295,892	$986,599	($274,815)	$711,784
11	2,788	$533,331	$178,097	$304,769	$1,016,197	($274,815)	$741,382
12	2,788	$549,330	$183,440	$313,912	$1,046,683	($274,815)	$771,868
13	2,788	$565,810	$188,944	$323,330	$1,078,083	($274,815)	$803,268
14	2,788	$582,785	$194,612	$333,029	$1,110,426	($274,815)	$835,611
15	2,788	$600,268	$200,450	$343,020	$1,143,739	($274,815)	$868,923
16	2,788	$618,276	$206,464	$353,311	$1,178,051	($274,815)	$903,236
17	2,788	$636,825	$212,658	$363,910	$1,213,392	($274,815)	$938,577
18	2,788	$655,929	$219,037	$374,828	$1,249,794	($274,815)	$974,979
19	2,788	$675,607	$225,608	$386,072	$1,287,288	($274,815)	$1,012,473
20	2,788	$695,875	$232,377	$397,655	$1,325,907	($274,815)	$1,051,091
21	2,788	$716,752	$239,348	$409,584	$1,365,684	($274,815)	$1,090,869
22	2,788	$738,254	$246,528	$421,872	$1,406,654	($274,815)	$1,131,839
23	2,788	$760,402	$253,924	$434,528	$1,448,854	($274,815)	$1,174,039
24	2,788	$783,214	$261,542	$447,564	$1,492,320	($274,815)	$1,217,504
25	2,788	$806,710	$269,388	$460,991	$1,537,089	($274,815)	$1,262,274
26	2,788	$830,912	$277,470	$474,820	$1,583,202	($274,815)	$1,308,387
27	2,788	$855,839	$285,794	$489,065	$1,630,698	($274,815)	$1,355,883
28	2,788	$881,514	$294,368	$503,737	$1,679,619	($274,815)	$1,404,804
29	2,788	$907,960	$303,199	$518,849	$1,730,007	($274,815)	$1,455,192
30	2,788	$935,198	$312,295	$534,415	$1,781,908	($274,815)	$1,507,092
31	2,788	$963,254	$321,664	$550,447	$1,835,365	($143,874)	$1,691,491
32	2,788	$992,152	$331,314	$566,960	$1,890,426	($143,874)	$1,746,551
33	2,788	$1,021,916	$341,253	$583,969	$1,947,139	($103,353)	$1,843,785
34	2,788	$1,052,574	$351,491	$601,488	$2,005,553	($103,353)	$1,902,199
35	2,788	$1,084,151	$362,035	$619,533	$2,065,719	($103,353)	$1,962,366
36	2,788	$1,116,676	$372,896	$638,119	$2,127,691	($103,353)	$2,024,338
Total		$23,272,030	$7,733,289	$13,233,591	$44,238,910	($8,347,814)	$35,891,096
Average Annual		$646,445	$214,814	$367,600	$1,228,859	($231,884)	$996,975

County Property Tax Revenue Projection

The following table show the county's project property tax revenue based on its tax rate of $0.57 per $100 of assessed value upon full build out of the Project (unadjusted for inflation).

County Full Build-Out Annual Property Tax Revenue - Concept 1

	Total Sq. Ft.	AV per SF	Total AV	Tax Rate (per $100 AV)	Tax Revenue
Industry and Manufacturing	461,400	$150	69,210,000	0.57	$394,497
General Commercial	267,300	$200	53,460,000	0.57	$304,722
Offices-General/Medical	154,500	$200	30,900,000	0.57	$176,130
Hi-Tech	113,170	$300	33,951,000	0.57	$193,521
Total	996,370		$187,521,000		$1,068,870

County Full Build-Out Annual Property Tax Revenue - Concept 2

	Total Sq. Ft.	AV per SF	Total AV	Tax Rate (per $100 AV)	Tax Revenue
Industry and Manufacturing	1,340,000	$135	$180,650,000	0.57	$1,029,705
General Commercial	182,400	$200	$36,480,000	0.57	$207,936
Offices-General/Medical	154,500	$200	$30,900,000	0.57	$176,130
Total	1,676,900		$248,030,000		$1,413,771

The table below compares the property tax revenues of Concept 1 and Concept 2 over 10 years (adjusted for inflation).

County Property Tax Summary (Years 1-10)

Year	Inflation Factor	Concept 1	Concept 2
1	1.00	$0	$0
2	1.03	$0	$0
3	1.06	$115,615	$333,304
4	1.09	$238,167	$686,607
5	1.13	$367,968	$1,060,808
6	1.16	$530,610	$1,201,895
7	1.19	$702,679	$1,350,493
8	1.23	$884,595	$1,506,925
9	1.27	$1,076,794	$1,671,528
10	1.30	$1,279,728	$1,844,650
Total		$5,196,156	$9,656,211

County Personal Property Tax Revenue Projection

The tables below show the estimated personal property tax revenue the county will receive under each of the scenarios based on the county's tax rate of $3.50 per $100 of assessed value (see Town analysis for details on methodology).

Personal Property Tax Revenue - Concept 1

Year	Cumul. AV	Personal Property AV	Tax Rate (per $100 AV)	County Revenue
1	$0	$0	3.50	$0
2	$0	$0	3.50	$0
3	$20,835,667	$1,491,730	3.50	$52,211
4	$41,671,333	$2,983,459	3.50	$104,421
5	$62,507,000	$4,475,189	3.50	$156,632
6	$87,509,800	$6,265,264	3.50	$219,284
7	$112,512,600	$8,055,340	3.50	$281,937
8	$137,515,400	$9,845,415	3.50	$344,590
9	$162,518,200	$11,635,491	3.50	$407,242
10	$187,521,000	$13,425,566	3.50	$469,895

Personal Property Tax Revenue - Concept 2

Year	Cumul. AV	Personal Property AV	Tax Rate (per $100 AV)	County Revenue
1	$0	$0	3.50	$0
2	$0	$0	3.50	$0
3	$57,473,333	$4,114,803	3.50	$144,018
4	$114,946,667	$8,229,607	3.50	$288,036
5	$172,420,000	$12,344,410	3.50	$432,054
6	$195,008,000	$13,961,598	3.50	$488,656
7	$217,596,000	$15,578,786	3.50	$545,257
8	$240,184,000	$17,195,973	3.50	$601,859
9	$262,772,000	$18,813,161	3.50	$658,461
10	$285,360,000	$20,430,349	3.50	$715,062

The adjacent table summarizes the total personal property tax revenue projected for the County (adjusted for inflation).

Personal Property Tax Revenue Summary (Years 1-10)

Year	Inflation Factor	Concept 1	Concept 2
1	1.00	$0	$0
2	1.03	$0	$0
3	1.06	$52,211	$144,018
4	1.09	$104,421	$288,036
5	1.13	$156,632	$432,054
6	1.16	$219,284	$488,656
7	1.19	$281,937	$545,257
8	1.23	$344,590	$601,859
9	1.27	$407,242	$658,461
10	1.30	$469,895	$715,062
Total		$2,036,211	$3,873,404

Appendix L: Marketing Strasburg (Matrix Section E)

The Action Matrix provides a summary of recommended actions related to marketing the NSBP and Town of Strasburg overall. What follows is supplemental marketing information and recommendations based on the research and analysis conducted as part of this project as well as Camoin's experience and inherent knowledge in marketing and communications for economic development.

Action 2 | Develop cut sheets for each targeted industry

Rational

To communicate the opportunity of investing in Strasburg to targeted industry sectors, industry-specific marketing cut sheets should be developed for each sector. As part of the research for the Northern Shenandoah Business Park, a relevant targeted industry sector analysis was conducted (Appendix E). The four targeted industry areas include:

- Manufacturing
- Transportation and Logistics
- Office Generating space, e.g. business services, professional services, IT, and some subsectors of healthcare
- Full Service Restaurants

These industry areas were identified as having potential for Strasburg and the Economic Region, either for their concentration in employment (Manufacturing) or growth over the last decade (Transportation and Logistics), recent national trends that show increasing demand (Office Generating space), or critical elements in enhancing quality of place (Retail, Accommodations & Restaurants).

Key messages or value propositions to consider including on the sell sheets for each targeted sector are provided below.

Sheets for all sectors should include:

- Regional demographic trends
- Business statistics
- Information about targeted and growing sectors
- Featured properties
- Key marketing messages designed to resonate with different targets (suggestions below)
- Stories about recent successes
- Information about the business climate
- Information about quality of life assets

Manufacturing (General)

Pitch: "We're in the center of your supply chain."

- Stable manufacturing work force and well established industry base locally and regionally
- Excellent transportation infrastructure including highway, port and rail
- Reasonable proximity to several major airports
- Competitive electric rates
- Supply of industrial lands to accommodate expansion, with competitive rates and Right Now Certification (future)
- Water/Sewer capacity and natural gas access
- Major employers
- Quality of life

Manufacturing: Plastics & Advanced Materials

Pitch: "We know plastics."

In addition to the above, include:

- Local and regional businesses in this sector
- Average wages $63,456
- State focus on this sector:
    - State Sell Sheet: http://www.yesvirginia.org/Content/pdf/Industry%20Profiles/VA%20Plastics%20Profile%202015.pdf
    - State web page: http://www.yesvirginia.org/KeyIndustries/PlasticsAndAdvancedMaterials

Transportation & Logistics

Pitch: "You can get anywhere from here."

- Direct access to major highway infrastructure such as I-81 and I-66 as well as rail access within the park
- Direct proximity to Virginia Inland Port as well as nearby Norfolk Port and Baltimore Port
- Regional workforce assets
- Potential for large contiguous parcels of land to accommodate land-intensive distribution facilities (future following land assembly implementation)
- Right Now Certification (future)
- Include a heat-map like the one in this report to show the high concentration of this sector in the region and how Strasburg is right in the middle
- Major employers
- Quality of life

- Reference state focus on this sector
    - VA Website: http://www.yesvirginia.org/KeyIndustries/Distribution
    - VA sell sheet: http://www.yesvirginia.org/Content/pdf/Industry%20Profiles/VA%20Logistics%20Profile%202014%20(2014-11-07).pdf

Office Generating space, e.g. business services, professional services, IT, and some subsectors of healthcare

Pitch: "You can get more for less – more space, more options, more profit"

- Existing businesses in these sectors that would be part of the local and regional network
- Workforce assets: regional talent pool and high quality of life
- Growth in other sectors that need business support services
- Proximity to major markets and direct highway access
- Two types of environments to choose from (business park or downtown setting)
- VA corporate headquarters focus: http://www.yesvirginia.org/KeyIndustries/CorporateHQ

Restaurants

Pitch: "It's the perfect place to grow your business."

- Consumer demand, information from the sales leakage analysis
- Demographic information, particularly population trends locally and regionally
- Traffic counts on corridors
- Affordable space
- High quality of life

Suggestions

- Include testimonials from existing businesses and, to take it a step further, even recruit businesses to be advocates that are willing to speak with major prospects.
- Review and update every sheet every quarter. It is better to have no sheet at all then give someone outdated information.
- Pay close attention to what other types of information prospects ask for and add that to the cut sheets over time.
- As part of the branding for the park, have these professionally designed to match the brand, BUT make sure Town staff is capable of easily adjusting the information and template.

Inspiration

- Plastic Products Marketing Example: http://www.marshallcountyedc.org/targeted-industries/plastics-rubber-products

Action 6 | Complete temporary economic development website

Rational

When businesses or investors want to learn about Strasburg, the first place they look is on the web. Strasburg's Town website serves many purposes, but it is ineffective as a marketing tool for economic and community development. Besides lacking critical marketing information such as information about the NSBP and a local economic profile, from a search engine optimization perspective, Strasburg is not "on the map" for economic development. Economic development websites that are housed within municipal websites see as little as 1/10th of visitor traffic compared to stand-alone economic development websites.[49]

The Town needs a stand-alone website dedicated solely to marketing the community as a great place to work and reside and the park as an unrivaled location to invest and do business.

In order to effectively do their job, economic developers need an online portal where they can prominently display important information about available properties, incentives, business climate, workforce, quality of life, and other key indicators site selectors and business leaders use to make locational decisions.

Actions

- Assign a designated person on town staff to maintain the temporary website
- Update the information on the site quarterly
- Build new pages as Town advances its economic development efforts

Action 7 | Establish social media accounts specifically for community development

Rational

Will support marketing of the park and town. Make sure marketing of the park coordinates with overall marketing effort for the town for why invest and live in Strasburg. The Town needs to tell its story and social media is the ideal place to do that through descriptive narrative, infographics, and videos. Use social media to:

- Showcase available sites and properties in NSBP and available property throughout Strasburg
- Feature local businesses, tell their stories to demonstrate the great business environment that Strasburg offers

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[49] Cited by Community Systems – a leading economic development marketing firm – based on experience of their clients'.

- Profile entrepreneurs and startups already in the community and those that come out of the planned competition
- Highlight what it's like to live in Strasburg

Through an active social media campaign, Strasburg can invite its residents, businesses, and other stakeholders to help tell their own story and share experiences about living and working in Strasburg. The purpose of social media marketing is not to simply disseminate information but to be part of a conversation.

Actions

- Assign staff to manage social media accounts (2-3 people is ideal)
- Select appropriate social media platforms
- Develop a content strategy and posting schedule to follow

Suggestions

- Consider starting with Facebook and Twitter. Secondary options might be Instagram and YouTube.
- Avoid opening an account and abandoning it. Take time to consider who will manage the account(s) and what their capacity is to run a high-quality campaign. Start small.
- Use Hootsuite or Buffer to schedule posts, these applications can save a lot of time!
- Rotate posts among the following topics:
    - **Business Spotlight** – Feature a local business, conduct a quick interview with the owner about what it is like to do business in Strasburg, include a nice picture, use testimonials obtained in other marketing. Celebrate new businesses opening or expanding.
    - **Quality of Life** – Highlight assets and events that attract people to Strasburg.
    - **Featured Sites** – Do a profile of an available property.
    - **Industry Sector Spotlight** – Pull information from this report and explain why Strasburg is a great place for this sector.
    - **Investment in NSBP** - Celebrate any actions taken on the implementation of the NSBP Development Strategy
- Mix up the content type to include:
    - Brief, punchy narratives
    - High-quality images
    - Infographics
    - Videos (segments of the Main St. video would be great content)
- Partner with other organizations locally and regionally that promote the community and engage with and share their content.
- Focus on quality over quantity.
- Consider using Facebook and Twitter advertising for large promotional efforts designed to reach out-of-network markets. These are low-cost ways to reach new audiences.

- Measure activity monthly and assess what is working and/or needs improvements. Suggested measures include:
    - Twitter
        - Followers
        - Tweets
        - Profile Visits
        - Impressions
        - Mentions
    - Facebook
        - Likes
        - Engaged users
        - Reach (unique users)
        - Impressions (views)

Action 8 | Build and maintain an email list of internal and external partners and target market segments

Rational

Social media platforms will come and go but an email list is yours. Because people sign-up themselves, an email list represents individuals that are interested in Strasburg's economic growth. Providing quality content to this network will create an internal buzz around economic development activity happening in the community and will help drive traffic to the Town's economic development website.

Email marketing is one of the most effective ways to stay in touch with business owners, economic development partners, and potential investors. The inbox is personal, which makes it arguably the strongest communication channel to inform and engage your target audiences with custom content.

Actions

- Choose a provider
- Design a template for each list segment (see below)
- Import emails
- Segment your subscribers based on the types of emails you intend to send
    - **General Economic Development Updates in Strasburg** – This is a primary list that includes all subscribers. Send a quarterly update to this list – newsletter style – covering all things economic development in Strasburg. Be consistent. Make this list public to allow anyone interested to subscribe. Post links to the updates on the Town's new website.
    - **Real estate and development community** (Including Real estate brokers, Developers, Site locator, etc.) Send this group emails with detailed data and information about available properties, invites to fam tour, and/or stories about

new projects or investment in Strasburg. The purpose is to give this group content they can use to help market the Town.

  - **Local business owners and Economic Development Partners** – This list is about strengthening a network among the local business community and economic development partners such as workforce providers. Send them specialized information about upcoming events, training, changes to regulations, or projects that will help them succeed. Consider including traditional media contacts on this list or create a separate segment for customized information.

Suggestions

- Mail Chimp and Constant Contact are two leading email marketing services. Try them both to get a feel for what works best for your needs before settling on one. It is free to start with most platforms (up to about 2,000 emails).
- After importing an email list – design a highly-visual email that welcomes people to the list and explains what you will be using it for. Ask them to be a part Strasburg's economic growth and give them a link to where they can sign up for the email lists that are of interest to them. (Some will un-subscribe, but that is okay. The people that subscribe are your biggest advocates.)
- Segment your subscribers into different lists from the beginning. Even if you do not use the separate segments right away, it is much easier to do when your list is small and manageable.
- Work with the website design team to develop a strategy for capturing email addresses through the new economic development website.
- Measure results of each campaign. Recommended measures:
  - Total Emails Sent
  - Open Rate
  - Number Emails Opened
  - Click-rate
  - Number of Clicks
  - Bounce Rate
  - Number of Unsubscribed

Inspiration

- In the Zone – Allentown Economic Development Corporation's eNewsletter

Appendix M: Recommendations for Updating Zoning

- In Chapter 6 of the UDO, create a code section specifically related to buildings within Industrial and Business Parks and title it *Design Standards for Commercial and Industrial Buildings within Business and Industrial Parks*. Reserve Section 6.3 *Design Standards for Commercial and Industrial Buildings* for buildings and structures located outside of this and future industrial/business parks.
- Amend Section 6.5 *Design Standards for Office and Industrial Parks* with the following considerations and recommendations:
    - Recognize that buildings and structures within industrial and business parks will be contemporary in design given the different purpose, scale, and massing needed to meet programming and development requirements. Avoid holding these buildings to historic preservation and/or residential or commercial standards that are more appropriate closer to Town.
    - Require building architecture to be compatible and consistent within each category such as light industrial, commercial, medical, and office. Encourage this by requiring one or two unifying elements such as color, façade material, or fenestration type for all buildings within each category.
    - Ensure that medical office buildings and medical services are allowable uses within the districts located within the industrial park.
    - Extend the Entrance Corridor Overlay District to I-81 as it passes the Strasburg Industrial Park. Consider amending the existing overlay district with language relating specifically to business and industrial parks.
    - Ensure that views to General Commercial buildings and complexes remain mostly clear and available to drivers on I-81.
    - Fully or partially screen views to Industrial and Manufacturing buildings and complexes from I-81.
    - Require pedestrian connections within and outside of the Industrial Park. To the extent where industrial uses do not conflict with pedestrian movement, create connections that encourage adjacent residential, office, and commercial users to walk or bike through the site and use park amenities and services.
    - Encourage or require parking to the rear of buildings and away from street frontages. Follow parking lot landscaping guidelines found elsewhere in the UDO to ensure attractive, functional, and comfortable parking environments.
    - Provide street trees between 30 feet and 50 feet on center on all primary streets.
    - Develop and install wayfinding signage that is compatible with the overall Town signage but unique to the Industrial Park. Signage should be consistent throughout the site regardless of zoning district or building category.

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Appendix N: Unified Development Ordinance (UDO) Review

LPDA reviewed the Strasburg Unified Development Ordinance (UDO) in January 2016 in comparison to the two concept plans to determine conflicts or ambiguities. Our findings are below. The relevant pages from the UDO are attached to this document for reference.

General Information

The proposed Business Park parcel contains two zoning districts identified by the UDO: Business Park/Limited Industrial and Highway Commercial. The small parcel of Agricultural/Rural Residential property within the project limits is not proposed for development by this project.

Proposed uses identified in the concepts plans are: Industry/Manufacturing; General Commercial; Municipal; High Tech; and Offices – General/Medical.

The study parcel is not located within a Historic Corridor or Entrance Corridor but may be located within a Floodplain Overlay District.

Business Park/Limited Industrial Zoning

This district permits industries that do not detract from residential desirability which may be located adjacent to residential districts. Limitations and special provisions are intended to foster adjacent residential desirability while permitting industries to locate near a labor supply.

Specific limitations:

- Primarily for industries producing finished products from semi-finished materials
- Little to no outside material storage allowed
- No residential uses
- Limited commercial uses

Potential Conflicts and Ambiguities Related to Business Park Development

- Minimum lot size is 1 acre.
- Maximum lot coverage is 70%.
- Limitations on accessory structures such as chimneys, flues, towers, and structures not normally occupied by workers
- Permitted uses must be constructed wholly within an enclosed building or within an area enclosed on all sides by a solid masonry wall, with a uniformly painted solid board fence, or within a 6-foot-tall evergreen hedge.
- Hospitals and healthcare are not mentioned in the list of allowable uses.

- Manufacturing or wholesale of the following items requires a Special Use Permit:
  - Leather products
  - Paper and printed materials
  - Chemicals, metals, machinery, electronics manufacturing
  - Petroleum products
  - Chemicals, plastics, and rubber products
  - Non-metallic mineral products
  - Primary metal manufacturing

Highway Commercial Zoning

The district is intended to accommodate:

- General business areas
- Highway-oriented commercial uses
- Wholesale operations
- Similar uses that generate large volumes of traffic

It is particularly appropriate located along a major highway. The district draws highway uses such as restaurants, service stations, and motels which may be grouped together as highway services centers.

Potential Conflicts and Ambiguities Related to Business Park Development

- Minimum lot size for a non-shopping center is 1 acre.
- Minimum lot size for a shopping center is 3 acres.
- Maximum lot coverage is 75%
- Hospitals require a Special Use Permit

Development & Design Standards

Potential Conflicts and Ambiguities Related to Business Park Development

- All lots shall be designed to provide a satisfactory and desirable building site and <u>shall abut on a street and a utility easement.</u> *(Note: Do all lots in the plan abut both a street and utility easement?)*

Design Standards for Commercial & Industrial Buildings

Potential Conflicts and Ambiguities Related to Business Park Development

(Note: These design standards appear to be primarily related to commercial buildings located near or adjacent to downtown or in previously-developed commercial areas. Some design standards set forth here are not appropriate for industrial settings.)

- The design and configuration of structures and their materials and colors shall be visually harmonious with the overall appearance, history and heritage of the Town. *(Note: Is it possible—and should it be—for all commercial and industrial in the Business Park, specifically, to be harmonious with the history and heritage of the Town?)*
- Parking areas should be located on the side or behind buildings and shall not be the primary visual focus on the site. *(Note: Concepts show some buildings with parking fronting the street.)*
- Wall surfaces should appear monolithic, with at least 75% of the total wall area comprised of one material and one color. Non-solar fenestration, window and door awnings, applied trim and accent materials, colors and decorative bands, with the exception of stucco, masonry, or concrete control joints to be used in such a way that they do not give a panelized or pre-fabricated appearance, or produce checkerboard patterns. Differing shades of the same general hue shall not be considered different colors. (*Note: This standard may be difficult to meet for an industrial building.)*
- The use of architecturally proportionate decorative trim around the roof perimeter, doors, windows and signs should include pediments, quoins and cornices. (*Note: This standard may be difficult to meet for an industrial building.)*
- The use of architectural decorative accents consistent with Town design patterns in complimentary materials including portals, windows, stained glass, carved stone cantera, or plaster is required, as is the decorative use of brick, stucco, or stone accents around walls, columns, roof lines, doors and windows, including crown molding. The use of antique, pierced, ceramic, metal, or other decorative lighting fixture is permitted when compatible with the overall architectural style of the building. (*Note: This standard may be difficult to meet for an industrial building.)*
- Multi-story buildings with over twenty thousand (20,000) sq. ft. of gross floor area shall be designed with either off-setting wall planes or upper story setbacks of at least four (4) feet in depth. (*Note: This standard may be difficult to meet for an industrial building.)*
- Exterior walls visible by a pedestrian standing within the vehicular right-of-way should be completely covered by one or more of the following materials: brick; stone; stucco; synthetic stucco; or vinyl, wood or aluminum siding, provided that such siding is applied in horizontal panels with no panel exceeding eight (8) inches in height. (*Note: This standard may be difficult to meet for an industrial building.)*

- A metal surface, excluding windows and trim, is prohibited as the sole exterior wall surface. Flat-faced concrete block or mirrored glass curtain wall are discouraged but may be allowed upon review. Metal as a minor exterior design element may be permitted upon review by the Zoning Administrator or as otherwise approved as part of an industrial park plan. (*Note: This standard may be difficult to meet for an industrial building.)*
- Generally, the width of buildings or building segments should not be more than twice the building height. (*Note: This standard may be difficult to meet for an industrial building.)*
- The exterior finish of building walls should be primarily comprised of brick. Cementitious horizontal lap siding, textured concrete masonry, cast stone and stucco may be used for accents. Wood and metal may be used as trim around doors and windows. (*Note: This standard may be difficult to meet for an industrial building.)*
- Note: In general, the building exterior color restrictions may be difficult to meet for industrial buildings.
- Note: In general, the door and window requirements are not applicable to industrial buildings.
- Note: In general, many of the roofing restrictions are not applicable to industrial buildings.

Design Standards for Office & Industrial Parks

- This section was intended to supplement the building standards discussed above.

Camoin Associates, Inc.
120 West Avenue, Suite 303
Saratoga Springs, NY 12866

518.899.2608
www.camoinassociates.com
@camoinassociate

camoin
associates
ECONOMIC DEVELOPMENT